

CUTTING TOOLS

ALLEGIANCE

PREMIUM PRODUCTION GRADE CUTTING TOOLS & THREAD GAGES. MADE IN USA

Pittsburg
ALLEGHANY

GLOBALLY SOURCED TOOLS
PROVIDING A BALANCE
OF QUALITY & PRICE

Huot

CUTTING TOOL STORAGE

apt

INDEXABLE TOOLS

Severance

COUNTERSINKS + DEBURRING TOOLS

WALTON

TAP EXTRACTORS

BAHCO

SAWS

HS

BROACHES

DORIAN
TOOL

INDEXABLE TOOLING
& INSERTS

Republic
DRILL & CUTTING TOOLS

MANUFACTURER OF QUALITY
CUTTING TOOLS



BRUBAKER TOOL
CORPORATION

COUNTERBORES,
& END MILLS

HANSON

TAP & DIE SETS



THREADED INSERTS



LAVALLEE
& IDE

REAMERS

RELTON

CARBIDE TIPPED HOLE SAWS

Buckingham

THREAD RESTORERS

IRWIN

DRILL SETS
CIRCULAR SAWS

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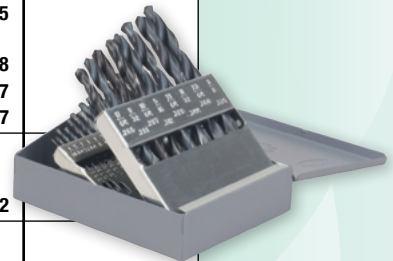
Drill Sets



Jobber Drill Sets

WARNING: This product contains Cobalt and/or Nickel and/or Lead a chemical known to the state of California to cause cancer or birth defects or other reproductive harm. For more information: www.prodds.ca.gov.
WARNING: Cutting tools may shatter. Always wear approved safety glasses and mask when regrinding.

DESCRIPTION	BLACK OXIDE H.S.S.		POLISHED FLUTE H.S.S.		HEAVY DUTY H.S.S.		BLACK & GOLD H.S.S.		M42 COBALT		TIN COATED H.S.S.	
	ORDER NO.	PRICE EACH	ORDER NO.	PRICE EACH	ORDER NO.	PRICE EACH	ORDER NO.	PRICE EACH	ORDER NO.	PRICE EACH	ORDER NO.	PRICE EACH
Straight Shank												
1/16-1/4 x 64ths 13 pc.	1009-098	\$ 21.71	1048-997	\$ 21.71	1009-013	\$ 27.78	9500-277	\$ 21.96	1109-115	\$ 42.80	1009-253	\$ 55.29
1/16-1/2 x 32nds 15 pc.	1009-099	56.73	1048-998	56.73	1009-014	77.04	9500-278	57.21	1109-110	129.43	1009-254	143.98
1/16-3/8 x 64ths 21 pc.	1009-100	51.15	1048-999	67.03	1009-015	67.03	9500-279	48.38	1109-105	111.16	1009-255	138.95
1/16-1/2 x 64ths 29 pc.	1009-101	105.60	1049-000	105.60	1009-016	131.24	9500-280	148.58	1109-100	233.57	1009-156	265.82
1/16-1/4 x 64ths & 9/32-1/2 x 32nds 21 pc.	-	-	-	-	1009-326	64.17	9500-288	65.09	1109-136	96.75		
Letter Sizes A-Z 26 pc.	1009-104	121.86	1049-003	121.86	1009-018	141.12	-	-	1109-130	230.18		
Number Sizes 1-60 60 pc.	1009-102	87.17	1049-001	87.17	1009-017	106.39	9500-290	100.08	1109-125	169.87		
3-in-1 115 pc.	1009-000	329.52	1049-002	329.52	1009-019	385.50	-	-	1109-120	638.57		
3/8" Shank Sets From 25/64" to 1/2"												
1/16-1/2 x 64ths 29 pc.	1009-300	189.29	1009-305	90.85	1009-310	110.40	9500-285	111.50	1109-132	163.82		
Left Hand												
1/16-1/2 x 64ths 29 pc.	-	-	1139-190	283.27	-	-	-	-	-	-	-	-



Pittsburg® Surface Treated Jobber Drills High Speed Steel - Right Hand

NO. PCS.	DESCRIPTION	BLACK IMPORT ORDER NO.	PRICE EACH
13	1/16 to 1/4 by 64ths	1009-140	\$ 18.25
21	1/16 to 3/8 by 64ths	1009-145	41.78
29	1/16 to 1/2 by 64ths	1009-150	72.70
15	1/16 to 1/2 by 32nds	1009-155	18.90
60	No. 1 to 60	1009-160	59.60
20	No. 61 to 80	1009-165	19.86
26	A to Z	1009-180	79.65
115	3N1: (1/16 - 1/2 by 64ths A to Z & 1 to 60)	1009-250	220.72
3/8 SHANK			
29	1/16 to 1/2 by 64ths	1449-400	48.88



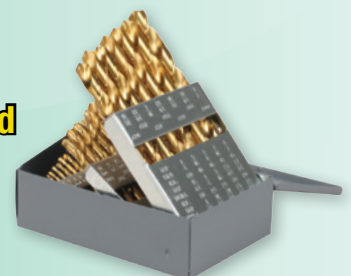
Pittsburg® M35 Cobalt 135° Split Point Jobber Drill Sets

NO. PCS.	SIZE	ORDER NO.	PRICE EACH
15	1/16-1/2 x 32nds	1109-155	\$63.03
29	1/16-1/2 x 64ths	1109-150	144.54



Pittsburg® TiN Coated

NO. PCS.	SIZE	ORDER NO.	PRICE EACH
29	1/16 - 1/2 x 64ths	1009-151	\$154.81



IRWIN

29-Piece Drill Sets - 135° Point

- Rubber over molded case
- Removable cartridges
- Automatic indexing

DESCRIPTION	ORDER NO.	PRICE EACH
Heavy Duty HSS Black Oxide	1073-650	\$143.72
HSS TiN Coated	1073-655	270.11
M35 Cobalt HSS	1073-660	232.79



Pittsburg® Left Hand High Speed Steel

NO. PCS.	SIZE	ORDER NO.	PRICE EACH
15	1/16-1/2 x 32nds	1139-155	\$ 75.90
29	1/16-1/2 x 64ths	1139-150	152.35
60	No. 1 to 60	1139-160	102.30
26	A - Z	1139-180	139.10



Drill Sets

Silver & Deming Sets 1/2" Shank - High Speed Steel

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WARNING: Cutting tools may shatter. Always wear approved safety glasses and mask when regrinding.



Screw Machine Length Drill Sets- Right Hand

		Pittsburg® ALLEGHANY		Look for ALLEGIANCE AMERICAN MADE	
NO. PCS.	DESCRIPTION	ORDER NO.	PRICE EACH	ORDER NO.	PRICE EACH
5	9/16, 5/8, 3/4, 7/8, 1" in box	1449-099	\$ 39.00	-	-
8	9/16 to 1" by 16ths in index	1449-100	56.50	1441-097	\$186.30
13	17/32 to 1" in wood stand: 17/32, 9/16, 19/32, 5/8, 21/32, 11/16, 23/32, 3/4, 13/16, 7/8, 15/16, 31/32, 1"	1309-400	75.95	1441-099	186.57
33	1/2 to 1" by 64ths: Most complete set offered.	1449-300	199.90	1441-098*	658.60

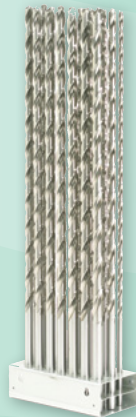
* Includes sturdy Huot Stand

		Pittsburg® ALLEGHANY		Look for ALLEGIANCE AMERICAN MADE	
NO. PCS.	DESCRIPTION	ORDER NO.	PRICE EACH	ORDER NO.	PRICE EACH
29	1/16" to 1/2" by 64ths	1169-110	\$ 72.11	1169-125	\$119.30
29	1/16" to 1/2" M42 Cobalt	-	-	1211-197	268.76
60	No. 1 to 60	1169-115	56.25	1211-198	110.13
26	A to Z	1169-120	73.03	1211-199	137.94
33	*1/2" to 1" by 64ths	1169-300	479.70	-	-

* Supplied in Metal Stand



Long Boy High Speed Steel Drill Sets



H.S.S. Aircraft Extension Drill Sets



NO. PCS.	DESCRIPTION	OVERALL LENGTH	ORDER NO.	PRICE EACH
25	1/8" - 1/2" by 64ths in Metal Stand	8"	1309-450	\$134.25
25		10"	1309-455	159.95
25		12"	1309-460	136.92
25		18"	1309-465	390.65

NO. PCS.	DESCRIPTION	OVERALL LENGTH	ORDER NO.	PRICE EACH
13	1/16" - 1/4" by 64ths	6"	1309-470	\$ 27.47
29	1/16" - 1/2" by 64ths	12"	1309-475	189.37

Tap & Drill Sets

Sets match 9 taps with correct tap drill. All tools High Speed Steel. Jobber Length Drills are polished flute ground from the solid.



National Coarse Set

National Coarse Set holds 6-32 tap #36 drill, 8-32 #29, 10-24 #25, 10-32 #21, 1/4-20 #7, 5/16-18 F, 3/8-16 5/16, 7/16-14 U, and 1/2-13 27/64.

2

	ORDER NO.	PRICE EACH
Pittsburg-Alleghany Allegiance	1009-005	\$44.95
	1009-006	82.50

National Fine Set

National Fine Set holds 6-40 tap #33 drill, 8-36 #29, 10-24 #25, 10-32 #21, 1/4-28 #3, 5/16-24 I, 3/8-24 Q, 7/16-20 25/64, and 1/2-20 29/64.

		2
	ORDER NO.	PRICE EACH
Pittsburg-Alleghany Allegiance	1009-010	\$46.40
	1009-011	95.95

Metric Set

Holds sizes: 2.5 x 0.45 tap 2.05 drill, 3.0 x 0.50 2.50, 3.5 x 0.60 2.90, 4.0 x 0.70 3.30, 5.0 x 0.80 4.20, 6.0 x 1.00 5.00, 8.00 x 1.25 6.70, 10.0 x 1.50 8.50, 12.0 x 1.75 10.20

		2
	ORDER NO.	PRICE EACH
Pittsburg-Alleghany	1009-012	\$55.05

Cutting Tool Storage



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Drill Indexes For Jobber Length Drills



PRICES FOR INDEXES WITHOUT DRILLS

MODEL NO.	DESCRIPTION	ORDER NO.	PRICE EACH
313	1/16 to 1/4 by 64ths-single panel	1919-015	\$ 6.49
15	1/16 to 1/2 by 32nds	1919-035	17.50
20	No. 61 to 80 inclusive	1919-055	9.00
21	1/16 to 3/8 by 64ths	1919-020	10.25
26	A-Z inclusive	1919-070	19.00
29	1/16 to 1/2 by 64ths	1919-025	16.00
60	No. 1 to 60 inclusive	1919-050	16.50
80	No. 1 to 80 inclusive	1919-060	39.00
1316	1/64 to 1/4 by 64ths	1919-005	9.00
2100	1/16 to 1/4 by 64ths and 9/32 to 1/2 by 32nds. Jobbers	1919-040	17.00
115	For jobbers: 1/16 to 1/2 by 64ths A-Z No. 1-60	1919-180	49.14
135	For jobbers: 1/16 to 1/2 by 64ths A-Z & No. 1-80	1919-190	69.00
134	For jobbers: 1/16 to 1/2 by 64ths No. 1-80, & 1mm to 13mm by 0.5mm	1919-185	56.00
4011	1mm to 6mm by 0.5mm	1919-075	8.95
4013	1mm to 7mm by 0.5mm	1919-080	10.50
4019	1mm to 10mm by 0.5mm	1919-085	16.00
4025	1mm to 13mm by 0.5mm	1919-090	15.00
4041	6mm to 10mm by 0.1mm	1919-095	58.00
4050	1mm to 5.9mm by 0.1mm	1919-100	13.90



Aircraft Drill Indexes

- Index holds 29 6" aircraft extension length drill bits in fractional sizes 1/16" to 1/2" in 1/64" increments
- Labeled storage holes for identification and organization
- Made of steel with an epoxy finish and has a snap-lock cover for durability and protection



MODEL NO.	DESCRIPTION	ORDER NO.	PRICE EACH
11655	1/16" to 1/2" x 64ths.	1919-118	\$ 24.00

Index For SILVER & DEMING Drills

For Drills 9/16" to 1" by 16ths with 1/2" shanks.
Index measures 8-1/8" x 6-1/4" x 2".

MODEL NO. 88SD ORDER NO. 1919-140 PRICE: \$36.00



Drill Indexes For Screw Machine Length Drills



MODEL NO.	DESCRIPTION	ORDER NO.	PRICE EACH
2013	1/16" to 1/4" by 64ths	1919-150	\$ 14.00
2021	1/16" to 3/8" by 64ths	1919-155	16.50
2025	1mm to 13mm by 0.5mm	1919-600	33.00
2026	A to Z inclusive	1919-170	24.00
2029	1/16" to 1/2" by 64ths	1919-160	54.00
2060	No. 1 to 60 inclusive	1919-165	24.00
11550	1/16" to 1/2" by 64ths A-Z and No. 1 to 60	1919-175	74.00

Mountable Drill Stands



- These drill stands can be hung on a wall, used on a bench, or mounted on press.
- Durably made from a single piece of prime steel, rigidly formed and welded.
- Plated black zinc finish.

MODEL NO.	DESCRIPTION	ORDER NO.	PRICE EACH
826	A-Z	1919-240	\$ 15.00
829	1/16 to 1/2 by 64ths	1919-230	11.21

Indexes For Taps & Drills



MODEL NO.	DESCRIPTION	ORDER NO.	PRICE EACH
99	NC 6-32 #36 to 1/2 - 13 #27/64 Holds 9 drills & 9 taps	1919-365	\$14.00
18	NF 6-40 #33 to 1/2-20 #29/64 Holds 9 drills & 9 taps	1919-370	17.00
4099	Metric 2.5mm x 0.45 tap 2.05 drill to 12.0mm x 1.75 tap 10.20mm drill	1919-335	17.00

S & D Drill Stand

- For Drills 1/2" to 1" by 64ths with 1/2" shank.
- Dimensions: 2-3/4" x 13" x 5".
- Baked epoxy finish.
- Fractional & decimal size equivalents clearly marked.

MODEL NO. 833SD

ORDER NO. 1919-233 PRICE: \$50.70



**All HUOT Indexes,
Dispensers & Stands are
supplied without tools**

Cutting Tool Storage



Master Drill Dispenser

- All steel cabinet with vinyl dividers to help protect and separate bits.
- Each cabinet is LOCKABLE with its own set of 2 keys.
- STACKABLE for larger inventories at one location.
- Top drawer holds fractional drills 1/16" to 1/2" by 64ths with 42 compartments.
- 2nd drawer is for 1 to 60 wire gauge with 75 compartments.
- 3rd drawer is for letter size A to Z with 42 compartments.
- Each drawer measures 23-1/8" wide; 11" front to back.
- Lower drawer is undivided for extra long drills, reamers and miscellaneous tools.
- Drawer Divider Kit available for lower drawer.

ORDER NO. 1919-306
PRICE:.....\$655.00

1



Drill Dispensers For Jobber Length Drills

Buy Models #1, #2 & #3 Together and save!
ORDER NO. 1919-300 PRICE: \$610.40

1

MODEL NO.	DESCRIPTION	ORDER NO.	PRICE EACH
1	1/16 to 1/2 by 64ths	1919-301	\$119.00
2	No. 1 to 60	1919-302	127.50
3	A-Z	1919-303	109.00
4	1mm to 13mm by 0.5mm	1919-304	121.50
5	1mm to 6.9mm by 0.1mm	1919-305	154.00



Tap/Drill Dispenser

Stores and organizes correct Tap Drill with corresponding size Tap. Holds one dozen (minimum) of each size. Dimensions: 7-3/8" x 7-3/4" x 14-5/8"

TAP	FOR	DRILL	TAP	FOR	DRILL
6-32		#36	5/16-24		I
8-32		#29	3/8-16		5/16
10-24		#25	3/8-24		Q
10-32		#21	7/16-14		U
1/4-20		#7	7/16-20		25/64
1/4-28		#3	1/2-13		27/64
5/16-18		F	1/2-20		29/64

ORDER NO. 1919-375
PRICE:.....\$138.00

1



Taper Shank/ Taper Length Drill Indexes



2

MODEL NO.	DESCRIPTION	ORDER NO.	PRICE EACH
1016	33/64" to 3/4" by 64ths Taper Shank or Taper Length	1919-125	\$132.00
2016	49/64" to 1" by 64ths for Taper Shank or Taper Length	1919-130	155.00
326	A-Z for Taper Length	1919-120	36.50
329	1/16" to 1/2" by 64ths for Taper Length	1919-110	39.00
360	No. 1 to 60 Taper Length	1919-115	47.12

Reamer Indexes

2

These handy, all-steel reamer cases are designed to hold the reamer securely by the shank to help protect delicate cutting edges. Indexed for reamer size in decimal equivalents, with raised embossed lettering for permanent identification. Prices do not include reamers.

No. 1919-255.....\$44.00
Over and under sizes .124 - .126 to .499 - .501 by 16ths.
Holds 14 reamers. Dimensions 4" x 8-5/8" x 13/16".

No. 1919-270.....\$44.00
For dowelpin reamers .123 to .4995. Holds 14 reamers.
Dimensions 4" x 8-5/8" x 13/16".

No. 1919-265.....\$32.50
A to Z reamers. Dimensions 4" x 8-5/8" x 1-13/16".

No. 1919-250.....\$42.00
Chuckling reamers 1/16" to 1/2" by 64ths.
Dimensions 4" x 8-5/8" x 1-13/16".

No. 1919-260.....\$38.50

No. 1 to 60 inclusive. Dimensions 3-3/8" x 6-3/4" x 1-3/16".



Taper Shank/ Taper Length Drill Dispenser



- Conveniently stores quantities of each size Taper Length or Taper Shank Drills 1/8" to 1" by 64ths.
- Plastic drawer dividers separate and protect drills.
- Stackable with other dispensers.
- Lockable with own set of keys.

MODEL NO. 57

ORDER NO. 1919-307 PRICE:.....\$630.00

1

**All HUOT Indexes,
Dispensers & Stands are
supplied without tools**

Jobbers Length Drills

High Speed Steel - Fractional Sizes



Surface Treated



Polished Flute



Titanium Nitride Coated - 118° Point

WARNING: This product contains Cobalt and/or Nickel and/or Lead a chemical known to the state of California to cause cancer or birth defects or other reproductive harm. For more information: www.prope5.ca.gov. **WARNING:** Cutting tools may chatter. Always wear approved safety glasses and mask when regrinding.

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			Pittsburg® ALLEGHANY		ALLEGHANY AMERICAN MADE		Pittsburg® ALLEGHANY		ALLEGHANY AMERICAN MADE		Pittsburg® ALLEGHANY	
			BLACK		BLACK*		POLISHED*		POLISHED*		TIN*	
FRAC. SIZES	FLUTE LG'TH	OVER. LG'TH	ORDER NO.	PRICE EACH	ORDER NO.	PRICE EACH	ORDER NO.	PRICE EACH	ORDER NO.	PRICE EACH	ORDER NO.	PRICE EACH
1/64	3/16	3/4	1000-001	\$0.98	1001-001	\$2.08	1040-001	\$0.98	1041-001	\$2.08	-	-
1/32	1/2	1-3/8	1000-002	0.60	1001-002	1.16	1040-002	0.60	1041-002	1.16	-	-
3/64	3/4	1-3/4	1000-003	0.57	1001-003	1.00	1040-003	0.57	1041-003	1.00	-	-
1/16	7/8	1-7/8	1000-004	0.59	1001-004	1.04	1040-004	0.59	1041-004	1.04	6326-004	\$2.22
5/64	1	2	1000-005	0.59	1001-005	1.04	1040-005	0.59	1041-005	1.04	6326-005	2.22
3/32	1-1/4	2-1/4	1000-006	0.59	1001-006	1.04	1040-006	0.59	1041-006	1.04	6326-006	2.22
7/64	1-1/2	2-5/8	1000-007	0.61	1001-007	1.08	1040-007	0.61	1041-007	1.08	6326-007	2.27
1/8	1-5/8	2-3/4	1000-008	0.61	1001-008	1.02	1040-008	0.61	1041-008	1.02	6326-008	2.30
9/64	1-3/4	2-7/8	1000-009	0.68	1001-009	1.19	1040-009	0.68	1041-009	1.19	6326-009	2.85
5/32	2	3-1/8	1000-010	0.69	1001-010	1.21	1040-010	0.69	1041-010	1.21	6326-010	2.88
11/64	2-1/8	3-1/4	1000-011	0.75	1001-011	1.31	1040-011	0.75	1041-011	1.31	6326-011	3.30
3/16	2-5/16	3-1/2	1000-012	0.84	1001-012	1.47	1040-012	0.84	1041-012	1.47	6326-012	3.79
13/64	2-7/16	3-5/8	1000-013	0.92	1001-013	1.61	1040-013	0.92	1041-013	1.61	6326-013	3.98
7/32	2-1/2	3-3/4	1000-014	1.02	1001-014	1.80	1040-014	1.02	1041-014	1.80	6326-014	4.18
15/64	2-5/8	3-7/8	1000-015	1.11	1001-015	1.95	1040-015	1.11	1041-015	1.95	6326-015	4.35
1/4	2-3/4	4	1000-016	1.12	1001-016	1.97	1040-016	1.12	1041-016	1.97	6326-016	4.40
17/64	2-7/8	4-1/8	1000-017	1.41	1001-017	2.48	1040-017	1.41	1041-017	2.48	6326-017	6.35
9/32	2-15/16	4-1/4	1000-018	1.46	1001-018	2.56	1040-018	1.46	1041-018	2.56	6326-018	6.43
19/64	3-1/16	4-3/8	1000-019	1.68	1001-019	2.96	1040-019	1.68	1041-019	2.96	6326-019	6.90
5/16	3-3/16	4-1/2	1000-020	1.87	1001-020	3.17	1040-020	1.87	1041-020	3.17	6326-020	7.25
21/64	3-5/16	4-5/8	1000-021	2.07	1001-021	3.63	1040-021	2.07	1041-021	3.63	6326-021	9.44
11/32	3-7/16	4-3/4	1000-022	2.31	1001-022	4.05	1040-022	2.31	1041-022	4.05	6326-022	9.90
23/64	3-1/2	4-7/8	1000-023	2.60	1001-023	4.56	1040-023	2.60	1041-023	4.56	6326-023	10.46
3/8	3-5/8	5	1000-024	2.66	1001-024	4.54	1040-024	2.66	1041-024	4.54	6326-024	10.64
25/64	3-3/4	5-1/8	1000-025	3.04	1001-025	5.34	1040-025	3.04	1041-025	5.34	6326-025	12.53
13/32	3-7/8	5-1/4	1000-026	3.13	1001-026	5.48	1040-026	3.13	1041-026	5.48	6326-026	12.74
27/64	3-15/16	5-3/8	1000-027	3.47	1001-027	6.09	1040-027	3.47	1041-027	6.09	6326-027	13.38
7/16	4-1/16	5-1/2	1000-028	3.61	1001-028	6.33	1040-028	3.61	1041-028	6.33	6326-028	13.62
29/64	4-3/16	5-5/8	1000-029	4.03	1001-029	7.08	1040-029	4.03	1041-029	7.08	6326-029	14.80
15/32	4-5/16	5-3/4	1000-030	4.28	1001-030	7.52	1040-030	4.28	1041-030	7.52	6326-030	15.28
31/64	4-3/8	5-7/8	1000-031	5.18	1001-031	8.20	1040-031	5.18	1041-031	8.20	6326-031	15.66
1/2	4-1/2	6	1000-032	5.21	1001-032	8.20	1040-032	5.21	1041-032	8.20	6326-032	15.86
33/64	4-13/16	6-5/8	1000-033	9.38	1001-033	14.32	-	-	1041-033	14.32	-	-
17/32	4-13/16	6-5/8	1000-034	9.66	1001-034	14.74	-	-	1041-034	14.74	-	-
35/64	4-13/16	6-5/8	1000-035	10.65	1001-035	16.25	1040-035	10.65	1041-035	16.25	-	-
9/16	4-13/16	6-5/8	1000-036	10.94	1001-036	16.68	-	-	1041-036	16.68	-	-
37/64	4-13/16	6-5/8	1000-037	11.19	1001-037	17.07	-	-	1041-037	17.07	-	-
19/32	5-3/16	7-1/8	1000-038	11.49	1001-038	17.52	1040-038	11.49	1041-038	17.52	-	-
39/64	5-3/16	7-1/8	1000-039	12.31	1001-039	18.77	-	-	1041-039	18.77	-	-
5/8	5-3/16	7-1/8	1000-040	12.08	1001-040	18.43	-	-	1041-040	18.43	-	-
41/64	5-3/16	7-1/8	1000-041	13.18	1001-041	20.11	1040-041	13.18	1041-041	20.11	-	-
21/32	5-3/16	7-1/8	1000-042	13.82	1001-042	21.08	-	-	1041-042	21.08	-	-
43/64	5-5/8	7-5/8	1000-043	14.94	1001-043	22.79	1040-043	14.94	1041-043	22.79	-	-
11/16	5-5/8	7-5/8	1000-044	17.93	1001-044	22.79	-	-	1041-044	22.79	-	-
23/32	5-5/8	7-5/8	-	-	1001-045	29.03	-	-	-	-	-	-
47/64	5-5/8	7-5/8	-	-	1001-047	29.94	-	-	-	-	-	-
3/4	5-5/8	7-5/8	-	-	1001-049	29.94	-	-	-	-	-	-

* Ground from solid. Limited Quantities

PACKAGE QUANTITIES: Fractional Sizes
1/64-19/64: 12 pcs. 5/16-1/2: 6 pcs. 33/64-11/16: 1 pcs.

Jobbers Length Drills

High Speed Steel - Wire Gage Sizes

8

WARNING: This product contains Cobalt and/or Nickel and/or Lead a chemical known to the state of California to cause cancer or birth defects or other reproductive harm. For more information: www.prodds.ca.gov. WARNING: Cutting tools may chatter. Always wear approved safety glasses and mask when regrinding.



Titanium Nitride Coated - 118° Point



Surface Treated



Polished Flute

PACKAGE QUANTITIES: Wire Gage Sizes
1-100: 12 pcs.

Pittsburg® BLACK					ALLEGIANCE® AMERICAN MADE BLACK*		Pittsburg® POLISHED*		ALLEGIANCE® AMERICAN MADE POLISHED*		Pittsburg® TIN*	
FRAC. SIZES	FLUTE LG'TH	OVER. LG'TH	ORDER NO.	PRICE EACH	ORDER NO.	PRICE EACH	ORDER NO.	PRICE EACH	ORDER NO.	PRICE EACH	ORDER NO.	PRICE EACH
1	2-5/8	3-7/8	1010-001	\$1.86	1011-001	\$2.16	1050-001	\$1.23	1051-001	\$2.16	6326-101	\$4.82
2	2-5/8	3-7/8	1010-002	1.25	1011-002	2.18	1050-002	1.25	1051-002	2.18	6326-102	4.90
3	2-1/2	3-3/4	1010-003	1.12	1011-003	2.03	1050-003	1.12	1051-003	2.03	6326-103	4.37
4	2-1/2	3-3/4	1010-004	1.14	1011-004	2.03	1050-004	1.14	1051-004	1.99	6326-104	4.45
5	2-1/2	3-3/4	1010-005	1.14	1011-005	1.99	1050-005	1.14	1051-005	1.99	6326-105	4.45
6	2-1/2	3-3/4	1010-006	1.14	1011-006	1.99	1050-006	1.14	1051-006	1.99	6326-106	4.45
7	2-7/16	3-5/8	1010-007	0.99	1011-007	1.74	1050-007	0.99	1051-007	1.74	6326-107	3.89
8	2-7/16	3-5/8	1010-008	1.00	1011-008	1.76	1050-008	1.00	1051-008	1.76	6326-108	3.94
9	2-7/16	3-5/8	1010-009	1.00	1011-009	1.76	1050-009	1.00	1051-009	1.76	6326-109	3.94
10	2-7/16	3-5/8	1010-010	0.99	1011-010	1.64	1050-010	0.99	1051-010	1.64	6326-110	3.84
11	2-5/16	3-1/2	1010-011	0.92	1011-011	1.61	1050-011	0.92	1051-011	1.61	6326-111	3.68
12	2-5/16	3-1/2	1010-012	0.92	1011-012	1.62	1050-012	0.92	1051-012	1.62	6326-112	3.68
13	2-5/16	3-1/2	1010-013	0.90	1011-013	1.59	1050-013	0.90	1051-013	1.59	6326-113	3.55
14	2-3/16	3-3/8	1010-014	0.90	1011-014	1.59	1050-014	0.90	1051-014	1.59	6326-114	3.55
15	2-3/16	3-3/8	1010-015	0.90	1011-015	1.59	1050-015	0.90	1051-015	1.59	6326-115	3.55
16	2-3/16	3-3/8	1010-016	0.90	1011-016	1.59	1050-016	0.90	1051-016	1.59	6326-116	3.55
17	2-3/16	3-3/8	1010-017	0.90	1011-017	1.59	1050-017	0.90	1051-017	1.59	6326-117	3.55
18	2-1/8	3-1/4	1010-018	0.75	1011-018	1.32	1050-018	0.75	1051-018	1.32	6326-118	2.72
19	2-1/8	3-1/4	1010-019	0.75	1011-019	1.31	1050-019	0.75	1051-019	1.31	6326-119	2.93
20	2-1/8	3-1/4	1010-020	0.75	1011-020	1.18	1050-020	0.75	1051-020	1.18	6326-120	2.93
21	2-1/8	3-1/4	1010-021	0.69	1011-021	1.21	1050-021	0.69	1051-021	1.21	6326-121	3.04
22	2	3-1/8	1010-022	0.69	1011-022	1.22	1050-022	0.69	1051-022	1.22	6326-122	2.72
23	2	3-1/8	1010-023	0.69	1011-023	1.20	1050-023	0.69	1051-023	1.20	6326-123	2.69
24	2	3-1/8	1010-024	0.69	1011-024	1.20	1050-024	0.69	1051-024	1.20	6326-124	2.69
25	1-7/8	3	1010-025	0.65	1011-025	1.15	1050-025	0.65	1051-025	1.15	6326-125	2.59
26	1-7/8	3	1010-026	0.66	1011-026	1.16	1050-026	0.66	1051-026	1.16	6326-126	2.59
27	1-7/8	3	1010-027	0.66	1011-027	1.16	1050-027	0.66	1051-027	1.16	6326-127	2.59
28	1-3/4	2-7/8	1010-028	0.61	1011-028	1.06	1050-028	0.61	1051-028	1.06	6326-128	2.35
29	1-3/4	2-7/8	1010-029	0.60	1011-029	1.06	1050-029	0.60	1051-029	1.06	6326-129	2.35
30	1-5/8	2-3/4	1010-030	0.60	1011-030	1.05	1050-030	0.60	1051-030	1.05	6326-130	2.35
31	1-5/8	2-3/4	1010-031	0.60	1011-031	1.05	1050-031	0.60	1051-031	1.05	6326-131	2.35
32	1-5/8	2-3/4	1010-032	0.60	1011-032	1.05	1050-032	0.60	1051-032	1.05	6326-132	2.35
33	1-1/2	2-5/8	1010-033	0.60	1011-033	1.05	1050-033	0.60	1051-033	1.05	6326-133	2.35
34	1-1/2	2-5/8	1010-034	0.60	1011-034	1.05	1050-034	0.60	1051-034	1.05	6326-134	2.35
35	1-1/2	2-5/8	1010-035	0.60	1011-035	1.05	1050-035	0.60	1051-035	1.05	6326-135	2.35
36	1-7/16	2-1/2	1010-036	0.59	1011-036	1.05	1050-036	0.59	1051-036	1.05	6326-136	2.35
37	1-7/16	2-1/2	1010-037	0.60	1011-037	1.05	1050-037	0.60	1051-037	1.05	6326-137	2.35
38	1-7/16	2-1/2	1010-038	0.60	1011-038	1.05	1050-038	0.60	1051-038	1.05	6326-138	2.35
39	1-3/8	2-3/8	1010-039	0.60	1011-039	1.05	1050-039	0.60	1051-039	1.05	6326-139	2.35
40	1-3/8	2-3/8	1010-040	0.60	1011-040	1.05	1050-040	0.60	1051-040	1.05	6326-140	2.35
41	1-3/8	2-3/8	1010-041	0.58	1011-041	1.05	1050-041	0.58	1051-041	1.05	6326-141	2.35
42	1-1/4	2-1/4	1010-042	0.60	1011-042	1.05	1050-042	0.60	1051-042	1.05	6326-142	2.35
43	1-1/4	2-1/4	1010-043	0.58	1011-043	1.05	1050-043	0.58	1051-043	1.05	6326-143	2.29
44	1-1/8	2-1/8	1010-044	0.58	1011-044	1.05	1050-044	0.58	1051-044	1.05	6326-144	2.29
45	1-1/8	2-1/8	1010-045	0.60	1011-045	1.05	1050-045	0.60	1051-045	1.05	6326-145	2.35
46	1-1/8	2-1/8	1010-046	0.60	1011-046	1.05	1050-046	0.60	1051-046	1.05	6326-146	2.35
47	1	2	1010-047	0.60	1011-047	1.05	1050-047	0.60	1051-047	1.05	6326-147	2.35
48	1	2	1010-048	0.60	1011-048	1.05	1050-048	0.60	1051-048	1.05	6326-148	2.35
49	1	2	1010-049	0.60	1011-049	1.05	1050-049	0.60	1051-049	1.05	6326-149	2.35
50	1	2	1010-050	0.60	1011-050	1.05	1050-050	0.60	1051-050	1.05	6326-150	2.35
51	1	2	1010-051	0.60	1011-051	1.05	1050-051	0.60	1051-051	1.05	6326-151	2.35
52	7/8	1-7/8	1010-052	0.60	1011-052	1.05	1050-052	0.60	1051-052	1.05	6326-152	2.35
53	7/8	1-7/8	1010-053	0.60	1011-053	1.05	1050-053	0.60	1051-053	1.05	6326-153	2.35
54	7/8	1-7/8	1010-054	0.51	1011-054	1.05	1050-054	0.51	1051-054	1.05	6326-154	2.35
55	7/8	1-7/8	1010-055	0.60	1011-055	1.05	1050-055	0.60	1051-055	1.05	6326-155	2.35
56	3/4	1-3/4	1010-056	0.60	1011-056	1.05	1050-056	0.60	1051-056	1.05	6326-156	2.35
57	3/4	1-3/4	1010-057	0.60	1011-057	1.05	1050-057	0.60	1051-057	1.05	6326-157	2.35
58	11/16	1-5/8	1010-058	0.61	1011-058	1.08	1050-058	0.61	1051-058	1.08	6326-158	2.35
59	11/16	1-5/8	1010-059	0.61	1011-059	1.08	1050-059	0.61	1051-059	1.08	6326-159	2.35
60	11/16	1-5/8	1010-060	0.61	1011-060	1.08	1050-060	0.61	1051-060	1.08	6326-160	2.35

* Ground from solid.

Jobbers Length Drills

High Speed Steel – Wire Gage Sizes, Con't.

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Pittsburg® ALLEGMANN AMERICAN MADE								Pittsburg® ALLEGMANN AMERICAN MADE			
WIRE GAGE SIZES	DEC. EQV.	FLT. L'GTH	OAL	BLACK		POLISHED*		ORDER NO.	PRICE EACH	ORDER NO.	PRICE EACH
				ORDER NO.	PRICE EACH	ORDER NO.	PRICE EACH				
61	.0390	11/16	1-5/8	1010-061	\$0.65	1050-061	\$0.65	1011-061	\$1.22	1051-061	\$1.22
62	.3080	5/8	1-1/2	1010-062	0.65	1050-062	0.65	1011-062	1.22	1051-062	1.22
63	.3070	5/8	1-1/2	1010-063	0.65	1050-063	0.65	1011-063	1.22	1051-063	1.22
64	.0360	5/8	1-1/2	1010-064	0.65	1050-064	0.65	1011-064	1.22	1051-064	1.22
65	.0350	5/8	1-1/2	1010-065	0.65	1050-065	0.65	1011-065	1.22	1051-065	1.22
66	.0330	1/2	1-3/8	1010-066	0.65	1050-066	0.65	1011-066	1.22	1051-066	1.22
67	.0320	1/2	1-3/8	1010-067	0.65	1050-067	0.65	1011-067	1.22	1051-067	1.22
68	.0310	1/2	1-3/8	1010-068	0.65	1050-068	0.65	1011-068	1.22	1051-068	1.22
69	.0292	1/2	1-3/8	1010-069	0.71	1050-069	0.65	1011-069	1.25	1051-069	1.25
70	.0280	3/8	1-1/4	1010-070	0.71	1050-070	0.65	1011-070	1.25	1051-070	1.25
71	.0260	3/8	1-1/4	1010-071	0.89	1050-071	0.89	1011-071	1.56	1051-071	1.56
72	.0250	5/16	1-1/8	1010-072	0.89	1050-072	0.89	1011-072	1.56	1051-072	1.56
73	.0240	5/16	1-1/8	1010-073	0.89	1050-073	0.89	1011-073	1.56	1051-073	1.56
74	.0225	1/4	1	1010-074	0.89	1050-074	0.89	1011-074	1.56	1051-074	1.56
75	.0210	1/4	1	1010-075	0.89	1050-075	0.89	1011-075	1.77	1051-075	1.77
76	.0200	3/16	7/8	1010-076	0.89	1050-076	0.89	1011-076	1.77	1051-076	1.77
77	.0180	3/16	7/8	1010-077	0.89	1050-077	0.89	1011-077	2.05	1051-077	2.05
78	.0160	3/16	7/8	1010-078	0.89	1050-078	0.89	1011-078	2.05	1051-078	2.05
79	.0145	1/8	3/4	1010-079	1.06	1050-079	1.06	1011-079	2.44	1051-079	2.44
80	.0135	1/8	3/4	1010-080	1.06	1050-080	1.06	1011-080	2.44	1051-080	2.44
81	.0130	3/32	3/4	-	-	-	-	-	-	1051-081	4.36
82	.0125	3/32	3/4	-	-	-	-	-	-	1051-082	4.36
83	.0120	3/32	3/4	-	-	-	-	-	-	1051-083	4.80
84	.0115	3/32	3/4	-	-	-	-	-	-	1051-084	4.80
85	.0110	5/64	3/4	-	-	-	-	-	-	1051-085	4.80
86	.0105	5/64	3/4	-	-	-	-	-	-	1051-086	5.15
87	.0100	5/64	3/4	-	-	-	-	-	-	1051-087	5.15
88	.0095	5/64	3/4	-	-	-	-	-	-	1051-088	7.23
89	.0091	1/16	3/4	-	-	-	-	-	-	1051-089	7.23
90	.0087	1/16	3/4	-	-	-	-	-	-	1051-090	7.23
91	.0083	1/16	3/4	-	-	-	-	-	-	1051-091	7.23
92	.0079	1/16	3/4	-	-	-	-	-	-	1051-092	7.23
93	.0075	1/16	3/4	-	-	-	-	-	-	1051-093	7.23
94	.0071	1/16	3/4	-	-	-	-	-	-	1051-094	9.83
95	.0067	1/16	3/4	-	-	-	-	-	-	1051-095	9.83
96	.0063	1/16	3/4	-	-	-	-	-	-	1051-096	9.83
97	.0059	1/16	3/4	-	-	-	-	-	-	1051-097	10.89

* Ground from Solid

3/8" Shank Drills – High Speed Steel

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3

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Pittsburg® ALLEGMANN AMERICAN MADE			Pittsburg® ALLEGMANN AMERICAN MADE		Pittsburg® ALLEGMANN AMERICAN MADE	
DIAM.	BLACK		ORDER NO.	PRICE EACH	ORDER NO.	PRICE EACH
	ORDER NO.	PRICE EACH				
25/64	1460-025	\$8.44	1460-125	\$11.81	1460-225	\$5.70
13/32	1460-026	2.80	1460-126	11.81	1460-226	5.82
27/64	1460-027	9.38	1460-127	12.64	1460-227	6.42
7/16	1460-028	9.38	1460-128	9.20	1460-228	6.68
29/64	1460-029	11.25	1460-129	15.00	1460-229	7.57
15/32	1460-030	3.68	1460-130	14.44	1460-230	8.10
31/64	1460-031	11.88	1460-131	15.00	1460-231	8.41
1/2	1460-032	11.88	1460-132	14.05	1460-232	8.45
17/32	1460-034	16.88	-	-	-	-
9/16	1460-036	6.73	-	-	-	-
19/32	1460-038	20.88	-	-	-	-
5/8	1460-040	22.50	-	-	-	-
21/32	1460-042	24.94	-	-	-	-
11/16	1460-044	26.25	-	-	-	-
23/32	1460-046	26.25	-	-	-	-
3/4	1460-048	29.38	-	-	-	-

* Ground from Solid

WARNING: This product contains Cobalt and/or Nickel and/or Lead a chemical known to the state of California to cause cancer or birth defects or other reproductive harm. For more information: www.p65.ca.gov.
WARNING: Cutting tools may shatter. Always wear approved safety glasses and mask when regrinding.

1/4" Reduced Shank High Speed Steel

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High Speed Steel – Letter Sizes

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Pittsburg® ALLEGMANN AMERICAN MADE		Pittsburg® ALLEGMANN AMERICAN MADE		Pittsburg® ALLEGMANN AMERICAN MADE		Pittsburg® ALLEGMANN AMERICAN MADE	
WIRE GAGE SIZES	DEC. EQV.	FLT. L'GTH	OAL	BLACK		POLISHED*	
				ORDER NO.	PRICE EACH	ORDER NO.	PRICE EACH
A	.2340	2-5/8	3-7/8	1020-001	\$1.41	1021-001	\$2.47
B	.2380	2-3/4	4	1020-002	1.41	1021-002	2.47
C	.2420	2-3/4	4	1020-003	1.41	1021-003	2.47
D	.2460	2-3/4	4	1020-004	1.41	1021-004	2.47
E	.2500	2-3/4	4	1020-005	1.12	1021-005	1.97
F	.2570	2-7/8	4-1/8	1020-006	1.49	1021-006	2.62
G	.2610	2-7/8	4-1/8	1020-007	1.68	1021-007	2.95
H	.2660	2-7/8	4-1/8	1020-008	1.68	1021-008	2.95
I	.2720	2-7/8	4-1/8	1020-009	1.68	1021-009	2.95
J	.2770	2-7/8	4-1/8	1020-010	1.81	1021-010	3.17
K	.2810	2-15/16	4-1/4	1020-011	1.99	1021-011	3.50
L	.2900	2-15/16	4-1/4	1020-012	1.99	1021-012	3.50
M	.2950	3-1/16	4-3/8	1020-013	2.11	1021-013	3.70
N	.3020	3-1/16	4-3/8	1020-014	2.11	1021-014	3.70
O	.3160	3-3/16	4-1/2	1020-015	2.13	1021-015	3.74
P	.3230	3-5/16	4-5/8	1020-016	2.40	1021-016	4.22
Q	.3320	3-7/16	4-3/4	1020-017	2.40	1021-017	4.22
R	.3390	3-7/16	4-3/4	1020-018	2.57	1021-018	4.51
S	.3480	3-1/2	4-7/8	1020-019	2.73	1021-019	4.78
T	.3580	3-1/2	4-7/8	1020-020	3.10	1021-020	5.44
U	.3680	3-5/8	5	1020-021	3.10	1021-021	5.44
V	.3770	3-5/8	5	1020-022	3.19	1021-022	5.59
W	.3860	3-3/4	5-1/8	1020-023	3.29	1021-023	5.78
X	.3970	3-3/4	5-1/8	1020-024	3.99	1021-024	7.00
Y	.4040	3-7/8	5-1/4	1020-025	4.48	1021-025	7.87
Z	.4130	3-7/8	5-1/4	1020-026	4.77	1021-026	8.38

* Ground from Solid




DIAM.	ORDER NO.	PRICE EACH	ORDER NO.	PRICE EACH
17/64	1450-017	\$3.99	1450-116	\$5.26
5/16	1450-016	4.13	1450-120	5.45
11/32	1450-018	4.54	1450-218	5.26
19/64	1450-019	4.54	1450-219	5.81
3/8	1450-020	4.54	1450-220	6.27
21/64	1450-021	4.87	1450-221	6.30
11/32	1450-022	5.39	1450-222	7.18
23/64	1450-023	5.74	1450-223	7.59
3/8	1450-024	5.79	1450-224	6.99
25/64	1450-025	6.86	1450-225	8.91
13/32	1450-026	6.26	1450-226	9.35
27/64	1450-027	7.37	1450-227	9.57
7/16	1450-028	7.02	1450-228	9.11
29/64	1450-029	8.75	1450-229	12.67
15/32	1450-030	8.01	1450-230	11.96
31/64	1450-031	8.90	1450-231	12.87
1/2	1450-032	8.32	1450-232	10.80

PACKAGE QUANTITIES: Letter Sizes
A-N: 12pcs. O-Z: 6 pcs.

Metric Jobber Length Drills

118° Point



High Speed Steel



Carbide Tipped

WARNING: This product contains Cobalt and/or Nickel and/or Lead a chemical known to the state of California to cause cancer or birth defects or other reproductive harm. For more information: www.p65.ca.gov. WARNING: Cutting tools may shatter. Always wear approved safety glasses and mask when regrinding.

2

Pittsburg® HIGH SPEED			
DIAM. mm	DECM'L. EQUIV.	ORDER NO.	PRICE EACH
0.30	.0118	1030-030	\$0.83
0.32	.0126	1030-032	0.89
0.35	.0138	1030-035	0.74
0.38	.0150	1030-038	0.89
0.40	.0157	1030-040	0.66
0.42	.0165	1030-042	0.84
0.45	.0177	1030-045	0.66
0.48	.0189	1030-048	0.84
0.50	.0197	1030-050	0.64
0.52	.0204	1030-052	0.78
0.55	.0217	1030-055	0.64
0.58	.0228	1030-058	0.78
0.60	.0236	1030-060	0.64
0.65	.0256	1030-065	0.64
0.68	.0267	1030-068	0.78
0.70	.0276	1030-070	0.57
0.72	.0283	1030-072	0.78
0.75	.0295	1030-075	0.52
0.80	.0315	1030-080	0.47
0.82	.0323	1030-082	0.47
0.85	.0335	1030-085	0.47
0.88	.0346	1030-088	0.47
0.90	.0354	1030-090	0.47
0.92	.0362	1030-092	0.47
0.95	.0374	1030-095	0.47
1.00	.0394	1030-100	0.46
1.05	.0413	1030-105	0.46
1.10	.0433	1030-110	0.46
1.15	.0453	1030-115	0.46
1.20	.0472	1030-120	0.45
1.25	.0492	1030-125	0.45
1.30	.0512	1030-130	0.45
1.35	.0531	1030-135	0.45
1.40	.0551	1030-140	0.45
1.45	.0571	1030-145	0.45
1.50	.0591	1030-150	0.45
1.55	.0610	1030-155	0.45
1.60	.0630	1030-160	0.45
1.65	.0650	1030-165	0.45
1.70	.0669	1030-170	0.45
1.75	.0689	1030-175	0.45
1.80	.0709	1030-180	0.45
1.85	.0728	1030-185	0.45
1.90	.0748	1030-190	0.45
1.95	.0768	1030-195	0.45
2.00	.0787	1030-200	0.45
2.05	.0807	1030-205	0.45
2.10	.0827	1030-210	0.45
2.15	.0846	1030-215	0.45
2.20	.0866	1030-220	0.45
2.25	.0886	1030-225	0.45
2.30	.0906	1030-230	0.45
2.35	.0925	1030-235	0.45
2.40	.0945	1030-240	0.45
2.45	.0965	1030-245	0.45
2.50	.0984	1030-250	0.45
2.55	.1005	1030-255	0.45
2.60	.1024	1030-260	0.45
2.70	.1063	1030-270	0.49
2.75	.1083	1030-275	0.49
2.80	.1102	1030-280	0.49
2.90	.1142	1030-290	0.49
2.95	.1161	1030-295	0.49

Pittsburg® HIGH SPEED				Pittsburg® CARBIDE TIPPED			
DIAM. mm	DECM'L. EQUIV.	ORDER NO.	PRICE EACH	DIAM. mm	DECM'L. EQUIV.	ORDER NO.	PRICE EACH
3.00	.1181	1030-300	\$0.49	2993-300			\$30.24
3.10	.1220	1030-310	0.49	2993-310			31.73
3.20	.1260	1030-320	0.53	2993-320			31.73
3.30	.1299	1030-330	0.53	2993-330			31.73
3.40	.1339	1030-340	0.56	2993-340			26.75
3.50	.1378	1030-350	0.56	2993-350			29.34
3.60	.1417	1030-360	0.57	2993-360			25.50
3.70	.1457	1030-370	0.57	2993-370			25.50
3.75	.1476	1030-375	0.57	-			-
3.80	.1496	1030-380	0.57	2993-380			25.50
3.90	.1535	1030-390	0.57	2993-390			25.50
3.95	.1555	1030-395	0.61	-			-
4.00	.1575	1030-400	0.61	2993-400			28.56
4.10	.1614	1030-410	0.61	2993-410			23.20
4.20	.1654	1030-420	0.61	2993-420			24.75
4.30	.1693	1030-430	0.61	2993-430			24.75
4.40	.1732	1030-440	0.64	2993-440			24.75
4.50	.1772	1030-450	0.64	2993-450			30.24
4.60	.1811	1030-460	0.64	2993-460			27.90
4.70	.1850	1030-470	0.64	2993-470			24.40
4.80	.1890	1030-480	0.74	2993-480			25.55
4.90	.1929	1030-490	0.74	2993-490			27.90
5.00	.1969	1030-500	0.74	2993-500			31.73
5.10	.2008	1030-510	0.74	2993-510			29.10
5.20	.2047	1030-520	0.78	2993-520			26.70
5.25	.2067	1030-525	0.78	-			-
5.30	.2087	1030-530	0.78	2993-530			29.10
5.40	.2126	1030-540	0.86	2993-540			29.10
5.50	.2165	1030-550	0.86	2993-550			33.66
5.60	.2205	1030-560	0.93	2993-560			29.90
5.70	.2244	1030-570	0.93	2993-570			27.45
5.75	.2264	1030-575	0.93	-			-
5.80	.2283	1030-580	0.93	2993-580			29.90
5.90	.2323	1030-590	0.93	2993-590			29.90
6.00	.2362	1030-600	0.93	2993-600			34.90
6.10	.2402	1030-610	0.98	2993-610			31.10
6.20	.2441	1030-620	0.98	2993-620			31.10
6.25	.2460	1030-625	0.98	-			-
6.30	.2480	1030-630	0.98	2993-630			31.10
6.40	.2520	1030-640	1.04	2993-640			36.90
6.50	.2559	1030-650	1.04	2993-650			36.06
6.60	.2598	1030-660	1.04	2993-660			32.55
6.70	.2638	1030-670	1.04	2993-670			32.55
6.75	.2657	1030-675	1.21	-			-
6.80	.2677	1030-680	1.21	2993-680			32.55
6.90	.2717	1030-690	1.21	2993-690			32.55
7.00	.2756	1030-700	1.21	2993-700			37.80
7.10	.2795	1030-710	1.21	2993-710			33.40
7.20	.2835	1030-720	1.21	2993-720			33.40
7.25	.2854	1030-725	1.21	-			-
7.30	.2874	1030-730	1.21	2993-730			30.65
7.40	.2913	1030-740	1.21	2993-740			33.40
7.50	.2953	1030-750	1.21	2993-750			39.61
7.60	.2992	1030-760	1.49	2993-760			35.05
7.70	.3031	1030-770	1.49	2993-770			32.15
7.80	.3071	1030-780	1.49	2993-780			35.05
7.85	.3091	1030-785	1.49	-			-
7.90	.3110	1030-790	1.49	2993-790			35.05
8.00	.3150	1030-800	1.58	2993-800			40.51
8.10	.3189	1030-810	1.58	2993-810			34.30
8.20	.3228	1030-820	1.58	2993-820			37.40
8.25	.3248	1030-825	1.58	-			-
8.30	.3268	1030-830	1.58	2993-830			34.30
8.40	.3307	1030-840	1.58	2993-840			37.40
8.50	.3346	1030-850	1.58	2993-850			42.38
8.60	.3386	1030-860	1.82	2993-860			37.40
8.70	.3425	1030-870	1.82	2993-870			37.40
8.75	.3445	1030-875	1.92	-			-
8.80	.3465	1030-880	1.92	2993-880			37.40
8.90	.3504	1030-890	1.92	2993-890			37.40
9.00	.3543	1030-900	1.92	2993-900			43.30

					
		HIGH SPEED		CARBIDE TIPPED	
DIAM.	DECM'L.	ORDER	PRICE	ORDER	PRICE
mm	EQUIV.	NO.	EACH	NO.	EACH
9.10	.3583	1030-910	\$1.92	2993-910	\$40.50
9.20	.3622	1030-920	2.19	2993-920	37.15
9.25	.3642	1030-925	2.19	—	—
9.30	.3661	1030-930	2.19	2993-930	40.50
9.40	.3701	1030-940	2.19	2993-940	40.50
9.50	.3740	1030-950	2.19	2993-950	47.04
9.60	.3780	1030-960	2.48	2993-960	41.05
9.70	.3819	1030-970	2.48	2993-970	41.05
9.75	.3839	1030-975	2.48	—	—
9.80	.3858	1030-980	2.48	2993-980	41.05
9.90	.3898	1030-990	2.48	2993-990	41.05
10.00	.3937	1031-000	2.48	2994-000	48.66
10.10	.3976	1031-010	3.05	2994-010	49.00
10.20	.4016	1031-020	2.48	2994-020	49.00
10.25	.4035	1031-025	3.47	—	—
10.30	.4055	1031-030	3.47	2994-030	49.00
10.40	.4094	1031-040	3.47	2994-040	49.00
10.50	.4134	1031-050	2.86	2994-050	56.09
10.60	.4173	1031-060	3.47	2994-060	53.65
10.70	.4213	1031-070	3.41	2994-070	53.65
10.80	.4252	1031-080	3.41	2994-080	49.20
10.90	.4291	—	—	2994-090	53.65
11.00	.4331	1031-100	3.04	2994-100	60.86
11.10	.4370	1031-110	4.17	2994-110	59.90
11.20	.4409	1031-120	4.17	2994-120	59.90
11.25	.4429	1031-125	4.17	—	—
11.30	.4449	1031-130	4.61	2994-130	59.90
11.40	.4488	1031-140	4.61	2994-140	59.90
11.50	.4528	1031-150	3.40	2994-150	68.23
11.60	.4567	1031-160	4.61	2994-160	65.25
11.65	.4587	1031-165	4.85	—	—
11.70	.4606	1031-170	4.85	2994-170	65.25
11.80	.4646	1031-180	4.85	2994-180	65.25
11.90	.4685	—	—	2994-190	65.25
12.00	.4724	1031-200	3.80	2994-200	73.98
12.10	.4764	—	—	2994-210	67.80
12.20	.4803	1031-220	5.14	2994-220	67.80
12.25	.4823	1031-225	5.14	—	—
12.30	.4843	—	—	2994-230	67.80
12.40	.4882	1031-240	5.14	2994-240	67.80
12.50	.4921	1031-250	3.93	2994-250	76.63
12.60	.4921	1031-260	5.14	2994-260	70.20
12.70	.5000	1031-270	5.14	2994-270	61.55
12.80	.5039	1031-280	4.50	2994-280	77.05
12.90	.5079	1031-290	5.14	2994-290	77.05
13.00	.5118	1031-300	4.50	2994-300	91.37
13.25	.5217	1031-325	5.65	—	—
13.40	.5276	1031-340	5.65	—	—
13.50	.5315	1031-350	5.65	2994-350	99.85
13.75	.5413	1031-375	6.46	—	—
13.80	.5433	1031-380	6.46	—	—
14.00	.5512	1031-400	6.46	2994-400	105.75
14.25	.5610	1031-425	6.46	—	—
14.50	.5709	1031-450	6.46	2994-450	113.35
14.70	.5787	1031-470	7.00	—	—
14.80	.5827	1031-480	7.00	—	—
14.90	.5866	1031-490	7.00	—	—
15.00	.5906	1031-500	7.00	2994-500	113.35
15.50	.6102	1031-550	8.01	—	—
15.75	.6201	1031-575	8.01	—	—
16.00	.6299	1031-600	8.01	2994-600	116.95
16.50	.6496	1031-650	8.65	—	—
17.00	.6693	1031-700	8.65	—	—
17.50	.6890	1031-750	9.51	—	—
17.75	.6988	1031-775	9.51	—	—
18.00	.7087	1031-800	10.13	—	—
18.25	.7185	1031-825	11.01	—	—
18.75	.7382	1031-875	11.01	—	—
19.00	.7480	1031-900	12.20	—	—
20.00	.7874	1032-000	12.20	—	—

Jobbers Length Drills– Cobalt

M42 Cobalt – 135° Split Point



Fractional Sizes

COBALT USA					
Frac. Sizes	Dec. Eqv.	Flute Lg'th	OAL	Order No.	Price Each
1/64	0.0156	3/16	3/4	1101-001	\$ 3.25
3/64	0.0469	3/4	1-3/4	1101-003	2.23
1/16	0.0625	7/8	1-7/8	1101-004	2.05
5/64	0.0781	1	2	1101-005	2.08
3/32	0.0937	1-1/4	2-1/4	1101-006	2.13
7/64	0.1094	1-1/2	2-5/8	1101-007	2.30
1/8	0.1250	1-5/8	2-3/4	1101-008	2.62
9/64	0.1406	1-3/4	2-7/8	1101-009	2.78
5/32	0.1562	2	3-1/8	1101-010	3.08
11/64	0.1719	2-1/8	3-1/4	1101-011	3.31
3/16	0.1875	2-5/16	3-1/2	1101-012	3.67
13/64	0.2031	2-7/16	3-5/8	1101-013	4.25
7/32	0.2187	2-1/2	3-3/4	1101-014	4.60
15/64	0.2344	2-5/8	3-7/8	1101-015	4.87
1/4	0.2500	2-3/4	4	1101-016	5.02
17/64	0.2656	2-7/8	4-1/8	1101-017	6.06
9/32	0.2812	2-15/16	4-1/4	1101-018	6.56
19/64	0.2969	3-1/16	4-3/8	1101-019	7.87
5/16	0.3125	3-3/16	4-1/2	1101-020	8.41
21/64	0.3281	3-5/16	4-5/8	1101-021	9.50
11/32	0.3437	3-7/16	4-3/4	1101-022	10.34
23/64	0.3594	3-1/2	4-7/8	1101-023	11.70
3/8	0.3750	3-5/8	5	1101-024	12.51
25/64	0.3906	3-3/4	5-1/8	1101-025	13.78
13/32	0.4062	3-7/8	5-1/4	1101-026	14.44
27/64	0.4219	3-15/16	5-3/8	1101-027	15.83
7/16	0.4375	4-1/16	5-1/2	1101-028	16.22
29/64	0.4531	4-3/16	5-5/8	1101-029	19.19
15/32	0.4687	4-5/16	5-3/4	1101-030	20.62
31/64	0.4844	4-3/8	5-7/8	1101-031	21.47
1/2	0.5000	4-1/2	6	1101-032	21.62

PACKAGE QUANTITIES: Fractional Sizes

1/64–19/64: 12 pcs. 5/16–1/2: 6 pcs.

33/64–11/16: 1 pcs.

FOR SIZES 33/64 - 11/16 SEE S&D DRILL SECTION

3/8" Shank Sizes

COBALT USA					
Diam.	Dec. Eqv.	Flute Lg'th	OAL	Order No.	Price Each
25/64	.3594	3-1/2	4-7/8	1460-325	\$22.46
13/32	.4062	3-7/8	5-1/4	1460-326	22.95
27/64	.4219	3-15/16	5-3/8	1460-327	26.30
7/16	.4375	4-1/16	5-1/2	1460-328	26.91
29/64	.4531	4-3/16	5-5/8	1460-329	29.61
15/32	.4687	4-5/16	5-3/4	1460-330	29.66
31/64	.4844	4-3/8	5-7/8	1460-331	30.15
1/2	.5000	4-1/2	6	1460-332	30.15

Note: Sizes under 1/16, and #52 are not Split Point

Wire Gage Sizes

COBALT USA					
Wire Gage Sizes	Decm'l Equiv.	Flute Length	Overall Length	Order No.	Price Each
1	.2280	2-5/8	3-7/8	1111-001	\$5.32
2	.2210	2-5/8	3-7/8	1111-002	5.32
3	.2130	2-1/2	3-3/4	1111-003	5.02
4	.2090	2-1/2	3-3/4	1111-004	5.02
5	.2055	2-1/2	3-3/4	1111-005	5.02
6	.2040	2-1/2	3-3/4	1111-006	5.02
7	.2010	2-7/16	3-5/8	1111-007	4.28
8	.1990	2-7/16	3-5/8	1111-008	4.28
9	.1960	2-7/16	3-5/8	1111-009	4.28
10	.1935	2-7/16	3-5/8	1111-010	4.28
11	.1910	2-5/16	3-1/2	1111-011	4.28
12	.1890	2-5/16	3-1/2	1111-012	4.17
13	.1850	2-5/16	3-1/2	1111-013	3.85
14	.1820	2-3/16	3-3/8	1111-014	3.85
15	.1800	2-3/16	3-3/8	1111-015	3.85
16	.1770	2-3/16	3-3/8	1111-016	3.76
17	.1730	2-3/16	3-3/8	1111-017	3.76
18	.1695	2-1/8	3-1/4	1111-018	3.50
19	.1660	2-1/8	3-1/4	1111-019	3.38
20	.1610	2-1/8	3-1/4	1111-020	3.38
21	.1590	2-1/8	3-1/4	1111-021	3.38
22	.1570	2	3-1/8	1111-022	3.38
23	.1540	2	3-1/8	1111-023	3.38
24	.1520	2	3-1/8	1111-024	3.38
25	.1495	1-7/8	3	1111-025	3.00
26	.1470	1-7/8	3	1111-026	3.00
27	.1440	1-7/8	3	1111-027	3.00
28	.1405	1-3/4	2-7/8	1111-028	3.00
29	.1360	1-3/4	2-7/8	1111-029	3.00
30	.1285	1-5/8	2-3/4	1111-030	2.55
31	.1200	1-5/8	2-3/4	1111-031	2.55
32	.1160	1-5/8	2-3/4	1111-032	2.55
33	.1130	1-1/2	2-5/8	1111-033	2.35
34	.1110	1-1/2	2-5/8	1111-034	2.35
35	.1100	1-1/2	2-5/8	1111-035	2.35
36	.1065	1-7/16	2-1/2	1111-036	2.35
37	.1040	1-7/16	2-1/2	1111-037	2.35
38	.1015	1-7/16	2-1/2	1111-038	2.20
39	.0995	1-3/8	2-3/8	1111-039	2.20
40	.0980	1-3/8	2-3/8	1111-040	2.20
41	.0960	1-3/8	2-3/8	1111-041	2.20
42	.0935	1-1/4	2-1/4	1111-042	2.20
43	.0890	1-1/4	2-1/4	1111-043	2.20
44	.0860	1-1/8	2-1/8	1111-044	2.20
45	.0820	1-1/8	2-1/8	1111-045	2.20
46	.0810	1-1/8	2-1/8	1111-046	2.20
47	.0785	1	2	1111-047	2.20
48	.0760	1	2	1111-048	2.20
49	.0730	1	2	1111-049	2.20
50	.0700	1	2	1111-050	2.20
51	.0670	1	2	1111-051	2.20
52	.0635	7/8	1-7/8	1111-052	2.20
53	.0595	7/8	1-7/8	1111-053	2.20
54	.0550	7/8	1-7/8	1111-054	2.20
55	.0520	7/8	1-7/8	1111-055	2.20
56	.0465	3/4	1-3/4	1111-056	2.32
57	.0430	3/4	1-3/4	1111-057	2.32
58	.0420	11/16	1-5/8	1111-058	2.32
59	.0410	11/16	1-5/8	1111-059	2.32
60	.0400	11/16	1-5/8	1111-060	2.32

PACKAGE QUANTITIES: Wire Gage Sizes

1-100: 12 pcs.

Letter Sizes

COBALT USA					
Letter Sizes	Decm'l Equiv.	Flute Length	Overall Length	Order No.	Price Each
A	.2340	2-5/8	3-7/8	1121-001	\$5.64
B	.2380	2-3/4	4	1121-002	6.00
C	.2420	2-3/4	4	1121-003	6.00
D	.2460	2-3/4	4	1121-004	6.31
E	.2500	2-3/4	4	1121-005	5.02
F	.2570	2-7/8	4-1/8	1121-006	6.19
G	.2610	2-7/8	4-1/8	1121-007	6.60
H	.2660	2-7/8	4-1/8	1121-008	6.84
I	.2720	2-7/8	4-1/8	1121-009	6.96
J	.2770	2-7/8	4-1/8	1121-010	7.49
K	.2810	2-15/16	4-1/4	1121-011	7.61
L	.2900	2-15/16	4-1/4	1121-012	8.38
M	.2950	3-1/16	4-3/8	1121-013	9.09
N	.3020	3-1/16	4-3/8	1121-014	9.25
O	.3160	3-3/16	4-1/2	1121-015	10.03
P	.3230	3-5/16	4-5/8	1121-016	10.57
Q	.3320	3-7/16	4-3/4	1121-017	10.58
R	.3390	3-7/16	4-3/4	1121-018	10.58
S	.3480	3-1/2	4-7/8	1121-019	12.78
T	.3580	3-1/2	4-7/8	1121-020	13.02
U	.3680	3-5/8	5	1121-021	13.40
V	.3770	3-5/8	5	1121-022	13.98
W	.3860	3-3/4	5-1/8	1121-023	13.98
X	.3970	3-3/4	5-1/8	1121-024	15.02
Y	.4040	3-7/8	5-1/4	1121-025	15.43
Z	.4130	3-7/8	5-1/4	1121-026	16.19

PACKAGE QUANTITIES: Letter Sizes

A-N: 12pcs. O-Z: 6 pcs.

Jobbers Length Drills– Cobalt

M35 Cobalt – 135° Split Point



WARNING: This product contains Cobalt and/or Nickel and/or Lead a chemical known to the state of California to cause cancer or birth defects or other reproductive harm. For more information: www.pro65.ca.gov.
WARNING: Cutting tools may shatter. Always wear approved safety glasses and mask when regrinding.



Fractional Sizes

FRAC. SIZES	DEC. EQV.	FLUTE LG'TH	OAL	ORDER NO.	PRICE EACH
1/64	0.0156	3/16	3/4	1100-001	\$1.44
1/32	0.0312	1/2	1-3/8	1100-002	1.15
3/64	0.0469	3/4	1-3/4	1100-003	1.34
1/16	0.0625	7/8	1-7/8	1100-004	1.30
5/64	0.0781	1	2	1100-005	1.28
3/32	0.0937	1-1/4	2-1/4	1100-006	1.28
7/64	0.1094	1-1/2	2-5/8	1100-007	1.34
1/8	0.1250	1-5/8	2-3/4	1100-008	1.56
9/64	0.1406	1-3/4	2-7/8	1100-009	1.60
5/32	0.1562	2	3-1/8	1100-010	1.83
11/64	0.1719	2-1/8	3-1/4	1100-011	1.95
3/16	0.1875	2-5/16	3-1/2	1100-012	2.21
13/64	0.2031	2-7/16	3-5/8	1100-013	2.53
7/32	0.2187	2-1/2	3-3/4	1100-014	2.76
15/64	0.2344	2-5/8	3-7/8	1100-015	2.95
1/4	0.2500	2-3/4	4	1100-016	3.07
17/64	0.2656	2-7/8	4-1/8	1100-017	3.68
9/32	0.2812	2-15/16	4-1/4	1100-018	3.84
19/64	0.2969	3-1/16	4-3/8	1100-019	4.56
5/16	0.3125	3-3/16	4-1/2	1100-020	4.91
21/64	0.3281	3-5/16	4-5/8	1100-021	5.45
11/32	0.3437	3-7/16	4-3/4	1100-022	5.86
23/64	0.3594	3-1/2	4-7/8	1100-023	7.67
3/8	0.3750	3-5/8	5	1100-024	7.53
25/64	0.3906	3-3/4	5-1/8	1100-025	8.42
13/32	0.4062	3-7/8	5-1/4	1100-026	8.87
27/64	0.4219	3-15/16	5-3/8	1100-027	9.74
7/16	0.4375	4-1/16	5-1/2	1100-028	9.98
29/64	0.4531	4-3/16	5-5/8	1100-029	12.97
15/32	0.4687	4-5/16	5-3/4	1100-030	13.12
31/64	0.4844	4-3/8	5-7/8	1100-031	14.29
1/2	0.5000	4-1/2	6	1100-032	14.64

PACKAGE QUANTITIES: Fractional Sizes

1/64–19/64: 12 pcs. 5/16–1/2: 6 pcs.

33/64–11/16: 1 pcs.

Note: Sizes under 1/16, and #52 are not Split Point

Wire Gage Sizes

WIRE GAGE SIZES	DECIM'L EQUIV.	FLUTE LENGTH	OVERALL LENGTH	ORDER NO.	PRICE EACH
1	.2280	2-5/8	3-7/8	1110-001	\$3.19
2	.2210	2-5/8	3-7/8	1110-002	3.19
3	.2130	2-1/2	3-3/4	1110-003	3.00
4	.2090	2-1/2	3-3/4	1110-004	3.00
5	.2055	2-1/2	3-3/4	1110-005	3.00
6	.2040	2-1/2	3-3/4	1110-006	3.00
7	.2010	2-7/16	3-5/8	1110-007	2.56
8	.1990	2-7/16	3-5/8	1110-008	2.56
9	.1960	2-7/16	3-5/8	1110-009	2.56
10	.1935	2-7/16	3-5/8	1110-010	2.56
11	.1910	2-5/16	3-1/2	1110-011	2.56
12	.1890	2-5/16	3-1/2	1110-012	2.49
13	.1850	2-5/16	3-1/2	1110-013	2.30
14	.1820	2-3/16	3-3/8	1110-014	2.30
15	.1800	2-3/16	3-3/8	1110-015	2.30
16	.1770	2-3/16	3-3/8	1110-016	2.24
17	.1730	2-3/16	3-3/8	1110-017	2.24
18	.1695	2-1/8	3-1/4	1110-018	2.09
19	.1660	2-1/8	3-1/4	1110-019	2.03
20	.1610	2-1/8	3-1/4	1110-020	2.03
21	.1590	2-1/8	3-1/4	1110-021	2.03
22	.1570	2	3-1/8	1110-022	2.03
23	.1540	2	3-1/8	1110-023	2.03
24	.1520	2	3-1/8	1110-024	2.03
25	.1495	1-7/8	3	1110-025	1.80
26	.1470	1-7/8	3	1110-026	1.80
27	.1440	1-7/8	3	1110-027	1.80
28	.1405	1-3/4	2-7/8	1110-028	1.80
29	.1360	1-3/4	2-7/8	1110-029	1.80
30	.1285	1-5/8	2-3/4	1110-030	1.52
31	.1200	1-5/8	2-3/4	1110-031	1.52
32	.1160	1-5/8	2-3/4	1110-032	1.52
33	.1130	1-1/2	2-5/8	1110-033	1.41
34	.1110	1-1/2	2-5/8	1110-034	1.41
35	.1100	1-1/2	2-5/8	1110-035	1.41
36	.1065	1-7/16	2-1/2	1110-036	1.41
37	.1040	1-7/16	2-1/2	1110-037	1.41
38	.1015	1-7/16	2-1/2	1110-038	1.32
39	.0995	1-3/8	2-3/8	1110-039	1.32
40	.0980	1-3/8	2-3/8	1110-040	1.32
41	.0960	1-3/8	2-3/8	1110-041	1.32
42	.0935	1-1/4	2-1/4	1110-042	1.32
43	.0890	1-1/4	2-1/4	1110-043	1.32
44	.0860	1-1/8	2-1/8	1110-044	1.32
45	.0820	1-1/8	2-1/8	1110-045	1.32
46	.0810	1-1/8	2-1/8	1110-046	1.32
47	.0785	1	2	1110-047	1.32
48	.0760	1	2	1110-048	1.88
49	.0730	1	2	1110-049	1.32
50	.0700	1	2	1110-050	1.32
51	.0670	1	2	1110-051	1.32
52	.0635	7/8	1-7/8	1110-052	1.32
53	.0595	7/8	1-7/8	1110-053	1.32
54	.0550	7/8	1-7/8	1110-054	1.32
55	.0520	7/8	1-7/8	1110-055	1.32
56	.0465	3/4	1-3/4	1110-056	1.38
57	.0430	3/4	1-3/4	1110-057	1.38
58	.0420	11/16	1-5/8	1110-058	1.38
59	.0410	11/16	1-5/8	1110-059	1.38
60	.0400	11/16	1-5/8	1110-060	1.33

PACKAGE QUANTITIES: Wire Gage Sizes

1-100: 12 pcs.

Wire Gage Sizes (Continued)

WIRE GAGE SIZES	DECIM'L EQUIV.	FLUTE LENGTH	OVERALL LENGTH	ORDER NO.	PRICE EACH
61	.0390	11/16	1-5/8	1110-061	\$1.28
62	.0380	5/8	1-1/2	1110-062	1.28
63	.0370	5/8	1-1/2	1110-063	1.28
64	.0360	5/8	1-1/2	1110-064	1.28
65	.0350	5/8	1-1/2	1110-065	1.28
66	.0330	1/2	1-3/8	1110-066	1.36
67	.0320	1/2	1-3/8	1110-067	1.36
68	.0310	1/2	1-3/8	1110-068	1.36
69	.0292	1/2	1-3/8	1110-069	1.54
70	.0280	3/8	1-1/4	1110-070	1.54
71	.0260	3/8	1-1/4	1110-071	1.54
72	.0250	5/16	1-1/8	1110-072	1.54
73	.0240	5/16	1-1/8	1110-073	1.54
74	.0225	1/4	1	1110-074	1.54
75	.0210	1/4	1	1110-075	1.70
76	.0200	3/16	7/8	1110-076	1.70
77	.0180	3/16	7/8	1110-077	1.70
78	.0160	3/16	7/8	1110-078	1.70
79	.0145	1/8	3/4	1110-079	1.70
80	.0135	1/8	3/4	1110-080	1.70

PACKAGE QUANTITIES: Wire Gage Sizes

1-100: 12 pcs.

† Limited Quantities

Letter Sizes

LETTER SIZES	DECIM'L EQUIV.	FLUTE LENGTH	OVERALL LENGTH	ORDER NO.	PRICE EACH
A	.2340	2-5/8	3-7/8	1120-001	\$3.61
B	.2380	2-3/4	4	1120-002	3.75
C	.2420	2-3/4	4	1120-003	4.03
D	.2460	2-3/4	4	1120-004	4.22
E	.2500	2-3/4	4	1120-005	3.10
F	.2570	2-7/8	4-1/8	1120-006	3.72
G	.2610	2-7/8	4-1/8	1120-007	3.75
H	.2660	2-7/8	4-1/8	1120-008	4.52
I	.2720	2-7/8	4-1/8	1120-009	3.95
J	.2770	2-7/8	4-1/8	1120-010	4.22
K	.2810	2-15/16	4-1/4	1120-011	4.22
L	.2900	2-15/16	4-1/4	1120-012	4.79
M	.2950	3-1/16	4-3/8	1120-013	5.10
N	.3020	3-1/16	4-3/8	1120-014	5.10
O	.3160	3-3/16	4-1/2	1120-015	6.03
P	.3230	3-5/16	4-5/8	1120-016	5.97
Q	.3320	3-7/16	4-3/4	1120-017	6.18
R	.3390	3-7/16	4-3/4	1120-018	6.18
S	.3480	3-1/2	4-7/8	1120-019	7.58
T	.3580	3-1/2	4-7/8	1120-020	7.58
U	.3680	3-5/8	5	1120-021	7.58
V	.3770	3-5/8	5	1120-022	8.98
W	.3860	3-3/4	5-1/8	1120-023	8.37
X	.3970	3-3/4	5-1/8	1120-024	8.37
Y	.4040	3-7/8	5-1/4	1120-025	8.86
Z	.4130	3-7/8	5-1/4	1120-026	10.35

PACKAGE QUANTITIES: Letter Sizes

A-N: 12pcs. O-Z: 6 pcs.

Jobbers Length Drills – Heavy Duty

High Speed Steel



Heavy Duty 135° Split Point



Titanium Nitride Coated Heavy Duty 135° Split Point



Premium Heavy Duty 135° Split Point Black & Gold

8

WARNING: This product contains Cobalt and/or Nickel and/or Lead a chemical known to the state of California to cause cancer or birth defects or other reproductive harm. For more information: www.pro65.ca.gov. **WARNING:** Cutting tools may shatter. Always wear approved safety glasses and mask when regrinding.

Fractional Sizes

SIZE	DEC. EQUIV.	FLUTE LGTH.	OVER. LGTH.	Pittsburg®		ALLEGIANCE AMERICAN MADE		ALLEGIANCE AMERICAN MADE		ALLEGIANCE AMERICAN MADE	
				HEAVY DUTY ORDER NO.	PRICE EACH	HEAVY DUTY ORDER NO.	PRICE EACH	TIN COATED HD ORDER NO.	PRICE EACH	HD BLACK & GOLD ORDER NO.	PRICE EACH
3/64	0.0469	—	—	—	—	1002-003	\$1.57	—	—	9500-003	\$1.31
1/16	0.0625	7/8	1-7/8	1002-104	\$0.83	1002-004	1.39	6326-204	\$3.07	9500-004	1.32
5/64	0.0781	1	2	1002-105	1.66	1002-005	1.40	6326-205	3.07	9500-005	1.32
3/32	0.0937	1-1/4	2-1/4	1002-106	1.66	1002-006	1.50	6326-206	3.07	9500-006	1.32
7/64	0.1094	1-1/2	2-5/8	1002-107	1.72	1002-007	1.55	6326-207	3.28	9500-007	1.48
1/8	0.1250	1-5/8	2-3/4	1002-108	1.74	1002-008	1.57	6326-208	3.34	9500-008	1.48
9/64	0.1406	1-3/4	2-7/8	1002-109	1.84	1002-009	1.74	6326-209	3.82	9500-009	1.61
5/32	0.1562	2	3-1/8	1002-110	1.88	1002-010	1.86	6326-210	4.27	9500-010	1.63
11/64	0.1719	2-1/8	3-1/4	1002-111	1.94	1002-011	1.97	6326-211	4.43	9500-011	1.74
3/16	0.1875	2-5/16	3-1/2	1002-112	2.28	1002-012	2.26	6326-212	4.70	9500-012	1.93
13/64	0.2021	2-7/16	3-5/8	1002-113	2.58	1002-013	2.36	6326-213	5.72	9500-013	2.14
7/32	0.2187	2-1/2	3-3/4	1002-114	2.82	1002-014	2.50	6326-214	6.12	9500-014	2.42
15/64	0.2344	2-5/8	3-7/8	1002-115	3.02	1002-015	2.81	6326-215	6.53	9500-015	2.62
1/4	0.2500	2-3/4	4	1002-116	3.06	1002-016	2.93	6326-216	6.65	9500-016	2.72
17/64	0.2656	2-7/8	4-1/8	1002-117	3.90	1002-017	3.48	6326-217	9.66	9500-017	3.43
9/32	0.2812	2-15/16	4-1/4	1002-118	4.24	1002-018	3.68	6326-218	9.58	9500-018	3.78
19/64	0.2969	3-1/16	4-3/8	1002-119	4.68	1002-019	4.27	6326-219	10.67	9500-019	4.09
5/16	0.3125	3-3/16	4-1/2	1002-120	4.92	1002-020	4.63	6326-220	10.98	9500-020	4.31
21/64	0.3281	3-5/16	4-5/8	1002-121	5.42	1002-021	5.15	6326-221	11.88	9500-021	5.90
11/32	0.3437	3-7/16	4-3/4	1002-122	6.08	1002-022	5.53	6326-222	12.50	9500-022	5.23
23/64	0.3594	3-1/2	4-7/8	1002-123	6.70	1002-023	6.42	6326-223	13.63	9500-023	6.10
3/8	0.3750	3-5/8	5	1002-124	7.08	1002-024	6.73	6326-224	13.49	9500-024	6.05
25/64	0.3906	3-3/4	5-1/8	1002-125	7.92	1002-025	7.52	6326-225	17.75	9500-025	7.24
13/32	0.4062	3-7/8	5-1/4	1002-126	8.26	1002-026	7.68	6326-226	17.89	9500-026	7.26
27/64	0.4219	3-15/16	5-3/8	1002-127	9.18	1002-027	8.80	6326-227	19.27	9500-027	8.45
7/16	0.4375	4-1/16	5-1/2	1002-128	9.52	1002-028	9.00	6326-228	19.36	9500-028	8.14
29/64	0.4531	4-3/16	5-5/8	1002-129	10.66	1002-029	10.28	6326-229	21.12	9500-029	9.32
15/32	0.4687	4-5/16	5-3/4	1002-130	11.28	1002-030	10.78	6326-230	21.54	9500-030	9.88
31/64	0.4844	4-3/8	5-7/8	1002-131	11.94	1002-031	11.30	6326-231	22.61	9500-031	10.46
1/2	0.5000	4-1/2	6	1002-132	12.08	1002-032	11.69	6326-232	22.32	9500-032	10.46

PACKAGE QUANTITIES: Fractional Sizes

1/64–19/64: 12 pcs. 5/16–1/2: 6 pcs. 3/8–11/16: 1 pcs.

3/8" Shank

SIZE	DEC. EQUIV.	FLUTE LGTH.	OVERALL LGTH.	HEAVY DUTY ORDER NO.	PRICE EACH	HEAVY DUTY ORDER NO.	PRICE EACH	TIN COATED HD ORDER NO.	PRICE EACH	HD BLACK & GOLD ORDER NO.	PRICE EACH
25/64	0.3906	3-3/4	5-1/8	—	—	—	—	6326-255	\$19.81	9500-255	\$6.03
13/32	0.4062	3-7/8	5-1/4	—	—	—	—	6326-256	13.25	9500-256	6.05
27/64	0.4219	3-15/16	5-3/8	—	—	—	—	6326-257	13.66	9500-257	7.04
7/16	0.4375	4-1/16	5-1/2	—	—	—	—	6326-258	19.84	9500-258	6.78
29/64	0.4531	4-3/16	5-5/8	—	—	—	—	6326-259	15.67	9500-259	7.77
15/32	0.4687	4-5/16	5-3/4	—	—	—	—	6326-260	16.36	9500-260	8.23
31/64	0.4844	4-3/8	5-7/8	—	—	—	—	6326-261	16.82	9500-261	8.72
1/2	0.5000	4-1/2	6	—	—	—	—	6326-262	17.25	9500-262	8.72

Letter Sizes

ALLEGIANCE AMERICAN MADE HEAVY DUTY					
SIZE	DEC. EQUIV.	FLT. LGTH.	OVERALL LGTH.	ORDER NO.	PRICE EACH
A	.2340	2-5/8	3-7/8	1022-001	\$3.48
B	.2380	2-3/4	4	1022-002	3.48
C	.2420	2-3/4	4	1022-003	3.48
D	.2460	2-3/4	4	1022-004	3.48
E	.2500	2-3/4	4	1022-005	2.93
F	.2570	2-7/8	4-1/8	1022-006	3.56
G	.2610	2-7/8	4-1/8	1022-007	4.13
H	.2660	2-7/8	4-1/8	1022-008	4.36
I	.2720	2-7/8	4-1/8	1022-009	4.36
J	.2770	2-7/8	4-1/8	1022-010	4.60
K	.2810	2-15/16	4-1/4	1022-011	4.91
L	.2900	2-15/16	4-1/4	1022-012	5.06
M	.2950	3-1/16	4-3/8	1022-013	5.06

ALLEGIANCE AMERICAN MADE HEAVY DUTY					
SIZE	DEC. EQUIV.	FLT. LGTH.	OVERALL LGTH.	ORDER NO.	PRICE EACH
N	.3020	3-1/16	4-3/8	1022-014	\$5.06
O	.3160	3-3/16	4-1/2	1022-015	5.06
P	.3230	3-5/16	4-5/8	1022-016	5.86
Q	.3320	3-7/16	4-3/4	1022-017	6.02
R	.3390	3-7/16	4-3/4	1022-018	6.44
S	.3480	3-1/2	4-7/8	1022-019	7.09
T	.3580	3-1/2	4-7/8	1022-020	7.52
U	.3680	3-5/8	5	1022-021	7.52
V	.3770	3-5/8	5	1022-022	7.73
W	.3860	3-3/4	5-1/8	1022-023	8.14
X	.3970	3-3/4	5-1/8	1022-024	9.64
Y	.4040	3-7/8	5-1/4	1022-025	11.78
Z	.4130	3-7/8	5-1/4	1022-026	11.78

Wire Gage Sizes

							
WIRE GAGE SIZES	DEC. EQUIV.	FLUTE LGTH.	OVER. LGTH.	HEAVY DUTY		BLACK & GOLD	
				ORDER NO.	PRICE EACH	ORDER NO.	PRICE EACH
1	.2280	2-5/8	3-7/8	1012-001	\$2.93	9500-101	\$2.73
2	.2210	2-5/8	3-7/8	1012-002	2.93	9500-102	2.73
3	.2130	2-1/2	3-1/4	1012-003	2.77	9500-103	2.48
4	.2090	2-1/2	3-1/4	1012-004	2.77	9500-104	2.48
5	.2055	2-1/2	3-1/4	1012-005	2.77	9500-105	2.48
6	.2040	2-1/2	3-1/4	1012-006	2.77	9500-106	2.48
7	.2010	2-7/16	3-5/8	1012-007	2.38	9500-107	2.28
8	.1990	2-7/16	3-5/8	1012-008	2.46	9500-108	2.13
9	.1960	2-7/16	3-5/8	1012-009	2.46	9500-109	2.13
10	.1935	2-7/16	3-5/8	1012-010	2.46	9500-110	2.13
11	.1910	2-5/16	3-1/2	1012-011	2.32	9500-111	2.05
12	.1890	2-5/16	3-1/2	1012-012	2.32	9500-112	2.05
13	.1850	2-5/16	3-1/2	1012-013	2.26	9500-113	1.94
14	.1820	2-3/16	3-3/8	1012-014	2.26	9500-114	1.94
15	.1800	2-3/16	3-3/8	1012-015	2.26	9500-115	1.94
16	.1770	2-3/16	3-3/8	1012-016	2.26	9500-116	1.94
17	.1730	2-3/16	3-3/8	1012-017	2.26	9500-117	1.94
18	.1695	2-1/8	3-1/4	1012-018	1.86	9500-118	1.61
19	.1660	2-1/8	3-1/4	1012-019	1.86	9500-119	1.61
20	.1610	2-1/8	3-1/4	1012-020	1.81	9500-120	1.61
21	.1590	2-1/8	3-1/4	1012-021	1.81	9500-121	1.61
22	.1570	2	3-1/8	1012-022	1.81	9500-122	1.61
23	.1540	2	3-1/8	1012-023	1.81	9500-123	1.61
24	.1520	2	3-1/8	1012-024	1.81	9500-124	1.61
25	.1495	1-7/8	3	1012-025	1.81	9500-125	1.61
26	.1470	1-7/8	3	1012-026	1.81	9500-126	1.61
27	.1440	1-7/8	3	1012-027	1.69	9500-127	1.61
28	.1405	1-3/4	2-7/8	1012-028	1.60	9500-128	1.44
29	.1360	1-3/4	2-7/8	1012-029	1.60	9500-129	1.44
30	.1285	1-5/8	2-3/4	1012-030	1.49	9500-130	1.33
31	.1200	1-5/8	2-3/4	1012-031	1.60	9500-131	1.44
32	.1160	1-5/8	2-3/4	1012-032	1.60	9500-132	1.44
33	.1130	1-1/2	2-5/8	1012-033	1.60	9500-133	1.44
34	.1110	1-1/2	2-5/8	1012-034	1.60	9500-134	1.44
35	.1100	1-1/2	2-5/8	1012-035	1.60	9500-135	1.44
36	.1065	1-7/16	2-1/2	1012-036	1.60	9500-136	1.44
37	.1040	1-7/16	2-1/2	1012-037	1.60	9500-137	1.44
38	.1015	1-7/16	2-1/2	1012-038	1.60	9500-138	1.44
39	.0995	1-3/8	2-3/8	1012-039	1.60	9500-139	1.44
40	.0980	1-3/8	2-3/8	1012-040	1.55	9500-140	1.44
41	.0960	1-3/8	2-3/8	1012-041	1.60	9500-141	1.44
42	.0935	1-1/4	2-1/4	1012-042	1.60	9500-142	1.44
43	.0890	1-1/4	2-1/4	1012-043	1.60	9500-143	1.44
44	.0860	1-1/8	2-1/8	1012-044	1.60	9500-144	1.44
45	.0820	1-1/8	2-1/8	1012-045	1.60	9500-145	1.44
46	.0810	1-1/8	2-1/8	1012-046	1.60	9500-146	1.44
47	.0785	1	2	1012-047	1.60	9500-147	1.44
48	.0760	1	2	1012-048	1.60	9500-148	1.44
49	.0730	1	2	1012-049	1.60	9500-149	1.44
50	.0700	1	2	1012-050	1.60	9500-150	1.44
51	.0670	1	2	1012-051	1.60	9500-151	1.44
52	.0635	7/8	1-7/8	1012-052	1.60	9500-152	1.44
53	.0595	7/8	1-7/8	1012-053	1.60	9500-153	1.44
54	.0550	7/8	1-7/8	1012-054	1.60	9500-154	1.44
55	.0520	7/8	1-7/8	1012-055	1.60	9500-155	1.44
56	.0465	3/4	1-3/4	1012-056	1.60	9500-156	1.44
57	.0430	3/4	1-3/4	1012-057	1.60	9500-157	1.44
58	.0420	11/16	1-5/8	1012-058	1.60	9500-158	1.44
59	.0410	11/16	1-5/8	1012-059	1.60	9500-159	1.44
60	.0400	11/16	1-5/8	1012-060	1.60	9500-160	1.44

Left Hand Jobber Drills

8

WARNING: This product contains Cobalt and/or Nickel and/or Lead a chemical known to the state of California to cause cancer or birth defects or other reproductive harm. For more information: www.prope5.ca.gov. **WARNING:** Cutting tools may shatter. Always wear approved safety glasses and mask when regrinding.

High Speed Steel – Fractional, Wire Gage, and Letter Sizes



Fractional Sizes

Pittsburg® ALEGIANCE AMERICAN MADE					USA ORDER NO..	
DIA.	FLUTE LENGTH	OVERALL LENGTH	IMPORT ORDER NO..	PRICE EACH	USA ORDER NO..	PRICE EACH
1/64	3/16	3/4	—	—	1131-001	\$ 8.70
1/32	1/2	1-3/8	1130-002	\$ 2.62	1131-002	6.54
3/64	3/4	1-3/4	1130-003	1.50	1131-003	4.10
1/16	7/8	1-7/8	1130-004	1.50	1131-004	4.10
5/64	1	2	1130-005	1.50	1131-005	4.34
3/32	1-1/4	2-1/4	1130-006	0.60	1131-006	4.34
7/64	1-1/2	2-5/8	1130-007	1.73	1131-007	4.34
1/8	1-5/8	2-3/4	1130-008	2.25	1131-008	4.34
9/64	1-3/4	2-7/8	1130-009	2.25	1131-009	4.36
5/32	2	3-1/8	1130-010	2.40	1131-010	4.67
11/64	2-1/8	3-1/4	1130-011	2.63	1131-011	5.06
3/16	2-5/16	3-1/2	1130-012	3.45	1131-012	5.15
13/64	2-7/16	3-5/8	1130-013	3.98	1131-013	5.62
7/32	2-1/2	3-3/4	1130-014	4.43	1131-014	5.94
15/64	2-5/8	3-7/8	1130-015	5.10	1131-015	7.78
1/4	2-3/4	4	1130-016	5.78	1131-016	7.49
17/64	2-7/8	4-1/8	1130-017	6.68	1131-017	8.32
9/32	2-15/16	4-1/4	1130-018	6.68	1131-018	8.56
19/64	3-1/16	4-3/8	1130-019	7.43	1131-019	9.50
5/16	3-3/16	4-1/2	1130-020	8.70	1131-020	10.30
21/64	3-5/16	4-5/8	1130-021	9.00	1131-021	11.09
11/32	3-7/16	4-3/4	1130-022	11.33	1131-022	11.77
23/64	3-1/2	4-7/8	1130-023	12.38	1131-023	14.22
3/8	3-5/8	5	1130-024	12.38	1131-024	14.40
25/64	3-3/4	5-1/8	1130-025	14.40	1131-025	16.36
13/32	3-7/8	5-1/4	1130-026	15.60	1131-026	17.66
27/64	3-15/16	5-3/8	1130-027	17.93	1131-027	19.16
7/16	4-1/16	5-1/2	1130-028	17.93	1131-028	19.32
29/64	4-3/16	5-5/8	1130-029	18.75	1131-029	22.85
15/32	4-5/16	5-3/4	1130-030	22.05	1131-030	23.42
31/64	4-3/8	5-7/8	1130-031	24.08	1131-031	25.66
1/2	4-1/2	6	1130-032	25.50	1131-032	26.12

Wire Gage Sizes

Pittsburg® ALEGIANCE AMERICAN MADE					USA ORDER NO..	
SIZES	FLUTE LENGTH	OVERALL LENGTH	IMPORT ORDER NO..	PRICE EACH	USA ORDER NO..	PRICE EACH
1	2-5/8	3-7/8	1140-001	\$5.10	1141-001	\$8.70
2	2-5/8	3-7/8	1140-002	5.10	1141-002	8.70
3	2-1/2	3-3/4	1140-003	5.10	1141-003	7.84
4	2-1/2	3-3/4	1140-004	5.10	1141-004	7.84
5	2-1/2	3-3/4	1140-005	5.10	1141-005	7.84
6	2-1/2	3-3/4	1140-006	5.10	1141-006	7.84
7	2-7/16	3-5/8	1140-007	3.98	1141-007	7.28
8	2-7/16	3-5/8	1140-008	3.98	1141-008	7.28
9	2-7/16	3-5/8	1140-009	3.98	1141-009	7.28
10	2-7/16	3-5/8	1140-010	3.98	1141-010	7.28
11	2-5/16	3-1/2	1140-011	3.98	1141-011	7.28
12	2-5/16	3-1/2	1140-012	3.98	1141-012	7.28
13	2-5/16	3-1/2	1140-013	3.98	1141-013	7.04
14	2-3/16	3-3/8	1140-014	3.98	1141-014	7.04
15	2-3/16	3-3/8	1140-015	3.98	1141-015	7.04
16	2-3/16	3-3/8	1140-016	3.98	1141-016	7.04
17	2-3/16	3-3/8	1140-017	3.98	1141-017	7.04
18	2-1/8	3-1/4	1140-018	3.98	1141-018	6.65
19	2-1/8	3-1/4	1140-019	2.63	1141-019	6.65
20	2-1/8	3-1/4	1140-020	2.63	1141-020	5.98
21	2-1/8	3-1/4	1140-021	2.63	1141-021	5.98
22	2	3-1/8	1140-022	2.63	1141-022	5.98
23	2	3-1/8	1140-023	2.63	1141-023	5.98
24	2	3-1/8	1140-024	2.63	1141-024	5.98
25	1-7/8	3	1140-025	2.40	1141-025	5.15
26	1-7/8	3	1140-026	2.40	1141-026	5.15
27	1-7/8	3	1140-027	2.40	1141-027	5.15
28	1-3/4	2-7/8	1140-028	2.40	1141-028	5.15
29	1-3/4	2-7/8	1140-029	2.25	1141-029	5.15
30	1-3/4	2-7/8	1140-030	2.25	1141-030	5.15
31	1-5/8	2-3/4	1140-031	2.25	1141-031	5.15
32	1-5/8	2-3/4	1140-032	2.25	1141-032	5.15
33	1-1/2	2-5/8	1140-033	2.25	1141-033	5.15
34	1-1/2	2-5/8	1140-034	2.25	1141-034	5.15
35	1-1/2	2-5/8	1140-035	2.25	1141-035	5.15
36	1-7/16	2-1/2	1140-036	1.73	1141-036	4.91
37	1-7/16	2-1/2	1140-037	1.73	1141-037	4.91
38	1-7/16	2-1/2	1140-038	1.73	1141-038	4.91
39	1-3/8	2-3/8	1140-039	1.73	1141-039	4.91
40	1-3/8	2-3/8	1140-040	1.73	1141-040	4.91
41	1-3/8	2-3/8	1140-041	1.73	1141-041	4.91
42	1-1/4	2-1/4	1140-042	1.73	1141-042	4.91
43	1-1/4	2-1/4	1140-043	1.50	1141-043	4.91
44	1-1/8	2-1/8	1140-044	1.50	1141-044	4.91
45	1-1/8	2-1/8	1140-045	1.50	1141-045	4.91
46	1-1/8	2-1/8	1140-046	1.50	1141-046	4.91
47	1	2	1140-047	1.50	1141-047	4.91
48	1	2	1140-048	1.50	1141-048	4.91
49	1	2	1140-049	1.50	1141-049	4.91
50	1	2	1140-050	1.50	1141-050	4.91
51	1	2	1140-051	1.50	1141-051	4.91
52	7/8	1-7/8	1140-052	1.50	1141-052	4.91
53	7/8	1-7/8	1140-053	1.50	1141-053	5.15
54	7/8	1-7/8	1140-054	1.50	1141-054	5.15
55	7/8	1-7/8	1140-055	1.50	1141-055	5.15
56	3/4	1-3/4	1140-056	1.50	1141-056	5.15
57	3/4	1-3/4	1140-057	1.50	1141-057	5.15
58	11/16	1-5/8	1140-058	1.50	1141-058	5.15
59	11/16	1-5/8	1140-059	1.50	1141-059	5.15
60	11/16	1-5/8	1140-060	1.50	1141-060	5.15
61	11/16	1-5/8	1140-061†	1.50	1141-061	5.99
62	5/8	1-1/2	1140-062†	3.00	1141-062	8.26
63	5/8	1-1/2	1140-063†	3.00	1141-063	8.26
64	5/8	1-1/2	1140-064†	1.50	1141-064	8.26
65	5/8	1-1/2	1140-065†	1.50	1141-065	8.26
66	1/2	1-3/8	1140-066†	1.50	1141-066	8.26
67	1/2	1-3/8	1140-067†	1.50	1141-067	8.26
68	1/2	1-3/8	1140-068†	1.50	1141-068	8.26
69	1/2	1-3/8	1140-069†	3.20	1141-069	9.33
70	3/8	1-1/4	1140-070†	1.50	1141-070	9.33
71	3/8	1-1/4	-	-	1141-071	9.33
72	5/16	1-1/8	-	-	1141-072	9.33
73	5/16	1-1/8	-	-	1141-073	9.33
74	1/4	1	-	-	1141-074	9.33
75	1/4	1	-	-	1141-075	9.33
76	3/16	7/8	-	-	1141-076	9.33
77	3/16	7/8	-	-	1141-077	9.33
78	3/16	7/8	-	-	1141-078	9.33
79	1/8	3/4	-	-	1141-079	10.69
80	1/8	3/4	-	-	1141-080	10.69

Letter Sizes

Pittsburg® ALEGIANCE AMERICAN MADE					USA ORDER NO..	
SIZES	FLUTE LENGTH	OVERALL LENGTH	IMPORT ORDER NO..	PRICE EACH	USA ORDER NO..	PRICE EACH
A	2-5/8	3-7/8	1150-001	\$4.20	1151-001	\$ 10.45
B	2-3/4	4	1150-002	3.88	1151-002	10.45
C	2-3/4	4	1150-003	3.88	1151-003	10.45
D	2-3/4	4	1150-004	3.88	1151-004	10.45
E	2-3/4	4	1150-005	3.60	1151-005	7.49
F	2-7/8	4-1/8	1150-006	9.64	1151-006	11.57
G	2-7/8	4-1/8	1150-007	4.24	1151-007	11.57
H	2-7/8	4-1/8	1150-008	9.64	1151-008	11.57
I	2-7/8	4-1/8	1150-009	4.24	1151-009	11.57
J	2-7/8	4-1/8	1150-010	4.56	1151-010	11.57
K	2-15/16	4-1/4	1150-011	4.74	1151-011	11.57
L	2-15/16	4-1/4	1150-012	4.74	1151-012	13.10
M	3-1/16	4-3/8	1150-013	4.80	1151-013	13.10
N	3-1/16	4-3/8	1150-014	4.80	1151-014	13.10
O	3-3/16	4-1/2	1150-015	4.80	1151-015	15.05
P	3-5/16	4-5/8	1150-016	5.38	1151-016	16.63
Q	3-7/16	4-3/4	1150-017	5.52	1151-017	16.63
R	3-7/16	4-3/4	1150-018	5.92	1151-018	16.63
S	3-1/2	4-7/8	1150-019	6.48	1151-019	20.20
T	3-1/2	4-7/8	1150-020	7.36	1151-020	20.20
U	3-5/8	5	1150-021	7.48	1151-021	20.20
V	3-5/8	5	1150-022	7.48	1151-022	22.09
W	3-3/4	5-1/8	1150-023	7.68	1151-023	22.09
X	3-3/4	5-1/8	1150-024	9.40	1151-024	22.09
Y	3-7/8	5-1/4	1150-025	10.56	1151-025	23.52
Z	3-7/8	5-1/4	1150-026	11.44	1151-026	25.98

Specialty Drills

Mechanics Length Drills

High Speed Steel - 3 Flats On Shank

- Drill sizes 3/16 to 1/2 have 3 equal flats on shank.
- Flats on shank give positive grip in chucks
- Self-centering 135° split point
- Reduced overall length provides rigidity
- Gold surface treated for max. lubricity

ALLEGIANCE AMERICAN MADE				
DIAM.	FLUTE LENGTH	OVERALL LENGTH	ORDER NO.	PRICE EACH
1/16*	7/8	1-7/8	1211-404	\$1.37
5/64*	1	2	1211-405	1.37
3/32*	1-1/4	2-1/4	1211-406	1.44
7/64*	1-5/16	2-3/8	1211-407	1.56
1/8*	1-7/16	2-1/2	1211-408	1.68
9/64*	1-9/16	2-5/8	1211-409	1.83
5/32*	1-11/16	2-3/4	1211-410	2.11
11/64*	1-13/16	2-7/8	1211-411	2.26
3/16	1-7/8	3	1211-412	2.61
13/64	1-15/16	3-1/8	1211-413	2.77
7/32	2	3-1/4	1211-414	3.00
15/64	2-1/16	3-3/8	1211-415	3.24
1/4	2	3-1/2	1211-416	3.32



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PACKAGE QUANTITIES: Fractional Sizes

1/64-19/64: 12 pcs. 5/16-1/2:
6 pcs. 33/64-11/16: 1 pcs.

ALLEGIANCE AMERICAN MADE				
DIAM.	FLUTE LENGTH	OVERALL LENGTH	ORDER NO.	PRICE EACH
17/64	2-1/8	3-5/8	1211-417	\$3.51
9/32	2-1/4	3-3/4	1211-418	4.33
19/64	2-3/8	3-7/8	1211-419	5.03
5/16	2-1/2	4	1211-420	5.07
21/64	2-9/16	4-1/16	1211-421	5.73
11/32	2-5/8	4-1/8	1211-422	6.24
23/64	2-11/16	4-3/16	1211-423	6.59
3/8	2-11/16	4-1/4	1211-424	6.90
25/64	2-3/4	4-5/16	1211-425	7.84
13/32	2-13/16	4-3/8	1211-426	8.50
27/64	2-7/8	4-7/16	1211-427	8.70
7/16	2-15/16	4-1/2	1211-428	9.56
29/64	3	4-5/8	1211-429	9.98

ALLEGIANCE AMERICAN MADE				
DIAM.	FLUTE LENGTH	OVERALL LENGTH	ORDER NO.	PRICE EACH
15/32	3-1/8	4-3/4	1211-430	\$11.90
31/64	3-1/4	4-7/8	1211-431	12.25
1/2	3-3/8	5	1211-432	12.44
3/8" SHANK				
27/64	2-7/8	4-7/16	1211-527	6.15
7/16	2-15/16	4-1/2	1211-528	6.70
29/64	3	4-5/8	1211-529	7.68
15/32	3-1/8	4-3/4	1211-530	9.15
31/34	3-1/4	4-7/8	1211-531	8.60
1/2	3-3/8	5	1211-532	8.75

Mechanics Length Drill Bits

Left Hand - Cobalt



- 8% Cobalt alloy for higher heat & abrasion resistance
- Shorter drill for additional strength
- Heavy-duty web construction for strength & durability

Applications: Tough metal drilling, made for drilling into hardened steel bolts for creating pilot holes for screw extractors.

Finish: Gold Oxide Tip Geometry: 135° Split Point

2

IRWIN				
SIZE	FLUTE LENGTH	OVERALL LENGTH	ORDER NO.	PRICE EACH
5/64	1	2	1211-605	\$ 4.19
7/64	1-5/16	2-3/8	1211-607	4.46
1/8	1-7/16	2-1/2	1211-608	5.44
5/32	1-11/16	2-3/4	1211-610	6.15
3/16	1-7/8	3	1211-612	6.96
7/32	2	3-1/4	1211-614	9.71
1/4	2	3-1/2	1211-616	11.26
9/32	2	3-9/16	1211-618	12.91
19/64	2-1/16	3-5/8	1211-619	13.36
5/16	2-1/8	3-3/4	1211-620	14.42
11/32	2-1/4	3-15/16	1211-622	14.79
3/8	2-3/8	4-1/8	1211-624	17.57
13/32	2-1/2	4-3/8	1211-626	20.36
7/16	2-5/8	4-9/16	1211-628	23.99
15/32	2-3/4	4-3/4	1211-630	21.51

TURBOMAX® Jobbers Length Drill Bits

HSS Fractional-Straight Shank



Finish:
Black Oxide/Gold Oxide

Tip Geometry: JET POINT®



- High speed steel features a black body and gold flute
- 3 flatted shank on 3/16" and above for better chuck grip
- Self-centering (won't "walk")
- Precision ground to stay sharp longer & drill faster
- For portable drills • For harder materials
- Requires less force than 118°

2

IRWIN				
DIA.	FLUTE LENGTH	OVERALL LENGTH	ORDER NO.	PRICE EACH
1/16	7/8	1-7/8	1073-104	\$ 1.25
5/64	1	2	1073-105	1.25
3/32	1-1/8	2-1/4	1073-106	1.30
7/64	1-1/2	2-5/8	1073-107	1.30
1/8	1-5/8	2-3/4	1073-108	2.00
5/32	2	3-1/8	1073-110	2.27
11/64	2-1/8	3-1/4	1073-111	2.64
3/16	2-5/16	3-1/2	1073-112	2.92
13/64	2-7/16	3-5/8	1073-113	3.47
7/32	2-1/2	3-3/4	1073-114	3.49
15/64	2-5/8	3-7/8	1073-115	3.97
1/4	2-3/4	4	1073-116	4.29
17/64	2-7/8	4-1/8	1073-117	5.43
9/32	2-15/16	4-1/4	1073-118	6.04
19/64	3-1/16	4-3/8	1073-119	6.79
5/16	3-3/16	4-1/2	1073-120	3.90
21/64	3-5/16	4-5/8	1073-121	7.86
11/32	3-7/16	4-3/4	1073-122	8.35
23/64	3-1/2	4-7/8	1073-123	9.50
3/8	3-5/8	5	1073-124	9.85
25/64	3-3/4	5-1/8	1073-125	11.90
13/32	3-7/8	5-1/4	1073-126	11.49
27/64	3-15/16	5-3/8	1073-127	10.91
7/16	4-1/16	5-1/2	1073-128	14.49
29/64	4-3/16	5-5/8	1073-129	12.34
15/32	4-5/16	5-3/4	1073-130	12.36
31/64	4-3/8	5-7/8	1073-131	14.22
1/2	4-1/2	6	1073-132	18.69
3/8" SHANK				
13/32	3-7/8	5-1/4	1073-626	12.50
7/16	4-1/16	5-1/2	1073-628	15.06
29/64	4-3/16	5-5/8	1073-629	16.86
15/32	4-5/16	5-3/4	1073-630	16.86
1/2	4-1/2	6	1073-632	19.53

Paddle/Spade Bits - 6" OAL



- 1/4" Hex Shank
- Designed for boring holes quickly through all hard & soft woods, including plywood.
- Best performance at high RPM speeds, easy to resharpen.
- Fully polished and heat treated
- Six ground flats on 1/4" Shank.

8

LENGTH	ORDER NO.	PRICE EACH
1/4	1073-720	\$2.00
5/16	1073-722	2.00
3/8	1073-724	2.00
7/16	1073-728	2.12
1/2	1073-732	2.12
9/16	1073-736	2.12
5/8	1073-740	2.39
11/16	1073-744	2.41
3/4	1073-748	2.50
13/16	1073-752	2.58
7/8	1073-756	2.60
15/16	1073-760	2.65
1	1073-764	3.00
1-1/8	1073-772	3.45
1-1/4	1073-780	3.45
1-3/8	1073-782	3.45
1-1/2	1073-784	3.45

Double End Drills

135° Point - High Speed Steel

8



Pittsburg ALLEGIANCE AMERICAN MADE					
DEC. DIAM. EQUIV.	ORDER NO.	PRICE EACH	ORDER NO.	PRICE EACH	
7/64 .1094	-	-	1486-307	\$2.08	
1/8 .1250	1486-008	\$0.99	1486-308	2.20	
9/64 .1406	-	-	1486-309	2.28	
5/32 .1562	-	-	1486-310	2.47	
3/16 .1875	-	-	1486-312	2.99	
7/32 .2188	-	-	1486-314	3.85	
1/4 .2500	-	-	1486-316	4.59	
11 .1910	-	-	1486-411	2.38	
20 .1610	-	-	1486-420	2.85	
30 .1285	1486-130	0.99	1486-430	2.20	

Jobbers Length Parabolic Drills

High Speed Steel, Cobalt, TiN Coated –
Fractional & Wire Gage Sizes – 135° Split Point

WARNING: This product contains Cobalt and/or Nickel and/or Lead a chemical known to the state of California to cause cancer or birth defects or other reproductive harm. For more information: www.pro65.ca.gov.
WARNING: Cutting tools may chatter. Always wear approved safety glasses and mask when regrinding.



Pittsburg ALLEGHANY					Republic DRILL & CUTTING TOOLS					Pittsburg ALLEGHANY				
HIGH SPEED STEEL					HSS USA		HSS - TIN COATED			COBALT		COBALT TIALN COATED		
FRAC. SIZES	FLUTE LG"TH	OVER. LG"TH	ORDER NO.	PRICE EACH	ORDER NO.	PRICE EACH	ORDER NO.	PRICE EACH	ORDER NO.	PRICE EACH	ORDER NO.	PRICE EACH	ORDER NO.	PRICE EACH
1/16	7/8	1-7/8	1705-004	\$ 1.90	1705-204	POA	1705-504	POA	1705-304	\$ 3.13	1705-604	\$ 6.14		
5/64	1	2	1705-005	1.95	1705-205	POA	1705-505	POA	1705-305	3.31	1705-605	6.14		
3/32	1-1/4	2-1/4	1705-006	1.95	1705-206	POA	1705-506	POA	1705-306	3.41	1705-606	5.59		
7/64	1-1/2	2-5/8	1705-007	2.10	1705-207	POA	1705-507	POA	1705-307	3.73	1705-607	5.59		
1/8	1-5/8	2-3/4	1705-008	2.15	1705-208	POA	1705-508	POA	1705-308	3.88	1705-608	6.31		
9/64	1-3/4	2-7/8	1705-009	2.20	1705-209	POA	1705-509	POA	1705-309	4.41	1705-609	6.31		
5/32	2	3-1/8	1705-010	2.25	1705-210	POA	1705-510	POA	1705-310	4.62	1705-610	6.70		
11/64	2-1/8	3-1/4	1705-011	2.60	1705-211	POA	1705-511	POA	1705-311	5.07	1705-611	6.67		
3/16	2-5/16	3-1/2	1705-012	2.70	1705-212	POA	1705-512	POA	1705-312	5.49	1705-612	7.57		
13/64	2-7/16	3-5/8	1705-013	3.15	1705-213	POA	1705-513	POA	1705-313	5.60	1705-613	8.34		
7/32	2-1/2	3-3/4	1705-014	3.40	1705-214	POA	1705-514	POA	1705-314	6.60	1705-614	10.76		
15/64	2-5/8	3-7/8	1705-015	3.85	1705-215	POA	1705-515	POA	1705-315	6.97	1705-615	11.13		
1/4	2-3/4	4	1705-016	3.95	1705-216	POA	1705-516	POA	1705-316	7.95	1705-616	15.75		
17/64	2-7/8	4-1/8	1705-017	4.70	1705-217	POA	1705-517	POA	1705-317	8.70	1705-617	16.85		
9/32	2-15/16	4-1/4	1705-018	4.70	1705-218	POA	1705-518	POA	1705-318	9.41	1705-618	17.26		
19/64	3-1/16	4-3/8	1705-019	5.70	1705-219	POA	1705-519	POA	1705-319	10.45	1705-619	20.50		
5/16	3-3/16	4-1/2	1705-020	6.10	1705-220	POA	1705-520	POA	1705-320	10.45	1705-620	18.56		
21/64	3-5/16	4-5/8	1705-021	6.95	1705-221	POA	1705-521	POA	1705-321	11.21	-	-		
11/32	3-7/16	4-3/4	1705-022	7.60	1705-222	POA	1705-522	POA	1705-322	14.15	-	-		
23/64	3-1/2	4-7/8	1705-023	8.80	1705-223	POA	1705-523	POA	1705-323	13.57	-	-		
3/8	3-5/8	5	1705-024	8.65	1705-224	POA	1705-524	POA	1705-324	15.08	1705-624	22.00		
25/64	3-3/4	5-1/8	1705-025	10.15	1705-225	POA	1705-525	POA	1705-325	14.99	-	-		
13/32	3-7/8	5-1/4	1705-026	10.15	1705-226	POA	1705-526	POA	1705-326	17.63	-	-		
27/64	3-15/16	5-3/8	1705-027	11.60	1705-227	POA	1705-527	POA	1705-327	17.81	-	-		
7/16	4-1/16	5-1/2	1705-028	11.65	1705-228	POA	1705-528	POA	1705-328	18.29	1705-628	30.81		
29/64	4-3/16	5-5/8	1705-029	13.65	1705-229	POA	1705-529	POA	1705-329	22.99	-	-		
15/32	4-5/16	5-3/4	1705-030	14.00	1705-230	POA	1705-530	POA	1705-330	21.26	-	-		
31/64	4-3/8	5-7/8	1705-031	15.20	1705-231	POA	1705-531	POA	1705-331	26.15	-	-		
1/2	4-1/2	6	1705-032	14.75	1705-232	POA	1705-532	POA	1705-332	26.52	1705-632	39.44		
33/64	4-13/16	6-5/8	-	-	1705-233	POA	1705-533	POA	1705-333	28.02	1705-633	38.73		
17/32	4-13/16	6-5/8	-	-	1705-234	POA	1705-534	POA	-	-	-	-		
35/64	4-13/16	6-5/8	-	-	1705-235	POA	1705-535	POA	-	-	-	-		
9/16	4-13/16	6-5/8	-	-	1705-236	POA	1705-536	POA	-	-	-	-		
37/64	4-13/16	6-5/8	-	-	1705-237	POA	1705-537	POA	-	-	-	-		
19/32	5-3/16	7-1/8	-	-	1705-238	POA	1705-538	POA	-	-	-	-		
39/64	5-3/16	7-1/8	-	-	1705-239	POA	1705-539	POA	-	-	-	-		
5/8	5-3/16	7-1/8	-	-	1705-240	POA	1705-540	POA	-	-	-	-		
41/64	5-3/16	7-1/8	-	-	1705-267	POA	1705-567	POA	-	-	-	-		
21/32	5-3/16	7-1/8	-	-	1705-268	POA	1705-568	POA	-	-	-	-		
43/64	5-5/8	7-5/8	-	-	1705-269	POA	1705-569	POA	-	-	-	-		
11/16	5-5/8	7-5/8	-	-	1705-270	POA	1705-570	POA	-	-	-	-		

Wire Gage Sizes

 Pittsburg ALLEGHANY				 Republic DRILL & CUTTING TOOLS			
HIGH SPEED STEEL				HSS USA		HSS - TIN CTD.	
DIA.	DECIMAL EQUIV.	ORDER NO.	PRICE EACH	ORDER NO.	PRICE EACH	ORDER NO.	PRICE EACH
1	.2280	1705-101	\$4.15	1705-241	POA	1705-541	POA
2	.2210	1705-102	4.15	1705-242	POA	1705-542	POA
3	.2130	1705-103	3.75	1705-243	POA	1705-543	POA
4	.2090	1705-104	3.75	1705-244	POA	1705-544	POA
5	.2055	1705-105	3.75	1705-245	POA	1705-545	POA
6	.2040	1705-106	3.75	1705-246	POA	1705-546	POA
7	.2010	1705-107	3.35	1705-247	POA	1705-547	POA
8	.1990	1705-108	3.35	1705-248	POA	1705-548	POA
9	.1960	1705-109	3.35	1705-249	POA	1705-549	POA
10	.1935	1705-110	3.35	1705-250	POA	1705-550	POA
11	.1910	1705-111	3.20	1705-251	POA	1705-551	POA
12	.1890	1705-112	3.20	1705-252	POA	1705-552	POA
13	.1850	1705-113	3.20	1705-253	POA	1705-553	POA
14	.1820	1705-114	3.20	1705-254	POA	1705-554	POA
15	.1800	1705-115	3.20	1705-255	POA	1705-555	POA
16	.1770	1705-116	3.20	1705-256	POA	1705-556	POA
17	.1730	1705-117	3.20	1705-257	POA	1705-557	POA
18	.1695	1705-118	2.60	1705-258	POA	1705-558	POA
19	.1660	1705-119	2.60	1705-259	POA	1705-559	POA
20	.1610	1705-120	2.60	1705-260	POA	1705-560	POA
21	.1590	1705-121	2.45	1705-261	POA	1705-561	POA
22	.1570	1705-122	2.45	1705-262	POA	1705-562	POA
23	.1540	1705-123	2.35	1705-263	POA	1705-563	POA
24	.1520	1705-124	2.35	1705-264	POA	1705-564	POA
25	.1495	1705-125	2.35	1705-265	POA	1705-565	POA
26	.1470	1705-126	2.35	1705-266	POA	1705-566	POA

 Pittsburg ALLEGHANY				 Republic DRILL & CUTTING TOOLS			
HIGH SPEED STEEL				HSS USA		HSS - TIN CTD.	
DIA.	DECIMAL EQUIV.	ORDER NO.	PRICE EACH	ORDER NO.	PRICE EACH	ORDER NO.	PRICE EACH
27	.1440	1705-127	\$2.35	1705-267	POA	1705-567	POA
28	.1405	1705-128	2.15	1705-268	POA	1705-568	POA
29	.1360	1705-129	2.15	1705-269	POA	1705-569	POA
30	.1285	1705-130	2.15	1705-270	POA	1705-570	POA
31	.1200	1705-131	2.15	1705-271	POA	1705-571	POA
32	.1160	1705-132	2.15	1705-272	POA	1705-572	POA
33	.1130	1705-133	2.15	1705-273	POA	1705-573	POA
34	.1110	1705-134	2.15	1705-274	POA	1705-574	POA
35	.1100	1705-135	2.15	1705-275	POA	1705-575	POA
36	.1065	1705-136	2.15	1705-276	POA	1705-576	POA
37	.1040	1705-137	2.15	1705-277	POA	1705-577	POA
38	.1015	1705-138	2.15	1705-278	POA	1705-578	POA
39	.0995	1705-139	2.15	1705-279	POA	1705-579	POA
40	.0980	1705-140	2.15	1705-280	POA	1705-580	POA
41	.0960	1705-141	2.15	1705-281	POA	1705-581	POA
42	.0935	1705-142	2.15	1705-282	POA	1705-582	POA
43	.0890	1705-143	2.15	1705-283	POA	1705-583	POA
44	.0860	1705-144	2.15	1705-284	POA	1705-584	POA
45	.0820	1705-145	2.15	1705-285	POA	1705-585	POA
46	.0810	1705-146	2.15	1705-286	POA	1705-586	POA
47	.0785	1705-147	2.15	1705-287	POA	1705-587	POA
48	.0760	1705-148	2.15	1705-288	POA	1705-588	POA
49	.0730	1705-149	2.15	1705-289	POA	1705-589	POA
50	.0700	1705-150	2.15	1705-290	POA	1705-590	POA
51	.0670	1705-151	2.15	1705-291	POA	1705-591	POA
52	.0635	1705-152	2.15	1705-292	POA	1705-592	POA

Jobbers Length Drills – Carbide Tipped

Straight Shank

2



Fractional Sizes

		Pittsburg ALLIANCE		AMERICAN MADE	
DIA.	DEC. EQUIV.	FLUTE LGTH.	OAL	ORDER NO.	PRICE EACH
1/8	.1250	1-5/8	2-3/4	2990-008	\$ 9.01
9/64	.1406	1-3/4	2-7/8	2990-009	9.72
5/32	.1562	2	3-1/8	2990-010	9.56
11/64	.1719	2-1/8	3-1/4	2990-011	10.43
3/16	.1875	2-5/16	3-1/2	2990-012	10.15
13/64	.2031	2-7/16	3-5/8	2990-013	11.14
7/32	.2187	2-1/2	3-3/4	2990-014	11.14
15/64	.2344	2-5/8	3-7/8	2990-015	11.97
1/4	.2500	2-3/4	4	2990-016	11.97
17/64	.2656	2-7/8	4-1/8	2990-017	13.31
9/32	.2812	2-15/16	4-1/4	2990-018	14.10
19/64	.2969	3-1/16	4-3/8	2990-019	15.60
5/16	.3125	3-3/16	4-1/2	2990-020	15.29
21/64	.3281	3-5/16	4-5/8	2990-021	16.20
11/32	.3437	3-7/16	4-3/4	2990-022	16.20
23/64	.3594	3-1/2	4-7/8	2990-023	17.26
3/8	.3750	3-5/8	5	2990-024	17.26
25/64	.3906	3-3/4	5-1/8	2990-025	18.76
13/32	.4062	3-7/8	5-1/4	2990-026	18.76
27/64	.4219	3-15/16	5-3/8	2990-027	20.42
7/16	.4375	4-1/16	5-1/2	2990-028	20.42
29/64	.4531	4-3/16	5-5/8	2990-029	23.46
15/32	.4687	4-5/16	5-3/4	2990-030	22.95
31/64	.4844	4-3/8	5-7/8	2990-031	25.68
1/2	.5000	4-1/2	6	2990-032	28.20

Wire Gage Sizes

		AMERICAN MADE	
DIA.	DEC. EQUIV.	FLUTE LGTH.	OAL
1	.2280	2-5/8	3-7/8
2	.2210	2-5/8	3-7/8
3	.2130	2-1/2	3-3/4
4	.2090	2-1/2	3-3/4
5	.2055	2-1/2	3-3/4
6	.2040	2-1/2	3-3/4
7	.2010	2-7/16	3-5/8
8	.1990	2-7/16	3-5/8
9	.1960	2-7/16	3-5/8
10	.1935	2-7/16	3-5/8
11	.1910	2-5/16	3-1/2
12	.1890	2-5/16	3-1/2
13	.1850	2-5/16	3-1/2
14	.1820	2-3/16	3-3/8
15	.1800	2-3/16	3-3/8
16	.1770	2-3/16	3-3/8
17	.1730	2-3/16	3-3/8
18	.1695	2-1/8	3-1/4
19	.1660	2-1/8	3-1/4
20	.1610	2-1/8	3-1/4
21	.1590	2-1/8	3-1/4
22	.1570	2	3-1/8
23	.1540	2	3-1/8
24	.1520	2	3-1/8
25	.1495	1-7/8	3
26	.1470	1-7/8	3
27	.1440	1-7/8	3
28	.1405	1-3/4	2-7/8
29	.1360	1-3/4	2-7/8
30	.1285	1-5/8	2-3/4
31	.1200	1-5/8	2-3/4
32	.1160	1-5/8	2-3/4

Letter Sizes

		AMERICAN MADE	
SIZE	DEC. EQUIV.	FLUTE LGTH.	OAL
A	.2340	2-5/8	3-7/8
B	.2380	2-3/4	4
C	.2420	2-3/4	4
D	.2460	2-3/4	4
E	.2500	2-3/4	4
F	.2570	2-7/8	4-1/8
G	.2610	2-7/8	4-1/8
H	.2660	2-7/8	4-1/8
I	.2720	2-7/8	4-1/8
J	.2770	2-7/8	4-1/8
K	.2810	2-15/16	4-1/4
L	.2900	2-15/16	4-1/4
M	.2950	3-1/16	4-3/8
N	.3020	3-1/16	4-3/8
O	.3160	3-3/16	4-1/2
P	.3230	3-5/16	4-5/8
Q	.3320	3-7/16	4-3/4
R	.3390	3-7/16	4-3/4
S	.3480	3-1/2	4-7/8
T	.3580	3-1/2	4-7/8
U	.3680	3-5/8	5
V	.3770	3-5/8	5
W	.3860	3-3/4	5-1/8
X	.3970	3-3/4	5-1/8
Y	.4040	3-7/8	5-1/4
Z	.4130	3-7/8	5-1/4

**METRIC CARBIDE TIPPED
JOBBER LENGTH DRILLS
SEE PAGE - 9**

Die Drills

2



Carbide Tipped



DIA.	FLUTE LGTH.	OAL	ORDER NO.	PRICE EACH
3/16	1-1/2	3-1/2	2991-012	\$51.87
13/64	1-3/4	3-3/4	2991-013	51.87
7/32	1-3/4	3-3/4	2991-014	53.57
15/64	2	4	2991-015	55.29
1/4	2	4	2991-016	55.29
17/64	2-1/4	4-1/4	2991-017	58.42
9/32	2-1/4	4-1/4	2991-018	58.42
19/64	2-1/2	4-1/2	2991-019	61.15
5/16	2-1/2	4-1/2	2991-020	61.15
21/64	2-3/4	4-3/4	2991-021	65.18
11/32	2-3/4	4-3/4	2991-022	65.18
23/64	3	5	2991-023	70.16
3/8	3	5	2991-024	70.16
25/64	3	5-1/4	2991-025	83.50
13/32	3	5-1/4	2991-026	86.53
27/64	3	5-1/2	2991-027	93.51
7/16	3	5-1/2	2991-028	100.50
29/64	3-1/4	5-3/4	2991-029	105.39
15/32	3-1/4	5-3/4	2991-030	110.51
31/64	3-1/2	6	2991-031	133.93
1/2	3-1/2	6	2991-032	129.45
17/32	3-1/2	6	2991-034	148.47
9/16	3-1/2	6	2991-036	153.60
19/32	4	7	2991-038	162.53
5/8	4	7	2991-040	167.49
21/32	4-1/2	7-1/2	2991-042	179.31
23/32	4-1/2	7-1/2	2991-044	183.99
23/32	4-3/4	8	2991-046	192.86
3/4	4-3/4	8	2991-048	198.26

Solid Carbide

• For work hardened and abrasive materials, such as stainless steel and heat treated alloys • 140° notched Drill Point

DIA.	FLUTE LGTH.	OAL	ORDER NO.	PRICE EACH
1/32	1/2	1-1/2	2962-002	\$ 10.30
3/64	3/8	1-1/2	2962-003	10.30
1/16	3/8	1-1/2	2962-004	11.88
5/64	11/16	1-11/16	2962-005	11.88
3/32	3/4	1-3/4	2962-006	12.72
7/64	13/16	1-13/16	2962-007	13.27
1/8	7/8	1-7/8	2962-008	13.62
9/64	15/16	1-15/16	2962-009	15.73
5/32	1	2-1/16	2962-010	16.94
11/64	1-1/16	2-1/8	2962-011	21.30
3/16	1-1/8	2-3/16	2962-012	22.13
13/64	1-3/16	2-1/4	2962-013	23.94
7/32	1-1/4	2-3/8	2962-014	23.94
15/64	1-5/16	2-7/16	2962-015	32.43
1/4	1-3/8	2-1/2	2962-016	27.35
17/64	1-7/16	2-5/8	2962-017	38.72
9/32	1-1/2	2-11/16	2962-018	41.62
19/64	1-9/16	2-3/4	2962-019	46.09
5/16	1-5/8	2-13/16	2962-020	41.62
21/64	1-11/16	2-15/16	2962-021	50.93
11/32	1-11/16	3	2962-022	56.61
23/64	1-3/4	3-1/16	2962-023	63.36
3/8	1-13/16	3-1/8	2962-024	51.99
25/64	1-7/8	3-1/4	2962-025	72.58
13/32	1-15/16	3-5/16	2962-026	80.17
27/64	2	3-3/8	2962-027	88.29
7/16	2-1/16	3-7/16	2962-028	83.09
29/64	2-1/8	3-9/16	2962-029	106.79
15/32	2-1/8	3-5/8	2962-030	112.07
31/64	2-3/16	3-11/16	2962-031	112.07
1/2	2-1/4	3-3/4	2962-032	101.97

Solid Carbide Jobbers Length Drills



WARNING: This product contains Cobalt and/or Nickel and/or Lead a chemical known to the state of California to cause cancer or birth defects or other reproductive harm. For more information: www.profit5.ca.gov.
WARNING: Cutting tools may shatter. Always wear approved safety glasses and mask when regrinding.

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Fractional Sizes

SIZE	FLUTE LENGTH	OVERALL LENGTH	ORDER NO.	PRICE EACH
1/32	5/16	1-1/4	2960-002	\$ 15.79
3/64	3/4	1-1/2	2960-003	13.69
1/16	3/4	1-1/2	2960-004	13.69
5/64	7/8	1-3/4	2960-005	14.54
3/32	1	2	2960-006	15.99
7/64	1-1/4	2-1/4	2960-007	17.79
1/8	1-1/4	2-1/4	2960-008	18.43
9/64	1-3/8	2-1/2	2960-009	20.69
5/32	1-3/8	2-1/2	2960-010	23.21
11/64	1-5/8	2-3/4	2960-011	25.89
3/16	1-5/8	2-3/4	2960-012	27.53
13/64	1-3/4	3	2960-013	31.28
7/32	1-3/4	3	2960-014	34.40
15/64	2	3-1/4	2960-015	38.56
1/4	2	3-1/4	2960-016	41.35
17/64	2-1/8	3-1/2	2960-017	45.51
9/32	2-1/8	3-1/2	2960-018	47.66
19/64	2-3/8	3-3/4	2960-019	52.89
5/16	2-3/8	4	2960-020	55.96
21/64	2-1/2	4	2960-021	62.05
11/32	2-1/2	4	2960-022	67.24
23/64	2-1/2	4	2960-023	76.61
3/8	2-3/4	4-1/4	2960-024	80.79
25/64	2-7/8	4-1/2	2960-025	95.22
13/32	2-7/8	4-1/2	2960-026	103.56
27/64	2-7/8	4-1/2	2960-027	109.74
7/16	2-7/8	4-1/2	2960-028	119.03
29/64	3	4-3/4	2960-029	132.58
15/32	3	4-3/4	2960-030	142.85
31/64	3	4-3/4	2960-031	146.97
1/2	3	4-3/4	2960-032	146.97
9/16	4	6	2960-036	248.40
5/8	4	6	2960-040	294.98
3/4	4	6	2960-046	382.95

Wire Gage Sizes

DIA.	FLUTE LENGTH	OVERALL LENGTH	ORDER NO.	PRICE EACH
1	11-3/4	3	2960-101	\$36.62
2	11-3/4	3	2960-102	36.04
3	1-3/4	3	2960-103	33.76
4	1-3/4	3	2960-104	32.95
5	1-3/4	3	2960-105	32.07
6	1-3/4	3	2960-106	31.67
7	1-3/4	3	2960-107	30.45
8	1-3/4	3	2960-108	29.99
9	1-3/4	3	2960-109	29.42
10	1-5/8	2-3/4	2960-110	28.58
11	1-5/8	2-3/4	2960-111	28.14
12	1-5/8	2-3/4	2960-112	27.70
13	1-5/8	2-3/4	2960-113	27.31
14	1-5/8	2-3/4	2960-114	27.70
15	1-5/8	2-3/4	2960-115	27.49
16	1-5/8	2-3/4	2960-116	26.45
17	1-5/8	2-3/4	2960-117	26.01
18	1-5/8	2-3/4	2960-118	25.36
19	1-5/8	2-3/4	2960-119	25.90
20	1-3/8	2-1/2	2960-120	24.44
21	1-3/8	2-1/2	2960-121	24.53
22	1-3/8	2-1/2	2960-122	23.78
23	1-3/8	2-1/2	2960-123	23.38
24	1-3/8	2-1/2	2960-124	22.56
25	1-3/8	2-1/2	2960-125	21.34
26	1-3/8	2-1/2	2960-126	21.10
27	1-3/8	2-1/2	2960-127	20.68
28	1-3/8	2-1/2	2960-128	20.47
29	1-3/8	2-1/2	2960-129	20.03
30	1-1/4	2-1/4	2960-130	19.27
31	1-1/4	2-1/4	2960-131	19.04
32	1-1/4	2-1/4	2960-132	18.83
33	1-1/4	2-1/4	2960-133	18.46
34	1-1/4	2-1/4	2960-134	18.46
35	1-1/4	2-1/4	2960-135	17.83
36	1-1/4	2-1/4	2960-136	17.24
37	1-1/4	2-1/4	2960-137	17.24
38	1-1/4	2-1/4	2960-138	17.24
39	1-1/4	2-1/4	2960-139	16.93
40	1	2	2960-140	16.34

Wire Gage Sizes (Continued)

DIA.	FLUTE LENGTH	OVERALL LENGTH	ORDER NO.	PRICE EACH
41	1	2	2960-141	\$16.34
42	1	2	2960-142	15.76
43	1	2	2960-143	15.76
44	1	2	2960-144	15.76
45	7/8	1-3/4	2960-145	15.12
46	7/8	1-3/4	2960-146	15.12
47	7/8	1-3/4	2960-147	14.47
48	7/8	1-3/4	2960-148	14.47
49	7/8	1-3/4	2960-149	14.47
50	7/8	1-3/4	2960-150	14.47
51	3/4	1-1/2	2960-151	13.64
52	3/4	1-1/2	2960-152	13.64
53	3/4	1-1/2	2960-153	13.64
54	3/4	1-1/2	2960-154	13.89
55	3/4	1-1/2	2960-155	13.89
56	3/4	1-1/2	2960-156	13.89
57	3/4	1-1/2	2960-157	13.89
58	3/4	1-1/2	2960-158	13.89
59	3/4	1-1/2	2960-159	13.89
60	3/4	1-1/2	2960-160	13.89
61	5/8	1-1/2	2960-161	14.96
62	5/8	1-1/2	2960-162	14.96
63	5/8	1-1/2	2960-163	14.96
64	5/8	1-1/2	2960-164	14.96
65	5/8	1-1/2	2960-165	14.96
66	1/2	1-1/2	2960-166	15.89
67	1/2	1-1/2	2960-167	15.89
68	1/2	1-1/2	2960-168	15.89
69	1/2	1-1/2	2960-169	15.89
70	1/2	1-1/2	2960-170	15.89
71	5/16	1	2960-171	15.89
72	5/16	1	2960-172	15.89
73	1/4	7/8	2960-173	18.63
74	1/4	7/8	2960-174	18.63
75	1/4	7/8	2960-175	18.63
76	1/4	7/8	2960-176	18.63
77	3/16	3/4	2960-177	19.67
78	3/16	3/4	2960-178	19.67
79	1/8	3/4	2960-179	19.67
80	1/8	3/4	2960-180	19.67

Letter Sizes

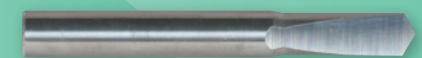
SIZE	FLUTE LENGTH	OVERALL LENGTH	ORDER NO.	PRICE EACH
A	2	3-1/4	2960-201	\$37.88
B	2	3-1/4	2960-202	40.99
C	2	3-1/4	2960-203	40.99
D	2	3-1/4	2960-204	40.99
E	2	3-1/4	2960-205	41.35
F	2	3-1/4	2960-206	48.44
G	2-1/8	3-1/2	2960-207	49.32
H	2-1/8	3-1/2	2960-208	49.93
I	2-1/8	3-1/2	2960-209	49.46
J	2-1/8	3-1/2	2960-210	50.69
K	2-1/8	3-1/2	2960-211	51.23
L	2-1/8	3-1/2	2960-212	51.58
M	2-3/8	4	2960-213	54.07
N	2-3/8	4	2960-214	57.50
O	2-3/8	4	2960-215	64.12
P	2-3/8	4	2960-216	64.12
Q	2-1/2	4	2960-217	67.91
R	2-1/2	4	2960-218	70.01
S	2-1/2	4	2960-219	72.73
T	2-3/4	4-1/4	2960-220	77.63
U	2-3/4	4-1/4	2960-221	89.01
V	2-3/4	4-1/4	2960-222	95.32
W	2-7/8	4-1/2	2960-223	95.32
X	2-7/8	4-1/2	2960-224	102.82
Y	2-7/8	4-1/2	2960-225	106.86
Z	2-7/8	4-1/2	2960-226	116.96

Metric Sizes

SIZE	FLUTE LENGTH	OVERALL LENGTH	ORDER NO.	PRICE EACH
1.00	5/8	1-1/2	2961-010	\$ 10.00
1.50	3/4	1-1/2	2961-015	17.08
2.00	7/8	1-3/4	2961-020	17.40
2.50	1	2	2961-025	20.69
3.00	1-1/4	2-1/4	2961-030	22.39
3.50	1-3/8	2-1/2	2961-035	24.67
4.00	1-3/8	2-1/2	2961-040	29.07
4.50	1-5/8	2-3/4	2961-045	32.33
5.00	1-3/4	3	2961-050	36.56
5.50	1-3/4	3	2961-055	41.03
6.00	2	3-1/4	2961-060	49.96
6.50	2	3-1/4	2961-065	58.44
7.00	2-1/8	3-1/2	2961-070	60.46
7.50	2-3/8	4	2961-075	64.64
8.00	2-3/8	4	2961-080	78.38
8.50	2-1/2	4	2961-085	85.56
9.00	2-3/4	4-1/4	2961-090	94.88
9.50	2-3/4	4-1/4	2961-095	108.66
10.00	2-7/8	4-1/2	2961-100	125.66
10.50	2-7/8	4-1/2	2961-105	134.10
11.00	2-7/8	4-1/2	2961-110	145.44
11.50	3	4-3/4	2961-115	162.05
12.00	3	4-3/4	2961-120	179.52
12.50	3	4-3/4	2961-125	76.90

Spade Drills

Solid Carbide



DIA.	FLUTE LENGTH	OVERALL LENGTH	ORDER NO.	PRICE EACH
3/64	7/32	1-1/2	2963-003	\$26.50
1/16	3/8	1-1/2	2963-004	11.57
3/32	7/16	1-1/2	2963-006	11.57
1/8	1/2	1-1/2	2963-008	9.91
5/32	9/16	1-1/2	2963-010	18.36
3/16	11/16	2	2963-012	18.36
7/32	11/16	2	2963-014	28.73
1/4	13/16	2	2963-016	18.36
9/32	7/8	2	2963-018	24.55
5/16	7/8	2-1/2	2963-020	24.55
11/32	15/16	2-1/2	2963-022	30.07
3/8	1-1/8	2-1/2	2963-024	30.07
13/32	1-1/8	2-1/2	2963-026	41.86
7/16	1-3/16	2-1/2	2963-028	41.86
15/32	1-3/16	2-1/2	2963-030	44.88
1/2	1/2	2-1/2	2963-032	46.16

High Performance Drills

The Allegiance Solid Carbide High Performance drill is an AlTiN-coated, 140°, CNC-ground modified “S” point carbide drill (available in both solid and coolant-thru versions) finished to ISO “m7” specifications, showcasing a robust linear cutting-lip design which nearly guarantees high-performance drilling in a variety of materials.



NON-COOLANT



COOLANT THRU



WARNING: This product contains Cobalt and/or Nickel and/or Lead a chemical known to the state of California to cause cancer or birth defects or other reproductive harm. For more information: www.prope6.ca.gov. **WARNING:** Cutting tools may chatter. Always wear approved safety glasses and mask when regrinding.

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Solid Carbide Fractional Drills 3xD

DIA.	LOC	FLUTE LGTH.	SHANK LGTH.	OAL	NON-COOLANT AITIN COATED	PRICE EACH	COOLANT THRU AITIN COATED	PRICE EACH
1/8	0.5511	0.787	0.2362	1.417	2.44	2986-058	POA	—
9/64	0.5511	0.787	0.2362	1.417	2.44	2986-059	POA	2986-159
5/32	0.669	0.944	0.2362	1.417	2.59	2986-060	POA	2986-160
11/64	0.669	0.944	0.2362	1.417	2.59	2986-061	POA	2986-161
3/16	0.7874	1.102	0.2362	1.417	2.59	2986-062	POA	2986-162
13/64	0.7874	1.102	0.2362	1.417	2.59	2986-063	POA	2986-163
7/32	0.7874	1.102	0.2362	1.417	2.59	2986-064	POA	2986-164
15/64	0.7874	1.102	0.2362	1.417	2.59	2986-065	POA	2986-165
1/4	0.9448	1.338	0.315	1.417	3.11	2986-066	POA	2986-166
17/64	0.9448	1.338	0.315	1.417	3.11	2986-067	POA	2986-167
9/32	1.141	1.614	0.315	1.417	3.11	2986-068	POA	2986-168
19/64	1.141	1.614	0.315	1.417	3.11	2986-069	POA	2986-169
5/16	1.141	1.614	0.315	1.417	3.11	2986-070	POA	2986-170
21/64	1.377	1.85	0.3937	1.575	3.5	2986-071	POA	2986-171
11/32	1.377	1.85	0.3937	1.575	3.5	2986-072	POA	2986-172
23/64	1.377	1.85	0.3937	1.575	3.5	2986-073	POA	2986-173
3/8	1.377	1.85	0.3937	1.575	3.5	2986-074	POA	2986-174
25/64	1.377	1.85	0.3937	1.575	3.5	2986-075	POA	2986-175
13/32	1.574	2.165	0.4724	1.772	4.01	2986-076	POA	2986-176
27/64	1.574	2.165	0.4724	1.772	4.01	2986-077	POA	2986-177
7/16	1.574	2.165	0.4724	1.772	4.01	2986-078	POA	2986-178
29/64	1.574	2.165	0.4724	1.772	4.01	2986-079	POA	2986-179
15/32	1.574	2.165	0.4724	1.772	4.01	2986-080	POA	2986-180
31/64	1.574	2.165	0.5512	1.772	4.01	2986-081	POA	2986-181
1/2	1.692	2.362	0.5512	1.772	4.21	2986-082	POA	2986-182
9/16	1.771	2.559	0.6299	1.889	4.52	2986-086	POA	2986-186

Solid Carbide Metric Drills 3xD

DIA.	LOC	FLUTE LGTH.	SHK. LGTH.	OAL	NON-COOLANT AITIN COATED	PRICE EACH	COOLANT THRU AITIN COATED	PRICE EACH
3	14	20	6	36	62	2986-730	POA	—
3.5	14	20	6	36	62	2986-735	POA	2987-135
4	17	24	6	36	66	2986-740	POA	2987-140
4.5	17	24	6	36	66	2986-745	POA	2987-145
5	20	28	6	36	66	2986-750	POA	2987-150
5.5	20	28	6	36	66	2986-755	POA	2987-155
6	20	28	6	36	66	2986-760	POA	2987-160
6.5	24	34	8	36	79	2986-765	POA	2987-165
7	24	34	8	36	79	2986-770	POA	2987-170
7.5	29	41	8	36	79	2986-775	POA	2987-175
8	29	41	8	36	79	2986-780	POA	2987-180
8.5	35	47	10	40	89	2986-785	POA	2987-185
9	35	47	10	40	89	2986-790	POA	2987-190
9.5	35	47	10	40	89	2986-795	POA	2987-195
10	35	47	10	40	89	2986-800	POA	2987-200
11	40	55	12	45	102	2986-810	POA	2987-210
12	40	55	12	45	102	2986-820	POA	2987-220

Solid Carbide Fractional Drills 5xD

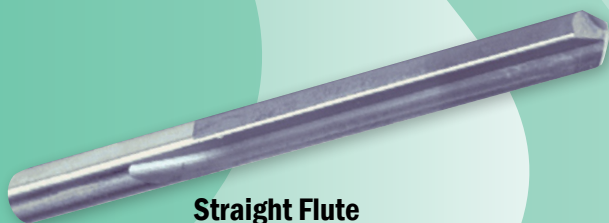
DIA.	LOC	FLUTE LGTH.	SHANK LGTH.	OAL	NON-COOLANT AITIN COATED	PRICE EACH	COOLANT THRU AITIN COATED	PRICE EACH
1/8	0.905	1.102	0.2362	1.417	2.59	2986-258	POA	—
9/64	0.905	1.102	0.2362	1.417	2.59	2986-259	POA	2986-359
5/32	1.141	1.417	0.2362	1.417	2.91	2986-260	POA	2986-360
11/64	1.141	1.417	0.2362	1.417	2.91	2986-261	POA	2986-361
3/16	1.377	1.732	0.2362	1.417	3.22	2986-262	POA	2986-362
13/64	1.377	1.732	0.2362	1.417	3.22	2986-263	POA	2986-363
7/32	1.377	1.732	0.2362	1.417	3.22	2986-264	POA	2986-364
15/64	1.377	1.732	0.2362	1.417	3.22	2986-265	POA	2986-365
1/4	1.692	2.086	0.315	1.417	3.58	2986-266	POA	2986-366
17/64	1.692	2.086	0.315	1.417	3.58	2986-267	POA	2986-367
9/32	1.692	2.086	0.315	1.417	3.58	2986-268	POA	2986-368
19/64	1.692	2.086	0.315	1.417	3.58	2986-269	POA	2986-369
5/16	1.692	2.086	0.315	1.417	3.58	2986-270	POA	2986-370
21/64	1.929	2.401	0.3937	1.575	4.05	2986-271	POA	2986-371
11/32	1.929	2.401	0.3937	1.575	4.05	2986-272	POA	2986-372
23/64	1.929	2.401	0.3937	1.575	4.05	2986-273	POA	2986-373
3/8	1.929	2.401	0.3937	1.575	4.05	2986-274	POA	2986-374
25/64	1.929	2.401	0.3937	1.575	4.05	2986-275	POA	2986-375
13/32	2.204	2.795	0.4724	1.772	4.64	2986-276	POA	2986-376
27/64	2.204	2.795	0.4724	1.772	4.64	2986-277	POA	2986-377
7/16	2.204	2.795	0.4724	1.772	4.64	2986-278	POA	2986-378
29/64	2.204	2.795	0.4724	1.772	4.64	2986-279	POA	2986-379
15/32	2.204	2.795	0.4724	1.772	4.64	2986-280	POA	2986-380
31/64	2.362	2.795	0.5512	1.772	4.64	2986-281	POA	2986-381
1/2	2.362	3.031	0.5512	1.772	4.88	2986-282	POA	2986-382
9/16	2.48	3.267	0.6299	1.889	5.23	2986-286	POA	2986-386

Solid Carbide Fractional Drills 8xD

DIA.	LOC	FLUTE LGTH.	SHANK LGTH.	OAL	NON-COOLANT AITIN COATED	PRICE EACH	COOLANT THRU AITIN COATED	PRICE EACH
9/64	1.141	1.338	0.2362	1.3386	2.83	2986-459	POA	—
5/32	1.417	1.692	0.2362	1.3386	3.18	2986-460	POA	—
11/64	1.417	1.692	0.2362	1.3386	3.18	2986-461	POA	—
3/16	1.417	1.692	0.2362	1.3386	3.18	2986-462	POA	—
13/64	2.086	2.244	0.2362	1.4173	3.74	2986-463	POA	—
7/32	2.086	2.244	0.2362	1.4173	3.74	2986-464	POA	—
15/64	2.086	2.244	0.2362	1.4173	3.74	2986-465	POA	—
1/4	2.598	2.992	0.315	1.4173	4.48	2986-466	POA	—
17/64	2.598	2.992	0.315	1.4173	4.48	2986-467	POA	—
9/32	2.598	2.992	0.315	1.4173	4.48	2986-468	POA	—
19/64	2.598	2.992	0.315	1.4173	4.48	2986-469	POA	—
5/16	2.598	2.992	0.315	1.4173	4.48	2986-470	POA	—
21/64	3.346	3.74	0.3937	1.771	5.59	2986-471	POA	—
11/32	3.346	3.74	0.3937	1.771	5.59	2986-472	POA	—
23/64	3.346	3.74	0.3937	1.771	5.59	2986-473	POA	—
3/8	3.346	3.74	0.3937	1.771	5.59	2986-474	POA	—
25/64	3.346	3.74	0.3937	1.771	5.59	2986-475	POA	—
13/32	3.897	4.488	0.4724	1.81	6.37	2986-476	POA	—
7/16	3.897	4.488	0.4724	1.81	6.37	2986-478	POA	—
15/32	3.897	4.488	0.4724	1.81	6.37	2986-480	POA	—
31/64	3.897	4.488	0.5512	1.85	6.37	2986-481	POA	—
1/2	4.566	5.236	0.5512	1.85	7.16	2986-482	POA	—

Jobbers Length Drills— High Speed Steel

Fast Spiral, & Straight Flute



Straight Flute

- For brass and non-ferrous materials
- Discontinued, Limited Quantities!



Fast Spiral

- For low tensile materials such as aluminum and other soft materials

PACKAGE QUANTITIES: Fractional Sizes
1/64–19/64: 12 pcs. 5/16–1/2: 6 pcs.
33/64–11/16: 1 pcs.

WARNING: This product contains Cobalt and/or Nickel and/or Lead a chemical known to the state of California to cause cancer or birth defects or other reproductive harm. For more information: www.pro65.ca.gov.
WARNING: Cutting tools may shatter. Always wear approved safety glasses and mask when regrinding.

2

			Pittsburg® FAST SPIRAL		Pittsburg® STRAIGHT FLUTE	
FRACTIONAL FLUTE SIZES	LENGTH	OAL	ORDER NO.	PRICE EACH	ORDER NO.	PRICE EACH
1/64	3/16	3/4	1070-001	\$1.95	—	—
1/32	1/2	1-3/8	1070-002	1.43	—	—
3/64	3/4	1-3/4	1070-003	1.19	—	—
1/16	7/8	1-7/8	1070-004	0.86	—	—
5/64	1	2	1070-005	0.86	1701-005	\$1.46
3/32	1-1/4	2-1/4	1070-006	0.86	1701-006	1.46
7/64	1-1/2	2-5/8	1070-007	0.86	1701-007	1.52
1/8	1-5/8	2-3/4	1070-008	0.86	1701-008	1.53
9/64	1-3/4	2-7/8	1070-009	0.86	1701-009	1.64
5/32	2	3-1/8	1070-010	0.95	1701-010	1.66
11/64	2-1/8	3-1/4	1070-011	1.13	1701-011	1.73
3/16	2-5/16	3-1/2	1070-012	1.28	1701-012	1.85
13/64	2-7/16	3-5/8	1070-013	1.41	1701-013	2.61
7/32	2-1/2	3-3/4	1070-014	1.60	1701-014	2.75
15/64	2-5/8	3-7/8	1070-015	1.66	1701-015	2.92
1/4	2-3/4	4	1070-016	1.78	1701-016	3.14
17/64	2-7/8	4-1/8	1070-017	2.20	1701-017	3.37
9/32	2-15/16	4-1/4	1070-018	2.36	1701-018	3.60
19/64	3-1/16	4-3/8	1070-019	2.54	1701-019	3.90
5/16	3-3/16	4-1/2	1070-020	2.81	1701-020	4.25
21/64	3-5/16	4-5/8	1070-021	2.99	1701-021	4.64
11/32	3-7/16	4-3/4	1070-022	3.39	1701-022	5.07
23/64	3-1/2	4-7/8	1070-023	3.96	1701-023	5.46
3/8	3-5/8	5	1070-024	4.15	1701-024	5.38
25/64	3-3/4	5-1/8	1070-025	4.58	1701-025	5.56
13/32	3-7/8	5-1/4	1070-026	4.78	1701-026	5.74
27/64	3-15/16	5-3/8	1070-027	5.35	1701-027	5.92
7/16	4-1/16	5-1/2	1070-028	5.61	1701-028	5.98
29/64	4-3/16	5-5/8	1070-029	5.78	1701-029	6.20
15/32	4-5/16	5-3/4	1070-030	6.15	1701-030	7.36
31/64	4-3/8	5-7/8	1070-031	6.75	1701-031	8.02
1/2	4-1/2	6	1070-032	7.25	1701-032	8.29

		Pittsburg® FAST SPIRAL				Pittsburg® STR. FLUTE			
WIRE GAGE SIZES	FLUTE OVERALL LENGTH	ORDER NO.	PRICE EACH	ORDER NO.	PRICE EACH	ORDER NO.	PRICE EACH	ORDER NO.	PRICE EACH
1	.2280 2-5/8 3-7/8	1080-001	\$1.81	1702-001	\$2.92				
2	.2210 2-5/8 3-7/8	1080-002	1.81	1702-002	2.92				
3	.2130 2-1/2 3-3/4	1080-003	1.71	1702-003	2.75				
4	.2090 2-1/2 3-3/4	1080-004	1.71	1702-004	2.75				
5	.2055 2-1/2 3-3/4	1080-005	1.71	1702-005	2.75				
6	.2040 2-1/2 3-3/4	1080-006	1.71	1702-006	2.75				
7	.2010 2-7/16 3-5/8	1080-007	1.46	—	—				
8	.1990 2-7/16 3-5/8	1080-008	1.46	1702-008	2.61				
9	.1960 2-7/16 3-5/8	1080-009	1.46	1702-009	2.61				
10	.1935 2-7/16 3-5/8	1080-010	1.46	1702-010	2.61				
11	.1910 2-5/16 3-1/2	1080-011	1.38	1702-011	2.61				
12	.1890 2-5/16 3-1/2	1080-012	1.38	1702-012	1.85				
13	.1850 2-5/16 3-1/2	1080-013	1.28	1702-013	1.73				
14	.1820 2-3/16 3-3/8	1080-014	1.28	1702-014	1.73				
15	.1800 2-3/16 3-3/8	1080-015	1.28	1702-015	1.73				
16	.1770 2-3/16 3-3/8	1080-016	1.28	1702-016	1.73				
17	.1730 2-3/16 3-3/8	1080-017	1.28	1702-017	1.73				
18	.1695 2-1/8 3-1/4	1080-018	1.15	1702-018	1.66				
19	.1660 2-1/8 3-1/4	1080-019	1.15	1702-019	1.66				
20	.1610 2-1/8 3-1/4	1080-020	1.15	1702-020	1.66				
21	.1590 2-1/8 3-1/4	1080-021	1.10	1702-021	1.66				
22	.1570 2 3-1/8	1080-022	1.10	1702-022	1.66				
23	.1540 2 3-1/8	1080-023	1.10	1702-023	1.64				
24	.1520 2 3-1/8	1080-024	1.10	1702-024	1.64				
25	.1495 1-7/8 3	1080-025	1.10	1702-025	1.64				
26	.1470 1-7/8 3	1080-026	1.00	1702-026	1.64				
27	.1440 1-7/8 3	1080-027	1.00	1702-027	1.64				
28	.1405 1-3/4 2-7/8	1080-028	1.00	1702-028	1.53				
29	.1360 1-3/4 2-7/8	1080-029	0.89	1702-029	1.53				
30	.1285 1-5/8 2-3/4	1080-030	0.89	1702-030	1.53				
31	.1200 1-5/8 2-3/4	1080-031	0.89	1702-031	1.52				
32	.1160 1-5/8 2-3/4	1080-032	0.89	1702-032	1.52				
33	.1701 1-1/2 2-5/8	1080-033	0.89	1702-033	1.52				
34	.1110 1-1/2 2-5/8	1080-034	0.89	1702-034	1.52				
35	.1100 1-1/2 2-5/8	1080-035	0.89	1702-035	1.52				
36	.1065 1-7/16 2-1/2	1080-036	0.89	1702-036	1.46				
37	.1040 1-7/16 2-1/2	1080-037	0.89	1702-037	1.46				
38	.1015 1-7/16 2-1/2	1080-038	0.89	1702-038	1.46				
39	.0995 1-3/8 2-3/8	1080-039	0.89	1702-039	1.46				
40	.0980 1-3/8 2-3/8	1080-040	0.89	1702-040	1.46				

		Pittsburg® FAST SPIRAL				Pittsburg® STR. FLUTE			
WIRE GAGE SIZES	FLUTE OVERALL LENGTH	ORDER NO.	PRICE EACH	ORDER NO.	PRICE EACH	ORDER NO.	PRICE EACH	ORDER NO.	PRICE EACH
41	.0960 1-3/8 2-3/8	1080-041	\$0.91	1702-041	\$1.46				
42	.0935 1-1/4 2-1/4	1080-042	0.91	—	—				
43	.0890 1-1/4 2-1/4	1080-043	0.91	1702-043	1.46				
44	.0860 1-1/8 2-1/8	1080-044	0.91	1702-044	1.46				
45	.0820 1-1/8 2-1/8	1080-045	0.91	1702-045	1.46				
46	.0810 1-1/8 2-1/8	1080-046	0.91	1702-046	1.46				
47	.0785 1 2	1080-047	0.91	1702-047	1.46				
48	.0760 1 2	1080-048	0.91	1702-048	1.46				
49	.0730 1 2	1080-049	0.91	—	—				
50	.0700 1 2	1080-050	0.91	1702-050	1.46				
51	.0670 1 2	1080-051	0.91	1702-051	1.46				
52	.0635 7/8 1-7/8	1080-052	0.91	1702-052	1.46				
53	.0595 7/8 1-7/8	1080-053	0.91	1702-053	1.43				
54	.0550 7/8 1-7/8	1080-054	0.91	1702-054	1.43				
55	.0520 7/8 1-7/8	1080-055	0.91	1702-055	1.43				
56	.0465 3/4 1-3/4	1080-056	0.91	1702-056	1.43				
57	.0430 3/4 1-3/4	1080-057	0.91	1702-057	1.43				
58	.0420 11/16 1-5/8	1080-058	0.91	1702-058	1.43				
59	.0410 11/16 1-5/8	1080-059	0.91	1702-059	1.43				
60	.0400 11/16 1-5/8	1080-060	0.91	1702-060	1.43				
61	.0390 11/16 1-5/8	1080-061	0.91	—	—				
62	.0380 5/8 1-1/2	1080-062	1.83	—	—				
63	.0370 5/8 1-1/2	1080-063	0.91	—	—				
64	.0360 5/8 1-1/2	1080-064	0.91	—	—				
65	.0350 5/8 1-1/2	1080-065	0.91	—	—				
66	.0330 1/2 1-3/8	1080-066	0.91	—	—				
67	.0320 1/2 1-3/8	1080-067	0.91	—	—				
68	.0310 1/2 1-3/8	1080-068	0.91	—	—				
69	.0292 1/2 1-3/8	1080-069	1.00	—	—				
70	.0280 3/8 1-1/4	1080-070	1.00	—	—				
71	.0260 3/8 1-1/4	1080-071	1.31	—	—				
72	.0250 5/16 1-1/8	1080-072	1.31	—	—				
73	.0240 5/16 1-1/8	1080-073	1.31	—	—				
74	.0225 1/4 1	1080-074	1.31	—	—				
75	.0210 1/4 1	1080-075	1.31	—	—				
76	.0200 3/16 7/8	1080-076	1.31	—	—				
77	.0180 3/16 7/8	1080-077	1.31	—	—				
78	.0160 3/16 7/8	1080-078	1.31	—	—				
79	.0145 1/8 3/4	1080-079	1.58	—	—				
80	.0135 1/8 3/4	1080-080	1.58	—	—				

Jobbers Length Drills

High Speed Steel, Fast Spiral, Straight Flute

WARNING: This product contains Cobalt and/or Nickel and/or Lead a chemical known to the state of California to cause cancer or birth defects or other reproductive harm. For more information: www.pro65.ca.gov.
WARNING: Cutting tools may shatter. Always wear approved safety glasses and mask when regrinding.



PACKAGE QUANTITIES: Letter Sizes
A-N: 12pcs. O-Z: 6 pcs.

Letter Sizes [2]

FAST SPIRAL						STR. FLUTE	
SIZE	DECM'L	FLUTE	OVERALL	ORDER	PRICE	ORDER	PRICE
				NO.	EACH	NO.	EACH
A	.2340	2-5/8	3-7/8	1090-001	\$1.93	1703-001	\$2.92
B	.2380	2-3/4	4	1090-002	1.93	1703-002	3.14
C	.2420	2-3/4	4	1090-003	1.93	-	-
D	.2460	2-3/4	4	1090-004	1.93	1703-004	3.14
E	.2500	2-3/4	4	1090-005	1.78	1703-005	3.14
F	.2570	2-7/8	4-1/8	1090-006	2.29	-	-
G	.2610	2-7/8	4-1/8	1090-007	2.41	1703-007	3.37
H	.2660	2-7/8	4-1/8	1090-008	2.41	1703-008	3.60
I	.2720	2-7/8	4-1/8	1090-009	2.41	1703-009	3.60
J	.2770	2-7/8	4-1/8	1090-010	2.67	1703-010	3.60
K	.2810	2-15/16	4-1/4	1090-011	2.92	1703-011	3.60
L	.2900	2-15/16	4-1/4	1090-012	2.92	1703-012	3.90
M	.2950	3-1/16	4-3/8	1090-013	3.04	1703-013	3.90

FAST SPIRAL						STR. FLUTE	
SIZE	DECM'L	FLUTE	OVERALL	ORDER	PRICE	ORDER	PRICE
				NO.	EACH	NO.	EACH
N	.3020	3-1/16	4-3/8	1090-014	\$3.04	1703-014	\$4.25
O	.3160	3-3/16	4-1/2	1090-015	3.04	1703-015	4.64
P	.3230	3-5/16	4-5/8	1090-016	3.54	1703-016	4.64
Q	.3320	3-7/16	4-3/4	1090-017	3.54	1703-017	5.07
R	.3390	3-7/16	4-3/4	1090-018	3.79	1703-018	5.07
S	.3480	3-1/2	4-7/8	1090-019	3.92	1703-019	5.46
T	.3580	3-1/2	4-7/8	1090-020	4.54	1703-020	5.46
U	.3680	3-5/8	5	1090-021	4.54	1703-021	5.38
V	.3770	3-5/8	5	1090-022	4.66	1703-022	5.56
W	.3860	3-3/4	5-1/8	1090-023	4.78	1703-023	5.56
X	.3970	3-3/4	5-1/8	1090-024	5.66	1703-024	5.74
Y	.4040	3-7/8	5-1/4	1090-025	6.38	1703-025	5.74
Z	.4130	3-7/8	5-1/4	1090-026	6.59	1703-026	5.92

Standard Step Drills

High Speed Steel - Jobbers Length

Look for
ALLEGIANCE
AMERICANMADE [1]



For Drilling and Counterboring Cap
Screw Clearance Holes

SCREW SIZE	MINOR DIAM.	MAJOR DIAM.	STEP LENGTH	FLUTE LENGTH	OVERALL LENGTH	ORDER NO.	PRICE EACH
No. 6	.150	1/4	1/2	2-3/4	4	2864-005	\$21.91
No. 8	.178	L	1/2	2-15/16	4-1/4	2864-010	25.09
No. 10	.204	O	5/8	3-7/16	4-3/4	2864-015	27.46
1/4	9/32	13/32	11/16	3-7/8	5-1/4	2864-020	31.68
5/16	11/32	1/2	3/4	4-1/2	6	2864-025	42.07
3/8	13/32	19/32	7/8	5-3/16	7-1/8	2864-030	67.25
1/2	17/32	25/32	1	3-1/4	5-1/8	2864-035	110.67

*Shorter than Jobber's Length



For Drilling and Countersinking 82° Flat Head Machine
Screws

SCREW SIZE	MINOR DIAM.	MAJOR DIAM.	STEP LENGTH	FLUTE LENGTH	OVERALL LENGTH	ORDER NO.	PRICE EACH
No. 6	.142	9/32	1/2	2-15/16	4-1/4	2864-105	\$23.23
No. 8	.169	Q	1/2	3-7/16	4-3/4	2864-110	27.44
No. 10	.196	W	5/8	3-3/4	5-1/8	2864-115	29.96
1/4	.257	1/2	11/16	4-13/16	6-5/8	2864-120	37.08
5/16	.320	5/8	3/4	5-3/16	7-1/8	2864-125	58.14
3/8	.383	3/4	7/8	5-5/8	7-5/8	2864-130	80.55
1/2	.510	7/8	1	3-1/2	5-1/2	2864-135	115.78

*Shorter than Jobber's Length



For Drilling 45° Chamfered Holes To-Be-Tapped
(To produce approx. 70% thread.)

TAP SIZE	MINOR DIAM.	MAJOR DIAM.	STEP LENGTH	FLUTE LENGTH	OVERALL LENGTH	ORDER NO.	PRICE EACH
5-40	.101	9/64	1/2	1-3/4	2-7/8	2864-205	\$19.60
6-32	.109	5/32	1/2	2	3-1/8	2864-210	19.84
8-32	.136	3/16	1/2	2-5/16	3-1/2	2864-215	20.33
8-36	.136	3/16	1/2	2-5/16	3-1/2	2864-220	20.65
10-24	.152	1/4	5/8	2-3/4	4	2864-225	21.62
10-32	.161	1/4	5/8	2-3/4	4	2864-230	21.62
1/4-20	.204	21/64	13/16	3-5/16	4-5/8	2864-235	26.64
1/4-28	.218	21/64	13/16	3-5/16	4-5/8	2864-240	27.12
5/16-18	.261	13/32	15/16	3-7/8	5-1/4	2864-245	30.36
5/16-24	.272	13/32	15/16	3-7/8	5-1/4	2864-250	30.77
3/8-16	.316	31/64	1	4-3/8	5-7/8	2864-255	40.15
3/8-24	.339	31/64	1	4-3/8	5-7/8	2864-260	40.88
7/16-14	.375	17/32	1-1/16	4-13/16	6-5/8	2864-265	69.99
7/16-20	.390	17/32	1-1/16	4-13/16	6-5/8	2864-270	69.99
1/2-13	.437	5/8	1-1/16	5-3/16	7-1/8	2864-280	80.81
1/2-20	.452	5/8	1-1/16	5-3/16	7-1/8	2864-285	81.78

CAP SCREW SET
No. 6 thru 3/8 Screw Sizes
(6 tools in wood stand)
Order No. 2864-000

SET PRICE.....\$220.74

FLAT HEAD SET
No. 6 thru 3/8 Screw Sizes
(6 tools in wood stand)
Order No. 2864-100

SET PRICE.....\$261.68

TAP DRILL SET
No. 6 thru 3/8 NC TAP Sizes
(6 tools in wood stand)
Order No. 2864-200

SET PRICE.....\$164.21



Screw Machine Length Drills

Right & Left Hand- High Speed Steel, Cobalt, Carbide Tipped

WARNING: This product contains Cobalt and/or Nickel and/or Lead a chemical known to the state of California to cause cancer or birth defects or other reproductive harm. For more information: www.pro65.ca.gov.
WARNING: Cutting tools may shatter. Always wear approved safety glasses and mask when regrinding.



• **Right Hand Spiral**
135° Split Point 3/64"-1/2"
118° 33/64"-3"



• **Cobalt RHS**
135° Split Point 3/64"-1/2"



• **Left Hand Spiral**
118° Point



• **Carbide Tipped RHS**
118° Point

HI SPEED STEEL RH				HI SPEED STEEL LH				COBALT		CARBIDE TIPPED		
 ALLIANCE AMERICAN MADE				 ALLIANCE AMERICAN MADE				 ALLIANCE AMERICAN MADE		 USA		
FRACTIONAL SIZES	FLUTE LENGTH	OVERALL LENGTH	ORDER NO.	PRICE EACH	ORDER NO.	PRICE EACH	ORDER NO.	PRICE EACH	ORDER NO.	PRICE EACH	ORDER NO.	PRICE EACH
3/64	1/2	1-3/8	1160-003	\$ 0.85	1162-003	\$1.52	1190-003	\$1.54	1211-103	\$3.89	-	-
1/16	5/8	1-5/8	1160-004	0.79	1162-004	1.36	1190-004	1.72	1211-104	2.54	-	-
5/64	11/16	1-11/16	1160-005	0.79	1162-005	1.36	1190-005	1.72	1211-105	2.54	-	-
3/32	3/4	1-3/4	1160-006	0.79	1162-006	1.36	1190-006	1.72	1211-106	2.59	-	-
7/64	13/16	1-13/16	1160-007	0.79	1162-007	1.36	1190-007	1.72	1211-107	2.85	-	-
1/8	7/8	1-7/8	1160-008	0.79	1162-008	1.36	1190-008	1.72	1211-108	3.06	3025-208	\$26.46
9/64	15/16	1-15/16	1160-009	0.79	1162-009	1.36	1190-009	1.72	1211-109	3.31	3025-209	28.62
5/32	1	2-1/16	1160-010	0.91	1162-010	1.46	1190-010	2.00	1211-110	3.58	3025-210	29.98
11/64	1-1/16	2-1/8	1160-011	0.97	1162-011	1.75	1190-011	2.29	1211-111	3.93	3025-211	32.14
3/16	1-1/8	2-3/16	1160-012	0.99	1162-012	1.75	1190-012	2.46	1211-112	4.66	3025-212	32.14
13/64	1-3/16	2-1/4	1160-013	1.10	1162-013	1.82	1190-013	2.87	1211-113	5.13	3025-213	32.35
7/32	1-1/4	2-3/8	1160-014	1.29	1162-014	2.24	1190-014	3.24	1211-114	5.38	3025-214	32.35
15/64	1-5/16	2-7/16	1160-015	1.35	1162-015	2.28	1190-015	3.53	1211-115	5.90	3025-215	34.56
1/4	1-3/8	2-1/2	1160-016	1.51	1162-016	2.42	1190-016	3.54	1211-116	6.31	3025-216	34.56
17/64	1-7/16	2-5/8	1160-017	1.64	1162-017	2.81	1190-017	4.52	1211-117	7.14	3025-217	41.58
9/32	1-1/2	2-11/16	1160-018	1.74	1162-018	3.15	1190-018	4.79	1211-118	7.76	3025-218	41.58
19/64	1-9/16	2-3/4	1160-019	1.90	1162-019	3.34	1190-019	5.37	1211-119	9.11	3025-219	43.68
5/16	1-5/8	2-13/16	1160-020	2.05	1162-020	3.80	1190-020	5.38	1211-120	9.57	3025-220	45.90
21/64	1-11/16	2-15/16	1160-021	2.27	1162-021	3.85	1190-021	6.07	1211-121	11.04	3025-221	48.96
11/32	1-11/16	3	1160-022	2.54	1162-022	4.32	1190-022	6.75	1211-122	11.49	3025-222	48.96
23/64	1-3/4	3-1/16	1160-023	2.97	1162-023	5.00	1190-023	8.05	1211-123	13.31	3025-223	50.28
3/8	1-13/16	3-1/8	1160-024	3.08	1162-024	5.21	1190-024	8.29	1211-124	13.31	3025-224	51.04
25/64	1-7/8	3-1/4	1160-025	3.43	1162-025	5.90	1190-025	9.48	1211-125	14.86	3025-225	53.59
13/32	1-15/16	3-5/16	1160-026	3.59	1162-026	6.34	1190-026	9.56	1211-126	15.48	3025-226	53.59
27/64	2	3-3/8	1160-027	3.94	1162-027	6.83	1190-027	10.80	1211-127	17.56	3025-227	59.94
7/16	2-1/16	3-7/16	1160-028	4.00	1162-028	7.13	1190-028	10.89	1211-128	17.81	3025-228	59.94
29/64	2-1/8	3-9/16	1160-029	4.81	1162-029	8.35	1190-029	13.29	1211-129	21.11	-	-
15/32	2-1/8	3-5/8	1160-030	5.01	1162-030	8.68	1190-030	13.79	1211-130	21.11	3025-230	69.36
31/64	2-3/16	3-11/16	1160-031	5.27	1162-031	9.68	1190-031	14.68	1211-131	21.76	-	-
1/2	2-1/4	3-3/4	1160-032	5.18	1162-032	10.53	1190-032	14.16	1211-132	22.15	3025-232	75.55
33/64	2-3/8	3-7/8	1160-033	11.59	1162-033	19.38	1190-033	24.63	1211-133	56.72	-	-
17/32	2-3/8	3-7/8	1160-034	11.91	1162-034	22.81	1190-034	23.76	1211-134	56.72	3025-234	82.30
35/64	2-1/2	4	1160-035	12.64	1162-035	POA	1190-035	24.63	1211-135	58.17	-	-
9/16	2-1/2	4	1160-036	12.41	1162-036	23.68	1190-036	23.76	1211-136	66.73	3025-236	114.00
37/64	2-5/8	4-1/8	1160-037	14.48	1162-037	POA	1190-037	29.50	1211-137	79.25	-	-
19/32	2-5/8	4-1/8	1160-038	14.20	1162-038	27.01	1190-038	28.45	1211-138	76.43	3025-238	94.35
39/64	2-3/4	4-1/4	1160-039	14.59	1162-039	POA	1190-039	31.01	1211-139	80.06	-	-
5/8	2-3/4	4-1/4	1160-040	14.34	1162-040	28.43	1190-040	29.91	1211-140	77.23	3025-240	94.35
41/64	2-7/8	4-1/2	1160-041	16.77	1162-041	POA	1190-041	32.34	1211-141	91.97	-	-
21/32	2-7/8	4-1/2	1160-042	16.47	1162-042	34.81	1190-042	31.19	1211-142	88.67	3025-242	113.40
43/64	2-7/8	4-5/8	1160-043	18.60	1162-043	POA	1190-043	36.28	1211-143	101.86	-	-
11/16	2-7/8	4-5/8	1160-044	18.25	1162-044	34.81	1190-044	34.99	1211-144	98.22	3025-244	116.50
45/64	3	4-3/4	1160-045	20.73	1162-045	POA	1190-045	41.93	1211-145	110.60	-	-
23/32	3	4-3/4	1160-046	19.99	1162-046	35.64	1190-046	40.45	1211-146	106.64	-	-
47/64	3-1/8	5	1160-047	21.88	1162-047	POA	1190-047	43.53	1211-147	116.73	-	-
3/4	3-1/8	5	1160-048	21.10	1162-048	39.52	1190-048	41.98	1211-148	112.56	3025-248	132.45
49/64	3-1/4	5-1/8	1160-049	24.10	1162-049	POA	1190-049	46.88	1211-149	124.33	-	-
25/32	3-1/4	5-1/8	1160-050	23.23	1162-050	POA	1190-050	45.22	1211-150	124.33	-	-
51/64	3-3/8	5-1/4	1160-051	25.37	1162-051	POA	1190-051	54.06	1211-151	131.86	-	-
13/16	3-3/8	5-1/4	1160-052	24.46	1162-051	POA	1190-052	50.78	1211-152	131.86	3025-252	163.60

(Continued)

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WARNING: Cutting tools may shatter. Always wear approved safety glasses and mask when regrinding.

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- 118° Point**

4

2242

HIGH SPEED RH				HIGH SPEED LH		
						
FRAC. SIZES	FLUTE LENGTH	OVERALL LENGTH	ORDER NO.	PRICE EACH	ORDER NO.	PRICE EACH
1-7/8	5-3/8	8-1/4	1160-120	\$154.71	1190-120	\$149.33
1-29/32	5-3/8	8-1/4	1160-122	300.41	1190-122	170.54
1-15/16	5-5/8	8-1/4	1160-124	164.12	1190-124	164.69
1-31/32	5-5/8	8-1/2	1160-126	300.31	1190-126	173.87
2	5-5/8	8-1/2	1160-128	172.44	1190-128	176.77
2-1/16	5-5/8	8-1/2	1160-132	180.60	—	—
2-1/8	5-5/8	8-1/2	1160-136	186.30	—	—
2-3/16	5-5/8	8-1/2	1160-140	198.70	—	—
2-1/4	5-5/8	8-1/2	1160-144	214.50	—	—
2-5/16	5-5/8	8-1/2	1160-148	229.50	—	—
2-3/8	5-5/8	8-1/2	1160-152	232.90	—	—
2-7/16	5-5/8	8-1/2	1160-156	282.20	—	—
2-1/2	5-5/8	8-1/2	1160-160	306.30	—	—
2-3/4	5-5/8	8-1/2	1160-176	POA	—	—
2-7/8	5-5/8	8-1/2	1160-184	POA	—	—
3	5-5/8	8-1/2	1160-192	POA	—	—

PACKAGE QUANTITIES: Fractional Sizes

1/64–19/64: 12 pcs. 5/16–1/2: 6 pcs. 33/64–11/16: 1 pcs.

4

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Screw Machine Length Drills

WARNING: This product contains Cobalt and/or Nickel and/or Lead a chemical known to the state of California to cause cancer or birth defects or other reproductive harm. For more information: www.pro65.ca.gov.
WARNING: Cutting tools may shatter. Always wear approved safety glasses and mask when regrinding.



- **Right Hand Spiral**
135° Split Point: No. 1-52
135° No Split Point: No. 53-60



- **Left Hand Spiral**
118° Point



- **Cobalt RHS**
135° Split Point: No. 1-52
135° No Split Point: No. 53-60

Wire Gage Sizes

HIGH SPEED STEEL RH					HIGH SPEED STEEL LH				COBALT	
WIRE GAGE SIZES	FLUTE LENGTH	OVERALL LENGTH								
			ORDER NO.	PRICE EACH	ORDER NO.	PRICE EACH	ORDER NO.	PRICE EACH	ORDER NO.	PRICE EACH
1	1-5/16	2-7/16	1170-001	\$1.39	1172-001	\$2.51	1200-001	\$2.05	1211-201	\$6.73
2	1-5/16	2-7/16	1170-002	1.39	1172-002	2.51	1200-002	2.05	1211-202	6.73
3	1-1/4	2-3/8	1170-003	1.32	1172-003	2.51	1200-003	1.91	1211-203	6.73
4	1-1/4	2-3/8	1170-004	1.32	1172-004	2.51	1200-004	1.91	1211-204	6.11
5	1-1/4	2-3/8	1170-005	1.32	1172-005	2.51	1200-005	1.91	1211-205	6.11
6	1-1/4	2-3/8	1170-006	1.32	1172-006	2.51	1200-006	1.91	1211-206	6.11
7	1-3/16	2-1/4	1170-007	1.09	1172-007	2.00	1200-007	1.61	1211-207	5.07
8	1-3/16	2-1/4	1170-008	1.09	1172-008	2.00	1200-008	1.61	1211-208	5.07
9	1-3/16	2-1/4	1170-009	1.09	1172-009	2.00	1200-009	1.61	1211-209	5.07
10	1-3/16	2-1/4	1170-010	1.09	1172-010	2.00	1200-010	1.61	1211-210	5.07
11	1-3/16	2-1/4	1170-011	1.09	1172-011	2.00	1200-011	1.55	1211-211	5.07
12	1-3/16	2-1/4	1170-012	1.09	1172-012	2.00	1200-012	1.55	1211-212	5.07
13	1-1/8	2-3/16	1170-013	1.09	1172-013	2.00	1200-013	1.43	1211-213	4.92
14	1-1/8	2-3/16	1170-014	1.09	1172-014	2.00	1200-014	1.43	1211-214	4.92
15	1-1/8	2-3/16	1170-015	1.09	1172-015	2.00	1200-015	1.43	1211-215	4.92
16	1-1/8	2-3/16	1170-016	1.09	1172-016	2.00	1200-016	1.43	1211-216	4.92
17	1-1/8	2-3/16	1170-017	1.09	1172-017	2.00	1200-017	1.43	1211-217	4.92
18	1-1/16	2-1/8	1170-018	0.94	1172-018	2.00	1200-018	1.28	1211-218	4.04
19	1-1/16	2-1/8	1170-019	0.94	1172-019	2.00	1200-019	1.28	1211-219	4.04
20	1-1/16	2-1/8	1170-020	0.94	1172-020	2.00	1200-020	1.28	1211-220	4.04
21	1-1/16	2-1/8	1170-021	0.91	1172-021	2.00	1200-021	1.17	1211-221	4.04
22	1-1/16	2-1/8	1170-022	0.91	1172-022	2.00	1200-022	1.17	1211-222	4.04
23	1	2-1/16	1170-023	0.91	1172-023	2.00	1200-023	1.17	1211-223	4.04
24	1	2-1/16	1170-024	0.91	1172-024	2.00	1200-024	1.17	1211-224	4.04
25	1	2-1/16	1170-025	0.89	1172-025	1.73	1200-025	1.17	1211-225	3.73
26	1	2-1/16	1170-026	0.89	1172-026	1.73	1200-026	1.17	1211-226	3.73
27	1	2-1/16	1170-027	0.77	1172-027	1.73	1200-027	1.10	1211-227	3.73
28	15/16	1-15/16	1170-028	0.77	1172-028	1.51	1200-028	1.10	1211-228	3.73
29	15/16	1-15/16	1170-029	0.77	1172-029	1.51	1200-029	1.00	1211-229	3.73
30	15/16	1-15/16	1170-030	0.77	1172-030	1.51	1200-030	1.00	1211-230	3.00
31	7/8	1-7/8	1170-031	0.77	1172-031	1.51	1200-031	1.00	1211-231	3.00
32	7/8	1-7/8	1170-032	0.77	1172-032	1.51	1200-032	1.00	1211-232	3.00
33	7/8	1-7/8	1170-033	0.77	1172-033	1.51	1200-033	1.00	1211-233	3.00
34	7/8	1-7/8	1170-034	0.77	1172-034	1.51	1200-034	1.00	1211-234	3.00
35	7/8	1-7/8	1170-035	0.77	1172-035	1.51	1200-035	1.00	1211-235	3.00
36	13/16	1-13/16	1170-036	0.77	1172-036	1.51	1200-036	1.00	1211-236	3.00
37	13/16	1-13/16	1170-037	0.77	1172-037	1.51	1200-037	1.00	1211-237	3.00
38	13/16	1-13/16	1170-038	0.77	1172-038	1.51	1200-038	1.00	1211-238	2.74
39	13/16	1-13/16	1170-039	0.77	1172-039	1.51	1200-039	1.00	1211-239	2.74
40	13/16	1-13/16	1170-040	0.77	1172-040	1.51	1200-040	1.00	1211-240	2.74
41	13/16	1-13/16	1170-041	0.77	1172-041	1.51	1200-041	1.00	1211-241	2.74
42	3/4	1-3/4	1170-042	0.77	1172-042	1.51	1200-042	1.00	1211-242	2.74
43	3/4	1-3/4	1170-043	0.77	1172-043	1.51	1200-043	1.00	1211-243	2.74
44	3/4	1-3/4	1170-044	0.77	1172-044	1.51	1200-044	1.00	1211-244	2.74
45	3/4	1-3/4	1170-045	0.77	1172-045	1.51	1200-045	1.00	1211-245	2.74
46	3/4	1-3/4	1170-046	0.77	1172-046	1.51	1200-046	1.00	1211-246	2.74
47	3/4	1-3/4	1170-047	0.77	1172-047	1.51	1200-047	1.00	1211-247	2.74
48	11/16	1-11/16	1170-048	0.77	1172-048	1.51	1200-048	1.00	1211-248	2.74
49	11/16	1-11/16	1170-049	0.77	1172-049	1.51	1200-049	1.00	1211-249	2.74
50	11/16	1-11/16	1170-050	0.77	1172-050	1.51	1200-050	1.00	1211-250	2.74
51	11/16	1-11/16	1170-051	0.77	1172-051	1.51	1200-051	1.00	1211-251	2.74
52	11/16	1-11/16	1170-052	0.77	1172-052	1.51	1200-052	1.00	1211-252	2.74
53	5/8	1-5/8	1170-053	0.77	1172-053	1.51	1200-053	1.00	1211-253	2.74
54	5/8	1-5/8	1170-054	0.77	1172-054	1.51	1200-054	1.00	1211-254	2.74
55	5/8	1-5/8	1170-055	0.77	1172-055	1.51	1200-055	1.00	1211-255	2.74
56	1/2	1-3/8	1170-056	0.77	1172-056	1.51	1200-056	1.00	1211-256	2.74
57	1/2	1-3/8	1170-057	0.77	1172-057	1.51	1200-057	1.00	1211-257	2.98
58	1/2	1-3/8	1170-058	0.77	1172-058	1.51	1200-058	1.00	1211-258	2.98
59	1/2	1-3/8	1170-059	0.77	1172-059	1.51	1200-059	1.00	1211-259	2.98
60	1/2	1-3/8	1170-060	0.77	1172-060	1.51	1200-060	1.00	1211-260	2.98

PACKAGE QUANTITIES: Wire Gage Sizes
1-100: 12 pcs.

Step Drills & Parabolic Drills

WARNING: This product contains Cobalt and/or Nickel and/or Lead a chemical known to the state of California to cause cancer or birth defects or other reproductive harm. For more information: www.prop65.ca.gov.
WARNING: Cutting tools may chatter. Always wear approved safety glasses and mask when regrinding.

Step Drills





NO OF HOLES

HOLE SIZES

SHANK SIZE

STEP THICK.

MODEL

ORDER NO.

PRICE EACH

MODEL

ORDER NO.

PRICE EACH

ORDER NO.

PRICE EACH

STEP DRILLS

TIN COATED

Fractional Sizes											
13	1/8-1/2 x 32nds	1/4	1/8	1	3255-301	\$29.12	1T	3255-321	\$41.65	1911-013	\$17.82
6	3/16-1/2 x 16ths	1/4	3/8	2	3255-303	31.27	2T	3255-322	41.65	1911-006	17.82
9	1/4-3/4 x 16ths	3/8	1/8	3	3255-305	52.60	3T	3255-323	75.08	1911-009	32.29
12	3/16-7/8 x 16ths	3/8	1/8	4	3255-307	62.18	4T	3255-324	88.76	1911-012	39.38
10	1/4-1-3/8 x 8ths	7/16	1/8	5	3255-309	117.99	-	-	-	1911-010	70.60
Self Starting Single Hole Sizes											
1	1/2	1/4	-	10	3255-311	\$30.28	-	-	-	-	-
	7/8	3/8	-	11	3255-312	62.51	-	-	-	-	-
	3/8	1/4	-	12	3255-313	24.39	-	-	-	-	-
	1-1/8	7/16	-	13	3255-315	80.54	-	-	-	-	-
Hole Enlarging Bits											
8	9/16-1 x 16ths	7/16	1/8	20	3255-317	\$60.10	-	-	-	1911-018	26.60
10	13/16-1-3/8 x 16ths	7/16	1/8	21	3255-319	130.74	-	-	-	1911-020	54.05
Metric											
9	4-12MM x 1MM	1/4	5MM	1M	3255-302	\$25.08	1MT	3255-325	\$33.17	-	-
5	4-12MM x 2MM	1/4	11MM	2M	3255-304	25.08	2MT	3255-326	30.59	-	-
7	6-18MM x 2MM	3/8	5MM	3M	3255-306	56.31	3MT	3255-327	60.24	-	-
10	4-22MM x 2MM	3/8	5MM	4M	3255-308	66.55	4MT	3255-328	74.75	-	-
13	5-35MM x 2-3MM	7/16	3.5MM	5M	3255-310	117.99	-	-	-	-	-
Self Starting Single Hole Sizes											
1	8MM	1/4		12M	3255-314	\$12.36	-	-	-	-	-
Hole Enlarging Bits											
6	14-24MM x 2MM	7/16	5MM	20M	3255-318	\$51.63	-	-	-	-	-
8	20-34MM x 2MM	7/16	5MM	21M	3255-320	104.87	-	-	-	-	-

Parabolic Drills – Screw Machine Length – Cobalt & Cobalt TiALN Coated



• Parabolic Cobalt
130° Notched Thinned or Split Point



• Parabolic TiALN
130° Notched Thinned or Split Point

			PARABOLIC COBALT		PARABOLIC COBALT TiALN	
			 USA			
FRAC. SIZES	FLUTE LENGTH	OVERALL LENGTH	ORDER NO.	PRICE EACH	ORDER NO.	PRICE EACH
1/16	5/8	1-5/8	1704-304	\$2.45	1704-604	\$5.11
5/64	11/16	1-11/16	1704-305	2.49	1704-605	5.11
3/32	3/4	1-3/4	1704-306	2.47	1704-606	4.65
7/64	13/16	1-13/16	1704-307	2.76	1704-607	4.65
1/8	7/8	1-7/8	1704-308	3.24	1704-608	5.22
9/64	15/16	1-15/16	1704-309	3.72	1704-609	5.80
5/32	1	2-1/16	1704-310	3.91	1704-610	5.99
11/64	1-1/16	2-1/8	1704-311	4.16	1704-611	6.24
3/16	1-1/8	2-3/16	1704-312	4.48	1704-612	6.56
13/64	1-3/16	2-1/4	1704-313	4.71	1704-613	6.77
7/32	1-1/4	2-3/8	1704-314	5.35	1704-614	7.43
15/64	1-5/16	2-7/16	1704-315	5.60	1704-615	7.68
1/4	1-3/8	2-1/2	1704-316	5.90	1704-616	10.04
17/64	1-7/16	2-5/8	1704-317	6.19	1704-617	10.35
9/32	1-1/2	2-11/16	1704-318	7.11	1704-618	11.27
19/64	1-9/16	2-3/4	1704-319	7.89	1704-619	12.05
5/16	1-5/8	2-13/16	1704-320	7.95	1704-620	12.11
21/64	1-11/16	2-15/16	1704-321	8.12	1704-621	15.49
11/32	1-11/16	3	1704-322	10.35	1704-622	14.09
23/64	1-3/4	3-1/16	1704-323	9.92	1704-623	15.73
3/8	1-13/16	3-1/8	1704-324	11.50	1704-624	19.39
25/64	3-1/4	3-1/4	1704-325	11.23	1704-625	19.67
13/32	1-15/16	3-5/16	1704-326	13.41	1704-626	26.09
27/64	2	3-3/8	1704-327	15.83	1704-627	26.09
7/16	2-1/16	3-7/16	1704-328	15.47	1704-628	27.56
29/64	2-1/8	3-9/16	1704-329	16.65	1704-629	30.32
15/32	2-1/8	3-5/8	1704-330	15.57	1704-630	30.32
31/64	2-3/16	3-11/16	1704-331	20.12	1704-631	30.32
1/2	2-1/4	3-3/4	1704-332	20.12	1704-632	35.28
33/64	2-3/8	3-7/8	1704-333	22.94	1704-633	51.05
17/32	2-3/8	3-7/8	1704-334	23.06	1704-634	51.05
35/64	2-1/2	4	1704-335	23.95	1704-635	51.05

IRWIN Unibit® Step Drill Set



SET DESCRIPTION	TYPE	CONTENTS	ORDER NO.	PRICE EACH
3-pc. Set	HSS	#1,2,3	3255-358	\$115.23
3-pc. Set	TiN coated	#1T,2T,3T	3255-359	153.57
4-pc. Set	HSS w/#1 TiN	#1,2,3 + #1T	3255-360	110.18
4-pc. Set	HSS	#1,2,4 & 21	3255-361	247.51

Pittsburg® Step Drill Set

Self starting, Multiple Hole Sizes in plastic pouch.



SET DESC.	TYPE	CONTENTS	ORDER NO.	PRICE EACH
3-pc. Set	HSS	1/8-1/2 x 32nds, 13 hole, 3/16-1/2 x 16ths, 6 hole, 1/4-3/4 x 16ths, 9 hole	1911-000	\$49.84

Silver & Deming Drills- 1/2" Shank

118° Split Point

WARNING: This product contains Cobalt and/or Nickel and/or Lead a chemical known to the state of California to cause cancer or birth defects or other reproductive harm. For more information: www.prop65.ca.gov.
WARNING: Cutting tools may shatter. Always wear approved safety glasses and mask when regrinding.



High Speed Steel



Cobalt



Carbide Tipped

DIAM.	Pittsburg HSS			Alliance HSS			Pittsburg COBALT			Alliance COBALT			Rock River CARBIDE TIPPED	
	ORDER NO.	PRICE EACH	ORDER NO.	PRICE EACH	1/2" FLATTED SHANK ORDER NO.	PRICE EACH	ORDER NO.	PRICE EACH	ORDER NO.	PRICE EACH	ORDER NO.	PRICE EACH	ORDER NO.	PRICE EACH
1/2	1440-032	\$4.77	-	-	-	-	-	-	-	-	-	-	2995-032	\$86.80
33/64	1440-033	8.91	1441-033	\$22.57	1441-233	\$32.12	1442-033	\$21.85	1445-033	\$41.94	-	-	2995-034	126.95
17/32	1440-034	8.91	1441-034	23.57	1441-234	32.94	1442-034	19.70	1445-034	41.94	-	-	-	-
35/64	1440-035	9.83	1441-035	23.83	1441-235	34.15	1442-035	21.85	1445-035	43.38	-	-	-	-
9/16	1440-036	9.83	1441-036	23.83	1441-236	33.22	1442-036	20.70	1445-036	43.38	-	-	2995-036	131.60
37/64	1440-037	10.58	1441-037	25.60	1441-237	36.68	1442-037	24.60	1445-037	46.44	-	-	-	-
19/32	1440-038	10.58	1441-038	25.60	1441-238	35.69	1442-038	23.80	1445-038	46.44	-	-	2995-038	136.85
39/64	1440-039	11.04	1441-039	26.82	1441-239	36.42	1442-039	24.60	1445-039	49.37	-	-	-	-
5/8	1440-040	11.04	1441-040	26.82	1441-240	36.42	1442-040	23.65	1445-040	49.37	-	-	2995-040	152.15
41/64	1440-041	11.86	1441-041	28.62	1441-241	38.22	1442-041	27.00	1445-041	55.40	-	-	-	-
21/32	1440-042	11.86	1441-042	28.62	1441-242	38.22	1442-042	24.35	1445-042	55.40	-	-	2995-042	164.90
43/64	1440-043	12.47	1441-043	29.74	1441-243	39.44	1442-043	27.55	1445-043	58.46	-	-	-	-
11/16	1440-044	12.47	1441-044	29.74	1441-244	39.44	1442-044	24.35	1445-044	58.46	-	-	2995-044	171.30
45/64	1440-045	12.67	1441-045	30.13	1441-245	39.73	1442-045	30.10	1445-045	62.51	-	-	-	-
23/32	1440-046	12.67	1441-046	30.13	1441-246	39.73	1442-046	27.15	1445-046	62.51	-	-	2995-046	177.75
47/64	1440-047	13.40	1441-047	32.81	1441-247	42.41	1442-047	30.10	1445-047	62.51	-	-	-	-
3/4	1440-048	13.40	1441-048	32.81	1441-248	42.41	1442-048	25.45	1445-048	62.51	-	-	2995-048	186.25
49/64	1440-049	14.43	1441-049	35.02	1441-249	44.62	1442-049	33.70	1445-049	70.65	-	-	-	-
25/32	1440-050	14.43	1441-050	35.02	1441-250	44.62	1442-050	32.55	1445-050	70.65	-	-	2995-050	205.30
51/64	1440-051	15.05	1441-051	41.05	1441-251	50.65	1442-051	34.05	1445-051	73.98	-	-	-	-
13/16	1440-052	15.05	1441-052	38.00	1441-252	47.60	1442-052	30.40	1445-052	73.98	-	-	2995-052	205.85
53/64	1440-053	15.84	1441-053	42.49	1441-253	52.09	1442-053	36.50	1445-053	80.55	-	-	-	-
27/32	1440-054	15.84	1441-054	39.41	1441-254	49.01	1442-054	34.95	1445-054	80.55	-	-	2995-054	205.85
55/64	1440-055	16.04	1441-055	44.11	1441-255	55.64	1442-055	36.50	1445-055	80.55	-	-	-	-
7/8	1440-056	16.04	1441-056	39.41	1441-256	49.01	1442-056	32.60	1445-056	79.61	-	-	2995-056	214.20
57/64	1440-057	17.34	1441-057	46.04	1441-257	55.64	1442-057	40.85	1445-057	84.83	-	-	-	-
29/32	1440-058	17.34	1441-058	43.99	1441-258	58.96	1442-058	39.05	1445-058	84.83	-	-	2995-058	219.30
59/64	1440-059	17.99	1441-059	49.27	1441-259	58.87	1442-059	40.85	1445-059	84.83	-	-	-	-
15/16	1440-060	17.99	1441-060	49.27	1441-260	58.87	1442-060	36.45	1445-060	84.83	-	-	2995-060	221.55
61/64	1440-061	19.40	1441-061	52.08	1441-261	61.68	1442-061	48.00	1445-061	94.68	-	-	-	-
31/32	1440-062	19.40	1441-062	46.87	1441-262	58.87	1442-062	45.95	1445-062	94.68	-	-	2995-062	229.00
63/64	1440-063	21.34	1441-063	52.18	1441-263	61.78	1442-063	48.05	1445-063	102.92	-	-	-	-
1	1440-064	24.54	1441-064	53.13	1441-264	63.24	1442-064	42.90	1445-064	102.92	-	-	2995-064	233.90
1-1/64	1440-065	28.69	-	-	-	-	-	-	-	-	-	-	-	-
1-1/32	1440-066	29.35	1441-066	72.40	1441-266	103.00	1442-066	50.45	-	-	-	-	2995-066	225.75
1-3/64	1440-067	29.35	-	-	-	-	-	-	-	-	-	-	-	-
1-1/16	1440-068	29.35	1441-068	61.80	1441-268	89.75	1442-068	53.55	1445-068	142.16	-	-	2995-068	244.90
1-5/64	1440-069	30.11	-	-	-	-	-	-	-	-	-	-	-	-
1-3/32	1440-070	31.40	1441-070	72.40	1441-270	103.00	1442-070	61.70	-	-	-	-	2995-070	250.65
1-7/64	1440-071	31.88	-	-	-	-	-	-	-	-	-	-	-	-
1-1/8	1440-072	32.99	1441-072	72.78	1441-272	103.48	1442-072	60.90	1445-072	161.73	-	-	2995-072	255.65
1-9/64	1440-073	32.99	-	-	-	-	-	-	-	-	-	-	-	-
1-5/32	1440-074	32.99	1441-074	80.50	1441-274	113.13	1442-074	63.55	-	-	-	-	2995-074	310.25
1-11/64	1440-075	35.90	-	-	-	-	-	-	-	-	-	-	-	-
1-3/16	1440-076	36.23	1441-076	80.61	1441-276	113.26	1442-076	66.50	1445-076	177.39	-	-	2995-076	315.85
1-13/64	1440-077	38.10	-	-	-	-	-	-	-	-	-	-	-	-
1-7/32	1440-078	39.36	1441-078	88.58	1441-278	123.23	-	-	-	-	-	-	2995-078	331.60
1-15/64	1440-079	39.36	-	-	-	-	-	-	-	-	-	-	-	-
1-1/4	1440-080	39.36	1441-080	88.58	1441-280	123.23	1442-080	70.35	1445-080	196.47	-	-	2995-080	302.80
1-17/64	1440-081	45.29	-	-	-	-	-	-	-	-	-	-	-	-
1-9/32	1440-082	45.29	1441-082	122.50	1441-282	165.63	-	-	-	-	-	-	-	-
1-19/64	1440-083	48.32	-	-	-	-	-	-	-	-	-	-	-	-
1-5/16	1440-084	48.32	1441-084	132.50	1441-284	178.13	1442-084	79.90	1445-084	277.43	-	-	-	-
1-21/64	1440-085	52.60	-	-	-	-	-	-	-	-	-	-	-	-
1-11/32	1440-086	52.60	1441-086	132.50	1441-286	178.13	-	-	-	-	-	-	-	-
1-23/64	1440-087	55.18	-	-	-	-	-	-	-	-	-	-	-	-
1-3/8	1440-088	55.18	1441-088	132.50	1441-288	178.13	1442-088	79.95	1445-088	55.18	-	-	-	-
1-25/64	1440-089	57.39	-	-	-	-	-	-	-	-	-	-	-	-
1-13/32	1440-090	57.39	1441-090	140.34	1441-290	187.93	-	-	-	-	-	-	-	-
1-27/64	1440-091	61.31	-	-	-	-	-	-	-	-	-	-	-	-
1-7/16	1440-092	61.31	1441-092	155.38	1441-292	207.39	1442-092	86.35	1445-092	310.23	-	-	-	-
1-29/64	1440-093	63.27	-	-	-	-	-	-	-	-	-	-	-	-
1-15/32	1440-094	63.27	1441-094	162.99	1441-294	216.24	-	-	-	-	-	-	-	-
1-31/64	1440-095	66.71	-	-	-	-	-	-	-	-	-	-	-	-
1-1/2	1440-096	66.71	1441-096	174.30	1441-296	230.38	1442-096	87.25	1445-096	276.30	-	-	-	-

Silver & Deming Drills

WARNING: This product contains Cobalt and/or Nickel and/or Lead a chemical known to the state of California to cause cancer or birth defects or other reproductive harm. For more information: www.pro65.ca.gov.
WARNING: Cutting tools may shatter. Always wear approved safety glasses and mask when regrinding.



Silver & Deming Drills- 1/2" Shank - Metric Sizes

3-1/8" Flute x 6" OAL



Cobalt



High Speed Steel

3

DIAM. MM.	HIGH SPEED ORDER NO.	PRICE EACH	COBALT ORDER NO.	PRICE EACH
13.00	1443-130	\$20.36	1444-130	\$18.23
13.50	1443-135	22.87	1444-135	20.24
14.00	1443-140	26.20	1444-140	20.24
14.50	1443-145	26.20	1444-145	22.93
15.00	1443-150	28.08	1444-150	22.93
15.50	1443-155	29.35	1444-155	23.14
16.00	1443-160	31.09	1444-160	25.07
16.50	1443-165	31.24	1444-165	25.07
17.00	1443-170	32.51	1444-170	25.98
17.50	1443-175	32.51	1444-175	28.92
18.00	1443-180	34.25	1444-180	28.92
18.50	1443-185	35.82	1444-185	29.47
19.00	1443-190	35.82	1444-190	29.47
19.50	1443-195	37.40	1444-195	33.60
20.00	1443-200	37.72	1444-200	35.80
20.50	1443-205	42.26	1444-205	35.80
21.00	1443-210	42.26	1444-210	36.35
21.50	1443-215	43.83	1444-215	37.73
22.00	1443-220	43.83	1444-220	37.73
22.50	1443-225	45.81	1444-225	38.41
23.00	1443-230	45.81	1444-230	38.41
23.50	1443-235	51.71	1444-235	41.38
24.00	1443-240	51.71	1444-240	43.99
24.50	1443-245	57.64	1444-245	43.99
25.00	1443-250	57.64	1444-250	45.08
25.50	1443-255	88.57	1444-255	50.53
26.00	1443-260	88.57	1444-260	50.53
26.50	1443-265	88.57	1444-265	50.53
27.00	1443-270	88.57	1444-270	54.44
27.50	1443-275	98.65	1444-275	54.44
28.00	1443-280	98.65	1444-280	54.44
28.50	1443-285	100.73	1444-285	60.50
29.00	1443-290	100.73	1444-290	60.50
29.50	1443-295	110.61	1444-295	60.50
30.00	1443-300	110.61	1444-300	68.70
30.50	1443-305	110.61	1444-305	68.70
31.00	1443-310	119.00	1444-310	68.70
31.50	1443-315	119.00	1444-315	79.03
32.00	1443-320	137.70	1444-320	79.03
32.50	1443-325	137.70	1444-325	79.03
33.00	1443-330	145.93	1444-330	79.03
33.50	1443-335	145.93	1444-335	81.55
34.00	1443-340	158.27	1444-340	81.55
34.50	1443-345	158.27	1444-345	81.55
35.00	1443-350	167.75	1444-350	91.28
35.50	1443-355	167.75	1444-355	91.28
36.00	1443-360	174.11	1444-360	91.28
36.50	1443-365	174.11	1444-365	94.99
37.00	1443-370	191.44	1444-370	94.99
37.50	1443-375	191.44	1444-375	94.99
38.00	1443-380	191.44	1444-380	94.99

3/4" Shank Drills



High Speed Steel



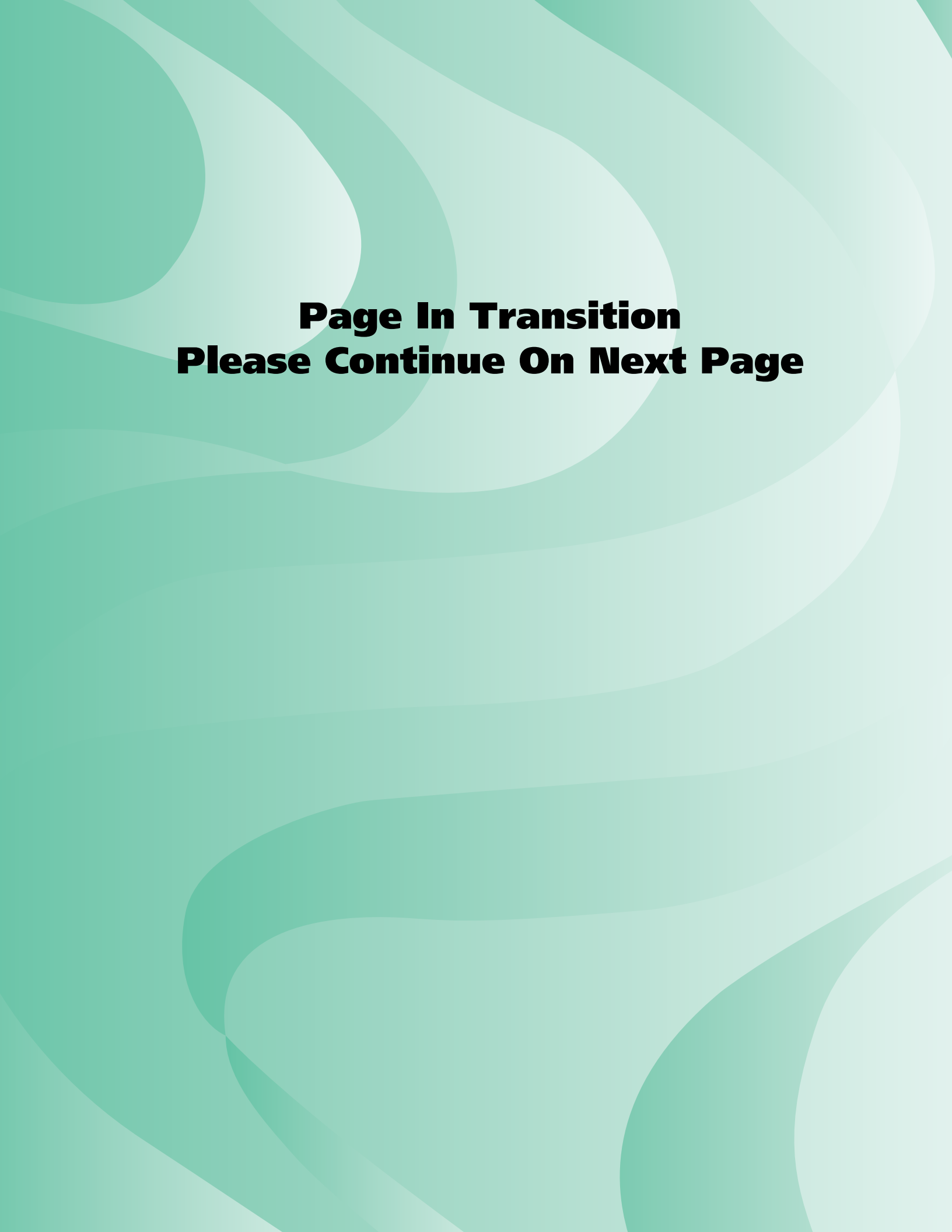
Cobalt - 135° Notched Point

3

3

3

Pittsburgh AMERICAN MADE			ALLEGIANCE AMERICAN MADE			ALLEGIANCE AMERICAN MADE		
DIAM.	HSS - 118° ORDER NO.	PRICE EACH	DIAM.	HSS - 118° ORDER NO.	PRICE EACH	DIAM.	COBALT - 135° ORDER NO.	PRICE EACH
25/32	1470-050	POA	1470-450	\$ 63.43	1470-650	\$ 92.81		
13/16	1470-052	POA	1470-452	66.46	1470-652	96.41		
27/32	1470-054	POA	1470-454	71.50	1470-654	102.04		
7/8	1470-056	POA	1470-456	74.01	1470-656	106.20		
29/32	1470-058	POA	1470-458	76.40	1470-658	116.10		
15/16	1470-060	POA	1470-460	81.89	1470-660	124.31		
31/32	1470-062	POA	1470-462	85.04	1470-662	131.29		
1	1470-064	\$ 38.40	1470-464	86.89	1470-664	136.35		
1-1/32	1470-066	POA	1470-466	103.95	1470-666	175.05		
1-1/16	1470-068	48.22	1470-468	103.95	1470-668	185.78		
1-3/32	1470-079	POA	1470-470	110.83	1470-670	200.93		
1-1/8	1470-072	50.99	1470-472	115.93	1470-672	208.26		
1-5/32	1470-074	POA	1470-474	118.15	1470-674	216.25		
1-3/16	1470-076	54.42	1470-476	129.70	1470-676	236.31		
1-7/32	1470-078	POA	1470-478	140.23	1470-678	242.33		
1-1/4	1470-080	68.71	1470-480	143.00	1470-680	253.35		
1-9/32	1470-082	POA	1470-482	160.80	1470-682	351.29		
1-5/16	1470-084	76.35	1470-484	167.13	1470-684	351.29		
1-11/32	1470-096	104.09	1470-486	178.13	1470-686	354.38		
1-3/8	1470-088	86.36	1470-488	185.04	1470-688	354.38		
1-13/32	1470-090	POA	1470-490	195.50	1470-690	382.84		
1-7/16	1470-092	95.28	1470-492	206.20	1470-692	382.84		
1-15/32	1470-094	POA	1470-494	214.79	1470-694	394.43		
1-1/2	1470-096	104.09	1470-496	242.99	1470-696	394.43		
1-9/16	1470-100	124.24	1470-500	260.54	1470-700	433.13		
1-5/8	1470-104	129.19	1470-504	289.69	1470-704	483.75		
1-11/16	1470-108	143.00	1470-508	332.30	1470-708	492.93		
1-3/4	1470-112	153.40	1470-512	335.90	1470-712	562.39		
1-13/16	1470-116	180.54	1470-516	376.45	1470-716	618.53		
1-7/8	1470-120	169.77	1470-520	384.56	1470-720	646.61		
1-15/16	1470-124	184.60	1470-524	404.13	1470-724	674.65		
2	1470-128	201.50	1470-528	419.43	1470-728	719.55		



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Taper Length Drills- Long Series

Straight Shank, High Speed Steel

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WARNING: Cutting tools may shatter. Always wear approved safety glasses and mask when regrinding.

Carbide Tipped

Regular Spiral

Fast Spiral

Cobalt

Parabolic

Fractional Sizes

			REG. SPIRAL		REG. SPIRAL		FAST SPIRAL		COBALT		CARBIDE TIPPED		PARABOLIC HSS	
FRAC. SIZES	FLUTE LG'TH	OVERALL LENGTH	ORDER NO.	PRICE EACH	ORDER NO.	PRICE EACH	ORDER NO.	PRICE EACH	ORDER NO.	PRICE EACH	ORDER NO.	PRICE EACH	ORDER NO.	PRICE EACH
1/64			-	-	1222-001	\$7.83	-	-	-	-	-	-	-	-
1/32	3/4	2	-	-	1222-002	5.71	-	-	-	-	-	-	-	-
3/64	1-1/8	2-1/4	1220-003	\$1.68	1222-003	4.38	1260-003	\$1.87	-	-	-	-	1706-004	\$ 3.85
1/16	1-3/4	3	1220-004	1.74	1222-004	4.34	1260-004	1.97	1290-004	\$3.55	-	-	1706-005	5.40
5/64	2	3-3/4	1220-005	2.05	1222-005	4.45	1260-005	2.31	1290-005	4.15	-	-	-	-
3/32	2-1/4	4-1/4	1220-006	2.45	1222-006	4.75	1260-006	2.80	1290-006	5.00	-	-	1706-006	6.45
7/64	2-1/2	4-5/8	1220-007	3.10	1222-007	4.96	1260-007	3.45	1290-007	6.25	-	-	1706-007	6.95
1/8	2-3/4	5-1/8	1220-008	3.14	1222-008	5.20	1260-008	3.57	1290-008	6.40	2992-008	\$36.69	1706-008	7.95
9/64	3	5-3/8	1220-009	3.82	1222-009	6.11	1260-009	4.78	1290-009	7.80	2992-009	40.54	1706-009	10.60
5/32	3	5-3/8	1220-010	3.82	1222-010	6.11	1260-010	4.33	1290-010	7.80	2992-010	38.65	1706-010	9.60
11/64	3-3/8	5-3/4	1220-011	3.85	1222-011	6.69	1260-011	5.10	1290-011	7.80	2992-011	39.33	1706-011	11.25
3/16	3-3/8	5-3/4	1220-012	3.82	1222-012	6.69	1260-012	4.33	1290-012	7.80	2992-012	39.33	1706-012	9.60
13/64	3-5/8	6	1220-013	4.49	1222-013	7.20	1260-013	5.81	1290-013	9.10	2992-013	41.59	1706-013	12.90
7/32	3-5/8	6	1220-014	4.45	1222-014	7.96	1260-014	6.20	1290-014	9.10	2992-014	41.59	1706-014	13.90
15/64	3-3/4	6-1/8	1220-015	4.49	1222-015	8.11	1260-015	6.20	1290-015	9.45	2992-015	47.83	1706-015	11.07
1/4	3-3/4	6-1/8	1220-016	4.45	1222-016	7.14	1260-016	5.10	1290-016	9.10	2992-016	46.96	1706-016	11.80
17/64	3-7/8	6-1/4	1220-017	5.50	1222-017	8.80	1260-017	6.47	1290-017	11.45	2992-017	53.68	1706-017	11.15
9/32	3-7/8	6-1/4	1220-018	5.44	1222-018	8.73	1260-018	6.20	1290-018	11.05	2992-018	52.69	1706-018	13.85
19/64	4	6-3/8	1220-019	5.57	1222-019	9.16	1260-019	7.08	1290-019	11.45	2992-019	57.94	1706-019	15.80
5/16	4	6-3/8	1220-020	5.51	1222-020	9.24	1260-020	6.20	1290-020	11.05	2992-020	56.86	1706-020	13.85
21/64	4-1/8	6-1/2	1220-021	6.37	1222-021	10.23	1260-021	7.25	1290-021	13.15	2992-021	63.79	1706-021	16.15
11/32	4-1/8	6-1/2	1220-022	6.32	1222-022	10.23	1260-022	7.08	1290-022	12.75	2992-022	62.65	1706-022	16.15
23/64	4-1/4	6-3/4	1220-023	7.51	1222-023	12.03	1260-023	8.35	1290-023	15.55	2992-023	69.99	1706-023	19.30
3/8	4-1/4	6-3/4	1220-024	7.44	1222-024	12.03	1260-024	8.35	1290-024	15.00	2992-024	71.59	1706-024	18.80
25/64	4-3/8	7	1220-025	7.84	1222-025	12.56	1260-025	8.78	1290-025	16.15	2992-025	77.08	1706-025	19.95
13/32	4-3/8	7	1220-026	7.76	1222-026	12.56	1260-026	8.73	1290-026	15.60	2992-026	75.68	1706-026	20.25
27/64	4-5/8	7-1/4	1220-027	8.46	1222-027	13.55	1260-027	9.44	1290-027	17.50	2992-027	88.73	1706-027	19.50
7/16	4-5/8	7-1/4	1220-028	8.53	1222-028	13.69	1260-028	9.61	1290-028	17.25	2992-028	88.05	1706-028	17.90
29/64	4-3/4	7-1/2	1220-029	9.56	1222-029	15.33	1260-029	10.64	1290-029	19.90	2992-029	97.46	1706-029	25.45
15/32	4-3/4	7-1/2	1220-030	10.06	1222-030	16.13	1260-030	11.30	1290-030	20.20	2992-030	97.46	1706-030	25.65
31/64	4-3/4	7-3/4	1220-031	10.60	1222-031	17.83	1260-031	12.35	1290-031	21.95	2992-031	104.65	1706-031	27.80
1/2	4-3/4	7-3/4	1220-032	10.50	1222-032	19.94	1260-032	11.80	1290-032	21.20	2992-032	111.94	1706-032	27.65
33/64	4-3/4	8	1220-033	15.01	1222-033	25.99	1260-033	8.53	1290-033	28.25	2992-033	147.49	-	-
17/32	4-3/4	8	1220-034	16.73	1222-034	25.73	-	-	1290-034	27.20	2992-034	147.49	1706-034	43.25
35/64	4-7/8	8-1/4	1220-035	15.78	1222-035	27.32	-	-	1290-035	30.50	2992-035	148.43	-	-
9/16	4-7/8	8-1/4	1220-036	17.59	1222-036	27.05	-	-	1290-036	29.40	2992-036	148.43	1706-036	45.20
37/64	4-7/8	8-3/4	1220-037	20.76	1222-037	31.93	-	-	1290-037	35.60	2992-037	162.15	-	-
19/32	4-7/8	8-3/4	1220-038	20.76	1222-038	31.93	1260-038	10.25	1290-038	34.35	2992-038	162.15	1706-038	48.85
39/64	4-7/8	8-3/4	1220-039	21.48	1222-039	33.05	1260-039	10.76	1290-039	35.60	2992-039	180.55	-	-
5/8	4-7/8	8-3/4	1220-040	21.26	1222-040	32.72	1260-040	10.25	1290-040	34.35	2992-040	160.20	1706-040	54.95
41/64	5-1/8	9	1220-041	25.89	1222-041	39.83	1260-041	12.17	1290-041	39.30	2992-041	208.15	-	-
21/32	5-1/8	9	1220-042	24.72	1222-042	38.02	1260-042	11.71	1290-042	37.85	2992-042	180.41	1706-042	40.10
43/64	5-3/8	9-1/4	1220-043	30.42	1222-043	46.78	1260-043	13.77	1290-043	45.95	2992-043	239.78	-	-
11/16	5-3/8	9-1/4	1220-044	26.14	1222-044	45.24	1260-044	13.25	1290-044	44.30	2992-044	188.03	1706-044	71.00
45/64	5-5/8	9-1/2	1220-045	32.01	1222-045	49.25	1260-045	14.72	1290-045	50.30	2992-045	217.35	-	-
23/32	5-5/8	9-1/2	1220-046	30.56	1222-046	47.02	1260-046	14.47	1290-046	48.50	2992-046	219.65	1706-046	75.15
47/64	5-7/8	9-3/4	1220-047	34.43	1222-047	52.97	1260-047	16.08	1290-047	53.20	2992-047	220.80	-	-
3/4	5-7/8	9-3/4	1220-048	32.25	1222-048	49.60	-	-	1290-048	51.35	2992-048	226.84	1706-048	82.10
49/64	6	9-7/8	1220-049	37.80	1222-049	58.16	1260-049	16.92	-	-	2992-049	232.59	-	-
25/32	6	9-7/8	1220-050	36.10	1222-050	55.54	1260-050	16.92	-	-	2992-050	238.34	-	-
51/64	6-1/8	10	1220-051	40.66	1222-051	62.56	1260-051	18.21	-	-	2992-051	246.54	-	-
13/16	6-1/8	10	1220-052	38.45	1222-052	59.16	-	-	-	-	2992-052	249.84	-	-
53/64	6-1/8	10	1220-053	43.98	1222-053	67.68	1260-053	18.83	-	-	2992-053	252.43	-	-
27/32	6-1/8	10	1220-054	40.86	1222-054	62.86	1260-054	18.83	-	-	2992-054	260.91	-	-
55/64	6-1/8	10	1220-055	46.21	1222-055	71.08	1260-055	19.78	-	-	2992-055	266.80	-	-
7/8	6-1/8	10	1220-056	42.93	1222-056	66.04	1260-056	19.56	-	-	2992-056	271.40	-	-
57/64	6-1/8	10	1220-057	48.14	1222-057	74.07	1260-057	20.61	-	-	2992-057	272.99	-	-
29/32	6-1/8	10	1220-058	44.73	1222-058	68.80	1260-058	20.61	-	-	2992-058	275.71	-	-
59/64	6-1/8	10-3/4	1220-059	52.39	1222-059	80.60	1260-059	22.08	-	-	2992-059	279.74	-	-
15/16	6-1/8	10-3/4	1220-060	48.65	1222-060	74.86	1260-060	22.44	-	-	2992-060	283.48	-	-
61/64	6-3/8	11	1220-061	57.79	1222-061	88.91	1260-061	24.77	-	-	2992-061	288.36	-	-
31/32	6-3/8	11	1220-062	53.68	1222-062	82.58	1260-062	24.77	-	-	2992-062	292.68	-	-
63/64	6-3/8	11	1220-063	60.25	1222-063	92.69	1260-063	26.05	-	-	2992-063	297.28	-	-
1	6-3/8	11	1220-064	84.78	1222-064	89.26	1260-064	25.81	-	-	2992-064	302.16	-	-

Taper Length Drills- Long Series

Straight Shank, High Speed Steel

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Regular Spiral



Fast Spiral

Fractional Sizes (cont'd)

2

3

			Pittsburg® REG. SPIRAL		Pittsburg® USA REG. SPIRAL		Pittsburg® FAST SPIRAL	
FRAC. SIZES	FLUTE LG'TH	OVERALL LENGTH	ORDER NO.	PRICE EACH	ORDER NO.	PRICE EACH	ORDER NO.	PRICE EACH
1-1/64	6-1/2	11-1/8	1220-065	\$79.41	1222-065	\$126.69	1260-065	\$33.00
1-1/32	6-1/2	11-1/8	1220-066	70.19	1222-066	116.58	1260-066	POA
1-3/64	6-5/8	11-1/4	1220-067	82.12	1222-067	131.03	1260-067	34.22
1-1/16	6-5/8	11-1/4	1220-068	72.58	1222-068	125.16	1260-068	34.22
1-5/64	6-7/8	11-1/2	1220-069	88.10	1222-069	140.57	1260-069	39.45
1-3/32	6-7/8	11-1/2	1220-070	77.87	1222-070	129.29	1260-070	39.45
1-7/64	7-1/8	11-3/4	1220-071	91.45	1222-071	145.89	1260-071	39.45
1-1/8	7-1/8	11-3/4	1220-072	77.15	1222-072	134.15	1260-072	40.92
1-9/64	7-1/4	11-7/8	1220-073	92.04	1222-073	146.85	1260-073	41.58
1-5/32	7-1/4	11-7/8	1220-074	87.97	1222-074	146.85	1260-074	POA
1-11/64	7-3/8	12	1220-075	99.10	1222-075	158.10	1260-075	46.20
1-3/16	7-3/8	12	1220-076	90.41	1222-076	157.35	1260-076	47.96
1-13/64	7-1/2	12-1/8	1220-077	102.06	1222-077	164.33	1260-077	50.03
1-7/32	7-1/2	12-1/8	1220-078	93.10	1222-078	164.33	1260-078	50.06
1-15/64	7-7/8	12-1/2	1220-079	106.15	1222-079	170.73	1260-079	50.47
1-1/4	7-7/8	12-1/2	1220-080	100.44	1222-080	170.73	1260-080	51.35
1-17/64	8-1/2	14-1/8	1220-081	POA	-	-	-	-
1-9/32	8-1/2	14-1/8	1220-082	116.58	1222-082	194.74	-	-
1-19/64	8-5/8	14-1/4	1220-083	POA	-	-	-	-
1-5/16	8-5/8	14-1/4	1220-084	125.52	1222-084	201.89	1260-084	74.92
1-21/64	8-3/4	14-3/8	1220-085	POA	-	-	-	-
1-11/32	8-3/4	14-3/8	1220-086	129.14	1222-086	209.47	-	-
1-23/64	8-7/8	14-1/2	1220-087	POA	-	-	-	-
1-3/8	8-7/8	14-1/2	1220-088	134.64	1222-088	217.36	1260-088	75.68
1-25/64	9	14-5/8	1220-089	POA	-	-	-	-
1-13/32	9	14-5/8	1220-090	140.60	-	-	-	-
1-27/64	9-1/8	14-3/4	1220-091	POA	1222-090	229.63	-	-
1-7/16	9-1/8	14-3/4	1220-092	146.71	1222-092	236.73	1260-092	87.56
1-29/64	9-1/4	14-7/8	1220-093	POA	1222-094	256.97	-	-
1-15/32	9-1/4	14-7/8	1220-094	152.80	-	-	-	-
1-31/64	9-3/8	15	1220-095	POA	-	-	-	-
1-1/2	9-3/8	15	1220-096	164.46	1222-096	265.40	1260-096	96.80
1-17/32	9-5/8	15-1/4	1220-098	POA	-	-	-	-
1-9/16	9-5/8	15-1/4	1220-100	184.03	1222-100	297.25	-	-
1-19/32	9-7/8	15-1/4	1220-102	POA	-	-	-	-
1-5/8	9-7/8	15-5/8	1220-104	207.79	1222-104	335.92	-	-
1-21/32	10	15-3/4	1220-106	POA	-	-	-	-
1-11/16	10	15-3/4	1220-108	240.03	1222-108	411.18	-	-
1-23/32	10-1/2	16-1/4	1220-110	POA	-	-	-	-
1-3/4	10-1/2	16-1/4	1220-112	250.39	1222-112	404.40	-	-
1-25/32	10-1/2	16-1/4	1220-114	POA	-	-	-	-
1-13/16	10-1/2	16-1/4	1220-116	298.70	1222-116	498.96	-	-
1-27/32	10-3/4	16-1/2	1220-118	POA	1222-120	550.24	-	-
1-7/8	10-3/4	16-1/2	1220-120	134.21	-	-	-	-
1-29/32	10-3/4	16-5/8	1220-122	POA	-	-	-	-
1-15/16	10-3/4	16-5/8	1220-124	338.14	1222-124	572.70	-	-
1-31/32	10-3/4	16-5/8	1220-126	POA	-	-	-	-
2	10-3/4	16-5/8	1220-128	522.34	1222-128	625.73	-	-
2-1/64	10-3/8	17-3/8	1220-129	POA	-	-	-	-
2-1/32	10-3/8	17-3/8	1220-130	POA	-	-	-	-
2-1/16	10-3/8	17-3/8	1220-132	POA	-	-	-	-
2-5/64	10-1/4	17-3/8	1220-133	POA	-	-	-	-
2-7/64	10-1/4	17-3/8	1220-135	POA	-	-	-	-
2-1/8	10-1/4	17-3/8	1220-136	POA	-	-	-	-
2-5/32	10-1/4	17-3/8	1220-138	POA	-	-	-	-
2-3/16	10-1/4	17-3/8	1220-140	POA	-	-	-	-
2-7/32	10-1/8	17-3/8	1220-142	POA	-	-	-	-
2-1/4	10-1/8	17-3/8	1220-144	POA	-	-	-	-

Fractional Sizes (cont'd)

Pittsburg® REG. SPIRAL					
FRAC. SIZES	DECIMAL EQUIV.	FLUTE LG'TH	OVERALL LENGTH	ORDER NO.	PRICE EACH
2-17/64	2.2656	10-1/8	17-3/8	1220-145	POA
2-9/32	2.2812	10-1/8	17-3/8	1220-146	POA
2-5/16	2.3125	10-1/8	17-3/8	1220-148	POA
2-11/32	2.3438	10-1/8	17-3/8	1220-150	POA
2-3/8	2.3750	10-1/8	17-3/8	1220-152	POA
2-13/32	2.4062	11-1/4	18-3/4	1220-154	POA
2-7/16	2.4375	11-1/4	18-3/4	1220-156	POA
2-15/32	2.4688	11-1/4	18-3/4	1220-158	POA
2-1/2	2.5000	11-1/4	18-3/4	1220-160	POA
2-17/32	2.5312	11-7/8	19-1/2	1220-162	POA
2-9/16	2.5625	11-7/8	19-1/2	1220-164	POA
2-37/64	2.5781	11-7/8	19-1/2	1220-165	POA
2-19/32	2.6250	11-7/8	19-1/2	1220-166	POA
2-5/8	2.6300	11-7/8	19-1/2	1220-168	POA
2-21/32	2.6562	12-3/4	19-1/2	1220-170	POA
2-11/16	2.6875	12-3/4	20-3/8	1220-172	POA
2-3/4	2.7500	12-3/4	20-3/8	1220-176	POA
2-25/32	2.7812	13-3/8	21-1/8	1220-178	POA
2-13/16	2.8125	13-3/8	21-1/8	1220-180	POA
2-27/32	2.8438	13-3/8	21-1/8	1220-182	POA
2-7/8	2.8750	13-3/8	21-1/8	1220-184	POA
2-29/32	2.9062	14	21-3/4	1220-186	POA
2-15/16	2.9375	14	21-3/4	1220-188	POA
2-31/32	2.9688	14	21-3/4	1220-190	POA
3	3.0000	14	21-3/4	1220-192	POA

Letter Sizes

3

2

3

			Pittsburg® REG. SPIRAL		Pittsburg® USA REG. SPIRAL		Pittsburg® FAST SPIRAL	
LETTER SIZES	FLUTE LG'TH	OVERALL LENGTH	ORDER NO.	PRICE EACH	ORDER NO.	PRICE EACH	ORDER NO.	PRICE EACH
A	3-3/4	6-1/8	1240-001	\$7.84	1241-001	\$12.79	1280-001	\$8.18
B	3-3/4	6-1/8	1240-002	7.84	1241-002	12.79	1280-002	8.59
C	3-3/4	6-1/8	1240-003	7.84	1241-003	12.79	1280-003	8.59
D	3-3/4	6-1/8	1240-004	4.76	1241-004	12.79	1280-004	8.59
E	3-3/4	6-1/8	1240-005	2.88	1241-005	7.14	1280-005	6.85
F	3-7/8	6-1/4	1240-006	5.19	1241-006	13.53	1280-006	9.36
G	3-7/8	6-1/4	1240-007	8.95	1241-007	14.84	1280-007	9.36
H	3-7/8	6-1/4	1240-008	8.95	1241-008	14.84	1280-008	9.73
I	3-7/8	6-1/4	1240-009	8.95	1241-009	14.84	1280-009	9.73
J	3-7/8	6-1/4	1240-010	8.95	1241-010	14.84	1280-010	9.73
K	3-7/8	6-1/4	1240-011	8.95	1241-011	14.84	1280-011	9.73
L	4	6-3/8	1240-012	9.59	1241-012	14.84	1280-012	10.30
M	4	6-3/8	1240-013	9.59	1241-013	14.99	1280-013	10.30
N	4	6-3/8	1240-014	5.85	1241-014	14.99	1280-014	10.52
O	4-1/8	6-1/2	1240-015	5.85	1241-015	14.99	1280-015	10.52
P	4-1/8	6-1/2	1240-016	9.77	1241-016	14.99	1280-016	10.52
Q	4-1/8	6-1/2	1240-017	9.96	1241-017	14.99	1280-017	10.52
R	4-1/8	6-1/2	1240-018	10.28	1241-018	16.25	1280-018	11.03
S	4-1/4	6-3/4	1240-019	10.28	1241-019	18.48	1280-019	11.03
T	4-1/4	6-3/4	1240-020	6.17	1241-020	18.48	1280-020	11.03
U	4-1/4	6-3/4	1240-021	6.49	1241-021	19.94	1280-021	11.47
V	4-3/8	7	1240-022	6.49	1241-022	20.74	1280-022	11.47
W	4-3/8	7	1240-023	10.81	1241-023	20.74	1280-023	11.47
X	4-3/8	7	1240-024	11.15	1241-024	20.74	1280-024	11.89
Y	4-3/8	7	1240-025	11.15	1241-025	22.19	1280-025	11.89
Z	4-5/8	7-1/4	1240-026	11.15	1241-026	23.96	1280-026	12.30

Limited Quantities
(continued)

Taper Length Drills- Long Series

Straight Shank, High Speed Steel

WARNING: This product contains Cobalt and/or Nickel and/or Lead a chemical known to the state of California to cause cancer or birth defects or other reproductive harm. For more information: www.prope65.ca.gov.
WARNING: Cutting tools may shatter. Always wear approved safety glasses and mask when regrinding.



Regular Spiral



Fast Spiral

Wire Gage Sizes

			Pittsburg AMERICAN MADE		Pittsburg AMERICAN MADE		Pittsburg AMERICAN MADE	
			REG. SPIRAL		REG. SPIRAL		FAST SPIRAL	
WIRE FRAC. SIZES	FLUTE LG'TH	OVERALL LENGTH	ORDER NO.	PRICE EACH	ORDER NO.	PRICE EACH	ORDER NO.	PRICE EACH
1	3-3/4	6-1/8	1230-001	\$18.22	1231-001	\$11.46	1270-001	\$7.41
2	3-3/4	6-1/8	1230-002	18.22	1231-002	11.46	1270-002	7.41
3	3-5/8	6	1230-003	17.64	1231-003	11.46	1270-003	6.86
4	3-5/8	6	1230-004	17.64	1231-004	11.46	1270-004	6.86
5	3-5/8	6	1230-005	17.64	1231-005	11.46	1270-005	6.86
6	3-5/8	6	1230-006	17.64	1231-006	11.46	1270-006	6.86
7	3-5/8	6	1230-007	17.64	1231-007	10.89	1270-007	6.86
8	3-5/8	6	1230-008	17.64	1231-008	10.89	1270-008	6.86
9	3-5/8	6	1230-009	17.64	1231-009	10.89	1270-009	6.86
10	3-5/8	6	1230-010	17.64	1231-010	10.89	1270-010	6.86
11	3-5/8	6	1230-011	17.64	1231-011	10.89	1270-011	6.86
12	3-5/8	6	1230-012	17.64	1231-012	10.89	1270-012	6.86
13	3-3/8	5-3/4	1230-013	15.98	1231-013	10.31	1270-013	5.54
14	3-3/8	5-3/4	1230-014	15.98	1231-014	10.31	1270-014	5.54
15	3-3/8	5-3/4	1230-015	15.98	1231-015	10.31	1270-015	5.54
16	3-3/8	5-3/4	1230-016	15.98	1231-016	10.31	1270-016	5.54
17	3-3/8	5-3/4	1230-017	15.98	1231-017	10.31	1270-017	5.54
18	3-3/8	5-3/4	1230-018	15.98	1231-018	10.31	1270-018	6.37
19	3-3/8	5-3/4	1230-019	15.98	1231-019	10.31	1270-019	6.37
20	3-3/8	5-3/4	1230-020	15.98	1231-020	10.31	1270-020	6.37
21	3-3/8	5-3/4	1230-021	15.98	1231-021	10.31	1270-021	6.37
22	3-3/8	5-3/4	1230-022	15.98	1231-022	10.31	1270-022	6.37
23	3	5-3/8	1230-023	15.98	1231-023	10.31	1270-023	5.54
24	3	5-3/8	1230-024	15.98	1231-024	10.31	1270-024	5.54
25	3	5-3/8	1230-025	15.98	1231-025	9.78	1270-025	5.54
26	3	5-3/8	1230-026	15.98	1231-026	9.78	1270-026	5.54
27	3	5-3/8	1230-027	15.98	1231-027	9.78	1270-027	5.54
28	3	5-3/8	1230-028	15.98	1231-028	9.78	1270-028	5.54
29	3	5-3/8	1230-029	15.98	1231-029	9.78	1270-029	5.60
30	3	5-3/8	1230-030	15.98	1231-030	9.86	1270-030	5.60
31	2-3/4	5-1/8	1230-031	15.77	1231-031	9.86	1270-031	5.06
32	2-3/4	5-1/8	1230-032	15.77	1231-032	9.86	1270-032	5.06
33	2-3/4	5-1/8	1230-033	15.77	1231-033	9.86	1270-033	5.06
34	2-3/4	5-1/8	1230-034	15.77	1231-034	9.86	1270-034	5.06
35	2-3/4	5-1/8	1230-035	15.77	1231-035	9.86	1270-035	5.06
36	2-1/2	4-5/8	1230-036	11.77	1231-036	7.93	1270-036	4.11
37	2-1/2	4-5/8	1230-037	11.77	1231-037	7.93	1270-037	4.11
38	2-1/2	4-5/8	1230-038	11.77	1231-038	7.93	1270-038	4.11
39	2-1/2	4-5/8	1230-039	10.22	1231-039	7.93	1270-039	3.57
40	2-1/2	4-5/8	1230-040	10.22	1231-040	7.93	1270-040	3.57

			Pittsburg AMERICAN MADE		Pittsburg AMERICAN MADE		Pittsburg AMERICAN MADE	
			REG. SPIRAL		REG. SPIRAL		FAST SPIRAL	
WIRE FRAC. SIZES	FLUTE LG'TH	OVERALL LENGTH	ORDER NO.	PRICE EACH	ORDER NO.	PRICE EACH	ORDER NO.	PRICE EACH
41	2-1/2	4-5/8	1230-041	\$10.22	1231-041	\$7.93	1270-041	\$3.57
42	2-1/4	4-1/4	1230-042	8.71	1231-042	6.19	1270-042	3.18
43	2-1/4	4-1/4	1230-043	8.71	1231-043	6.19	1270-043	3.18
44	2-1/4	4-1/4	1230-044	8.71	1231-044	6.19	1270-044	3.18
45	2-1/4	4-1/4	1230-045	8.71	1231-045	6.19	1270-045	3.18
46	2-1/4	4-1/4	1230-046	8.71	1231-046	6.19	1270-046	3.18
47	2-1/4	4-1/4	1230-047	8.71	1231-047	6.19	1270-047	3.18
48	2	3-3/4	1230-048	7.24	1231-048	6.75	1270-048	2.47
49	2	3-3/4	1230-049	7.24	1231-049	6.75	1270-049	2.47
50	2	3-3/4	1230-050	7.24	1231-050	6.75	1270-050	2.47
51	2	3-3/4	1230-051	7.24	1231-051	6.75	1270-051	2.47
52	2	3-3/4	1230-052	7.24	1231-052	6.75	1270-052	2.47
53	1-3/4	3	1230-053	7.24	1231-053	6.75	1270-053	1.81
54	1-3/4	3	1230-054	7.24	1231-054	6.75	1270-054	1.81
55	1-3/4	3	1230-055	7.24	1231-055	6.75	1270-055	1.81
56	1-1/8	2-1/4	1230-056	7.24	1231-056	6.75	1270-056	1.92
57	1-1/8	2-1/4	1230-057	7.24	1231-057	6.75	1270-057	2.31
58	1-1/8	2-1/4	1230-058	7.24	1231-058	6.75	1270-058	2.31
59	1-1/8	2-1/4	1230-059	7.24	1231-059	6.75	1270-059	2.31
60	1-1/8	2-1/4	1230-060	7.24	1231-060	6.75	1270-060	3.78
61	1-1/8	2-1/4	1230-061	1.56	1231-061	6.75	-	-
62	3/4	2	1230-062	1.56	1231-062	6.75	-	-
63	3/4	2	1230-063	1.56	1231-063	6.75	-	-
64	3/4	2	1230-064	1.56	1231-064	6.75	-	-
65	3/4	2	1230-065	1.56	1231-065	6.75	-	-
66	3/4	2	1230-066	1.87	1231-066	6.75	-	-
67	3/4	2	1230-067	1.87	1231-067	6.75	-	-
68	3/4	2	1230-068	1.87	1231-068	6.75	-	-
69	3/4	2	1230-069	5.40	1231-069	6.75	-	-
70	3/4	2	1230-070	2.06	1231-070	6.75	-	-
71	3/4	2	1230-071	2.06	1231-071	6.75	-	-
72	5/16	1-1/2	1230-072	2.06	1231-072	6.75	-	-
73	5/16	1-1/2	1230-073	2.06	1231-073	6.75	-	-
74	5/16	1-1/2	1230-074	2.06	1231-074	6.75	-	-
75	5/16	1-1/2	1230-075	2.06	1231-075	6.75	-	-
76	5/16	1-1/2	1230-076	2.45	1231-076	7.01	-	-
77	5/16	1-1/2	1230-077	5.61	1231-077	7.01	-	-
78	5/16	1-1/2	1230-078	5.61	1231-078	7.01	-	-
79	5/16	1-1/2	1230-079	2.45	1231-079	7.01	-	-
80	5/16	1-1/2	1230-080	2.45	1231-080	7.01	-	-

Aircraft Extension Drills

WARNING: This product contains Cobalt and/or Nickel and/or Lead a chemical known to the state of California to cause cancer or birth defects or other reproductive harm. For more information: www.prop65.ca.gov. **WARNING:** Cutting tools may shatter. Always wear approved safety glasses and mask when regrinding.

High Speed Steel

Cobalt

Carbide Tipped

Fractional Sizes

• For drilling holes where reach is normally not accessible with jobbers or taper length drills

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		Pittsburg® HIGH SPEED STEEL				ALLEGIANCE® AMERICAN MADE HIGH SPEED STEEL				Pittsburg® COBALT				ROCK RIVER CARBIDE TIPPED			
		6" OAL		12" OAL		6" OAL		12" OAL		6" OAL		12" OAL		6" OAL		12" OAL	
DIAM.	FLUTE LG'TH	ORDER NO.	PRICE EACH	ORDER NO.	PRICE EACH	ORDER NO.	PRICE EACH	ORDER NO.	PRICE EACH	ORDER NO.	PRICE EACH	ORDER NO.	PRICE EACH	ORDER NO.	PRICE EACH	ORDER NO.	PRICE EACH
3/64	3/4	1550-003	\$2.41	1580-003	\$3.69	-	-	-	-	1601-003	\$3.20	1604-003	\$8.44	-	-	-	-
1/16	7/8	1550-004	2.33	1580-004	5.31	1550-104	\$3.53	-	-	1601-004	2.40	1604-004	6.33	-	-	-	-
5/64	1	1550-005	2.33	1580-005	5.31	1550-105	3.53	-	-	1601-005	2.40	1604-005	6.33	-	-	-	-
3/32	1-1/4	1550-006	2.09	1580-006	7.26	1550-106	3.00	-	-	1601-006	2.40	1604-006	5.01	-	-	-	-
7/64	1-1/2	1550-007	2.17	1580-007	6.08	1550-107	3.00	-	-	1601-007	2.16	1604-007	5.51	-	-	-	-
1/8	1-5/8	1550-008	2.17	1580-008	6.08	1550-108	3.00	1580-108	\$8.95	1601-008	2.04	1604-008	5.60	2997-008	\$28.90	2997-308	\$34.05
9/64	1-3/4	1550-009	2.66	1580-009	5.50	1550-109	3.65	-	-	1601-009	2.42	1604-009	6.33	2997-009	31.35	2997-309	36.85
5/32	2	1550-010	2.66	1580-010	5.50	1550-110	3.65	-	-	1601-010	2.42	1604-010	5.73	2997-010	30.70	2997-310	36.25
11/64	2-1/8	1550-011	2.98	1580-011	7.98	1550-111	3.91	-	-	1601-011	2.65	1604-011	6.23	2997-011	33.65	2997-311	39.40
3/16	2-5/16	1550-012	3.06	1580-012	7.98	1550-112	3.91	1580-112	10.26	1601-012	2.65	1604-012	6.23	2997-012	32.70	2997-312	38.65
13/64	2-7/16	1550-013	1.83	1580-013	4.16	1550-113	4.75	-	-	1601-013	3.30	1604-013	6.84	2997-013	35.90	2997-313	42.20
7/32	2-1/2	1550-014	3.46	1580-014	9.64	1550-114	4.75	-	-	1601-014	3.79	1604-014	7.57	2997-014	35.90	2997-314	42.20
15/64	2-5/8	1550-015	3.70	1580-015	10.35	1550-115	5.16	-	-	1601-015	3.79	1604-015	7.67	2997-015	38.65	2997-315	45.40
1/4	2-3/4	1550-016	3.70	1580-016	10.35	1550-116	5.15	1580-116	11.52	1601-016	4.40	1604-016	8.77	2997-016	38.65	2997-316	45.40
17/64	2-7/8	1550-017	3.22	1580-017	5.20	1550-117	11.48	-	-	-	-	1604-017	11.10	2997-017	41.20	2997-317	48.60
9/32	2-15/16	1550-018	6.79	1580-018	12.48	1550-118	11.88	-	-	-	-	1604-018	11.56	2997-018	41.20	2997-318	48.60
19/64	3-1/16	1550-019	7.59	1580-019	13.69	1550-119	13.20	-	-	-	-	1604-019	12.46	2997-019	44.85	2997-319	52.65
5/16	3-3/16	1550-020	8.28	1580-020	14.72	1550-120	14.33	1580-120	18.77	-	-	1604-020	12.72	2997-020	44.85	2997-320	52.65
21/64	3-5/16	1550-021	5.08	1580-021	16.14	1550-121	15.48	-	-	-	-	1604-021	13.81	2997-021	47.60	2997-321	56.05
11/32	3-7/16	1550-022	8.77	1580-022	16.14	1550-122	15.38	-	-	-	-	1604-022	15.41	2997-022	47.60	2997-322	56.05
23/64	3-1/2	1550-023	8.97	1580-023	17.23	1550-123	17.28	-	-	-	-	1604-023	17.12	2997-023	50.80	2997-323	59.55
3/8	3-5/8	1550-024	9.26	1580-024	17.76	1550-124	17.59	1580-124	22.97	-	-	1604-024	18.93	2997-024	50.80	2997-324	59.55
25/64	3-3/4	1550-025	10.98	1580-025	20.50	1550-125	20.70	-	-	-	-	1604-025	18.93	2997-025	52.10	2997-325	61.40
13/32	3-7/8	1550-026	11.73	1580-026	21.42	1550-126	20.70	-	-	-	-	1604-026	20.80	2997-026	51.40	2997-326	60.40
27/64	3-15/16	1550-027	6.69	1580-027	22.53	1550-127	22.73	-	-	-	-	1604-027	23.60	2997-027	56.45	2997-327	66.55
7/16	4-1/16	1550-028	12.59	1580-028	22.53	1550-128	22.73	1580-128	26.93	-	-	1604-028	25.68	2997-028	56.45	2997-328	66.55
29/64	4-1/16	1550-029	14.13	1580-029	25.24	1550-129	24.95	-	-	-	-	1604-029	27.89	2997-029	64.90	2997-329	76.45
15/32	4-5/16	1550-030	7.52	1580-030	27.10	1550-130	25.90	-	-	-	-	1604-030	27.89	2997-030	63.60	2997-330	74.80
31/64	4-3/8	-	-	1580-031	27.10	-	-	-	-	-	-	1604-031	32.59	2997-031	71.40	2997-331	84.00
1/2	4-1/2	-	-	1580-032	27.10	-	-	1580-132	33.17	-	-	1604-032	32.59	2997-032	71.40	2997-332	84.00

Letter Sizes

		Pittsburg® HIGH SPEED STEEL				ROCK RIVER CARBIDE TIPPED			
		6" OAL		12" OAL		6" OAL		12" OAL	
DIAM.	FLUTE LG'TH	ORDER NO.	PRICE EACH	ORDER NO.	PRICE EACH	ORDER NO.	PRICE EACH	ORDER NO.	PRICE EACH
A	2-5/8	1570-001	\$2.43	1600-001	\$5.22	2997-201	\$53.85	2997-501	\$63.15
B	2-3/4	1570-002	2.43	1600-002	5.22	2997-202	53.85	2997-502	63.15
C	2-3/4	1570-003	2.43	1600-003	5.22	2997-203	53.85	2997-503	63.15
D	2-3/4	1570-004	2.43	1600-004	5.22	2997-204	52.90	2997-504	62.15
E	2-3/4	1570-005	2.43	1600-005	5.22	2997-205	31.80	2997-505	37.40
F	2-7/8	1570-006	2.94	1600-006	6.58	2997-206	55.25	2997-506	64.95
G	2-7/8	-	-	1600-007	6.58	2997-207	56.45	2997-507	66.55
H	2-7/8	-	-	1600-008	6.58	2997-208	57.70	2997-508	67.95
I	2-7/8	-	-	1600-009	6.58	2997-209	56.45	2997-509	66.55
J	2-7/8	-	-	1600-010	6.58	2997-210	57.70	2997-510	67.95
K	2-15/16	-	-	1600-011	6.58	2997-211	57.70	2997-511	67.95
L	2-15/16	-	-	1600-012	7.00	2997-212	57.70	2997-512	67.95
M	3-1/16	-	-	1600-013	7.00	2997-213	63.60	2997-513	74.80
N	3-1/16	-	-	1600-014	7.28	2997-214	62.15	2997-514	73.20
O	3-1/16	-	-	1600-015	7.98	2997-215	59.25	2997-515	69.55
P	3-5/16	-	-	1600-016	7.98	2997-216	62.95	2997-516	74.00
Q	3-7/16	-	-	1600-017	8.44	2997-217	64.60	2997-517	76.00
R	3-7/16	-	-	1600-018	8.68	2997-218	62.95	2997-518	74.00
S	3-1/2	-	-	1600-019	9.19	2997-219	68.05	2997-519	79.95
T	3-1/2	-	-	1600-020	9.19	2997-220	69.70	2997-520	82.00
U	3-5/8	-	-	1600-021	9.19	2997-221	67.05	2997-521	78.95
V	3-5/8	-	-	1600-022	9.56	2997-222	68.05	2997-522	79.95
W	3-3/4	-	-	1600-023	9.56	2997-223	73.00	2997-523	85.80
X	3-3/4	-	-	1600-024	10.12	2997-224	69.05	2997-524	81.30
Y	3-7/8	-	-	1600-025	10.12	2997-225	71.70	2997-525	84.35
Z	3-7/8	-	-	1600-026	10.87	2997-226	80.85	2997-526	95.15

Aircraft Extension Drills

WARNING: This product contains Cobalt and/or Nickel and/or Lead a chemical known to the state of California to cause cancer or birth defects or other reproductive harm. For more information: www.prop65.ca.gov.
WARNING: Cutting tools may shatter. Always wear approved safety glasses and mask when regrinding.



High Speed Steel

Cobalt

Carbide Tipped

Wire Gage Sizes

• For drilling holes where reach is normally not accessible with jobbers or taper length drills

2

Pittsburg® HIGH SPEED STEEL						Pittsburg® COBALT				ROCK RIVER® CARBIDE TIPPED			
		6" OAL		12" OAL		6" OAL		12" OAL		6" OAL		12" OAL	
DIAM.	FLUTE LG'TH	ORDER NO.	PRICE EACH	ORDER NO.	PRICE EACH	ORDER NO.	PRICE EACH	ORDER NO.	PRICE EACH	ORDER NO.	PRICE EACH	ORDER NO.	PRICE EACH
1	2-5/8	1560-001	\$2.40	1590-001	\$5.24	-	-	-	-	2997-101	\$44.85	2997-401	\$52.65
2	2-5/8	1560-002	3.96	1590-002	11.07	-	-	-	-	2997-102	45.35	2997-402	53.35
3	2-1/2	1560-003	3.55	1590-003	10.68	-	-	-	-	2997-103	46.05	2997-403	54.40
4	2-1/2	1560-004	3.55	1590-004	10.68	-	-	-	-	2997-104	43.35	2997-404	51.00
5	2-1/2	1560-005	3.55	1590-005	10.68	-	-	-	-	2997-105	46.05	2997-405	54.40
6	2-1/2	1560-006	2.05	1590-006	4.88	-	-	-	-	2997-106	47.40	2997-406	55.85
7	2-7/16	1560-007	2.05	1590-007	4.88	1602-007	\$3.38	1605-007	\$7.78	2997-107	46.05	2997-407	54.40
8	2-7/16	1560-008	2.05	1590-008	4.88	-	-	-	-	2997-108	46.05	2997-408	54.40
9	2-7/16	1560-009	3.47	1590-009	10.68	-	-	-	-	2997-109	46.05	2997-409	54.40
10	2-7/16	1560-010	3.30	1590-010	10.68	1602-010	3.02	1605-010	6.98	2997-110	45.60	2997-410	53.55
11	2-5/16	1560-011	3.06	1590-011	9.31	-	-	-	-	2997-111	46.05	2997-411	54.40
12	2-5/16	1560-012	3.06	1590-012	9.31	-	-	-	-	2997-112	45.60	2997-412	53.55
13	2-5/16	1560-013	3.06	1590-013	9.31	-	-	-	-	2997-113	43.70	2997-413	51.50
14	2-3/16	1560-014	3.06	1590-014	9.31	-	-	-	-	2997-114	43.70	2997-414	51.50
15	2-3/16	1560-015	3.06	1590-015	9.31	-	-	-	-	2997-115	45.00	2997-415	53.05
16	2-3/16	1560-016	3.06	1590-016	9.31	-	-	-	-	2997-116	43.70	2997-416	51.50
17	2-3/16	1560-017	3.06	1590-017	9.31	-	-	-	-	2997-117	44.85	2997-417	52.65
18	2-1/8	1560-018	3.06	1590-018	9.31	-	-	-	-	2997-118	44.85	2997-418	52.65
19	2-1/8	1560-019	3.06	1590-019	9.31	-	-	-	-	2997-119	44.85	2997-419	52.65
20	2-1/8	1560-020	2.73	1590-020	7.00	1602-020	2.55	1605-020	6.38	2997-120	44.85	2997-420	52.65
21	2-1/8	1560-021	2.73	1590-021	7.00	-	-	-	-	2997-121	43.70	2997-421	51.50
22	2	1560-022	2.73	1590-022	8.72	-	-	-	-	2997-122	45.00	2997-422	53.05
23	2	1560-023	2.73	1590-023	8.72	-	-	-	-	2997-123	41.20	2997-423	48.60
24	2	1560-024	2.73	1590-024	8.72	-	-	-	-	2997-124	42.20	2997-424	49.50
25	1-7/8	1560-025	2.73	1590-025	8.72	-	-	-	-	2997-125	41.20	2997-425	48.60
26	1-7/8	1560-026	2.73	1590-026	8.72	-	-	-	-	2997-126	41.20	2997-426	48.60
27	1-7/8	1560-027	2.73	1590-027	8.72	-	-	-	-	2997-127	42.20	2997-427	49.50
28	1-3/4	1560-028	2.73	1590-028	8.72	-	-	-	-	2997-128	41.20	2997-428	48.60
29	1-3/4	1560-029	2.73	1590-029	8.72	-	-	-	-	2997-129	40.55	2997-429	47.75
30	1-5/8	1560-030	2.23	1590-030	5.53	1602-030	2.06	1605-030	6.38	2997-130	39.30	2997-430	46.20
31	1-5/8	1560-031	2.23	1590-031	5.53	-	-	-	-	2997-131	37.30	2997-431	43.85
32	1-5/8	1560-032	2.23	1590-032	5.53	-	-	-	-	2997-132	41.55	2997-432	49.15
33	1-1/2	1560-033	2.23	1590-033	5.53	-	-	-	-	-	-	-	-
34	1-1/2	1560-034	2.23	1590-034	5.53	-	-	-	-	-	-	-	-
35	1-1/2	1560-035	2.23	1590-035	5.53	-	-	-	-	-	-	-	-
36	1-7/16	1560-036	2.23	1590-036	5.53	-	-	-	-	-	-	-	-
37	1-7/16	1560-037	2.23	1590-037	5.53	-	-	-	-	-	-	-	-
38	1-7/16	1560-038	2.23	1590-038	5.53	-	-	-	-	-	-	-	-
39	1-3/8	1560-039	1.23	1590-039	3.69	-	-	-	-	-	-	-	-
40	1-3/8	1560-040	2.15	1590-040	6.60	1602-040	2.16	1605-040	6.33	-	-	-	-
41	1-3/8	1560-041	2.15	1590-041	6.60	-	-	-	-	-	-	-	-
42	1-1/4	1560-042	2.15	1590-042	6.60	-	-	-	-	-	-	-	-
43	1-1/4	1560-043	2.48	1590-043	6.60	-	-	-	-	-	-	-	-
44	1-1/8	1560-044	2.48	1590-044	6.60	-	-	-	-	-	-	-	-
45	1-1/8	1560-045	2.48	1590-045	6.60	-	-	-	-	-	-	-	-
46	1-1/8	1560-046	2.48	1590-046	6.60	-	-	-	-	-	-	-	-
47	1	1560-047	2.48	1590-047	6.60	-	-	-	-	-	-	-	-
48	1	1560-048	2.48	1590-048	6.60	-	-	-	-	-	-	-	-
49	1	1560-049	2.48	1590-049	6.60	-	-	-	-	-	-	-	-
50	1	1560-050	2.48	1590-050	6.60	1602-050	2.34	1605-050	8.73	-	-	-	-
51	1	1560-051	1.40	1590-051	3.13	-	-	-	-	-	-	-	-
52	7/8	1560-052	1.40	1590-052	3.13	-	-	-	-	-	-	-	-
53	7/8	1560-053	2.66	1590-053	4.80	-	-	-	-	-	-	-	-
54	7/8	1560-054	2.66	1590-054	4.80	-	-	-	-	-	-	-	-
55	7/8	1560-055	2.66	1590-055	4.80	-	-	-	-	-	-	-	-
56	3/4	1560-056	2.66	1590-056	4.80	-	-	-	-	-	-	-	-
57	3/4	1560-057	2.66	1590-057	4.80	-	-	-	-	-	-	-	-
58	11/16	1560-058	2.66	1590-058	5.36	-	-	-	-	-	-	-	-
59	11/16	1560-059	2.66	1590-059	5.36	-	-	-	-	-	-	-	-
60	11/16	1560-060	2.66	1590-060	5.36	-	-	-	-	-	-	-	-

Extra Long Drills Straight Shank



WARNING: This product contains Cobalt and/or Nickel and/or Lead a chemical known to the state of California to cause cancer or birth defects or other reproductive harm. For more information: www.prop65.ca.gov.
WARNING: Cutting tools may shatter. Always wear approved safety glasses and mask when regrinding.

High Speed Steel - 118° Point

Cobalt - 135° Split Point

DIAM.	8" OAL X 5-1/2" FLT				12" OAL X 9" FLT			
	ORDER NO.	PRICE EACH	ORDER NO.	PRICE EACH	ORDER NO.	PRICE EACH	ORDER NO.	PRICE EACH
3/32	1620-608	\$17.78	1660-608	\$39.11	-	-	-	-
7/64	1620-708	17.78	1660-708	35.64	1620-712	\$21.78	-	-
1/8	1620-808	15.78	1660-808	35.64	1620-812	20.90	1660-812	\$44.55
9/64	1620-908	17.18	-	-	1620-912	22.97	-	-
5/32	1621-008	17.86	1661-008	37.62	1621-012	25.98	-	-
11/64	1621-108	18.78	-	-	1621-112	25.98	-	-
3/16	1621-208	19.37	1661-208	39.36	1621-212	25.98	1661-212	48.51
13/64	1621-308	19.37	-	-	1621-312	25.33	-	-
7/32	1621-408	19.37	-	-	1621-412	26.93	-	-
15/64	1621-508	19.37	-	-	1621-512	27.64	-	-
1/4	1621-608	19.37	1661-608	41.38	1621-612	27.64	1661-612	53.46
17/64	1621-708	19.37	-	-	1621-712	28.74	-	-
9/32	1621-808	19.37	1661-808	46.53	1621-812	28.74	-	-
19/64	1621-908	22.88	-	-	1621-912	29.70	-	-
5/16	1622-008	20.59	1662-008	47.52	1622-012	29.70	1662-012	62.37
21/64	1622-108	23.00	-	-	1622-112	30.49	-	-
11/32	1622-208	20.75	1662-208	55.59	1622-212	30.49	-	-
23/64	1622-308	24.14	-	-	1622-312	34.06	-	-
3/8	1622-408	21.51	1662-408	55.59	1622-412	34.06	1662-412	68.31
25/64	1622-508	25.66	-	-	1622-512	35.64	-	-
13/32	1622-608	24.59	1662-608	58.81	1622-612	35.64	-	-
27/64	1622-708	30.89	-	-	1622-712	38.41	-	-
7/16	1622-808	25.43	1662-808	64.35	1622-812	38.41	1662-812	76.23
29/64	1622-908	30.89	-	-	1622-912	44.53	-	-
15/32	1623-008	29.60	-	-	1623-012	44.53	-	-
31/64	1623-108	36.19	-	-	1623-112	46.03	-	-
1/2	1623-208	29.98	-	-	1623-212	44.11	1663-212	88.11
33/64	-	-	-	-	1623-312	57.30	-	-
17/32	-	-	-	-	1623-412	57.30	-	-
35/64	-	-	-	-	1623-512	60.54	-	-
9/16	-	-	-	-	1623-612	60.54	1663-612	118.80
37/64	-	-	-	-	1623-712	63.68	-	-
19/32	-	-	-	-	1623-812	63.68	-	-
39/64	-	-	-	-	1623-912	68.05	-	-
5/8	-	-	-	-	1624-012	68.05	1664-012	133.65
41/64	-	-	-	-	1624-112	74.38	-	-
21/32	-	-	-	-	1624-212	74.38	-	-
43/64	-	-	-	-	1624-312	78.94	-	-
11/16	-	-	-	-	1624-412	78.94	1664-412	156.42
45/64	-	-	-	-	1624-512	82.73	-	-
23/32	-	-	-	-	1624-612	82.73	-	-
47/64	-	-	-	-	1624-712	87.29	-	-
3/4	-	-	-	-	1624-812	87.29	-	-
49/64	-	-	-	-	1624-912	94.88	-	-
25/32	-	-	-	-	1625-012	94.88	-	-
51/64	-	-	-	-	1625-112	99.05	-	-
13/16	-	-	-	-	1625-212	99.05	-	-
53/64	-	-	-	-	1625-312	108.54	-	-
27/32	-	-	-	-	1625-412	108.54	-	-
55/64	-	-	-	-	1625-512	112.33	-	-
7/8	-	-	-	-	1625-612	112.33	-	-
57/64	-	-	-	-	1625-712	122.20	-	-
29/32	-	-	-	-	1625-812	122.20	-	-
59/64	-	-	-	-	1625-912	127.51	-	-
15/16	-	-	-	-	1626-012	127.51	-	-
61/64	-	-	-	-	1626-112	132.07	-	-
31/32	-	-	-	-	1626-212	132.07	-	-
63/64	-	-	-	-	1626-312	135.86	-	-
1	-	-	-	-	1626-412	135.86	-	-

Extra Long Drills- Straight Shank

High Speed Steel, 6" thru 36" OAL



WARNING: This product contains Cobalt and/or Nickel and/or Lead a chemical known to the state of California to cause cancer or birth defects or other reproductive harm. For more information: www.pro65.ca.gov.
WARNING: Cutting tools may shatter. Always wear approved safety glasses and mask when regrinding.



DIAM.	OVERALL LENGTH	ORDER NO.	PRICE EACH
1/32	6	1610-206	\$ 9.32
3/64	6	1610-306	8.07
1/16	6	1610-406	7.88
1/16	8	1610-408	9.94
5/64	6	1610-506	7.88
5/64	8	1610-508	9.94
3/32	6	1610-606	7.48
3/32	8	1610-608	7.99
3/32	10	1610-610	10.05
7/64	6	1610-706	7.12
7/64	8	1610-708	7.99
7/64	10	1610-710	10.05
7/64	12	1610-712	11.72
1/8	6	1610-806	5.39
1/8	8	1610-808	5.95
1/8	10	1610-810	7.69
1/8	12	1610-812	8.03
1/8	16	1610-816	19.63
1/8	18	1610-818	27.88
9/64	6	1610-906	5.52
9/64	8	1610-908	6.04
9/64	10	1610-910	6.67
9/64	12	1610-912	8.03
9/64	16	1610-916	POA
9/64	18	1610-918	27.88
5/32	6	1611-006	5.52
5/32	8	1611-008	6.04
5/32	10	1611-010	6.67
5/32	12	1611-012	8.03
5/32	16	1611-016	13.57
5/32	18	1611-018	24.40
11/64	6	1611-106	6.04
11/64	8	1611-108	6.63
11/64	10	1611-110	7.44
11/64	12	1611-112	8.03
11/64	16	1611-116	14.08
11/64	18	1611-118	24.40
3/16	6	1611-206	6.04
3/16	8	1611-208	6.63
3/16	10	1611-210	7.44
3/16	12	1611-212	8.03
3/16	16	1611-216	13.01
3/16	18	1611-218	15.36
13/64	8	1611-308	6.63
13/64	10	1611-310	7.44
13/64	12	1611-312	8.03
13/64	16	1611-316	15.23
13/64	18	1611-318	17.04
7/32	8	1611-408	6.63
7/32	10	1611-410	7.44
7/32	12	1611-412	8.03
7/32	16	1611-416	15.23
7/32	18	1611-418	17.76
15/64	8	1611-508	6.72
15/64	10	1611-510	7.61
15/64	12	1611-512	8.03
15/64	16	1611-516	15.17
15/64	18	1611-518	15.90
1/4	8	1611-608	6.72
1/4	10	1611-610	7.61
1/4	12	1611-612	8.03
1/4	16	1611-616	16.42
1/4	18	1611-618	23.52
1/4	24	1611-624	41.00

DIAM.	OVERALL LENGTH	ORDER NO.	PRICE EACH
17/64	8	1611-708	\$ 7.44
17/64	10	1611-710	8.33
17/64	12	1611-712	9.18
17/64	16	1611-716	15.42
17/64	18	1611-718	18.96
17/64	24	1611-724	50.60
9/32	8	1611-808	7.44
9/32	10	1611-810	8.33
9/32	12	1611-812	9.18
9/32	16	1611-816	15.42
9/32	18	1611-818	28.32
9/32	24	1611-824	50.60
19/64	8	1611-908	7.44
19/64	10	1611-910	8.71
19/64	12	1611-912	9.18
19/64	16	1611-916	16.88
19/64	18	1611-918	31.20
19/64	24	1611-924	50.60
5/16	8	1612-008	7.61
5/16	10	1612-010	8.80
5/16	12	1612-012	9.39
5/16	16	1612-016	16.88
5/16	18	1612-018	34.56
5/16	24	1612-024	42.17
21/64	8	1612-108	8.50
21/64	10	1612-110	9.61
21/64	12	1612-112	10.58
21/64	16	1612-116	17.66
21/64	18	1612-118	18.96
21/64	24	1612-124	51.80
11/32	8	1612-208	8.50
11/32	10	1612-210	9.61
11/32	12	1612-212	10.58
11/32	16	1612-216	17.66
11/32	18	1612-218	39.60
11/32	24	1612-224	51.80
23/64	8	1612-308	8.93
23/64	10	1612-310	9.95
23/64	12	1612-312	11.01
23/64	16	1612-316	18.49
23/64	18	1612-318	42.24
23/64	24	1612-324	51.80
3/8	8	1612-408	8.93
3/8	10	1612-410	9.95
3/8	12	1612-412	11.01
3/8	16	1612-416	POA
3/8	18	1612-418	47.28
3/8	24	1612-424	94.41
25/64	8	1612-508	9.61
25/64	10	1612-510	10.88
25/64	12	1612-512	11.90
25/64	16	1612-516	18.68
25/64	18	1612-518	51.90
25/64	24	1612-524	60.54
13/32	8	1612-608	9.61
13/32	10	1612-610	10.88
13/32	12	1612-612	11.90
13/32	16	1612-616	18.68
13/32	18	1612-618	54.72
13/32	24	1612-624	60.54
27/64	8	1612-708	9.95
27/64	10	1612-710	11.01
27/64	12	1612-712	12.24
27/64	16	1612-716	POA
27/64	18	1612-718	35.10
27/64	24	1612-724	60.54

DIAM.	OVERALL LENGTH	ORDER NO.	PRICE EACH
7/16	8	1612-808	\$ 9.95
7/16	10	1612-810	11.01
7/16	12	1612-812	12.24
7/16	16	1612-816	19.50
7/16	18	1612-818	58.32
7/16	24	1612-824	113.29
7/16	30	1612-830	POA
7/16	36	1612-836	POA
29/64	8	1612-908	11.35
29/64	10	1612-910	12.62
29/64	12	1612-912	13.81
29/64	16	1612-916	21.11
29/64	18	1612-918	25.54
29/64	24	1612-924	70.04
15/32	8	1613-008	11.35
15/32	10	1613-010	12.62
15/32	12	1613-012	13.81
15/32	16	1613-016	21.11
15/32	18	1613-018	60.96
15/32	24	1613-024	70.04
31/64	8	1613-108	11.52
31/64	10	1613-110	12.96
31/64	12	1613-112	14.37
31/64	16	1613-116	24.89
31/64	18	1613-118	26.44
31/64	24	1613-124	70.04
1/2	8	1613-208	11.52
1/2	10	1613-210	12.96
1/2	12	1613-212	14.37
1/2	16	1613-216	24.89
1/2	18	1613-218	63.36
1/2	24	1613-224	122.73
1/2	30	1613-230	POA
1/2	36	1613-236	POA
33/64	10	1613-310	18.30
33/64	12	1613-312	19.98
33/64	16	1613-316	27.00
33/64	18	1613-318	67.20
33/64	24	1613-324	93.60
17/32	10	1613-410	18.30
17/32	12	1613-412	43.01
17/32	16	1613-416	27.00
17/32	18	1613-418	33.96
17/32	24	1613-424	93.60
35/64	10	1613-510	18.89
35/64	12	1613-512	45.84
35/64	16	1613-516	27.32
35/64	18	1613-518	36.38
35/64	24	1613-524	93.60
9/16	10	1613-610	18.89
9/16	12	1613-612	47.76
9/16	16	1613-616	POA
9/16	18	1613-618	79.68
9/16	24	1613-624	78.00
9/16	30	1613-630	POA
9/16	36	1613-636	POA
37/64	12	1613-712	53.04
37/64	16	1613-716	32.57
37/64	18	1613-718	40.08
37/64	24	1613-724	101.92
19/32	12	1613-812	58.08
19/32	16	1613-816	32.57
19/32	18	1613-818	97.20
19/32	24	1613-824	101.92
39/64	12	1613-912	64.08
39/64	16	1613-916	36.39
39/64	18	1613-918	44.20
39/64	24	1613-924	101.92

DIAM.	OVERALL LENGTH	ORDER NO.	PRICE EACH
5/8	12	1614-012	\$ 70.56
5/8	16	1614-016	36.39
5/8	18	1614-018	116.64
5/8	24	1614-024	84.93
5/8	30	1614-030	POA
5/8	36	1614-036	POA
41/64	12	1614-112	74.40
41/64	16	1614-116	38.73
41/64	18	1614-118	123.12
41/64	24	1614-124	118.94
21/32	12	1614-212	48.75
21/32	16	1614-216	38.73
21/32	18	1614-218	129.60
21/32	24	1614-224	118.94
43/64	12	1614-312	78.48
43/64	16	1614-316	40.89
43/64	18	1614-318	132.48
43/64	24	1614-324	118.94
11/16	12	1614-412	79.20
11/16	16	1614-416	40.89
11/16	18	1614-418	134.40
11/16	24	1614-424	99.12
11/16	30	1614-430	POA
11/16	36	1614-436	POA
45/64	12	1614-512	80.16
45/64	16	1614-516	45.63
45/64	18	1614-518	136.80
45/64	24	1614-524	137.24
23/32	12	1614-612	81.36
23/32	16	1614-616	45.63
23/32	18	1614-618	54.83
23/32	24	1614-624	137.24
47/64	12	1614-712	82.16
47/64	16	1614-716	48.25
47/64	18	1614-718	57.12
47/64	24	1614-724	137.24
3/4	12	1614-812	85.82
3/4	16	1614-816	POA
3/4	18	1614-818	142.56
3/4	24	1614-824	114.37
49/64	12	1614-912	34.51
49/64	16	1614-916	POA
49/64	18	1614-918	143.76
49/64	24	1614-924	143.10
25/32	12	1615-012	34.51
25/32	16	1615-016	POA
25/32	18	1615-018	153.60
25/32	24	1615-024	119.65
51/64	12	1615-112	36.64
51/64	16	1615-116	52.72
51/64	18	1615-118	60.86
13/16	12	1615-212	92.16
13/16	16	1615-216	52.72
13/16	18	1615-218	160.32
13/16	24	1615-224	122.58
53/64	12	1615-312	38.68
53/64	16	1615-316	55.86
53/64	18	1615-318	63.16
27/32	12	1615-412	38.68
27/32	16	1615-416	POA
27/32	18	1615-418	162.96
27/32	24	1615-424	128.74

(cont'd)

Extra Long Drills- Straight Shank (Cont'd)

High Speed Steel

WARNING: This product contains Cobalt and/or Nickel and/or Lead a chemical known to the state of California to cause cancer or birth defects or other reproductive harm. For more information: www.prop65.ca.gov.
WARNING: Cutting tools may shatter. Always wear approved safety glasses and mask when regrinding.



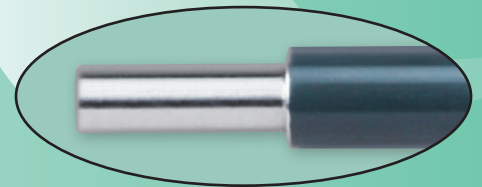
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**Metric Sizes -
9" Loc x 12" OAL**

**1/2" Shank -
9" Loc x 12" OAL**

DIAM.	OVERALL LENGTH	ORDER NO.	PRICE EACH
55/64	12	1615-512	\$ 40.29
55/64	16	1615-516	57.27
55/64	18	1615-518	65.58
7/8	12	1615-612	103.68
7/8	16	1615-616	57.27
7/8	18	1615-618	172.80
7/8	24	1615-624	131.96
57/64	12	1615-712	41.35
57/64	16	1615-716	58.50
57/64	18	1615-718	66.00
29/32	12	1615-812	41.35
29/32	16	1615-816	58.50
29/32	18	1615-818	66.00
29/32	24	1615-824	165.40
59/64	12	1615-912	43.18
59/64	16	1615-916	POA
59/64	18	1615-918	66.47
15/16	12	1616-012	106.94
15/16	16	1616-016	59.34
15/16	18	1616-018	191.52
15/16	24	1616-024	137.83
61/64	12	1616-112	45.94
61/64	16	1616-116	62.06
61/64	18	1616-118	69.02
61/64	24	1616-124	175.96
31/32	12	1616-212	45.94
31/32	16	1616-216	POA
31/32	18	1616-218	69.02
31/32	24	1616-224	175.96
63/64	12	1616-312	51.64
63/64	16	1616-316	66.84
63/64	18	1616-318	72.04
63/64	24	1616-324	175.96
1	12	1616-412	116.88
1	16	1616-416	POA
1	18	1616-418	194.40
1	24	1616-424	146.63
1-1/16	18	1616-818	84.11
1-1/16	24	1616-824	164.80
1-1/8	18	1617-218	84.11
1-1/8	24	1617-224	178.76
1-3/16	18	1617-618	112.16
1-3/16	24	1617-624	199.43
1-1/4	18	1618-018	134.60
1-1/4	24	1618-024	239.79

DIAM. MM.	ORDER NO.	PRICE EACH
3.00	1643-030	\$ 9.23
3.50	1643-035	9.23
4.00	1643-040	9.23
4.50	1643-045	9.23
5.00	1643-050	9.23
5.50	1643-055	9.23
6.00	1643-060	9.23
6.50	1643-065	10.56
7.00	1643-070	10.56
7.50	1643-075	10.56
8.00	1643-080	12.17
8.50	1643-085	12.17
9.00	1643-090	12.66
9.50	1643-095	12.66
10.00	1643-100	13.69
10.50	1643-105	14.08
11.00	1643-110	14.08
11.50	1643-115	15.88
12.00	1643-120	16.53
12.50	1643-125	16.53
13.00	1643-130	22.98
13.50	1643-135	23.07
14.00	1643-140	23.07
14.50	1643-145	24.20
15.00	1643-150	24.20
15.50	1643-155	25.81
16.00	1643-160	27.37
16.50	1643-165	27.37
17.00	1643-170	29.62
17.50	1643-175	32.84
18.00	1643-180	32.84
18.50	1643-185	35.34
19.00	1643-190	35.34
19.50	1643-195	39.69
20.00	1643-200	42.14
20.50	1643-205	42.14
21.00	1643-210	44.48
21.50	1643-215	46.33
22.00	1643-220	46.33
22.50	1643-225	47.55
23.00	1643-230	47.55
23.50	1643-235	49.66
24.00	1643-240	52.83
24.50	1643-245	52.83
25.00	1643-250	59.39



DIAM.	ORDER NO.	PRICE EACH
33/64	1653-312	\$23.98
17/32	1653-412	23.98
35/64	1653-512	24.07
9/16	1653-612	24.07
37/64	1653-712	25.25
19/32	1653-812	25.25
39/64	1653-912	26.93
5/8	1654-012	26.93
41/64	1654-112	28.56
21/32	1654-212	28.56
43/64	1654-312	30.91
11/16	1654-412	30.91
45/64	1654-512	34.27
23/32	1654-612	34.27
47/64	1654-712	36.88
3/4	1654-812	36.88
49/64	1654-912	41.41
25/32	1655-012	41.41
51/64	1655-112	43.97
13/16	1655-212	43.97
53/64	1655-312	46.42
27/32	1655-412	46.42
55/64	1655-512	48.35
7/8	1655-612	48.35
57/64	1655-712	49.62
29/32	1655-812	49.62
59/64	1655-912	51.82
15/16	1656-012	51.82
61/64	1656-112	55.13
31/32	1656-212	55.13
63/64	1656-312	61.97
1	1656-412	61.97

Extra Long Drills – Straight Shank

High Speed Steel



3



Wire Gage Sizes

DIAM.	OVERALL LENGTH	ORDER NO.	PRICE EACH
1	8	1630-108	\$7.73
1	12	1630-112	9.23
2	8	1630-208	7.73
2	12	1630-212	9.23
3	8	1630-308	7.62
3	12	1630-312	9.23
4	8	1630-408	7.62
4	12	1630-412	9.23
5	8	1630-508	7.62
5	12	1630-512	9.23
6	8	1630-608	7.62
6	12	1630-612	9.23
7	8	1630-708	7.62
7	12	1630-712	9.23
8	8	1630-808	7.62
8	12	1630-812	9.23
9	8	1630-908	7.62
9	12	1630-912	9.23
10	8	1631-008	7.62
10	12	1631-012	9.23
11	8	1631-108	7.62
11	12	1631-112	9.23
12	8	1631-208	7.62
12	12	1631-212	9.23
13	6	1631-306	6.95
13	8	1631-308	7.62
13	12	1631-312	9.23
14	6	1631-406	6.95
14	8	1631-408	7.62
14	12	1631-412	9.23
15	6	1631-506	6.95
15	8	1631-508	7.62
15	12	1631-512	9.23
16	6	1631-606	6.95
16	8	1631-608	7.62
16	12	1631-612	9.23
17	6	1631-706	6.95
17	8	1631-708	7.62
17	12	1631-712	9.23
18	6	1631-806	6.95
18	8	1631-808	7.62
18	12	1631-812	9.23
19	6	1631-906	6.95
19	8	1631-908	7.62
19	12	1631-912	9.23
20	6	1632-006	6.95
20	8	1632-008	7.62
20	12	1632-012	9.23

DIAM.	OVERALL LENGTH	ORDER NO.	PRICE EACH
21	6	1632-106	\$6.95
21	8	1632-108	7.62
21	12	1632-112	9.23
22	6	1632-206	6.95
22	8	1632-208	7.62
22	12	1632-212	9.23
23	6	1632-306	6.35
23	8	1632-308	6.95
23	12	1632-312	9.23
24	6	1632-406	6.35
24	8	1632-408	6.95
24	12	1632-412	9.23
25	6	1632-506	6.35
25	8	1632-508	6.95
25	12	1632-512	9.23
26	6	1632-606	6.35
26	8	1632-608	6.95
26	12	1632-612	9.23
27	6	1632-706	6.35
27	8	1632-708	6.95
27	12	1632-712	9.23
28	6	1632-806	6.35
28	12	1632-812	9.23
29	6	1632-906	6.35
29	8	1632-908	6.95
29	12	1632-912	9.23
30	6	1633-006	6.35
30	8	1633-008	6.95
30	12	1633-012	9.23
31	6	1633-106	6.20
31	8	1633-108	6.84
31	12	1633-112	9.23
32	6	1633-206	6.20
32	8	1633-208	6.84
33	6	1633-306	6.20
33	8	1633-308	6.84
34	6	1633-406	6.20
34	8	1633-408	6.84
35	6	1633-506	6.20
35	8	1633-508	6.84
36	6	1633-606	8.19
36	8	1633-608	9.19
37	6	1633-706	8.19
37	8	1633-708	9.19
38	6	1633-806	8.19
38	8	1633-808	9.19
39	6	1633-906	8.19
39	8	1633-908	9.19
40	6	1634-006	8.19
40	8	1634-008	9.19

DIAM.	OVERALL LENGTH	ORDER NO.	PRICE EACH
41	6	1634-106	\$8.19
41	8	1634-108	9.19
42	6	1634-206	8.60
42	8	1634-208	9.19
43	6	1634-306	8.60
44	6	1634-406	8.60
45	6	1634-506	8.60
46	6	1634-606	8.60
47	6	1634-706	8.60
48	6	1634-806	9.06
49	6	1634-906	9.06
50	6	1635-006	9.06
51	6	1635-106	9.06
52	6	1635-206	9.06
53	3 1/2	1635-303	3.70
53	6	1635-306	9.06
54	3 1/2	1635-403	3.70
54	6	1635-406	9.06
55	3 3/8	1635-503	3.70
55	6	1635-506	9.06
56	3 1/4	1635-613	3.70
56	6	1635-606	9.28
57	3 1/4	1635-713	3.70
57	6	1635-706	9.28
58	3 1/4	1635-813	3.70
58	6	1635-806	9.28
59	3 1/8	1635-913	3.70
59	6	1635-906	9.28
60	3 1/8	1636-013	3.70
60	6	1636-006	9.28
61	3	1636-103	4.08
62	3	1636-203	4.08
63	3	1636-303	4.08
64	3	1636-403	4.08
65	3	1636-503	4.08
66	3	1636-603	4.08
67	3	1636-703	4.08
68	2 7/8	1636-802	4.08
69	2 3/4	1636-902	4.08
70	2 5/8	1637-002	4.08
71	2 5/8	1637-102	4.08
72	2 1/2	1637-202	4.08
73	2 3/8	1637-302	4.85
74	2 1/4	1637-402	4.85
75	2 1/8	1637-502	4.85
76	2	1637-602	4.85
77	1 7/8	1637-701	4.85
78	1 3/4	1637-801	4.85

Letter Sizes

DIAM.	OVERALL LG'TH	ORDER NO.	PRICE EACH
A	12	1640-112	\$9.23
B	8	1640-208*	7.73
B	12	1640-212	9.23
C	10	1640-310*	8.75
C	12	1640-312	9.23
D	8	1640-408*	7.73
D	12	1640-412	9.23
F	6	1640-606*	6.04
F	10	1640-610*	9.58
F	12	1640-612	10.56
G	8	1640-708*	8.56
G	10	1640-710*	9.58
G	12	1640-712	10.56
H	12	1640-812	10.56
I	12	1640-912	10.56
J	10	1641-010*	9.58
J	12	1641-012	10.56
K	12	1641-112	10.56

DIAM.	OVERALL LG'TH	ORDER NO.	PRICE EACH
L	12	1641-212	\$10.56
M	8	1641-308*	8.56
M	10	1641-310*	10.02
M	12	1641-312	10.56
N	12	1641-412	10.80
O	12	1641-512	12.17
P	8	1641-608*	9.78
P	12	1641-612	12.17
Q	6	1641-706*	6.95
Q	12	1641-712	12.17
R	12	1641-812	12.17
S	8	1641-908*	10.27
S	12	1641-912	12.66
T	8	1642-008*	10.27
T	10	1642-010*	11.44
T	12	1642-012	12.66
U	12	1642-112	12.66
V	8	1642-208*	11.05

DIAM.	OVERALL LG'TH	ORDER NO.	PRICE EACH
V	12	1642-212	\$13.69
W	12	1642-312	13.69
X	8	1642-408*	11.05
X	12	1642-412	13.69
Y	10	1642-510*	12.51
Y	12	1642-512	13.69
Z	12	1642-612	14.08

* Discontinued. Limited Quantities

Taper Shank Drills

High Speed Steel



Metric Sizes

DIAM. MM	DECM'L EQUIV.	TAPER SHANK NO.	ORDER NO.	PRICE EACH
3.00	.1181	1MT	1330-300	\$3.80
3.50	.1378	1MT	1330-350	3.85
4.00	.1575	1MT	1330-400	3.85
4.50	.1772	1MT	1330-450	3.85
5.00	.1969	1MT	1330-500	10.50
5.50	.2165	1MT	1330-550	4.30
5.80	.2283	1MT	1330-580	4.50
6.00	.2362	1MT	1330-600	10.50
6.50	.2559	1MT	1330-650	11.80
7.00	.2756	1MT	1330-700	12.20
7.50	.2953	1MT	1330-750	12.20
8.00	.3150	1MT	1330-800	17.00
8.50	.3346	1MT	1330-850	18.04
8.80	.3465	1MT	1330-880†	18.90
9.00	.3543	1MT	1330-900	16.50
9.50	.3740	1MT	1330-950	18.50
9.60	.3780	1MT	1330-960†	7.85
10.00	.3937	1MT	1331-000	19.00
10.50	.4134	1MT	1331-050	19.00
11.00	.4331	1MT	1331-100	19.00
11.25	.4429	1MT*	1331-125	9.35
11.50	.4528	1MT	1331-150	21.20
11.75	.4626	1MT	1331-175†	9.35
11.80	.4646	1MT	1331-180†	9.80
12.00	.4724	1MT	1331-200	25.50
12.00	.4724	2MT	1351-200	10.60
12.20	.4803	1MT	1331-220†	26.38
12.25	.4626	1MT	1331-225†	10.60
12.50	.4921	1MT	1331-250	26.38
12.50	.4921	2MT	1351-250	10.60
13.00	.5118	1MT	1331-300	30.00
13.50	.5315	1MT	1331-350	30.00
13.50	.5315	2MT	1351-350	12.90
14.00	.5512	1MT	1331-400	32.00
14.00	.5512	2MT	1351-400	12.90
14.50	.5709	2MT	1331-450	32.00
15.00	.5906	2MT	1331-500	34.00
15.25	.6004	2MT	1331-525†	36.00
15.50	.6102	2MT	1331-550	38.00
16.00	.6299	2MT	1331-600	40.00
16.50	.6496	2MT	1331-650	40.00
17.00	.6693	2MT	1331-700	43.00
17.50	.6890	2MT	1331-750	17.35
18.00	.7087	2MT	1331-800	59.00
18.50	.7283	2MT	1331-850	59.00
18.75	.7382	2MT	1331-875†	19.15
19.00	.7480	2MT	1331-900	59.00
19.50	.7677	2MT	1331-950	59.00
20.00	.7874	2MT	1332-000	59.00
20.00	.7874	3MT	1352-000	23.65
20.50	.8071	2MT	1332-050	59.00
20.50	.8071	3MT	1352-050	23.65
20.75	.8169	3MT	1352-075	23.65
21.00	.8268	2MT	1332-100	59.00
21.50	.8465	2MT	1332-150	65.50
21.50	.8465	3MT	1352-150	61.00
22.00	.8661	2MT	1332-200	61.00
22.00	.8661	3MT	1352-200	26.20
22.50	.8858	2MT	1332-250	28.95
22.50	.8858	3MT	1352-250	65.50
22.75	.8957	2MT	1332-275†	26.30
23.00	.9055	2MT	1332-300	28.95
23.00	.9055	3MT	1352-300	26.30
23.50	.9252	3MT	1332-350	26.30
24.00	.9449	3MT	1332-400	28.65
24.50	.9646	3MT	1332-450	28.65
24.75	.9744	3MT	1332-475†	28.65
25.00	.9843	3MT	1332-500	30.55
25.25	.9941	3MT	1332-525†	81.85
25.50	1.0039	3MT	1332-550	82.50
26.00	1.0236	3MT	1332-600	32.00
26.50	1.0433	3MT	1332-650	35.55
27.00	1.0630	3MT	1332-700	39.50
27.50	1.0827	3MT	1332-750	43.45
27.50	1.0827	4MT	1352-750†	39.50

2

Stub Length Drills



High Speed Steel

3

DIAM.	OAL	FLUTE LG'TH	4MT		5MT	
			ORDER NO.	PRICE EACH	ORDER NO.	PRICE EACH
2	12	5	1371-284	\$ 198.45	1371-285	\$ 198.45
2-1/16	12	5	1371-324	221.13	1371-325	221.13
2-1/8	12	5	1371-364	255.15	1371-365	255.15
2-3/16	12	5	1371-404	257.21	1371-405	257.21
2-1/4	12	5	1371-444	262.25	1371-445	262.25
2-5/16	12	5	1371-484	265.06	1371-485	265.06
2-3/8	12	5	1371-524	295.05	1371-525	295.05
2-7/16	12	5	1371-564	304.08	1371-565	294.28
2-1/2	12	5	1371-604	309.96	1371-605	309.96
2-9/16	12	5	1371-644	168.95	1371-645	174.45
2-5/8	12	5	1371-684	334.95	1371-685	334.95
2-11/16	12	5	1371-724	195.95	1371-725	187.95
2-3/4	12	5	1371-764	464.94	1371-765	464.94
2-13/16	12	5	1371-804	238.95	1371-805	216.95
2-7/8	12	5	1371-844	544.53	1371-845	544.53
2-15/16	12	5	1371-884	264.95	1371-885	236.95
3	12	5	1371-924	550.79	1371-925	550.79
3-1/8	12	5	-	-	1372-005	618.03
3-1/4	12	5	-	-	1372-085	659.40
3-3/8	12	5	-	-	1372-165	338.95
3-1/2	12	5	-	-	1372-245	394.95

† Limited Quantities

Taper Shank Drills

High Speed Steel, Cobalt, & Carbide Tipped

WARNING: This product contains Cobalt and/or Nickel and/or Lead a chemical known to the state of California to cause cancer or birth defects or other reproductive harm. For more information: www.prop65.ca.gov.
WARNING: Cutting tools may shatter. Always wear approved safety glasses and mask when regrinding.



DIAM.	TAPER SHANK NO.	FLUTE LENGTH	OVERALL LENGTH	HIGH SPEED STEEL		COBALT		CARBIDE TIPPED	
				ORDER NO.	PRICE EACH	ORDER NO.	PRICE EACH	ORDER NO.	PRICE EACH
1/16	1MT	1-1/4	4-5/8	1301-004	\$3.20	-	-	-	-
5/64	1MT	1-3/8	4-3/4	1301-005	3.20	-	-	-	-
3/32	1MT	1-1/2	4-7/8	1301-006	3.20	-	-	-	-
7/64	1MT	1-5/8	5	1301-007	3.30	-	-	-	-
1/8	1MT	1-7/8	5-1/8	1301-008	7.06	1304-008	\$18.38	1360-081	\$47.55
9/64	1MT	2-1/8	5-3/8	1301-009	7.42	1304-009	14.14	1360-091	47.55
5/32	1MT	2-1/8	5-3/8	1301-010	7.13	1304-010	18.38	1360-101	50.10
11/64	1MT	2-1/2	5-3/4	1301-011	7.42	1304-011	18.38	1360-111	50.99
3/16	1MT	2-1/2	5-3/4	1301-012	7.42	1304-012	18.38	1360-121	50.99
13/64	1MT	2-3/4	6	1301-013	7.42	1304-013	18.38	1360-131	53.90
7/32	1MT	2-3/4	6	1301-014	7.42	1304-014	18.38	1360-141	53.90
15/64	1MT	2-7/8	6-1/8	1301-015	7.80	1304-015	18.38	1360-151	59.38
1/4	1MT	2-7/8	6-1/8	1301-016	7.80	1304-016	18.38	1360-161	69.88
17/64	1MT	3	6-1/4	1301-017	8.10	1304-017	18.94	1360-171	61.73
17/64	2MT*	3	6-7/8	1306-017	4.80	-	-	-	-
9/32	1MT	3	6-1/4	1301-018	8.10	1304-018	18.94	1360-181	60.60
9/32	2MT*	3	6-7/8	1306-018	4.80	-	-	-	-
19/64	1MT	3-1/8	6-3/8	1301-019	8.28	1304-019	18.94	1360-191	61.73
19/64	2MT*	3-1/8	7	1306-019	4.85	-	-	-	-
5/16	1MT	3-1/8	6-3/8	1301-020	8.28	1304-020	18.94	1360-201	71.49
21/64	1MT	3-1/4	6-1/2	1301-021	8.28	1304-021	25.25	1360-211	92.71
11/32	1MT	3-1/4	6-1/2	1301-022	8.66	1304-022	25.25	1360-221	92.71
11/32	2MT*	3-1/4	7-1/8	1306-022	7.00	-	-	-	-
23/64	1MT	3-1/2	6-3/4	1301-023	9.59	1304-023	25.25	1360-231	92.71
23/64	2MT*	3-1/2	7-3/8	1306-023	7.70	-	-	-	-
3/8	1MT	3-1/2	6-3/4	1301-024	9.13	1304-024	25.25	1360-241	92.71
3/8	2MT*	3-1/2	7-3/8	1306-024	16.20	1306-124	33.46	1360-242	19.85
25/64	1MT	3-5/8	7	1301-025	9.93	1304-025	26.66	1360-251	109.31
25/64	2MT*	3-5/8	7-1/2	1306-025	17.83	1306-125	34.58	1360-252	21.05
13/32	1MT	3-5/8	7	1301-026	9.22	1304-026	26.82	1360-261	109.31
13/32	2MT*	3-5/8	7-1/2	1306-026	16.87	1306-126	34.58	1360-262	21.05
27/64	1MT	3-7/8	7-1/4	1301-027	10.59	1304-027	27.61	-	-
27/64	2MT*	3-7/8	7-3/4	1306-027	17.86	1306-127	35.70	1360-272	22.70
7/16	1MT	3-7/8	7-1/4	1301-028	10.03	1304-028	27.61	-	-
7/16	2MT*	3-7/8	7-3/4	1306-028	19.39	1306-128	35.70	1360-282	22.70
29/64	1MT	4-1/8	7-1/2	1301-029	11.66	1304-029	32.59	-	-
29/64	2MT*	4-1/8	8	1306-029	19.40	1306-129	42.81	1360-292	25.45
15/32	1MT	4-1/8	7-1/2	1301-030	11.72	1304-030	32.59	-	-
15/32	2MT*	4-1/8	8	1306-030	19.30	1306-130	42.81	1360-302	24.35
31/64	1MT*	4-3/8	7-3/4	1303-031	17.01	1305-031	34.01	-	-
31/64	2MT	4-3/8	8-1/4	1301-031	13.17	1304-031	32.59	-	-
1/2	1MT*	4-3/8	7-3/4	1303-032	14.85	1305-032	29.69	-	-
1/2	2MT	4-3/8	8-1/4	1301-032	11.98	1304-032	29.02	1360-322	25.20
33/64	1MT*	4-5/8	8	1303-033	18.65	1305-033	37.31	-	-
33/64	2MT	4-5/8	8-1/2	1301-033	14.36	1304-033	33.45	1360-332	31.15
17/32	1MT*	4-5/8	8	1303-034	17.13	1305-034	37.31	-	-
17/32	2MT	4-5/8	8-1/2	1301-034	13.40	1304-034	33.45	1360-342	29.10
35/64	1MT*	4-7/8	8-1/4	1303-035	19.93	1305-035	39.86	-	-
35/64	2MT	4-7/8	8-3/4	1301-035	15.63	1304-035	35.85	1360-352	32.40
9/16	1MT*	4-7/8	8-1/4	1303-036	18.70	1305-036	37.40	-	-
9/16	2MT	4-7/8	8-3/4	1301-036	14.61	1304-036	33.45	1360-362	30.50
37/64	1MT*	4-7/8	8-1/4	1303-037	10.95	1305-037	42.26	-	-
37/64	2MT	4-7/8	8-3/4	1301-037	16.60	1304-037	38.30	1360-372	34.90
19/32	2MT	4-7/8	8-3/4	1301-038	15.71	1304-038	37.62	1360-382	32.35
39/64	2MT	4-7/8	8-3/4	1301-039	17.36	1304-039	37.62	1360-392	37.10
5/8	1MT*	4-7/8	8-1/4	1303-040	24.00	-	-	-	-
5/8	2MT	4-7/8	8-3/4	1301-040	15.96	1304-040	37.62	1360-402	34.70
5/8	3MT*	4-7/8	9-1/2	1306-040	13.20	-	-	-	-
41/64	2MT	5-1/8	9	1301-041	19.13	1304-041	41.44	-	-
41/64	3MT*	5-1/8	9-3/4	1306-041	34.02	1306-141	56.71	1360-413	41.85
21/32	2MT	5-1/8	9	1301-042	17.81	1304-042	41.44	-	-
21/32	3MT*	5-1/8	9-3/4	1306-042	32.60	1306-142	56.71	1360-423	39.65
43/64	2MT	5-3/8	9-1/4	1301-043	20.53	1304-043	44.47	-	-
43/64	3MT*	5-3/8	10	1306-043	36.52	1306-143	60.85	1360-433	45.70
11/16	2MT	5-3/8	9-1/4	1301-044	18.54	1304-044	41.95	-	-
11/16	3MT*	5-3/8	10	1306-044	35.75	1306-144	59.59	1360-443	42.30
45/64	2MT	5-5/8	9-1/2	1301-045	21.38	1304-045	46.32	-	-
45/64	3MT*	5-5/8	10-1/4	1306-045	39.52	1306-145	65.86	1360-453	49.85
23/32	2MT	5-5/8	9-1/2	1301-046	19.85	1304-046	46.32	-	-
23/32	3MT*	5-5/8	10-1/4	1306-046	38.34	1306-146	65.86	1360-463	46.15
47/64	2MT	5-7/8	9-3/4	1301-047	22.70	1304-047	49.19	-	-
47/64	3MT*	5-7/8	10-1/2	1306-047	42.77	1306-147	71.28	1360-473	53.10
3/4	2MT	5-7/8	9-3/4	1301-048	21.63	1304-048	46.85	-	-
3/4	3MT*	5-7/8	10-1/2	1306-048	40.37	1306-148	66.91	1360-483	49.05
49/64	2MT	6	9-7/8	1301-049	27.29	1304-049	59.14	-	-
49/64	3MT*	6	10-5/8	1306-049	47.56	1306-149	79.25	1360-493	55.80

* Alternate Shank

Taper Shank Drills (cont'd.)

High Speed Steel, Cobalt, & Carbide Tipped

WARNING: This product contains Cobalt and/or Nickel and/or Lead a chemical known to the state of California to cause cancer or birth defects or other reproductive harm. For more information: www.prop65.ca.gov.
WARNING: Cutting tools may shatter. Always wear approved safety glasses and mask when grinding.

3 2 2 2

				HIGH SPEED STEEL				COBALT		CARBIDE TIPPED	
				Pittsburg ALLEGHANY		ALLEGIANCE AMERICAN MADE		Pittsburg ALLEGHANY		Pittsburg ALLEGHANY	
DIAM.	TAPER SHANK NO.	FLUTE LENGTH	OVERALL LENGTH	ORDER NO.	PRICE EACH	ORDER NO.	PRICE EACH	ORDER NO.	PRICE EACH	ORDER NO.	PRICE EACH
25/32	2MT	6	9-7/8	1301-050	\$26.09	1304-050	\$61.43	—	—	3000-502	\$169.08
25/32	3MT*	6	10-5/8	1306-050	44.14	1306-150	80.35	1360-503	\$51.60	—	—
51/64	2MT*	6-1/8	10	1303-051	36.48	1305-051	79.64	—	—	—	—
51/64	3MT	6-1/8	10-3/4	1301-051	29.88	1304-051	64.75	1360-513	57.50	3000-513	174.79
13/16	2MT*	6-1/8	10	1303-052	33.34	1305-052	73.76	—	—	—	—
13/16	3MT	6-1/8	10-3/4	1301-052	26.75	1304-052	62.83	1360-523	53.25	3000-523	183.46
53/64	2MT*	6-1/8	10	1303-053	38.83	1305-053	85.37	—	—	—	—
53/64	3MT	6-1/8	10-3/4	1301-053	31.18	1304-053	69.82	1360-533	62.80	3000-533	197.41
27/32	2MT*	6-1/8	10	1303-054	35.66	1305-054	85.37	—	—	—	—
27/32	3MT	6-1/8	10-3/4	1301-054	29.02	1304-054	69.82	1360-543	62.05	3000-543	196.51
55/64	2MT*	6-1/8	10	1303-055	40.50	1305-055	90.09	—	—	—	—
55/64	3MT	6-1/8	10-3/4	1301-055	32.26	1304-055	72.61	1360-553	69.40	3000-553	186.08
7/8	2MT*	6-1/8	10	1303-056	36.64	1305-056	90.09	—	—	—	—
7/8	3MT	6-1/8	10-3/4	1301-056	29.69	1304-056	68.38	1360-563	62.05	3000-563	186.08
57/64	2MT*	6-1/8	10	1303-057	41.76	1305-057	96.54	—	—	—	—
57/64	3MT	6-1/8	10-3/4	1301-057	32.97	1304-057	74.40	1360-573	75.15	3000-573	198.10
29/32	2MT*	6-1/8	10	1303-058	38.35	1305-058	96.54	—	—	—	—
29/32	3MT	6-1/8	10-3/4	1301-058	31.71	1304-058	73.54	1360-583	72.95	3000-583	199.43
59/64	3MT	6-1/8	10-3/4	1301-059	33.38	1304-059	75.65	1360-593	78.95	3000-593	201.68
15/16	2MT*	6-1/8	10	1303-060	39.40	—	—	—	—	—	—
15/16	3MT	6-1/8	10-3/4	1301-060	29.82	1304-060	75.65	1360-603	72.95	3000-603	202.30
15/16	4MT*	5-1/8	10-3/4	1306-060	22.20	—	—	—	—	—	—
61/64	2MT*	6-1/4	10-1/4	1303-061	40.89	—	—	—	—	—	—
61/64	3MT	6-3/8	11	1301-061	29.82	1304-061	81.45	1360-613	87.10	3000-613	213.91
31/32	3MT	6-3/8	11	1301-062	32.74	1304-062	81.45	1360-623	82.50	3000-623	210.88
63/64	2MT*	6-1/4	10-1/4	1303-063	43.01	—	—	—	—	—	—
63/64	3MT	6-3/8	11	1301-063	36.41	1304-063	83.19	1360-633	90.20	3000-633	220.93
1	2MT*	6-1/8	10	1303-064	49.61	1305-064	104.68	—	—	—	—
1	3MT	6-3/8	11	1301-064	33.31	1304-064	76.36	1360-643	82.50	3000-643	207.49
1	4MT*	6-3/8	12	1306-064	64.31	1306-164	107.17	—	—	—	—
1-1/64	3MT	6-1/2	11-1/8	1301-065	41.42	1304-065	89.75	—	—	—	—
1-1/32	3MT	6-1/2	11-1/8	1301-066	36.62	1304-066	92.96	—	—	3000-663	268.53
1-1/32	4MT*	6-1/2	12-1/8	1306-066	72.48	1306-166	120.78	1360-664	114.85	—	—
1-3/64	2MT*	6-5/8	10-5/8	1303-067	31.00	—	—	—	—	—	—
1-3/64	3MT	6-5/8	11-1/4	1301-067	43.53	1304-067	100.71	—	—	—	—
1-1/16	3MT	6-5/8	11-1/4	1301-068	38.25	1304-068	94.90	1360-683	118.35	3000-683	259.88
1-1/16	4MT*	6-5/8	12-1/4	1306-068	75.73	1306-168	126.22	1360-684	105.70	—	—
1-5/64	3MT*	6-7/8	11-1/2	1303-069	64.63	1305-069	141.57	—	—	—	—
1-5/64	4MT	6-7/8	12-1/2	1301-069	50.21	1304-069	108.77	—	—	3000-694	270.00
1-3/32	3MT*	6-7/8	11-1/2	1303-070	58.25	1305-070	141.57	—	—	—	—
1-3/32	4MT	6-7/8	12-1/2	1301-070	45.23	1304-070	108.77	1360-704	125.30	3000-704	281.25
1-7/64	3MT*	7-1/8	11-3/4	1303-071	74.14	1305-071	145.86	—	—	—	—
1-7/64	4MT	7-1/8	12-3/4	1301-071	52.20	1304-071	113.09	—	—	—	—
1-1/8	3MT*	7-1/8	11-3/4	1303-072	60.51	1305-072	145.04	—	—	—	—
1-1/8	4MT	7-1/8	12-3/4	1301-072	47.02	1304-072	111.07	1360-724	115.65	3000-724	288.23
1-9/64	3MT*	7-1/4	11-7/8	1303-073	69.70	1305-073	162.16	—	—	—	—
1-9/64	4MT	7-1/4	12-7/8	1301-073	55.32	1304-073	119.86	—	—	3000-734	332.78
1-5/32	3MT*	7-1/4	11-7/8	1303-074	65.91	1305-074	162.16	—	—	—	—
1-5/32	4MT	7-1/4	12-7/8	1301-074	49.20	1304-074	119.86	1360-744	142.40	3000-744	326.25
1-11/64	3MT*	7-3/8	12	1303-075	71.97	1305-075	157.87	—	—	—	—
1-11/64	4MT	7-3/8	13	1301-075	55.94	1304-075	121.20	—	—	3000-754	336.21
1-3/16	3MT*	7-3/8	12	1303-076	67.25	1305-076	157.87	—	—	—	—
1-3/16	4MT	7-3/8	13	1301-076	51.23	1304-076	121.20	1360-764	131.10	3000-764	329.63
1-13/64	3MT*	7-1/2	12-1/8	1303-077	77.23	1305-077	179.15	—	—	—	—
1-13/64	4MT	7-1/2	13-1/8	1301-077	59.86	1304-077	129.70	—	—	3000-774	355.84
1-7/32	3MT*	7-1/2	12-1/8	1303-078	72.22	1305-078	179.15	—	—	—	—
1-7/32	4MT	7-1/2	13-1/8	1301-078	55.13	1304-078	129.70	1360-784	162.00	3000-784	348.75
1-15/64	3MT*	7-7/8	12-1/2	1303-079	84.18	1305-079	179.15	—	—	—	—
1-15/64	4MT	7-7/8	13-1/2	1301-079	65.29	1304-079	141.45	—	—	3000-794	360.31
1-1/4	3MT*	7-7/8	12-1/2	1303-080	79.27	1305-080	170.74	—	—	—	—
1-1/4	4MT	7-7/8	13-1/2	1301-080	57.64	1304-080	137.15	1360-804	149.40	3000-804	353.25
1-17/64	4MT	8-1/2	14-1/8	1301-081	75.27	1304-081	163.09	—	—	—	—
1-9/32	4MT	8-1/2	14-1/8	1301-082	71.88	1304-082	167.31	1360-824	208.80	—	—
1-19/64	4MT	8-5/8	14-1/4	1301-083	57.45	1304-083	173.63	—	—	—	—
1-5/16	3MT*	8-5/8	13-1/4	1303-084	95.50	1305-084	236.38	—	—	—	—
1-5/16	4MT	8-5/8	14-1/4	1301-084	72.34	1304-084	167.31	1360-844	175.10	—	—
1-5/16	5MT	8-5/8	14-1/4	—	—	—	—	1360-845	208.80	—	—
1-21/64	4MT	8-3/4	14-3/8	1301-085	82.86	1304-085	179.52	—	—	—	—
1-11/32	4MT	8-3/4	14-3/8	1301-086	77.17	1304-086	179.52	1360-864	224.10	—	—
1-23/64	3MT*	8-7/8	13-1/2	1303-087	97.34	—	—	—	—	—	—
1-23/64	4MT	8-7/8	14-1/2	1301-087	84.65	1304-087	183.40	—	—	—	—
1-3/8	3MT*	8-7/8	13-1/2	1303-088	103.34	1305-088	253.71	—	—	—	—
1-3/8	4MT	8-7/8	14-1/2	1301-088	77.59	1304-088	183.40	1360-884	187.75	3000-884	432.35
1-3/8	5MT	8-7/8	14-1/2	—	—	—	—	1360-885	224.10	—	—

* Alternate Shank

Taper Shank Drills (cont'd.)

High Speed Steel, Cobalt, & Carbide Tipped

WARNING: This product contains Cobalt and/or Nickel and/or Lead a chemical known to the state of California to cause cancer or birth defects or other reproductive harm. For more information: www.prop65.ca.gov.
WARNING: Cutting tools may shatter. Always wear approved safety glasses and mask when regrinding.



DIAM.	TAPER SHANK NO.	FLUTE LENGTH	OVERALL LENGTH	HIGH SPEED STEEL				COBALT		CARBIDE TIPPED	
											
				ORDER NO.	PRICE EACH	ORDER NO.	PRICE EACH	ORDER NO.	PRICE EACH	ORDER NO.	PRICE EACH
1-25/64	4MT	9	14-5/8	1301-089	\$86.97	1304-089	\$188.45	-	-	-	-
1-13/32	3MT *	9	13-5/8	1303-090†	105.40	-	-	-	-	-	-
1-13/32	4MT	9	14-5/8	1301-090	83.83	1304-090	188.45	1360-904	\$242.20	-	-
1-27/64	4MT	9-1/8	14-3/4	1301-091	90.08	1304-091	195.16	-	-	-	-
1-7/16	3MT *	9-1/8	13-3/4	1303-092	113.98	1305-092	264.75	-	-	-	-
1-7/16	4MT	9-1/8	14-3/4	1301-092	83.87	1304-092	195.16	1360-924	202.95	-	-
1-7/16	5MT	9-1/8	14-3/4	-	-	-	-	1360-925	242.20	-	-
1-29/64	3MT *	9-1/4	13-7/8	1303-093†	66.55	-	-	-	-	-	-
1-29/64	4MT	9-1/4	14-7/8	1301-093	94.73	1304-093	204.40	-	-	-	-
1-15/32	3MT	9-1/4	14-7/8	-	-	1305-094	288.63	-	-	-	-
1-15/32	4MT	9-1/4	14-7/8	1301-094	90.31	1304-094	204.40	1360-944	260.00	-	-
1-31/64	4MT	9-3/8	15	1301-095	97.22	1304-095	210.64	-	-	-	-
1-1/2	3MT *	9-3/8	14	1303-096	120.00	1305-096	288.63	-	-	-	-
1-1/2	4MT	9-3/8	15	1301-096	89.19	1304-096	210.64	1360-964	217.90	3000-964	\$474.25
1-1/2	5MT	9-1/2	16-1/2	-	-	-	-	1360-965	260.00	-	-
1-33/64	4MT *	9-3/8	15	1303-097	135.60	1305-097	341.74	-	-	-	-
1-33/64	5MT	9-3/8	16-3/8	1301-097	125.14	1304-097	341.74	-	-	-	-
1-17/32	4MT *	9-3/8	15	1303-098	126.77	1305-098	311.45	-	-	-	-
1-17/32	5MT	9-3/8	16-3/8	1301-098	104.07	1304-098	271.13	1360-985	374.40	-	-
1-35/64	4MT *	9-5/8	15-1/4	1303-099	144.27	1305-099	359.40	-	-	-	-
1-35/64	5MT	9-5/8	16-5/8	1301-099	133.06	1304-099	359.40	-	-	-	-
1-9/16	4MT *	9-5/8	15-1/4	1303-100	135.66	1305-100	311.45	-	-	-	-
1-9/16	5MT	9-5/8	16-5/8	1301-100	108.00	1304-100	271.13	1361-005	374.40	-	-
1-37/64	4MT *	9-7/8	15-1/2	1303-101	153.31	1305-101	359.40	-	-	-	-
1-37/64	5MT	9-7/8	16-7/8	1301-101	141.77	1304-101	359.40	-	-	-	-
1-19/32	4MT *	9-7/8	15-1/2	1303-102	145.00	1305-102	314.57	-	-	-	-
1-19/32	5MT	9-7/8	16-7/8	1301-102	117.78	1304-102	271.13	-	-	-	-
1-39/64	4MT *	10	15-5/8	1303-103	159.21	1305-103	368.94	-	-	-	-
1-39/64	5MT	10	17	1301-103	148.50	1304-103	368.94	-	-	-	-
1-5/8	4MT *	10	15-5/8	1303-104	148.28	1305-104	325.23	-	-	-	-
1-5/8	5MT	10	17	1301-104	116.66	1304-104	278.85	1361-045	329.40	-	-
1-41/64	4MT *	10-1/8	15-3/4	1303-105	171.63	1305-105	386.36	-	-	-	-
1-41/64	5MT	10-1/8	17-1/8	1301-105	158.20	1304-105	386.36	-	-	-	-
1-21/32	4MT *	10-1/8	15-3/4	1303-106	98.80	1305-106	352.30	-	-	-	-
1-21/32	5MT	10-1/8	17-1/8	1301-106	126.67	1304-106	296.01	-	-	-	-
1-43/64	4MT *	10-1/8	15-3/4	1303-107	178.15	1305-107	420.64	-	-	-	-
1-43/64	5MT	10-1/8	17-1/8	1301-107	164.34	1304-107	420.64	-	-	-	-
1-11/16	4MT *	10-1/8	15-3/4	1303-108	166.24	1305-108	357.45	-	-	-	-
1-11/16	5MT	10-1/8	17-1/8	1301-108	128.59	1304-108	304.59	1361-084	380.70	-	-
1-45/64	4MT *	10-1/8	15-3/4	1303-109	183.49	1305-109	420.64	-	-	-	-
1-45/64	5MT	10-1/8	17-1/8	1301-109	169.69	1304-109	420.64	-	-	-	-
1-23/32	4MT *	10-1/8	15-3/4	1303-110	170.06	1305-110	394.13	-	-	-	-
1-23/32	5MT	10-1/8	17-1/8	1301-110	136.26	1304-110	321.75	-	-	-	-
1-47/64	4MT *	10-3/8	16-1/4	1303-111	201.84	1305-111	438.10	-	-	-	-
1-47/64	5MT	10-1/8	17-1/8	1301-111	179.69	1304-111	438.10	-	-	-	-
1-3/4	4MT *	10-3/8	16-1/4	1303-112	161.33	1305-112	398.97	-	-	-	-
1-3/4	5MT	10-1/8	17-1/8	1301-112	151.48	1304-112	321.75	1361-125	380.70	-	-
1-49/64	5MT	10-1/8	17-1/8	1301-113	118.10	-	-	-	-	-	-
1-25/32	4MT *	10-3/8	16-1/4	1303-114	195.69	1305-114	402.40	-	-	-	-
1-25/32	5MT	10-1/8	17-1/8	1301-114	144.45	1304-114	338.91	-	-	-	-
1-51/64	5MT	10-1/8	17-1/8	1301-115	210.10	-	-	-	-	-	-
1-13/16	4MT *	10-3/8	16-1/4	1303-116	195.69	1305-116	427.28	-	-	-	-
1-13/16	5MT	10-1/8	17-1/8	1301-116	161.46	1304-116	359.67	1361-165	406.80	-	-
1-53/64	5MT	10-1/8	17-1/8	1301-117	239.58	-	-	-	-	-	-
1-27/32	4MT *	10-3/8	16-1/4	1303-118	208.51	1305-118	454.79	-	-	-	-
1-27/32	5MT	10-1/8	17-1/8	1301-118	170.23	1304-118	359.67	-	-	-	-
1-55/64	5MT	10-1/8	17-3/8	1301-119	239.58	-	-	-	-	-	-
1-7/8	4MT *	10-1/2	16-1/2	1303-120	208.51	1305-120	454.79	-	-	-	-
1-7/8	5MT	10-3/8	17-3/8	1301-120	168.95	1304-120	359.67	1361-205	406.80	-	-
1-57/64	5MT *	10-3/8	17-3/8	1301-121	239.58	1305-121	506.22	-	-	-	-
1-29/32	4MT *	10-1/2	16-1/2	1303-122	224.15	1305-122	468.00	-	-	-	-
1-29/32	5MT	10-3/8	17-3/8	1301-122	178.01	1304-122	373.23	-	-	-	-
1-59/64	5MT	10-3/8	17-3/8	1301-123	190.84	-	-	-	-	-	-
1-15/16	4MT *	10-5/8	16-5/8	1303-124	224.15	1305-124	497.21	-	-	-	-
1-15/16	5MT	10-3/8	17-3/8	1301-124	239.58	1304-124	386.10	1361-245	475.65	-	-
1-61/64	5MT	10-3/8	17-3/8	1301-125	178.01	-	-	-	-	-	-
1-31/32	4MT *	10-5/8	16-5/8	1303-126	228.04	1305-126	580.87	-	-	-	-
1-31/32	5MT	10-3/8	17-3/8	1301-126	196.04	1304-126	399.83	-	-	-	-
1-63/64	5MT	10-3/8	17-3/8	1301-127	249.74	-	-	-	-	-	-
2	4MT *	10-5/8	16-5/8	1303-128	232.28	1305-128	487.06	-	-	-	-
2	5MT	10-3/8	17-3/8	1301-128	197.35	1304-128	399.83	1361-285	475.65	-	-

* Alternate Shank

Taper Shank Drills (cont'd.)

High Speed Steel



WARNING: This product contains Cobalt and/or Nickel and/or Lead a chemical known to the state of California to cause cancer or birth defects or other reproductive harm. For more information: www.prop65.ca.gov. **WARNING:** Cutting tools may shatter. Always wear approved safety glasses and mask when regrinding.

				Pittsburg® AMERICAN MADE		Pittsburg® AMERICAN MADE	
DIAM.	TAPER SHANK NO.	FLUTE LENGTH	OVERALL LENGTH	ORDER NO.	PRICE EACH	ORDER NO.	PRICE EACH
2-1/32	4MT	10-1/4	17-3/8	—	—	1305-130	\$633.39
2-1/32	5MT	10-1/4	17-3/8	1301-130	\$227.55	1304-130	633.39
2-1/16	4MT	10-1/4	16-1/4	1303-132	281.16	1305-132	633.39
2-1/16	5MT	10-1/4	17-3/8	1301-132	208.85	1304-132	597.17
2-3/32	4MT	10-1/4	17-3/8	—	—	1305-134	680.19
2-3/32	5MT	10-1/4	17-3/8	1301-134	262.53	1304-134	680.19
2-1/8	4MT	10-1/4	16-1/4	1303-136	281.16	1305-136	680.19
2-1/8	5MT	10-1/4	17-3/8	1301-136	281.16	1304-136	609.31
2-5/32	4MT	10-1/4	17-3/8	—	—	1305-138	694.98
2-5/32	5MT	10-1/4	17-3/8	1301-138	281.16	1304-138	694.98
2-3/16	4MT	10-1/4	16-1/4	1303-140	296.54	1305-140	694.98
2-3/16	5MT	10-1/4	17-3/8	1301-140	296.54	1304-140	625.04
2-7/32	4MT	10-1/8	17-3/8	—	—	1305-142	694.98
2-7/32	5MT	10-1/8	17-3/8	1301-142	296.54	1304-142	694.98
2-1/4	4MT	10-1/8	16-1/8	1303-144	311.57	1305-144	694.98
2-1/4	5MT	10-1/8	17-3/8	1301-144	311.57	1304-144	642.93
2-9/32	5MT	10-1/8	17-3/8	1301-146	311.57	1304-146	764.14
2-5/16	4MT	10-1/8	16-1/8	1303-148	342.72	1305-148	764.14
2-5/16	5MT	10-1/8	17-3/8	1301-148	311.57	1304-148	729.69
2-11/32	5MT	10-1/8	17-3/8	1301-150	311.57	1304-150	901.00
2-3/8	4MT	10-1/8	16-1/8	1303-152	436.63	1305-152	901.00
2-3/8	5MT	10-1/8	17-3/8	1301-152	296.62	1304-152	790.05
2-13/32	5MT	11-1/4	18-3/4	1301-154	370.77	1304-154	944.32
2-7/16	4MT	11-1/4	17-1/4	1303-156	449.86	1305-156	944.32
2-7/16	5MT	11-1/4	18-3/4	1301-156	363.18	1304-156	849.75
2-15/32	5MT	11-1/4	18-3/4	1301-158	396.78	—	—
2-1/2	4MT	11-1/4	17-1/4	1303-160	494.50	1305-160	944.32
2-1/2	5MT	11-1/4	18-3/4	1301-160	446.88	1304-160	849.75
2-9/16	5MT	11-7/8	19-1/2	1301-164	463.68	1304-164	1012.96
2-19/32	5MT	11-7/8	19-1/2	1301-166	513.80	1304-166	1115.49
2-5/8	4MT	11-7/8	18	1303-168	363.20	1305-168	1012.96
2-5/8	5MT	11-7/8	19-1/2	1301-168	489.33	1304-168	1013.09
2-11/16	5MT	12-3/4	20-3/8	1301-172	501.27	1304-172	1115.49
2-3/4	4MT	12-3/4	19-1/8	1303-176	408.70	1305-176	1192.78
2-3/4	5MT	12-3/4	20-3/8	1301-176	538.89	1304-176	1158.30
2-25/32	5MT	13-3/8	21-1/8	1301-178	617.23	1304-178	1362.17
2-13/16	5MT	13-3/8	21-1/8	1301-180	592.19	1304-180	1220.51
2-7/8	5MT	13-3/8	21-1/8	1301-184	614.94	1304-184	1362.17
2-15/16	5MT	14	21-3/4	1301-188	637.77	1304-188	1443.38
2-31-32	5MT	14	21-3/4	—	—	1304-190	1862.72
3	5MT	14	21-3/4	1301-192	713.90	1304-192	1493.01
3-1/16	5MT	14-5/8	24-5/8	—	—	1305-196	1862.72
3-1/16	6MT	14-5/8	24-5/8	1301-196	805.46	1304-196	1862.72
3-1/8	5MT *	14-5/8	22	1303-200	559.20	1305-200	1973.40
3-1/8	6MT	14-1/4	24-1/2	1301-200	852.00	1304-200	1973.40
3-3/16	5MT	14-5/8	24-1/2	—	—	1305-204	2124.41
3-3/16	6MT	14-5/8	24-1/2	1301-204	958.80	1304-204	2124.41
3-1/4	5MT *	15-1/2	23	1303-208	982.08	1305-208	2124.41
3-1/4	6MT	15-1/2	25-1/2	1301-208	982.08	1304-208	2124.41
3-5/16	5MT	15-1/2	25-1/2	—	—	1305-212	2348.78
3-5/16	6MT	15-1/2	25-1/2	1301-212	1108.80	1304-212	2348.78
3-3/8	5MT	15-1/2	25-1/2	—	—	1305-216	2511.37
3-3/8	6MT	15-1/2	25-1/2	1301-216	1267.20	1304-216	2511.37
3-7/16	5MT	15-1/2	25-1/2	—	—	1305-220	3159.59
3-7/16	6MT	15-1/2	25-1/2	1301-220	1488.96	1304-220	3159.59
3-1/2	5MT *	16-1/4	24	1303-224	1576.08	1305-224	3159.59
3-1/2	6MT	16-3/8	26-1/2	1301-224	1576.08	1304-224	3159.59
3-5/8	6MT	16-3/8	26-1/2	1301-232	1083.25	1304-232	3273.27
3-3/4	6MT	16-3/8	26-1/2	1301-240	2352.24	1304-240	4011.15
3-7/8	6MT	16-3/8	26-1/2	1301-248	1252.50	1304-248	4624.62
4	6MT	17-3/8	27-1/2	1301-256	3483.92	1304-256	5053.62

* Alternate Shank

Letter Sizes

				Pittsburg® AMERICAN MADE		Pittsburg® AMERICAN MADE	
DIAM.	FLUTE LENGTH	OVERALL LENGTH	SHANK NO.	ORDER NO.	PRICE EACH	ORDER NO.	PRICE EACH
A	2-7/8	6-1/8	1	1321-001	\$6.20	1322-001	\$23.49
B	2-7/8	6-1/8	1	1321-002	6.20	1322-002	23.49
C	2-7/8	6-1/8	1	1321-003	6.20	1322-003	23.49
D	2-7/8	6-1/8	1	1321-004	5.50	1322-004	20.84
E	2-7/8	6-1/8	1	1321-005	POA	1322-005	18.38
F	3	6-1/4	1	1321-006	5.45	1322-006	20.66
G	3	6-1/4	1	1321-007	6.50	1322-007	24.62
H	3	6-1/4	1	1321-008	6.50	1322-008	24.62
I	3	6-1/4	1	1321-009	6.50	1322-009	24.62
J	3	6-1/4	1	1321-010	6.00	1322-010	22.72
K	3	6-1/4	1	1321-011	6.85	1322-011	25.84
L	3-1/8	6-3/8	1	1321-012	6.85	1322-012	25.84
M	3-1/8	6-3/8	1	1321-013	6.85	1322-013	25.84
N	3-1/8	6-3/8	1	1321-014	6.85	1322-014	25.84
O	3-1/4	6-1/2	1	1321-015	8.10	1322-015	30.65
P	3-1/4	6-1/2	1	1321-016	8.10	1322-016	30.65
Q	3-1/4	6-1/2	1	1321-017	8.50	1322-017	32.16
R	3-1/4	6-1/2	1	1321-018	9.35	1322-018	35.37
S	3-1/2	6-3/4	1	1321-019	9.80	1322-019	37.06
T	3-1/2	6-3/4	1	1321-020	9.80	1322-020	37.06
U	3-1/2	6-3/4	1	1321-021	9.80	1322-021	37.06
V	3-5/8	7	1	1321-022	10.35	1322-022	39.07
W	3-5/8	7	1	1321-023	10.35	1322-023	39.07
X	3-5/8	7	1	1321-024	10.65	1322-024	40.27
Y	3-5/8	7	1	1321-025	10.65	1322-025	40.27
Z	3-7/8	7-1/4	1	1321-026	11.15	1322-026	42.08

Wire Gage Sizes

					
SHANK		ORDER	PRICE	ORDER	PRICE
DIA.	NO.	NO.	EACH	NO.	EACH
1	1	1311-001	\$6.00	1312-001	\$22.65
2	1	1311-002	6.00	1312-002	22.65
3	1	1311-003	6.00	1312-003	22.65
4	1	1311-004	6.00	1312-004	22.65
5	1	1311-005	6.00	1312-005	22.65
6	1	1311-006	6.00	1312-006	22.65
7	1	1311-007	5.70	1312-007	21.62
8	1	1311-008	5.70	1312-008	21.62
9	1	1311-009	5.70	1312-009	21.62
10	1	1311-010	16.63	1312-010	21.62
11	1	1311-011	16.63	1312-011	21.62
12	1	1311-012	16.63	1312-012	21.62
13	1	1311-013	16.63	1312-013	21.62
14	1	1311-014	16.63	1312-014	21.62
15	1	1311-015	16.63	1312-015	21.62
16	1	1311-016	16.63	1312-016	21.62
17	1	1311-017	16.63	1312-017	21.62
18	1	1311-018	16.63	1312-018	21.62
19	1	1311-019	16.63	1312-019	21.62
20	1	1311-020	5.40	1312-020	20.29
21	1	1311-021	5.40	1312-021	20.29
22	1	1311-022	5.40	1312-022	20.29
23	1	1311-023	5.40	1312-023	20.29
24	1	1311-024	5.40	1312-024	20.29
25	1	1311-025	5.40	1312-025	20.29
26	1	1311-026	5.40	1312-026	20.29
27	1	1311-027	5.40	1312-027	20.29
28	1	1311-028	5.40	1312-028	20.29
29	1	1311-029	5.40	1312-029	20.29
30	1	1311-030	5.40	1312-030	20.29
31	1	1311-031	4.75	-	-
32	1	1311-032	4.75	-	-
33	1	1311-033	4.75	-	-
34	1	1311-034	4.75	-	-
35	1	1311-035	4.75	-	-
36	1	1311-036	4.75	-	-

Taper Shank Drills – Extra Long

High Speed Steel, 8" thru 36" OAL

WARNING: This product contains Cobalt and/or Nickel and/or Lead a chemical known to the state of California to cause cancer or birth defects or other reproductive harm. For more information: www.prop65.ca.gov
WARNING: Cutting tools may shatter. Always wear approved safety glasses and mask when grinding.



HOW TO DETERMINE TS DRILL FLUTE LENGTHS IF OVERALL LENGTH IS:						
	10"	12"	16"	18"	30"	36"
THEN APPROXIMATE FLUTE LENGTH IS (+/- 3/4")						
MT1	6-3/4"	8-3/4"	12-3/4"	14-3/4"	26-3/4"	
MT2	6-1/4"	8-1/4"	12-1/4"	14-1/4"	26-1/4"	32-1/4"
MT3		7-5/8"	11-5/8"	13-5/8"	25-5/8"	31-5/8"
MT4			10-11/16"	12-11/16"	24-11/16"	31-11/16"
MT5			8-1/2"	11-1/2"	23-1/2"	29-1/2"
MT6					21"	27"

TAPER				
DIAM.	OVERALL LENGTH	SHANK NO.	ORDER NO.	PRICE EACH
1/8	8	1MT	1708-081†	\$6.75
1/8	10	1MT	1708-101†	7.50
1/8	12	1MT	1708-121	16.25
9/64	8	1MT	1709-081†	6.75
9/64	10	1MT	1709-101†	7.50
9/64	12	1MT	1709-121†	8.30
9/64	15	1MT	1709-151†	10.95
5/32	8	1MT	1710-081†	6.75
5/32	10	1MT	1710-101†	7.50
5/32	12	1MT	1710-121†	8.30
5/32	15	1MT	1710-151†	10.95
5/32	18	1MT	1710-181†	24.00
11/64	8	1MT	1711-081†	6.75
11/64	10	1MT	1711-101†	7.50
11/64	10	2MT	1711-102†	7.50
11/64	12	1MT	1711-121†	8.30
11/64	15	1MT	1711-151†	10.95
11/64	18	1MT	1711-181†	24.00
3/16	8	1MT	1712-081†	6.75
3/16	10	1MT	1712-101†	7.50
3/16	12	1MT	1712-121	16.25
3/16	15	1MT	1712-151	21.50
3/16	16	1MT	1712-161†	22.60
3/16	18	1MT	1712-181	39.90
13/64	8	1MT	1713-081†	7.50
13/64	10	1MT	1713-101†	8.30
13/64	12	1MT	1713-121	19.85
13/64	15	1MT	1713-151	23.65
13/64	18	1MT	1713-181†	25.75
7/32	8	1MT	1714-081†	7.50
7/32	10	1MT	1714-101†	8.30
7/32	10	2MT	1714-102†	8.30
7/32	12	1MT	1714-121	18.05
7/32	15	1MT	1714-151	21.50
7/32	16	1MT	1714-161†	22.60
7/32	18	1MT	1714-181	39.90
15/64	8	1MT	1715-081†	7.50
15/64	10	1MT	1715-101†	8.30
15/64	12	1MT	1715-121	19.85
15/64	15	1MT	1715-151	23.65
15/64	18	1MT	1715-181†	25.75
1/4	8	1MT	1716-081†	7.50
1/4	10	1MT	1716-101†	8.30
1/4	12	1MT	1716-121	17.08
1/4	15	1MT	1716-151	21.50
1/4	18	1MT	1716-181	39.90
1/4	24	1MT	1716-241	86.65
17/64	8	1MT	1717-081†	8.35
17/64	12	1MT	1717-121	20.20
17/64	15	1MT	1717-151	23.00
17/64	16	1MT	1717-161†	24.20
17/64	18	1MT	1717-181	32.78
17/64	22	1MT	1717-221†	25.75
9/32	8	1MT	1718-081†	8.35
9/32	10	1MT	1718-101†	9.30
9/32	12	1MT	1718-121	17.94
9/32	12	2MT*	1718-122†	20.20
9/32	15	1MT	1718-151	23.86
9/32	18	1MT	1718-181	39.90
9/32	24	1MT	1718-241	86.65
9/32	30	1MT	1718-301†	51.35

DIAM.	OVERALL LENGTH	TAPER SHANK NO.	ORDER NO.	PRICE EACH
19/64	8	1MT	1719-081†	\$8.90
19/64	10	1MT	1719-101†	9.90
19/64	12	1MT	1719-121	21.50
19/64	15	1MT	1719-151	24.20
19/64	16	1MT	1719-161†	25.40
19/64	18	1MT	1719-181	39.90
19/64	24	1MT	1719-241†	48.50
5/16	8	1MT	1720-081†	8.90
5/16	12	1MT	1720-121	18.98
5/16	15	1MT	1720-151	27.95
5/16	16	1MT	1720-161†	25.40
5/16	18	1MT	1720-181	31.05
5/16	24	1MT	1720-241	86.65
21/64	8	1MT	1721-081†	9.30
21/64	10	1MT	1721-101†	10.35
21/64	12	1MT	1721-121	22.50
21/64	15	1MT	1721-151	25.15
21/64	16	1MT	1721-161†	26.40
21/64	18	1MT	1721-181	39.90
11/32	8	1MT	1722-081†	9.30
11/32	12	1MT	1722-121	19.77
11/32	15	1MT	1722-151	33.47
11/32	18	1MT	1722-181	39.90
11/32	24	1MT	1722-241	86.65
23/64	12	1MT	1723-121	23.80
23/64	15	1MT	1723-151	34.33
23/64	18	1MT	1723-181	37.26
3/8	10	1MT	1724-101†	10.95
3/8	12	1MT	1724-121	20.53
3/8	15	1MT	1724-151	27.26
3/8	18	1MT	1724-181	39.33
3/8	24	1MT	1724-241	43.19
25/64	8	1MT	1725-081†	9.85
25/64	10	1MT	1725-101†	10.95
25/64	12	1MT	1725-121	23.80
25/64	15	1MT	1725-151	28.00
25/64	16	1MT	1725-161†	29.40
25/64	18	1MT	1725-181	44.20
25/64	24	1MT	1725-241	66.65
13/32	8	1MT	1726-081†	9.85
13/32	10	1MT	1726-101†	10.95
13/32	12	1MT	1726-121	23.80
13/32	15	1MT	1726-151	28.81
13/32	16	1MT	1726-161†	29.40
13/32	18	1MT	1726-181	44.20
13/32	24	1MT	1726-241	66.65
13/32	30	1MT	1726-301†	52.40
13/32	36	1MT	1726-361†	94.85
27/64	12	1MT	1727-121	23.01
27/64	15	1MT	1727-151	29.33
27/64	18	1MT	1727-181	39.61
27/64	18	2MT*	1727-182†	44.20
27/64	24	1MT	1727-241	66.65
7/16	8	1MT	1728-081†	9.85
7/16	12	1MT	1728-121	23.81
7/16	15	1MT	1728-151	30.02
7/16	18	1MT	1728-181	42.09
7/16	18	2MT*	1728-182†	44.20
7/16	24	1MT	1728-241	60.55
29/64	8	1MT	1729-081†	10.50
29/64	10	1MT	1729-101†	11.70
29/64	12	1MT	1729-121	24.56
29/64	15	1MT	1729-151	28.00
29/64	16	1MT	1729-161†	29.40
29/64	18	1MT	1729-181	44.20
29/64	20	1MT	1729-201†	24.40
29/64	24	1MT	1729-241	67.85

DIAM.	OVERALL LENGTH	TAPER SHANK NO.	ORDER NO.	PRICE EACH
15/32	8	1MT	1730-081†	\$10.50
15/32	10	1MT	1730-101†	11.70
15/32	12	1MT	1730-121	26.39
15/32	12	2MT*	1730-122†	25.40
15/32	15	1MT	1730-151	28.80
15/32	15	2MT*	1730-152†	28.80
15/32	16	1MT	1730-161†	30.30
15/32	18	1MT	1730-181	44.20
15/32	18	2MT*	1730-182†	44.20
15/32	24	1MT	1730-241	67.85
15/32	30	1MT	1730-301	58.40
15/32	36	1MT	1730-361†	102.45
31/64	10	1MT	1731-101†	11.70
31/64	10	2MT	1731-102†	11.70
31/64	12	1MT*	1731-121†	25.40
31/64	12	2MT	1731-122	26.91
31/64	15	1MT*	1731-151†	28.80
31/64	15	2MT	1731-152	28.80
31/64	16	2MT	1731-162†	30.30
31/64	18	1MT*	1731-181†	44.20
31/64	18	2MT	1731-182	45.00
31/64	24	1MT*	1731-241†	67.85
31/64	24	2MT	1731-242	67.85
31/64	27-1/2	2MT	1731-272†	49.95
1/2	12	2MT	1732-122	27.26
1/2	15	2MT	1732-152	37.95
1/2	16	2MT	1732-162†	30.30
1/2	18	2MT	1732-182	43.13
1/2	24	1MT*	1732-241†	67.85
1/2	24	2MT	1732-242	63.48
1/2	30	2MT	1732-302	62.15
33/64	10	1MT	1733-101†	12.50
33/64	10	2MT	1733-102†	12.50
33/64	12	2MT	1733-122	27.20
33/64	15	2MT	1733-152	36.10
33/64	18	2MT	1733-182	48.13
33/64	20	2MT	1733-202†	26.50
33/64	24	2MT	1733-242	71.59
17/32	12	2MT	1734-122	29.33
17/32	15	2MT	1734-152	40.37
17/32	18	1MT*	1734-181†	46.75
17/32	18	2MT	1734-182	50.03
17/32	20	2MT	1734-201†	26.50
17/32	24	2MT	1734-242	74.52
17/32	30	2MT	1734-300†	62.15
17/32	30	2MT	1734-302	62.15
17/32	36	2MT	1734-362	109.45
35/64	10	1MT	1735-101†	12.75
35/64	10	2MT	1735-102†	12.75
35/64	12	2MT	1735-122	27.70
35/64	15	1MT*	1735-151†	36.10
35/64	15	2MT	1735-152	36.10
35/64	16	1MT*	1735-161†	38.00
35/64	16	2MT	1735-162†	38.00
35/64	18	2MT	1735-182	52.44
35/64	20	3MT	1735-203†	27.55
35/64	24	2MT	1735-242	85.97
35/64	30	2MT	1735-302	69.70

(Continued)

* Alternate Shank † Limited Quantities

Taper Shank Drills – Extra Long

High Speed Steel, 8" thru 36" OAL

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WARNING: Cutting tools may shatter. Always wear approved safety glasses and mask when regrinding.



HOW TO DETERMINE TS DRILL FLUTE LENGTHS IF OVERALL LENGTH IS:					
10"	12"	16"	18"	30"	36"
THEN APPROXIMATE FLUTE LENGTH IS (+/- 3/4")					
MT1 6-3/4"	8-3/4"	12-3/4"	14-3/4"	26-3/4"	
MT2 6-1/4"	8-1/4"	12-1/4"	14-1/4"	26-1/4"	32-1/4"
MT3	7-5/8"	11-5/8"	13-5/8"	25-5/8"	31-5/8"
MT4		10-11/16"	12-11/16"	24-11/16"	31-11/16"
MT5		8-1/2"	11-1/2"	23-1/2"	29-1/2"
MT6			21"	27"	

DIAM.	OVERALL LENGTH	TAPER SHANK NO.	ORDER NO.	PRICE EACH
9/16	12	2MT	1736-122	\$34.16
9/16	15	2MT	1736-152	46.92
9/16	16	2MT	1736-162†	38.00
9/16	18	2MT	1736-182	60.89
9/16	24	2MT	1736-242	88.49
37/64	10	2MT	1737-102†	12.75
37/64	12	2MT	1737-122	27.70
37/64	15	2MT	1737-152	48.30
37/64	16	2MT	1737-162†	38.00
37/64	18	2MT	1737-182	62.45
37/64	20	2MT	1737-202†	27.55
37/64	24	2MT	1737-242	90.08
19/32	12	2MT	1738-122	33.64
19/32	15	2MT	1738-152	48.99
19/32	16	2MT	1738-162†	38.00
19/32	18	2MT	1738-182	63.48
19/32	24	2MT	1738-242	93.15
19/32	30	2MT	1738-300†	74.00
39/64	12	2MT	1739-122	29.35
39/64	15	2MT	1739-152	38.35
39/64	18	2MT	1739-182	70.73
39/64	20	2MT	1739-202†	29.70
39/64	24	2MT	1739-242	70.45
5/8	12	2MT	1740-122	40.71
5/8	15	2MT	1740-152	54.86
5/8	16	2MT	1740-162†	40.30
5/8	18	2MT	1740-182	72.28
5/8	24	2MT	1740-242	102.47
5/8	30	2MT	1740-302	110.15
41/64	10	2MT	1741-102†	13.50
41/64	12	2MT	1741-122	29.35
41/64	15	2MT	1741-152	38.35
41/64	16	2MT	1741-162†	40.30
41/64	18	2MT	1741-182	72.62
41/64	24	2MT	1741-242	103.98
21/32	12	2MT	1742-122	41.86
21/32	15	2MT	1742-152	58.48
21/32	18	2MT	1742-182	73.59
21/32	24	2MT	1742-242	102.47
21/32	36	2MT	1742-362	150.10
43/64	10	2MT	1743-102†	13.95
43/64	12	2MT	1743-122	30.35
43/64	15	2MT	1743-152	38.35
43/64	18	2MT	1743-182	73.97
43/64	20	2MT	1743-202†	29.70
43/64	24	2MT	1743-242	108.33
11/16	12	2MT	1744-122	41.40
11/16	15	2MT	1744-152	59.34
11/16	18	2MT	1744-182	74.52
11/16	24	2MT	1744-242	104.95
11/16	30	2MT	1744-302	110.15

* Alternate Shank † Limited Quantities

DIAM.	OVERALL LENGTH	TAPER SHANK NO.	ORDER NO.	PRICE EACH
45/64	12	2MT	1745-122	\$30.35
45/64	15	2MT	1745-152	38.35
45/64	16	2MT	1745-162†	40.30
45/64	18	2MT	1745-182	76.28
45/64	24	2MT	1745-242	105.50
23/32	12	2MT	1746-122	48.30
23/32	15	2MT	1746-152	66.93
23/32	18	2MT	1746-182	86.60
23/32	24	2MT	1746-242	107.09
47/64	12	2MT	1747-122	35.10
47/64	12	3MT*	1747-123†	35.10
47/64	15	2MT	1747-152	41.95
47/64	16	2MT	1747-162†	44.00
47/64	18	2MT	1747-182	88.53
47/64	20	2MT	1747-202†	33.90
47/64	24	2MT	1747-242	108.40
3/4	12	2MT	1748-122	51.23
3/4	15	2MT	1748-152	68.66
3/4	18	2MT	1748-182	90.08
3/4	24	2MT	1748-242	109.99
3/4	30	2MT	1748-302	99.90
49/64	12	2MT	1749-122	36.90
49/64	15	2MT	1749-152	50.45
49/64	18	2MT	1749-182	88.49
49/64	24	2MT	1749-242	79.00
25/32	12	2MT	1750-122	36.90
25/32	15	2MT	1750-152	50.45
25/32	16	2MT	1750-162†	53.00
25/32	18	2MT	1750-182	91.08
25/32	18	3MT*	1750-183†	58.60
25/32	24	2MT	1750-242	135.41
25/32	30	2MT	1750-302	134.05
51/64	12	3MT	1751-123	39.25
51/64	15	3MT	1751-153	50.45
51/64	16	3MT	1751-163†	53.00
51/64	18	2MT*	1751-182†	62.65
51/64	18	3MT	1751-183	93.15
51/64	20	3MT	1751-203†	35.50
51/64	24	3MT	1751-243	86.90
51/64	30	3MT	1751-303	134.05
13/16	12	2MT*	1752-122	42.20
13/16	12	3MT	1752-123	39.25
13/16	15	3MT	1752-153	74.18
13/16	18	2MT*	1752-182	67.35
13/16	18	3MT	1752-183	93.15
13/16	24	2MT*	1752-242	137.48
13/16	24	3MT	1752-243	119.55
13/16	30	3MT	1752-303	108.55
13/16	36	2MT*	1752-362†	176.50
13/16	36	3MT	1752-363	196.10
53/64	12	2MT*	1753-122†	39.25
53/64	12	3MT	1753-123	39.25
53/64	15	3MT	1753-153	50.45
53/64	16	3MT	1753-163†	53.00
53/64	18	2MT*	1753-182†	63.60
53/64	18	3MT	1753-183	94.53
53/64	24	3MT	1753-243	136.28
27/32	12	2MT*	1754-122†	39.25
27/32	12	3MT	1754-123	39.25
27/32	15	3MT	1754-153	50.45
27/32	18	3MT	1754-183	98.33
27/32	20	3MT	1754-203†	36.05

DIAM.	OVERALL LENGTH	TAPER SHANK NO.	ORDER NO.	PRICE EACH
27/32	24	3MT	1754-243	\$90.85
27/32	30	3MT	1754-303	146.60
27/32	36	3MT	1754-363	206.95
55/64	12	2MT*	1755-122†	43.15
55/64	12	3MT	1755-123	43.15
55/64	15	3MT	1755-153	54.25
55/64	18	2MT*	1755-182†	65.45
55/64	18	3MT	1755-183	98.33
55/64	24	3MT	1755-243	95.00
55/64	30	3MT	1755-303	146.60
7/8	12	2MT*	1756-122	46.40
7/8	12	3MT	1756-123	43.15
7/8	15	3MT	1756-153	77.63
7/8	18	2MT*	1756-182	70.35
7/8	18	3MT	1756-183	99.88
7/8	24	2MT*	1756-242	144.38
7/8	24	3MT	1756-243	125.55
7/8	30	3MT	1756-300†	106.85
7/8	30	3MT	1756-303	118.70
7/8	36	3MT	1756-363	216.10
57/64	12	3MT	1757-123†	22.00
57/64	15	3MT	1757-153	54.25
57/64	18	3MT	1757-183	107.30
57/64	24	3MT	1757-243	95.00
29/32	15	3MT	1758-153	54.25
29/32	18	3MT	1758-183	107.30
29/32	20	3MT	1758-203†	37.10
29/32	24	3MT	1758-243	154.04
59/64	15	3MT	1759-153	84.87
59/64	18	3MT	1759-183	108.47
59/64	24	3MT	1759-243	98.95
59/64	30	3MT	1759-303	170.20
15/16	15	3MT	1760-153	91.08
15/16	18	3MT	1760-183	117.68
15/16	24	3MT	1760-243	170.78
15/16	36	3MT	1760-363	246.50
61/64	15	3MT	1761-153	59.10
61/64	16	3MT	1761-163†	62.10
61/64	18	3MT	1761-183	121.10
61/64	20	3MT	1761-203†	29.45
61/64	24	3MT	1761-243	172.33
61/64	30	3MT	1761-303	176.50
31/32	15	3MT	1762-153	59.10
31/32	16	3MT	1762-163†	62.10
31/32	18	3MT	1762-183	118.82
31/32	24	3MT	1762-243	172.36
31/32	30	3MT	1762-300†	158.85
31/32	36	3MT	1762-363	246.50
63/64	15	3MT	1763-153	63.60
63/64	18	3MT	1763-183	72.95
63/64	24	3MT	1763-243	190.96
63/64	30	3MT	1763-303	176.50
1	15	3MT	1764-153	103.16
1	18	3MT	1764-183	130.58
1	24	3MT	1764-243	190.96
1	36	3MT	1764-363	292.05
1-1/64	15	3MT	1765-153	69.20
1-1/64	18	3MT	1765-183	135.76
1-1/64	24	3MT	1765-243	115.95
1-1/64	30	3MT	1765-303	200.95
1-1/32	15	3MT	1766-153	69.20
1-1/32	18	3MT	1766-183	135.76

(Continued)

Taper Shank Drills– Extra Long

High Speed Steel, 8" thru 36" OAL

WARNING: This product contains Cobalt and/or Nickel and/or Lead a chemical known to the state of California to cause cancer or birth defects or other reproductive harm. For more information: www.pro65.ca.gov.
WARNING: Cutting tools may shatter. Always wear approved safety glasses and mask when regrinding.

Pittsburg
ALLEGHENY 3



HOW TO DETERMINE TS DRILL FLUTE LENGTHS IF OVERALL LENGTH IS:						
	10"	12"	16"	18"	30"	36"
THEN APPROXIMATE FLUTE LENGTH IS (+/- 3/4")						
MT1	6-3/4"	8-3/4"	12-3/4"	14-3/4"	26-3/4"	32-1/4"
MT2	6-1/4"	8-1/4"	12-1/4"	14-1/4"	26-1/4"	31-5/8"
MT3		7-5/8"	11-5/8"	13-5/8"	25-5/8"	31-11/16"
MT4			10-11/16"	12-11/16"	24-11/16"	31-11/16"
MT5			8-1/2"	11-1/2"	23-1/2"	29-1/2"
MT6				21"	27"	

TAPER DIAM.	OVERALL LENGTH	SHANK NO.	ORDER NO.	PRICE EACH
1-1/32	24	3MT	1766-243	\$218.90
1-1/32	28	3MT	1766-283†	98.15
1-1/32	36	3MT	1766-363	304.80
1-3/64	15	3MT	1767-153	69.20
1-3/64	18	3MT	1767-183	78.55
1-3/64	24	3MT	1767-243	115.95
1-3/64	30	3MT	1767-303	200.95
1-1/16	15	3MT	1768-153	69.20
1-1/16	16	3MT	1768-163†	72.70
1-1/16	18	3MT	1768-183	137.83
1-1/16	24	3MT	1768-243	214.28
1-1/16	30	3MT	1768-303	162.70
1-1/16	36	3MT	1768-363	313.80
1-5/64	15	4MT	1769-154	74.80
1-5/64	16	4MT	1769-164†	78.50
1-5/64	18	4MT	1769-184	84.20
1-5/64	22	4MT	1769-224†	52.50
1-5/64	24	3MT*	1769-243†	127.40
1-5/64	24	4MT	1769-244	127.40
1-5/64	30	4MT	1769-304	214.75
1-3/32	15	4MT	1770-154	74.80
1-3/32	18	3MT*	1770-183†	84.20
1-3/32	18	4MT	1770-184	140.73
1-3/32	20	4MT	1770-204†	47.75
1-3/32	24	4MT	1770-244	72.97
1-3/32	26	4MT	1770-264†	98.75
1-3/32	30	3MT*	1770-303†	214.75
1-3/32	36	4MT	1770-364	338.80
1-7/64	15	4MT	1771-154	74.80
1-7/64	18	4MT	1771-184	84.20
1-7/64	24	4MT	1771-244	127.40
1-1/8	15	4MT	1772-154	104.54
1-1/8	18	3MT*	1772-183	90.50
1-1/8	18	4MT	1772-184	140.59
1-1/8	24	3MT*	1772-243	136.95
1-1/8	24	4MT	1772-244	218.90
1-1/8	30	3MT*	1772-303	186.95
1-1/8	36	4MT	1772-364	338.80
1-9/64	15	4MT	1773-154	76.30
1-9/64	18	4MT	1773-184	93.35
1-9/64	24	4MT	1773-244	133.45
1-5/32	15	4MT	1774-154	76.30
1-5/32	18	4MT	1774-184	93.35
1-5/32	24	4MT	1774-244	133.45
1-5/32	36	4MT	1774-364	338.80
1-11/64	15	4MT	1775-154	77.15
1-11/64	16	4MT	1775-164†	81.00
1-11/64	18	4MT	1775-184	140.73
1-11/64	22	4MT	1775-224†	57.75
1-11/64	24	4MT	1775-244	133.45

* Alternate Shank † Limited Quantities
** Limited Quantities, 20" LOF

TAPER DIAM.	OVERALL LENGTH	SHANK NO.	ORDER NO.	PRICE EACH
1-3/16	15	4MT	1776-154	\$77.15
1-3/16	16	3MT*	1776-163†	81.00
1-3/16	18	3MT*	1776-183	99.55
1-3/16	18	4MT	1776-184	156.63
1-3/16	24	3MT*	1776-243	143.45
1-3/16	24	4MT	1776-244	242.19
1-3/16	30	3MT*	1776-303	201.05
1-3/16	30	4MT	1776-304	187.00
1-3/16	36	4MT	1776-364	360.70
1-13/64	15	4MT	1777-154	81.85
1-13/64	16	4MT	1777-164†	86.00
1-13/64	18	4MT	1777-184	98.20
1-13/64	20	4MT	1777-204†	55.65
1-13/64	22	4MT	1777-224†	61.25
1-13/64	24	4MT	1777-244	141.30
1-7/32	15	4MT	1778-154	81.85
1-7/32	18	4MT	1778-184	156.46
1-7/32	24	4MT	1778-244	141.30
1-7/32	36	4MT	1778-364	368.45
1-15/64	15	4MT	1779-154	81.85
1-15/64	16	4MT	1779-164†	86.00
1-15/64	18	4MT	1779-184	98.20
1-15/64	24	4MT	1779-244	141.30
1-1/4	15	4MT	1780-154	122.82
1-1/4	18	3MT*	1780-183	105.55
1-1/4	18	4MT	1780-184	167.67
1-1/4	24	3MT*	1780-243	151.90
1-1/4	24	4MT	1780-244	256.16
1-1/4	36	4MT	1780-364	368.45
1-17/64	15	4MT	1781-154	91.50
1-17/64	18	4MT	1781-184	111.20
1-17/64	24	4MT	1781-244	160.00
1-17/64	30	4MT	1781-304	277.15
1-9/32	15	4MT	1782-154	91.50
1-9/32	18	4MT	1782-184	166.46
1-9/32	24	4MT	1782-244	160.00
1-9/32	30	4MT	1782-300**	249.45
1-19/64	15	4MT	1783-154	91.50
1-19/64	18	4MT	1783-184	111.20
1-19/64	24	4MT	1783-244	160.00
1-19/64	30	4MT	1783-304	277.15
1-5/16	15	4MT	1784-154	91.50
1-5/16	18	4MT	1784-184	169.53
1-5/16	24	4MT	1784-244	260.37
1-5/16	30	4MT	1784-300**	201.95
1-5/16	36	4MT	1784-360**	331.60
1-5/16	36	4MT	1784-364	368.45
1-21/64	18	4MT	1785-184	124.55
1-21/64	24	4MT	1785-244	178.95
1-11/32	16	4MT	1786-164†	114.65
1-11/32	18	4MT	1786-184	124.55
1-11/32	24	4MT	1786-244	178.95
1-11/32	36	4MT	1786-364	417.40
1-23/64	16	4MT	1787-164†	114.65
1-23/64	18	4MT	1787-184	124.55
1-23/64	24	4MT	1787-244	178.95
1-3/8	18	4MT	1788-184	219.08
1-3/8	24	4MT	1788-244	335.34
1-3/8	34	4MT	1788-344†	390.25
1-3/8	36	4MT	1788-364	417.40

TAPER DIAM.	OVERALL LENGTH	SHANK NO.	ORDER NO.	PRICE EACH
1-25/64	18	4MT	1789-184	\$128.45
1-25/64	20	4MT	1789-204†	72.80
1-25/64	24	4MT	1789-244	185.00
1-13/32	18	4MT	1790-184	128.45
1-13/32	20	4MT	1790-204†	72.80
1-13/32	22	4MT	1790-224†	80.05
1-13/32	24	4MT	1790-244	185.00
1-13/32	30	4MT	1790-304	346.40
1-13/32	36	4MT	1790-364	463.75
1-27/64	18	4MT	1791-184	128.45
1-27/64	22	4MT	1791-224†	80.05
1-27/64	24	4MT	1791-244	185.00
1-27/64	30	4MT	1791-304	346.40
1-7/16	18	4MT	1792-184	229.02
1-7/16	24	4MT	1792-244	386.57
1-7/16	36	4MT	1792-300**	417.40
1-7/16	30	4MT	1792-304	280.50
1-7/16	36	4MT	1792-364	463.75
1-29/64	18	4MT	1793-184	139.55
1-29/64	20	4MT	1793-204†	79.10
1-29/64	24	4MT	1793-244	200.70
1-15/32	18	4MT	1794-184	139.55
1-15/32	24	4MT	1794-244	200.70
1-15/32	30	4MT	1794-304	413.25
1-15/32	36	4MT	1794-364	477.50
1-31/64	18	4MT	1795-184	139.55
1-31/64	24	4MT	1795-244	200.70
1-1/2	18	4MT	1796-184	251.68
1-1/2	24	4MT	1796-244	389.44
1-1/2	36	4MT	1796-364	391.00
1-33/64	18	4MT*	1797-184	201.50
1-33/64	24	5MT	1797-245	289.70
1-33/64	30	4MT*	1797-304	461.90
1-17/32	18	4MT*	1798-184	166.65
1-17/32	18	5MT	1798-185	155.00
1-17/32	24	5MT	1798-245	222.85
1-17/32	30	5MT	1798-305	461.90
1-17/32	36	5MT	1798-365	568.15
1-35/64	18	4MT*	1799-184	201.50
1-35/64	24	5MT	1799-245	289.70
1-9/16	18	4MT*	1800-184	166.65
1-9/16	18	5MT	1800-185	155.00
1-9/16	24	4MT*	1800-244	239.55
1-9/16	24	5MT	1800-245	410.55
1-9/16	36	5MT	1800-365	568.15
1-37/64	24	5MT	1801-245	310.10
1-19/32	18	4MT*	1802-184	177.70
1-19/32	18	5MT	1802-185	165.30
1-19/32	24	5MT	1802-245	238.55
1-19/32	30	5MT	1802-305	461.90
1-19/32	36	5MT	1802-365	568.15
1-39/64	24	5MT	1803-245	310.10
1-5/8	18	4MT*	1804-184	177.70
1-5/8	18	5MT	1804-185	165.30
1-5/8	24	4MT*	1804-244	256.45
1-5/8	24	5MT	1804-245	484.38
1-5/8	30	4MT*	1804-304	381.95
1-5/8	30	5MT	1804-305	355.30
1-5/8	36	5MT	1804-365	437.05
1-21/32	18	4MT*	1806-184	189.75
1-21/32	24	4MT*	1806-244†	254.00
1-21/32	24	5MT	1806-245	254.00
1-21/32	30	5MT	1806-305	485.00
1-21/32	36	5MT	1806-365	627.90

(Continued)

Taper Shank Drills- Extra Long

High Speed Steel, 8" thru 36" OAL

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WARNING: Cutting tools may shatter. Always wear approved safety glasses and mask when regrinding.



Letter Sizes - Limited Quantities

HOW TO DETERMINE TS DRILL FLUTE LENGTHS IF OVERALL LENGTH IS:					
10"	12"	16"	18"	30"	36"
THEN APPROXIMATE FLUTE LENGTH IS (+/- 3/4")					
MT1 6-3/4"	8-3/4"	12-3/4"	14-3/4"	26-3/4"	32-1/4"
MT2 6-1/4"	8-1/4"	12-1/4"	14-1/4"	26-1/4"	
MT3	7-5/8"	11-5/8"	13-5/8"	25-5/8"	31-5/8"
MT4		10-11/16"	12-11/16"	24-11/16"	31-11/16"
MT5		8-1/2"	11-1/2"	23-1/2"	29-1/2"
MT6			21"	27"	
DIAM.	OVERALL LENGTH	TAPER SHANK NO.	ORDER NO.	PRICE EACH	
1-11/16	18	4MT*	1808-184	\$189.75	
1-11/16	18	5MT	1808-185	176.50	
1-11/16	24	4MT*	1808-244	273.05	
1-11/16	24	5MT	1808-245	528.89	
1-11/16	30	5MT	1808-300**	343.45	
1-11/16	30	5MT	1808-305	381.60	
1-11/16	36	5MT	1808-365	627.90	
1-23/32	18	4MT*	1810-184	211.55	
1-23/32	24	5MT	1810-245	283.90	
1-23/32	36	5MT	1810-365	627.90	
1-3/4	18	4MT*	1812-184	211.55	
1-3/4	18	5MT	1812-185	196.80	
1-3/4	24	4MT*	1812-244	305.20	
1-3/4	24	5MT	1812-245	534.34	
1-3/4	30	4MT*	1812-301**	353.45	
1-3/4	30	5MT	1812-300**	353.45	
1-3/4	30	4MT*	1812-304	422.15	
1-3/4	30	5MT	1812-305	392.70	
1-3/4	36	5MT	1812-360**	434.70	
1-3/4	36	5MT	1812-365	483.00	
1-25/32	18	4MT*	1814-184	218.20	
1-25/32	24	5MT	1814-245	313.65	
1-25/32	30	5MT	1814-305	571.30	
1-25/32	36	5MT	1814-365	702.70	
1-13/16	24	4MT*	1816-244	337.15	
1-13/16	24	5MT	1816-245	313.65	
1-13/16	30	4MT*	1816-305	472.40	
1-13/16	36	5MT	1816-365	702.70	
1-27/32	20	4MT	1818-204†	137.30	
1-27/32	22	4MT	1818-224†	151.05	
1-27/32	24	5MT	1818-245	348.50	
1-27/32	30	5MT	1818-305	571.30	
1-27/32	36	5MT	1818-365	702.70	
1-7/8	24	4MT*	1820-244	374.65	
1-7/8	24	5MT	1820-245	586.85	
1-7/8	30	5MT	1820-300**	395.50	
1-7/8	30	4MT*	1820-304	472.40	
1-7/8	30	5MT	1820-305	439.45	
1-7/8	36	5MT	1820-360**	486.50	
1-7/8	36	5MT	1820-365	540.55	
1-29/32	24	5MT	1822-245	383.15	
1-29/32	36	5MT	1822-365	839.55	
1-15/16	24	4MT*	1824-244	411.90	
1-15/16	24	5MT	1824-245	383.15	
1-15/16	30	5MT	1824-305	486.20	
1-15/16	36	5MT	1824-365	839.55	
1-31/32	24	5MT	1826-245	415.25	
1-31/32	36	5MT	1826-365	839.55	
2	24	4MT*	1828-244	446.40	
2	24	5MT	1828-245	605.48	
2	30	4MT*	1828-300**	483.90	
2	30	4MT*	1828-304	537.65	
2	30	5MT	1828-305	500.15	
2	36	5MT	1828-365	645.80	
2-1/32	24	5MT	1830-245	581.35	

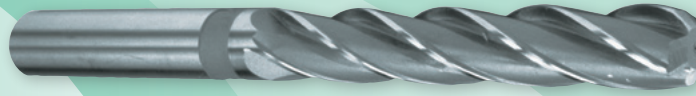
DIAM.	OVERALL LENGTH	TAPER SHANK NO.	ORDER NO.	PRICE EACH
2-1/16	24	5MT	1832-245	\$447.20
2-1/16	30	5MT	1832-305	551.65
2-1/16	36	5MT	1832-365	980.25
2-3/32	24	5MT	1834-245	581.35
2-1/8	24	5MT	1836-245	447.20
2-1/8	30	5MT	1836-305	551.65
2-1/8	36	5MT	1836-365	754.05
2-5/32	24	5MT	1838-245	639.00
2-3/16	24	5MT	1840-245	491.55
2-3/16	30	5MT	1840-305	592.10
2-3/16	36	5MT	1840-365	980.25
2-7/32	24	5MT	1842-245	639.00
2-1/4	24	5MT	1844-245	491.55
2-1/4	30	5MT	1844-305	592.10
2-9/32	24	5MT	1846-245	696.80
2-9/32	30	5MT	1846-305	839.30
2-5/16	24	5MT	1848-245	536.00
2-5/16	30	5MT	1848-305	645.60
2-5/16	36	5MT	1848-365	1174.90
2-11/32	24	5MT	1850-245	696.80
2-3/8	24	5MT	1852-245	536.00
2-3/8	30	5MT	1852-305	645.60
2-3/8	36	5MT	1852-365	903.75
2-13/32	24	5MT	1854-245	743.60
2-13/32	30	5MT	1854-305	895.65
2-7/16	24	5MT	1856-245	572.00
2-7/16	30	5MT	1856-305	688.95
2-7/16	36	5MT	1856-365	1259.00
2-29/64	24	5MT	1857-245†	280.30
2-15/32	24	5MT	1858-245	743.60
2-1/2	24	5MT	1860-245	572.00
2-1/2	30	5MT	1860-300**	620.05
2-1/2	36	5MT	1860-365	968.45
2-17/32	24	5MT	1862-245	790.15
2-9/16	24	5MT	1864-245	607.80
2-9/16	30	5MT	1864-305	951.85
2-19/32	24	5MT	1866-245	790.15
2-19/32	30	5MT	1866-305	951.85
2-5/8	24	5MT	1868-245	607.80
2-5/8	30	5MT	1868-305	732.20
2-5/8	36	5MT	1868-365	1025.00
2-21/32	24	5MT	1870-245	855.75
2-21/32	30	5MT	1870-305	1030.85
2-11/16	24	5MT	1872-245	658.25
2-11/16	30	5MT	1872-305	1109.95
2-11/16	36	5MT	1872-365	1553.70
2-23/32	24	5MT	1874-245	855.75
2-3/4	24	5MT	1876-245	658.25
2-3/4	30	5MT	1876-305	792.95
2-3/4	36	5MT	1876-365	1195.15
2-13/16	24	5MT	1880-245	708.70
2-13/16	30	5MT	1880-305	1109.95
2-13/16	36	5MT	1880-365	1553.70
2-7/8	24	5MT	1884-245	708.70
2-7/8	30	5MT	1884-305	853.80
2-7/8	36	5MT	1884-365	1195.15
2-15/16	24	5MT	1888-245	810.05
2-15/16	30	5MT	1888-305	1268.55
2-15/16	36	5MT	1888-365	1775.80
3	24	5MT	1892-245	810.05
3	30	5MT	1892-305	975.80
3	36	5MT	1892-365	1366.00

SIZE	OVERALL LENGTH	MTS	ORDER NO.	PRICE EACH
B	8	1	1672-081	\$14.10
B	10	1	1672-101	15.60
B	12	1	1672-121	17.30
C	8	1	1673-081	14.10
C	10	1	1673-101	15.60
C	12	1	1673-121	17.30
D	8	1	1674-081	14.10
D	10	1	1674-101	15.60
D	12	1	1674-121	17.30
F	8	1	1676-081	15.70
F	10	1	1676-101	17.40
F	12	1	1676-121	19.40
G	8	1	1677-081	15.70
G	10	1	1677-101	17.40
G	12	1	1677-121	19.40
H	8	1	1678-081	15.70
H	10	1	1678-101	17.40
H	12	1	1678-121	19.40
I	8	1	1679-081	15.70
I	10	1	1679-101	17.40
I	12	1	1679-121	19.40
J	8	1	1680-081	15.70
J	10	1	1680-101	17.40
J	12	1	1680-121	19.40
L	8	1	1682-081	16.70
L	10	1	1682-101	18.60
L	12	1	1682-121	20.60
M	8	1	1683-081	16.70
M	10	1	1683-101	18.60
M	12	1	1683-121	20.60
N	8	1	1684-081	16.70
N	10	1	1684-101	18.60
N	12	1	1684-121	20.60
O	8	1	1685-081	17.50
O	12	1	1685-121	21.60
P	12	1	1686-121	21.60
R	10	1	1688-101	19.50
R	12	1	1688-121	21.60
S	8	1	1689-081	18.50
S	10	1	1689-101	20.60
S	12	1	1689-121	22.80
T	8	1	1690-081	18.50
T	10	1	1690-101	20.60
T	12	1	1690-121	22.80
U	8	1	1691-081	18.50
U	10	1	1691-101	20.60
U	12	1	1691-121	22.80
V	8	1	1692-081	18.50
V	10	1	1692-101	20.60
V	12	1	1692-121	22.80
W	8	1	1693-081	18.50
W	10	1	1693-101	20.60
W	12	1	1693-121	22.80
X	8	1	1694-081	18.50
X	10	1	1694-101	20.60
X	12	1	1694-121	22.80
Y	8	1	1695-081	18.50
Y	10	1	1695-101	20.60
Y	12	1	1695-121	22.80
Z	8	1	1696-081	18.50
Z	10	1	1696-101	20.60
Z	12	1	1696-121	22.80

* Alternate Shank † Limited Quantities
** Limited Quantities, 20" LOF

Straight Shank Core Drills

High Speed Steel



Four Flute

WARNING: This product contains Cobalt and/or Nickel and/or Lead a chemical known to the state of California to cause cancer or birth defects or other reproductive harm. For more information: www.prop65.ca.gov.
WARNING: Cutting tools may shatter. Always wear approved safety glasses and mask when regrinding.



4 FLUTE					
DIAM.	DECIMAL EQUIV.	FLUTE LENGTH	OVERALL LENGTH	ORDER NO.	PRICE EACH
1/4	.2500	3-3/4	6-1/8	1390-016	\$10.86
17/64	.2656	3-7/8	6-1/4	1390-017	POA
9/32	.2812	3-7/8	6-1/4	1390-018	10.95
19/64	.2969	3-7/8	6-3/8	1390-019	POA
5/16	.3125	4	6-3/8	1390-020	11.59
21/64	.3281	4-1/8	6-1/2	1390-021	POA
11/32	.3438	4-1/8	6-1/2	1390-022	14.44
23/64	.3594	4-1/4	6-3/4	1390-023	POA
3/8	.3750	4-1/4	6-3/4	1390-024	14.44
25/64	.3906	4-3/8	7	1390-025	POA
13/32	.4062	4-3/8	7	1390-026	14.49
27/64	.4219	4-5/8	7	1390-027	POA
7/16	.4375	4-5/8	7-1/4	1390-028	14.49
29/64	.4531	4-5/8	7-1/4	1390-029	POA
15/32	.4688	4-3/4	7-1/2	1390-030	15.36
31/64	.4844	4-3/4	7-3/4	1390-031	POA
1/2	.5000	4-3/4	7-3/4	1390-032	16.38
33/64	.5156	4-3/4	8	1390-033	POA
17/32	.5312	4-3/4	8	1390-034	17.48
35/64	.5469	4-7/8	8-1/4	1390-035	POA
9/16	.5625	4-7/8	8-1/4	1390-036	19.00
37/64	.5781	4-7/8	8-3/4	1390-037	POA
19/32	.5938	4-7/8	8-3/4	1390-038	19.83
39/64	.6094	4-7/8	8-3/4	1390-039	POA
5/8	.6250	4-7/8	8-3/4	1390-040	20.79
41/64	.6406	5-1/8	9	1390-041	POA
21/32	.6562	5-1/8	9	1390-042	22.17
43/64	.6719	5-1/8	9	1390-043	POA
11/16	.6875	5-3/8	9-1/4	1390-044	24.10
45/64	.7031	5-5/8	9-1/2	1390-045	POA
23/32	.7188	5-5/8	9-1/2	1390-046	25.58
47/64	.7344	5-7/8	9-3/4	1390-047	POA
3/4	.7500	5-7/8	9-3/4	1390-048	27.32
49/64	.7650	6	9-7/8	1390-049	POA
25/32	.7812	6	9-7/8	1390-050	29.72
51/64	.7969	6-1/8	10	1390-051	POA
13/16	.8125	6-1/8	10	1390-052	33.81
53/64	.8281	6-1/8	10	1390-053	POA
27/32	.8438	6-1/8	10	1390-054	34.18
55/64	.8594	6-1/8	10	1390-055	POA
7/8	.8750	6-1/8	10	1390-056	36.39

4 FLUTE					
DIAM.	DECIMAL EQUIV.	FLUTE LENGTH	OVERALL LENGTH	ORDER NO.	PRICE EACH
57/64	.8906	6-1/8	10	1390-057	POA
29/32	.9062	6-1/8	10	1390-058	\$37.90
59/64	.9219	6-1/8	10-3/4	1390-059	POA
15/16	.9375	6-1/8	10-3/4	1390-060	39.65
61/64	.9531	6-3/8	11	1390-061	POA
31/32	.9688	6-3/8	11	1390-062	43.24
63/64	.9844	6-3/8	11	1390-063	POA
1	1.0000	6-3/8	11	1390-064	45.72
1-1/32	1.0312	6-1/2	11-1/8	1390-066	49.31
1-1/16	1.0625	6-5/8	11-1/4	1390-068	51.57
1-3/32	1.0938	6-7/8	11-1/2	1390-070	57.68
1-1/8	1.1250	7-1/8	11-3/4	1390-072	60.72
1-5/32	1.1562	7-1/4	11-7/8	1390-074	64.58
1-3/16	1.1875	7-3/8	12	1390-076	67.85
1-7/32	1.2188	7-1/2	12-1/8	1390-078	72.04
1-1/4	1.2500	7-7/8	12-1/2	1390-080	277.50
1-9/32	1.2812	8-1/2	14-1/8	1390-082	91.45
1-5/16	1.3125	8-5/8	14-1/4	1390-084	94.94
1-11/32	1.3438	8-3/4	14-3/8	1390-086	98.49
1-3/8	1.3750	8-7/8	14-1/2	1390-088	101.11
1-13/32	1.4062	9	14-5/8	1390-090	105.57
1-7/16	1.4375	9-1/8	14-3/4	1390-092	110.86
1-15/32	1.4688	9-1/4	14-7/8	1390-094	116.15
1-1/2	1.5000	9-3/8	15	1390-096	119.69
1-17/32	1.5312	9-5/8	15-1/4	1390-098	134.55
1-9/16	1.5625	9-5/8	15-1/4	1390-100	143.61
1-19/32	1.5938	9-7/8	15-5/8	1390-102	150.65
1-5/8	1.6250	9-7/8	15-5/8	1390-104	155.48
1-21/32	1.6562	10	15-3/4	1390-106	161.55
1-11/16	1.6875	10	15-3/4	1390-108	630.00
1-23/32	1.7188	10-1/2	16-1/4	1390-110	167.12
1-3/4	1.7500	10-1/2	16-1/4	1390-112	178.16
1-25/32	1.7812	10-1/2	16-1/4	1390-114	185.70
1-13/16	1.8125	10-1/2	16-1/4	1390-116	190.95
1-27/32	1.8438	10-3/4	16-1/2	1390-118	195.96
1-7/8	1.8750	10-3/4	16-1/2	1390-120	207.55
1-29/32	1.9062	10-3/4	16-5/8	1390-122	217.17
1-15/16	1.9375	10-3/4	16-5/8	1390-124	221.49
1-31/32	1.9688	10-3/4	16-5/8	1390-126	227.01
2	2.0000	10-3/4	16-5/8	1390-128	234.78

Taper Shank Core Drills

High Speed Steel

WARNING: This product contains Cobalt and/or Nickel and/or Lead a chemical known to the state of California to cause cancer or birth defects or other reproductive harm. For more information: www.pro65.ca.gov. **WARNING:** Cutting tools may shatter. Always wear approved safety glasses and mask when regrinding.



Three Flute

Four Flute

					3 FLUTE		4 FLUTE							3 FLUTE		4 FLUTE	
DIAM.	MTS	DEC. EQV.	FLUTE LENGTH	OVERALL LENGTH	ORDER NO.	PRICE EACH	ORDER NO.	PRICE EACH	DIAM.	MTS	DEC. EQV.	FLUTE LENGTH	OVERALL LENGTH	ORDER NO.	PRICE EACH	ORDER NO.	PRICE EACH
1/4	1MT	.2500	2-7/8	6-1/8	1400-161	\$38.64	1410-161	\$36.30	1-7/64	4MT	1.1094	6-7/8	11-1/2	-	-	1410-714	POA
17/64	1MT	.2656	3	6-1/4	1400-171	11.55	1410-171	POA	1-1/8	4MT	1.1250	7-1/8	12-3/4	-	-	1410-724	\$184.29
9/32	1MT	.2812	3	6-1/4	1400-181	45.64	1410-181	43.69	1-9/64	4MT	1.1406	7-1/4	12-7/8	-	-	1410-734	POA
19/64	1MT	.2969	3-1/8	6-3/8	-	-	1410-191	POA	1-5/32	4MT	1.1562	7-1/4	12-7/8	-	-	1410-744	184.90
5/16	1MT	.3125	3-1/8	6-3/8	1400-201	45.54	1410-201	11.59	1-11/64	4MT	1.1719	7-3/8	13	-	-	1410-754	POA
21/64	1MT	.3281	3-1/4	6-1/2	1400-211	15.36	1410-211	POA	1-3/16	4MT	1.1875	7-3/8	13	1400-764	\$197.34	1410-764	67.85
11/32	1MT	.3438	3-1/4	6-1/2	1400-221	47.39	1410-221	14.44	1-13/64	4MT	1.2031	7-1/2	13-1/4	-	-	1410-774	209.88
23/64	1MT	.3594	3-1/2	6-3/4	-	-	1410-231	POA	1-7/32	4MT	1.2188	7-1/2	13-1/8	-	-	1410-784	72.04
3/8	1MT	.3750	3-1/2	6-3/4	1400-241	47.62	1410-241	45.92	1-15/64	4MT	1.2344	7-7/8	13-1/2	-	-	1410-794	POA
25/64	1MT	.3906	3-5/8	7	-	-	1410-251	58.70	1-1/4	4MT	1.2500	7-7/8	13-1/2	-	-	1410-804	78.11
13/32	1MT	.4062	3-5/8	7	-	-	1410-261	52.36	1-17/64	4MT	1.2656	8-1/2	14-1/8	-	-	1410-814	250.41
27/64	1MT	.4219	3-7/8	7-1/4	-	-	1410-271	POA	1-9/32	4MT	1.2812	8-1/2	14-1/8	1400-824	254.36	1410-824	238.15
7/16	1MT	.4375	3-7/8	7-1/4	-	-	1410-281	14.49	1-19/64	4MT	1.2969	8-5/8	14-1/4	-	-	1410-834	POA
29/64	1MT	.4531	4-1/8	7-1/2	-	-	1410-291	POA	1-5/16	4MT	1.3125	8-5/8	14-1/4	-	-	1410-844	94.94
15/32	1MT	.4688	4-1/8	7-1/2	1400-301	60.80	1410-301	15.36	1-21/64	4MT	1.3281	8-3/4	14-3/8	-	-	1410-854	POA
31/64	1MT	.4844	4-3/8	8-1/4	-	-	1410-312	POA	1-11/32	4MT	1.3438	8-3/4	14-3/8	1400-864	271.85	1410-864	98.49
1/2	2MT	.5000	4-3/8	8-1/4	1400-321	56.73	1410-322	16.38	1-23/64	4MT	1.3594	8-7/8	14-1/2	1400-874	109.54	1410-874	POA
33/64	2MT	.5156	4-5/8	8-1/2	-	-	1410-332	71.28	1-3/8	4MT	1.3750	8-7/8	14-1/2	-	-	1410-884	278.12
17/32	2MT	.5312	4-5/8	8-1/2	-	-	1410-342	17.48	1-25/64	4MT	1.3906	9	14-5/8	1400-894	114.42	1410-894	POA
35/64	2MT	.5469	4-7/8	8-3/4	-	-	1410-352	POA	1-13/32	4MT	1.4062	9	14-5/8	1400-904	303.80	1410-904	291.05
9/16	2MT	.5625	4-7/8	8-3/4	-	-	1410-362	19.00	1-27/64	4MT	1.4219	9-1/8	14-3/4	1400-914	120.16	1410-914	POA
37/64	2MT	.5781	4-7/8	8-3/4	-	-	1410-372	85.14	1-7/16	4MT	1.4375	9-1/8	14-3/4	1400-924	313.90	1410-924	303.14
19/32	2MT	.5938	4-7/8	8-3/4	1400-382	79.75	1410-382	19.83	1-29/64	4MT	1.4531	9-1/4	14-7/8	1400-934	125.94	1410-934	POA
39/64	2MT	.6094	4-7/8	8-3/4	-	-	1410-392	85.14	1-15/32	4MT	1.4688	9-1/4	14-7/8	-	-	1410-944	116.15
5/8	2MT	.6250	4-7/8	8-3/4	1400-402	82.72	1410-402	76.45	1-31/64	4MT	1.4844	9-3/8	15	-	-	-	-
41/64	2MT	.6406	5-1/8	9	-	-	1410-412	86.04	1-1/2	4MT	1.5000	9-3/8	15	-	-	1410-964	119.69
21/32	2MT	.6562	5-1/8	9	1400-422	86.04	1410-422	78.78	1-17/32	5MT	1.5312	9-3/8	16-3/8	-	-	1410-985	379.76
43/64	2MT	.6719	5-1/8	9	-	-	1410-432	94.00	1-9/16	5MT	1.5625	9-5/8	16-5/8	-	-	1411-005	393.16
11/16	2MT	.6875	5-3/8	9-1/4	-	-	1410-442	24.10	1-19/32	5MT	1.5938	9-7/8	16-7/8	-	-	1411-025	150.65
45/64	2MT	.7031	5-3/8	9-1/2	-	-	1410-452	POA	1-5/8	5MT	1.6250	10	17	1401-045	475.86	1411-045	443.06
23/32	2MT	.7188	5-5/8	9-1/2	-	-	1410-462	87.81	1-21/32	5MT	1.6562	10-1/8	17-1/8	1401-065	485.10	1411-065	161.55
47/64	2MT	.7344	5-7/8	9-3/4	-	-	1410-472	POA	1-11/16	5MT	1.6875	10-1/8	17-1/8	-	-	1411-085	167.53
3/4	2MT	.7500	5-7/8	9-3/4	1400-482	96.19	1410-482	91.74	1-45/64	5MT	1.7031	-	-	-	-	-	-
49/64	2MT	.7656	6	9-7/8	-	-	1410-492	POA	1-23/32	5MT	1.7188	10-1/8	17-1/8	-	-	1411-105	176.32
25/32	2MT	.7812	6	9-7/8	-	-	1410-502	98.95	1-3/4	4MT	1.7500	10-1/8	17-1/8	-	-	-	-
51/64	3MT	.7969	6-1/8	10-3/4	-	-	1410-513	POA	1-3/4	5MT	1.7500	10-1/8	17-1/8	-	-	1411-125	178.16
13/16	3MT	.8125	6-1/8	10-3/4	-	-	1410-523	105.40	1-25/32	5MT	1.7812	10-1/8	17-1/8	1401-145	167.93	1411-145	185.70
53/64	3MT	.8281	6-1/8	10-3/4	-	-	1410-533	115.50	1-13/16	5MT	1.8125	10-1/8	17-1/8	1401-165	580.00	1411-165	190.95
27/32	3MT	.8438	6-1/8	10-3/4	1400-543	115.36	1410-543	34.18	1-27/32	5MT	1.8438	10-1/8	17-1/8	-	-	1411-185	195.96
55/64	3MT	.8594	6-1/8	10-3/4	1400-553	39.74	1410-553	POA	1-7/8	5MT	1.8750	10-3/8	17-3/8	1401-205	676.50	1411-205	207.55
7/8	3MT	.8750	6-1/8	10-3/4	-	-	1410-563	116.00	1-29/32	5MT	1.9062	10-3/8	17-3/8	1401-225	196.43	1411-225	217.17
57/64	3MT	.8906	6-1/8	10-3/4	-	-	1410-573	POA	1-15/16	5MT	1.9375	10-3/8	17-3/8	-	-	1411-245	719.40
29/32	3MT	.9062	6-1/8	10-3/4	-	-	1410-583	37.90	1-31/32	5MT	1.9688	10-3/8	17-3/8	-	-	1411-265	726.00
59/64	3MT	.9219	6-1/8	10-3/4	-	-	1410-593	131.34	2	5MT	2.0000	10-3/8	17-3/8	-	-	1411-285	627.00
15/16	3MT	.9375	6-1/8	10-3/4	-	-	1410-603	39.65	2-1/32	5MT	2.0312	10-3/8	17-3/8	-	-	1411-305	240.53
61/64	3MT	.9531	6-3/8	11	-	-	1410-613	132.00	2-1/16	5MT	2.0625	10-1/4	17-3/8	-	-	1411-325	246.10
31/32	3MT	.9688	6-3/8	11	1400-623	137.46	1410-623	43.24	2-1/8	5MT	2.1250	10-1/4	17-3/8	-	-	1411-365	256.96
63/64	3MT	.9844	6-3/8	11	-	-	1410-633	POA	2-3/16	5MT	2.1875	10-1/4	17-3/8	1401-405	245.35	1411-405	271.17
1	3MT	1.0000	6-3/8	11	-	-	1410-643	45.72	2-1/4	5MT	2.2500	10-1/8	17-3/8	-	-	1411-445	957.00
1-1/64	3MT	1.0156	6-1/2	11	-	-	1410-653	POA	2-5/16	5MT	2.3125	10-1/8	17-3/8	1401-485	273.83	1411-485	1089.00
1-1/32	3MT	1.0312	6-1/2	11-1/8	-	-	1410-663	49.31	2-3/8	5MT	2.3750	10-1/8	17-3/8	-	-	1411-525	1056.00
1-3/64	3MT	1.0469	6-5/8	11-1/4	-	-	1410-673	182.16	2-7/16	5MT	2.4375	11-1/4	18-3/4	-	-	1411-565	1254.00
1-1/16	3MT	1.0625	6-5/8	11-1/4	1400-683	171.60	1410-683	165.04	2-1/2	5MT	2.5000	11-1/4	18-3/4	-	-	1411-605	400.57
1-5/64	4MT	1.0781	6-7/8	12-1/2	1400-694	62.37	1410-694	POA	2-9/16	5MT	2.5625	11-7/8	19-1/2	-	-	1411-645	424.72
1-3/32	4MT	1.0938	6-7/8	12-1/2	1400-704	185.65	1410-704	57.68	2-5/8	5MT	2.6250	11-7/8	19-1/2	-	-	1411-685	455.08
Sizes up to 4" in stock - - Call for price -									2-11/16	5MT	2.6875	12-3/4	20-3/8	-	-	1411-725	497.31
									2-3/4	5MT	2.7500	12-3/4	20-3/8	1401-765	496.68	1411-765	548.64
									2-13/16	5MT	2.8125	13-3/8	21-1/8	1401-805	POA	1411-805	575.74
									2-7/8	5MT	2.8750	13-3/8	21-1/8	-	-	1411-845	593.95
									2-15/16	5MT	2.9375	14	21-3/4	-	-	1411-885	634.11
									3	5MT	3.0000	14	21-3/4	-	-	1411-925	692.442

Carbide Tipped Core Drills

WARNING: This product contains Cobalt and/or Nickel and/or Lead a chemical known to the state of California to cause cancer or birth defects or other reproductive harm. For more information: www.pro65.ca.gov. **WARNING:** Cutting tools may shatter. Always wear approved safety glasses and mask when regrinding.

Both types have: Cutting diameter tolerance plus .001" minus .001". Carbide tips brazed to one piece hardened tool steel bodies.

Large right spiral flute capacity permits higher feeds and speeds. 118° included chamfer angle.

OPTIONS: Intermediate decimal & metric sizes. USE: Core drills are designed for economically enlarging cored, punched or drilled holes, removing up to 30% of the hole diameter. The balanced cutting action of the core drill removes considerably more material than a reamer, often eliminating the need for a final reaming or boring operation. For cast iron, non-ferrous metals; some steels, composites, plastics and non-metals.



CUT SIZE	MIN. CUT DIA.	CARB. TIP LGTH	FLUTE LENGTH	OVERALL LENGTH	SHANK DIA.	ORDER NO.	TAPER	ORDER NO.	PRICE EACH
1/2	.350	3/4	4-3/8	8-1/4	1/2	2862-016	2	2862-216	\$124.25
17/32	.372	3/4	4-3/8	8-1/4	17/32	2862-017	2	2862-217	124.75
9/16	.394	3/4	4-3/8	8-1/4	9/16	2862-018	2	2862-218	124.75
19/32	.416	3/4	4-3/8	8-1/4	19/32	2862-019	2	2862-219	131.00
5/8	.438	3/4	4-3/8	8-1/4	5/8	2862-020	2	2862-220	131.00
21/32	.459	7/8	4-3/8	8-1/4	21/32	2862-021	2	2862-221	132.50
11/16	.481	7/8	4-3/8	8-1/4	11/16	2862-022	2	2862-222	133.75
23/32	.503	7/8	4-3/8	8-1/4	23/32	2862-023	2	2862-223	133.75
3/4	.525	7/8	4-3/8	8-1/4	3/4	2862-024	2	2862-224	133.75
25/32	.547	7/8	4-3/8	8-1/4	25/32	2862-025	2	2862-225	136.65
13/16	.569	7/8	4-7/8	9-1/2	13/16	2862-026	3	2862-226	140.45
27/32	.591	7/8	4-7/8	9-1/2	27/32	2862-027	3	2862-227	147.90
7/8	.612	7/8	4-7/8	9-1/2	7/8	2862-028	3	2862-228	147.90
29/32	.634	7/8	4-7/8	9-1/2	29/32	2862-029	3	2862-229	148.85
15/16	.656	7/8	4-7/8	9-1/2	15/16	2862-030	3	2862-230	148.85
31/32	.678	7/8	4-7/8	9-1/2	31/32	2862-031	3	2862-231	154.50
1	.700	7/8	4-7/8	9-1/2	1	2862-032	3	2862-232	157.35

CUT SIZE	MIN. CUT DIA.	CARB. TIP LGTH	FLUTE LENGTH	OVERALL LENGTH	SHANK DIA.	ORDER NO.	TAPER	ORDER NO.	PRICE EACH
1-1/32	.722	7/8	4-7/8	9-1/2	1-1/32	2862-033	3	2862-233	\$158.65
1-1/16	.744	7/8	4-7/8	9-1/2	1-1/16	2862-034	3	2862-234	160.85
1-3/32	.766	1	4-7/8	10-1/2	1-3/32	2862-035	4	2862-235	187.30
1-1/8	.787	1	4-7/8	10-1/2	1-1/8	2862-036	4	2862-236	187.30
1-5/32	.809	1	4-7/8	10-1/2	1-5/32	2862-037	4	2862-237	204.50
1-3/16	.831	1	4-7/8	10-1/2	1-3/16	2862-038	4	2862-238	210.40
1-7/32	.853	1	4-7/8	10-1/2	1-7/32	2862-039	4	2862-239	211.20
1-1/4	.875	1	4-7/8	10-1/2	1-1/4	2862-040	4	2862-240	212.05
1-9/32	.897	1	4-7/8	10-1/2	1-9/32	2862-041	4	2862-241	227.20
1-5/16	.919	1	4-7/8	10-1/2	1-5/16	2862-042	4	2862-242	233.50
1-11/32	.940	1	4-7/8	10-1/2	1-11/32	2862-043	4	2862-243	238.40
1-3/8	.962	1	4-7/8	10-1/2	1-3/8	2862-044	4	2862-244	244.20
1-13/32	.984	1	4-7/8	10-1/2	1-13/32	2862-045	4	2862-245	249.70
1-7/16	1.006	1	4-7/8	10-1/2	1-7/16	2862-046	4	2862-246	257.00
1-15/32	1.025	1	4-7/8	10-1/2	1-15/32	2862-047	4	2862-247	264.70
1-1/2	1.050	1	4-7/8	10-1/2	1-1/2	2862-048	4	2862-248	270.50

Oil Hole Drills Straight & Taper Shank – High Speed Steel

2

Republic
DRILL & CUTTING TOOLS



Straight Shank



Taper Shank

STRAIGHT SHANK				TAPER SHANK		
DIAM.	DECIMAL EQUIVALENT	ORDER NO.	PRICE EACH	MTS	ORDER NO.	PRICE EACH
1/8	.1250	1420-001	\$292.45	—	—	—
9/64	.1406	1420-003	292.45	—	—	—
11/64	.1719	1420-005	292.45	—	—	—
3/16	.1875	1420-007	292.45	—	—	—
15/64	.2344	1420-009	292.45	—	—	—
1/4	.2500	1420-011	292.45	2MT	1430-293	\$467.86
17/64	.2656	1420-013	292.45	2MT	1430-294	467.86
9/32	.2812	1420-015	292.45	2MT	1430-295	425.33
19/64	.2969	1420-017	292.45	2MT	1430-296	467.86
5/16	.3125	1420-019	292.45	2MT	1430-297	425.33
21/64	.3281	1420-021	292.45	2MT	1430-298	467.86
11/32	.3438	1420-022	292.45	2MT	1430-299	425.33
23/64	.3594	1420-023	292.45	2MT	1430-300	467.86
3/8	.3750	1420-024	291.10	2MT	1430-301	467.86
25/64	.3906	1420-025	296.54	2MT	1430-302	467.86
13/32	.4062	1420-026	269.58	2MT	1430-303	438.54
27/64	.4219	1420-027	307.38	2MT	1430-304	467.86
7/16	.4375	1420-028	307.38	2MT	1430-305	467.86
7/16	.4375	—	—	3MT	1430-306	467.86
29/64	.4531	1420-029	313.85	3MT	1430-307	467.86
15/32	.4688	1420-030	313.85	3MT	1430-303	438.54
31/64	.4844	1420-031	317.85	3MT	1430-313	438.54
1/2	.5000	1420-032	317.85	3MT	1430-323	438.54
33/64	.5156	1420-033	322.52	3MT	1430-333	438.54
17/32	.5312	1420-034	322.52	3MT	1430-343	438.54
35/64	.5469	1420-035	330.09	3MT	1430-353	438.54
9/16	.5625	1420-036	330.09	3MT	1430-363	392.41
37/64	.5781	1420-037	333.78	3MT	1430-373	438.54
19/32	.5938	1420-038	333.78	3MT	1430-383	392.41
39/64	.6094	1420-039	349.92	3MT	1430-393	392.41
5/8	.6250	1420-040	349.92	3MT	1430-394	392.41
41/64	.6406	1420-041	349.92	3MT	1430-413	392.41
21/32	.6562	1420-042	349.92	2MT	1430-422	393.05
43/64	.6719	1420-043	357.85	3MT	1430-423	357.32
11/16	.6875	1420-044	357.85	3MT	1430-443	398.53
45/64	.7031	1420-045	367.17	3MT	1430-453	404.02
23/32	.7188	1420-046	367.17	3MT	1430-463	404.02
47/64	.7344	1420-047	392.58	3MT	1430-473	404.02
3/4	.7500	—	—	2MT	1430-465	367.29
3/4	.7500	1420-048	392.58	3MT	1430-483	404.02
49/64	.7656	1420-049	399.31	3MT	1430-493	407.97
25/32	.7812	1420-050	399.31	3MT	1430-503	407.97
51/64	.7969	1420-051	408.66	3MT	1430-513	407.97
13/16	.8125	1420-052	408.66	3MT	1430-523	407.97
53/64	.8281	1420-053	416.75	3MT	1430-533	443.96
27/32	.8438	1420-054	416.75	3MT	1430-543	443.96
55/64	.8594	1420-055	451.17	3MT	1430-553	443.96
7/8	.8750	1420-056	451.17	3MT	1430-563	443.96
57/64	.8906	1420-057	483.37	3MT	1430-573	445.29
29/32	.9062	1420-058	483.37	3MT	1430-583	445.29

STRAIGHT SHANK				TAPER SHANK		
DIAM.	DECIMAL EQUIVALENT	ORDER NO.	PRICE EACH	MTS	ORDER NO.	PRICE EACH
59/64	.9219	1420-059	\$516.79	3MT	1430-593	\$445.29
15/16	.9375	1420-060	516.79	3MT	1430-603	445.29
61/64	.9531	1420-061	542.05	3MT	1430-613	525.05
31/32	.9688	1420-062	542.05	3MT	1430-623	525.05
63/64	.9844	1420-063	568.93	3MT	1430-633	525.05
1	1.0000	1420-064	568.93	3MT	1430-643	525.05
1-1/64	1.0156	1420-065	600.79	3MT	1430-644	568.78
1-1/32	1.0312	1420-066	600.79	3MT	1430-663	568.78
1-3/64	1.0469	1420-067	625.10	3MT	1430-645	517.07
1-1/16	1.0625	1420-068	625.10	4MT	1430-684	568.78
1-5/64	1.0781	1420-069	650.34	4MT	1430-646	671.86
1-3/32	1.0938	1420-070	650.34	4MT	1430-704	671.86
1-7/64	1.1094	1420-071	683.57	4MT	1430-705	734.86
1-1/8	1.1250	1420-072	683.57	3MT	1430-723	734.86
1-9/64	1.1406	1420-073	717.11	4MT	1430-722	734.86
1-5/32	1.1562	1420-074	717.11	4MT	1430-744	734.86
1-11/64	1.1719	1420-075	750.52	4MT	1430-754	739.39
1-3/16	1.1875	1420-076	750.52	4MT	1430-764	739.39
1-13/64	1.2031	1420-077	783.79	4MT	1430-746	841.38
1-7/32	1.2188	1420-078	783.79	4MT	1430-784	841.38
1-15/64	1.2344	1420-079	815.93	4MT	1430-748	841.38
1-1/4	1.2500	1420-080	741.75	4MT	1430-804	841.38
1-17/64	1.2656	1420-081	789.50	4MT	1430-750	1022.75
1-9/32	1.2812	1420-082	868.45	4MT	1430-824	1022.75
1-19/64	1.2464	1420-083	905.31	4MT	1430-834	1100.36
1-5/16	1.3125	1420-084	905.31	4MT	1430-844	1100.36
1-21/64	1.3281	1420-087	963.63	4MT	1430-753	1100.36
1-11/32	1.3438	1420-086	963.63	4MT	1430-864	1100.36
1-23/64	1.3594	1420-089	741.75	4MT	1430-755	1218.01
1-3/8	1.3750	1420-088	1016.31	4MT	1430-884	1218.01
1-25/64	1.3906	—	—	4MT	1430-757	1218.01
1-13/32	1.4062	1420-090	1137.72	4MT	1430-904	1218.01
1-7/16	1.4375	1420-092	1137.72	4MT	1430-924	1218.01
1-29/64	1.4531	1420-093	1231.03	—	—	—
1-15/32	1.4688	1420-094	1231.03	4MT	1430-944	1271.45
1-1/2	1.5000	1420-096	1231.03	4MT	1430-964	1271.45
1-9/16	1.5625	1420-097	1240.58	4MT	1431-004	1331.91
1-5/8	1.6250	1420-098	1476.97	4MT	1431-044	1432.46
1-11/16	1.6875	1420-099	1677.78	4MT	1431-084	1683.78
1-3/4	1.7500	1420-100	1772.35	4MT	1431-124	1734.04
1-13/16	1.8125	1420-101	1786.84	5MT	1431-165	1809.39
1-27/32	1.8438	1420-102	2216.37	—	—	—
1-7/8	1.8750	1420-103	1965.01	5MT	1431-205	1909.96
1-55/64	1.8938	1420-104	2110.36	—	—	—

Coolant Feeding Drills

Carbide Tipped- 125° Self Centering Point

WARNING: This product contains Cobalt and/or Nickel and/or Lead a chemical known to the state of California to cause cancer or birth defects or other reproductive harm. For more information: www.prop65.ca.gov.
WARNING: Cutting tools may shatter. Always wear approved safety glasses and mask when regrinding.

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USES:

- Excellent coolant feeding drills for use when very high performance is required
- Excellent hole straightness
- Exceptional hole finish as coolant flushes chips out and away from cutting edges
- High penetration feed rates for shorter drill operation times
- Proven carbide tip point geometry assures long production runs within tolerances

SPECIFICATIONS:

- 125° four facet point
- Flat relieved, self centering point
- Polished straight flutes
- Two coolant outlets
- Drill body diameter smaller than tool diameter to prevent gauling; shank diameter same size as tool diameter
- Shank and tool diameter tolerances: plus .000", minus .001"
- Carbide high temperature brazed to hardened steel body
- Extra long carbide tip for additional regrinds
- Straight flutes for superior hole straightness, improved finish & max. chip capacity

Metric sizes available upon request



Short Length

TOOL DIA.	FLUTE LG'TH.	OAL (IN.)	ORDER NO.	PRICE EACH
1/4	2-1/2	4-29/32	2995-116	\$231.10
17/64	2-3/4	5-5/32	2995-117	231.10
9/32	2-3/4	5-5/32	2995-118	231.10
19/64	3-3/16	5-19/32	2995-119	231.10
5/16	3-3/16	5-19/32	2995-120	231.10
21/64	3-7/16	5-27/32	2995-121	231.10
11/32	3-7/16	5-27/32	2995-122	231.10
23/64	3-5/8	6-1/32	2995-123	233.70
3/8	3-5/8	6-1/32	2995-124	233.70
25/64	3-7/8	6-9/32	2995-125	239.45
13/32	3-7/8	6-1/32	2995-126	239.45
27/64	3-7/8	6-9/32	2995-127	247.50
7/16	4-1/16	6-9/32	2995-128	247.50
29/64	4-1/16	6-23/32	2995-129	263.60

TOOL DIA.	FLUTE LG'TH.	OAL (IN.)	ORDER NO.	PRICE EACH
15/32	4-5/16	6-23/32	2995-130	\$263.60
31/64	4-1/2	6-29/32	2995-131	271.25
1/2	4-1/2	6-29/32	2995-132	271.25
17/32	4-13/16	7-7/32	2995-134	287.45
9/16	4-13/16	7-7/32	2995-136	303.35
19/32	5-3/16	7-19/32	2995-138	363.40
5/8	5-3/16	7-19/32	2995-140	363.40
41/64	5-3/16	7-19/32	2995-141	383.15
21/32	5-3/16	7-19/32	2995-142	383.15
43/64	5-5/8	8-1/32	2995-143	414.50
11/16	5-5/8	8-1/32	2995-144	415.10
45/64	5-5/8	8-1/32	2995-145	426.85
23/32	5-5/8	8-1/32	2995-146	426.85
47/64	6-1/16	8-15/32	2995-147	431.15

TOOL DIA.	FLUTE LG'TH.	OAL (IN.)	ORDER NO.	PRICE EACH
3/4	6-1/16	8-15/32	2995-148	\$431.15
25/32	6-1/16	8-9/16	2995-150	459.10
13/16	6-1/16	8-9/16	2995-152	466.70
27/32	6-1/2	9	2995-154	494.95
7/8	6-1/2	9	2995-156	506.80
29/32	6-15/16	9-7/16	2995-158	542.35
15/16	6-15/16	9-7/16	2995-160	582.65
31/32	6-15/16	9-7/16	2995-162	606.50
1	7-3/8	9-7/8	2995-164	622.45

Long Length

TOOL DIA.	FLUTE LG'TH.	OAL (IN.)	ORDER NO.	PRICE EACH
1/4	4-5/8	6-1/8	2995-216	\$253.10
17/64	4-3/4	6-1/4	2995-217	253.10
9/32	4-3/4	6-1/4	2995-218	253.10
19/64	4-7/8	6-3/8	2995-219	253.10
5/16	4-7/8	6-3/8	2995-220	253.10
21/64	5	6-1/2	2995-221	243.65
11/32	5	6-1/2	2995-222	243.65
23/64	5-1/4	6-3/4	2995-223	237.40
3/8	5-1/4	6-3/4	2995-224	246.55
25/64	5-1/2	7	2995-225	243.65
13/32	5-1/2	7	2995-226	243.65
27/64	5-3/4	7-1/4	2995-227	251.55

TOOL DIA.	FLUTE LG'TH.	OAL (IN.)	ORDER NO.	PRICE EACH
7/16	5-3/4	7-1/4	2995-228	\$251.55
29/64	5-3/4	7-1/4	2995-229	267.35
15/32	5-3/4	7-1/2	2995-230	267.35
31/64	5-3/4	7-3/4	2995-231	275.35
1/2	5-3/4	7-3/4	2995-232	275.35
33/64	6	8	2995-233	295.50
17/32	6	8	2995-234	295.50
9/16	6-1/4	8-1/4	2995-236	311.25
19/32	6-3/4	8-3/4	2995-238	374.75
5/8	6-3/4	8-3/4	2995-240	374.75
21/32	7	9	2995-242	395.05
11/16	7-1/4	9-1/4	2995-244	423.10

TOOL DIA.	FLUTE LG'TH.	OAL (IN.)	ORDER NO.	PRICE EACH
23/32	7-1/2	9-1/2	2995-246	\$438.95
3/4	7-3/4	9-3/4	2995-248	442.85
49/64	7-7/8	9-7/8	2995-249	470.80
25/32	7-7/8	9-7/8	2995-250	470.80
13/16	8	10	2995-252	478.75
27/32	8	10	2995-254	506.80
7/8	8	10	2995-256	518.85
29/32	8	10	2995-258	574.70
15/16	8-3/4	10-3/4	2995-260	598.50
31/32	9	11	2995-262	604.30
1	9	11	2995-264	604.30

Extra Long Length

USES:

- For drilling most materials, including some stainless steels
- For very deep holes, 12-24 tool diameters deep

TOOL DIA.	FLUTE LG'TH.	OAL (IN.)	ORDER NO.	PRICE EACH
5/16	8	10	2995-320	\$365.35
11/32	8	10	2995-322	365.35
3/8	9	11	2995-324	386.10
13/32	9	11	2995-326	439.50
7/16	9	11	2995-328	439.50
15/32	9-3/4	12	2995-330	464.10

TOOL DIA.	FLUTE LG'TH.	OAL (IN.)	ORDER NO.	PRICE EACH
1/2	9-3/4	12	2995-332	\$464.10
17/32	9-3/4	12	2995-334	498.05
9/16	10-3/4	13	2995-336	536.50
5/8	10-3/4	13	2995-340	566.45
11/16	11-3/4	14	2995-344	589.90
3/4	11-3/4	14	2995-348	624.45

TOOL DIA.	FLUTE LG'TH.	OAL (IN.)	ORDER NO.	PRICE EACH
13/16	12-3/4	15	2995-352	\$663.10
7/8	12-3/4	15	2995-356	714.45
15/16	13-3/4	16	2995-360	763.40
1	13-3/4	16	2995-364	826.75

Masonry Drills

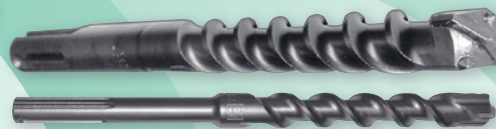
Hex Shank Hammer Drills



- Hex shank eliminates spinning in all hammer chucks
- Optimizes benefits of a keyless chuck
- "Super H" grade carbide tips for longer life

BIT DIA.	OVERALL LENGTH	USEABLE	ORDER NO.	PRICE EACH
STRAIGHT SHANK				
1/8	3	1-1/2	3014-081	\$ 3.40
1/8	6	4-1/2	3014-083	4.78
5/32	3	1-1/2	3014-101	4.78
5/32	6	4-1/2	3014-103	3.05
11/64	3	1-1/2	3014-111	4.78
3/16	3	1-1/2	3014-121	3.40
3/16	4	2-1/2	3014-122	1.86
3/16	6	4	3014-123	3.78
3/16	8	6	3014-124	6.36
3/16	13-1/2	12	3014-126	5.00
3/16	18	16	3014-127	7.47
HEX SHANK				
7/32	4	1-1/2	3014-141	2.50
7/32	6	4-1/2	3014-143	3.72
7/32	13	12	3014-146	7.14
1/4	4	2-1/2	3014-162	2.31
1/4	6	4-1/2	3014-163	3.13
1/4	13-1/2	12	3014-166	5.99
1/4	18	16-1/2	3014-167	7.99
1/4	24	22-1/2	3014-168	10.30
9/32	4	2-1/2	3014-182	3.76
9/32	6	4-1/2	3014-183	4.14
5/16	4	2-1/2	3014-202	3.09
5/16	6	4-1/2	3014-203	4.96
5/16	13-1/2	12	3014-206	6.74
5/16	18	16-1/2	3014-207	8.86
5/16	24	22-1/2	3014-208	11.13
3/8	4	2-1/2	3014-242	3.28
3/8	6	4-1/2	3014-243	4.84
3/8	13-1/2	12	3014-246	8.45
3/8	18	16-1/2	3014-247	9.87
3/8	24	22-1/2	3014-248	11.65
7/16	6	4-1/2	3014-283	5.88
7/16	13-1/2	12	3014-286	9.34
15/32	6	4-1/2	3014-303	6.14
1/2	4	2-1/2	3014-322	6.63
1/2	6	4-1/2	3014-323	6.85
1/2	13-1/2	12	3014-326	10.05
1/2	18	16	3014-327	11.84
1/2	24	22	3014-328	14.85
9/16	6	4-1/2	3014-363	7.14
9/16	13-1/2	12	3014-366	14.25
9/16	18	16	3014-367	25.18
5/8	6	4-1/2	3014-403	9.87
5/8	13-1/2	12	3014-406	13.63
5/8	18	16	3014-407	16.61
5/8	24	22	3014-408	20.25
11/16	6	4-1/2	3014-443	12.30
11/16	13-1/2	12	3014-446	15.07
11/16	18	16	3014-447	18.35
3/4	6	4-1/2	3014-483	12.93
3/4	13-1/2	12	3014-486	17.10
3/4	18	16	3014-487	19.59
3/4	24	22	3014-488	23.45
7/8	6	4-1/2	3014-563	18.19
7/8	13-1/2	12	3014-566	24.20
7/8	18	16	3014-567	27.42
7/8	24	22	3014-568	30.90
1	6	4-1/2	3014-643	19.86
1	13-1/2	12	3014-646	28.58
1	18	16	3014-647	37.52
1-1/8	6	4-1/2	3014-723	31.78
1-1/8	13-1/2	12	3014-726	40.98
1-1/8	18	16	3014-727	49.23
1-1/4	6	4-1/2	3014-803	33.93
1-1/4	13-1/2	12	3014-806	45.09
1-1/4	18	16	3014-807	54.89
1-3/8	6	4-1/2	3014-883	35.99
1-1/2	6	4-1/2	3014-963	42.08
1-1/2	12	10	3014-965	48.13

SDSMAX Shank QUAD Style Tip



- Tri-Carb® grade tip combined with additional carbide bullets for a design that guarantees longer life and creates the fastest drilling Quad design worldwide!

BIT DIA.	OAL (IN.)	USEABLE	ORDER NO.	PRICE EACH
5/8	13	7	3004-201	\$40.15
5/8	18	12	3004-204	45.47
5/8	23-1/2	18	3004-205	54.07
5/8	30	24	3004-206	70.85
5/8	36	30	3004-207	100.79
5/8	48	42	3004-208	182.33
11/16	23-1/2	18	3004-225	63.41
3/4	13	7	3004-241	40.74
3/4	18	12	3004-244	48.52
3/4	23-1/2	18	3004-245	59.46
3/4	30	24	3004-246	87.72
3/4	36	30	3004-247	103.81
3/4	48	42	3004-248	197.21
13/16	23-1/2	18	3004-265	70.85
27/32	13	7	3004-271	47.40
27/32	23-1/2	18	3004-275	61.37
7/8	13	7	3004-281	54.64
7/8	18	12	3004-284	58.42
7/8	23-1/2	18	3004-285	63.61
7/8	36	30	3004-287	122.05
1	13	7	3004-321	58.83
1	18	12	3004-324	63.63
1	23-1/2	18	3004-325	67.78
1	36	30	3004-327	159.38
1	48	42	3004-328	219.54
1-1/8	13	7	3004-361	61.17
1-1/8	18	12	3004-364	81.29
1-1/8	23-1/2	18	3004-365	90.09
1-3/16	23-1/2	18	3004-385	93.03
1-1/4	15	9	3004-402	86.11
1-1/4	23-1/2	18	3004-405	95.66
1-1/4	36	30	3004-407	170.24
1-3/8	23-1/2	18	3004-445	122.15
1-1/2	15	9	3004-462	130.91
1-1/2	23-1/2	18	3004-465	141.28
1-1/2	36	30	3004-467	264.93
1-5/8	23-1/2	18	3004-475	167.54
1-3/4	23-1/2	18	3004-485	173.03
2	23-1/2	18	3004-495	226.09

Spline Shank QUAD Style Tip



- Rounded 'Fangs' bounce off steel reinforcement rods, allowing the operator to switch to our rebar drilling system before any major damage is done to the drill bit.

BIT DIA.	OAL (IN.)	USEABLE	ORDER NO.	PRICE EACH
5/8	12	6	3004-702	\$47.24
5/8	18	12	3004-704	50.31
5/8	23-1/2	18	3004-705	60.19
5/8	30	24	3004-706	97.27
5/8	36	30	3004-707	108.88
5/8	48	42	3004-708	154.86
3/4	12	6	3004-742	45.69
3/4	18	12	3004-744	54.14
3/4	23-1/2	18	3004-745	66.20
3/4	30	24	3004-746	121.77
3/4	36	30	3004-747	138.62
3/4	48	42	3004-748	190.61
27/32	18	12	3004-774	62.37
27/32	23-1/2	18	3004-775	70.05
7/8	12	6	3004-782	52.41
7/8	18	12	3004-784	65.03
7/8	23-1/2	18	3004-785	70.78
7/8	36	30	3004-787	135.86
7/8	48	42	3004-788	225.29
1	12	6	3004-822	65.49
1	18	12	3004-824	70.84
1	23-1/2	18	3004-825	79.82
1	30	24	3004-826	121.79
1	36	30	3004-827	144.98
1	48	42	3004-828	244.03
1-1/8	18	12	3004-864	95.89
1-1/8	23-1/2	18	3004-865	107.68
1-1/8	36	30	3004-867	183.87
1-1/4	18	12	3004-904	114.60
1-1/4	23-1/2	18	3004-905	128.38
1-1/4	36	30	3004-907	189.78
1-1/4	48	42	3004-908	294.64
1-3/8	18	12	3004-944	126.52
1-3/8	23-1/2	18	3004-945	156.09
1-1/2	18	12	3004-964	160.39
1-1/2	23-1/2	18	3004-965	183.78
1-1/2	36	30	3004-967	351.18
1-1/2	48	42	3004-968	405.22
1-5/8	23-1/2	18	3004-975	207.28
1-3/4	23-1/2	18	3004-985	218.36
2	23-1/2	18	3004-995	241.51

SDS+ Bits for Concrete Screws



BIT DIA.	OAL	DESCRIPTION	ORDER NO.	PRICE EACH
5/32	5"	SDS+ w/Hex	3005-055	\$ 7.48
5/32	7"	SDS+ w/Hex	3005-057	7.87
3/16	5"	SDS+ w/Hex	3005-065	7.76
3/16	7"	SDS+ w/Hex	3005-067	8.39

WARNING: This product contains Cobalt and/or Nickel and/or Lead a chemical known to the state of California to cause cancer or birth defects or other reproductive harm. For more information: www.prop65.ca.gov. **WARNING:** Cutting tools may shatter. Always wear approved safety glasses and mask when regrinding.

3



Masonry Drills

WARNING: This product contains Cobalt and/or Nickel and/or Lead a chemical known to the state of California to cause cancer or birth defects or other reproductive harm. For more information: www.prodds.ca.gov.
WARNING: Cutting tools may chatter. Always wear approved safety glasses and mask when regrinding.



SDS+



BIT DIA.	OVERALL LENGTH	USEABLE	ORDER NO.	PRICE EACH
5/32	4-5/8	2	3002-051	\$ 6.76
5/32	6-5/8	4	3002-052	7.38
5/32	8-5/8	6	3002-053	11.96
3/16	4-3/8	2	3002-061	7.59
3/16	6-3/8	4	3002-062	7.78
3/16	8-5/8	6	3002-063	10.40
3/16	10-5/8	8	3002-064	14.20
3/16	12-5/8	10	3002-065	12.47
3/16	14-5/8	12	3002-066	21.79
3/16	16-5/8	14	3002-067	50.35
7/32	4-3/4	2-1/2	3002-071	7.10
7/32	6-5/8	4	3002-072	8.75
7/32	8-5/8	6	3002-073	11.74
7/32	10-1/4	8	3002-074	14.91
7/32	14-5/8	12	3002-076	24.85
7/32	16-5/8	14	3002-077	30.74
1/4	4-3/8	2	3002-081	7.92
1/4	6-3/8	4	3002-082	8.62
1/4	8-5/8	6	3002-083	10.80
1/4	11-5/8	9	3002-084	14.41
1/4	12-1/4	9-5/8	3002-085	15.23
1/4	14-5/8	12	3002-086	20.52
1/4	16-5/8	14	3002-087	21.62
1/4	20-5/8	18	3002-088	44.44
9/32	8-5/8	6	3002-093	12.81
5/16	6-5/8	4	3002-102	11.25
5/16	9-3/4	7-1/2	3002-103	14.38
5/16	12-5/8	10	3002-105	20.25
3/8	6-5/8	4	3002-122	10.53
3/8	10-5/8	8	3002-124	15.22
3/8	12-5/8	10	3002-125	20.25
3/8	20-5/8	18	3002-128	31.50
3/8	24	22	3002-129	38.34
3/8	36	34	3002-130	68.44
7/16	6-5/8	4	3002-142	14.85
7/16	12-5/8	10	3002-145	20.52
7/16	18-5/8	18	3002-147	29.70
1/2	6-5/8	4	3002-162	12.96
1/2	10-5/8	8	3002-164	15.53
1/2	12-5/8	10	3002-165	24.75
1/2	18-5/8	16	3002-167	28.80
1/2	24	22	3002-169	35.92
1/2	38	36	3002-170	88.72
9/16	6-3/4	4	3002-182	19.35
9/16	10-1/8	7-7/8	3002-184	23.54
9/16	12-3/4	10	3002-185	26.10
9/16	18-3/4	16	3002-187	35.10
5/8	6-3/4	4	3002-202	21.60
5/8	9-3/4	7	3002-203	23.04
5/8	12-3/4	10	3002-205	32.40
5/8	18-3/4	16	3002-207	44.10
5/8	24	22	3002-209	65.07
5/8	36	34	3002-210	127.18
11/16	6-3/4	4	3002-222	30.60
11/16	12-3/4	10	3002-225	43.18
11/16	18-3/4	16	3002-227	65.30
3/4	6-3/4	4	3002-242	28.80
3/4	9-3/4	7	3002-243	36.72
3/4	12-3/4	10	3002-245	42.12
3/4	18-3/4	16	3002-247	52.20
3/4	24	22	3002-249	86.95
3/4	36	34	3002-250	140.78
13/16	12-3/4	10	3002-265	53.24
13/16	18-3/4	16	3002-267	44.58
27/32	8-3/4	6	3002-273	56.78
7/8	6-3/4	4	3002-282	30.60
7/8	9-3/4	7	3002-283	53.10
7/8	12-3/4	10	3002-285	59.74
7/8	18-3/4	16	3002-287	73.23
7/8	24	21	3002-289	105.69
1	10-3/4	8	3002-324	63.38
1	13-1/8	10-1/4	3002-325	68.47
1	18-3/4	16	3002-327	77.74
1	25	22	3002-329	105.82
1	30	28	3002-330	143.00
1-1/8	12-3/4	10	3002-365	85.36
1-1/8	18-3/4	16	3002-367	94.52
1-1/4	12-3/4	10	3002-405	113.80



- Tri-Carb® grade tip guarantees longer life with faster penetration due to increased chiselling action.
- Flute design, combined with a copper brazing alloy, creates the most reliable drill bit on the market.
- USA-made, with highest quality chrome-molybdenum-nickel steel available.
- Vacuum heat treated, and shot-peened for superior strength under rough conditions.

SDS MAX Single Cutter Style



BIT DIA.	OAL (IN.)	DRILL DEPTH	ORDER NO.	PRICE EACH
3/8	13	7	3002-623	\$ 58.46
1/2	13	7	3002-663	59.40
1/2	18	12	3002-664	34.11
1/2	23-1/2	18	3002-665	73.72
1/2	30	24	3002-666	63.19
1/2	36	30	3002-667	95.25
1/2	48	42	3002-668	178.61
9/16	13	7	3002-683	67.32
9/16	23-1/2	18	3002-685	89.55
5/8	13	7	3002-703	71.55
5/8	18	12	3002-704	85.73
5/8	23-1/2	18	3002-705	91.55
3/4	13	7	3002-743	71.78
3/4	18	12	3002-744	91.45
3/4	23-1/2	18	3002-745	92.70
7/8	13	7	3002-783	83.25
7/8	18	12	3002-784	87.83
7/8	23-1/2	18	3002-785	114.76
1	13	7	3002-823	89.10
1	23-1/2	18	3002-825	108.90
1-1/8	13	7	3002-863	89.75
1-1/8	23-1/2	18	3002-865	165.24
1-1/4	15	9	3002-903	140.36
1-1/4	23-1/2	18	3002-905	175.44
1-3/8	15	9	3002-943	104.48
1-1/2	15	9	3002-983	185.22
1-1/2	23-1/2	18	3002-985	222.21

SDS+ Adapters

- SDS+ Adapters allow you to use your larger Heavy Duty rotary hammer drills with SDS+ shank drill bits and any other SDS+ shanked tools.



- PM-SDS
SDS Max to SDS+
Order No. 3005-014
Price Each: \$71.12



- CP9-SDS
Chicago Pneumatic to SDS+
Order No. 3005-010
Price Each: \$75.70



- PB-SDS
Spline to SDS+
Order No. 3005-012
Price Each: \$88.10



- TOP-SDS
SDS-TOP to SDS+
Order No. 3005-016
Price Each: \$76.13

Spline Shank Masonry Drills Single Cutter Style



BIT DIA.	OVERALL LENGTH	DRILL DEPTH	ORDER NO.	PRICE EACH
3/8	12	6	3003-122	\$35.92
3/8	18	12	3003-124	42.76
7/16	12	6	3003-142	43.16
7/16	14	7	3003-143	42.55
1/2	12	6	3003-162	38.26
1/2	18	12	3003-164	43.88
1/2	23-1/2	18	3003-165	51.98
1/2	30	24	3003-166	55.92
1/2	36	30	3003-167	99.68
1/2	48	42	3003-168	182.64
9/16	12	6	3003-182	40.28
9/16	18	12	3003-184	46.14
9/16	23-1/2	18	3003-185	54.16
9/16	30	24	3003-186	92.98
9/16	36	30	3003-187	127.48
9/16	48	42	3003-188	189.10
5/8	12	6	3003-202	42.30
5/8	18	12	3003-204	48.16
5/8	23-1/2	18	3003-205	55.08
5/8	30	24	3003-206	93.41
5/8	36	30	3003-207	105.89
11/16	12	6	3003-222	51.45
11/16	23-1/2	18	3003-225	65.36
3/4	12	6	3003-242	46.80
3/4	18	12	3003-244	51.12
3/4	23-1/2	18	3003-245	56.48
27/32	23-1/2	18	3003-275	58.86
7/8	12	6	3003-282	49.50
7/8	18	12	3003-284	55.14
7/8	23-1/2	18	3003-285	61.20
7/8	36	30	3003-287	121.79
1	12	6	3003-322	56.26
1	18	12	3003-324	63.00
1	23-1/2	18	3003-325	70.88
1-1/8	12	6	3003-362	62.62
1-1/8	18	12	3003-364	71.11
1-1/8	23-1/2	18	3003-365	82.80
1-1/4	18	12	3003-404	84.38
1-1/4	23-1/2	18	3003-405	91.68
1-3/8	18	12	3003-444	104.96
1-3/8	23-1/2	18	3003-445	111.72
1-1/2	18	12	3003-484	110.26
1-1/2	23-1/2	18	3003-485	122.86

Masonry Core Drills

Rebar Cutters

Now you can use the same tool to drill concrete, rebar, and steel plate! These innovative adaptor designs are for use with your SDS+, SDS Max, or Spline drill! No need for additional power tools, or core rigs to complete the job.

BIT DIA.	OVERALL LENGTH	ORDER NO.	PRICE EACH
3/8	12"	3005-312	\$ 41.87
1/2	12"	3005-316	48.39
9/16	12"	3005-318	52.47
5/8	12"	3005-320	59.57
3/4	12"	3005-324	63.70
7/8	12"	3005-328	70.40
1	12"	3005-332	80.40
1-1/8	12"	3005-336	88.71
1-1/4	12"	3005-340	93.04
1-1/2	12"	3005-348	105.83

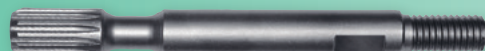


Plate Cutters

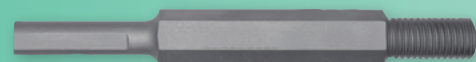
BIT DIA.	OVERALL LENGTH	ORDER NO.	PRICE EACH
3/8	12"	3005-362	\$ 40.23
1/2	12"	3005-366	46.18
5/8	12"	3005-370	56.93
3/4	12"	3005-374	60.66
7/8	12"	3005-378	67.77
1	12"	3005-382	76.69
1-1/8	12"	3005-386	81.31
1-1/4	12"	3005-390	89.01
1-1/2	12"	3005-398	100.13



Adapters



- RE-PB Spline Adaptor
Order No. 3005-410 Price Each: \$41.87



- RE-PL 1/2" Straight Shank Adaptor
Order No. 3005-412 Price Each: \$17.17



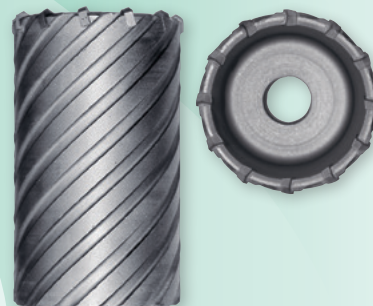
- RE-PM SDS Max Adaptor
Order No. 3005-414 Price Each: \$47.78



- RE-PM SDS+ Adaptor
Order No. 3005-416 Price Each: \$34.89

Rotary Core Drills

DIA.	OVERALL LENGTH	ORDER NO.	PRICE EACH
1-1/2	5"	3005-112	\$ 99.58
1-3/4	5"	3005-114	115.82
2	5"	3005-116	130.29
2-1/2	5"	3005-120	168.90
3	5"	3005-124	215.15
3-1/2	5"	3005-128	227.82
4	5"	3005-132	288.58
4-1/2	5"	3005-136	326.28
5	5"	3005-140	401.74
6	6"	3005-148	483.51



Shanks & Accessories



DESCRIPTION	ORDER NO.	PRICE EACH
12" Spline	3005-160	\$ 54.85
18" Spline	3005-162	79.89
12" SDS Max	3005-164	55.64
18" SDS Max	3005-166	79.89
12" Kango 950	3005-168	73.12
12" Kango 637	3005-170	73.12
12" 7/16" Hex Skill726, Mil5300	3005-172	73.12
12" 9/16" Hex Skill732, Mil5325	3005-174	73.12
12" 3/4" Hex Skill736, HD45	3005-176	75.21
12" 3/4" Hex for Wacker	3005-178	75.21
A-Taper Starter Bit	3005-180	11.36



Thin Wall Core Drills

SIZE	ORDER NO.	PRICE EACH
1-1/2"	3005-212	\$ 85.59
1-3/4"	3005-214	104.19
2"	3005-216	123.54
2-1/2"	3005-220	160.75
3"	3005-224	189.02
3-1/2"	3005-228	219.54
4"	3005-232	230.27



Shanks & Accessories



DESCRIPTION	ORDER NO.	PRICE EACH
12" SDS Max	3005-260	\$ 50.08
18" SDS Max	3005-262	62.89
12" SDS+	3005-264	47.25
8" SDS+	3005-266	39.07
12" Spline	3005-268	47.25
18" Spline	3005-270	56.80
Starter	3005-272	9.40



WARNING: This product contains Cobalt and/or Nickel and/or Lead a chemical known to the state of California to cause cancer or birth defects or other reproductive harm. For more information: www.pro65.ca.gov.
WARNING: Cutting tools may shatter. Always wear approved safety glasses and mask when regrinding.

3



Masonry Drills

WARNING: This product contains Cobalt and/or Nickel and/or Lead a chemical known to the state of California to cause cancer or birth defects or other reproductive harm. For more information: www.p665.ca.gov.
WARNING: Cutting tools may shatter. Always wear approved safety glasses and mask when regrinding.

2

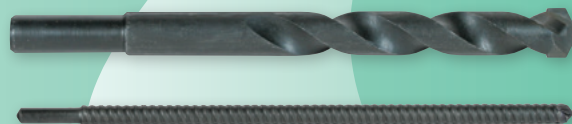
Fast Spiral



Regular Spiral Import



Extra Long Fast Spiral or Regular Spiral



DIA.	SHANK DIA.	OVERALL LENGTH	ORDER NO.	PRICE EACH
1/8	1/8	3	3011-010	\$ 4.11
5/32	5/32	3	3011-020	2.66
11/64	11/64	3	3011-030	4.34
3/16	3/16	3	3011-040	1.80
3/16	3/16	4	3011-045	4.41
3/16	3/16	6	3011-050	3.56
7/32	7/32	4	3011-060	2.09
1/4	1/4	4	3011-070	4.63
1/4	1/4	6	3011-080	4.63
9/32	1/4	4	3011-090	3.32
9/32	1/4	6	3011-100	3.23
5/16	1/4	4	3011-110	4.83
5/16	1/4	6	3011-120	5.36
3/8	1/4	4	3011-130	5.20
3/8	1/4	6	3011-140	5.53
7/16	1/4	6	3011-150	5.90
1/2	1/4	4	3011-155	6.03
1/2	1/4	6	3011-160	6.40
1/2	3/8	6	3011-170	6.40
9/16	3/8	6	3011-180	8.88
5/8	3/8	6	3011-183	10.31
11/16	1/2	6	3011-200	11.26
3/4	3/8	6	3011-205	10.64
7/8	1/2	6	3011-220	15.48
1	1/2	6	3011-230	18.98
1-1/8	1/2	6	3011-240	29.11

DIA.	SHANK DIA.	OVERALL LENGTH	ORDER NO.	PRICE EACH
1/8	3/8	3	3010-010	\$ 4.11
5/32	5/32	3	3010-020	4.34
3/16	3/16	4	3010-045	4.41
3/16	3/16	6	3010-050	4.45
7/32	7/32	4	3010-065	4.54
1/4	1/4	4	3010-070	4.63
1/4	1/4	6	3010-080	4.63
5/16	1/4	4	3010-110	4.83
5/16	1/4	6	3010-120	5.36
3/8	1/4	4	3010-130	5.20
3/8	3/8	4	3010-142	1.78
3/8	1/4	6	3010-140	5.53
7/16	1/4	4	3010-145	5.94
7/16	1/4	6	3010-150	5.90
7/16	3/8	6	3010-152	5.90
1/2	1/4	6	3010-160	6.40
1/2	3/8	6	3010-170	6.40
9/16	3/8	6	3010-180	8.88
5/8	3/8	6	3010-185	10.31
11/16	1/2	6	3010-200	11.26
3/4	1/2	6	3010-210	12.18
7/8	1/2	6	3010-220	15.48
1	1/2	6	3010-230	18.98

DIA.	SHANK DIA.	OAL	ORDER NO.	PRICE EACH	ORDER NO.	PRICE EACH
1/8	1/8	13	3013-113	\$ 9.98	-	-
3/16	3/16	13	3013-123	4.38	-	-
3/16	3/16	18	3013-125	7.20	-	-
1/4	1/4	13	3013-163	5.06	3012-164	\$ 4.66
1/4	1/4	18	3013-165	6.96	3012-166	5.77
1/4	1/4	24	3013-167	8.24	-	-
1/4	1/4	30	3013-168	10.42	-	-
1/4	1/4	36	3013-170	19.68	-	-
5/16	1/4	13	3013-203	5.69	3012-204	4.99
5/16	1/4	18	3013-205	7.25	3012-206	5.60
5/16	1/4	24	3013-207	8.89	-	-
3/8	1/4	13	3013-243	6.70	3012-244	6.62
3/8	1/4	18	3013-245	7.73	3012-246	10.03
3/8	1/4	24	3013-247	9.15	-	-
3/8	1/4	36	3013-249	17.65	-	-
7/16	1/4	13	3013-283	7.50	-	-
1/2	3/8	13	3013-323	7.74	3012-324	10.71
1/2	3/8	18	3013-325	9.27	3012-326	16.05
9/16	3/8	13	-	-	3012-364	7.92
9/16	1/2	18	3013-365	14.95	3012-366	9.39
5/8	1/2	13	3013-403	12.61	-	-
5/8	1/2	18	3013-405	14.37	-	-
5/8	1/2	24	3013-407	17.13	-	-
3/4	1/2	13	3013-483	14.45	-	-
3/4	1/2	18	3013-485	16.51	-	-
7/8	1/2	13	3013-563	20.75	-	-
1	1/2	13	-	-	3012-644	POA
1	1/2	18	3013-645	28.71	-	-

Glass & Tile Drills

Carbide Tipped



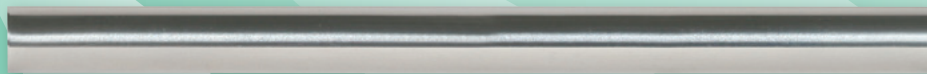
2

DIAM.	SHANK DIA.	OVERALL LENGTH	ORDER NO.	PRICE EACH
1/8	7/64	2-1/2	3016-008	\$ 9.90
3/16	5/32	2-1/2	3016-012	11.35
1/4	7/32	2-1/2	3016-016	12.38
5/16	1/4	3	3016-020	13.90
3/8	5/16	3-1/2	3016-024	20.21
7/16	3/8	3-1/2	3016-028	21.88
1/2	7/16	3-1/2	3016-032	23.51
9/16	1/2	4	3016-036	30.63
5/8	9/16	4	3016-040	38.75

- Drills glass, tile, porcelain, ceramic and other hard, fragile materials without chipping or cracking the material when properly used.
- Speed should be about 25 surface feet per minute (300 to 600 RPM) using a steady, moderate hand feed.
- Constant flow of coolant is important.
- Back material being drilled with wood or rubber to support material during drill breakthrough.
- Avoid vibration and excessive stress.
- Keep drill sharp to eliminate excessive pressure.

Drill & Reamer Blanks – High Speed Steel

2



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WARNING: Cutting tools may shatter. Always wear approved safety glasses and mask when regrinding.

Fractional Sizes

Pittsburg DRILL BLANKS					VERMONT GAGE DRILL BLANKS		VERMONT GAGE REAMER BLANKS		Pittsburg DRILL BLANKS					VERMONT GAGE DRILL BLANKS		VERMONT GAGE REAMER BLANKS	
SIZE	DEC. EQV.	OVERALL LENGTH	ORDER NO.	PRICE EACH	ORDER NO.	PRICE EACH	ORDER NO.	PRICE EACH	SIZE	DEC. EQV.	OVERALL LENGTH	ORDER NO.	PRICE EACH	ORDER NO.	PRICE EACH	ORDER NO.	PRICE EACH
1/64	.0156	3/4	1490-001	\$ 0.93	1491-001	\$ 2.09	1520-001	\$ 2.96	9/16	.5625	6	1490-036	\$ 10.94	1491-036	\$ 29.15	1520-036	\$ 44.36
1/32	.0312	1-3/8	1490-002	0.93	1491-002	2.09	1520-002	2.96	37/64	.5781	6	1490-037	11.25	1491-037	33.42	-	-
3/64	.0469	1-3/4	1490-003	0.98	1491-003	2.27	1520-003	3.23	19/32	.5937	6	1490-038	12.06	1491-038	33.42	-	-
1/16	.0625	1-7/8	1490-004	0.98	1491-004	2.20	1520-004	3.13	39/64	.6094	6	1490-039	12.50	1491-039	32.81	-	-
5/64	.0781	2	1490-005	1.05	1491-005	2.34	1520-005	3.33	5/8	.6250	6	1490-040	12.50	1491-040	32.81	1520-040	49.93
3/32	.0937	2-1/4	1490-006	1.05	1491-006	2.27	1520-006	3.23	41/64	.6406	6	1490-041	13.44	1491-041	38.65	-	-
7/64	.1094	2-5/8	1490-007	1.05	1491-007	2.34	1520-007	3.33	21/32	.6562	6	1490-042	13.94	1491-042	38.65	-	-
1/8	.1250	2-3/4	1490-008	1.05	1491-008	2.22	1520-008	3.15	43/64	.6719	6	1490-043	14.31	1491-043	42.36	-	-
9/64	.1406	2-7/8	1490-009	1.05	1491-009	2.34	1520-009	3.33	11/16	.6875	6	1490-044	14.94	1491-044	42.36	-	-
5/32	.1562	3-1/8	1490-010	1.18	1491-010	2.57	1520-010	3.65	45/64	.7031	6	1490-045	15.44	1491-045	42.36	-	-
11/64	.1719	3-1/4	1490-011	1.18	1491-011	2.57	1520-011	3.65	23/32	.7187	6	1490-046	15.81	1491-046	42.36	-	-
3/16	.1875	3-1/2	1490-012	1.30	1491-012	2.88	1520-012	4.09	47/64	.7344	6	1490-047	16.38	1491-047	43.90	-	-
13/64	.2031	3-5/8	1490-013	1.63	1491-013	3.76	1520-013	5.34	3/4	.7500	6	1490-048	16.38	1491-048	43.90	1520-048	66.80
7/32	.2187	3-3/4	1490-014	1.71	1491-014	3.78	1520-014	5.38	49/64	.7656	6	1490-049	18.31	1491-049	47.90	-	-
15/64	.2344	3-7/8	1490-015	1.86	1491-015	4.25	1520-015	6.04	25/32	.7812	6	1490-050	18.38	1491-050	47.90	-	-
1/4	.2500	4	1490-016	2.03	1491-016	4.39	1520-016	6.24	51/64	.7969	6	1490-051	21.06	1491-051	51.02	-	-
17/64	.2656	4-1/8	1490-017	2.14	1491-017	4.98	1520-017	7.08	13/16	.8125	6	1490-052	21.06	1491-052	51.02	-	-
9/32	.2812	4-1/4	1490-018	2.30	1491-018	5.38	1520-018	7.64	53/64	.8281	6	1490-053	22.38	1491-053	56.62	-	-
19/64	.2969	4-3/8	1490-019	2.55	1491-019	5.98	1520-019	8.49	27/32	.8437	6	1490-054	22.38	1491-054	56.62	-	-
5/16	.3125	4-1/2	1490-020	2.63	1491-020	5.86	1520-020	8.31	55/64	.8594	6	1490-055	22.94	1491-055	60.08	-	-
21/64	.3281	4-5/8	1490-021	2.89	1491-021	6.77	1520-021	9.61	7/8	.8750	6	1490-056	22.94	1491-056	60.08	1520-056	91.44
11/32	.3438	4-3/4	1490-022	3.09	1491-022	7.26	1520-022	10.31	57/64	.8906	6	1490-057	25.19	1491-057	65.38	-	-
23/64	.3594	4-7/8	1490-023	3.48	1491-023	8.16	1520-023	11.59	29/32	.9062	6	1490-058	25.19	1491-058	65.38	-	-
3/8	.3750	5	1490-024	3.80	1491-024	8.56	1520-024	12.15	59/64	.9219	6	1490-059	27.75	1491-059	69.38	-	-
25/64	.3906	5-1/8	1490-025	3.96	1491-025	9.32	1520-025	13.25	15/16	.9375	6	1490-060	27.75	1491-060	69.38	-	-
13/32	.4062	5-1/4	1490-026	4.30	1491-026	10.10	1520-026	14.35	61/64	.9531	6	1490-061	33.19	1491-061	72.16	-	-
27/64	.4219	5-3/8	1490-027	4.81	1491-027	11.32	1520-027	16.08	31/32	.9688	6	1490-062	33.19	1491-062	72.16	-	-
7/16	.4375	5-1/2	1490-028	5.43	1491-028	12.46	1520-028	17.69	63/64	.9844	6	1490-063	33.13	1491-063	76.03	-	-
29/64	.4531	5-5/8	1490-029	5.56	1491-029	13.13	1520-029	18.65	1	1.0000	6	1490-064	27.81	1491-064	76.03	-	-
15/32	.4688	5-3/4	1490-030	5.65	1491-030	13.34	1520-030	18.95									
31/64	.4844	5-7/8	1490-031	6.40	1491-031	15.13	1520-031	21.50									
1/2	.5000	6	1490-032	6.76	1491-032	15.25	1520-032	21.66									
33/64	.5156	6	1490-033	9.63	1491-033	26.69	-	-									
17/32	.5312	6	1490-034	9.94	1491-034	27.98	1520-034	42.59									
35/64	.5469	6	1490-035	10.50	1491-035	26.69	-	-									

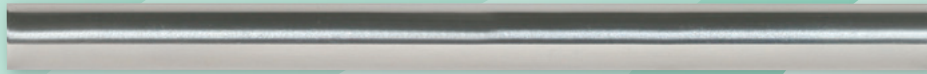
Tolerances: Drill Blanks 1/64" - 1/2" - .0002 + .0000; 33/64" - 5/8" - .0003 + .0000; 41/64" - 1" - .0005 + .0000
Reamer Blanks 1/64" - 1/2" - .0002 - .0000; 33/64" - 5/8" + .0003 - .0000; 41/64" - 1" + .0005 - .0000

Letter Sizes

Pittsburg DRILL BLANKS					VERMONT GAGE DRILL BLANKS		VERMONT GAGE REAMER BLANKS		Pittsburg DRILL BLANKS					VERMONT GAGE DRILL BLANKS		VERMONT GAGE REAMER BLANKS	
SIZE	DEC. EQV.	OVERALL LENGTH	ORDER NO.	PRICE EACH	ORDER NO.	PRICE EACH	ORDER NO.	PRICE EACH	SIZE	DEC. EQV.	OVERALL LENGTH	ORDER NO.	PRICE EACH	ORDER NO.	PRICE EACH	ORDER NO.	PRICE EACH
A	.2340	3-7/8	1510-001	\$1.89	1511-001	\$4.44	1540-001	\$6.31	P	.3230	4-5/8	1510-016	\$2.95	1511-016	\$6.54	1540-016	\$9.29
B	.2380	4	1510-002	1.89	1511-002	4.44	1540-002	6.31	Q	.3320	4-3/4	1510-017	2.95	1511-017	6.54	1540-017	9.29
C	.2420	4	1510-003	1.89	1511-003	4.44	1540-003	6.31	R	.3390	4-3/4	1510-018	3.14	1511-018	7.40	1540-018	10.51
D	.2460	4	1510-004	2.10	1511-004	4.44	1540-004	6.31	S	.3480	4-7/8	1510-019	3.55	1511-019	8.44	1540-019	11.99
E	.2500	4	1510-005	2.03	1511-005	4.39	1540-005	6.24	T	.3580	4-7/8	1510-020	3.55	1511-020	8.44	1540-020	11.99
F	.2570	4-1/8	1510-006	2.18	1511-006	4.94	1540-006	7.03	U	.3680	5	1510-021	3.94	1511-021	8.95	1540-021	12.71
G	.2610	4-1/8	1510-007	2.18	1511-007	4.94	1540-007	7.03	V	.3770	5	1510-022	4.00	1511-022	8.95	1540-022	12.71
H	.2660	4-1/8	1510-008	2.18	1511-008	4.94	1540-008	7.03	W	.3860	5-1/8	1510-023	4.00	1511-023	9.71	1540-023	13.79
I	.2720	4-1/8	1510-009	2.36	1511-009	5.33	1540-009	7.56	X	.3970	5-1/8	1510-024	4.00	1511-024	9.71	1540-024	13.79
J	.2770	4-1/8	1510-010	2.36	1511-010	5.33	1540-010	7.56	Y	.4040	5-1/4	1510-025	4.40	1511-025	10.50	1540-025	14.91
K	.2810	4-1/4	1510-011	2.36	1511-011	5.51	1540-011	7.83	Z	.4130	5-1/4	1510-026	4.40	1511-026	10.50	1540-026	14.91
L	.2900	4-1/4	1510-012	2.36	1511-012	5.51	1540-012	7.83									
M	.2950	4-3/8	1510-013	2.59	1511-013	6.14	1540-013	8.73									
N	.3020	4-3/8	1510-014	2.59	1511-014	6.14	1540-014	8.73									
O	.3160	4-1/2	1510-015	2.66	1511-015	6.07	1540-015	8.63									

Drill & Reamer Blanks – High Speed Steel

Wire Gage Sizes



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WARNING: Cutting tools may shatter. Always wear approved safety glasses and mask when regrinding.

2

SIZE	DEC. EQV.	OVERALL LENGTH	Pittsburg® DRILL BLANKS		VERMONT GAGE DRILL BLANKS		VERMONT GAGE REAMER BLANKS	
			ORDER NO.	PRICE EACH	ORDER NO.	PRICE EACH	ORDER NO.	PRICE EACH
1	.2280	3-7/8	1500-001	\$1.71	1501-001	\$3.62	1530-001	\$5.15
2	.2210	3-7/8	1500-002	1.71	1501-002	3.62	1530-002	5.15
3	.2130	3-3/4	1500-003	1.71	1501-003	3.62	1530-003	5.15
4	.2090	3-3/4	1500-004	1.71	1501-004	3.62	1530-004	5.15
5	.2055	3-3/4	1500-005	1.71	1501-005	3.62	1530-005	5.15
6	.2040	3-3/4	1500-006	1.63	1501-006	3.48	1530-006	4.94
7	.2010	3-5/8	1500-007	1.63	1501-007	3.48	1530-007	4.94
8	.1999	3-5/8	1500-008	1.63	1501-008	3.48	1530-008	4.94
9	.1960	3-5/8	1500-009	1.63	1501-009	3.48	1530-009	4.94
10	.1935	3-5/8	1500-010	1.63	1501-010	3.48	1530-010	4.94
11	.1910	3-1/2	1500-011	1.30	1501-011	2.76	1530-011	3.93
12	.1890	3-1/2	1500-012	1.30	1501-012	2.76	1530-012	3.93
13	.1850	3-1/2	1500-013	1.30	1501-013	2.76	1530-013	3.93
14	.1820	3-3/8	1500-014	1.30	1501-014	2.76	1530-014	3.93
15	.1800	3-3/8	1500-015	1.30	1501-015	2.76	1530-015	3.93
16	.1770	3-3/8	1500-016	1.18	1501-016	2.45	1530-016	3.48
17	.1730	3-3/8	1500-017	1.18	1501-017	2.45	1530-017	3.48
18	.1695	3-1/4	1500-018	1.18	1501-018	2.45	1530-018	3.48
19	.1660	3-1/4	1500-019	1.18	1501-019	2.45	1530-019	3.48
20	.1610	3-1/4	1500-020	1.18	1501-020	2.45	1530-020	3.48
21	.1590	3-1/4	1500-021	1.18	1501-021	2.45	1530-021	3.48
22	.1570	3-1/8	1500-022	1.18	1501-022	2.45	1530-022	3.48
23	.1540	3-1/8	1500-023	1.18	1501-023	2.45	1530-023	3.48
24	.1520	3-1/8	1500-024	1.18	1501-024	2.45	1530-024	3.48
25	.1495	3	1500-025	1.18	1501-025	2.45	1530-025	3.48
26	.1470	3	1500-026	1.05	1501-026	2.18	1530-026	3.10
27	.1440	3	1500-027	1.05	1501-027	2.18	1530-027	3.10
28	.1405	2-7/8	1500-028	1.05	1501-028	2.18	1530-028	3.10
29	.1360	2-7/8	1500-029	1.05	1501-029	2.18	1530-029	3.10
30	.1285	2-3/4	1500-030	1.05	1501-030	2.18	1530-030	3.10
31	.1200	2-3/4	1500-031	1.05	1501-031	2.18	1530-031	3.10
32	.1160	2-3/4	1500-032	1.05	1501-032	2.18	1530-032	3.10
33	.1130	2-5/8	1500-033	1.05	1501-033	2.18	1530-033	3.10
34	.1110	2-5/8	1500-034	1.05	1501-034	2.18	1530-034	3.10
35	.1100	2-5/8	1500-035	1.05	1501-035	2.18	1530-035	3.10
36	.1065	2-1/2	1500-036	1.05	1501-036	2.18	1530-036	3.10
37	.1040	2-1/2	1500-037	1.05	1501-037	2.18	1530-037	3.10
38	.1015	2-1/2	1500-038	1.05	1501-038	2.18	1530-038	3.10
39	.0995	2-3/8	1500-039	1.05	1501-039	2.18	1530-039	3.10
40	.0980	2-3/8	1500-040	1.05	1501-040	2.18	1530-040	3.10

SIZE	DEC. EQV.	OVERALL LENGTH	Pittsburg® DRILL BLANKS		VERMONT GAGE DRILL BLANKS		VERMONT GAGE REAMER BLANKS	
			ORDER NO.	PRICE EACH	ORDER NO.	PRICE EACH	ORDER NO.	PRICE EACH
41	.0960	2-3/8	1500-041	\$1.05	1501-041	\$2.77	1530-041	\$3.94
42	.0965	2-1/4	1500-042	1.05	1501-042	2.77	1530-042	3.94
43	.0890	2-1/4	1500-043	1.05	1501-043	2.77	1530-043	3.94
44	.0860	2-1/8	1500-044	1.05	1501-044	2.77	1530-044	3.94
45	.0820	2-1/8	1500-045	1.05	1501-045	2.77	1530-045	3.94
46	.0810	2-1/8	1500-046	1.05	1501-046	2.77	1530-046	3.94
47	.0785	2	1500-047	1.05	1501-047	2.77	1530-047	3.94
48	.0760	2	1500-048	1.05	1501-048	2.77	1530-048	3.94
49	.0730	2	1500-049	1.05	1501-049	2.77	1530-049	3.94
50	.0700	2	1500-050	1.05	1501-050	2.77	1530-050	3.94
51	.0670	2	1500-051	0.98	1501-051	2.77	1530-051	3.94
52	.0635	1-7/8	1500-052	0.98	1501-052	2.77	1530-052	3.94
53	.0595	1-7/8	1500-053	0.98	1501-053	2.77	1530-053	3.94
54	.0550	1-7/8	1500-054	0.98	1501-054	2.77	1530-054	3.94
55	.0520	1-7/8	1500-055	0.98	1501-055	2.77	1530-055	3.94
56	.0465	1-3/4	1500-056	0.98	1501-056	2.77	1530-056	3.94
57	.0430	1-3/4	1500-057	0.98	1501-057	2.77	1530-057	3.94
58	.0420	1-5/8	1500-058	0.98	1501-058	2.77	1530-058	3.94
59	.0410	1-5/8	1500-059	0.98	1501-059	2.77	1530-059	3.94
60	.0400	1-5/8	1500-060	0.98	1501-060	2.77	1530-060	3.94
61	.0390	1-5/8	1500-061	0.80	1501-061	2.77	1530-061	3.94
62	.0380	1-1/2	1500-062	0.80	1501-062	2.77	1530-062	3.94
63	.0370	1-1/2	1500-063	0.80	1501-063	2.77	1530-063	3.94
64	.0360	1-1/2	1500-064	0.80	1501-064	2.77	1530-064	3.94
65	.0350	1-1/2	1500-065	0.80	1501-065	2.77	1530-065	3.94
66	.0330	1-1/2	1500-066	0.80	1501-066	2.77	1530-066	3.94
67	.0320	1-3/8	1500-067	0.80	1501-067	2.77	1530-067	3.94
68	.0310	1-3/8	1500-068	0.80	1501-068	2.77	1530-068	3.94
69	.0292	1-3/8	1500-069	0.80	1501-069	2.77	1530-069	3.94
70	.0280	1-1/4	1500-070	0.80	1501-070	2.77	1530-070	3.94
71	.0260	1-1/4	1500-071	0.80	1501-071	2.77	1530-071	3.94
72	.0250	1-1/8	1500-072	0.80	1501-072	2.77	1530-072	3.94
73	.0240	1-1/8	1500-073	0.80	1501-073	2.77	1530-073	3.94
74	.0225	1	1500-074	0.80	1501-074	2.77	1530-074	3.94
75	.0210	1	1500-075	0.80	1501-075	2.77	1530-075	3.94
76	.0200	7/8	1500-076	0.80	1501-076	2.77	1530-076	3.94
77	.0180	7/8	1500-077	0.80	1501-077	2.77	1530-077	3.94
78	.0160	7/8	1500-078	0.80	1501-078	2.77	1530-078	3.94
79	.0145	3/4	1500-079	0.80	1501-079	2.77	1530-079	3.94
80	.0135	3/4	1500-080	0.80	1501-080	2.77	1530-080	3.94

Extra Long Drill Blanks– High Speed Steel

SIZE	DEC. EQV.	VERMONT GAGE			
		6" OVERALL		12" OVERALL	
SIZE	DEC. EQV.	ORDER NO.	PRICE EACH	ORDER NO.	PRICE EACH
		ORDER NO.	PRICE EACH	ORDER NO.	PRICE EACH
1/16	.0625	1511-104	\$6.45	1511-204	\$ 8.90
5/64	.0781	1511-105	6.45	1511-205	8.90
3/32	.0937	1511-106	6.45	1511-206	8.90
7/64	.1094	1511-107	8.23	1511-207	13.35
1/8	.1250	1511-108	8.23	1511-208	13.35
9/64	.1406	1511-109	8.23	1511-209	14.24
5/32	.1562	1511-110	8.23	1511-210	14.24
11/64	.1719	1511-111	11.35	1511-211	18.69
3/16	.1875	1511-112	11.35	1511-212	18.69
13/64	.2031	1511-113	11.35	1511-213	18.69
7/32	.2187	1511-114	11.35	1511-214	18.69
15/64	.2344	1511-115	16.47	1511-215	24.03
1/4	.2500	1511-116	16.47	1511-216	24.03
17/64	.2656	1511-117	16.47	1511-217	24.03

SIZE	DEC. EQV.	VERMONT GAGE			
		6" OVERALL		12" OVERALL	
SIZE	DEC. EQV.	ORDER NO.	PRICE EACH	ORDER NO.	PRICE EACH
		ORDER NO.	PRICE EACH	ORDER NO.	PRICE EACH
9/32	.2812	1511-118	\$16.47	1511-218	\$24.03
19/64	.2969	1511-119	17.58	1511-219	28.48
5/16	.3125	1511-120	17.58	1511-220	28.48
21/64	.3281	1511-121	17.58	1511-221	28.48
11/32	.3438	1511-122	17.58	1511-222	28.48
23/64	.3594	1511-123	18.69	1511-223	34.71
3/8	.3750	1511-124	18.69	1511-224	34.71
25/64	.3906	1511-125	18.69	1511-225	34.71
13/32	.4062	1511-126	18.69	1511-226	34.71
27/64	.4219	1511-127	20.25	1511-227	35.60
7/16	.4375	1511-128	20.25	1511-228	35.60
29/64	.4531	1511-129	20.25	1511-229	35.60
15/32	.4688	1511-130	20.25	1511-230	35.60
31/64	.4844	1511-131	21.36	1511-231	42.72
1/2	.5000	1511-132	21.36	1511-232	42.72

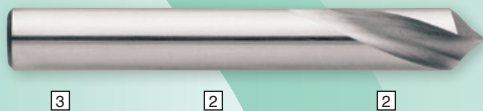
Tolerance Limits: 6" and 12" Lengths – Plus .000, Minus .0005 42" and 36" Lengths – Plus or Minus .001

Drills

NC Spotting Drills

Right Hand - 90° or 120° - HSS & M42 Cobalt

Designed with a narrow chisel edge for quick starting on NC machines. Provides accurate spotting location for follow-up drilling.



Pittsburg				Republic			
HSS				HSS			
BODY DIA.	POINT ANGLE	OAL	FLUTE LG'TH.	ORDER NO.	PRICE EACH	ORDER NO.	PRICE EACH
1/4	3/4	2-1/2	90	1485-102	6.75	1909-902	22.52
	3/4	2-1/2	120	1485-104	6.75	1909-904	22.78
	3/4	4	90	1485-106	9.20	1909-906	32.92
	3/4	4	120	1485-108	9.20	1909-908	33.59
	3/4	6	90	1485-110	12.00	1909-910	45.73
	3/4	6	120	1485-112	12.00	1909-912	46.98
3/8	1-1/8	3-1/8	90	1485-114	8.52	1909-914	24.23
	1-1/8	3-1/8	120	1485-116	8.52	1909-916	24.52
	1-1/8	5	90	1485-118	12.21	1909-918	34.53
	1-1/8	5	120	1485-120	12.21	1909-920	35.31
	1-1/8	7	90	1485-122	16.96	1909-922	48.91
	1-1/8	7	120	1485-124	16.96	1909-924	37.62
1/2	1-3/8	3-3/4	90	1485-126	10.91	1909-926	31.02
	1-3/8	3-3/4	120	1485-128	10.91	1909-928	31.41
	1-3/8	6	90	1485-130	15.24	1909-930	43.11
	1-3/8	6	120	1485-132	15.24	1909-932	44.12
	1-3/8	8	90	1485-134	20.59	1909-934	58.40
	1-3/8	8	120	1485-136	20.59	1909-936	59.41
5/8	1-5/8	4-3/8	90	1485-138	14.28	1909-938	41.03
	1-5/8	4-3/8	120	1485-140	14.28	1909-940	40.69
	1-5/8	7	90	1485-142	19.54	1909-942	55.15
	1-5/8	7	120	1485-143	19.54	1909-943	56.63
	1-5/8	9	90	1485-144	26.70	1909-944	76.41
	1-5/8	9	120	1485-146	26.70	1909-946	76.36
3/4	1-7/8	5	90	1485-148	24.25	1909-948	51.77
	1-7/8	5	120	1485-150	24.25	1909-950	52.31
	1-7/8	8	90	1485-152	34.86	1909-952	74.05
	1-7/8	8	120	1485-154	34.86	1909-954	75.53
	1-7/8	10	90	1485-156	46.76	1909-956	99.53
	1-7/8	10	120	1485-158	46.76	1909-958	101.09
1"	2-1/4	6	90	1485-160	87.39	1909-960	67.22
	2-1/4	6	120	1485-162	40.95	1909-962	88.32
	2-1/4	8	90	1485-164	44.40	1909-964	94.30
	2-1/4	8	120	1485-166	44.40	1909-966	96.20
	2-1/4	10	90	1485-168	57.33	1909-968	121.86
	2-1/4	10	120	1485-170	57.33	1909-970	124.12

Center Drills

High Speed Steel - 118° Point



Pittsburg				Republic	
DIAM.	DEC. EQUIV.	FLUTE L'GTH	OVERALL L'GTH	ORDER NO.	PRICE EACH
1/16	.0625	3/4	1-1/4	1480-004	\$ 0.58
5/64	.0781	3/4	1-1/4	1480-005	0.58
3/32	.0938	3/4	1-1/4	1480-006	0.58
7/64	.1094	3/4	1-1/4	1480-007	0.61
1/8	.1250	3/4	1-1/4	1480-008	0.69
9/64	.1406	3/4	1-1/4	1480-009	0.69
5/32	.1562	1	1-1/2	1480-010	0.80
11/64	.1719	1	1-1/2	1480-011	0.84
3/16	.1875	1	1-1/2	1480-012	0.96
13/64	.2031	1	1-1/2	1480-013	1.12
7/32	.2188	1	1-1/2	1480-014	1.19
1/4	.2500	1	1-1/2	1480-016	1.42
9/32	.2812	1	1-1/2	1480-018	1.92
5/16	.3125	1	1-1/2	1480-020	2.23

Solid Carbide NC Spotting Drills

Right Hand - 90° or 120°



Republic				Pittsburg	
BODY DIA.	FLUTE LGTH.	OAL	POINT ANGLE	ORDER NO.	PRICE EACH
1/8	3/8	1-1/2	90	1908-302	\$28.16
	3/8	1-1/2	120	1908-303	28.16
3/16	9/16	2	90	1908-312	36.39
	9/16	2	120	1908-313	36.39
1/4	3/4	2-1/2	90	1908-322	45.05
	3/4	2-1/2	120	1908-323	45.05
5/16	3/4	2-1/2	90	1908-332	40.34
	3/4	2-1/2	120	1908-333	40.34
3/8	3/4	2-1/2	90	1908-342	73.01
	3/4	2-1/2	120	1908-343	73.01
1/2	1	3	90	1908-352	110.01
	1	3	120	1908-353	110.01
5/8	1	3-1/2	90	1908-362	132.96
	1	3-1/2	120	1908-363	132.96
3/4	1-1/8	4	90	1908-372	349.86
	1-1/8	4	120	1908-373	349.86

Spotting & Centering Drills

High Speed Steel - 118° Point



Left Hand Spiral



Right Hand Spiral

Pittsburg				Republic	
RIGHT HAND				LEFT HAND	
DIAM.	DEC. EQUIV.	FLUTE LENGTH	OVERALL LENGTH	ORDER NO.	PRICE EACH
3/8	.3750	1	2	1480-024	\$ 2.71
7/16	.4375	1	2	1480-028	4.03
1/2	.5000	1	2	1480-032	4.67
5/8	.6250	1-1/8	2-1/4	1480-040	7.45
3/4	.7500	1-1/8	2-1/4	1480-048	10.60
7/8	.8750	1-1/4	2-1/2	1480-056	15.05
1	1.000	1-1/4	2-1/2	1480-064	17.11
1-1/4	1.250	2	4	1480-080	30.81
1-1/2	1.500	2-1/2	5	1480-096	49.10
1-3/4	1.750	2-3/4	5-1/2	1480-112	68.79

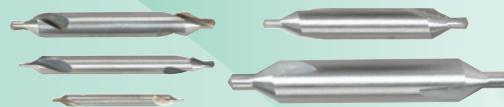
Combined Drills & Countersinks -

High Speed Steel, TiN Coated, & Cobalt

WARNING: This product contains Cobalt and/or Nickel and/or Lead a chemical known to the state of California to cause cancer or birth defects or other reproductive harm. For more information: www.prop65.ca.gov.
WARNING: Cutting tools may shatter. Always wear approved safety glasses and mask when regrinding.

3

Plain Type 60° Included Angle



5 Pc. Set - (#1 - #5)

					Pittsburg ALLEGHANY		Republic DRILLS & CUTTING TOOLS									
SIZE NO.	BODY DIA.	DRILL DIA.	DRILL L'GTH	OAL	RIGHT HAND ORDER NO.	PRICE EACH	LEFT HAND ORDER NO.	PRICE EACH	COBALT ORDER NO.	PRICE EACH	RIGHT HAND ORDER NO.	PRICE EACH	COBALT ORDER NO.	PRICE EACH	TIN COATED ORDER NO.	PRICE EACH
00000	1/8	.010	.010	1-1/4	-	-	-	-	-	-	1900-125	\$9.34	1910-125	\$38.21	-	-
0000	1/8	.015	.015	1-1/4	-	-	-	-	-	-	1900-124	8.57	-	-	-	-
000	1/8	.020	.020	1-1/4	1900-030	\$4.42	-	-	-	-	1900-123	9.47	-	-	-	-
00	1/8	.025	.025	1-1/4	1900-020	4.42	-	-	-	-	1900-122	9.47	1910-122	25.23	-	-
0	1/8	1/32	1/32	1-1/4	1900-000	4.42	-	-	-	-	1900-120	9.47	1910-120	25.23	-	-
1	1/8	3/64	3/64	1-1/4	1900-001	3.70	1901-001	\$5.58	1910-022	\$10.80	1900-101	7.39	1910-101	7.97	1901-051	\$10.41
2	3/16	5/64	5/64	1-7/8	1900-002	3.70	1901-002	5.58	1910-023	11.02	1900-102	7.75	1910-102	8.10	1901-052	10.73
3	1/4	7/64	7/64	2	1900-003	3.74	1901-003	5.64	1910-024	11.55	1900-103	8.05	1910-103	8.50	1901-053	14.84
4	5/16	1/8	1/8	2-1/8	1900-004	3.85	1901-004	5.80	1910-025	11.85	1900-104	8.30	1910-104	8.72	1901-054	15.06
4-1/2	3/8	9/64	9/64	2-1/2	1900-012	2.50	-	-	-	-	1900-111	11.45	1910-111	12.10	1901-061	17.87
5	7/16	3/16	3/16	2-3/4	1900-005	5.74	1901-005	8.62	1910-026	22.06	1900-105	13.15	1910-105	16.27	1901-055	21.40
6	1/2	7/32	7/32	3	1900-006	8.62	1901-006	12.92	1910-027	29.66	1900-106	19.81	1910-106	21.82	1901-056	27.35
7	5/8	1/4	1/4	3-1/4	1900-007	12.50	1901-007	18.78	1910-028	30.34	1900-107	28.65	1910-107	32.20	1901-057	41.96
8	3/4	5/16	5/16	3-1/2	1900-008	11.16	1901-008	26.12	1910-029	54.72	1900-108	39.54	1910-108	40.25	1901-058	62.39
9	7/8	11/32	11/32	3-5/8	1900-009	20.06	-	-	-	-	1900-109	82.34	-	-	1901-059	98.97
10	1	3/8	3/8	3-3/4	1900-010	24.97	-	-	-	-	1900-110	108.08	-	-	1901-060	119.86
5 Pc. Set incl. sizes #1,#2,#3,#4,#5					1900-011*	27.14	-	-	1910-030*	72.40	1900-112	46.27	1910-112	52.77	1901-062	45.05

* Plastic Pouch



Plain Type 82° & 90° Included Angle, HSS



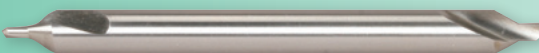
Bell Type 60° Included Angle, HSS



					82°		90°	
SIZE	BODY DIA.	DRILL DIA.	DRILL L'GTH	OAL	ORDER NO.	PRICE EACH	ORDER NO.	PRICE EACH
1	1/8	3/64	3/64	1-1/4	1902-001	\$10.56	1903-001	\$11.02
2	3/16	5/64	5/64	1-7/8	1902-002	10.82	1903-002	11.29
3	1/4	7/64	7/64	2	1902-003	11.18	1903-003	11.66
4	5/16	1/8	1/8	2-1/8	1902-004	11.65	1903-004	12.16
5	7/16	3/16	3/16	2-3/4	1902-005	17.76	1903-005	18.53
4-1/2	3/8	9/64	9/64	2-1/2	-	-	1903-011	11.80
6	1/2	7/32	7/32	3	1902-006	26.81	1903-006	27.97
7	5/8	1/4	1/4	3-1/4	1902-007	36.74	1903-007	38.34
8	3/4	5/16	5/16	3-1/2	1902-008	52.01	1903-008	54.28

SIZE	BODY DIA.	DRILL DIA.	DRILL L'GTH	OAL	BELL DIA.	ORDER NO.	PRICE EACH
11	1/8	3/64	3/64	1-1/4	.100	1904-011	\$6.73
12	3/16	1/16	1/16	1-7/8	.150	1904-012	6.73
13	1/4	3/32	3/32	2	.200	1904-013	7.04
14	5/16	7/64	7/64	2-1/8	.250	1904-014	7.04
15	7/16	5/32	5/32	2-3/4	.350	1904-015	11.48
16	1/2	3/16	3/16	3	.400	1904-016	15.44
17	5/8	7/32	7/32	3-1/4	.500	1904-017	21.78
18	3/4	1/4	1/4	3-1/2	.600	1904-018	30.10

Long Series - 60° Included Angle



5

5

					Pittsburg ALLEGHANY		Republic DRILLS & CUTTING TOOLS			
SIZE	A BODY DIA.	B POINT DIA.	C POINT LG'TH.		HSS ORDER NO.	PRICE EACH	HSS ORDER NO.	PRICE EACH	M42 COBALT ORDER NO.	PRICE EACH
#1 X 3					1909-013	\$10.80	1909-113	\$9.13	-	-
#1 X 4	1/8	3/64	3/64		1909-014	12.36	1909-114	11.67	1909-814	\$49.43
#1 X 5					1909-015	18.60	1909-115	16.22	1909-815	68.79
#1 X 6					1909-016	24.60	1909-116	21.26	-	-
#2 X 3					1909-023	13.92	1909-123	12.43	1909-823	47.94
#2 X 4	3/16	5/64	5/64		1909-024	14.76	1909-124	12.79	-	-
#2 X 5					1909-025	19.00	1909-125	16.46	1909-825	69.48
#2 X 6					1909-026	24.62	1909-126	21.33	1909-826	90.45
#3 X 3					1909-033	9.86	1909-133	13.00	1909-833	49.98
#3 X 4	1/4	7/64	7/64		1909-034	15.58	1909-134	13.49	1909-834	56.98
#3 X 5					1909-035	20.48	1909-135	17.75	1909-835	75.18
#3 X 6					1909-036	24.84	1909-136	21.53	1909-836	91.16
#4 X 3					-	-	1909-143	15.29	-	-
#4 X 4	5/16	1/8	1/8		1909-044	17.28	1909-144	14.98	1909-844	63.30
#4 X 5					1909-045	22.14	1909-145	19.19	1909-845	80.87
#4 X 6					1909-046	25.48	1909-146	22.07	-	-

					Pittsburg ALLEGHANY		Republic DRILLS & CUTTING TOOLS			
SIZE	A BODY DIA.	B POINT DIA.	C POINT LG'TH.		HSS ORDER NO.	PRICE EACH	HSS ORDER NO.	PRICE EACH	M42 COBALT ORDER NO.	PRICE EACH
#4-1/2 X 4					1909-047	\$19.40	1909-147	\$16.81	-	-
#4-1/2 X 5	3/8	9/64	9/64		1909-048	22.96	1909-148	19.89	-	-
#4-1/2 X 6					1909-049	33.94	1909-149	29.41	1909-849	\$99.50
#5 X 4					1909-054	22.68	1909-154	19.66	-	-
#5 X 5	7/16	3/16	3/16		1909-055	26.28	1909-155	22.78	1909-855	94.42
#5 X 6					1909-056	29.52	1909-156	25.58	-	-
#6 X 4					1909-064	27.36	1909-164	23.62	-	-
#6 X 5	1/2	7/32	7/32		1909-065	28.44	1909-165	24.65	-	-
#6 X 6					1909-066	35.88	1909-166	31.12	-	-
#7 X 6	5/8	1/4	1/4		1909-076	63.46	1909-176	54.99	-	-
#8 X 6	3/4	5/16	5/16		1909-086	68.40	1909-186	59.28	-	-

90° Angle available in High Speed Steel upon request

Combined Drills & Countersinks

Solid Carbide - R.H. , Plain Type

• Premium sub-micron C-2 carbide with 10% cobalt



3

3

60°						60° ATTN						82°						90°					
TOOL NO.	BODY DIA.	DRILL DIA.	APPROX. OAL	ORDER NO.	PRICE EACH	ORDER NO.	PRICE EACH	ORDER NO.	PRICE EACH	ORDER NO.	PRICE EACH	ORDER NO.	PRICE EACH	ORDER NO.	PRICE EACH	ORDER NO.	PRICE EACH	ORDER NO.	PRICE EACH	ORDER NO.	PRICE EACH	ORDER NO.	PRICE EACH
00	1/8	0.025	1-1/2	2966-000	\$22.06	2966-100	\$18.90	2966-039	\$23.16	2966-069	\$23.16	1910-209	\$33.09	1910-239	\$18.53	1910-269	\$18.53						
0	1/8	1/32	1-1/2	2966-010	22.06	2966-110	18.35	2966-040	23.16	2966-070	12.35	1910-210	33.09	1910-240	18.53	-	-						
1	1/8	3/64	1-1/2	2966-011	18.90	2966-111	18.05	2966-041	19.85	2966-071	19.85	1910-211	28.35	1910-241	15.88	1910-271	15.88						
2	3/16	5/64	1-7/8	2966-012	29.60	2966-112	21.90	2966-042	31.08	2966-072	31.08	1910-212	44.40	1910-242	24.86	1910-272	24.86						
3	1/4	7/64	2	2966-013	35.28	2966-113	26.45	2966-043	37.04	2966-073	37.04	1910-213	52.92	1910-243	29.63	1910-273	29.63						
4	5/16	1/8	2-1/8	2966-014	48.42	2966-114	38.45	2966-044	50.84	2966-074	50.84	1910-214	72.63	1910-244	40.67	1910-274	40.67						
5	7/16	3/16	2-3/4	2966-015	73.44	2966-115	59.80	2966-045	77.11	2966-075	77.11	1910-215	110.16	1910-245	61.69	1910-275	61.69						
6	1/2	7/32	3	2966-016	106.24	2966-116	76.95	2966-046	111.55	2966-076	111.55	1910-216	159.36	1910-246	89.24	1910-276	89.24						
7	5/8	1/4	3-1/4	2966-017	123.12	-	-	2966-047	101.75	2966-077	101.75	1910-217	184.68	-	-	-	-						
8	3/4	5/16	3-1/2	2966-018	17.40	-	-	2966-048	153.90	2966-078	153.90	1910-218	262.44	-	-	-	-						
5 pc. Set: Contains sizes: #1, #2, #3, #4 and #5 in plastic pouch				2966-019	212.05	2966-130	244.10	2966-060	120.80	2966-090	120.80	1910-222	318.08	1910-252	177.78	1910-282	177.78						

Solid Carbide Long Series, RH Plain Type 60° Included Angle



3

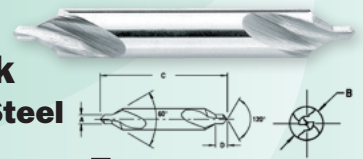
3

ALLEGIANCE AMERICAN MADE						Republic DRILL & CUTTING TOOLS					
SIZE	BODY DIA.	DRILL DIA.	POINT LENGTH	OAL	ORDER NO.	PRICE EACH	ORDER NO.	PRICE EACH	ORDER NO.	PRICE EACH	ORDER NO.
00	1/8	0.025	0.025	5	-	-	1910-305	\$28.96	-	-	-
1	1/8	3/64	3/64	4	2966-214	\$22.35	-	-	-	-	-
1	1/8	3/64	3/64	5	-	-	1910-315	34.98	-	-	-
2	3/16	5/64	5/64	4	2966-224	29.00	-	-	-	-	-
2	3/16	5/64	5/64	5	-	-	1910-325	36.99	-	-	-
3	1/4	7/64	7/64	4	2966-234	35.65	-	-	-	-	-
3	1/4	7/64	7/64	5	-	-	1910-335	38.42	-	-	-
4	5/16	1/8	1/8	4	2966-244	47.15	-	-	-	-	-
4	5/16	1/8	1/8	5	-	-	1910-345	40.40	-	-	-
5	7/16	3/16	3/16	6	2966-256	78.70	-	-	-	-	-
6	1/2	7/32	7/32	6	2966-266	106.75	-	-	-	-	-
7	5/8	1/4	1/4	6	2966-276	181.15	-	-	-	-	-
8	3/4	5/16	5/16	6	2966-286	217.75	-	-	-	-	-



Metric Combined Drill & Countersink

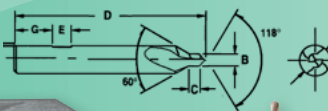
Type A- High Speed Steel



5

A POINT DIA.	B BODY DIA.	C OVERALL LG'TH.	D LG'TH. OF CUT	ORDER NO.	PRICE EACH
0.50	3.15	25.0 SE	.08	1909-400	\$ 6.52
0.80	3.15	25.0 SE	1.1	1909-405	6.52
1.00	3.15	31.5	1.3	1909-410	5.95
1.25	3.15	31.5	1.6	1909-415	5.72
1.60	4.00	35.5	2.0	1909-420	5.60
2.00	5.00	40.0	2.5	1909-425	6.08
2.50	6.30	45.0	3.1	1909-430	6.44
3.15	8.00	50.0	3.9	1909-435	8.66
4.00	10.00	56.0	5.0	1909-440	14.33
5.00	12.50	63.0	6.3	1909-445	20.46
6.30	16.00	71.0	8.0	1909-450	29.03
8.00	20.00	80.0	10.1	1909-455	47.47
10.00	25.00	100.0	12.8	1909-460	91.30
12.52	31.50	125.0	16.5	1909-465	153.84

KEO Jig Bore Type High Speed Steel



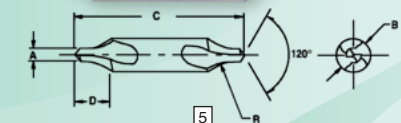
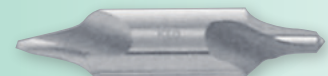
Keo Jig Bore Type combined drills and countersinks are used for producing center holes in components or workpieces which require machining between centers and are manufactured with a locking set screw flat.

5

A BODY DIA.	B POINT DIA.	C POINT LG'TH.	D OVERALL LG'TH.	E BODY FLAT LG'TH.	F BODY FLAT DEPTH.	G BODY FLAT OFFSET.	ORDER NO.	PRICE EACH
1/16	1/16	3/32	3/32				1909-205	\$25.34
3/8	1/8	1/8	3	9/32	0.050	41/64	1909-210	25.34
	5/32	5/32					1909-215	25.34
	3/16	3/16					1909-220	25.34
							1909-225	23.68
	1/8	1/8					1909-235	28.69
	3/16	3/16					1909-240	30.70
1/2	7/32	7/32	3-1/2	21/34	0.060	23/32	1909-245	30.70
	1/4	1/4					1909-250	30.70
	9/32	9/32					1909-255	28.69
SETS								
3/8	Point Diameters: 1/16, 3/32, 1/8, 5/32, 3/16						1909-230	\$144.52
1/2	Point Diameters: 1/16, 3/32, 1/8, 5/32, 3/16						1909-260	170.10



Radius Type High Speed Steel



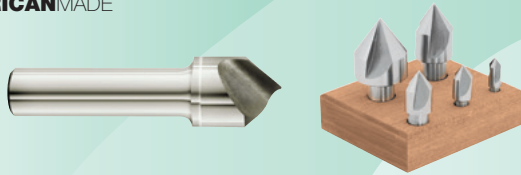
5

A SIZE	B BODY DIA.	C POINT LG'TH.	D OVERALL LG'TH.	R RADIUS	ORDER NO.	PRICE EACH
#5-0	1/8	0.010	0.068	1-1/4	1/16	1909-705 \$12.69
#4-0	1/8	0.015	0.083	1-1/4	5/64	1909-704 12.04
#3-0	1/8	0.020	0.097	1-1/4	3/32	1909-703 10.41
#2-0	1/8	0.025	0.109	1-1/4	7/64	1909-702 10.41
#0	1/8	1/32	0.118	1-1/4	1/8	1909-700 10.41
#1	1/8	3/64	0.132	1-1/4	5/32	1909-601 8.14
#2	3/16	5/64	0.204	1-7/8	7/32	1909-602 8.63
#3	1/4	7/64	0.275	2	9/32	1909-603 9.34
#4	5/16	1/8	11/32	2-1/8	3/8	1909-604 10.49
#4-1/2	3/8	9/64	13/32	2-1/2	7/16	1909-611 12.86
#5	7/16	3/16	31/64	2-3/4	1/2	1909-605 14.61
#6	1/2	7/32	35/64	3	9/16	1909-606 22.07
#7	5/8	1/4	43/64	3-1/4	45/64	1909-607 32.38
#8	3/4	5/16	13/16	3-1/2	7/8	1909-608 43.73
#9	7/8	11/32	15/16	3-5/8	1	1909-609 81.76
#10	1	3/8	1-1/16	3-3/4	1-7/64	1909-610 106.93

Countersinks – Carbide



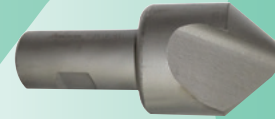
Solid Carbide -Single Flute



2

DIA. OF BODY	DIA. OF SHANK	OVERALL LENGTH	60°		82°		90°	
			ORDER NO.	PRICE EACH	ORDER NO.	PRICE EACH	ORDER NO.	PRICE EACH
3/16	3/16	2	2964-330	\$ 21.96	2964-030	\$ 21.96	2964-630	\$ 21.96
1/4	1/4	2	2964-332	38.43	2964-032	38.43	2964-632	38.43
3/8	1/4	2	2964-340	168.17	2964-040	168.17	2964-640	168.17
1/2	1/4	2	2964-348	268.18	2964-048	268.18	2964-648	268.18
5/8	3/8	2-3/4	2964-372	302.71	2964-072	POA	2964-672	302.71
3/4	1/2	2-3/4	2964-381	457.94	2964-081	457.94	2964-681	457.94
1	1/2	3	2964-396	356.00	2964-096	356.00	2964-696	356.00
1-1/4	3/4	3-1/4	2964-412	513.22	2964-112	513.22	2964-712	513.22
5 Pc. Set - 1/4, 3/8, 1/2, 3/4, 1"			2964-5001	1142.11	2964-200	1142.11	2964-800	1156.51

Single Flute Countersinks – Carbide



2

CENTERLINE ANGLE									
30°	41°	45°	Severance						
INCLUDED ANGLE									
60°	82°	90°							
ORDER NO.*	ORDER NO.	ORDER NO.	SEVERANCE NAME	BODY DIA.	NOSE TYPE	SHANK DIA.	OVERALL LENGTH	SHANK LENGTH	LIST PRICE
6800-420	6800-440	6800-460	1/8-SF-W	1/8"	P	1/8"	1-5/8"	1-1/2"	\$ 20.58
6800-421	6800-441	6800-461	3/16-SF-W	3/16"	P	3/16"	1-1/2"	1-1/2"	25.94
6800-422	6800-442	6800-462	1/4-SF-W	1/4"	P	3/16"	1-1/2"	1-1/16"	29.61
6800-423	6800-443	6800-463	5/16-SF-W	5/16"	P	1/4"	1-3/4"	1-5/8"	48.48
6800-424	6800-444	6800-464	3/8-SF-W	3/8"	P	1/4"	1-3/4"	1-7/16"	57.62
6800-425	6800-445	6800-465	1/2-SF-W	1/2"	P	3/8"	2-1/8"	1-3/8"	79.94
6800-426	6800-446	6800-466	1/2-1/4-SF-W	1/2"	P	1/4"	2-1/8"	1-3/8"	79.94
6800-427	6800-447	6800-467	5/8-SF-W	5/8"	P	3/8"	2-3/8"	1-5/16"	104.28
6800-428	6800-448	6800-468	5/8-1/4-SF-W	5/8"	P	1/4"	2-3/8"	1-21/64"	104.28
6800-429	6800-449	6800-469	3/4-SF-W	3/4"	P	1/2"	2-11/16"	1-5/16"	148.91
-	6800-450	6800-470	7/8-SF-W	7/8"	P	1/2"	2-13/16"	1-5/16"	222.53
6800-431	6800-451	6800-471	1-SF-W	1"	P	1/2"	2-13/16"	1-5/16"	242.24
6800-432	6800-452	6800-472	1-1/4-SF-W	1-1/4"	F	3/4"	3-3/8"	1-5/8"	299.83
-	6800-453	6800-473	1-1/2-SF-W	1-1/2"	F	3/4"	3-1/2"	1-5/8"	356.86
-	6800-455	-	2-SF-W	2"	F	1"	4-3/8"	2-1/8"	495.18

* 60° Included Angle Priced slightly higher



MADE IN
USA

Three Flute Carbide Countersinks



2

BODY DIA.	SHK DIA.	OVERALL LENGTH	60°		82°		90°	
			ORDER NO.	PRICE EACH	ORDER NO.	PRICE EACH	ORDER NO.	PRICE EACH
1/8	1/8	1-1/2	2275-902	\$15.18	2275-922	\$15.18	2275-942	\$15.18
3/16	3/16	2	2275-903	19.84	2275-923	19.84	2275-943	19.84
1/4	1/4	2	2275-904	22.55	2275-924	22.55	2275-944	22.55
5/16	1/4	2-1/2	2275-905	26.58	2275-925	26.58	2275-945	26.58
3/8	1/4	2-1/2	2275-906	29.09	2275-926	29.09	2275-946	29.09
1/2	1/4	2-1/2	2275-908	44.40	2275-928	44.40	2275-948	44.40
5/8	1/2	2-5/8	2275-910	73.08	2275-930	73.08	2275-950	73.08
3/4	1/2	2-3/4	2275-912	85.34	2275-932	85.34	2275-952	85.34
7/8	1/2	3	2275-914	123.47	2275-934	123.47	2275-954	123.47
1	1/2	3	2275-916	128.62	2275-936	128.62	2275-956	128.62
1-1/4	3/4	3-1/4	2275-918	217.85	2275-938	217.85	2275-958	217.85
1-1/2	3/4	3-1/2	2275-920	312.44	2275-940	312.44	2275-960	312.44
5 Pc. Set - 1/4, 3/8, 1/2, 3/4, 1"			2275-966	337.84	2275-968	337.84	2275-969	337.84

4 Flute Chatter Free™ Econosinks®



2

CENTERLINE ANGLE			<i>Severance</i>							
30°	41°	45°								
INCLUDED ANGLE										
60°	82°	90°								
ORDER NO.*	ORDER NO.	ORDER NO.	SEVERANCE NAME	BODY DIA.	SHK. DIA.	OVERALL LENGTH	SHK. LGTH	LIST PRICE		
6801-120	6801-135	6801-150	ES-1/8-W	1/8"	1/8"	1-1/2"	1-1/2"	\$20.97		
6801-121	6801-136	6801-151	ES-1/4-W	1/4"	3/16"	1-1/2"	1-1/16"	30.20		
6801-122	6801-137	6801-152	ES-3/8-W	3/8"	1/4"	2-1/4"	1-7/16"	58.73		
6801-125	6801-140	6801-155	ES-1/2-W	1/2"	3/8"	2-1/4"	1-3/8"	81.47		
6801-126	6801-141	6801-156	ES-5/8-W	5/8"	3/8"	2-3/8"	1-5/16"	106.28		
6801-127	6801-142	6801-157	ES-3/4-W	3/4"	1/2"	2-11/16"	1-5/16"	151.77		
6801-128	6801-143	6801-158	ES-1-W	1"	1/2"	2-13/16"	1-5/16"	246.88		

* 60° Included Angle Priced slightly higher

Countersinks – Carbide, Six Flute



Solid Carbide Six Flute Chatterless Countersinks



1

BODY DIA.	SHANK DIA.	OVERALL LENGTH	60°		82°		90°	
			ORDER NO.	PRICE EACH	ORDER NO.	PRICE EACH	ORDER NO.	PRICE EACH
1/8	1/8	1-1/2	2280-902	\$19.62	2280-922	\$16.68	2280-942	\$16.68
3/16	3/16	2	2965-324	\$25.65	2965-024	\$25.65	2965-624	\$25.65
1/4	1/4	2	2965-332	\$29.16	2965-032	\$29.16	2965-632	\$29.16
3/8	1/4	2-1/2	2965-340	\$37.62	2965-040	\$37.62	2965-640	\$37.62
1/2	1/4	2-1/2	2965-356	\$57.42	2965-056	\$57.42	2965-656	\$57.42
5/8	1/2	2-5/8	2280-910	\$372.01	2280-930	\$316.23	2280-950	\$112.94
3/4	1/2	2-3/4	2280-912	\$432.54	2280-932	\$367.67	2280-952	\$131.31
5/8	3/8	2-3/4	2965-372	\$94.90	2965-072	\$94.90	2965-672	\$94.90
3/4	1/2	3	2965-381	\$110.34	2965-081	\$110.34	2965-681	\$110.34
1	1/2	3	2965-396	\$166.32	2965-096	\$166.32	2965-696	\$166.32
1-1/4	3/4	3-1/4	2965-412	\$281.88	2965-112	\$281.88	2965-712	\$281.88
1-1/2	3/4	3-1/2	2965-444	\$404.01	2965-144	\$404.01	2965-744	\$404.01
5 Pc. Set - 1/4, 3/8, 1/2, 3/4, 1"			2965-500	\$400.86	2965-200	\$400.86	2965-800	\$400.86
5 Pc. Set - 1/4, 3/8, 1/2, 5/8, 3/4			2280-966	\$801.62	2280-968	\$681.38	2280-969	\$425.90

6 Flute Chatterless™ Countersinks®

The flutes of Severance 6-flute countersinks are designed with staggered cutting angles to eliminate the harmonics that cause chatter in conventional tools.



2

Carbide

CENTERLINE ANGLE			SEVERANCE NAME	BODY DIA.	SHK. DIA.	OVERALL LENGTH	SHK. LGTH	LIST PRICE
30°	41°	45°						
INCLUDED ANGLE								
60°	82°	90°						
ORDER NO.*	ORDER NO.	ORDER NO.						
6802-520	6802-540	6802-560	CK-1/8-W	1/8"	1/8"	1-1/2"	1-5/8"	\$20.97
6802-521	6802-541	6802-561	CK-3/16-W	3/16"	3/16"	1-1/2"	1-1/2"	26.42
6802-522	6802-542	6802-562	CK-1/4-W	1/4"	3/16"	1-1/2"	3/4"	30.20
6802-523	6802-543	6802-563	CK-5/16-W	5/16"	1/4"	2-1/4"	7/8"	49.41
6802-524	6802-544	6802-564	CK-3/8-W	3/8"	1/4"	2-1/4"	7/8"	58.73
6802-525	6802-545	6802-565	CK-1/2-W	1/2"	3/8"	2-1/4"	1-1/8"	81.47
6802-526	6802-546	6802-566	CK-1/2-1/4-W	1/2"	1/4"	2-1/4"	1-1/8"	81.47
6802-527	6802-547	6802-567	CK-5/8-W	5/8"	3/8"	2-3/8"	1-1/8"	106.28
6802-528	6802-548	6802-568	CK-5/8-1/4-W	5/8"	1/4"	2-3/8"	1-1/8"	106.28
6802-529	6802-549	6802-569	CK-3/4-W	3/4"	1/2"	2-11/16"	1-5/16"	151.77
6802-530	6802-550	6802-570	CK-7/8-W	7/8"	1/2"	2-13/16"	1-5/16"	226.82
6802-531	6802-551	6802-571	CK-1-W	1"	1/2"	2-13/16"	1-5/16"	246.88
6802-532	6802-552	6802-572	CK-1-1/4-W	1-1/4"	3/4"	3-3/8"	1-5/8"	305.59
6802-533	6802-553	6802-573	CK-1-1/2-W	1-1/2"	3/4"	3-1/2"	1-5/8"	363.70
6802-534	6802-554	6802-574	CK-1-3/4-W	1-3/4"	1"	4-1/4"	2-1/8"	476.18
6802-535	6802-555	6802-575	CK-2-W	2"	1"	4-3/8"	2-1/8"	504.69

* 60° Included Angle Priced slightly higher

6-Flute Chatterless™ CNC-K™ Precision Countersinks

Designed specifically for use in NC, CNC and preset machine tools, these precision countersinks feature "chatterless" tooth geometry. Tight tolerances on angles, diameters and lengths assure setting accuracy. Available in 30°, 41°, 45°, 50°, 55° and 60° centerline angles. Precision countersinks are identified by their notched shanks.



2

Carbide

CENTERLINE ANGLE			SEVERANCE NAME	Severance					LIST PRICE
30°	41°	45°		NOSE DIA. BODY DIA.	+ .001- -.000	SHANK DIA.	OVERALL LENGTH	SHANK LENGTH	
INCLUDED ANGLE									
60°	82°	90°							
ORDER NO.	ORDER NO.	ORDER NO.							
6803-120	-	-	CNCK 1/4-W	1/4"	.078	3/16"	1-1/2"	3/4"	\$34.74
-	6803-130	6803-140	CNCK 1/4-W	1/4"	.046	3/16"	1-1/2"	3/4"	34.08
6803-121	-	-	CNCK 3/8-W	3/8"	.125	1/4"	1-3/4"	7/8"	67.62
-	6803-131	6803-141	CNCK 3/8-W	3/8"	.078	1/4"	1-3/4"	7/8"	66.34
6803-122	-	-	CNCK 1/2-W	1/2"	.156	3/8"	2-1/4"	1-1/8"	93.65
-	6803-132	6803-142	CNCK 1/2-W	1/2"	.109	3/8"	2-1/4"	1-1/8"	91.88
6803-123	-	-	CNCK 5/8-W	5/8"	.023	3/8"	2-3/8"	1-1/8"	122.20
-	6803-133	6803-143	CNCK 5/8-W	5/8"	.125	3/8"	2-3/8"	1-1/8"	119.90
6803-124	-	-	CNCK 3/4-W	3/4"	.250	1/2"	2-11/16"	1-5/16"	174.52
-	6803-134	6803-144	CNCK 3/4-W	3/4"	.156	1/2"	2-11/16"	1-5/16"	171.22
6803-125	-	-	CNCK 7/8-W	7/8"	.281	1/2"	2-13/16"	1-5/16"	260.94
-	6803-135	6803-145	CNCK 7/8-W	7/8"	.172	1/2"	2-13/16"	1-5/16"	256.01
6803-126	-	-	CNCK 1-W	1"	.328	1/2"	2-13/16"	1-5/16"	283.88
-	6803-136	6803-146	CNCK 1-W	1"	.203	1/2"	2-13/16"	1-5/16"	278.53

6-Flute Chatterless™ Double End Countersinks



2

Carbide

CENTERLINE ANGLE			SEVERANCE NAME	BODY DIA.	OVERALL LENGTH	SHANK LENGTH	LIST PRICE
30°	41°	45°					
INCLUDED ANGLE							
60°	82°	90°					
ORDER NO.*	ORDER NO.	ORDER NO.					
6802-820	6802-835	6802-850	CK-1/8-DE-W	1/8"	1-1/2"	1-1/2"	\$33.79
6802-821	6802-836	6802-851	CK-3/16-DE-W	3/16"	2"	2"	43.32
6802-822	6802-837	6802-852	CK-1/4-DE-W	1/4"	2"	2"	52.12
6802-823	6802-838	6802-853	CK-5/16-DE-W	5/16"	2-1/8"	2-1/8"	85.68
6802-824	6802-839	6802-854	CK-3/8-DE-W	3/8"	2-1/2"	2-1/2"	101.63
6802-825	6802-840	6802-855	CK-1/2-DE-W	1/2"	3"	3"	140.88
6802-826	6802-841	6802-856	CK-5/8-DE-W	5/8"	3-1/4"	3-1/4"	183.71
6802-827	6802-842	6802-857	CK-3/4-DE-W	3/4"	3-1/2"	3-1/2"	262.24

* 60° Included Angle Priced slightly higher

Countersinks – Single Flute

WARNING: This product contains Cobalt and/or Nickel and/or Lead a chemical known to the state of California to cause cancer or birth defects or other reproductive harm. For more information: www.prop65.ca.gov. **WARNING:** Cutting tools may shatter. Always wear approved safety glasses and mask when regrinding.

Republic
DRILL & CUTTING TOOLS



Single Flute - High Speed Steel & Cobalt

Single Flute Countersinks are ideal for chamfering, deburring and countersinking and enlarging holes in sheet metal while providing a smooth surface finish on a wide variety of materials. The versatility of this tool should increase productivity on all general purpose applications.



2

BODY DIA.	SHK. DIA.	OVERALL LENGTH	HIGH SPEED STEEL					PRICE EACH	COBALT STEEL	
			60° ORDER NO.	82° ORDER NO.	90° ORDER NO.	100° ORDER NO.	120° ORDER NO.		82° ORDER NO.	PRICE EACH
1/8	1/8	1-1/4	2285-016	2286-016	2287-016	2288-016	2288-216	\$7.21	2289-216	\$17.70
3/16	3/16	1-1/2	2285-024	2286-024	2287-024	2288-024	2288-224	7.89	2289-224	19.83
1/4	1/4	1-1/2	2285-032	2286-032	2287-032	2288-032	2288-232	9.57	2289-232	24.12
5/16	1/4	1-5/8	2285-036	2286-036	2287-036	2288-036	2288-236	10.23	2289-236	25.12
3/8	1/4	1-3/4	2285-040	2286-040	2287-040	2288-040	2288-240	10.89	2289-240	26.74
1/2	1/4	2	2285-048	2286-048	2287-048	2288-048	2288-248	13.99	2289-248	34.36
5/8	3/8	2-1/4	2285-064	2286-064	2287-064	2288-064	2288-264	19.24	2289-264	47.68
3/4	1/2	2-5/8	2285-080	2286-080	2287-080	2288-080	2288-280	25.87	2289-280	63.52
7/8	1/2	2-3/4	2285-088	2286-088	2287-088	2288-088	2288-288	34.98	2289-288	85.86
1	1/2	2-3/4	2285-096	2286-096	2287-096	2288-096	2288-296	44.22	2289-296	108.54
1-1/4	1/2	2-3/4	2285-120	2286-120	2287-120	2288-120	2288-320	77.60	2289-320	181.40
1-1/2	3/4	2-7/8	2285-144	2286-144	2287-144	2288-144	2288-344	110.57	2289-344	226.18
1-3/4	3/4	3	2285-160	2286-160	2287-160	2288-160	2288-360	139.48	2289-360	319.96
2	3/4	3-1/4	2285-176	2286-176	2287-176	2288-176	2288-376	187.41	2289-376	368.02
5 pc. set			2285-900	2286-900	2287-900	2288-900	-	\$83.21	2289-390	\$200.07
9 pc. set			2285-905	2286-905	2287-905	2288-905	-	507.46	2289-395	1088.66
12 pc. set			2285-910	2286-910	2287-910	2288-910	-	560.19	2289-398	1219.47

Single Flute - Double End High Speed Steel - 82°



2

SHANK SIZE	OVERALL LENGTH	ORDER NO.	PRICE EACH
1/4	1/4	1-1/2	2289-932 \$14.50
5/16	1/4	1-5/8	2289-936 15.88
3/8	1/4	1-3/4	2289-940 18.78
1/2	1/4	2	2289-948 21.24

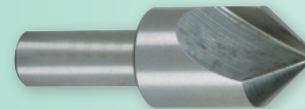
Pittsburgh
ALLEGHENY

Single Flute High Speed Steel



3

Single Flute - High Speed Steel



6 PIECE SET

2

DIAM. x SHK DIA.	OVERALL LENGTH	60° ORDER NO.	82° ORDER NO.	90° ORDER NO.	100° ORDER NO.	110° ORDER NO.	120° ORDER NO.	PRICE EACH
3/16 x 3/16	1-1/2	2250-024	2251-024	2252-024	-	-	2255-024	\$ 5.04
1/4 x 3/16	1-3/4	2250-028	2251-028	2252-028	2253-028	2254-028	-	4.63
1/4 x 1/4	1-3/4	2250-032	2251-032	2252-032	2253-032	-	2255-032	4.63
5/16 x 1/4	1-5/8	2250-036	2251-036	2252-036	-	2254-036	2255-036	6.53
3/8 x 1/4	1-3/4	2250-040	2251-040	2252-040	-	2254-040	-	6.53
1/2 x 1/4	2	2250-048	2251-048	2252-048	-	2254-048	-	7.23
1/2 x 3/8	2	2250-056	2251-056	2252-056	-	-	-	7.23
5/8 x 1/4	2-1/4	-	-	-	-	-	2255-062	6.55
5/8 x 3/8	2-1/4	2250-064	2251-064	2252-064	2253-064	-	2255-064	12.98
5/8 x 1/2	2-1/4	2250-072	2251-072	2252-072	2253-068	2254-072	2255-070	12.98
3/4 x 3/8	2-3/4	2250-073	2251-073	2252-073	2253-072	-	-	18.21
3/4 x 1/2	2-3/4	2250-080	2251-080	2252-080	2253-080	2254-080	-	18.21
7/8 x 1/2	2-3/4	2250-088	2251-088	2252-088	2253-088	2254-088	2255-088	19.67
1 x 1/2	2-3/4	2250-096	2251-096	-	-	2254-096	2255-096	23.64
1-1/4 x 1/2	3	2250-112	2251-112	2252-112	2253-112	-	-	35.10
1-1/4 x 3/4	3	2250-128	2251-128	2252-128	2253-128	-	-	35.10
1-1/2 x 1/2	3-1/2	2250-129	2251-129	2252-129	2253-129	-	-	47.20
1-1/2 x 3/4	3-1/2	2250-144	2251-144	2252-144	2253-144	-	-	47.20
1-3/4 x 1/2	4	2250-145	2251-145	2252-145	2253-145	-	-	51.35
1-3/4 x 3/4	4	2250-160	2251-155	2252-160	2253-160	-	-	51.35
2 x 1/2	4	2250-161	2251-161	2252-161	-	-	-	85.93
2 x 3/4	4	2250-176	2251-176	2252-176	2253-176	-	-	61.00
5 pc. set: 1/4, 3/8, 1/2, 3/4, 1"		2250-900	2251-900	2252-900	-	-	-	\$35.70

CENTERLINE ANGLE			<i>Severance</i>											
30°	41°	45°												
INCLUDED ANGLE														
60°	82°	90°	ORDER NO.*	ORDER NO.	ORDER NO.	SEVERANCE BODY NAME	DIA.	NOSE TYPE	SHANK DIA.	OVERALL LENGTH	SHANK LENGTH	LIST PRICE		
6800-270	6800-288	6800-306	1/8-SF	1/8"	-	1/8"	1-5/8"	1-5/8"	\$15.90					
6800-271	6800-289	6800-307	3/16-SF	3/16"	-	3/16"	1-1/2"	1-1/2"	16.85					
6800-272	6800-290	6800-308	1/4-SF	1/4"	-	3/16"	1-1/2"	3/4"	16.89					
6800-273	6800-291	6800-309	5/16-SF	5/16"	-	1/4"	1-3/4"	7/8"	19.70					
6800-274	6800-292	6800-310	3/8-SF	3/8"	-	1/4"	1-3/4"	7/8"	22.98					
6800-275	6800-293	6800-311	1/2-SF	1/2"	-	3/8"	2-1/8"	1-1/8"	29.30					
6800-276	6800-294	6800-312	1/2-1/4-SF	1/2"	-	1/4"	2-1/8"	1-1/8"	29.30					
6800-277	6800-295	6800-313	5/8-SF	5/8"	-	3/8"	2-3/8"	1-1/8"	41.73					
6800-278	6800-296	6800-314	5/8-1/4-SF	5/8"	-	1/4"	2-3/8"	1-1/8"	41.73					
6800-279	6800-297	6800-315	3/4-SF	3/4"	-	1/2"	2-11/16"	1-5/16"	56.06					
6800-280	6800-298	6800-316	7/8-SF	7/8"	-	1/2"	2-13/16"	1-5/16"	70.58					
6800-281	6800-299	6800-317	1-SF	1"	-	1/2"	2-13/16"	1-5/16"	86.28					
6800-282	6800-300	6800-318	1-1/4-SF	1-1/4"	-	3/4"	3-3/8"	1-5/8"	124.75					
6800-283	6800-301	6800-319	1-1/2-SF	1-1/2"	-	3/4"	3-1/2"	1-5/8"	171.40					
-	6800-302	6800-320	1-3/4-SF	1-3/4"	-	1"	4-1/4"	2-1/8"	198.19					
6800-285	6800-303	6800-321	2-SF	2"	-	1"	4-3/8"	2-1/8"	253.44					
-	6800-304	6800-322	2-1/2-SF	2-1/2"	-	1"	4-3/4"	2-1/8"	431.53					
6800-287	6800-305	6800-323	3-SF	3"	-	1"	5"	2-1/8"	647.31					
-	6829-633	6829-634	-	-	-	-	-	-	\$240.58					
SET #36 INCLUDES 1 EA: 1/4", 3/8", 1/2", 5/8", 3/4", 1" BODY DIA.														

SET #36 INCLUDES 1 EA: 1/4", 3/8", 1/2", 5/8", 3/4", 1" BODY DIA.

* 60° Included Angle Priced slightly higher

Countersinks & Center Reamers - 3 & 4 Flute



Three Flute Center Reamers



3-Flute Center Reamers are versatile tools designed for countersinking holes for centers or for enlarging existing holes. Engineered to give chatter-free performance.



4-Flute Machine Countersinks



BODY DIA.	SHK. DIA.	OAL	HIGH SPEED STEEL					PRICE EACH	COBALT STEEL	
			60° ORDER NO.	82° ORDER NO.	90° ORDER NO.	100° ORDER NO.	120° ORDER NO.		82° ORDER NO.	PRICE EACH
1/4	3/16	1-1/2	2275-228	2275-428	2275-628	2275-803	2275-863	\$7.62	2268-103	\$17.82
1/4	1/4	1-1/2	2275-232	2275-432	2275-632	2275-804	2275-864	7.82	-	-
3/8	1/4	1-3/4	2275-240	2275-440	2275-640	2275-806	2275-866	9.30	2268-106	21.24
1/2	3/8	2	2275-248	2275-448	2275-648	2275-808	2275-868	12.21	2268-108	26.74
5/8	3/8	2-1/4	2275-264	2275-464	2275-664	2275-810	2275-870	17.16	2268-110	39.70
3/4	1/2	2-5/8	2275-280	2275-480	2275-680	2275-812	2275-872	25.87	2268-112	52.02
7/8	3/8	2-3/4	2275-284	2275-484	2275-684	2275-814	-	32.34	-	-
7/8	1/2	2-3/4	2275-288	2275-488	2275-688	2275-815	2275-875	32.34	-	-
1	1/2	2-3/4	2275-296	2275-496	2275-696	2275-818	2275-878	36.30	2268-118	83.72
1-1/4	1/2	3	2275-312	2275-512	2275-712	2275-822	2275-882	75.90	2268-122	140.38
1-1/2	3/4	3	2275-344	2275-544	2275-744	2275-826	2275-886	112.20	2268-126	181.12
2	3/4	3-1/4	2275-376	2275-576	2275-776	-	-	184.80	2268-128	320.12
5 pc. set:			2275-390	2275-590	2275-790	-	-	75.81	2268-130	128.94
9 pc. set:			2275-395	2275-595	2275-795	-	-	489.46	2268-132	712.77
1/4, 3/8, 1/2, 5/8, 3/4, 1, 1-1/4, 1-1/2, 2										

BODY DIA.	SHANK DIA.	OAL				PRICE EACH
			60° ORDER NO.	82° ORDER NO.	90° ORDER NO.	
3/8	3/8	3-1/2	2278-803	2278-824	2278-843	\$23.59
1/2	1/2	3-7/8	2278-804	2278-824	2278-844	30.94
5/8	1/2	4	2278-805	2278-825	2278-845	29.96
3/4	1/2	4-1/8	2278-806	2278-826	2278-846	38.35
7/8	1/2	4-1/4	2278-807	2278-827	2278-847	42.33
1	1/2	4-1/4	2278-808	2278-828	2278-848	56.21
1-1/4	1/2	4-3/8	2278-810	2278-830	2278-850	74.58
1-1/2	1/2	4-3/8	2278-812	2278-832	2278-852	99.11
5 pc. set:			2278-815	2278-835	2278-855	280.80
12, 5/8, 3/4, 7/8, 1						

Pittsburg® Three Flute High Speed Steel



DIA. x SHK. DIA.	OVERALL LGTH.	60° ORDER NO.	82° ORDER NO.	90° ORDER NO.	100° ORDER NO.	110° ORDER NO.	120° ORDER NO.	PRICE EACH
3/16 x 3/16	1-1/2	2256-024	2257-024	2258-024	2259-024	2260-024	2261-024	\$ 3.40
1/4 x 3/16	1-1/2	2256-028	2257-028	2258-028	2259-028	2260-028	2261-028	4.84
5/16 x 1/4	1-3/4	2256-036	2257-036	2258-036	-	2260-036	2261-036	6.82
3/8 x 1/4	1-3/4	2256-040	2257-040	2258-040	2259-040	2260-040	2261-040	6.82
7/16 x 1/4	1-3/4	2256-044	-	2258-044	-	-	-	5.35
1/2 x 1/4	2	2256-048	2257-048	2258-048	-	-	-	7.55
1/2 x 3/8	2	2256-056	2257-056	2258-056	-	2260-056	2261-056	7.55
5/8 x 3/8	2	2256-064	2257-064	2258-064	2259-064	2260-064	-	13.55
5/8 x 1/2	2	-	-	2258-070	-	-	2261-070	7.90
3/4 x 3/8	2-3/4	2256-072	2257-072	2258-072	-	-	-	18.48
3/4 x 1/2	2-3/4	2256-080	2257-080	2258-080	-	2260-080	2261-080	18.48
7/8 x 1/2	2-3/4	2256-088	2257-088	2258-088	2259-088	2260-088	2261-088	21.60
1 x 1/2	2-3/4	2256-096	2257-096	-	2259-096	2260-096	2261-096	23.64
1-1/4 x 1/2	3-1/2	2256-112	2257-112	2258-112	-	-	-	37.80
1-1/4 x 5/8	3-1/2	-	-	-	2259-120	2260-120	-	31.85
1-1/4 x 3/4	3-1/2	2256-128	2257-128	2258-128	2259-128	2260-128	-	37.80
1-1/2 x 1/2	3-1/2	2256-129	2257-134	2258-129	-	-	-	46.80
1-1/2 x 3/4	3-1/2	2256-144	2257-144	2258-144	2259-144	2260-144	2261-144	46.80
1-3/4 x 1/2	4	2256-145	2257-145	2258-145	-	-	-	65.20
1-3/4 x 3/4	4	2256-160	2257-160	2258-160	-	-	-	65.20
1-3/4 x 1	4	-	2257-163	2258-146	-	-	-	65.20
2 x 1/2	4	2256-165	2257-165	2258-161	-	-	-	88.80
2 x 3/4	4	2256-176	2257-176	2258-176	-	-	-	88.80
2 x 1	4	2256-192	2257-192	-	-	-	-	71.80



Three Groove 82° - High Speed Steel



SHANK DIA.	FLUTE DIA.	LGTH.	BODY LENGTH	OVERALL LENGTH	ORDER NO.	PRICE EACH
1/2	1/2	2-1/4	2-1/2	4-1/2	2268-064	\$10.00
5/8	1/2	2-3/8	2-5/8	4-5/8	2268-072	11.20
3/4	1/2	2-1/2	2-3/4	4-3/4	2268-080	14.00
7/8	1/2	2-5/8	2-7/8	4-7/8	2268-088	16.50

4 Flute Chatter Free Econosinks® High Speed Steel



CENTERLINE ANGLE

30°41°45°

INCLUDED ANGLE

60°82°90°

Severance

ORDER NO.*	ORDER NO.	ORDER NO.	SEVERANCE BODY NAME	SHANK DIA.	OVERALL DIA.	LENGTH	SHANK LGTH	LIST PRICE
6800-972	6800-993	6801-014	ES-1/4	1/4"	3/16"	1-1/2"	3/4"	\$17.22
6800-973	6800-994	6801-015	ES-5/16	5/16"	1/4"	1-3/4"	7/8"	20.08
6800-974	6800-995	6801-016	ES-3/8	3/8"	1/4"	1-3/4"	7/8"	23.43
6800-976	6800-997	6801-018	ES-1/2	1/2"	3/8"	2-1/8"	1-1/8"	29.87
6800-977	6800-998	6801-019	ES-1/2-1/4	1/2"	1/4"	2-1/8"	1-1/8"	29.87
6800-978	6800-999	6801-020	ES-5/8	5/8"	3/8"	2-3/8"	1-1/8"	42.54
6800-979	6801-000	6801-021	ES-5/8-1/4	5/8"	1/4"	2-3/8"	1-1/8"	42.54
6800-980	6801-001	6801-022	ES-3/4	3/4"	1/2"	2-11/16"	1-5/16"	57.12
6800-982	6801-003	6801-024	ES-7/8	7/8"	1/2"	2-13/16"	1-5/16"	71.93
6800-983	6801-004	6801-025	ES-1	1"	1/2"	2-13/16"	1-5/16"	87.96
6800-984	6801-005	6801-026	ES-1-1/4	1-1/4"	3/4"	3-3/8"	1-5/8"	127.16
6800-985	6801-006	6801-027	ES-1-1/2	1-1/2"	3/4"	3-1/2"	1-5/8"	174.69

* 60° Included Angle priced slightly higher

Countersinks – Six Flute, HSS

WARNING: This product contains Cobalt and/or Nickel and/or Lead a chemical known to the state of California to cause cancer or birth defects or other reproductive harm. For more information: www.prop65.ca.gov.
WARNING: Cutting tools may shatter. Always wear approved safety glasses and mask when regrinding.



Six Flute Chatterless™ Countersinks High Speed Steel

Six Flute Countersinks - As a rule, more edges per revolution, the greater amount of material that may be removed. Designed for fast shearing cut.



2

SIZE	SHANK DIA.	OVERALL LENGTH	60° ORDER NO.	82° ORDER NO.	90° ORDER NO.	100° ORDER NO.	PRICE EACH
3/16	3/16	1-1/2	2262-024	-	2264-024	-	\$ 6.61
1/4	3/16	1-1/2	-	2263-028	-	-	8.55
1/4	1/4	2	2262-029	2263-029	2264-029	2264-229	9.58
5/16	1/4	2	2262-036	2263-036	2264-036	2264-236	11.36
3/8	1/4	2	2262-040	2263-040	2264-040	2264-240	12.95
1/2	1/4	2	2262-048	2263-048	2264-048	2264-248	16.17
1/2	3/8	2	-	2263-056	-	-	8.55
5/8	1/2	2-3/4	2262-072	2263-072	2264-072	2264-272	23.50
3/4	1/2	2-3/4	2262-080	2263-080	2264-080	2264-280	33.50
7/8	1/2	2-3/4	2262-088	2263-088	2264-088	2264-288	40.43
1	1/2	2-3/4	2262-096	2263-096	2264-096	2264-296	48.68
1-1/4	3/4	3-3/8	2262-128	2263-128	2264-128	2264-328	79.28
1-1/2	3/4	3-1/2	2262-144	2263-144	2264-144	2264-344	117.43
1-3/4	1	4-1/4	2262-158	2263-158	2264-158	2264-358	147.28
2	1	4-3/8	2262-180	2263-180	2264-180	2264-380	176.55
2-1/2	1	5	2262-182	2263-182	2264-182	2264-382	211.85
3	1	5-1/4	2262-188	2263-188	2264-188	2264-388	254.20



Six Flute Countersinks High Speed Steel



5 PIECE SET

5 piece set includes one each:

1/4", 3/8", 1/2", 3/4" & 1" in wood stand.

3

DIA. x SK DIA.	OVERALL LENGTH	60° ORDER NO.	82° ORDER NO.	90° ORDER NO.	100° ORDER NO.	110° ORDER NO.	120° ORDER NO.	PRICE EACH
3/16 x 3/16	1-1/2	2282-024	2283-024	2284-024	2265-024	2266-024	2267-024	\$ 4.58
1/4 x 3/16	1-1/2	-	-	-	2265-028	2266-028	2267-028	4.50
1/4 x 1/4	1-1/2	2282-028	2283-028	2284-028	-	2266-032	2267-032	4.81
5/16 x 1/4	1-3/4	2282-036	2283-036	2284-036	-	2266-036	-	6.68
3/8 x 1/4	1-3/4	2282-040	2283-040	2284-040	-	2266-040	-	6.99
1/2 x 1/4	2	2282-048	2283-048	2284-048	-	2266-048	2267-048	7.48
1/2 x 3/8	2	2282-056	2283-056	2284-056	2265-056	2266-056	-	7.55
5/8 x 3/8	2-1/2	2282-065	2283-065	2284-065	-	2266-064	2267-064	10.75
5/8 x 1/2	2-1/2	2282-064	2283-064	2284-064	-	-	-	13.37
3/4 x 1/2	2-3/4	2282-080	2283-080	2284-080	-	2266-080	2267-080	17.23
7/8 x 1/2	2-3/4	2282-088	2283-088	2284-088	2265-088	2266-088	2267-088	20.30
1 x 1/2	2-3/4	2282-096	2283-096	2284-096	-	2266-096	2267-096	24.37
1-1/4 x 3/4	3-1/2	2282-128	2283-128	2284-128	-	-	-	34.80
1-1/2 x 3/4	3-1/2	2282-144	2283-144	2284-144	-	-	-	46.79
1-3/4 x 3/4	3-1/2	2282-150	2283-150	2284-150	-	-	-	65.05
1-3/4 x 1	3-1/2	2282-152	-	2284-158	-	-	-	75.38
2 x 3/4	3-1/2	2282-160	2283-176	2284-176	-	-	-	88.49
5 PIECE SET		2282-000	2283-000	2284-000	-	-	-	\$60.10



Six Flute Chatterless™ Countersink Sets High Speed Steel



2

SIZES	60° ORDER NO.	82° ORDER NO.	90° ORDER NO.	100° ORDER NO.	PRICE EACH
5 Piece Sets: 1/4, 3/8, 1/2, 5/8, 3/4	2262-195	2263-195	2264-195	2264-395	\$ 100.16
8 Piece Sets: 1/4, 5/16, 3/8, 1/2, 5/8, 3/4, 7/8, 1"	2262-200	2263-200	2264-200	2264-400	196.16



Six Flute Chatterless™ Double End Countersinks High Speed Steel



2

SIZE	SHANK DIA.	OVERALL LENGTH	60° ORDER NO.	82° ORDER NO.	90° ORDER NO.	PRICE EACH
1/8	1/8	1-1/2	2264-502	2264-522	2264-542	\$13.56
3/16	3/16	2	2264-503	2264-523	2264-543	13.92
1/4	1/4	2	2264-504	2264-524	2264-544	14.50
5/16	5/16	2-1/2	2264-505	2264-525	2264-545	15.88
3/8	3/8	2-1/2	2264-506	2264-526	2264-546	18.78
1/2	1/2	3	2264-508	2264-528	2264-548	22.22
5/8	5/8	3-1/2	2264-510	2264-530	2264-550	32.27

Countersinks, Mills, & Cutters

2

WARNING: This product contains Cobalt and/or Nickel and/or Lead a chemical known to the state of California to cause cancer or birth defects or other reproductive harm. For more information: www.prop65.ca.gov.
WARNING: Cutting tools may shatter. Always wear approved safety glasses and mask when regrinding.

6-Flute Chatterless™ High Speed Steel

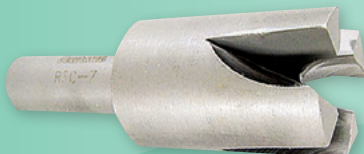


CENTERLINE ANGLE 30° 41° 45° INCLUDED ANGLE 60° 82° 90° HIGH SPEED STEEL							
ORDER NO.	ORDER NO.	ORDER NO.	SEVERANCE NAME	BODY DIA.	SHANK DIA.	OVERALL LENGTH	LIST PRICE
6802-370	6802-390	6802-410	CK-1/8	1/8"	1/8"	1-5/8"	\$16.18
6802-371	6802-391	6802-411	CK-3/16	3/16"	3/16"	1-1/2"	17.16
6802-372	6802-392	6802-412	CK-1/4	1/4"	3/16"	1-1/2"	17.22
6802-373	6802-393	6802-413	CK-5/16	5/16"	1/4"	1-3/4"	20.08
6802-374	6802-394	6802-414	CK-3/8	3/8"	1/4"	1-3/4"	23.43
6802-375	6802-395	6802-415	CK-1/2	1/2"	3/8"	2-1/8"	29.87
6802-376	6802-396	6802-416	CK-1/2-1/4	1/2"	1/4"	2-1/8"	29.87
6802-377	6802-397	6802-417	CK-5/8	5/8"	3/8"	2-3/8"	42.54
6802-378	6802-398	6802-418	CK-5/8-1/4	5/8"	1/4"	2-3/8"	42.54
6802-379	6802-399	6802-419	CK-3/4	3/4"	1/2"	2-11/16"	57.12
6802-380	6802-400	6802-420	CK-7/8	7/8"	1/2"	2-13/16"	71.94
6802-381	6802-401	6802-421	CK-1	1"	1/2"	2-13/16"	87.96
6802-382	6802-402	6802-422	CK-1-1/4	1-1/4"	3/4"	3-3/8"	127.16
6802-383	6802-403	6802-423	CK-1-1/2	1-1/2"	3/4"	3-1/2"	174.70
6802-384	6802-404	6802-424	CK-1-3/4	1-3/4"	1"	4-1/4"	201.99
6802-385	6802-405	6802-425	CK-2	2"	1"	4-3/8"	258.32
6802-386	6802-406	6802-426	CK-2-1/2	2-1/2"	1"	4-3/4"	439.60
6802-387	6802-407	6802-427	CK-3	3"	1"	5"	659.74

* 60°Included Angle Priced slightly higher

Severance Rod End Forming Cutters High Speed Steel

These cutters are used to form rounded ends on rods, wire, parts, etc. They perform well on many modern materials, as well as on the more common metals, plastics, etc.



ORDER NO.	SEVERANCE TOOL NAME	FOR ROD* DIA.	RADIUS FORMED	BODY DIA.	SHANK DIA.	OVERALL LENGTH	LIST PRICE
6828-630	RFC-0	1/32	1/64	1/4"	1/4"	1-1/2"	\$ 123.95
6828-631	RFC-1	1/16	1/32	5/16"	1/4"	1-3/4"	130.55
6828-632	RFC-1-1/2	3/32	3/64	3/8"	1/4"	1-3/4"	136.19
6828-633	RFC-2	1/8	1/16	1/2"	3/8"	2-1/8"	144.56
6828-634	RFC-3	3/16	3/32	1/2"	3/8"	2-1/8"	152.92
6828-635	RFC-4	1/4	1/8	3/4"	1/2"	2-11/16"	160.92
6828-636	RFC-5	5/16	5/32	3/4"	1/2"	2-11/16"	169.27
6828-637	RFC-6	3/8	3/16	3/4"	1/2"	2-11/16"	177.85
6828-638	RFC-7	7/16	7/32	1"	1/2"	2-13/16"	194.76
6828-639	RFC-8	1/2	1/4	1"	1/2"	2-13/16"	206.33
6828-640	RFC-9	9/16	9/32	1"	1/2"	2-13/16"	231.73
6828-641	RFC-10	5/8	5/16	1-1/4"	3/4"	3-3/8"	259.93
6828-642	RFC-12	3/4	3/8	1-1/2"	3/4"	3-1/2"	336.20
6828-644	RFC-16	1"	1/2	2"	1"	4-3/8"	419.29

6-Flute Chatterless™ Double End Countersinks High Speed Steel



CENTERLINE ANGLE 30° 41° 45° INCLUDED ANGLE 60° 82° 90° HIGH SPEED STEEL							
ORDER NO.	ORDER NO.	ORDER NO.	SEVERANCE NAME	BODY DIA.	OVERALL LENGTH	SHANK LENGTH	LIST PRICE
6802-670	6802-685	6802-700	CK-1/8-DE	1/8"	1-1/2"	1-1/2"	\$23.38
6802-671	6802-686	6802-701	CK-3/16-DE	3/16"	1-7/8"	1-7/8"	24.76
6802-672	6802-687	6802-702	CK-1/4-DE	1/4"	2"	2"	25.30
6802-673	6802-688	6802-703	CK-5/16-DE	5/16"	2-1/8"	2-1/8"	28.89
6802-674	6802-689	6802-704	CK-3/8-DE	3/8"	2-1/2"	2-1/2"	32.19
6802-675	6802-690	6802-705	CK-1/2-DE	1/2"	3"	3"	39.89
6802-676	6802-691	6802-706	CK-5/8-DE	5/8"	3-1/4"	3-1/4"	56.94
6802-677	6802-692	6802-707	CK-3/4-DE	3/4"	3-1/2"	3-1/2"	84.16

* 60°Included Angle Priced slightly higher

Severance Tube End Chamfering Mills High Speed Steel

Designed to chamfer both inside and outside of a tube or pipe simultaneously:

- Chatterless • Designed for heavy chamfering
- Liberal adjustment to accommodate different wall thickness
- Large variety of shanks available



The cutting teeth are so developed as to preclude chatter and provide ample chip room for every operating condition. Moderate speeds of about 100 R.P.M. for 1-inch steel tubing to about 200 R.P.M. for 1/2-inch tubing are recommended for these cutters. It is advisable to start at a slower speed on any given material or size and increase until best results are obtained.

ORDER NO.	SEVERANCE TOOL NAME	STD. PIPE SIZE	STD. TUBING O.D. SIZE	WALL THICKNESS MIN.	WALL THICKNESS MAX.	PLUG DIA.	SHANK DIA.	SHANK LENGTH	LIST PRICE
6834-960	T-6		3/16"	.022	.045	.152	1/4"	7/8"	\$80.21
6834-961	T-8		1/4"	.022	.065	.228	1/4"	1"	88.73
6834-962	T-10		5/16"	.022	.095	.290	1/4"	1"	99.35
6834-963	T-12	1/8"	3/8"	.022	.095	.353	3/8"	1"	110.83
6834-964	T-14		7/16"	.028	.095	.409	3/8"	1"	119.15
6834-965	T-16	1/4"	1/2"	.028	.095	.472	3/8"	1"	129.78
6834-966	T-18		9/16"	.028	.120	.534	1/2"	1"	139.13
6834-967	T-20	3/8"	5/8"	.028	.120	.597	1/2"	1"	152.05
6834-968	T-24	1/2"	3/4"	.028	.120	.722	1/2"	1"	174.77
6834-969	T-28		7/8"	.022	.156	.847	1/2"	1"	197.88
6834-970	T-32	3/4"	1"	.035	.156	.965	1/2"	1-5/16"	227.25
6834-971	T-36		1-1/8"	.035	.187	1.090	1/2"-20		299.43
6834-972	T-40	1"	1-1/4"	.035	.187	1.215	5/8"-18		353.31
6834-974	T-44		1-3/8"	.035	.187	1.340	5/8"-18	*Requires threaded shanks	405.99
6834-975	T-48		1-1/2"	.035	.250	1.465	3/4"-16	shanks sold separately	466.66
6834-977	T-56	1-1/2"	1-3/4"	.035	.250	1.715	3/4"-16		614.89
6834-978	T-60		1-7/8"	.035	.250	1.840	3/4"-16		701.20
6834-979	T-64		2"	.035	.312	1.965	1"-14		803.14

* Threaded shanks sold separately.

Tool numbers T-36 thru T-64 require threaded shanks, priced separately.

Countersink and Deburring Tools

WARNING: This product contains Cobalt and/or Nickel and/or Lead a chemical known to the state of California to cause cancer or birth defects or other reproductive harm. For more information: www.pro65.ca.gov.
WARNING: Cutting tools may shatter. Always wear approved safety glasses and mask when regrinding.

Pittsburg[®] ALLEGHANY Pilotless Type – High Speed Steel

- Premium High Speed Steel
- Easily resharpened
- Tool designed to prevent chatter
- Small grinding wheel in the cross hole

SIZE	RANGE OF HOLE DIA. WHICH CAN BE CUT		SHANK DIA.	60° ORDER NO.	PRICE EACH	82° ORDER NO.	PRICE EACH	90° ORDER NO.	PRICE EACH
0 DOUBLE END	1/16	15/64	1/4	2238-000	\$ 5.55	2238-010	\$ 5.55	2238-020	\$ 5.55
1 SINGLE END	5/32	13/32	1/4	2238-001	6.00	2238-011	6.00	2238-021	6.00
2 SINGLE END	3/16	17/32	1/4	2238-002	6.85	2238-012	6.85	2238-022	6.85
3 SINGLE END	5/16	25/32	1/2	2238-003	11.35	2238-013	11.35	2238-023	11.35
4 SINGLE END	9/16	1-1/16	1/2	2238-004	16.95	2238-014	16.95	2238-024	16.95
5 PIECE SET	0-4, WITH WOOD STAND			2238-900	\$41.30	2238-901	\$41.30	2238-902	\$41.30



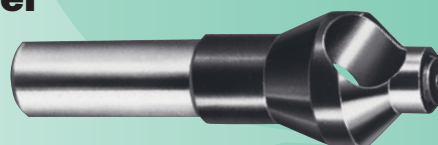
Look for ALLEGIANC[®] AMERICAN MADE Piloted Type – High Speed Steel

The action of a single cutting edge provides faster stock removal and prevents chatter. These tools are recommended for deburring steel and other ferrous materials. They can easily be resharpened by using the Weldon Axial Relieving Fixture or by using a small mounted grinding wheel and inserting it in the hole.

Single Tool & 5 pc. Set– 82°

SIZE	SCREW SIZE	RANGE OF HOLE DIAMETER WHICH CAN BE CUT		PILOT LENGTH	SHANK DIAM.	ORDER NO.	PRICE EACH
		SMALLEST DIA.*	LARGEST DIA.				
11	1/4	1/4	33/64	5/32	3/8	2861-211	\$ 21.86
12	1/4	17/64	33/64	5/32	3/8	2861-212	21.86
13	5/16	5/16	41/64	5/32	3/8	2861-213	26.06
14	5/16	21/64	41/64	5/32	3/8	2861-214	26.06
15	3/8	3/8	49/64	5/32	1/2	2861-215	35.06
16	3/8	25/64	49/64	5/32	1/2	2861-216	35.06
17	7/16	7/16	53/64	7/32	1/2	2861-217	42.76
18	7/16	29/64	53/64	7/32	1/2	2861-218	42.76
19	1/2	1/2	15/16	1/4	1/2	2861-219	48.81
20	1/2	33/64	15/16	1/4	1/2	2861-220	48.81
5 PC. SET 82° Pt. Angle Contains: (1 each) 11, 13, 15, 17, & 19						2861-285	179.13

* Pilot Diameter

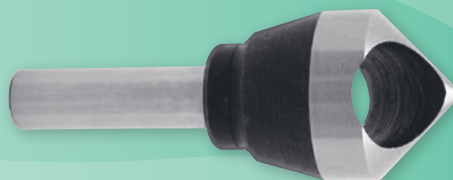


KEO[®] Zero Flute Countersink & Deburring Tools 2 M35 Cobalt, Straight Shank, Chatterless Cutting Action

FEATURES:

- Micro-smooth CNC precision for clean, smooth cutting without smearing
- M35 Cobalt: 6% Tungsten, 5% Moly, 5% Cobalt – for long tool lives in all types of materials
- Cam Relieved for totally chatter-free cuts
- Through-Hole Design that is easy to resharpen using a small grinding wheel in the cross-hole.

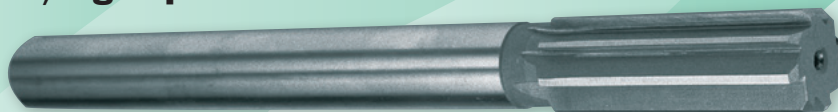
DEGREE	HEAD DIAM.	DIA. OF CUT		SHANK DIAM.	OAL	ORDER NO.	PRICE EACH
		MIN.	MAX				
60° Angle	4 pc. set			5/16, 3/8, 1/2, 5/8		2239-052	84.68
	5 pc. set			5/16, 3/8, 1/2, 3/4, 1		2239-054	115.30
82° Angle	5/16	3/32	9/32	1/4	1-5/8	2239-011	\$ 16.77
	3/8	9/64	11/32	1/4	1-3/4	2239-012	19.15
	5/8	11/64	37/64	3/8	2-1/8	2239-014	26.33
	1	19/64	59/64	3/8	2-5/8	2239-016	49.86
90° Angle	4 pc. set	see above		5/16, 3/8, 1/2, 5/8		2239-056	90.61
	5 pc. set	see above		5/16, 3/8, 1/2, 3/4, 1		2239-058	154.30
	5/16	3/32	9/32	1/4	1-5/8	2239-021	\$ 16.77
	3/8	9/64	11/32	1/4	1-3/4	2239-022	19.15
100° Angle	5/8	11/64	37/64	3/8	2-1/8	2239-024	26.33
	5 pc. set			5/16, 3/8, 1/2, 3/4, 1		2239-066	117.32



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Please Continue On Next Page

Wire Gage Sizes, High Speed Steel



Reamer Selection?
We Stock:
**High Speed Steel,
Cobalt, Carbide Tipped
& Solid Carbide**



3 1								3 1							
  USA								  USA							
LTR. SIZES	DEC. EQV.	FLUTE LG'TH	OAL	ORDER NO.	PRICE EACH	ORDER NO.	PRICE EACH	LTR. SIZES	DEC. EQV.	FLUTE LG'TH	OAL	ORDER NO.	PRICE EACH	ORDER NO.	PRICE EACH
A	.2340	1-1/2	6	1920-301	\$15.25	1970-301	\$23.63	P	.3230	1-1/2	6	1920-316	\$18.22	1970-316	\$ 29.69
B	.2380	1-1/2	6	1920-302	15.25	1970-302	24.75	R	.3320	1-1/2	6	1920-317	18.22	1970-317	29.69
C	.2420	1-1/2	6	1920-303	15.25	1970-303	24.75	Q	.3390	1-1/2	6	1920-318	18.22	1970-318	29.69
D	.2460	1-1/2	6	1920-304	15.25	1970-304	24.75	S	.3480	1-3/4	7	1920-319	18.22	1970-319	29.69
E	.2500	1-1/2	6	1920-305	12.21	1970-305	20.31	T	.3580	1-3/4	7	1920-320	18.22	1970-320	29.69
F	.2570	1-1/2	6	1920-306	15.25	1970-306	24.75	U	.3680	1-3/4	7	1920-321	18.22	1970-321	29.69
G	.2610	1-1/2	6	1920-307	16.21	1970-307	24.75	V	.3770	1-3/4	7	1920-322	20.30	1970-322	32.38
H	.2660	1-1/2	6	1920-308	17.13	1970-308	27.44	W	.3860	1-3/4	7	1920-323	20.30	1970-323	32.38
I	.2720	1-1/2	6	1920-309	17.13	1970-309	27.44	X	.3970	1-3/4	7	1920-324	20.30	1970-324	32.38
J	.2770	1-1/2	6	1920-310	17.13	1970-310	27.44	Y	.4040	1-3/4	7	1920-325	20.85	1970-325	33.69
K	.2810	1-1/2	6	1920-311	17.13	1970-311	27.44	Z	.4130	1-3/4	7	1920-326	20.85	1970-326	33.69
L	.2900	1-1/2	6	1920-312	17.13	1970-312	27.75								
M	.2950	1-1/2	6	1920-313	17.13	1970-313	27.75								
N	.3020	1-1/2	6	1920-314	17.13	1970-314	27.75								
O	.3160	1-1/2	6	1920-315	17.72	1970-315	27.75								

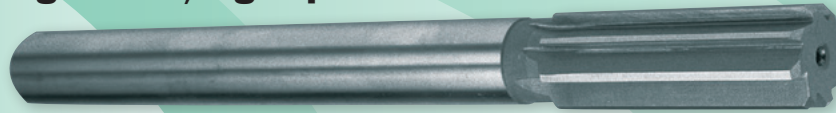
1/8-1/2 by 16th	#1 thru #60
Order No. 1920-905	Order No. 1920-920
Price.....\$65.85	Price.....\$679.77

-all sets in plastic pouch-

Chucking Reamers - Metric

Straight Shank, Straight Flute, High Speed Steel

WARNING: This product contains Cobalt and/or Nickel and/or Lead a chemical known to the state of California to cause cancer or birth defects or other reproductive harm. For more information: www.prop65.ca.gov. **WARNING:** Cutting tools may chatter. Always wear approved safety glasses and mask when regrinding.



DIAM. mm.	DEC. EQV.	FLUTE LG'TH	OAL	Pittsburg ALLEGHANY	PRICE EACH	USA	PRICE EACH	DIAM. mm.	DEC. EQV.	FLUTE LG'TH	OAL	Pittsburg ALLEGHANY	PRICE EACH	USA	PRICE EACH
1.00	0.0394	1/2	2-1/2	2000-394†	\$10.80	5410-100	\$19.06	13.50	0.5315	2	8	2005-315	\$30.10	5411-350	\$45.00
1.50	0.0591	1/2	2-1/2	2000-591†	10.80	5410-150	19.06	14.00	0.5512	2	8	2005-512	30.10	5411-400	45.00
2.00	0.0787	3/4	3	2000-787†	11.24	5410-200	15.31	14.50	0.5709	2	8	2005-709	33.66	5411-450	45.00
2.50	0.0984	7/8	3-1/2	2000-984†	11.24	5410-250	15.69	15.00	0.5906	2	8	2005-906	33.66	5411-500	45.00
3.00	0.1181	7/8	3-1/2	2001-181	11.24	5410-300	16.13	15.50	0.6102	2-1/4	9	2006-102	38.62	5411-550	51.25
3.50	0.1378	1	4	2001-378	13.43	5410-350	19.06	16.00	0.6299	2-1/4	9	2006-299	38.62	5411-600	51.25
4.00	0.1575	1-1/8	4-1/2	2001-575	13.43	5410-400	19.06	16.50	0.6496	2-1/4	9	2006-496	38.62	5411-650	51.25
4.50	0.1772	1-1/8	4-1/2	2001-772	15.84	5410-450	20.38	17.00	0.6693	2-1/4	9	2006-693	38.62	5411-700	58.13
5.00	0.1969	1-1/4	5	2001-969	17.03	5410-500	23.00	17.50	0.6890	2-1/4	9	2006-890	44.35	5411-750	61.94
5.50	0.2165	1-1/4	5	2002-165	14.19	5410-550	23.00	18.00	0.7087	2-1/4	9	2007-087	44.35	5411-800	61.94
6.00	0.2362	1-1/2	6	2002-362	18.61	5410-600	24.75	18.50	0.7283	2-1/2	9-1/2	2007-283	44.35	5411-850	71.88
6.50	0.2559	1-1/2	6	2002-559	18.61	5410-650	24.75	19.00	0.7480	2-1/2	9-1/2	2007-480	44.35	5411-900	71.88
7.00	0.2756	1-1/2	6	2002-756	20.56	5410-700	27.44	19.50	0.7677	2-1/2	9-1/2	2007-677	49.70	5411-950	71.88
7.50	0.2953	1-1/2	6	2002-953	20.56	5410-750	27.75	20.00	0.7874	2-1/2	9-1/2	2007-874	49.70	5412-000	74.88
8.00	0.3150	1-1/2	6	2003-150	21.26	5410-800	27.75	20.50	0.8071	2-1/2	9-1/2	2008-071	49.70	5412-050	74.88
8.50	0.3346	1-1/2	6	2003-346	21.86	5410-850	29.69	21.00	0.8268	2-1/2	9-1/2	2008-268	56.63	5412-100	74.88
9.00	0.3543	1-3/4	7	2003-543	21.86	5410-900	29.69	21.50	0.8465	2-1/2	9-1/2	2008-465	56.63	5412-150	86.25
9.50	0.3740	1-3/4	7	2003-740	21.14	-	-	22.00	0.8661	2-5/8	10	2008-661	56.63	5412-200	86.25
10.00	0.3937	1-3/4	7	2003-937	24.36	5411-000	32.38	22.50	0.8858	2-5/8	10	2008-858	62.38	5412-250	88.75
10.50	0.4134	1-3/4	7	2004-134	22.97	5411-050	33.69	23.00	0.9055	2-5/8	10	2009-055	62.38	5412-300	88.75
11.00	0.4331	1-3/4	7	2004-331	23.57	5411-100	33.69	23.50	0.9252	2-5/8	10	2009-252	62.38	5412-350	69.20
11.50	0.4528	1-3/4	7	2004-528	27.53	5411-150	36.88	24.00	0.9449	2-5/8	10	2009-449	70.30	5412-400	95.63
12.00	0.4724	2	8	2004-724	28.51	5411-200	36.88	24.50	0.9646	2-5/8	10	2009-646	70.30	5412-450	95.63
12.50	0.4921	2	8	2004-921	29.30	5411-250	36.88	25.00	0.9843	2-3/4	10-1/2	2009-843	70.30	5412-500	101.25
13.00	0.5118	2	8	2005-118	30.10	5411-300	45.00	25.50	1.0039	2-3/4	10-1/2	2010-039	47.15	5412-550	107.19
								30.00	1.1811	2-7/8	11	2011-811	54.78	-	-

† Limited Quantities

Chucking Reamers - Straight Shank, RHS - RHC

High Speed Steel



Pittsburg
ALLEGHANY

FRACTIONAL SIZES	DECIMAL EQUIV.	FLUTE LG'TH	OVER. LG'TH	ORDER NO.	PRICE EACH
3/64	0.0469	1/2	2-1/2	1921-003	\$12.77
1/16	0.0625	1/2	2-1/2	1921-004	12.78
5/64	0.0781	3/4	3	1921-005	10.25
3/32	0.0937	3/4	3	1921-006	10.25
7/64	0.1094	7/8	3-1/2	1921-007	10.25
1/8	0.1250	7/8	3-1/2	1921-008	9.73
9/64	0.1406	1	4	1921-009	12.78
5/32	0.1562	1	4	1921-010	12.78
11/64	0.1719	1-1/8	4-1/2	1921-011	12.78
3/16	0.1875	1-1/8	4-1/2	1921-012	12.78
13/64	0.2031	1-1/4	5	1921-013	14.75
7/32	0.2187	1-1/4	5	1921-014	14.42
15/64	0.2344	1-1/2	6	1921-015	14.75
1/4	0.2500	1-1/2	6	1921-016	13.86
17/64	0.2656	1-1/2	6	1921-017	16.43
9/32	0.2812	1-1/2	6	1921-018	16.43
19/64	0.2969	1-1/2	6	1921-019	17.74
5/16	0.3125	1-1/2	6	1921-020	15.38
21/64	0.3281	1-1/2	6	1921-021	18.40
11/32	0.3437	1-1/2	6	1921-022	18.40
23/64	0.3594	1-3/4	7	1921-023	18.40
3/8	0.3750	1-3/4	7	1921-024	18.06
25/64	0.3906	1-3/4	7	1921-025	20.63
13/32	0.4062	1-3/4	7	1921-026	20.63
27/64	0.4219	1-3/4	7	1921-027	21.30
7/16	0.4375	1-3/4	7	1921-028	20.30
29/64	0.4531	1-3/4	7	1921-029	23.15
15/32	0.4687	1-3/4	7	1921-030	23.15
31/64	0.4844	2	8	1921-031	23.15
1/2	0.5000	2	8	1921-032	20.87
17/32	0.5312	2	8	1921-034	26.52

FRACTIONAL SIZES	DECIMAL EQUIV.	FLUTE LG'TH	OVER. LG'TH	ORDER NO.	PRICE EACH
9/16	0.5625	2	8	1921-036	\$27.09
19/32	0.5938	2	8	1921-038	29.96
39/64	0.6094	2-1/4	9	1921-039	28.64
5/8	0.6250	2-1/4	9	1921-040	28.64
21/32	0.6562	2-1/4	9	1921-042	33.64
11/16	0.6875	2-1/4	9	1921-044	33.64
45/64	0.7031	2-1/4	9	1921-045	39.44
23/32	0.7188	2-1/4	9	1921-046	38.14
47/64	0.7344	2-1/2	9-1/2	1921-047	38.73
3/4	0.7500	2-1/2	9-1/2	1921-048	37.45
25/32	0.7812	2-1/2	9-1/2	1921-050	43.00
51/64	0.7964	2-1/2	9-1/2	1921-051	44.67
13/16	0.8125	2-1/2	9-1/2	1921-052	43.00
53/64	0.8281	2-1/2	9-1/2	1921-053	51.53
27/32	0.8438	2-1/2	9-1/2	1921-054	48.24
55/64	0.8594	2-5/8	10	1921-055	51.53
7/8	0.8750	2-5/8	10	1921-056	51.53
29/32	0.9062	2-5/8	10	1921-058	53.56
15/16	0.9375	2-5/8	10	1921-060	53.56
61/64	0.9531	2-5/8	10	1921-061	64.02
31/32	0.9688	2-5/8	10	1921-062	60.45
63/64	0.9844	2-3/4	10-1/2	1921-063	64.02
1	1.0000	2-3/4	10-1/2	1921-064	29.37
1-1/16	1.0625	2-3/4	10-1/2	1921-068	67.82
1-1/8	1.1250	2-7/8	11	1921-072	74.73
1-3/16	1.1875	2-7/8	11	1921-076	82.16
1-1/4	1.2500	3	11-1/2	1921-080	91.17
1-5/16	1.3125	3	11-1/2	1921-084	111.54
1-3/8	1.3750	3-1/4	12	1921-088	114.17
1-7/16	1.4375	3-1/4	12	1921-092	124.75
1-1/2	1.5000	3-1/2	12-1/2	1921-096	127.27

Letter Sizes

LTR. SIZES	DECIMAL EQUIV.	FLUTE LG'TH	OVER. LG'TH	ORDER NO.	PRICE EACH
A	0.2340	1-1/2	6	1921-301	\$17.49
B	0.2380	1-1/2	6	1921-302	17.49
C	0.2420	1-1/2	6	1921-303	17.49
D	0.2460	1-1/2	6	1921-304	17.49
E	0.2500	1-1/2	6	1921-305	13.86
F	0.2570	1-1/2	6	1921-306	17.49
G	0.2610	1-1/2	6	1921-307	18.65
H	0.2660	1-1/2	6	1921-308	19.70
I	0.2720	1-1/2	6	1921-309	19.70
J	0.2770	1-1/2	6	1921-310	19.70
K	0.2810	1-1/2	6	1921-311	19.70
L	0.2900	1-1/2	6	1921-312	19.70
M	0.2950	1-1/2	6	1921-313	19.70
N	0.3020	1-1/2	6	1921-314	19.70
O	0.3160	1-1/2	6	1921-315	20.38
P	0.3230	1-1/2	6	1921-316	20.96
Q	0.3320	1-1/2	6	1921-317	20.96
R	0.3390	1-1/2	6	1921-318	20.96
S	0.3480	1-3/4	7	1921-319	20.96
T	0.3580	1-3/4	7	1921-320	20.96
U	0.3680	1-3/4	7	1921-321	20.96
V	0.3770	1-3/4	7	1921-322	23.33
W	0.3860	1-3/4	7	1921-323	23.33
X	0.3970	1-3/4	7	1921-324	23.33
Y	0.4040	1-3/4	7	1921-325	23.98
Z	0.4130	1-3/4	7	1921-326	23.98

* LHS - RHC Price On Application.

Chucking Reamers - Straight Shank, RHS, RHC (Continued)

High Speed Steel

Wire Gage Sizes

DIA.	DECM'L EQUIV.	FLUTE LG'TH	OVER. LG'TH	ORDER NO.	PRICE EACH
1	0.2280	1-1/2	6	1921-201	15.58
2	0.2210	1-1/2	6	1921-202	15.58
3	0.2130	1-1/4	5	1921-203	15.58
4	0.2090	1-1/4	5	1921-204	15.58
5	0.2055	1-1/4	5	1921-205	15.58
6	0.2040	1-1/4	5	1921-206	15.58
7	0.2010	1-1/4	5	1921-207	15.58
8	0.1990	1-1/4	5	1921-208	15.58
9	0.1960	1-1/4	5	1921-209	15.58
10	0.1935	5	5	1921-210	15.58
11	0.1910	5	5	1921-211	15.18
12	0.1890	4-1/2	4-1/2	1921-212	14.56
13	0.1850	1-1/8	4-1/2	1921-213	14.56
14	0.1820	1-1/8	4-1/2	1921-214	14.56
15	0.1800	1-1/8	4-1/2	1921-215	14.56
16	0.1770	1-1/8	4-1/2	1921-216	13.29
17	0.1730	1-1/8	4-1/2	1921-217	13.29
18	0.1695	1-1/8	4-1/2	1921-218	12.33
19	0.1660	1-1/8	4-1/2	1921-219	12.33
20	0.1610	1-1/8	4-1/2	1921-220	12.33

DIA.	DECM'L EQUIV.	FLUTE LG'TH	OVER. LG'TH	ORDER NO.	PRICE EACH
21	0.1590	1-1/8	4-1/2	1921-221	\$12.33
22	0.1570	1	4	1921-222	12.33
23	0.1540	1	4	1921-223	12.33
24	0.1520	1	4	1921-224	12.33
25	0.1495	1	4	1921-225	12.33
26	0.1470	1	4	1921-226	12.33
27	0.1440	1	4	1921-227	12.33
28	0.1405	1	4	1921-228	12.33
29	0.1360	1	4	1921-229	12.33
30	0.1285	7/8	3-1/2	1921-230	10.29
31	0.1200	7/8	3-1/2	1921-231	10.29
32	0.1160	7/8	3-1/2	1921-232	10.29
33	0.1130	7/8	3-1/2	1921-233	10.29
34	0.1110	7/8	3-1/2	1921-234	10.29
35	0.1100	7/8	3-1/2	1921-235	10.29
36	0.1065	7/8	3-1/2	1921-236	10.29
37	0.1040	7/8	3-1/2	1921-237	10.29
38	0.1015	7/8	3-1/2	1921-238	10.29
39	0.0995	7/8	3-1/2	1921-239	10.29
40	0.0980	7/8	3-1/2	1921-240	10.29

DIA.	DECM'L EQUIV.	FLUTE LG'TH	OVER. LG'TH	ORDER NO.	PRICE EACH
41	0.0960	7/8	3-1/2	1921-241	\$10.29
42	0.0935	3/4	3	1921-242	10.29
43	0.0890	3/4	3	1921-243	10.29
44	0.0860	3/4	3	1921-244	10.29
45	0.0820	3/4	3	1921-245	10.29
46	0.0810	3/4	3	1921-246	10.29
47	0.0785	3/4	3	1921-247	10.29
48	0.0760	3/4	3	1921-248	10.29
49	0.0730	3/4	3	1921-249	12.33
50	0.0700	3/4	3	1921-250	12.33
51	0.0670	3/4	3	1921-251	12.33
52	0.0635	1/2	2-1/2	1921-252	12.33
53	0.0595	1/2	2-1/2	1921-253	12.33
54	0.0550	1/2	2-1/2	1921-254	12.33
55	0.0520	1/2	2-1/2	1921-255	12.33
56	0.0465	1/2	2-1/2	1921-256	12.33
57	0.0430	1/2	2-1/2	1921-257	12.33
58	0.0420	1/2	2-1/2	1921-258	12.33
59	0.0410	1/2	2-1/2	1921-259	12.33
60	0.0400	1/2	2-1/2	1921-260	12.33

RHS/RHC Available on request

Chucking Reamers - Cobalt

Straight Shank, Straight Flute

Fractional Sizes

FRAC. SIZES	FLUTE LG'TH	OAL	Pittsburg MCCORMICK ORDER NO.	PRICE EACH	USA PRICE EACH
3/64	1/2	2-1/2	-	-	1923-403 \$23.10
1/16	1/2	2-1/2	-	-	1923-404 23.10
5/64	3/4	3	-	-	1923-405 18.70
3/32	3/4	3	-	-	1923-406 18.70
7/64	7/8	3-1/2	-	-	1923-407 19.80
1/8	7/8	3-1/2	1923-008	\$15.50	1923-408 17.05
9/64	1	4	1923-009	21.00	1923-409 23.10
5/32	1	4	1923-010	21.00	1923-410 23.10
11/64	1-1/8	4-1/2	1923-011	22.00	1923-411 24.20
3/16	1-1/8	4-1/2	1923-012	22.00	1923-412 24.20
13/64	1-1/4	5	1923-013	25.50	1923-413 28.05
7/32	1-1/4	5	1923-014	25.50	1923-414 28.05
15/64	1-1/2	6	1923-015	26.00	1923-415 28.60
1/4	1-1/2	6	1923-016	22.50	1923-416 22.50
17/64	1-1/2	6	1923-017	34.00	1923-417 37.40

FRAC. SIZES	FLUTE LG'TH	OAL	Pittsburg MCCORMICK ORDER NO.	PRICE EACH	USA PRICE EACH
9/32	1-1/2	6	1923-018	34.00	1923-418 \$37.40
19/64	1-1/2	6	1923-019	34.00	1923-419 37.40
5/16	1-1/2	6	1923-020	34.00	1923-420 37.40
21/64	1-1/2	6	1923-021	37.00	1923-421 40.70
11/32	1-1/2	6	1923-022	37.00	1923-422 40.70
23/64	1-3/4	7	1923-023	37.00	1923-423 40.70
3/8	1-3/4	7	1923-024	34.00	1923-424 37.40
25/64	1-3/4	7	1923-025	48.00	1923-425 52.80
13/32	1-3/4	7	1923-026	48.00	1923-426 52.80
27/64	1-3/4	7	1923-027	48.00	1923-427 52.80
7/16	1-3/4	7	1923-028	48.00	1923-428 52.80
29/64	1-3/4	7	1923-029	54.50	1923-429 59.95
15/32	1-3/4	7	1923-030	54.50	1923-430 59.95
31/64	2	8	1923-031	54.50	1923-431 59.95
1/2	2	8	1923-032	49.50	1923-432 54.45

FRAC. SIZES	FLUTE LG'TH	OAL	Pittsburg MCCORMICK ORDER NO.	PRICE EACH	USA PRICE EACH
17/32	2	8	-	-	1923-434 \$78.43
9/16	2	8	-	-	1923-436 69.58
19/32	2	8	-	-	1923-438 69.58
5/8	2-1/4	9	-	-	1923-440 78.43
21/32	2-1/4	9	-	-	1923-442 97.41
11/16	2-1/4	9	-	-	1923-444 97.41
23/32	2-1/4	9	-	-	1923-446 115.12
3/4	2-1/2	9-1/2	-	-	1923-448 100.57
25/32	2-1/2	9-1/2	-	-	1923-450 106.90
13/16	2-1/2	9-1/2	-	-	1923-452 111.32
27/32	2-1/2	9-1/2	-	-	1923-454 129.03
7/8	2-5/8	10	-	-	1923-456 130.30
29/32	2-5/8	10	-	-	1923-458 141.68
15/16	2-5/8	10	-	-	1923-460 142.95
31/32	2-5/8	10	-	-	1923-462 161.92
1	2-3/4	10-1/2	-	-	1923-464 140.80

Over & Under Sizes

FLUTE OVER. DIAM. LG'TH LG'TH	ORDER NO.	PRICE EACH	USA ORDER NO.	PRICE EACH
.1240 7/8 3-1/2	1935-240	\$8.57	5415-240	\$19.80
.1260 7/8 3-1/2	1935-260	8.57	5415-260	19.80
.1865 1-1/8 4-1/2	1935-865	12.43	5415-865	24.20
.1885 1-1/8 4-1/2	1935-885	12.43	5415-885	24.20
.2490 1-1/2 6	1936-490	14.34	5416-490	28.60
.2510 1-1/2 6	1936-510	14.34	5416-510	24.75
.3115 1-1/2 6	1937-115	17.56	5417-115	37.40
.3135 1-1/2 6	1937-135	17.56	5417-135	37.40
.3740 1-3/4 7	1937-740	19.21	5417-740	41.80
.3760 1-3/4 7	1937-760	19.21	5417-760	41.80
.4365 1-3/4 7	1938-365	26.92	5418-365	52.80
.4385 1-3/4 7	1938-385	26.92	5418-385	52.80
.4990 2 8	1938-990	29.52	5418-990	59.95
.5010 2 8	1939-010	29.52	5419-010	68.95

Dowel Pin

FLUTE OVER. DIAM. LG'TH LG'TH	ORDER NO.	PRICE EACH	USA ORDER NO.	PRICE EACH
.1230 7/8 3-1/2	1935-230	\$ 8.57	5415-230	\$14.47
.1247 7/8 3-1/2	1935-247	8.57	5415-247	14.47
.1855 1-1/8 3-1/2	1935-855	12.43	5415-855	32.13
.1870 1-1/8 4-1/2	1935-870	12.43	5415-870	21.45
.2480 1-1/2 6	1936-480	14.34	5416-480	23.65
.2495 1-1/2 6	1936-495	14.34	5416-495	23.65
.3105 1-1/2 6	1937-105	17.56	5417-105	27.59
.3120 1-1/2 6	1937-120	17.56	5417-120	27.59
.3730 1-3/4 7	1937-730	19.21	5417-730	30.30
.3745 1-3/4 7	1937-745	19.21	5417-745	74.78
.4355 1-3/4 5-1/2	1938-355	26.92	5418-355	37.99
.4370 1-3/4 5-1/2	1938-370	26.92	5418-370	37.99
.4980 2 8	1938-980	29.52	5418-980	44.33
.4995 2 8	1938-995	29.52	5418-995	44.33

WARNING: This product contains Cobalt and/or Nickel and/or Lead a chemical known to the state of California to cause cancer or birth defects or other reproductive harm. For more information: www.prop65.ca.gov. WARNING: Cutting tools may shatter. Always wear approved safety glasses and mask when regrinding.



Special Decimal Chucking Reamers

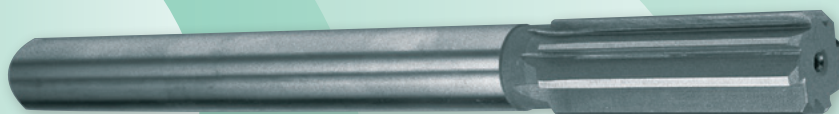
Straight Flute - Straight Shank R.H. Cut - High Speed Steel

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WARNING: Cutting tools may shatter. Always wear approved safety glasses and mask when regrinding.

The following Standard sizes are NOT included in this Special Decimal Chart:

Standard Standard Standard Metric Sizes
Dowel Sizes Over & Under Sizes 1.00mm thru 25.00mm by 0.5mm

Find these sizes in the Standard Reamer pricing charts.



SIZE	ORDER NO.	PRICE EACH	ORDER NO.	PRICE EACH
0.0295	—	—	5400-295	\$24.38
0.0300	—	—	5400-300	24.38
0.0335	2000-335†	\$11.70	5400-335†	17.88
0.0340	—	—	5400-340	30.65
0.0355	—	—	5400-355	35.00
0.0365	—	—	5400-365	27.99
0.0385	—	—	5400-385	35.00
0.0395	—	—	5400-395	35.00
0.0405	—	—	5400-405	31.00
0.0413	—	—	5400-413†	22.73
0.0415	—	—	5400-415	31.00
0.0425	—	—	5400-425	31.00
0.0433	—	—	5400-433	22.73
0.0435	—	—	5400-435	31.00
0.0440	2000-440	22.08	5400-440	31.00
0.0445	2000-445	10.08	5400-445	31.00
0.0450	—	—	5400-450	31.00
0.0455	—	—	5400-455	31.00
0.0460	—	—	5400-460	31.00
0.0470	—	—	5400-470	31.00
0.0475	—	—	5400-475	31.00
0.0480	—	—	5400-480	31.00
0.0485	—	—	5400-485	31.00
0.0490	—	—	5400-490	31.00
0.0495	2000-495	22.08	5400-495	31.00
0.0500	—	—	5400-500	31.00
0.0505	—	—	5400-505	31.00
0.0510	—	—	5400-510	31.00
0.0515	—	—	5400-515	31.00
0.0525	2000-525	22.08	5400-525	31.00
0.0530	—	—	5400-530	31.00
0.0531	—	—	5400-531†	76.34
0.0535	—	—	5400-535	31.00
0.0540	—	—	5400-540	31.00
0.0545	—	—	5400-545	31.00
0.0555	—	—	5400-555	31.00
0.0560	—	—	5400-560	31.00
0.0565	—	—	5400-565	31.00
0.0570	—	—	5400-570	31.00
0.0575	—	—	5400-575	31.00
0.0580	—	—	5400-580	31.00
0.0585	—	—	5400-585	31.00
0.0590	2000-590	21.27	5400-590	31.00
0.0600	2000-600	21.27	5400-600	31.00
0.0605	—	—	5400-605	31.00
0.0610	2000-610	21.27	5400-610	31.00
0.0615	2000-615	21.27	5400-615	31.00
0.0620	2000-620	21.27	5400-620	31.00
0.0630	2000-630	21.27	5400-630	31.00
0.0640	2000-640	19.45	5400-640	31.00
0.0645	—	—	5400-645	31.00
0.0650	2000-650	19.45	5400-650	31.00
0.0655	2000-655	9.18	5400-655	31.00
0.0660	—	—	5400-660	31.00
0.0665	—	—	5400-665	31.00
0.0675	—	—	5400-675	31.00
0.0677	2000-677†	19.45	—	—
0.0680	2000-680	19.51	5400-680	31.00
0.0685	—	—	5400-685	31.00

SIZE	ORDER NO.	PRICE EACH	ORDER NO.	PRICE EACH
0.0689	—	—	5400-689†	\$22.73
0.0690	—	—	5400-690	31.00
0.0695	—	—	5400-695	31.00
0.0705	—	—	5400-705	31.00
0.0709	—	—	5400-709†	22.73
0.0710	2000-710	\$19.51	5400-710	31.00
0.0715	—	—	5400-715	31.00
0.0720	—	—	5400-720	31.00
0.0725	—	—	5400-725	31.00
0.0728	—	—	5400-728†	22.73
0.0735	2000-735	19.51	5400-735	31.00
0.0740	—	—	5400-740	31.00
0.0745	—	—	5400-745	31.00
0.0748	—	—	5400-748†	22.73
0.0750	2000-750	19.51	5400-750	31.00
0.0755	—	—	5400-755	31.00
0.0765	—	—	5400-765	31.00
0.0765	—	—	5400-768†	22.73
0.0770	2000-770	19.51	5400-770	31.00
0.0775	—	—	5400-775	31.00
0.0780	2000-780	19.51	5400-780	31.00
0.0790	2000-790	19.56	5400-790	31.00
0.0792	2000-792†	9.18	—	—
0.0794	2000-794†	19.56	—	—
0.0795	2000-795	19.56	5400-795	31.00
0.0800	2000-800	19.56	5400-800	31.00
0.0805	2000-805	19.56	5400-805	31.00
0.0807	—	—	5400-807†	22.73
0.0815	—	—	5400-815	31.00
0.0825	2000-825	31.00	5400-825	31.00
0.0827	—	—	5400-827†	22.73
0.0830	—	—	5400-830	31.00
0.0835	—	—	5400-835	31.00
0.0840	2000-840	19.56	5400-840	31.00
0.0845	—	—	5400-845	31.00
0.0845	—	—	5400-846†	22.73
0.0850	2000-850	19.56	5400-850	31.00
0.0855	2000-855	19.56	5400-855	31.00
0.0865	—	—	5400-865	31.00
0.0866	—	—	5400-866†	22.73
0.0870	2000-870	19.56	5400-870	31.00
0.0875	—	—	5400-875	31.00
0.0880	2000-880	19.56	5400-880	31.00
0.0885	—	—	5400-885	31.00
0.0886	—	—	5400-886†	22.73
0.0895	—	—	5400-895	31.00
0.0900	2000-900	19.56	5400-900	22.73
0.0905	—	—	5400-905	31.00
0.0910	2000-910	19.56	5400-910	31.00
0.0915	—	—	5400-915	31.00
0.0920	2000-920	19.56	5400-920	31.00
0.0925	—	—	5400-925	31.00
0.0930	2000-930	19.56	5400-930	31.00
0.0931	—	—	5400-931†	22.73
0.0940	2000-940	19.56	5400-940	31.00
0.0944	2000-944†	19.56	—	—
0.0945	—	—	5400-945	31.00
0.0949	2000-949†	10.49	—	—
0.0950	2000-950	19.56	5400-950	31.00
0.0955	—	—	5400-955	31.00

SIZE	ORDER NO.	PRICE EACH	ORDER NO.	PRICE EACH
0.0965	—	—	5400-965	\$31.00
0.0970	2000-970	\$19.56	5400-970	31.00
0.0975	—	—	5400-975	31.00
0.0985	—	—	5400-985	31.00
0.0986	2000-986†	19.56	—	—
0.0990	2000-990	19.56	5400-990	31.00
0.1000	2001-000	19.56	5401-000	31.00
0.1005	—	—	5401-005	35.00
0.1010	2001-010	19.56	5401-010	31.00
0.1020	—	—	5401-020	31.00
0.1025	2001-025	19.56	5401-025	22.73
0.1030	—	—	5401-030	31.00
0.1035	—	—	5401-035	31.00
0.1045	—	—	5401-045	31.00
0.1050	2001-050	10.49	5401-050	31.00
0.1055	—	—	5401-055	31.00
0.1060	2001-060	19.56	5401-060	31.00
0.1063	—	—	5401-063†	31.00
0.1070	2001-070	19.56	5401-070	31.00
0.1075	—	—	5401-075	31.00
0.1080	2001-080	19.56	5401-080	31.00
0.1083	—	—	5401-083†	18.69
0.1085	—	—	5401-085	31.00
0.1090	—	—	5401-090	31.00
0.1095	—	—	5401-095	26.75
0.1105	2001-105	9.66	5401-105	26.75
0.1115	—	—	5401-115	26.75
0.1120	2001-120	17.14	5401-120	26.75
0.1125	—	—	5401-125	26.75
0.1135	—	—	5401-135	26.75
0.1140	2001-140	9.66	5401-140	26.75
0.1145	—	—	5401-145	26.75
0.1150	—	—	5401-150	26.75
0.1155	2001-155	17.14	5401-155	26.75
0.1165	—	—	5401-165	26.75
0.1170	2001-170	17.14	5401-170	26.75
0.1175	—	—	5401-175	26.75
0.1180	—	—	5401-180	26.75
0.1185	—	—	5401-185	26.75
0.1190	2001-190	17.14	5401-190	26.75
0.1195	—	—	5401-195	26.75
0.1205	—	—	5401-205	26.75
0.1210	2001-210	17.14	5401-210	26.75
0.1215	2001-215	17.14	5401-215	19.62
0.1220	2001-220	17.14	5401-220	26.75
0.1225	2001-225	17.14	5401-225	26.75
0.1235	2001-235	17.14	5401-235	26.75
0.1243	—	—	5401-243†	35.00
0.1245	2001-245	17.14	5401-245	26.75
0.1253	2001-253†	17.14	—	—
0.1255	2001-255	17.14	5401-255	32.13
0.1257	2001-257†	17.14	—	—
0.1265	2001-265	22.98	5401-265	32.13
0.1270	2001-270	22.98	5401-270	32.13
0.1275	2001-275	22.98	5401-275	32.13
0.1280	2001-280	22.98	5401-280	32.13
0.1290	2001-290	22.98	5401-290	32.13
0.1295	2001-295	22.98	5401-295	32.13
0.1299	2001-299†	22.98	—	—

† Limited Quantities.

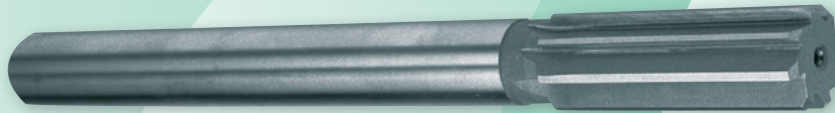
Special Decimal Chucking Reamers

Straight Flute - Straight Shank R.H. Cut - High Speed Steel

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The following Standard sizes are NOT included in this Special Decimal Chart:

Standard Dowel Sizes	Standard Over & Under Sizes	Standard Metric Sizes 1.00mm thru 25.00mm by 0.5mm
Find these sizes in the Standard Reamer pricing charts.		



SIZE	ORDER NO.	PRICE EACH	ORDER NO.	PRICE EACH
0.1300	2001-300	\$22.98	5401-300	\$32.13
0.1305	2001-305	22.98	5401-305	32.13
0.1310	2001-310	22.98	5401-310	32.13
0.1315	2001-315	22.98	5401-315	32.13
0.1320	2001-320	22.98	5401-320	32.13
0.1325	2001-325	22.98	5401-325	32.13
0.1330	2001-330	22.98	5401-330	32.13
0.1335	2001-335	22.98	5401-335	32.13
0.1340	2001-340	22.98	5401-340	32.13
0.1345	2001-345	22.98	5401-345	32.13
0.1350	2001-350	22.98	5401-350	32.13
0.1355	2001-355	22.18	5401-355	32.13
0.1365	2001-365	22.98	5401-365	32.13
0.1370	2001-370	22.98	5401-370	32.13
0.1375	2001-375	22.98	5401-375	32.13
0.1380	2001-380	22.98	5401-380	32.13
0.1385	2001-385	22.98	5401-385	32.13
0.1390	2001-390	22.98	5401-390	32.13
0.1395	2001-395	22.98	5401-395	32.13
0.1400	2001-400	22.98	5401-400	32.13
0.1410	2001-410	21.17	5401-410	32.13
0.1415	2001-415	21.17	5401-415	32.13
0.1420	2001-420	21.17	5401-420	32.13
0.1425	2001-425	21.17	5401-425	32.13
0.1430	2001-430	21.17	5401-430	32.13
0.1435	2001-435	21.17	5401-435	32.13
0.1445	2001-445	21.17	5401-445	32.13
0.1450	2001-450	21.17	5401-450	32.13
0.1455	2001-455	10.49	5401-455	32.13
0.1460	2001-460	21.17	5401-460	32.13
0.1465	2001-465	21.17	5401-465	32.13
0.1475	2001-475	10.49	5401-475	32.13
0.1480	2001-480	21.17	5401-480	32.13
0.1485	2001-485	21.17	5401-485	32.13
0.1490	2001-490	21.17	5401-490	32.13
0.1500	2001-500	21.17	5401-500	32.13
0.1505	2001-505	21.17	5401-505	32.13
0.1510	2001-510	21.17	5401-510	32.13
0.1515	2001-515	21.17	5401-515	32.13
0.1525	2001-525	21.17	5401-525	32.13
0.1528	2001-528†	21.17	—	—
0.1530	2001-530	21.17	5401-530	32.13
0.1535	2001-535	21.17	5401-535	32.13
0.1545	2001-545	21.17	5401-545	32.13
0.1550	2001-550	21.17	5401-550	32.13
0.1552	2001-552†	21.17	—	—
0.1555	2001-555	21.17	5401-555	32.13
0.1560	2001-560	21.17	5401-560	32.13
0.1565	2001-565	21.17	5401-565	32.13
0.1578	2001-578†	10.49	—	—
0.1580	2001-580	21.17	5401-580	32.13
0.1585	2001-585	22.18	5401-585	32.13
0.1592	2001-592†	22.18	—	—
0.1595	2001-595	22.18	5401-595	32.13
0.1600	2001-600	22.18	5401-600	32.13
0.1605	2001-605	22.18	5401-605	32.13
0.1615	2001-615	22.18	5401-615	32.13

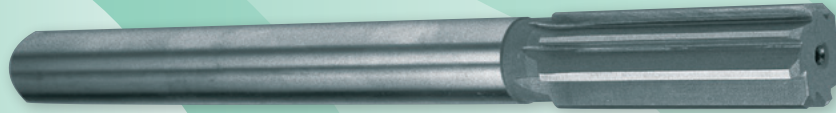
SIZE	ORDER NO.	PRICE EACH	ORDER NO.	PRICE EACH
0.1620	2001-620	\$22.18	5401-620	\$23.56
0.1625	2001-625	22.18	5401-625	32.13
0.1630	2001-630	22.18	5401-630	32.13
0.1635	2001-635	22.18	5401-635	32.13
0.1640	2001-640	22.18	5401-640	32.13
0.1645	2001-645	22.18	5401-645	32.13
0.1650	2001-650	22.18	5401-650	32.13
0.1655	2001-655	22.18	5401-655	32.13
0.1665	2001-665	22.18	5401-665	32.13
0.1670	2001-670	22.18	5401-670	32.13
0.1675	2001-675	10.49	5401-675	32.13
0.1678	2001-678†	22.18	—	—
0.1680	2001-680	22.18	5401-680	32.13
0.1685	2001-685	22.18	5401-685	32.13
0.1690	2001-690	22.18	5401-690	32.13
0.1700	2001-700	22.18	5401-700	31.00
0.1705	2001-705	22.18	5401-705	32.13
0.1710	2001-710	22.18	5401-710	32.13
0.1715	2001-715	22.18	5401-715	32.13
0.1720	2001-720	22.18	5401-720	32.13
0.1725	2001-725	22.18	5401-725	32.13
0.1735	2001-735	22.18	5401-735	32.13
0.1740	2001-740	22.18	5401-740	32.13
0.1745	2001-745	10.49	5401-745	32.13
0.1750	2001-750	22.18	5401-750	32.13
0.1755	2001-755	22.18	5401-755	32.13
0.1760	2001-760	22.18	5401-760	32.13
0.1765	2001-765	22.18	5401-765	32.13
0.1775	2001-775	22.18	5401-775	32.13
0.1780	2001-780	22.18	5401-780	32.13
0.1785	2001-785	22.18	5401-785	32.13
0.1790	2001-790	22.18	5401-790	32.13
0.1795	2001-795	22.18	5401-795	32.13
0.1805	2001-805	22.18	5401-805	32.13
0.1810	2001-810	22.18	5401-810	32.13
0.1815	2001-815	22.18	5401-815	32.13
0.1825	2001-825	22.18	5401-825	32.13
0.1830	2001-830	22.18	5401-830	32.13
0.1835	2001-835	22.18	5401-835	32.13
0.1840	2001-840	22.18	5401-840	32.13
0.1845	2001-845	22.18	5401-845	32.13
0.1860	2001-860	22.18	5401-860	32.13
0.1876	2001-876†	12.02	—	—
0.1880	2001-880	25.01	5401-880	32.13
0.1895	2001-895	25.01	5401-895	32.13
0.1900	2001-900	25.01	5401-900	32.13
0.1905	2001-905	25.01	5401-905	32.13
0.1915	2001-915	25.01	5401-915	32.13
0.1920	2001-920	25.01	5401-920	32.13
0.1925	2001-925	25.01	5401-925	32.13
0.1929	2001-929†	15.01	—	—
0.1930	2001-930	25.01	5401-930	32.13
0.1940	2001-940	25.01	5401-940	32.13
0.1945	2001-945	25.01	5401-945	32.13
0.1950	2001-950	25.01	5401-950	32.13
0.1955	2001-955	25.01	5401-955	32.13
0.1965	2001-965	25.01	5401-965	32.13
0.1970	2001-970	12.02	5401-970	32.13
0.1975	2001-975	25.01	5401-975	32.13

SIZE	ORDER NO.	PRICE EACH	ORDER NO.	PRICE EACH
0.1980	2001-980	\$25.01	5401-980	\$32.13
0.1985	2001-985	12.02	5401-985	32.13
0.1995	2001-995	25.01	5401-995	32.13
0.2000	2002-000	25.01	5402-000	32.13
0.2005	2002-005	25.01	5402-005	32.13
0.2015	2002-015	25.01	5402-015	32.13
0.2020	2002-020	25.01	5402-020	32.13
0.2025	2002-025	25.01	5402-025	32.13
0.2030	2002-030	25.01	5402-030	27.75
0.2035	2002-035	25.01	5402-035	32.13
0.2045	2002-045	24.58	5402-045	32.13
0.2050	2002-050	24.58	5402-050	32.13
0.2060	2002-060	24.58	5402-060	32.13
0.2070	2002-070	24.58	5402-070	32.13
0.2075	2002-075	12.02	5402-075	32.13
0.2080	2002-080	24.58	5402-080	32.13
0.2085	2002-085	24.58	5402-085	32.13
0.2095	2002-095	24.58	5402-095	32.13
0.2100	2002-100	24.58	5402-100	32.13
0.2105	2002-105	24.58	5402-105	32.13
0.2110	2002-110	24.58	5402-110	32.13
0.2115	2002-115	24.58	5402-115	32.13
0.2120	2002-120	24.58	5402-120	32.13
0.2125	2002-125	24.58	5402-125	32.13
0.2135	2002-135	24.58	5402-135	32.13
0.2140	2002-140	24.58	5402-140	32.13
0.2145	2002-145	24.58	5402-145	32.13
0.2150	2002-150	24.58	5402-150	32.13
0.2155	2002-155	24.58	5402-155	32.13
0.2160	2002-160	24.58	5402-160	32.13
0.2166	—	—	5402-166†	23.56
0.2170	2002-170	24.58	5402-170	32.13
0.2175	2002-175	24.58	5402-175	32.13
0.2180	2002-180	24.58	5402-180	32.13
0.2185	2002-185	24.58	5402-185	32.13
0.2190	2002-190	24.58	5402-190	32.13
0.2195	2002-195	24.58	5402-195	32.13
0.2200	2002-200	24.58	5402-200	32.13
0.2205	2002-205	24.58	5402-205	32.13
0.2215	2002-215	24.58	5402-215	32.13
0.2220	2002-220	24.58	5402-220	32.13
0.2225	2002-225	24.58	5402-225	32.13
0.2230	2002-230	24.58	5402-230	32.13
0.2235	2002-235	24.58	5402-235	32.13
0.2240	2002-240	24.58	5402-240	32.13
0.2245	2002-245	12.02	5402-245	32.13
0.2250	2002-250	24.58	5402-250	32.13
0.2260	2002-260	24.58	5402-260	32.13
0.2265	2002-265	24.58	5402-265	32.13
0.2270	2002-270	24.58	5402-270	32.13
0.2275	2002-275	24.58	5402-275	32.13
0.2285	2002-285	12.02	5402-285	32.13
0.2290	2002-290	24.58	5402-290	32.13
0.2295	2002-295	24.58	5402-295	32.13
0.2300	2002-300	24.58	5402-300	32.13
0.2305	2002-305	12.02	5402-305	32.13
0.2310	2002-310	24.58	5402-310	32.13
0.2315	2002-315	12.02	5402-315	32.13

† Limited Quantities.

Special Decimal Chucking Reamers

Straight Flute - Straight Shank - R.H. Cut - High Speed Steel



WARNING: This product contains Cobalt and/or Nickel and/or Lead a chemical known to the state of California to cause cancer or birth defects or other reproductive harm. For more information: www.pro65.ca.gov.
WARNING: Cutting tools may shatter. Always wear approved safety glasses and mask when regrinding.

2		1	
SIZE	ORDER NO.	PRICE EACH	PRICE EACH
0.2320	2002-320	\$24.58	5402-320 \$32.13
0.2325	2002-325	12.02	5402-325 32.13
0.2330	2002-330	22.93	5402-330 32.13
0.2335	2002-335	22.93	5402-335 32.13
0.2345	2002-345	12.89	5402-345 32.13
0.2350	2002-350	22.93	5402-350 32.13
0.2355	2002-355	22.93	5402-355 32.13
0.2360	2002-360	22.93	5402-360 32.13
0.2365	2002-365	22.93	5402-365 32.13
0.2370	2002-370	22.93	5402-370 32.13
0.2375	2002-375	22.93	5402-375 32.13
0.2385	2002-385	22.93	5402-385 32.13
0.2390	2002-390	22.93	5402-390 32.13
0.2395	2002-395	22.93	5402-395 32.13
0.2400	2002-400	22.93	5402-400 32.13
0.2405	2002-405	22.93	5402-405 32.13
0.2410	2002-410	22.93	5402-410 32.13
0.2415	2002-415	22.93	5402-415 32.13
0.2425	2002-425	22.93	5402-425 32.13
0.2430	2002-430	22.93	5402-430 32.13
0.2435	2002-435	22.93	5402-435 32.13
0.2440	2002-440	22.93	5402-440 32.13
0.2445	2002-445	22.93	5402-445 32.13
0.2450	2002-450	22.93	5402-450 32.13
0.2455	2002-455	22.93	5402-455 32.13
0.2465	2002-465	12.89	5402-465 32.13
0.2470	2002-470	22.93	5402-470 32.13
0.2475	2002-475	22.93	5402-475 32.13
0.2485	2002-485	22.93	5402-485 32.13
0.2505	2002-505	27.83	5402-505 40.25
0.2515	2002-515	27.83	5402-515 40.25
0.2520	2002-520	27.82	5402-520 40.25
0.2525	2002-525	13.41	5402-525 40.25
0.2530	2002-530	27.82	5402-530 40.25
0.2535	2002-535	27.82	5402-535 40.25
0.2540	2002-540	27.82	5402-540 40.25
0.2545	-	-	5402-545 40.25
0.2550	2002-550	27.82	5402-550 40.25
0.2560	2002-560	27.82	5402-560 40.25
0.2580	2002-580	27.82	5402-580 40.25
0.2590	2002-590	27.82	5402-590 40.25
0.2595	-	-	5402-595 40.25
0.2600	2002-600	27.82	5402-600 40.25
0.2620	2002-620	27.82	5402-620 40.25
0.2630	2002-630	27.82	5402-630 40.25
0.2640	2002-640	27.82	5402-640 40.25
0.2650	2002-650	27.82	5402-650 40.25
0.2655	2002-655	27.82	5402-655 40.25
0.2657	2002-657†	13.46	-
0.2665	2002-665	27.82	5402-665 40.25
0.2670	2002-670	27.82	5402-670 40.25
0.2675	2002-675	13.46	5402-675 40.25
0.2677	2002-677†	27.82	-
0.2680	2002-680	27.82	5402-680 40.25
0.2690	2002-690	27.82	5402-690 40.25
0.2700	2002-700	27.82	5402-700 40.25
0.2705	2002-705	27.82	5402-705 40.25
0.2710	2002-710	27.82	5402-710 40.25
0.2725	2002-725	27.82	5402-725 40.25
0.2730	2002-730	27.82	5402-730 40.25
0.2735	2002-735	27.82	5402-735 40.25
0.2740	2002-740	27.82	5402-740 40.25
0.2745	2002-745	27.82	5402-745 40.25
0.2750	2002-750	27.82	5402-750 40.25
0.2760	2002-760	27.82	5402-760 29.52
0.2765	2002-765	27.82	5402-765 40.25
0.2775	2002-775	13.46	5402-775 40.25
0.2780	2002-780	27.82	5402-780 40.25
0.2785	2002-785	27.82	5402-785 40.25
0.2790	2002-790	24.84	5402-790 40.25

2		1	
SIZE	ORDER NO.	PRICE EACH	PRICE EACH
0.2795	2002-795	\$27.82	5402-795 \$40.25
0.2800	2002-800	27.82	5402-800 40.25
0.2805	2002-805	13.46	5402-805 40.25
0.2811	2202-811†	27.82	-
0.2815	2002-815	27.82	5402-815 40.25
0.2820	2002-820	27.82	5402-820 40.25
0.2825	2002-825	27.82	5402-825 40.25
0.2830	2002-830	27.82	5402-830 40.25
0.2835	2002-835	27.82	5402-835 40.25
0.2840	2002-840	27.82	5402-840 40.25
0.2845	2002-845	27.82	5402-845 40.25
0.2850	2002-850	27.82	5402-850 40.25
0.2855	2002-855	27.82	5402-855 40.25
0.2860	2002-860	27.82	5402-860 40.25
0.2865	2002-865	27.82	5402-865 40.25
0.2870	2002-870	27.82	5402-870 40.25
0.2874	2002-874†	13.46	-
0.2875	2002-875	13.46	5402-875 40.25
0.2880	2002-880	27.82	5402-880 40.25
0.2885	2002-885	27.82	5402-885 40.25
0.2890	2002-890	27.82	5402-890 40.25
0.2895	2002-895	13.46	5402-895 40.25
0.2905	2002-905	13.46	5402-905 40.25
0.2910	2002-910	27.82	5402-910 40.25
0.2915	2002-915	27.82	5402-915 40.25
0.2920	2002-920	27.82	5402-920 40.25
0.2925	2002-925	27.82	5402-925 40.25
0.2930	2002-930	27.82	5402-930 40.25
0.2935	2002-935	13.46	5402-935 40.25
0.2940	2002-940	27.82	5402-940 40.25
0.2945	2002-945	27.82	5402-945 40.25
0.2946	-	-	5402-946† 29.52
0.2955	2002-955	13.46	5402-955 40.25
0.2960	2002-960	27.82	5402-960 40.25
0.2965	2002-965	27.82	5402-965 40.25
0.2970	2002-970	27.82	5402-970 40.25
0.2975	2002-975	13.46	5402-975 40.25
0.2980	2002-980	27.82	5402-980 40.25
0.2985	2002-985	27.82	5402-985 40.25
0.2990	2002-990	27.82	5402-990 40.25
0.2992	2002-992†	27.82	-
0.2995	2002-995	27.82	5402-995 40.25
0.3000	2003-000	27.82	5403-000 40.25
0.3005	2003-005	13.46	5403-005 40.25
0.3010	2003-010	27.82	5403-010 40.25
0.3015	2003-015	13.46	5403-015 40.25
0.3025	2003-025	27.82	5403-025 40.25
0.3030	2003-030	27.82	5403-030 40.25
0.3031	2003-031†	27.82	-
0.3035	2003-035	13.46	5403-035 40.25
0.3040	2003-040	27.82	5403-040 40.25
0.3045	2003-045	13.46	5403-045 40.25
0.3050	2003-050	27.82	5403-050 40.25
0.3051	2003-051†	27.82	-
0.3055	2003-055	27.82	5403-055 40.25
0.3060	2003-060	27.82	5403-060 40.25
0.3065	2003-065	13.46	5403-065 40.25
0.3070	2003-070	27.82	5403-070 40.25
0.3071	2003-071†	27.82	-
0.3075	2003-075	27.82	5403-075 40.25
0.3076	-	-	5403-076† 29.52
0.3080	2003-080	27.82	5403-080 40.25
0.3085	2003-085	13.46	5403-085 40.25
0.3090	2003-090	27.82	5403-090 40.25
0.3095	2003-095	13.46	5403-095 40.25
0.3100	2003-100	27.82	5403-100 40.25
0.3110	2003-110	27.82	5403-110 40.25
0.3130	2003-130	28.18	5403-130 47.25
0.3140	2003-140	28.18	5403-140 47.25
0.3145	2003-145	28.18	5403-145 47.25
0.3155	2003-155	28.18	5403-155 47.25

2		1	
SIZE	ORDER NO.	PRICE EACH	PRICE EACH
0.3165	2003-165	\$28.18	5403-165 \$47.25
0.3170	2003-170	28.18	5403-170 47.25
0.3175	2003-175	13.46	5403-175 47.25
0.3180	2003-180	28.18	5403-180 47.25
0.3185	2003-185	13.46	5403-185 47.25
0.3190	2003-190	28.18	5403-190 47.25
0.3195	2003-195	28.18	5403-195 47.25
0.3200	2003-200	28.18	5403-200 47.25
0.3205	2003-205	28.18	5403-205 47.25
0.3210	2003-210	28.18	5403-210 47.25
0.3215	2003-215	13.46	5403-215 47.25
0.3220	2003-220	28.18	5403-220 47.25
0.3225	2003-225	28.18	5403-225 47.25
0.3240	2003-240	28.18	5403-240 47.25
0.3245	2003-245	13.46	5403-245 47.25
0.3250	2003-250	28.18	5403-250 47.25
0.3255	2003-255	13.46	5403-255 47.25
0.3260	2003-260	28.18	5403-260 47.25
0.3265	2003-265	13.46	5403-265 47.25
0.3270	2003-270	28.18	5403-270 47.25
0.3275	2003-275	28.18	5403-275 47.25
0.3280	2003-280	28.18	5403-280 47.25
0.3285	2003-285	13.46	5403-285 47.25
0.3290	2003-290	28.18	5403-290 47.25
0.3295	2003-295	13.46	5403-295 47.25
0.3300	2003-300	28.18	5403-300 47.25
0.3305	2003-305	13.46	5403-305 47.25
0.3310	2003-310	28.18	5403-310 47.25
0.3315	2003-315	28.18	5403-315 47.25
0.3325	-	-	5403-325 47.25
0.3330	2003-330	28.18	5403-330 47.25
0.3335	2003-335	13.46	5403-335 47.25
0.3340	2003-340	28.18	5403-340 47.25
0.3345	2003-345	13.46	5403-345 47.25
0.3350	2003-350	28.18	5403-350 47.25
0.3355	2003-355	28.18	5403-355 47.25
0.3360	2003-360	28.18	5403-360 47.25
0.3365	2003-365	13.46	5403-365 47.25
0.3370	2003-370	28.18	5403-370 47.25
0.3375	2003-375	28.18	5403-375 47.25
0.3380	2003-380	29.33	5403-380 47.25
0.3385	2003-385	13.46	5403-385 47.25
0.3395	2003-395	13.46	5403-395 47.25
0.3400	2003-400	29.33	5403-400 47.25
0.3410	2003-410	29.33	5403-410 47.25
0.3415	2003-415	13.46	5403-415 47.25
0.3420	2003-420	29.33	5403-420 47.25
0.3425	2003-425	29.33	5403-425 47.25
0.3430	2003-430	29.33	5403-430 47.25
0.3435	2003-435	13.46	5403-435 47.25
0.3440	2003-440	29.33	5403-440 47.25
0.3445	2003-445	29.33	5403-445 47.25
0.3450	2003-450	29.33	5403-450 47.25
0.3455	2003-455	29.33	5403-455 47.25
0.3460	2003-460	29.33	5403-460 47.25
0.3465	2003-465	16.62	5403-465 47.25
0.3470	2003-470	29.33	5403-470 47.25
0.3475	2003-475	29.33	5403-475 47.25
0.3476	-	-	5403-476 34.65
0.3485	2003-485	29.33	5403-485 47.25
0.3490	2003-490	29.33	5403-490 47.25

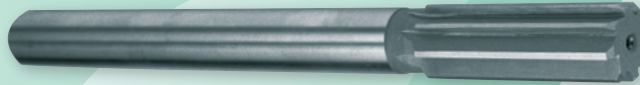
Special Decimal Chucking Reamers

**Straight Flute - Straight Shank
R.H. Cut - High Speed Steel**

The following Standard sizes are NOT included in this Special Decimal Chart:

Standard Dowel Sizes Standard Over & Under Sizes Standard Metric Sizes 1.00mm - 25.00mm by 0.5mm Find these sizes in the Standard Reamer pricing charts.

WARNING: This product contains Cobalt and/or Nickel and/or Lead a chemical known to the state of California to cause cancer or birth defects or other reproductive harm. For more information: www.pro65.ca.gov
WARNING: Cutting tools may shatter. Always wear approved safety glasses and mask when regrinding.



SIZE	ORDER NO.	PRICE EACH	ORDER NO.	PRICE EACH
0.3535	2003-535	\$16.62	5403-535	\$47.25
0.3540	2003-540	29.33	5403-540	47.25
0.3545	2003-545	16.62	5403-545	47.25
0.3546	-	-	5403-546†	34.65
0.3550	2003-550	29.33	5403-550	47.25
0.3555	2003-555	16.62	5403-555	47.25
0.3560	2003-560	29.33	5403-560	47.25
0.3565	2003-565	29.33	5403-565	47.25
0.3570	2003-570	29.33	5403-570	47.25
0.3575	2003-575	16.62	5403-575	47.25
0.3583	2003-583†	29.33	-	-
0.3585	2003-585	29.33	5403-585	47.25
0.3590	2003-590	29.33	5403-590	47.25
0.3595	2003-595	16.62	5403-595	47.25
0.3600	2003-600	29.33	5403-600	34.65
0.3610	2003-610	29.33	5403-610	47.25
0.3615	2003-615	29.33	5403-615	47.25
0.3620	2003-620	29.33	5403-620	47.25
0.3625	2003-625	29.33	5403-625	47.25
0.3630	2003-630	29.33	5403-630	47.25
0.3635	2003-635	15.94	5403-635	47.25
0.3640	2003-640	29.33	5403-640	47.25
0.3650	2003-650	29.33	5403-650	47.25
0.3655	2003-655	15.94	5403-655	47.25
0.3660	2003-660	29.33	5403-660	47.25
0.3665	2003-665	15.94	5403-665	47.25
0.3670	2003-670	29.33	5403-670	47.25
0.3675	2003-675	29.33	5403-675	47.25
0.3685	2003-685	29.33	5403-685	47.25
0.3690	2003-690	29.33	5403-690	47.25
0.3695	2003-695	26.19	5403-695	47.25
0.3700	2003-700	30.80	5403-700	47.25
0.3701	2003-701†	29.33	-	-
0.3705	2003-705	30.80	5403-705	47.25
0.3710	2003-710	30.80	5403-710	47.25
0.3715	2003-715	30.80	5403-715	47.25
0.3720	2003-720	29.33	5403-720	47.25
0.3725	2003-725	29.33	5403-725	47.25
0.3735	2003-735	29.33	5403-735	47.25
0.3755	2003-755	30.80	5403-755	47.25
0.3765	2003-765	16.46	5403-765	47.25
0.3775	2003-775	30.80	5403-775	47.25
0.3780	2003-780	30.80	5403-780	47.25
0.3785	2003-785	30.80	5403-785	47.25
0.3790	2003-790	30.80	5403-790	47.25
0.3795	2003-795	30.80	5403-795	47.25
0.3800	2003-800	30.80	5403-800	47.25
0.3805	2003-805	30.80	5403-805	47.25
0.3810	2003-810	30.80	5403-810	47.25
0.3815	2003-815	30.80	5403-815	47.25
0.3819	2003-819†	30.80	-	-
0.3820	2003-820	30.80	5403-820	47.25
0.3825	2003-825	30.80	5403-825	47.25
0.3830	2003-830	30.80	5403-830	47.25
0.3835	2003-835	30.80	5403-835	47.25
0.3839	2003-839†	30.80	-	-
0.3840	2003-840	30.80	5403-840	47.25
0.3845	2003-845	30.80	5403-845	47.25
0.3850	2003-850	30.80	5403-850	47.25
0.3855	2003-855	30.80	5403-855	47.25
0.3865	2003-865	16.74	5403-865	47.25
0.3870	2003-870	30.80	5403-870	47.25
0.3875	2003-875	16.74	5403-875	47.25
0.3880	2003-880	30.80	5403-880	47.25
0.3885	2003-885	30.80	5403-885	47.25
0.3890	2003-890	30.80	5403-890	47.25
0.3895	2003-895	16.74	5403-895	47.25
0.3900	2003-900	30.80	5403-900	47.25

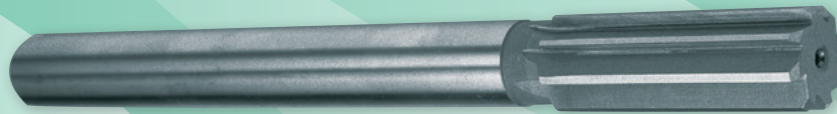
SIZE	ORDER NO.	PRICE EACH	ORDER NO.	PRICE EACH
0.3905	2003-905	\$30.80	5403-905	\$47.25
0.3910	2003-910	31.81	5403-910	48.38
0.3915	2003-915	16.74	5403-915	48.38
0.3920	2003-920	31.81	5403-920	48.38
0.3925	2003-925	31.81	5403-925	48.38
0.3930	2003-930	31.81	5403-930	48.38
0.3935	2003-935	16.74	5403-935	48.38
0.3940	2003-940	31.81	5403-940	48.38
0.3945	2003-945	31.81	5403-945	48.38
0.3950	2003-950	31.81	5403-950	48.38
0.3955	2003-955	31.81	5403-955	48.38
0.3960	2003-960	31.81	5403-960	48.38
0.3965	2003-965	31.81	5403-965	48.38
0.3975	2003-975	31.81	5403-975	48.38
0.3980	2003-980	31.81	5403-980	48.38
0.3985	2003-985	16.74	5403-985	48.38
0.3990	2003-990	31.81	5403-990	48.38
0.3995	2003-995	16.74	5403-995	48.38
0.4000	2004-000	31.81	5404-000	48.38
0.4005	2004-005	31.81	5404-005	48.38
0.4010	2004-010	31.81	5404-010	48.38
0.4015	2004-015	31.81	5404-015	48.38
0.4020	2004-020	31.81	5404-020	48.38
0.4025	2004-025	31.81	5404-025	48.38
0.4030	2004-030	31.81	5404-030	48.38
0.4033	-	-	5404-033†	35.48
0.4035	2004-035	16.74	5404-035	48.38
0.4045	2004-045	16.74	5404-045	48.38
0.4050	2004-050	31.81	5404-050	48.38
0.4052	2004-052†	31.81	-	-
0.4055	2004-055	16.74	5404-055	48.38
0.4060	2004-060	31.81	5404-060	48.38
0.4065	2004-065	16.74	5404-065	48.38
0.4070	2004-070	31.81	5404-070	48.38
0.4075	2004-075	31.81	5404-075	48.38
0.4080	2004-080	31.81	5404-080	48.38
0.4085	2004-085	31.81	5404-085	48.38
0.4086	-	-	5404-086†	35.48
0.4090	2004-090	31.81	5404-090	48.38
0.4095	2004-095	31.81	5404-095	48.38
0.4100	2004-100	31.81	5404-100	48.38
0.4105	2004-105	31.81	5404-105	48.38
0.4110	2004-110	31.81	5404-110	48.38
0.4115	2004-115	31.81	5404-115	48.38
0.4120	2004-120	31.81	5404-120	48.38
0.4125	2004-125	16.74	5404-125	48.38
0.4135	2004-135	31.81	5404-135	48.38
0.4140	2004-140	31.81	5404-140	48.38
0.4145	2004-145	16.74	5404-145	48.38
0.4150	2004-150	31.81	5404-150	48.38
0.4155	2004-155	16.74	5404-155	48.38
0.4160	2004-160	31.81	5404-160	48.38
0.4165	2004-165	16.74	5404-165	48.38
0.4170	2004-170	31.81	5404-170	48.38
0.4175	2004-175	16.74	5404-175	48.38
0.4180	2004-180	31.81	5404-180	48.38
0.4185	2004-185	16.74	5404-185	48.38
0.4190	2004-190	31.81	5404-190	48.38
0.4195	2004-195	16.74	5404-195	48.38
0.4200	2004-200	31.81	5404-200	48.38
0.4205	2004-205	16.74	5404-205	48.38
0.4210	2004-210	31.81	5404-210	48.38
0.4215	2004-215	31.81	5404-215	48.38
0.4220	2004-220	31.81	5404-220	48.38
0.4225	2004-225	31.81	5404-225	48.38
0.4230	2004-230	31.81	5404-230	48.38
0.4235	2004-235	31.81	5404-235	48.38
0.4240	2004-240	31.81	5404-240	48.38

				
SIZE	ORDER NO.	PRICE EACH	ORDER NO.	PRICE EACH
0.4245	2004-245	\$16.74	5404-245	\$48.38
0.4250	2004-250	31.81	5404-250	48.38
0.4255	2004-255	31.81	5404-255	48.38
0.4260	2004-260	31.81	5404-260	48.38
0.4265	2004-265	16.74	5404-265	48.38
0.4270	2004-270	31.81	5404-270	48.38
0.4275	2004-275	16.74	5404-275	48.38
0.4280	2004-280	31.81	5404-280	48.38
0.4285	2004-285	31.81	5404-285	48.38
0.4290	2004-290	31.81	5404-290	48.38
0.4295	2004-295	31.81	5404-295	48.38
0.4300	2004-300	31.81	5404-300	48.38
0.4305	2004-305	31.81	5404-305	48.38
0.4310	2004-310	31.81	5404-310	48.38
0.4315	2004-315	31.81	5404-315	48.38
0.4320	2004-320	31.81	5404-320	48.38
0.4325	2004-325	31.81	5404-325	48.38
0.4330	2004-330	31.81	5404-330	48.38
0.4335	2004-335	31.81	5404-335	48.38
0.4336	-	-	5404-336†	61.25
0.4340	2004-340	31.81	5404-340	48.38
0.4345	2004-345	31.81	5404-345	48.38
0.4350	2004-350	31.81	5404-350	48.38
0.4360	2004-360	31.81	5404-360	48.38
0.4380	2004-380	33.12	5404-380	51.25
0.4390	2004-390	33.12	5404-390	51.25
0.4395	2004-395	16.74	5404-395	51.25
0.4400	2004-400	33.12	5404-400	51.25
0.4405	2004-405	16.74	5404-405	51.25
0.4410	2004-410	33.12	5404-410	51.25
0.4415	2004-415	33.12	5404-415	51.25
0.4420	2004-420	33.12	5404-420	51.25
0.4425	2004-425	16.74	5404-425	51.25
0.4430	2004-430	33.12	5404-430	51.25
0.4435	2004-435	33.12	5404-435	51.25
0.4440	2004-440	33.12	5404-440	51.25
0.4445	2004-445	33.12	5404-445	51.25
0.4450	2004-450	33.12	5404-450	51.25
0.4455	2004-455	33.12	5404-455	51.25
0.4460	2004-460	33.12	5404-460	51.25
0.4465	2004-465	33.12	5404-465	51.25
0.4470	2004-470	33.12	5404-470	51.25
0.4475	2004-475	33.12	5404-475	51.25
0.4480	2004-480	33.12	5404-480	51.25
0.4485	2004-485	16.74	5404-485	51.25
0.4490	2004-490	33.12	5404-490	51.25
0.4495	2004-495	33.12	5404-495	51.25
0.4500	2004-500	33.12	5404-500	51.25
0.4505	2004-505	33.12	5404-505	51.25
0.4510	2004-510	33.12	5404-510	51.25
0.4515	2004-515	33.12	5404-515	51.25
0.4520	2004-520	33.12	5404-520	51.25
0.4525	2004-525	33.12	5404-525	51.25
0.4530	2004-530	33.12	5404-530	51.25
0.4535	2004-535	16.74	5404-535	51.25
0.4535	-	-	5404-536†	37.58
0.4540	2004-540	33.12	5404-540	51.25
0.4545	2004-545	33.12	5404-545	51.25
0.4550	2004-550	33.12	5404-550	51.25
0.4555	2004-555	16.74	5404-555	51.25
0.4560	2004-560	33.12	5404-560	51.25
0.4565	2004-565	33.12	5404-565	51.25
0.4570	2004-570	33.12	5404-570	51.25
0.4575	2004-575	16.74	5404-575	51.25
0.4580	2004-580	33.12	5404-580	51.25
0.4585	2004-585	33.12	5404-585	51.25
0.4590	2004-590	33.12	5404-590	51.25

Special Decimal Chucking Reamers

Straight Flute - Straight Shank - R.H. Cut - High Speed Steel

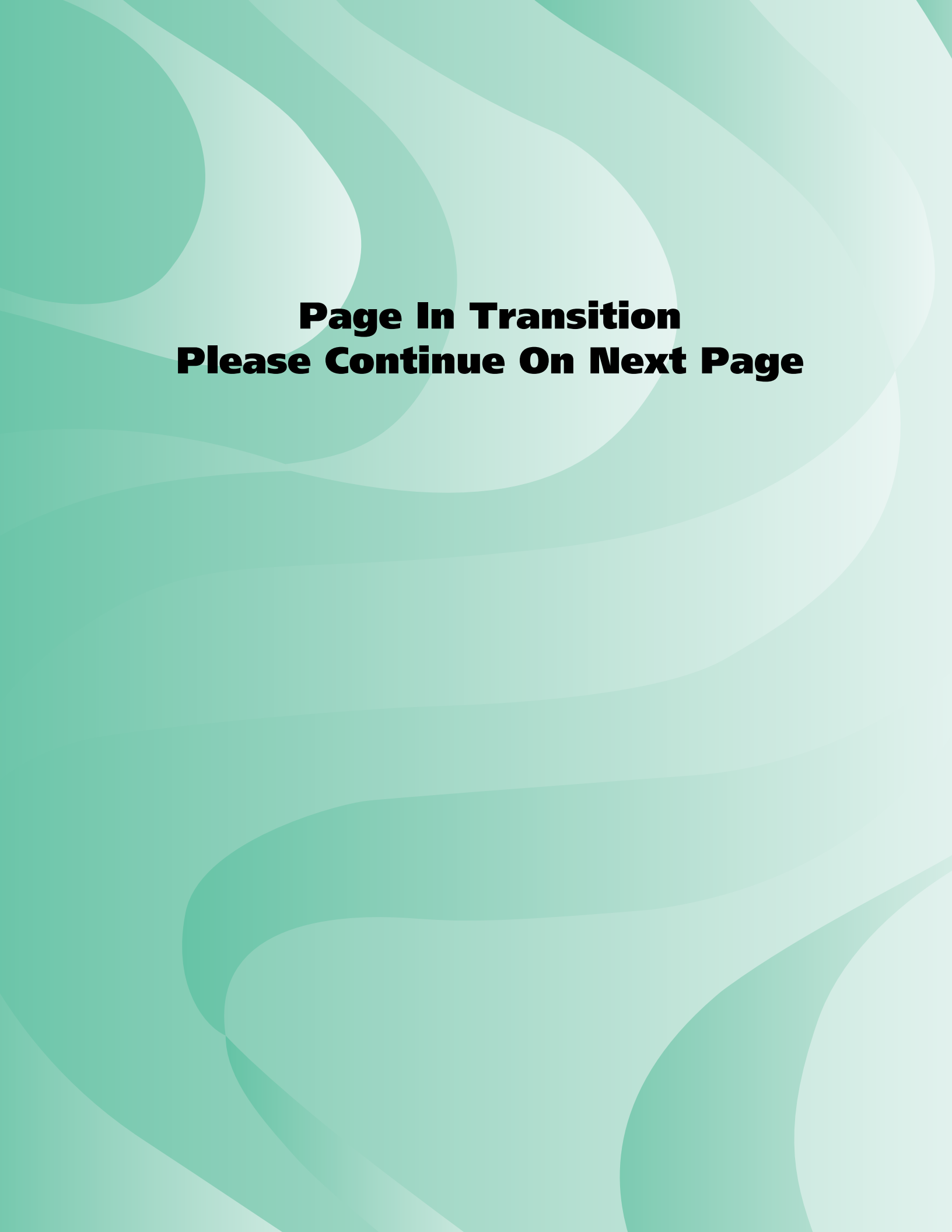
WARNING: This product contains Cobalt and/or Nickel and/or Lead a chemical known to the state of California to cause cancer or birth defects or other reproductive harm. For more information: www.prop65.ca.gov.
WARNING: Cutting tools may shatter. Always wear approved safety glasses and mask when regrinding.



SIZE	ORDER NO.	PRICE EACH	USA ORDER NO.	PRICE EACH
0.4595	2004-595	\$33.12	5404-595	\$51.25
0.4600	2004-600	33.12	5404-600	51.25
0.4605	2004-605	33.12	5404-605	51.25
0.4610	2004-610	33.12	5404-610	51.25
0.4615	2004-615	16.74	5404-615	51.25
0.4620	2004-620	33.12	5404-620	51.25
0.4625	2004-625	33.12	5404-625	51.25
0.4630	2004-630	33.12	5404-630	51.25
0.4635	2004-635	16.74	5404-635	51.25
0.4640	2004-640	33.12	5404-640	51.25
0.4645	2004-645	16.74	5404-645	51.25
0.4650	2004-650	33.12	5404-650	51.25
0.4655	2004-655	33.12	5404-655	51.25
0.4660	2004-660	33.12	5404-660	51.25
0.4665	2004-665	33.12	5404-665	51.25
0.4670	2004-670	33.12	5404-670	51.25
0.4675	2004-675	33.12	5404-675	37.58
0.4680	2004-680	33.12	5404-680	51.25
0.4685	2004-685	33.12	5404-685	51.25
0.4695	2004-695	33.12	5404-695	51.25
0.4700	2004-700	33.12	5404-700	51.25
0.4705	2004-705	33.12	5404-705	51.25
0.4710	2004-710	33.12	5404-710	51.25
0.4715	2004-715	18.36	5404-715	51.25
0.4720	2004-720	33.12	5404-720	51.25
0.4725	2004-725	33.12	5404-725	51.25
0.4730	2004-730	33.12	5404-730	51.25
0.4735	2004-735	33.12	5404-735	51.25
0.4740	2004-740	33.12	5404-740	51.25
0.4745	2004-745	18.36	5404-745	51.25
0.4750	2004-750	33.12	5404-750	51.25
0.4755	2004-755	18.36	5404-755	51.25
0.4760	2004-760	33.12	5404-760	51.25
0.4765	2004-765	33.12	5404-765	51.25
0.4770	2004-770	33.12	5404-770	51.25
0.4775	2004-775	18.36	5404-775	51.25
0.4780	2004-780	33.12	5404-780	51.25
0.4785	2004-785	18.36	5404-785	51.25
0.4790	2004-790	33.12	5404-790	51.25
0.4795	2004-795	18.36	5404-795	51.25
0.4800	2004-800	33.12	5404-800	51.25
0.4805	2004-805	18.36	5404-805	51.25
0.4810	2004-810	33.12	5404-810	51.25
0.4815	2004-815	33.12	5404-815	51.25
0.4820	2004-820	33.12	5404-820	51.25
0.4825	2004-825	18.36	5404-825	51.25
0.4830	2004-830	33.12	5404-830	51.25
0.4835	2004-835	33.12	5404-835	51.25
0.4840	2004-840	33.12	5404-840	51.25
0.4845	2004-845	33.12	5404-845	51.25
0.4850	2004-850	33.12	5404-850	51.25
0.4855	2004-855	33.12	5404-855	51.25
0.4860	2004-860	33.12	5404-860	51.25
0.4865	2004-865	18.36	5404-865	51.25
0.4870	2004-870	33.12	5404-870	51.25
0.4875	2004-875	33.12	5404-875	51.25
0.4880	2004-880	33.12	5404-880	51.25
0.4885	2004-885	33.12	5404-885	51.25
0.4890	2004-890	33.12	5404-890	51.25
0.4895	2004-895	33.12	5404-895	51.25
0.4900	2004-900	33.12	5404-900	51.25
0.4905	2004-905	33.12	5404-905	51.25
0.4910	2004-910	33.12	5404-910	51.25
0.4915	2004-915	33.12	5404-915	51.25
0.4920	2004-920	33.12	5404-920	51.25
0.4925	2004-925	33.12	5404-925	51.25
0.4930	2004-930	33.12	5404-930	51.25
0.4935	2004-935	18.36	5404-935	51.25
0.4940	2004-940	33.12	5404-940	51.25
0.4945	2004-945	33.12	5404-945	51.25
0.4950	2004-950	33.12	5404-950	51.25
0.4955	2004-955	33.12	5404-955	51.25
0.4960	2004-960	41.99	5404-960	51.25
0.4965	2004-965	41.99	5404-965	51.25
0.4970	2004-970	41.99	5404-970	51.25

SIZE	ORDER NO.	PRICE EACH	USA ORDER NO.	PRICE EACH
0.4975	2004-975	\$41.99	5404-975	\$51.25
0.4985	2004-985	41.99	5404-985	51.25
0.5005	2005-005	41.99	5405-005	80.00
0.5013	2005-013†	41.99	—	—
0.5015	2005-015	41.99	5405-015	80.00
0.5020	2005-020	41.99	5405-020	80.00
0.5025	2005-025	41.99	5405-025	80.00
0.5030	2005-030	41.99	5405-030	80.00
0.5035	2005-035	41.99	5405-035	80.00
0.5040	2005-040	41.99	5405-040	80.00
0.5045	2005-045	41.99	5405-045	80.00
0.5050	2005-050	41.99	5405-050	80.00
0.5060	2005-060	41.99	5405-060	80.00
0.5070	2005-070	41.99	5405-070	80.00
0.5080	2005-080	41.99	5405-080	80.00
0.5090	2005-090	41.99	5405-090	80.00
0.5100	2005-100	41.99	5405-100	80.00
0.5110	2005-110	41.99	5405-110	80.00
0.5120	2005-120	41.99	5405-120	80.00
0.5130	2005-130	41.99	5405-130	80.00
0.5140	2005-140	41.99	5405-140	80.00
0.5150	2005-150	41.99	5405-150	80.00
0.5160	2005-160	41.99	5405-160	80.00
0.5170	2005-170	41.99	5405-170	80.00
0.5180	2005-180	41.99	—	—
0.5200	2005-200	41.99	5405-200	80.00
0.5210	2005-210	41.99	5405-210	80.00
0.5240	2005-240	24.48	—	—
0.5250	2005-250	41.99	5405-250	80.00
0.5280	2005-280	41.99	—	—
0.5300	2005-300	41.99	5405-300	80.00
0.5310	2005-310	41.99	5405-310	80.00
0.5320	2005-320	41.99	5405-320	80.00
0.5370	2005-370	41.99	5405-370	80.00
0.5410	2005-410	41.99	—	—
0.5420	2005-420	41.99	—	—
0.5450	2005-450	41.99	5405-450	80.00
0.5480	2005-480	41.99	5405-480	80.00
0.5500	2005-500	41.99	5405-500	80.00
0.5510	2005-510	41.99	5405-510	80.00
0.5520	2005-520	41.99	5405-520	80.00
0.5530	2005-530	41.99	5405-530	80.00
0.5540	2005-540	46.65	5405-540	80.00
0.5550	2005-550	46.76	5405-550	80.00
0.5570	2005-570	46.76	5405-570	80.00
0.5590	2005-590	46.76	5405-590	80.00
0.5600	2005-600	46.76	5405-600	80.00
0.5605	2005-605	24.48	5405-605	80.00
0.5610	2005-610	46.76	5405-610	80.00
0.5615	2005-615	46.76	5405-615	30.12
0.5620	2005-620	46.76	5405-620	80.00
0.5630	2005-630	46.76	5405-630	80.00
0.5635	2005-635	46.76	5405-635	80.00
0.5645	2005-645	24.48	5405-645	80.00
0.5655	2005-655	24.48	5405-655	80.00
0.5665	2005-665	24.48	5405-665	80.00
0.5670	2005-670	46.96	5405-670	80.00
0.5680	—	—	5405-680	80.00
0.5690	—	—	5405-690	80.00
0.5680	—	—	5405-830	80.00
0.5840	2005-840	46.96	5405-840	80.00
0.5890	2005-890	46.96	5405-890	80.00
0.5910	2005-910	46.96	5405-910	80.00
0.5920	2005-920	46.96	5405-920	80.00
0.5937	2005-937	24.48	—	—
0.5950	2005-950	46.96	5405-950	80.00
0.5960	2005-960	46.96	5405-960	80.00
0.6120	2006-120	48.01	5406-120	80.00
0.6130	—	—	5406-130	80.00
0.6150	2006-150	48.01	—	—
0.6160	2006-160	48.01	5406-160	80.00

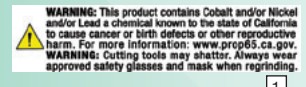
SIZE	ORDER NO.	PRICE EACH	USA ORDER NO.	PRICE EACH
0.6220	2006-220	\$48.01	5406-220	\$80.00
0.6230	2006-230	48.01	5406-230	80.00
0.6240	2006-240	41.91	5406-240	51.25
0.6245	2006-245	48.01	5406-245	80.00
0.6255	2006-255	48.01	5406-255	80.00
0.6260	2006-260	41.91	5406-260	51.25
0.6270	2006-270	29.21	5406-270	92.50
0.6280	2006-280	31.86	5406-280	92.50
0.6290	2006-290	31.86	5406-290	92.50
0.6300	2006-300	31.86	5406-300	92.50
0.6310	2006-310	31.86	5406-310	92.50
0.6320	2006-320	31.86	5406-320	92.50
0.6325	2006-325	31.86	5406-325	92.50
0.6340	2006-340	48.01	5406-340	92.50
0.6350	2006-350	48.01	5406-350	92.50
0.6600	2006-600	31.86	5406-600	92.50
0.6680	2006-680	31.86	5406-680	92.50
0.6700	2006-700	31.86	—	—
0.6840	2006-840	31.86	—	—
0.6850	2006-850	31.86	5406-850	92.50
0.6860	2006-860	31.86	5406-860	47.25
0.6865	—	—	5406-865	101.25
0.6870	2006-870	31.86	5406-870	101.25
0.6880	2006-880	32.53	5406-880	101.25
0.6885	—	—	5406-885	101.25
0.6900	2006-900	32.53	5406-900	101.25
0.7200	2007-200	32.53	5407-200	103.75
0.7270	2007-270	32.53	—	—
0.7300	2007-300	32.53	—	—
0.7465	2007-465	35.28	—	—
0.7470	2007-470	35.28	5407-470	103.75
0.7490	2007-490	48.51	5407-490	71.88
0.7495	2007-495	84.22	5407-495	103.75
0.7505	2007-505	61.39	5407-505	111.25
0.7510	2007-510	48.51	5407-510	71.88
0.7515	2007-515	39.36	5407-515	111.25
0.7520	2007-520	61.39	5407-520	111.25
0.7530	2007-530	61.39	5407-530	111.25
0.7540	2007-540	61.54	5407-540	111.25
0.7550	2007-550	61.54	5407-550	111.25
0.7560	2007-560	61.54	5407-560	111.25
0.7580	2007-580	61.54	5407-580	111.25
0.7600	2007-600	39.36	5407-600	111.25
0.7840	2007-840	61.54	5407-840	111.25
0.7860	2007-860	39.36	5407-860	111.25
0.8100	2008-100	61.54	5408-100	111.25
0.8110	2008-110	39.36	5408-110	111.25
0.8115	2008-115	35.22	5408-115	73.75
0.8135	—	—	5408-135	73.75



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Chucking Reamers – Extra Long

High Speed Steel



DIAM.	FLUTE x OVERALL									
	ORDER NO.	STD. x 6	ORDER NO.	STD. x 8	ORDER NO.	STD. x 12	ORDER NO.	8 x 12	ORDER NO.	12 x 16
1/8	1960-080	\$20.35	1960-081	\$14.00	1960-082	\$ 28.75	-	-	-	-
5/32	1960-100	18.00	1960-101	19.70	1960-102	32.00	-	-	-	-
3/16	1960-120	13.70	1960-121	14.95	1960-122	28.75	-	-	-	-
7/32	-	-	1960-141	25.45	1960-142	32.00	-	-	-	-
1/4	-	-	1960-161	21.20	1960-162	28.75	-	-	-	-
9/32	-	-	-	-	1960-182	36.80	-	-	-	-
5/16	-	-	-	-	1960-202	34.30	-	-	-	-
11/32	-	-	-	-	1960-222	41.95	-	-	-	-
3/8	-	-	-	-	1960-242	36.80	-	-	-	-
13/32	-	-	-	-	1960-262	44.10	-	-	-	-
7/16	-	-	-	-	1960-282	42.55	1960-283†	\$52.35	-	-
15/32	-	-	-	-	1960-302	50.55	-	-	-	-
1/2	-	-	-	-	1960-322	46.70	-	-	-	-
17/32	-	-	-	-	1960-342	55.60	-	-	-	-
9/16	-	-	-	-	1960-362	54.40	1960-363†	66.90	1960-364†	\$89.20
19/32	-	-	-	-	1960-382	63.40	1960-383†	84.90	-	-
5/8	-	-	-	-	1960-402	63.40	-	-	-	-
21/32	-	-	-	-	1960-422	72.60	1960-423†	97.40	-	-
11/16	-	-	-	-	1960-442	72.00	1960-443†	97.40	1960-444†	129.80
23/32	-	-	-	-	1960-462	83.55	1960-463†	106.20	-	-
3/4	-	-	-	-	1960-482	144.30	-	-	-	-
13/16	-	-	-	-	1960-522	168.55	-	-	-	-
7/8	-	-	-	-	1960-562	186.55	-	-	-	-
15/16	-	-	-	-	1960-602	203.80	-	-	1960-604†	265.95
1	-	-	-	-	1960-642	218.40	-	-	-	-

† Limited Quantities

Chucking Reamers - Expansion, Straight Flute

High Speed Steel, Straight & Taper Shank



Straight Shank



Taper Shank

DIAM.	DECM'L EQUIV	FLUTE LG'TH	OVER. LG'TH	TAPER SHANK NO.	STRAIGHT SHANK ORDER NO.	PRICE EACH	TAPER SHANK ORDER NO.	PRICE EACH
3/8	0.3750	3/4	7	1	2030-024	\$63.32	2040-241	\$69.98
13/32	0.4062	3/4	7	1	2030-026	64.20	2040-261	72.85
7/16	0.4375	7/8	7	1	2030-028	65.82	2040-281	75.68
15/32	0.4688	7/8	7	1	2030-030	68.23	2040-301	78.54
1/2	0.5000	1	8	1	2030-032	70.70	2040-321	81.31
17/32	0.5312	1	8	1	2030-034	73.15	2040-341	84.11
9/16	0.5625	1-1/8	8	1	2030-036	75.64	2040-361	86.99
19/32	0.5938	1-1/8	8	1	2030-038	78.08	2040-381	89.81
5/8	0.6250	1-1/4	9	2	2030-040	80.52	2040-402	92.68
21/32	0.6562	1-1/4	9	2	2030-042	82.81	2040-422	95.04
11/16	0.6875	1-1/4	9	2	2030-044	85.13	2040-442	97.90
23/32	0.7188	1-1/4	9	2	2030-046	87.43	2040-462	97.97
3/4	0.7500	1-3/8	9-1/2	2	2030-048	89.74	2040-482	103.25
25/32	0.7812	1-3/8	9-1/2	2	2030-050	93.06	2040-502	107.03
13/16	0.8125	1-3/8	9-1/2	2	2030-052	96.25	2040-522	110.70
27/32	0.8438	1-3/8	9-1/2	2	2030-054	99.58	2040-542	114.53
7/8	0.8750	1-1/2	10	2	2030-056	102.80	2040-562	118.22
29/32	0.9062	1-1/2	10	2	2030-058	106.16	2040-582	122.12
15/16	0.9375	1-1/2	10	3	2030-060	109.43	2040-603	125.90
31/32	0.9688	1-1/2	10	3	2030-062	110.92	2040-623	129.28
1	1.0000	1-5/8	10-1/2	3	2030-064	112.58	2040-643	129.28
1-1/32	1.0312	1-5/8	10-1/2	3	2030-066†	125.74	2040-663†	144.54
1-1/16	1.0625	1-5/8	10-1/2	3	2030-068	125.74	2040-683	144.62
1-3/32	1.0938	1-5/8	10-1/2	3	2030-070†	133.85	2040-703†	157.61

DIAM.	DECM'L EQUIV	FLUTE LG'TH	OVER. LG'TH	TAPER SHANK NO.	STRAIGHT SHANK ORDER NO.	PRICE EACH	TAPER SHANK ORDER NO.	PRICE EACH
1-1/8	1.1250	1-3/4	11	3	2030-072	\$139.13	2040-723	\$159.97
1-5/32	1.1562	1-3/4	11	3	2030-074†	152.22	2040-743†	175.03
1-3/16	1.1875	1-3/4	11	3	2030-076	152.22	2040-763	175.06
1-7/32	1.2188	1-3/4	11	3	2030-078†	170.28	2040-783†	194.04
1-1/4	1.2500	1-7/8	11-1/2	4	2030-080	165.48	2040-804	190.34
1-5/16	1.3125	1-7/8	11-1/2	4	2030-084	172.18	2040-844	198.01
1-3/8	1.3750	2	12	4	2030-088	178.20	2040-884	205.69
1-7/16	1.4375	2	12	4	2030-092	185.36	2040-924	213.25
1-1/2	1.5000	2-1/8	12-1/2	4	2030-096	192.05	2040-964	220.92
1-9/16	1.5625	2-1/8	12-1/2	4	2030-100	208.06	2041-004	221.57
1-5/8	1.6250	2-1/4	13	4	2030-104	216.22	2041-044	223.98
1-11/16	1.6875	2-1/4	13	4	2030-108	227.30	2041-084	243.94
1-3/4	1.7500	2-3/8	13-1/2	5	2030-112	236.81	2041-125	256.21
1-13/16	1.8125	2-3/8	13-1/2	5	2030-116	245.92	2041-165	272.76
1-7/8	1.8750	2-1/2	14	5	2030-120	259.38	2041-205	283.93
1-15/16	1.9375	2-1/2	14	5	2030-124	285.91	2041-245	321.55
2	2.0000	2-1/2	14	5	2030-128	292.25	2041-285	338.18

**Our Drill Selection Is Unbeatable!
More Sizes – More Types**

† Limited Quantities

Chucking Reamers – Taper Shank

Straight Flute & RHS-RHC, High Speed Steel

WARNING: This product contains Cobalt and/or Nickel and/or Lead a chemical known to the state of California to cause cancer or birth defects or other reproductive harm. For more information: www.prop65.ca.gov.
WARNING: Cutting tools may shatter. Always wear approved safety glasses and mask when regrinding.

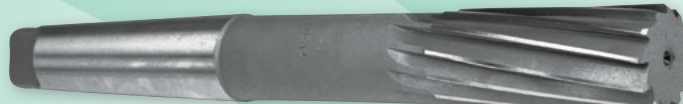
Pittsburg[®]
ALLEGANY



Straight Flute

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Right Hand Spiral

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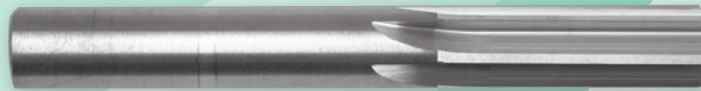
DIAM.	DECM'L EQUIV	FLUTE LG'TH	OVER. LG'TH	SHANK NO.	STR. FLUTE		RHS-RHC	
					ORDER NO.	PRICE EACH	ORDER NO.	PRICE EACH
9/64	.1406	1	4	1	1980-091†	\$9.06	—	—
11/64	.1719	1-1/8	4-1/2	1	1980-111†	10.42	1990-111†	\$8.84
7/32	.2188	1-1/4	5	1	1980-141†	9.06	—	—
15/64	.2344	1-1/2	6	1	1980-151†	10.42	1990-151†	12.06
1/4	.2500	1-1/2	6	1	1980-161	20.66	1990-161	25.25
17/64	.2656	1-1/2	6	1	—	—	1990-171†	27.19
9/32	.2812	1-1/2	6	1	1980-181	25.25	1990-181	27.19
19/64	.2969	1-1/2	6	1	1980-191†	10.82	—	—
5/16	.3125	1-1/2	6	1	1980-201	25.25	1990-201	27.19
11/32	.3438	1-1/2	6	1	1980-221	25.58	1990-221	27.19
23/64	.3594	1-3/4	7	1	1980-231†	28.35	1990-231†	12.06
3/8	.3750	1-3/4	7	1	1980-241	26.07	1990-241	27.85
25/64	.3906	1-3/4	7	1	—	—	1990-251†	13.43
13/32	.4062	1-3/4	7	1	1980-261	26.63	1990-261	28.64
7/16	.4375	1-3/4	7	1	1980-281	26.63	1990-281	28.64
15/32	.4688	1-3/4	7	1	1980-301	29.70	1990-301	33.00
31/64	.4844	2	8	1	1980-311†	33.00	1990-311†	14.12
1/2	.5000	2	8	1	1980-321	27.72	1990-321	28.64
17/32	.5312	2	8	1	1980-341	32.67	1990-341	33.89
35/64	.5469	2-1/2	9-1/2	2	1980-352†	35.64	—	—
9/16	.5625	2	8	1	1980-361	32.67	1990-361	33.89
19/32	.5938	2	8	1	1980-381	35.31	1990-381	38.50
39/64	.6094	2-1/4	9	2	—	—	1990-392†	17.65
5/8	.6250	2-1/4	9	2	1980-402	34.16	1990-402	35.97
21/32	.6562	2-1/4	9	2	1980-422	37.62	1990-422	39.60
11/16	.6875	2-1/4	9	2	1980-442	37.62	1990-442	39.60
23/32	.7188	2-1/4	9	2	1980-462	42.87	1990-462	44.22

DIAM.	DECM'L EQUIV	FLUTE LG'TH	OVER. LG'TH	SHANK NO.	STR. FLUTE		RHS-RHC	
					ORDER NO.	PRICE EACH	ORDER NO.	PRICE EACH
3/4	.7500	2-1/2	9-1/2	2	1980-482	\$39.93	1990-482	\$44.22
25/32	.7812	2-1/2	9-1/2	2	1980-502	46.76	1990-502	21.63
13/16	.8125	2-1/2	9-1/2	2	1980-522	46.76	1990-522	50.92
27/32	.8438	2-1/2	9-1/2	2	1980-542	55.44	1990-542	58.37
55/64	.8594	2-5/8	10	2	1980-552†	25.67	1990-552†	28.52
7/8	.8750	2-5/8	10	2	1980-562	52.47	1990-562	58.37
29/32	.9062	2-5/8	10	2	1980-582	60.39	1990-582	27.13
59/64	.9219	2-5/8	10	3	1980-593†	28.35	—	—
15/16	.9375	2-5/8	10	3	1980-603	58.05	1990-603	63.82
31/32	.9688	2-5/8	10	3	1980-623	65.34	1990-623	70.95
63/64	.9844	2-3/4	10-1/2	3	—	—	1990-633†	34.67
1	1.0000	2-3/4	10-1/2	3	1980-643	64.02	1990-643	70.95
1-1/16	1.0625	2-3/4	10-1/2	3	1980-683	71.94	1990-683	78.54
1-5/64	1.0781	2-7/8	11	3	1980-693†	38.03	—	—
1-7/64	1.1094	2-7/8	11	3	1980-713†	38.03	—	—
1-1/8	1.1250	2-7/8	11	3	1980-723	77.88	1990-723	86.92
1-3/16	1.1875	2-7/8	11	3	1980-763	87.29	1990-763	94.58
1-15/64	1.2344	3	11-1/2	4	—	—	1990-794†	50.77
1-1/4	1.2500	3	11-1/2	4	1980-804	94.51	1990-804	103.95
1-5/16	1.3125	3	11-1/2	4	1980-844	105.77	1990-844	113.85
1-23/64	1.3594	3-1/4	12	4	—	—	1990-874†	60.17
1-3/8	1.3750	3-1/4	12	4	1980-884	114.18	1990-884	123.09
1-7/16	1.4375	3-1/4	12	4	1980-924	122.76	1990-924	134.31
1-1/2	1.5000	3-1/2	12-1/2	4	1980-964	132.00	1990-964	142.23

**Need a Decimal Size?
 We Deliver Fast!**

Solid Carbide Chucking Reamers

Straight Shank – Straight Flute



WARNING: This product contains Cobalt and/or Nickel and/or Lead a chemical known to the state of California to cause cancer or birth defects or other reproductive harm. For more information: www.pro65.ca.gov.
WARNING: Cutting tools may shatter. Always wear approved safety glasses and mask when regrinding.

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Fractional Sizes

FRAC. SIZES	DECM'L EQUIV.	FLUTE LG'TH	OVER. LG'TH	ORDER NO.	PRICE EACH
1/32	.0312	3/8	1-1/2	2967-002	\$28.19
3/64	.0469	3/8	1-1/2	2967-003	29.88
1/16	.0625	3/8	1-1/2	2967-004	28.19
5/64	.0781	1-1/2	1-3/4	2967-005	30.89
3/32	.0937	1/2	2	2967-006	21.94
7/64	.1094	5/8	2-1/4	2967-007	34.09
1/8	.1250	5/8	2-1/4	2967-008	32.46
9/64	.1406	3/4	2-1/2	2967-009	36.85
5/32	.1562	3/4	2-1/2	2967-010	38.14
11/64	.1719	7/8	2-3/4	2967-011	44.84
3/16	.1875	7/8	2-3/4	2967-012	45.23
13/64	.2031	1	3	2967-013	54.29
7/32	.2187	1	3	2967-014	49.56
15/64	.2344	1	3	2967-015	63.63
1/4	.2500	1	3	2967-016	59.01
17/64	.2656	1-1/8	3-1/4	2967-017	71.44
9/32	.2812	1-1/8	3-1/4	2967-018	70.83
19/64	.2969	1-1/8	3-1/4	2967-019	83.81
5/16	.3125	1-1/8	3-1/4	2967-020	79.76
21/64	.3281	1-1/4	3-1/2	2967-021	106.26
11/32	.3437	1-1/4	3-1/2	2967-022	106.26
23/64	.3594	1-1/4	3-1/2	2967-023	107.66
3/8	.3750	1-1/4	3-1/2	2967-024	100.41
13/32	.4062	1-1/2	4	2967-026	111.04
7/16	.4375	1-1/2	4	2967-028	111.38
15/32	.4687	1-1/2	4	2967-030	151.88
1/2	.5000	1-1/2	4	2967-032	159.75

Tolerance +.0001/+.0003

Letter Sizes

DIA.	DECM'L EQUIV.	FLUTE LG'TH	OVER. LG'TH	ORDER NO.	PRICE EACH
A	.2340	1	3	2967-201	\$108.17
B	.2380	1	3	2967-202	110.35
C	.2420	1	3	2967-203	110.35
D	.2460	1	3	2967-204	110.35
E	.2500	1	3	2967-205	100.32
F	.2570	1	3	2967-206	121.45
G	.2610	1	3	2967-207	121.45
H	.2660	1	3	2967-208	121.45
I	.2720	1	3	2967-209	121.45
J	.2770	1-1/8	3-1/4	2967-210	121.45
K	.2810	1-1/8	3-1/4	2967-211	131.58
L	.2900	1-1/8	3-1/4	2967-212	142.39
M	.2950	1-1/8	3-1/4	2967-213	142.39
N	.3020	1-1/8	3-1/4	2967-214	148.51
O	.3160	1-1/8	3-1/4	2967-215	155.87
P	.3230	1-1/8	3-1/4	2967-216	157.90
Q	.3320	1-1/4	3-1/2	2967-217	180.64
R	.3390	1-1/4	3-1/2	2967-218	180.64
S	.3480	1-1/4	3-1/2	2967-219	181.41
T	.3580	1-1/4	3-1/2	2967-220	182.17
U	.3680	1-1/4	3-1/2	2967-221	185.44
V	.3770	1-1/4	3-1/2	2967-222	191.06
W	.3860	1-1/4	3-1/2	2967-223	209.53
X	.3970	1-1/4	3-1/2	2967-224	212.67
Y	.4040	1-1/4	3-1/2	2967-225	217.36
Z	.4130	1-1/2	4	2967-226	225.68

Wire Gage Sizes

DIA.	DECM'L EQUIV.	FLUTE LG'TH	OVER. LG'TH	ORDER NO.	PRICE EACH
1	.2280	1	3	2967-101	\$63.63
2	.2210	1	3	2967-102	60.59
3	.2130	1	3	2967-103	54.29
4	.2090	1	3	2967-104	57.10
5	.2055	1	3	2967-105	54.29
6	.2040	1	3	2967-106	54.29
7	.2010	1	3	2967-107	54.29
8	.1990	1	3	2967-108	52.60
9	.1960	1	3	2967-109	52.38
10	.1935	7/8	2-3/4	2967-110	50.58
11	.1910	7/8	2-3/4	2967-111	50.24
12	.1890	7/8	2-3/4	2967-112	49.68
13	.1850	7/8	2-3/4	2967-113	47.09
14	.1820	7/8	2-3/4	2967-114	46.80
15	.1800	7/8	2-3/4	2967-115	46.13
16	.1770	7/8	2-3/4	2967-116	45.90
17	.1730	7/8	2-3/4	2967-117	44.84
18	.1695	7/8	2-3/4	2967-118	44.05
19	.1660	7/8	2-3/4	2967-119	43.49
20	.1610	7/8	2-3/4	2967-120	43.31
21	.1590	3/4	2-1/2	2967-121	42.70
22	.1570	3/4	2-1/2	2967-122	41.69
23	.1540	3/4	2-1/2	2967-123	40.34
24	.1520	3/4	2-1/2	2967-124	38.70
25	.1495	3/4	2-1/2	2967-125	38.65
26	.1470	3/4	2-1/2	2967-126	38.43
27	.1440	3/4	2-1/2	2967-127	37.41
28	.1405	3/4	2-1/2	2967-128	35.78
29	.1360	3/4	2-1/2	2967-129	35.28
30	.1285	5/8	2-1/4	2967-130	35.28
31	.1200	5/8	2-1/4	2967-131	35.21
32	.1160	5/8	2-1/4	2967-132	35.05
33	.1130	5/8	2-1/4	2967-133	35.05
34	.1110	5/8	2-1/4	2967-134	34.60
35	.1100	5/8	2-1/4	2967-135	34.09
36	.1065	5/8	2-1/4	2967-136	33.03
37	.1040	5/8	2-1/4	2967-137	34.71
38	.1015	5/8	2-1/4	2967-138	32.69
39	.0995	5/8	2-1/4	2967-139	32.69
40	.0980	5/8	2-1/4	2967-140	32.46
41	.0960	5/8	2-1/4	2967-141	32.46
42	.0935	1/2	1-3/4	2967-142	31.79
43	.0890	1/2	1-3/4	2967-143	31.68
44	.0860	1/2	1-3/4	2967-144	31.11
45	.0820	1/2	1-3/4	2967-145	31.11
46	.0810	1/2	1-3/4	2967-146	30.94
47	.0785	1/2	1-3/4	2967-147	30.89
48	.0760	1/2	1-3/4	2967-148	30.89
49	.0730	1/2	1-3/4	2967-149	30.89
50	.0700	1/2	1-3/4	2967-150	30.89
51	.0670	1/2	1-1/2	2967-151	30.89
52	.0635	1/2	1-1/2	2967-152	30.53
53	.0595	1/2	1-1/2	2967-153	29.88
54	.0550	1/2	1-1/2	2967-154	29.88
55	.0520	1/2	1-1/2	2967-155	29.88
56	.0465	1/2	1-1/2	2967-156	29.88
57	.0430	1/2	1-1/2	2967-157	29.59
58	.0420	1/2	1-1/2	2967-158	29.59
59	.0410	1/2	1-1/2	2967-159	29.59
60	.0400	1/2	1-1/2	2967-160	29.59
61	.0390	3/8	1-1/2	2967-161	29.59
62	.0380	3/8	1-1/2	2967-162	29.59
63	.0370	3/8	1-1/2	2967-163	29.59
64	.0360	3/8	1-1/2	2967-164	29.59
65	.0350	3/8	1-1/2	2967-165	29.59
66	.0330	3/8	1-1/2	2967-166	30.55
67	.0320	3/8	1-1/2	2967-167	30.55
68	.0310	3/8	1-1/2	2967-168	31.25
69	.0292	3/8	1-1/2	2967-169	31.25
70	.0280	3/8	1-1/2	2967-170	31.25

Metric Sizes

DIA.	DECM'L EQUIV.	FLUTE LG'TH	OVER. LG'TH	ORDER NO.	PRICE EACH
1.0	.0394	1/4	1-1/2	3090-394	\$26.95
1.5	.0591	3/8	1-1/2	3090-591	27.34
2.0	.0787	1/2	1-3/4	3090-787	28.53
2.5	.0984	5/8	2-1/4	3090-984	29.59
3.0	.1181	5/8	2-1/4	3091-181	32.46
3.5	.1378	3/4	2-1/2	3091-378	32.85
4.0	.1575	3/4	2-1/2	3091-575	38.14
4.5	.1772	7/8	2-3/4	3091-772	41.69
5.0	.1969	1	3	3091-969	47.81
5.5	.2165	1	3	3092-165	49.68
6.0	.2362	1	3	3092-362	59.01
6.5	.2559	1-1/8	3-1/4	3092-559	71.44
7.0	.2756	1-1/8	3-1/4	3092-756	65.20
7.5	.2953	1-1/8	3-1/4	3092-953	83.76
8.0	.3150	1-1/8	3-1/4	3093-150	79.76
8.5	.3346	1-1/4	3-1/2	3093-346	106.26
9.0	.3543	1-1/4	3-1/2	3093-543	98.05
9.5	.3740	1-1/4	3-1/2	3093-740	109.69
10.0	.3937	1-1/4	3-1/2	3093-937	125.10
10.5	.4134	1-1/4	3-1/2	3094-134	125.10
11.0	.4331	1-3/8	4	3094-331	140.85
11.5	.4528	1-3/8	4	3094-528	140.85
12.0	.4724	1-3/8	4	3094-724	151.88
12.5	.4921	1-1/2	4	3094-921	151.88

Tolerance +.0001/+.0003
Sizes in .0001 increments will be quoted on request.

Solid Carbide Chucking Reamers, Decimal Sizes

(Continued)

Tolerance +. Sizes in .0001 increments will be quoted on request.



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SIZE	ORDER NO.	PRICE EACH
▼ 1 LOC x 3 OAL ▼		
0.2230	3092-230	\$66.33
0.2235	3092-235	66.33
0.2240	3092-240	66.33
0.2245	3092-245	66.33
0.2250	3092-250	66.33
0.2255	3092-255	66.33
0.2260	3092-260	66.33
0.2265	3092-265	66.33
0.2270	3092-270	67.00
0.2275	3092-275	67.00
0.2285	3092-285	67.00
0.2290	3092-290	67.00
0.2295	3092-295	67.00
0.2300	3092-300	67.00
0.2305	3092-305	67.00
0.2310	3092-310	67.00
0.2315	3092-315	67.00
0.2320	3092-320	67.00
0.2325	3092-325	67.00
0.2330	3092-330	67.00
0.2335	3092-335	67.00
0.2345	3092-345	67.00
0.2350	3092-350	67.00
0.2355	3092-355	67.00
0.2360	3092-360	67.00
0.2365	3092-365	68.13
0.2370	3092-370	68.13
0.2375	3092-375	68.13
0.2385	3092-385	68.13
0.2390	3092-390	68.13
0.2395	3092-395	68.13
0.2400	3092-400	68.13
0.2405	3092-405	68.13
0.2410	3092-410	68.13
0.2415	3092-415	68.13
0.2425	3092-425	68.13
0.2430	3092-430	68.13
0.2435	3092-435	68.13
0.2440	3092-440	68.13
0.2445	3092-445	68.13
0.2450	3092-450	68.13
0.2455	3092-455	68.13
0.2465	3092-465	68.13
0.2470	3092-470	68.13
0.2475	3092-475	68.13
0.2480	3092-480	68.13
0.2485	3092-485	68.13
0.2490	3092-490	68.13
0.2495	3092-495	68.13
0.2505	3092-505	68.13
0.2510	3092-510	68.13
0.2515	3092-515	68.13
0.2520	3092-520	68.13
0.2525	3092-525	68.13
0.2530	3092-530	68.13
0.2535	3092-535	75.26
0.2540	3092-540	75.26
0.2545	3092-545	75.26
0.2550	3092-550	75.26
▼ 1-1/8 LOC x 3-1/4 OAL ▼		
0.2560	3092-560	\$75.26
0.2565	3092-565	75.26
0.2575	3092-575	75.26
0.2580	3092-580	75.26
0.2590	3092-590	75.26

SIZE	ORDER NO.	PRICE EACH
▼ 1-1/8 LOC x 3-1/4 OAL ▼		
0.2600	3092-600	\$75.26
0.2620	3092-620	75.26
0.2630	3092-630	75.26
0.2640	3092-640	75.26
0.2650	3092-650	75.26
0.2670	3092-670	75.26
0.2680	3092-680	75.26
0.2690	3092-690	72.66
0.2700	3092-700	75.26
0.2710	3092-710	75.26
0.2730	3092-730	75.26
0.2740	3092-740	75.26
0.2750	3092-750	75.26
0.2760	3092-760	75.26
0.2780	3092-780	81.45
0.2790	3092-790	81.45
0.2800	3092-800	81.45
0.2818	3092-818	81.45
0.2820	3092-820	88.15
0.2830	3092-830	88.15
0.2840	3092-840	88.15
0.2850	3092-850	88.15
0.2860	3092-860	88.15
0.2870	3092-870	88.15
0.2880	3092-880	88.15
0.2890	3092-890	88.15
0.2910	3092-910	88.15
0.2920	3092-920	88.15
0.2930	3092-930	88.15
0.2940	3092-940	88.15
0.2960	3092-960	88.15
0.2970	3092-970	91.69
0.2980	3092-980	91.69
0.2990	3092-990	91.69
0.3000	3093-000	91.69
0.3010	3093-010	91.69
0.3030	3093-030	91.69
0.3040	3093-040	91.69
0.3050	3093-050	91.69
0.3060	3093-060	91.69
0.3070	3093-070	91.69
0.3080	3093-080	91.69
0.3090	3093-090	91.69
0.3100	3093-100	91.69
0.3110	3093-110	91.69
0.3120	3093-120	91.69
0.3130	3093-130	91.69
0.3140	3093-140	91.69
▼ 1-1/4 LOC x 3-1/2 OAL ▼		
0.3170	3093-170	\$97.65
0.3180	3093-180	97.65
0.3190	3093-190	97.65
0.3200	3093-200	97.65
0.3210	3093-210	97.65
0.3220	3093-220	97.65
0.3240	3093-240	111.83
0.3250	3093-250	111.83
0.3260	3093-260	111.83
0.3270	3093-270	111.83
0.3280	3093-280	111.83
0.3290	3093-290	111.83
0.3300	3093-300	111.83
0.3310	3093-310	111.83
0.3330	3093-330	111.83
0.3340	3093-340	111.83

SIZE	ORDER NO.	PRICE EACH
▼ 1-1/4 LOC x 3-1/2 OAL ▼		
0.3350	3093-350	\$111.83
0.3360	3093-360	111.83
0.3370	3093-370	111.83
0.3380	3093-380	111.83
0.3400	3093-400	111.83
0.3410	3093-410	111.83
0.3420	3093-420	111.83
0.3430	3093-430	111.83
0.3440	3093-440	111.83
0.3450	3093-450	111.83
0.3460	3093-460	99.91
0.3470	3093-470	99.91
0.3490	3093-490	111.83
0.3500	3093-500	99.91
0.3510	3093-510	111.83
0.3520	3093-520	111.83
0.3530	3093-530	111.83
0.3540	3093-540	111.83
0.3550	3093-550	112.61
0.3560	3093-560	112.61
0.3570	3093-570	112.61
0.3590	3093-590	112.61
0.3600	3093-600	114.75
0.3610	3093-610	114.75
0.3620	3093-620	114.75
0.3630	3093-630	114.75
0.3640	3093-640	114.75
0.3650	3093-650	114.75
0.3660	3093-660	114.75
0.3670	3093-670	114.75
0.3690	3093-690	114.75
0.3700	3093-700	114.75
0.3710	3093-710	114.75
0.3720	3093-720	114.75
0.3730	3093-730	114.75
0.3745	3093-745	114.79
0.3755	3093-755	137.20
0.3760	3093-760	137.20
0.3765	3093-765	137.20
0.3780	3093-780	137.20
0.3790	3093-790	137.20
0.3800	3093-800	137.20
0.3810	3093-810	137.20
0.3820	3093-820	137.20
0.3830	3093-830	137.20
0.3840	3093-840	137.20
0.3850	3093-850	137.20
0.3870	3093-870	144.29
0.3880	3093-880	144.29
0.3890	3093-890	144.29
0.3900	3093-900	144.29
0.3910	3093-910	144.29
0.3920	3093-920	144.29
0.3930	3093-930	144.29
0.3940	3093-940	144.29
0.3950	3093-950	144.29
0.3960	3093-960	144.29
0.3980	3093-980	144.29
0.3990	3093-990	144.29
0.4000	3094-000	144.29
0.4010	3094-010	144.29
0.4020	3094-020	144.29
0.4030	3094-030	144.29
0.4050	3094-050	144.29
0.4060	3094-060	144.29

SIZE	ORDER NO.	PRICE EACH
▼ 1-1/4 LOC x 3-1/2 OAL ▼		
0.4070	3094-070	\$144.29
0.4080	3094-080	144.29
0.4090	3094-090	144.29
0.4100	3094-100	144.29
0.4110	3094-110	144.29
0.4120	3094-120	144.29
0.4140	3094-140	148.11
0.4150	3094-150	148.11
0.4160	3094-160	148.11
▼ 1-3/8 LOC x 4 OAL ▼		
0.4170	3094-170	\$148.11
0.4180	3094-180	148.11
0.4190	3094-190	148.11
0.4200	3094-200	148.11
0.4210	3094-210	148.11
0.4230	3094-230	148.11
0.4240	3094-240	148.11
0.4250	3094-250	148.11
0.4260	3094-260	148.11
0.4270	3094-270	148.11
0.4280	3094-280	148.11
0.4290	3094-290	148.11
0.4300	3094-300	148.11
0.4310	3094-310	148.11
0.4320	3094-320	148.11
0.4340	3094-340	148.11
0.4350	3094-350	148.11
0.4360	3094-360	148.11
0.4370	3094-370	148.11
0.4380	3094-380	162.23
0.4390	3094-390	162.23
0.4400	3094-400	162.23
0.4410	3094-410	162.23
0.4420	3094-420	162.23
0.4430	3094-430	162.23
0.4440	3094-440	162.23
0.4450	3094-450	162.23
0.4460	3094-460	162.23
0.4470	3094-470	162.23
0.4480	3094-480	162.23
0.4490	3094-490	162.23
0.4500	3094-500	162.23
0.4510	3094-510	162.23
0.4520	3094-520	162.23
0.4530	3094-530	162.23
0.4540	3094-540	162.23
0.4550	3094-550	162.23
0.4560	3094-560	162.23
0.4570	3094-570	162.23
0.4580	3094-580	162.23
0.4590	3094-590	162.23
0.4600	3094-600	162.23
0.4610	3094-610	162.23
0.4620	3094-620	162.23
0.4630	3094-630	162.23
0.4640	3094-640	162.23
0.4650	3094-650	162.23
0.4660	3094-660	162.23
0.4670	3094-670	162.23
0.4680	3094-680	162.23
0.4690	3094-690	162.23
0.4700	3094-700	162.23
0.4710	3094-710	162.23
0.4720	3094-720	162.23
0.4730	3094-730	176.46

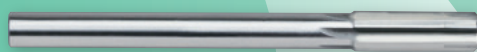
SIZE	ORDER NO.	PRICE EACH
▼ 1-3/8 LOC x 4 OAL ▼		
0.4740	3094-740	\$176.46
0.4750	3094-750	176.46
0.4760	3094-760	176.46
0.4770	3094-770	176.46
0.4780	3094-780	176.46
▼ 1-1/2 LOC x 4 OAL ▼		
0.4790	3094-790	\$176.46
0.4800	3094-800	176.46
0.4805	3094-805	176.46
0.4810	3094-810	176.46
0.4820	3094-820	176.46
0.4830	3094-830	176.46
0.4840	3094-840	176.46
0.4850	3094-850	176.46
0.4860	3094-860	176.46
0.4870	3094-870	176.46
0.4880	3094-880	176.46
0.4890	3094-890	176.46
0.4900	3094-900	176.46
0.4910	3094-910	176.46
0.4930	3094-930	176.46
0.4940	3094-940	176.46
0.4950	3094-950	176.46
0.4960	3094-960	176.46
0.4970	3094-970	176.46
0.4980	3094-980	176.46
0.4990	3094-990	176.46
0.4995	3094-995	176.46
0.5005	3095-005	176.46
0.5010	3095-010	176.46
0.5015	3095-015	176.46
0.5020	3095-020	176.46
0.5030	3095-030	176.46
0.5040	3095-040	176.46
0.5050	3095-050	176.46

Carbide Tipped Chucking Reamers

Straight Shank– Straight Flute– Long– RHS RHC & LHS RHC

WARNING: This product contains Cobalt and/or Nickel and/or Lead a chemical known to the state of California to cause cancer or birth defects or other reproductive harm. For more information: www.prop65.ca.gov.
WARNING: Cutting tools may shatter. Always wear approved safety glasses and mask when regrinding.

2



Straight Flute



Right Hand Spiral



Left Hand Spiral

			LI LAMALLEE & IDE						LI LAMALLEE & IDE				
			STRAIGHT FLUTE		STRAIGHT FLUTE LONG CARBIDE			RHS - RHC FLUTE		LHS - RHC - FLUTE			
DIAM.	FLUTE LENGTH	OVERALL LENGTH	ORDER NO.	PRICE EACH	FLUTE LENGTH	ORDER NO.	PRICE EACH	ORDER NO.	PRICE EACH	ORDER NO.	PRICE EACH	ORDER NO.	PRICE EACH
5/32	1	4	1954-010	\$51.30	—	—	—	3020-210	POA	—	—	—	—
11/64	1	4	1954-011	51.30	—	—	—	3020-211	POA	—	—	—	—
3/16	1-1/8	4-1/2	1954-012	66.70	—	—	—	3020-212	POA	—	—	—	—
13/64	1-1/8	4-1/2	1954-013	70.08	—	—	—	3020-213	POA	—	—	—	—
7/32	1-1/4	5	1954-014	66.70	—	—	—	3020-214	POA	—	—	—	—
15/64	1-1/2	6	1954-015	70.08	—	—	—	3020-215	POA	—	—	—	—
1/4	1-1/2	6	1954-016	66.70	1-1/2	3021-016	\$56.35	3020-216	\$93.32	3020-416	\$77.77	—	—
17/64	1-1/2	6	1954-017	71.68	—	—	—	—	—	—	—	—	—
9/32	1-1/2	6	1954-018	68.28	1-1/2	3021-018	57.65	3020-218	93.64	3020-418	78.03	—	—
19/64	1-1/2	6	1954-019	71.68	—	—	—	—	—	—	—	—	—
5/16	1-1/2	6	1954-020	68.28	1-1/2	3021-020	57.65	3020-220	93.64	3020-420	78.03	—	—
21/64	1-1/2	6	1954-021	74.40	—	—	—	—	—	—	—	—	—
11/32	1-1/2	6	1954-022	70.00	1-1/2	3021-022	59.60	3020-222	102.96	3020-422	85.80	—	—
23/64	1-3/4	7	1954-023	74.40	—	—	—	—	—	—	—	—	—
3/8	1-3/4	7	1954-024	70.74	1-3/4	3021-024	59.60	3020-224	103.97	3020-424	86.64	—	—
25/64	1-3/4	7	1954-025	78.14	—	—	—	—	—	—	—	—	—
13/32	1-3/4	7	1954-026	73.98	1-3/4	3021-026	62.70	3020-226	108.59	3020-426	90.49	—	—
27/64	1-3/4	7	1954-027	83.16	—	—	—	—	—	—	—	—	—
7/16	1-3/4	7	1954-028	78.86	1-3/4	3021-028	67.80	3020-228	113.04	3020-428	94.20	—	—
29/64	1-3/4	7	1954-029	84.48	—	—	—	—	—	—	—	—	—
15/32	1-3/4	7	1954-030	80.34	1-3/4	3021-030	73.15	3020-230	119.89	3020-430	99.91	—	—
31/64	2	8	1954-031	91.25	—	—	—	—	—	—	—	—	—
1/2	2	8	1954-032	94.64	2	3021-032	78.35	3020-232	124.51	3020-432	103.76	—	—
33/64	2	8	1954-033	102.96	—	—	—	—	—	—	—	—	—
17/32	2	8	1954-034	85.80	—	—	—	3020-234	128.21	3020-434	106.84	—	—
35/64	2	8	1954-035	102.96	—	—	—	—	—	—	—	—	—
9/16	2	8	1954-036	102.96	2	3021-036	80.60	3020-236	128.21	3020-436	106.84	—	—
37/64	2	8	1954-037	76.20	—	—	—	—	—	—	—	—	—
19/32	2	8	1954-038	107.18	—	—	—	3020-238	132.05	3020-438	110.04	—	—
39/64	2-1/4	9	1954-039	76.20	—	—	—	—	—	—	—	—	—
5/8	2-1/4	9	1954-040	107.18	2	3021-040	83.75	3020-240	132.05	3020-440	110.04	—	—
41/64	2-1/4	9	1954-041	77.60	—	—	—	—	—	—	—	—	—
21/32	2-1/4	9	1954-042	109.12	—	—	—	3020-242	135.83	3020-442	113.19	—	—
43/64	2-1/4	9	1954-043	77.60	—	—	—	—	—	—	—	—	—
11/16	2-1/4	9	1954-044	109.12	2	3021-044	85.25	3020-244	144.67	3020-444	120.56	—	—
45/64	2-1/4	9	1954-045	81.20	—	—	—	—	—	—	—	—	—
23/32	2-1/4	9	1954-046	114.18	—	—	—	3020-246	146.60	3020-446	122.17	—	—
47/64	2-1/2	9-1/2	1954-047	81.20	—	—	—	—	—	—	—	—	—
3/4	2-1/2	9-1/2	1954-048	114.18	2	3021-048	89.20	3020-248	148.93	3020-448	124.11	—	—
49/64	2-1/2	9-1/2	1954-049	83.80	—	—	—	—	—	—	—	—	—
25/32	2-1/2	9-1/2	1954-050	117.88	—	—	—	3020-250	111.60	3020-450	93.00	—	—
51/64	2-1/2	9-1/2	1954-051	83.80	—	—	—	—	—	—	—	—	—
13/16	2-1/2	9-1/2	1954-052	117.88	2	3021-052	92.25	3020-252	152.69	3020-452	127.24	—	—
53/64	2-1/2	9-1/2	1954-053	87.20	—	—	—	—	—	—	—	—	—
27/32	2-1/2	9-1/2	1954-054	122.66	2	3021-054	96.05	3020-254	161.09	3020-454	134.24	—	—
55/64	2-5/8	10	1954-055	87.20	—	—	—	—	—	—	—	—	—
7/8	2-5/8	10	1954-056	127.28	2-1/4	3021-056	99.60	3020-256	167.18	3020-456	139.32	—	—
57/64	2-5/8	10	1954-057	105.45	—	—	—	—	—	—	—	—	—
29/32	2-5/8	10	1954-058	148.32	2-1/4	3021-058	115.90	3020-258	194.74	3020-458	162.28	—	—
59/64	2-5/8	10	1954-059	105.45	—	—	—	—	—	—	—	—	—
15/16	2-5/8	10	1954-060	148.32	2-1/4	3021-060	115.90	3020-260	194.74	3020-460	162.28	—	—
61/64	2-5/8	10	1954-061	110.45	—	—	—	—	—	—	—	—	—
31/32	2-5/8	10	1954-062	155.32	2-1/4	3021-062	121.40	3020-262	204.20	3020-462	170.17	—	—
63/64	2-3/4	10-1/2	1954-063	110.45	—	—	—	—	—	—	—	—	—
1	2-3/4	10-1/2	1954-064	155.32	2-1/4	3021-064	121.40	3020-264	204.20	3020-464	170.17	—	—
1-1/16	2-3/4	10-1/2	1954-068	160.50	—	—	—	3020-265	POA	—	—	—	—
1-1/8	2-7/8	11	1954-072	173.63	2-1/4	3021-072	136.00	3020-266	POA	—	—	—	—
1-3/16	2-7/8	11	1954-076	182.78	—	—	—	3020-267	POA	—	—	—	—
1-1/4	3	11-1/2	1954-080	193.03	2-1/2	3021-080	166.10	3020-268	POA	—	—	—	—
1-5/16	3	11-1/2	1954-084	203.14	—	—	—	3020-269	POA	—	—	—	—
1-3/8	3-1/4	12	1954-088	215.52	2-1/2	3021-088	168.50	3020-288	POA	—	—	—	—
1-7/16	3-1/4	12	1954-092	240.16	—	—	—	—	—	—	—	—	—
1-1/2	3-1/2	12-1/2	1954-096	253.96	2-1/2	3021-096	223.50	3020-293	POA	—	—	—	—

Over/Undersize Dowel Pin Reamers

DIAM.	ORDER NO.	PRICE EACH
.1855	3019-205	\$59.25
.1865+	3019-105	59.25
.1870+	3019-210	59.25
.1885	3019-110	59.25
.2480+	3019-215	59.25
.2490	3019-115	59.25
.2495+	3019-220	59.25
.2510	3019-120	59.25
.3105+	3019-225	60.55
.3115	3019-125	60.55
.3120+	3019-230	60.55
.3135	3019-130	60.55
.3730+	3019-235	62.80
.3740	3019-135	62.80
.3745+	3019-240	62.80
.3760	3019-140	62.80
.4355+	3019-245	70.20
.4365	3019-145	70.20
.4370+	3019-250	70.20
.4385	3019-150	70.20
.4980+	3019-255	76.90
.4990	3019-155	76.90
.4995+	3019-260	76.90
.5010	3019-160	76.90
Tolerance: 0/U= + .0002 - .0000 +Dowel= + .0000 - .0002		

Special Decimal

SIZE RANGE	PRICE EACH
0.1560-0.1765	POA
0.1770-0.2210	POA
0.2215-0.2380	POA
0.2385-0.2530	POA
0.2535-0.3150	POA
0.3155-0.3780	POA
0.3785-0.4090	POA
0.4098-0.4410	POA
0.4415-0.4720	POA
0.4825-0.5030	POA
0.5035-0.5660	POA
0.5665-0.6280	POA
0.6285-0.6910	POA
0.6915-0.7530	POA
0.7535-0.7555	POA

**Metric
Chucking
Reamers
In Stock!**

Carbide Tipped Chucking Reamers

WARNING: This product contains Cobalt and/or Nickel and/or Lead a chemical known to the state of California to cause cancer or birth defects or other reproductive harm. For more information: www.prop65.ca.gov
WARNING: Cutting tools may shatter. Always wear approved safety glasses and mask when grinding.

Taper Shank – Straight Flute

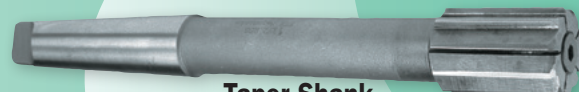


DIAM.	FLUTE LG'TH	OVER. LG'TH	TAPER SHANK	STRAIGHT FLUTE ORDER NO.	PRICE EACH	FLUTE LONG CARBIDE FLUTE LG'TH	ORDER NO.	PRICE EACH
1/4	1-1/2	6	1	3022-016	\$40.20	1-1/2	3023-016	\$64.90
9/32	1-1/2	6	1	3022-018	42.60	1-1/2	3023-018	65.70
5/16	1-1/2	6	1	3022-020	42.60	1-1/2	3023-020	65.70
11/32	1-1/2	6	1	3022-022	44.16	1-1/2	3023-022	67.25
3/8	1-3/4	7	1	3022-024	39.60	1-3/4	3023-024	68.00
13/32	1-3/4	7	1	3022-026	45.00	1-3/4	3023-026	71.60
7/16	1-3/4	7	1	3022-028	47.40	1-3/4	3023-028	76.25
15/32	1-3/4	7	1	3022-030	52.50	1-3/4	3023-030	77.85
1/2	2	8	1	3022-032	57.60	2	3023-032	84.00
17/32	2	8	1	3022-034	83.65	-	-	-
9/16	2	8	1	3022-036	63.30	2	3023-036	91.95
19/32	2	8	2	3022-038	66.78	-	-	-
5/8	2-1/4	9	2	3022-040	66.78	2	3023-040	96.20
21/32	2-1/4	9	2	3022-042	68.40	-	-	-
11/16	2-1/4	9	2	3022-044	68.40	2	3023-044	98.00
23/32	2-1/4	9	2	3022-046	71.99	-	-	-
3/4	2-1/2	9-1/2	2	3022-048	71.99	2	3023-048	102.55
25/32	2-1/2	9-1/2	2	3022-050	74.10	-	-	-
13/16	2-1/2	9-1/2	2	3022-052	74.10	2	3023-052	105.80
27/32	2-1/2	9-1/2	2	3022-054	77.82	-	-	-
7/8	2-5/8	10	2	3022-056	81.18	2	3023-056	114.60
29/32	2-5/8	10	2	3022-058	75.48	-	-	-
15/16	2-5/8	10	3	3022-060	94.80	3	3023-060	134.25
31/32	2-5/8	10	3	3022-062	97.20	-	-	-
1	2-3/4	10-1/2	3	3022-064	97.20	3	3023-064	139.70
1-1/16	2-3/4	10-1/2	3	3022-068	134.40	-	-	-
1-1/8	2-7/8	11	3	3022-072	142.80	-	-	-
1-3/16	2-7/8	11	3	3022-076	153.60	-	-	-
1-1/4	3	11-1/2	4	3022-080	168.00	-	-	-
1-5/16	3	11-1/2	4	3022-084	176.40	-	-	-
1-3/8	3-1/4	12	4	3022-088	190.80	-	-	-
1-7/16	3-1/4	12	4	3022-092	202.80	-	-	-
1-1/2	3-1/2	12-1/2	4	3022-096	202.80	-	-	-

Expansion – Straight Flute



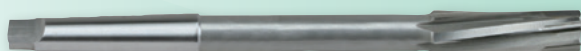
Straight Shank



Taper Shank

DIAM.	FLUTE LG'TH	OVER. LG'TH	STRAIGHT SHANK		TAPER SHANK	
			ORDER NO.	PRICE EACH	TAPER SHANK NO.	PRICE EACH
3/8	1	7	3024-024	\$ 116.63	1	3025-024 \$ 131.48
13/32	1	7	3024-026	123.88	1	3025-026 135.55
7/16	1	7	3024-028	123.88	1	3025-028 135.55
15/32	1	7	3024-030	131.32	1	3025-030 142.13
1/2	1	8	3024-032	131.32	1	3025-032 142.13
17/32	1	8	3024-034	134.46	1	3025-034 146.44
9/16	1-1/8	8	3024-036	134.46	1	3025-036 146.44
19/32	1-1/8	8	3024-038	140.42	1	3025-038 152.32
5/8	1-1/4	9	3024-040	140.42	2	3025-040 152.32
21/32	1-1/4	9	3024-042	153.58	2	3025-042 171.53
11/16	1-1/4	9	3024-044	153.58	2	3025-044 171.53
23/32	1-1/4	9	3024-046	159.16	2	3025-046 171.86
3/4	1-3/8	9-1/2	3024-048	159.16	2	3025-048 171.86
25/32	1-3/8	9-1/2	3024-050	171.61	2	3025-050 184.63
13/16	1-3/8	9-1/2	3024-052	171.61	2	3025-052 171.86
27/32	1-3/8	9-1/2	3024-054	178.52	2	3025-054 192.47
7/8	1-1/2	10	3024-056	185.18	2	3025-056 192.47
29/32	1-1/2	10	3024-058	197.00	2	3025-058 211.20
15/16	1-1/2	10	3024-060	197.00	3	3025-060 211.20
31/32	1-1/2	10	3024-062	204.25	3	3025-062† 218.90
1	1-5/8	10-1/2	3024-064	204.85	3	3025-064 218.90
1-1/32	1-5/8	10-1/2	3024-066	224.39	3	3025-066 239.34
1-1/16	1-5/8	10-1/2	3024-068	224.39	3	3025-068 239.34
1-3/32	1-5/8	10-1/2	3024-070	224.39	3	3025-070 239.34
1-1/8	1-3/4	11	3024-072	186.99	3	3025-072 239.34
1-3/16	1-3/4	11	3024-076	244.84	3	3025-076 204.03
1-1/4	1-7/8	11-1/2	3024-080	244.84	4	3025-080 273.36
1-5/16	1-7/8	11-1/2	3024-084	271.34	4	3025-084 298.39
1-3/8	2	12	3024-088	284.32	4	3025-088 326.93
1-7/16	2	12	3024-092	335.86	4	3025-092 366.91
1-1/2	2-1/8	12-1/2	3024-096	345.66	4	3025-096 379.93
1-9/16	2-1/8	12-1/2	3024-100	454.02	4	3025-100 521.98
1-5/8	2-1/4	13	3024-104	454.02	4	3025-104 521.98
1-11/16	2-1/4	13	3024-108	502.76	4	3025-108 578.11
1-3/4	2-3/8	13-1/2	3024-112	502.76	4	3025-112 578.11
1-13/16	2-3/8	13-1/2	3024-116	595.45	4	3025-116 608.99
1-7/8	2-1/2	14	3024-120	595.45	4	3025-120 608.92
1-15/16	2-1/2	14	3024-124	650.56	4	3025-124 748.16
2	2-1/2	14	3024-128	650.56	4	3025-128 748.16

Taper Shank – RHS RHC & LHS RHC



Closeout!

DIAM.	FLUTE LG'TH	OVER. LG'TH	TAPER SHANK	RHS/RHC		LHS/RHC	
				ORDER NO.	PRICE EACH	ORDER NO.	PRICE EACH
9/32	1-1/2	6	1	3023-118	\$33.75	-	-
5/16	1-1/2	6	1	3023-120	33.75	-	-
11/32	1-1/2	6	1	3023-122	34.50	-	-
13/32	1-3/4	7	1	3023-126*	36.75	3023-226	\$36.75
7/16	1-3/4	7	1	-	-	3023-228	39.10
15/32	1-3/4	7	1	3023-130	40.40	3023-230	40.40
1/2	2	8	1	3023-132	41.40	3023-232	41.40
17/32	2	8	1	3023-134	44.05	3023-234	44.05
9/16	2	8	1	-	-	3023-236	44.05
19/32	2	8	2	3023-138	46.80	-	-
5/8	2-1/4	9	2	-	-	3023-240	46.80
21/32	2-1/4	9	2	3023-142	47.60	-	-
11/16	2-1/4	9	2	-	-	-	-
23/32	2-1/4	9	2	3023-146	49.50	3023-246	49.50
3/4	2-1/2	9-1/2	2	3023-148	49.50	3023-248	49.50
13/16	2-1/2	9-1/2	2	3023-152	50.65	-	-
7/8	2-5/8	10	2	-	-	3023-256	53.10
15/16	2-5/8	10	3	-	-	3023-260	65.65
1-1/8	2-7/8	11	3	3023-172	104.50	3023-272	104.50
1-1/4	3	11-1/2	4	-	-	3023-280	123.00
1-3/8	3-1/4	12	4	-	-	3023-288	138.00
1-1/2	3-1/2	12-1/2	4	3023-196	147.90	3023-296	147.90

* 2MT Taper Shank

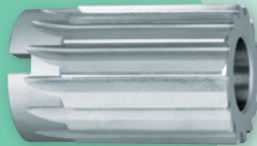
Shell Reamers

High Speed Steel

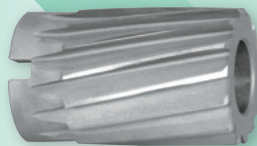


Carbide Tipped

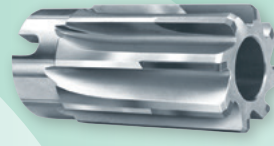
WARNING: This product contains Cobalt and/or Nickel and/or Lead a chemical known to the state of California to cause cancer or birth defects or other reproductive harm. For more information: www.p65.ca.gov.
WARNING: Cutting tools may shatter. Always wear approved safety glasses and mask when regrinding.



Straight Flute



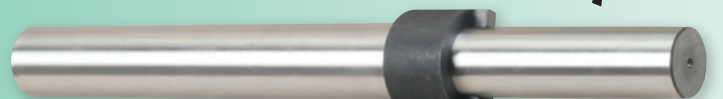
Spiral Flute



DIAM.	OVER-ALL LENGTH	HOLE SIZE	ARBOR NO.	STRAIGHT FLUTE		SPIRAL FLUTE	
				ORDER NO.	PRICE EACH	ORDER NO.	PRICE EACH
3/4	2-1/4	3/8	4	2050-048	\$61.38	2051-048	\$70.62
13/16	2-1/2	1/2	5	2050-052	64.15	2051-052	73.92
27/32	2-1/2	1/2	5	—	—	2051-054	POA
7/8	2-1/2	1/2	5	2050-056	65.34	2051-056	75.90
15/16	2-1/2	1/2	5	2050-060	67.65	2051-060	78.54
1	2-1/2	1/2	5	2050-064	69.30	2051-064	80.75
1-1/16	2-3/4	5/8	6	2050-068	75.04	2051-068	86.79
1-1/8	2-3/4	5/8	6	2050-072	79.58	2051-072	90.42
1-3/16	2-3/4	5/8	6	2050-076	82.50	2051-076	94.05
1-1/4	2-3/4	5/8	6	2050-080	83.82	2051-080	97.65
1-5/16	3	3/4	7	2050-084	88.84	2051-084	101.84
1-11/32	3	3/4	7	2050-086	POA	—	—
1-3/8	3	3/4	7	2050-088	94.55	2051-088	107.98
1-13/32	3	3/4	7	2050-090	POA	—	—
1-7/16	3	3/4	7	2050-092	103.82	2051-092	114.18
1-15/32	3	3/4	7	2050-094	POA	—	—
1-1/2	3	3/4	7	2050-096	105.27	2051-096	120.71
1-17/32	3	3/4	7	2050-098	POA	2051-098	POA
1-9/16	3	3/4	7	2050-100	116.24	2051-100	135.30
1-19/32	3	3/4	7	2050-102	POA	—	—
1-5/8	3	3/4	7	2050-104	124.31	2051-104	147.61
1-11/16	3-1/2	1	8	2050-108	136.55	2051-108	162.10
1-23/32	3-1/2	1	8	2050-110	POA	2051-23110	POA
1-3/4	3-1/2	1	8	2050-112	144.87	2051-112	171.44
1-25/32	3-1/2	1	8	2050-114	POA	—	—
1-13/16	3-1/2	1	8	2050-116	154.44	2051-116	183.66
1-27/32	3-1/2	1	8	2050-118	POA	—	—
1-7/8	3-1/2	1	8	2050-120	164.67	2051-120	194.70
1-29/32	3-1/2	1	8	2050-122	POA	—	—
1-15/16	3-1/2	1	8	2050-124	174.90	2051-124	207.64
1-31/32	3-1/2	1	8	2050-126	POA	—	—
2	3-1/2	1	8	2050-128	304.93	2051-128	358.70
2-1/16	3-3/4	1-1/4	9	2050-132	323.33	2051-132	391.63
2-1/8	3-3/4	1-1/4	9	2050-136	348.83	2051-136	410.61
2-3/16	3-3/4	1-1/4	9	2050-140	366.75	2051-140	436.98
2-1/4	3-3/4	1-1/4	9	2050-144	382.88	2051-144	449.07
2-5/16	3-3/4	1-1/4	9	2050-148	393.63	2051-148	487.87
2-3/8	3-3/4	1-1/4	9	2050-152	402.50	2051-152	493.97
2-7/16	3-3/4	1-1/4	9	2050-156	450.56	2051-156	528.90
2-1/2	3-3/4	1-1/4	9	2050-160	459.60	2051-160	528.90
2-9/16	4	1-1/2	10	2050-164	479.01	2051-164	531.12
2-5/8	4	1-1/2	10	2050-168	510.05	2051-168	550.85
2-11/16	4	1-1/2	10	2050-172	541.87	2051-172	570.30
2-3/4	4	1-1/2	10	2050-176	568.82	2051-176	618.16
2-13/16	4	1-1/2	10	2050-180	601.74	2051-180	664.18
2-7/8	4	1-1/2	10	2050-184	636.18	2051-184	687.02
2-15/16	4	1-1/2	10	2050-188	671.38	2051-188	720.72
3	4	1-1/2	10	2050-192	784.77	2051-192	846.41
3-1/16	4-1/2	1-3/4	11	2050-196	994.70	2051-196	1031.36
3-1/8	4-1/2	1-3/4	11	2050-200	1202.97	2051-200	1215.69
3-3/16	4-1/2	1-3/4	11	2050-204	1242.84	2051-204	1279.86
3-1/4	4-1/2	1-3/4	11	2050-208	1282.96	2051-208	1342.81
3-5/16	4-1/2	1-3/4	11	2050-212	1326.77	2051-212	1390.94
3-3/8	4-1/2	1-3/4	11	2050-216	1371.20	2051-216	1441.24
3-7/16	4-1/2	1-3/4	11	2050-220	1411.31	2051-220	1481.04
3-1/2	4-1/2	1-3/4	11	2050-224	1449.57	2051-224	1521.16
3-9/16	5	2	12	2050-228	1488.45	2051-228	1561.21
3-5/8	5	2	12	2050-232	1524.24	2051-232	1599.53
3-11/16	5	2	12	2050-236	1562.50	2051-236	1641.18
3-3/4	5	2	12	2050-240	1604.46	2051-240	1680.98
3-13/16	5	2	12	2050-244	1666.17	2051-244	1743.93
3-7/8	5	2	12	2050-248	1722.95	2051-248	1808.10
3-15/16	5	2	12	2050-252	1774.78	2051-252	1864.88
4	5	2	12	2050-256	1832.79	2051-256	1921.65

DIAM.	NO. OF FLUTES	FLUTE LENGTH	OVER-ALL LENGTH	HOLE DIAM. LARGE END	FITS ARBOR NO.	ORDER NO.	PRICE EACH
3/4	6	1-7/16	2-1/4	3/8	4	1958-048	\$308.35
25/32	6	1-7/16	2-1/4	3/8	4	1958-050	POA
13/16	6	1-11/16	2-1/2	1/2	5	1958-052	314.36
7/8	6	1-11/16	2-1/2	1/2	5	1958-056	351.29
15/16	8	1-11/16	2-1/2	1/2	5	1958-060	351.29
1	8	1-11/16	2-1/2	1/2	5	1958-064	357.72
1-1/16	8	1-13/16	2-3/4	5/8	6	1958-068	370.16
1-1/8	8	1-13/16	2-3/4	5/8	6	1958-072	376.38
1-3/16	8	1-13/16	2-3/4	5/8	6	1958-076	382.81
1-1/4	8	1-13/16	2-3/4	5/8	6	1958-080	407.80
1-5/16	8	2	3	3/4	7	1958-084	413.92
1-3/8	8	2	3	3/4	7	1958-088	426.47
1-7/16	8	2	3	3/4	7	1958-092	439.12
1-1/2	8	2	3	3/4	7	1958-096	457.98
1-9/16	8	2	3	3/4	7	1958-100	530.20
1-5/8	8	2	3	3/4	7	1958-104	556.31
1-11/16	10	2-11/32	3-1/2	1	8	1958-108	602.21
1-3/4	10	2-11/32	3-1/2	1	8	1958-112	602.21
1-13/16	10	2-11/32	3-1/2	1	8	1958-116	647.90
1-7/8	10	2-11/32	3-1/2	1	8	1958-120	647.90
1-15/16	10	2-11/32	3-1/2	1	8	1958-124	693.91
2	10	2-11/32	3-1/2	1	8	1958-128	693.91
2-1/16	12	2-7/16	3-3/4	1-1/4	9	1958-132	746.14
2-1/8	12	2-7/16	3-3/4	1-1/4	9	1958-136	746.14
2-3/16	12	2-7/16	3-3/4	1-1/4	9	1958-140	811.62
2-1/4	12	2-7/16	3-3/4	1-1/4	9	1958-144	811.62
2-5/16	12	2-7/16	3-3/4	1-1/4	9	1958-148	857.41
2-3/8	12	2-7/16	3-3/4	1-1/4	9	1958-152	857.41
2-7/16	12	2-7/16	3-3/4	1-1/4	9	1958-156	903.42
2-1/2	12	2-7/16	3-3/4	1-1/4	9	1958-160	903.42
2-9/16	14	2-11/16	4	1-1/2	10	1958-162	POA
2-5/8	14	2-11/16	4	1-1/2	10	1958-164	POA
2-11/16	14	2-11/16	4	1-1/2	10	1958-166	POA
2-3/4	14	2-11/16	4	1-1/2	10	1958-168	POA
2-13/16	14	2-11/16	4	1-1/2	10	1958-170	POA
2-7/8	14	2-11/16	4	1-1/2	10	1958-172	POA
2-15/16	14	2-11/16	4	1-1/2	10	1958-174	POA
3	14	2-11/16	4	1-1/2	10	1958-176	POA

Shell Reamer Arbors



Straight Shank



Taper Shank

SIZE	FITTING SIZE	OVER. LG'TH	STR. SHANK DIAM.	TAPER SHANK NO.	STR. SHANK ORDER NO.	PRICE EACH	TAPER SHANK ORDER NO.	PRICE EACH
3	1/2 to 5/8	8	7/8	1	3141-803	\$18.41	3141-823	\$24.51
4	21/32 to 25/32	9	1/2	2	3141-804	51.48	3141-824	61.38
5	13/16 to 1-1/32	9-1/2	5/8	2	3141-805	57.42	3141-825	73.26
6	1-1/16 to 1-9/32	10	3/4	3	3141-806	63.36	3141-826	79.20
7	1-5/16 to 1-21/32	11	7/8	3	3141-807	69.30	3141-827	87.12
8	1-11/16 to 2	12	1-1/8	4	3141-808	77.22	3141-828	97.02
9	2-1/16 to 2-1/2	13	1-3/8	4	3141-809	93.06	3141-829	108.90
10	2-9/16 to 3	14	1-5/8	5	3141-810	119.46	3141-830	124.74
11	3-1/16 to 3-1/2	15	2	5	3141-811	168.30	3141-831	174.90
12	3-9/16 to 4	16	2-1/8	5	3141-812	235.62	3141-832	243.54

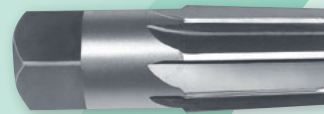
Taper Pipe Reamers - High Speed Steel

Straight & Spiral Flute

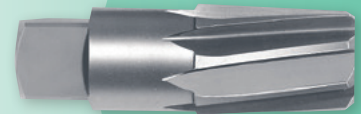
WARNING: This product contains Cobalt and/or Nickel and/or Lead a chemical known to the state of California to cause cancer or birth defects or other reproductive harm. For more information: www.prop65.ca.gov.
WARNING: Cutting tools may shatter. Always wear approved safety glasses and mask when regrinding.

Pittsburg
ALLEGHANY

SIZE	DIAM. LARGE END	DIAM. SMALL END	FLUTE LG'TH	OVER. LG'TH	STRAIGHT FLUTE		SPIRAL FLUTE	
					ORDER NO.	PRICE EACH	ORDER NO.	PRICE EACH
1/16	.291	—	3/4	2	2221-004	\$ 43.61	2222-004	\$46.18
1/8	.362	.316	3/4	2-1/8	2221-008	30.68	2222-008	35.48
1/4	.472	.406	1-1/16	2-7/16	2221-016	34.74	2222-016	40.66
3/8	.606	.540	1-1/16	2-9/16	2221-024	39.47	2222-024	46.42
1/2	.751	.665	1-3/8	3-1/8	2221-032	49.90	2222-032	58.59
3/4	.962	.876	1-3/8	3-1/4	2221-048	59.36	2222-048	81.31
1	1.212	1.103	1-3/4	3-3/4	2221-064	98.65	2222-064	115.94
1-1/4	1.553	1.444	1-3/4	4	2221-080	148.29	2222-080	174.37
1-1/2	1.793	1.684	1-3/4	4-1/4	2221-096	187.24	2222-096	220.28
2	2.268	2.159	1-3/4	4-1/2	2221-128	249.85	2222-128	294.20
2-1/2	2.722	2.561	2-5/8	5-1/2	2221-160	449.06	2222-160	498.96
3	3.380	3.202	2-3/4	6	2221-192	588.40	2222-192	654.19
SETS								
SETS	4 pc.	3/8"-1"			2221-198	86.15	2222-198	98.10



Straight Flute



Spiral Flute



4-Pc. Straight Flute Set
Order No. 2221-198



4-Pc. Spiral Flute Set
Order No. 2222-198

Taper Pin Reamers - High Speed Steel

Pittsburg
ALLEGHANY



Straight Flute



Spiral Flute



Helical Flute

SIZE	SHANK DIAM.	SMALL END	LARGE END	FLUTE LG'TH	OVER. LG'TH	STRAIGHT FLUTE		SPIRAL FLUTE		HELICAL FLUTE	
						ORDER NO.	PRICE EACH	ORDER NO.	PRICE EACH	ORDER NO.	PRICE EACH
7/0	5/64	.0497	.0666	13/16	1-13/16	2190-070	\$ 25.74	2191-070	\$ 26.93	2192-070	\$ 26.93
6/0	3/32	.0611	.0806	15/32	1-15/16	2190-060	25.74	2191-060	26.93	2192-060	26.93
5/0	7/64	.0719	.0966	1-3/16	2-3/16	2190-050	23.61	2191-050	25.74	2192-050	26.93
4/0	1/8	.0869	.1142	1-5/16	2-5/16	2190-040	23.61	2191-040	25.74	2192-040	26.93
3/0	9/64	.1029	.1302	1-5/16	2-5/16	2190-030	23.61	2191-030	25.74	2192-030	26.93
2/0	5/32	.1137	.1462	1-9/16	2-9/16	2190-020	21.12	2191-020	22.44	2192-020	22.00
0	11/64	.1287	.1638	1-11/16	2-15/16	2190-000	20.20	2191-000	21.78	2192-000	22.00
1	3/16	.1447	.1798	1-11/16	2-15/16	2190-001	19.80	2191-001	21.91	2192-001	22.18
2	13/64	.1605	.2008	1-15/16	3-3/16	2190-002	19.80	2191-002	22.11	2192-002	25.21
3	15/64	.1813	.2294	2-5/16	3-11/16	2190-003	19.80	2191-003	22.11	2192-003	26.04
4	17/64	.2071	.2604	2-9/16	4-1/16	2190-004	21.91	2191-004	23.86	2192-004	31.68
5	5/16	.2409	.2994	2-13/16	4-5/16	2190-005	23.60	2191-005	25.74	2192-005	33.81
6	23/64	.2773	.3540	3-11/16	5-7/16	2190-006	28.48	2191-006	31.52	2192-006	39.77
7	13/32	.3297	.4220	4-7/16	6-5/16	2190-007	36.50	2191-007	39.73	2192-007	47.76
8	7/16	.3971	.5050	5-3/16	7-3/16	2190-008	46.86	2191-008	51.35	2192-008	55.44
9	9/16	.4805	.6066	6-1/16	8-5/16	2190-009	57.02	2191-009	51.35	2192-009	62.04
10	5/8	.5799	.7216	6-13/16	9-5/16	2190-010	62.70	2191-010	68.79	2192-010	79.20
11	3/4	.706	.878	8-1/4	11-1/4	2190-011	134.64	2191-011	157.08	2192-011	174.90
12	15/16	.842	1.050	10	13-3/8	2190-012	184.80	2191-012	190.74	2192-012	207.90
13	1-1/16	1.009	1.259	12	16	2190-013	294.36	2191-013	314.16	2192-013	386.76
14	1-13/32	1.250	1.542	14	18-1/4	2190-014	438.90	2191-014	464.64	2192-014	514.14
SETS											
0-5		6 PCS.				2190-090	46.95	2191-090	46.95	2192-090	46.95
0-10		11 PCS.				2190-092	166.85	2191-092	166.85	2192-092	166.85



11 Pc. Set - Straight Flute
Order No. 2190-092

Hand Reamers - High Speed Steel

WARNING: This product contains Cobalt and/or Nickel and/or Lead a chemical known to the state of California to cause cancer or birth defects or other reproductive harm. For more information: www.pro65.ca.gov. **WARNING:** Cutting tools may shatter. Always wear approved safety glasses and mask when regrinding.



Straight Flute



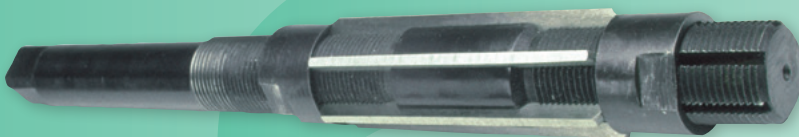
Spiral Flute

				STRAIGHT FLUTE		SPIRAL FLUTE	
DIAM.	DECM'L EQUIV.	FLUTE LG'TH	OVER. LG'TH	ORDER NO.	PRICE EACH	ORDER NO.	PRICE EACH
1/16	0.0625	1	2	2090-004†	\$27.69	2091-004†	\$30.35
5/64	0.0781	1	2	2090-005†	27.69	2091-005†	36.42
3/32	0.0938	1-1/4	2-1/2	2090-006†	27.69	2091-006†	30.35
7/64	0.1094	1-1/4	2-1/2	2090-007†	27.69	2091-007†	30.35
1/8	0.1250	1-1/2	3	2090-008	30.49	2091-008	36.59
9/64	0.1406	1-5/8	3-1/4	2090-009†	34.61	2091-009†	36.59
5/32	0.1562	1-5/8	3-1/4	2090-010	34.61	2091-010	36.59
11/64	0.1719	1-3/4	3-1/2	2090-011†	34.61	2091-011†	39.60
3/16	0.1875	1-3/4	3-1/2	2090-012	32.64	2091-012	38.15
13/64	0.2031	1-7/8	3-3/4	2090-013†	36.59	2091-013†	39.60
7/32	0.2188	1-7/8	3-3/4	2090-014	36.59	2091-014	39.60
15/64	0.2344	2	4	2090-015†	36.59	2091-015†	39.60
1/4	0.2500	2	4	2090-016	34.73	2091-016	39.60
17/64	0.2656	2-1/8	4-1/4	2090-017†	39.20	2091-017†	46.14
9/32	0.2812	2-1/8	4-1/4	2090-018	39.20	2091-018	46.14
19/64	0.2969	2-1/4	4-1/2	2090-019†	39.20	2091-019†	46.14
5/16	0.3125	2-1/4	4-1/2	2090-020	37.98	2091-020	43.56
21/64	0.3281	2-3/8	4-3/4	2090-021†	49.10	2091-021†	51.05
11/32	0.3438	2-3/8	4-3/4	2090-022	45.82	2091-022	51.84
23/64	0.3594	2-1/2	5	2090-023†	45.82	2091-023†	51.84
3/8	0.3750	2-1/2	5	2090-024	43.56	2091-024	49.10
25/64	0.3906	2-5/8	5-1/4	-	-	2091-025†	51.48
13/32	0.4062	2-5/8	5-1/4	2090-026	49.74	2091-026	61.57
27/64	0.4219	2-3/4	5-1/2	2090-027†	49.74	2091-027†	56.83
7/16	0.4375	2-3/4	5-1/2	2090-028	49.74	2091-028	54.53
29/64	0.4531	2-7/8	5-3/4	2090-029†	55.04	2091-029†	61.54
15/32	0.4688	2-7/8	5-3/4	2090-030	55.04	2091-030	61.54
31/64	0.4864	3	6	2090-031†	55.04	2091-031†	61.54
1/2	0.5000	3	6	2090-032	53.06	2091-032	58.52
17/32	0.5312	3-1/8	6-1/4	2090-034	60.79	2091-034	68.63
35/64	0.5469	3-1/4	6-1/2	2090-035†	60.79	2091-035†	68.78
9/16	0.5625	3-1/4	6-1/2	2090-036	60.79	2091-036	68.63
37/64	0.5781	3-3/8	6-3/4	2090-037†	69.66	2091-037†	76.43
19/32	0.5938	3-3/8	6-3/4	2090-038	69.66	2091-038	76.43

				STRAIGHT FLUTE		SPIRAL FLUTE	
DIAM.	DECM'L EQUIV.	FLUTE LG'TH	OVER. LG'TH	ORDER NO.	PRICE EACH	ORDER NO.	PRICE EACH
39/64	0.6094	3-1/2	7	2090-039†	\$69.66	2091-039†	\$76.43
5/8	0.6250	3-1/2	7	2090-040	65.65	2091-040	73.26
21/32	0.6562	3-11/16	7-3/8	2090-042	76.27	2091-042	83.95
43/64	0.6719	3-7/8	7-3/4	-	-	2091-043†	83.95
11/16	0.6875	3-7/8	7-3/4	2090-044	76.27	2091-044	83.95
45/64	0.7031	4-1/16	8-1/8	2090-045†	80.94	2091-045†	87.12
23/32	0.7188	4-1/16	8-1/8	2090-046	80.94	2091-046	83.68
47/64	0.7344	4-3/16	8-3/8	-	-	2091-047†	91.08
3/4	0.7500	4-3/16	8-3/8	2090-048	80.94	2091-048	84.74
25/32	0.7812	4-3/8	8-3/4	-	-	2091-050†	84.74
51/64	0.7969	4-9/16	9-1/8	2090-051†	94.76	-	-
13/16	0.8125	4-9/16	9-1/8	2090-052	93.18	2091-052	100.19
53/64	0.8281	4-11/16	9-3/8	2090-053†	93.18	2091-053†	100.19
27/32	0.8438	4-11/16	9-3/8	-	-	2091-054†	100.19
55/64	0.8594	4-7/8	9-3/4	2090-055†	37.86	2091-055†	100.19
7/8	0.8750	4-7/8	9-3/4	2090-056	100.95	2091-056	108.54
57/64	0.8906	5	10	2090-057†	100.95	2091-057†	108.54
29/32	0.9062	5	10	2090-058†	114.11	2091-058†	121.80
59/64	0.9219	5-1/8	10-1/4	2090-059†	114.11	-	-
15/16	0.9375	5-1/8	10-1/4	2090-060	114.11	2091-060	121.80
61/64	0.9531	5-5/16	10-5/8	2090-061†	136.50	2091-061†	141.57
31/32	0.9688	5-5/16	10-5/8	2090-062†	115.83	2091-062†	121.80
63/64	0.9844	5-7/16	10-7/8	2090-063†	46.14	-	-
1	1.000	5-7/16	10-7/8	2090-064	114.11	2091-064	121.80
1-1/16	1.0625	5-5/8	11-1/4	-	-	2091-068†	133.85
1-1/8	1.1250	5-13/16	11-5/8	2090-072	149.72	2091-072	163.88
1-1/4	1.2500	6-1/8	12-1/4	2090-080	181.38	2091-080	201.63
1-5/16	1.3125	6-1/4	12-1/2	2090-084†	186.45	2091-084†	201.63
1-3/8	1.3750	6-5/16	12-5/8	2090-088	214.93	2091-088	230.63
1-7/16	1.4375	6-7/16	12-7/8	-	-	2091-092†	238.36
1-1/2	1.5000	6-1/2	13	2090-096	253.45	2091-096	276.28

† Limited Quantities

Adjustable Hand Reamers



SIZE	RANGE FOR ADJUST.	OVER. LG'TH	ORDER NO.	PRICE EACH
8/A	1/4 - 9/32	3-1/4	2092-010	\$38.89
7/A	9/32 - 5/16	3-1/2	2092-012	38.89
6/A	5/16 - 11/32	4-1/8	2092-014	38.89
5/A	11/32 - 3/8	4-3/8	2092-016	38.89
4/A	3/8 - 13/32	4-3/4	2092-018	40.19
3/A	13/32 - 7/16	5	2092-020	44.48
2/A	7/16 - 15/32	5-1/4	2092-022	44.48
A	15/32 - 17/32	5-1/2	2092-024	47.15
B	17/32 - 19/32	5-3/4	2092-026	47.15
C	19/32 - 21/32	6-1/2	2092-028	49.06
D	21/32 - 23/32	6-3/4	2092-030	51.35

SIZE	RANGE FOR ADJUST.	OVER. LG'TH	ORDER NO.	PRICE EACH
E	23/32 - 25/32	7	2092-032	\$ 54.07
F	25/32 - 27/32	7-3/8	2092-034	55.80
G	27/32 - 15/16	8	2092-036	58.58
H	15/16 - 1-1/16	9	2092-038	61.80
I	1-1/16 - 1-3/16	10	2092-040	75.47
J	1-3/16 - 1-11/32	11	2092-042	89.36
K	1-11/32 - 1-1/2	12	2092-044	116.08
L	1-1/2 - 1-13/16	14	2092-046	141.50
M	1-13/16 - 2-7/32	16	2092-048	179.63
N	2-7/32 - 2-3/4	18	2092-050	316.39
O	2-3/4 - 3-11/32	20	2092-052	435.07



3

Sets

SET RANGE	NO. OF PCS.	ORDER NO.	PRICE EACH
A - H	8	2092-082	\$ 424.96
A - K	11	2092-084	705.37
8/A - 5/A	4	2092-086	50.85
4/A - 2/A	3	2092-088	38.20
4/A - M	16	2092-090	349.65

Expansion Hand Reamers

Straight & Spiral Flute, High Speed Steel

WARNING: This product contains Cobalt and/or Nickel and/or Lead a chemical known to the state of California to cause cancer or birth defects or other reproductive harm. For more information: www.p66s.ca.gov
WARNING: Cutting tools may shatter. Always wear approved safety glasses and mask when regrinding.



Straight Flute

DIAM.	FLUTE LENGTH	OVERALL LENGTH	STRAIGHT FLUTE		SPIRAL FLUTE	
			ORDER NO.	PRICE EACH	ORDER NO.	PRICE EACH
3/16	1-1/8	3-3/8	2093-012	POA	2094-012	POA
7/32	1-3/16	3-1/2	2093-014	\$70.13	2094-014	POA
1/4	1-7/16	3-7/8	2093-016	POA	2094-016	POA
9/32	1-3/4	4	2093-018	71.78	2094-018	\$78.92
5/16	1-3/4	4	2093-020	71.78	2094-020	78.92
11/32	1-3/4	4-1/4	2093-022	82.09	2094-022	86.59
3/8	1-3/4	4-1/4	2093-024	82.09	2094-024	89.19
13/32	1-3/4	4-1/2	2093-026	84.40	2094-026	92.14
7/16	1-3/4	4-1/2	2093-028	85.76	2094-028	93.65
15/32	1-13/16	5	2093-030	87.00	2094-030	95.00
1/2	1-13/16	5	2093-032	86.13	2094-032	94.06
17/32	2-1/8	5-1/2	2093-034	91.33	2094-034	99.74
9/16	2-1/8	5-1/2	2093-036	94.05	2094-036	102.70
19/32	2-1/2	6	2093-038	99.88	2094-038	109.20
5/8	2-1/2	6	2093-040	101.89	2094-040	110.81
21/32	2-1/2	6-1/4	2093-042	111.25	2094-042	123.50
11/16	2-1/2	6-1/4	2093-044	116.33	2094-044	127.02
23/32	2-11/16	6-9/16	2093-046	126.50	2094-046	137.80
3/4	2-11/16	6-9/16	2093-048	128.70	2094-048	140.54
25/32	3-1/16	7-1/16	2093-050	144.79	2094-050	158.11
13/16	3-1/16	7-1/16	2093-052	144.79	2094-052	158.11
27/32	3-5/16	7-1/2	2093-054	155.93	2094-054	170.27
7/8	3-5/16	7-1/2	2093-056	155.93	2094-056	170.27
29/32	3-9/16	7-7/8	2093-058	178.20	2094-058	194.60
15/16	3-9/16	7-7/8	2093-060	178.20	2094-060	194.60
31/32	3-3/4	8-3/8	2093-062	189.75	2094-062	207.21
1	3-3/4	8-3/8	2093-064	189.75	2094-064	207.21
1-1/32	4	8-11/16	2093-066	198.00	2094-066	216.22
1-1/16	4	8-11/16	2093-068	198.00	2094-068	216.22
1-3/32	4-1/8	9	2093-070	214.50	2094-070	234.23

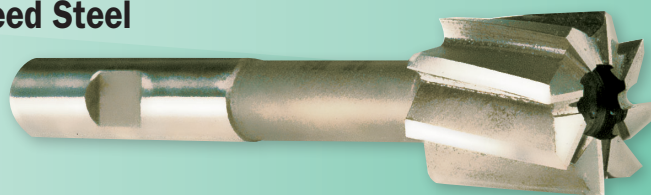


Spiral Flute

DIAM.	FLUTE LENGTH	OVERALL LENGTH	STRAIGHT FLUTE		SPIRAL FLUTE	
			ORDER NO.	PRICE EACH	ORDER NO.	PRICE EACH
1-1/8	4-1/8	9	2093-072	\$214.50	2094-072	\$234.23
1-5/32	4-1/4	9-3/8	2093-074	225.00	2094-074	238.75
1-3/16	4-1/4	9-3/8	2093-076	218.63	2094-076	238.75
1-7/32	4-3/8	9-3/4	2093-078	231.25	2094-078	253.50
1-1/4	4-3/8	9-3/4	2093-080	224.40	2094-080	245.05
1-9/32	4-1/2	10-1/8	2093-082	262.50	2094-082	286.00
1-5/16	4-1/2	10-1/8	2093-084	235.13	2094-084	256.76
1-11/32	4-9/16	10-1/2	2093-086	262.50	2094-086	286.00
1-3/8	4-9/16	10-1/2	2093-088	255.75	2094-088	292.24
1-13/32	4-3/4	10-7/8	2093-090	293.75	2094-090	325.00
1-7/16	4-3/4	10-7/8	2093-092	280.50	2094-092	306.31
1-15/32	4-13/16	11-1/8	2093-094	321.75	2094-094	339.30
1-1/2	4-13/16	11-1/8	2093-096	321.75	2094-096	351.35
1-9/16	4-7/8	11-1/4	2093-100	339.08	2094-100	377.00
1-5/8	4-7/8	11-1/2	2093-104	348.15	2094-104	POA
1-11/16	4-7/8	11-5/8	2093-108	400.95	2094-108	433.29
1-3/4	5	11-7/8	2093-112	400.95	2094-112	437.84
1-13/16	5	12-1/16	2093-116	437.25	2094-116	477.48
1-7/8	5	12-1/4	2093-120	437.25	2094-120	477.48
1-15/16	5	12-3/8	2093-124	511.50	2094-124	558.56
2	5	12-9/16	2093-128	511.50	2094-128	367.70
2-1/8	5-1/8	13-1/4	2093-136	1312.50	2094-136	1417.00
2-1/4	5-1/8	13-1/2	2093-144	1375.00	2094-144	POA
2-3/8	5-1/4	14	2093-152	1437.50	2094-152	1560.00
2-1/2	5-3/8	14-1/2	2093-160	1487.50	2094-160	1623.70
2-5/8	5-1/2	15	2093-168	1531.25	2094-168	POA
2-3/4	5-3/4	15-1/2	2093-176	1625.00	2094-176	POA
2-7/8	5-3/4	15-1/2	2093-184	1687.50	2094-184	POA
3	6	16-1/2	2093-192	1875.00	2094-192	POA

Jig Borer Reamers - RHS-RHC

Straight Shank, High Speed Steel



SIZES	DEC. EQUIV.	SHANK DIAM.	OVER. LG'TH	NO. OF FLUTES	ORDER NO.	PRICE EACH
1/8	.1250	3/8	2-9/16	4	2220-408	POA
5/32	.1562	3/8	2-9/16	4	2220-410	POA
3/16	.1875	3/8	2-13/16	4	2220-412	POA
7/32	.2188	3/8	2-13/16	4	2220-414	POA
1/4	.2500	3/8	3-5/16	4	2220-416	POA
9/32	.2812	3/8	3-5/16	4	2220-418	POA
5/16	.3125	3/8	3-9/16	6	2220-420	POA
11/32	.3438	3/8	3-9/16	6	2220-422	POA
3/8	.3750	3/8	3-9/16	6	2220-424	POA
13/32	.4062	1/2	4-5/16	6	2220-426	POA

SIZES	DEC. EQUIV.	SHANK DIAM.	OVER. LG'TH	NO. OF FLUTES	ORDER NO.	PRICE EACH
7/16	.4375	1/2	4-5/16	6	2220-428	POA
15/32	.4688	1/2	4-5/16	6	2220-430	POA
1/2	.5000	1/2	4-5/16	6	2220-432	POA
9/16	.5625	1/2	4-5/16	6	2220-436	POA
5/8	.6250	1/2	4-5/16	6	2220-440	POA
11/16	.6875	1/2	4-5/16	6	2220-444	POA
3/4	.7500	1/2	4-5/16	8	2220-448	\$225.30
13/16	.8125	1/2	4-5/16	8	2220-452	POA
7/8	.8750	1/2	4-5/16	8	2220-456	POA
15/16	.9375	1/2	4-5/16	8	2220-460	293.50
1	1.0000	1/2	4-5/16	8	2220-464	POA

Construction Reamers

3

WARNING: This product contains Cobalt and/or Nickel and/or Lead a chemical known to the state of California to cause cancer or birth defects or other reproductive harm. For more information: www.prop65.ca.gov. **WARNING:** Cutting tools may shatter. Always wear approved safety glasses and mask when regrinding.



Pittsburg® Spiral Flute



Allegiance® Spiral Flute



Allegiance® Spiral Flute - High Performance



Pittsburg® Hi-Spiral Flute



Allegiance® Hi-Spiral Flute



Allegiance® Hi-Spiral Flute - High Performance

The Ultra High Performance Round Shank Taper Reamer has a Ferritic Nitro Carburing treatment, giving a surface hardness of RC 75-80 without increasing brittleness, versus a normal hardness of RC 63-66. The bronze and black surface provides additional lubricity.

					Pittsburg®		Allegiance®		Allegiance®		Allegiance®		Allegiance®		Allegiance®	
					SPIRAL FLUTE		HI-SPIRAL FLUTE		SPIRAL FLUTE		HI-SPIRAL FLUTE		SPIRAL FLUTE		HI-SPIRAL FLUTE	
DIAM.	SHANK DIAM.	SHANK LG'TH	FLUTE LG'TH	OVER. LG'TH	ORDER NO.	PRICE EACH	ORDER NO.	PRICE EACH	ORDER NO.	PRICE EACH	ORDER NO.	PRICE EACH	ORDER NO.	PRICE EACH	ORDER NO.	PRICE EACH
1/4	1/4	1-1/2	2-1/2	4-3/8	2161-116	\$17.11	2161-216	\$17.11	2160-912	\$64.23	2161-012	\$64.60	2161-412	\$78.35	2161-512	\$67.65
5/16	5/16	1-1/2	2-3/4	4-5/8	2161-120	17.11	2161-220	17.11	2160-920	64.23	2161-020	79.90	2161-420	80.65	2161-520	89.20
3/8	3/8	1-1/2	2-3/4	4-5/8	2161-124	17.11	2161-224	17.11	2160-924	64.23	2161-024	79.90	2161-424	55.00	2161-524	61.25
7/16	7/16	1-1/2	3-1/2	5-3/8	2161-128	20.12	2161-228	20.12	2160-928	66.55	2161-028	89.20	2161-428	89.20	2161-528	96.95
1/2	1/2	1-1/2	4	5-7/8	2161-132	20.12	2161-232	20.12	2160-932	66.55	2161-032	96.95	2161-432	62.35	2161-532	69.00
9/16	1/2	1-1/2	4	5-7/8	2161-136	21.17	2161-236	80.90	2160-936	74.12	2161-036	65.60	2161-436	100.85	2161-536	72.95
5/8	1/2	1-1/2	4-1/2	6-3/8	2161-140	23.32	2161-240	23.32	2160-940	77.14	2161-040	75.05	2161-440	73.60	2161-540	83.00
21/32	1/2	1-1/2	4-1/2	6-3/8	-	-	-	-	2160-942	113.25	2161-042	84.15	2161-442	125.65	2161-542	137.30
11/16	1/2	1-1/2	4-1/2	6-3/8	2161-144	25.67	2161-244	25.67	2160-944	85.84	2161-044	121.00	2161-444	125.65	2161-544	92.35
3/4	1/2	1-1/2	5	6-7/8	2161-148	31.49	2161-248	31.49	2160-948	102.78	2161-048	145.85	2161-448	96.55	2161-548	106.25
25/32	1/2	1-1/2	5	6-7/8	-	-	-	-	2160-950	133.40	2161-050	145.85	2161-450	149.70	2161-550	166.00
13/16	1/2	1-1/2	5	6-7/8	2161-152	34.12	2161-252	34.12	2160-952	103.61	2161-052	145.85	2161-452	96.55	2161-552	166.00
7/8	1/2	1-1/2	5	6-7/8	2161-156	37.87	2161-256	130.39	2160-956	101.07	2161-056	166.00	2161-456	109.00	2161-556	119.15
15/16	1/2	1-1/2	5	6-7/8	2161-160	39.02	2161-260	39.02	2160-960	116.31	2161-060	166.00	2161-460	169.85	2161-560	119.15
1	1/2	1-1/2	5	6-7/8	2161-164	43.30	2161-264	43.30	2160-964	135.97	2161-064	128.80	2161-464	129.90	2161-564	217.95
1-1/16	1/2	1-1/2	5	6-7/8	2161-168	47.58	2161-268	47.58	2160-968	158.82	2161-068	162.50	2161-468	148.90	2161-568	250.55
1-1/8	3/4	1-1/2	4-1/2	6-7/8	-	-	-	-	-	-	-	-	2161-472	173.85	2161-572	294.75
1-3/16	3/4	1-1/2	4-1/4	6-7/8	-	-	-	-	-	-	-	-	2161-476	190.95	2161-576	322.65
1-1/4	3/4	1-1/2	4-1/4	6-7/8	-	-	-	-	-	-	-	-	2161-480	204.40	2161-580	219.75
1-5/16	3/4	1-1/2	4-1/4	6-7/8	-	-	-	-	-	-	-	-	2161-484	342.85	2161-584	383.15
1-3/8	3/4	1-1/2	4-1/4	6-7/8	-	-	-	-	-	-	-	-	2161-488	405.70	2161-588	340.50
1-7/16	3/4	1-1/2	4-1/4	6-7/8	-	-	-	-	-	-	-	-	2161-492	415.75	2161-592	448.35
1-1/2	3/4	1-1/2	4-1/4	6-7/8	-	-	-	-	-	-	-	-	2161-496	321.85	2161-596	488.65

Erector Reamers

3



Pittsburg® Hex Shank



Allegiance® Black Oxide



Allegiance® Safety Spiral Flute

The Safety First Erector Reamer is magnetic, which secures the reamer in sockets.

				Pittsburg®		Allegiance®		Allegiance®	
REAMER DIA.	HEX SHANK INCHES	FLUTE LG'TH	OVER. LG'TH	ORDER NO.	PRICE EACH	SPIRAL FLUTE ORDER NO.	PRICE EACH	SAFETY SPIRAL FLUTE ORDER NO.	PRICE EACH
11/16	1-1/16	4-1/2	6-1/2	2161-344	\$37.98	2161-644	\$117.16	2161-744	\$161.35
3/4	1-1/4	5"	7"	-	-	2161-648	114.18	2161-748	118.45
13/16	1-1/4	5"	7"	2161-352	39.36	2161-652	142.73	2161-752	193.90
7/8	1-7/16	5"	7"	-	-	2161-656	110.26	2161-756	133.65
15/16	1-7/16	5"	7"	2161-360	42.08	2161-660	158.40	2161-760	217.95
1"	1-7/16	5"	7"	-	-	2161-664	150.00	2161-764	160.35
1-1/16	1-5/8	5"	7"	2161-368	55.69	2161-668	212.86	2161-768	177.25
1-1/8	1-5/8	5"	7"	-	-	2161-672	192.10	2161-772	204.20
1-3/16	1-13/16	5"	7"	-	-	2161-676	294.00	2161-776	355.25
1-1/4	1-13/16	5"	7"	-	-	2161-680	235.20	2161-780	235.30
1-5/16	2"	5"	7-7/8	-	-	2161-684	263.25	2161-784	423.50

Bridge Reamers – High Speed Steel

WARNING: This product contains Cobalt and/or Nickel and/or Lead a chemical known to the state of California to cause cancer or birth defects or other reproductive harm. For more information: www.prop65.ca.gov.
WARNING: Cutting tools may shatter. Always wear approved safety glasses and mask when regrinding.



Straight Flute – Taper Shank



Spiral Flute – Taper Shank

DIAM.	FLUTE LENGTH	OVER-ALL LENGTH	TAPER SHANK NO.	STRAIGHT FLUTE		SPIRAL FLUTE	
				ORDER NO.	PRICE EACH	ORDER NO.	PRICE EACH
13/32	4-3/8	8-1/4	2	2170-262	\$21.25	2180-262	\$19.40
7/16	4-3/8	8-1/4	2	2170-282	21.25	2180-282	19.40
15/32	5-1/8	9	2	2170-302	22.40	2180-302	21.20
1/2	5-1/8	9	2	2170-322	22.40	2180-322	21.20
17/32	5-1/8	9	2	2170-342	22.95	2180-342	22.25
9/16	5-1/8	9	2	2170-362	22.95	2180-362	22.25
19/32	6-1/8	10	2	2170-382†	17.40	2180-382†	17.55
5/8	6-1/8	10	2	2170-402	24.85	2180-402	25.10
21/32	6-1/8	10	2	2170-422†	18.25	—	—
21/32	7-1/8	11-3/4	3	—	—	2180-423†	21.55
11/16	7-1/8	11-3/4	3	2170-443	28.95	2180-443	30.80
23/32	7-3/8	12	3	2170-463†	21.85	—	—
3/4	7-3/8	12	3	2170-483	31.20	2180-483	33.60
25/32	7-3/8	12	3	2170-503†	23.30	—	—
13/16	7-3/8	12	3	2170-523	33.30	2180-523	34.85
27/32	7-3/8	12	3	2170-543†	27.15	2180-543†	28.15
7/8	7-3/8	12	3	2170-563	38.75	2180-563	40.20
29/32	7-3/8	12	3	2170-583†	26.40	2180-583†	28.35
15/16	7-3/8	12	3	2170-603	37.75	2180-603	40.50
31/32	7-3/8	12	3	2170-623†	30.45	—	—
1	7-3/8	12	3	2170-643	43.50	2180-643	\$46.30
1-1/16	7-3/8	12	3	2170-683	48.00	2180-683	51.10
1-1/8	7-3/8	12	3	2170-723	53.70	2180-723	57.05
1-3/16	7-3/8	12	3	2170-763	59.85	2180-763	62.80
1-1/4	7-3/8	13	4	2170-804	65.75	2180-804	68.55
1-5/16	7-3/8	13	4	2170-844	75.80	2180-844	80.05
1-3/8	7-3/8	13	4	2170-884	78.75	2180-884	81.90
1-7/16	7-3/8	13	4	2170-924	82.35	2180-924	85.65
1-1/2	7-3/8	13	4	2170-964	87.20	2180-964	92.10
1-9/16	7-3/8	13	4	2171-004	114.13	2181-004	126.10
1-5/8	7-3/8	13	4	2171-044	114.13	2181-044	129.70
1-11/16	7-3/8	13	4	2171-084	120.01	2181-084	145.55
1-3/4	7-3/8	13	4	2171-124	145.19	2181-124	161.40
1-13/16	7-3/8	13	4	2171-164	145.19	2181-164	165.60
1-7/8	7-3/8	13	4	2171-204	145.19	2181-204	168.40
1-15/16	7-3/8	13	4	2171-244	167.84	2181-244	187.30
2	7-3/8	13	4	2171-282	167.84	2181-284	192.35

† Limited Quantities

Diameters through 4-1/2" Available On Request

Die Maker's Reamers

High Speed Steel

WARNING: This product contains Cobalt and/or Nickel and/or Lead a chemical known to the state of California to cause cancer or birth defects or other reproductive harm. For more information: www.prodds.ca.gov. **WARNING:** Cutting tools may shatter. Always wear approved safety glasses and mask when regrinding.



1



SIZE	DIAM. LARGE END	DIAM. SMALL END	FLUTE LG'TH	OVER. LG'TH	ORDER NO.	PRICE EACH
AAA	.070	.055	1-1/8	2-1/4	2220-099	\$16.20
AA	.080	.065	1-1/8	2-1/4	2220-100	15.26
A	.090	.075	1-1/8	2-1/4	2220-101	14.66
C	.113	.095	1-3/8	2-1/2	2220-103	13.05
F	.148	.125	1-3/4	3	2220-106	9.24
G	.158	.135	1-3/4	3	2220-107	9.24
H	.169	.145	1-7/8	3-1/4	2220-108	10.89
I	.184	.160	1-7/8	3-1/4	2220-109	10.89
K	.219	.190	2-1/4	3-1/2	2220-111	13.20
L	.234	.205	2-1/4	3-1/2	2220-112	13.20
M	.252	.220	2-1/2	4	2220-113	13.20
N	.274	.235	3	4-1/2	2220-114	15.42

SIZE	DIAM. LARGE END	DIAM. SMALL END	FLUTE LG'TH	OVER. LG'TH	ORDER NO.	PRICE EACH
O	.296	.250	3-1/2	5	2220-115	\$16.29
P	.327	.275	4	5-1/2	2220-116	18.56
Q	.358	.300	4-1/2	6	2220-117	19.27
R	.397	.335	4-3/4	6-1/2	2220-118	19.98
S	.425	.370	5	6-3/4	2220-119	20.72
T	.473	.405	5-1/4	7	2220-120	22.60
U	.511	.440	5-1/2	7-1/4	2220-121	23.44
V	.564	.483	6-1/4	8-3/8	2220-122	24.43
W	.613	.525	6-3/4	8-3/4	2220-123	27.73
X	.688	.574	7-1/4	9-1/2	2220-124	29.33
Y	.730	.629	7-3/4	10	2220-125	34.28
Z	.806	.699	8-1/4	10-1/2	2220-126	38.57

Jobber Reamers - Taper Shank

Straight & Spiral Flutes, High Speed Steel



2



Straight Flute



Spiral Flute

DIAM.	DECM'L EQUIV.	FLUTE LG'TH	OVER. LG'TH	SHANK NO.	STRAIGHT FLUTE		SPIRAL FLUTE	
					ORDER NO.	PRICE EACH	ORDER NO.	PRICE EACH
1/4	.2500	2	5-3/16	1	2130-161	\$41.40	2140-161	\$47.61
17/64	.2656	2	5-3/16	1	2130-171	12.57	-	-
9/32	.2812	2	5-3/16	1	2130-181	43.61	2140-181	12.57
19/64	.2967	2-1/4	5-1/2	1	2130-191	12.57	-	-
5/16	.3125	2-1/4	5-1/2	1	2130-201	43.11	2140-201	43.11
21/64	.3281	2-1/4	5-1/2	1	2130-211	13.06	-	-
11/32	.3438	2-1/4	5-1/2	1	2130-221	45.86	2140-221	13.06
23/64	.3594	2-1/2	5-13/16	1	2130-231	13.06	-	-
3/8	.3750	2-1/2	5-13/16	1	2130-241	49.88	2140-241	13.06
25/64	.3906	2-1/2	5-13/16	1	2130-251	13.06	-	-
13/32	.4063	2-1/2	5-13/16	1	2130-261	52.05	2140-261	13.06
27/64	.4219	2-3/4	6-1/8	1	2130-271	13.06	-	-
7/16	.4375	2-3/4	6-1/8	1	2130-281	56.32	2140-281	56.32
29/64	.4531	2-3/4	6-1/8	1	2130-291	14.11	-	-
15/32	.4688	2-3/4	6-1/8	1	2130-301	52.61	2140-301	14.11
31/64	.4844	3	6-7/16	1	2130-311	15.05	-	-
1/2	.5000	3	6-7/16	1	2130-321	56.32	2140-321	15.05
33/64	.5156	3	6-7/16	1	2130-331	15.88	-	-
17/32	.5312	3	6-7/16	1	2130-341	58.14	2140-341	15.88
35/64	.5469	3-1/4	6-3/4	1	2130-351	17.26	-	-
9/16	.5625	3-1/4	6-3/4	1	2130-361	63.76	2140-361	17.26
37/64	.5781	3-1/4	6-3/4	1	2130-371	18.47	-	-
19/32	.5938	3-1/4	6-3/4	1	2130-381	65.19	2140-381	18.47
39/64	.6094	3-1/4	6-3/4	1	2130-391	19.08	-	-
5/8	.6250	3-1/2	7-9/16	2	2130-402	66.42	-	-
21/32	.6562	3-1/2	7-9/16	2	2130-422	70.58	2140-422	19.95
11/16	.6875	3-7/8	8	2	2130-442	77.42	2140-442	89.03

DIAM.	DECM'L EQUIV.	FLUTE LG'TH	OVER. LG'TH	SHANK NO.	STRAIGHT FLUTE		SPIRAL FLUTE	
					ORDER NO.	PRICE EACH	ORDER NO.	PRICE EACH
23/32	.7188	3-7/8	8	2	2130-462	\$64.06	2140-462	\$21.16
47/64	.7344	4-3/16	8-3/8	2	2130-472	22.26	-	-
3/4	.7500	4-3/16	8-3/8	2	-	-	2140-482	22.26
25/32	.7812	4-3/16	8-3/8	2	2130-502	73.35	-	-
13/16	.8125	4-9/16	8-13/16	2	2130-522	86.94	2140-522	99.98
27/32	.8438	4-9/16	8-13/16	2	2130-542	78.92	2140-542	24.20
55/64	.8594	4-9/16	8-13/16	2	2130-552	28.44	-	-
7/8	.8750	4-7/8	9-3/16	2	-	-	2140-562	28.44
29/32	.9062	4-7/8	9-3/16	2	2130-582	31.48	-	-
59/64	.9219	5-1/8	10	3	2130-593	31.48	-	-
15/16	.9375	5-1/8	10	3	2130-603	102.47	2140-603	31.48
61/64	.9331	5-1/8	10	3	2130-613	34.84	-	-
31/32	.9688	5-1/8	10	3	2130-623	34.84	-	-
63/64	.9844	5-1/8	10	3	2130-633	34.84	-	-
1	1.0000	5-7/16	10-3/8	3	-	-	2140-643	135.07
1-3/16	1.1875	6	11-1/8	3	-	-	2140-763	45.97
1-7/16	1.4375	6-7/16	13	4	-	-	2140-924	63.67

**Special Reamers From Prints
Are Our Specialty!**

Taper Reamers

Repairman's Taper Reamers - Carbon Steel

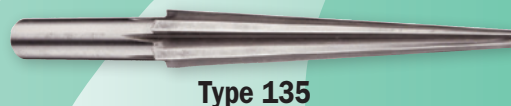
WARNING: This product contains Cobalt and/or Nickel and/or Lead a chemical known to the state of California to cause cancer or birth defects or other reproductive harm. For more information: www.pro65.ca.gov. **WARNING:** Cutting tools may shatter. Always wear approved safety glasses and mask when regrinding.

Pittsburg
ALLEGHANY

REAMER NO.	OVER-ALL LG'TH	DIAM. LARGE END	DIAM. SMALL END	ORDER NO.	PRICE EACH
T-5	5-1/2	1/2	1/8	2220-280	\$25.66
135	5-1/2	1/2	1/8	2220-282	30.37



Type T-5



Type 135

Machine Taper Reamers - Taper Shank High Speed Steel



Straight Flute



Spiral Flute

Morse Taper Reamers - Square Shank High Speed Steel



Finishing



Roughing

† Limited Quantities

SIZE	DIAM. LARGE END	DIAM. SMALL END	FLUTE LG'TH	OVER-ALL LG'TH	MORSE TAPER SHANK	STRAIGHT FLUTE		SPIRAL FLUTE	
						ORDER NO.	PRICE EACH	ORDER NO.	PRICE EACH
0	.3674	.2503	2-1/4	5-11/32	0	2220-240	\$67.52	—	—
1	.5170	.3674	3	6-5/16	1	2220-241	71.87	—	—
2	.7444	.5696	3-1/2	7-3/8	2	2220-242	89.67	2220-262†	\$30.23
3	.9881	.7748	4-1/4	8-7/8	3	2220-243	124.87	2220-263†	41.78
4	1.2893	1.0167	5-1/4	10-7/8	4	2220-244	195.29	2220-264†	65.93
5	1.8005	1.4717	6-1/4	13-1/8	5	2220-245	386.78	2220-265†	134.55

SIZE	DIAM. LARGE END	DIAM. SMALL	FLUTE LG'TH	OVER. LG'TH	FINISH STR. FLUTE		ROUGH STR. FLUTE	
					ORDER NO.	PRICE EACH	ORDER NO.	PRICE EACH
0	.3674	.2503	2-1/4	3-3/4	2220-200	\$51.92	2220-210	\$22.40
1	.5170	.3674	3	5	2220-201	67.78	2220-211	28.35
2	.7444	.5696	3-1/2	6	2220-202	81.51	2220-212	33.60
3	.9881	.7748	4-1/4	7-1/4	2220-203	118.85	2220-213	49.00
4	1.2893	1.0167	5-1/4	8-1/2	2220-204	175.89	2220-214	71.85
5	1.8005	1.4717	6-1/4	9-3/4	2220-205	334.62	2220-215	138.05
6	2.555	2.112	8-1/2	12-1/4	2220-206	712.14	2220-216	298.47

Burring Reamers

Carbon Steel

Pittsburg
ALLEGHANY



232 - 234



2† - 3†

241† - 244†

ORDER NO.	DESCRIPTION	NO.	CAPACITY PIPE INCHES	DIAM. AT POINT	PRICE EACH
2223-106	Spiral Fluted	232	1/8 - 1	3/16	\$19.67
2223-108	1/2" Round	233	1/4 - 1-1/4	1/4	23.87
2223-110	Shank	234	1/4 - 2	1/4	40.23
2223-120	Spiral Fluted	254	1/4 - 2	1/4	53.49
2223-122	T-Handle Shank	257	1-1/2 - 3-1/2	1-1/2	252.37
2223-100†	Straight	2	1/8 - 1	3/16	11.16
2223-102†	Fluted Bit	3	1/4 - 1-1/4	1/4	13.50
2223-112†	Spiral Fluted	241	1/8 - 1/2	3/16	14.52
2223-114†	Bit Brace	242	1/8 - 1	3/16	17.94
2223-116†	Shank	243	1/4 - 1-1/4	1/4	22.56

† Limited Quantities

Counterbores – Short Set, Interchangeable

Pilot – Short Set, High Speed Steel & Carbide Tipped

WARNING: This product contains Cobalt and/or Nickel and/or Lead a chemical known to the state of California to cause cancer or birth defects or other reproductive harm. For more information: www.pro65.ca.gov.
WARNING: Cutting tools may shatter. Always wear approved safety glasses and mask when regrinding.

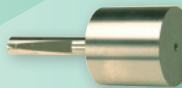


Pittsburg HIGH SPEED STEEL															
USA STEEL															
USA - CARBIDE TIPPED CAST IRON															
RANGE OF PILOT SIZES				STRAIGHT SHANK				TAPER SHANK				STRAIGHT SHANK			
DIAM.	OVERALL LENGTH	NO. OF FLUTES	HOLE DIAM.	ORDER NO.	PRICE EACH	TAPER SHANK	ORDER NO.	PRICE EACH	ORDER NO.	PRICE EACH	TAPER SHANK	ORDER NO.	PRICE EACH	TAPER SHANK	ORDER NO.
3/16	3	3	3/32	1/8 – 3/16	2230-012	\$28.80	1	2231-012	POA	–	–	–	–	–	–
13/64	3	3	3/32	1/8 – 3/16	2230-013	28.80	1	2231-013	POA	–	–	–	–	–	–
7/32	3	3	3/32	1/8 – 7/32	2230-014	28.80	1	2231-014	POA	–	–	–	–	–	–
15/64	3-13/16	3	3/32	1/8 – 7/32	2230-015	31.10	1	2231-015	POA	–	–	–	–	–	–
1/4	3-13/16	3	3/32	1/8 – 3/16	2230-016	30.15	1	2231-016	\$ 32.58	1951-016	\$ 110.85	1952-016	\$ 149.16	1	1953-016 \$ 149.16
17/64	3-13/16	3	3/32	1/8 – 1/4	2230-017	31.10	1	2231-017	21.21	–	–	–	–	–	–
9/32	3-13/16	3	3/32	1/8 – 7/32	2230-018	30.15	1	2231-018	33.48	–	–	–	–	–	–
19/64	3-13/16	3	3/32	1/8 – 9/32	2230-019	31.97	–	–	–	–	–	–	–	–	–
5/16	3-13/16	3	3/32	1/8 – 1/4	2230-020	30.96	1	2231-020	33.48	1951-020	113.95	1952-020	163.15	1	1953-020 163.15
21/64	3-13/16	3	3/32	1/8 – 5/16	2230-021	31.68	1	2231-021	21.74	–	–	–	–	–	–
11/32	3-13/16	3	3/32	1/8 – 9/32	2230-022	31.68	1	2231-022	33.48	–	–	–	–	–	–
23/64	3-13/16	3	3/32	1/8 – 11/32	2230-023	31.68	1	2231-023	21.74	–	–	–	–	–	–
3/8	4-1/16	3	5/32	3/16 – 5/16	2230-024	31.68	1	2231-024	33.48	1951-024	117.65	1952-024	168.36	1	1953-024 168.36
25/64	4-1/16	3	5/32	3/16 – 3/8	2230-025	32.63	1	2231-025	23.00	–	–	–	–	–	–
13/32	4-1/16	3	5/32	3/16 – 11/32	2230-026	33.70	1	2231-026	35.55	–	–	–	–	–	–
27/64	4-1/16	3	5/32	3/16 – 13/32	2230-027	33.70	1	2231-027	23.00	–	–	–	–	–	–
7/16	4-1/16	3	5/32	3/16 – 3/8	2230-028	33.70	1	2231-028	35.55	1951-028	120.80	1952-028	172.99	1	1953-028 172.99
29/64	4-5/16	3	3/16	3/16 – 7/16	2230-029	37.80	1	2231-029	24.21	–	–	–	–	–	–
15/32	4-5/16	3	3/16	1/4 – 13/32	2230-030	35.37	1	2231-030	37.26	–	–	–	–	–	–
31/64	4-5/16	3	3/16	3/16 – 15/32	2230-031	35.37	1	2231-031	24.21	–	–	–	–	–	–
1/2	4-5/16	3	3/16	1/4 – 7/16	2230-032	35.37	1	2231-032	37.26	1951-032	133.35	1952-032	190.91	1	1953-032 190.91
17/32	4-5/16	3	3/16	1/4 – 15/32	2230-034	39.33	1	2231-034	41.63	–	–	–	–	–	–
9/16	4-5/16	3	3/16	1/4 – 1/2	2230-036	39.33	1	2231-036	41.63	1951-036	130.90	1952-036	194.49	1	1953-036 194.49
19/32	5-1/8	3	3/16	1/4 – 17/32	2230-038	42.08	1	2231-038	44.91	–	–	–	–	–	–
5/8	5-1/8	3	3/16	1/4 – 9/16	2230-040	42.08	2	2231-040	44.91	1951-040	134.40	1952-040	199.69	2	1953-040 199.69
21/32	5-1/8	3	3/16	1/4 – 19/32	2230-042	46.44	2	2231-042	48.51	–	–	–	–	–	–
11/16	5-1/8	3	3/16	1/4 – 5/8	2230-044	46.44	2	2231-044	48.51	1951-044	141.80	1952-044	210.69	2	1953-044 210.69
23/32	5-3/8	3	1/4	5/16 – 21/32	2230-046	48.33	2	2231-046	50.27	–	–	–	–	–	–
3/4	5-3/8	3	1/4	5/16 – 11/16	2230-048	48.33	2	2231-048	50.27	1951-048	144.25	1952-048	214.27	2	1953-048 214.27
25/32	5-3/8	3	1/4	5/16 – 23/32	2230-050	51.08	2	2231-050	53.42	–	–	–	–	–	–
13/16	5-3/8	3	1/4	5/16 – 3/4	2230-052	49.41	2	2231-052	53.42	1951-052	146.80	1952-052	218.08	2	1953-052 218.08
27/32	5-3/8	3	1/4	5/16 – 25/32	2230-054	54.23	2	2231-054	55.48	–	–	–	–	–	–
7/8	5-3/8	3	1/4	5/16 – 13/16	2230-056	51.84	2	2231-056	55.48	1951-056	154.25	1952-056	229.19	2	1953-056 229.19
29/32	6-1/8	3	1/4	5/16 – 27/32	2230-058	54.45	2	2231-058	58.62	–	–	–	–	–	–
15/16	6-1/8	3	1/4	5/16 – 7/8	2230-060	54.45	3	2231-060	58.62	1951-060	158.40	1952-060	235.44	3	1953-060 235.44
31/32	6-3/8	3	5/16	3/8 – 29/32	2230-062	64.89	3	2231-062	66.99	–	–	–	–	–	–
1	6-3/8	3	5/16	3/8 – 15/16	2230-064	64.89	3	2231-064	87.09	1951-064	168.25	1952-064	240.86	3	1953-064 246.34
1-1/16	6-3/8	3	5/16	3/8 – 1	2230-068	73.26	3	2231-068	103.42	1951-068	170.50	1952-068	243.99	3	1953-068 253.24
1-1/8	6-3/8	3	5/16	3/8 – 1-1/16	2230-072	73.26	3	2231-072	103.42	1951-072	175.80	1952-072	251.73	3	1953-072 261.22
1-3/16	6-3/8	3	5/16	3/8 – 1-1/8	2230-076	79.38	3	2231-076	106.15	1951-076	181.80	1952-076	260.29	3	1953-076 270.12
1-1/4	6-5/8	5	3/8	7/16 – 1-3/16	2230-080	92.12	3	2231-080	138.80	1951-080	202.20	1952-080	289.43	3	1953-080 331.38
1-5/16	6-5/8	5	3/8	7/16 – 1-1/4	2230-084	106.38	3	2231-084	138.80	1951-084	216.65	1952-084	310.24	3	1953-084 355.23
1-3/8	6-5/8	5	3/8	7/16 – 1-5/16	2230-088	106.38	3	2231-088	138.80	1951-088	227.05	1952-088	325.05	3	1953-088 372.21
1-7/16	7-7/8	5	3/8	7/16 – 1-3/8	2230-092	110.26	4	2231-092	148.01	1951-092	252.50	1952-092	361.59	4	1953-092 414.05
1-1/2	7-7/8	5	3/8	7/16 – 1-7/16	2230-096	119.26	4	2231-096	155.48	1951-096	290.55	1952-096	400.91	4	1953-096 459.10
1-9/16	8-1/8	5	7/16	1/2 – 1-1/2	2230-100	145.28	4	2231-100	188.86	1951-100	312.20	1952-100	411.21	4	1953-100 470.96
1-5/8	8-1/8	5	7/16	1/2 – 1-9/16	2230-104	161.38	4	2231-104	212.24	1951-104	317.80	1952-104	418.60	4	1953-104 479.39
1-11/16	8-1/8	5	7/16	1/2 – 1-5/8	2230-108	171.18	4	2231-108	224.29	–	–	1952-108	500.82	4	1953-108 573.55
1-3/4	8-1/8	5	7/16	1/2 – 1-11/16	2230-112	173.88	4	2231-112	228.74	1951-112	380.25	1952-112	500.82	4	1953-112 573.55
1-13/16	8-1/8	5	7/16	1/2 – 1-3/4	2230-116	182.34	4	2231-116	250.50	–	–	1952-116	592.75	4	1953-116 678.83
1-7/8	8-1/8	5	7/16	1/2 – 1-13/16	2230-120	190.52	4	2231-120	250.50	–	–	1952-120	592.75	4	1953-120 678.83
1-15/16	8-1/8	5	7/16	1/2 – 1-7/8	2230-124	208.00	4	2231-124	273.00	–	–	1952-124	647.69	4	1953-124 491.75
2	8-3/8	5	1/2	9/16 – 1-15/16	2230-128	215.64	4	2231-128	282.91	1951-128	491.75	1952-128	647.69	4	1953-128 491.75
2-1/8	9-7/8	5	1/2	9/16 – 2-1/16	2230-136	272.16	5	2231-136	353.81	–	–	–	–	–	–
2-1/4	9-7/8	5	1/2	9/16 – 2-3/16	2230-144	284.40	5	2231-144	375.57	–	–	–	–	–	–
2-3/8	9-7/8	5	1/2	9/16 – 2-5/16	2230-152	304.20	5	2231-152	408.33	–	–	–	–	–	–
2-1/2	9-7/8	5	1/2	9/16 – 2-7/16	2230-160	315.00	5	2231-160	432.90	–	–	–	–	–	–
2-5/8	9-7/8	5	1/2	9/16 – 2-9/16	2230-168	396.90	5	2231-168	567.45	–	–	–	–	–	–
2-3/4	9-7/8	5	1/2	9/16 – 2-11/16	2230-176	469.00	5	2231-176	634.14	–	–	–	–	–	–
2-7/8	9-7/8	5	1/2	9/16 – 2-13/16	2230-184	488.00	5	2231-184	692.64	–	–	–	–	–	–
3	9-7/8	5	1/2	9/16 – 2-15/16	2230-192	505.00	5	2231-192	692.64	–	–	–	–	–	–

Counterbores

WARNING: This product contains Cobalt and/or Nickel and/or Lead a chemical known to the state of California to cause cancer or birth defects or other reproductive harm. For more information: www.prop65.ca.gov. **WARNING:** Cutting tools may shatter. Always wear approved safety glasses and mask when regrinding.

Pilots for Counterbores— Carbon Steel



Pittsburg
ALLEGANY

3

PILOT DIAM. (IN.)	SHANK DIAMETER (INCHES)									PRICE EACH
	3/32	1/8	5/32	3/16	1/4	5/16	3/8	7/16	1/2	
1/8	2241-008	2242-008	—	—	—	—	—	—	—	\$7.02
5/32	2241-010	2242-010	2243-010	—	—	—	—	—	—	7.02
3/16	2241-012	2242-012	2243-012	2244-012	—	—	—	—	—	7.20
7/32	2241-014	2242-014	2243-014	2244-014	—	—	—	—	—	8.10
1/4	2241-016	2242-016	2243-016	2244-016	2245-016	—	—	—	—	8.10
9/32	2241-018	2242-018	2243-018	2244-018	2245-018	—	—	—	—	8.64
5/16	2241-020	2242-020	2243-020	2244-020	2245-020	2246-020	—	—	—	8.64
11/32	2241-022	2242-022	2243-022	2244-022	2245-022	2246-022	—	—	—	8.64
3/8	2241-024	2242-024	2243-024	2244-024	2245-024	2246-024	2247-024	—	—	9.54
13/32	—	2242-026	2243-026	2244-026	2245-026	2246-026	2247-026	—	—	9.54
7/16	—	2242-028	2243-028	2244-028	2245-028	2246-028	2247-028	2248-028	—	9.72
15/32	—	2242-030	2243-030	2244-030	2245-030	2246-030	2247-030	—	—	10.26
1/2	—	2242-032	2243-031	2244-032	2245-032	2246-032	2247-032	2248-032	2249-032	11.16
17/32	—	2242-034	—	2244-034	2245-034	2246-034	2247-034	2248-034	2249-034	12.96
9/16	—	2242-036	—	2244-036	2245-036	2246-036	2247-036	2248-036	2249-036	14.58
19/32	—	—	—	2244-038	2245-038	2246-038	2247-038†	—	—	15.30
5/8	—	—	—	2244-040	2245-040	2246-040	2247-040	2248-040	2249-040	16.02
21/32	—	—	—	2244-042	2245-042	2246-042	2247-042†	2248-042	—	16.20
11/16	—	—	—	2244-044	2245-044	2246-044	2247-044	2248-044	2249-044	16.38
23/32	—	—	—	—	2245-046†	2246-046†	2247-046†	2248-046	—	18.54
3/4	—	—	—	2244-048	2245-048	2246-048	2247-048	2248-048	2249-048	18.54
25/32	—	—	—	—	2245-050†	2246-050†	2247-050†	2248-050	2249-050	19.80
13/16	—	—	—	—	2245-052	2246-052	2247-052	2248-052	2249-052	20.88
7/8	—	—	—	—	2245-056	2246-056	2247-056	2248-056	2249-056	23.04
15/16	—	—	—	—	2245-060	2246-060	2247-060	2248-060	2249-060	24.30
1	—	—	—	—	2245-064	2246-064	2247-064	2248-064	2249-064	7.20
1-1/16	—	—	—	—	—	2246-068	2247-068	2248-068	2249-068	26.10
1-1/8	—	—	—	—	—	2246-072	2247-072	2248-072	2249-072	31.50
1-3/16	—	—	—	—	—	2246-076	2247-076	2248-076	2249-076	32.40
1-1/4	—	—	—	—	—	2246-080	2247-080	2248-080	2249-080	10.80
1-5/16	—	—	—	—	—	—	2247-084	2248-084	2249-084	36.00
1-3/8	—	—	—	—	—	—	2247-088	2248-088	2249-088	37.80
1-7/16	—	—	—	—	—	—	2247-092	2248-092	2249-092	39.60
1-1/2	—	—	—	—	—	—	—	2248-096	2249-096	41.40
1-9/16	—	—	—	—	—	—	—	2248-100	2249-100	43.20
1-5/8	—	—	—	—	—	—	—	2248-104	2249-104	44.10
1-11/16	—	—	—	—	—	—	—	2248-108	2249-108	49.50
1-3/4	—	—	—	—	—	—	—	2248-112	2249-112	54.00
1-13/16	—	—	—	—	—	—	—	2248-116	2249-116	59.40
1-7/8	—	—	—	—	—	—	—	2248-120	2249-120	67.50
1-15/16	—	—	—	—	—	—	—	—	2249-124	70.20
2	—	—	—	—	—	—	—	—	2249-128	73.80

Continuous Pilot Counterbores High-Speed Steel



1936 Series: Straight Shank – High Speed Steel

2

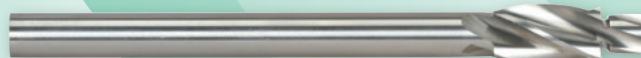
PILOT DIA.	CUTTER DIA.	FOR CAP SCREW	SHK. DIA.	OAL	ORDER NO.	PRICE EACH	PILOT DIA.	CUTTER DIA.	FOR CAP SCREW	SHANK DIA.	OAL	ORDER NO.	PRICE EACH
.1350	.2300	6	7/32	3	2237-906	\$47.24	.3876	.5831	3/8	1/2	6-1/2	2237-925	\$62.89
.1500	.2420	6	7/32	3	2237-907	49.47	.4032	.5988	3/8	1/2	6-1/2	2237-926	60.02
.1610	.2740	8	1/4	3	2237-908	47.24	.4345	.6300	7/16	1/2	7	2237-928	74.90
.1780	.2860	8	1/4	3	2237-909	49.47	.4501	.6456	7/16	1/2	7	2237-929	74.90
.1870	.3160	10	5/16	3-1/2	2237-910	44.07	.4658	.6612	7/16	1/2	7	2237-930	74.90
.2040	.3280	10	5/16	3-1/2	2237-911	42.07	.4960	.7550	1/2	1/2	7-1/4	2237-932	85.00
.2130	.3480	12	11/32	3-1/2	2237-912	44.07	.5116	.7706	1/2	1/2	7-1/4	2237-933	85.00
.2290	.3600	12	11/32	3-1/2	2237-913	44.07	.5272	.7860	1/2	1/2	7-1/4	2237-934	79.58
.2470	.3800	1/4	3/8	5-3/4	2237-916	48.32	.5585	.8175	9/16	3/4	7-1/2	2237-936	95.21
.2626	.3956	1/4	3/8	5-3/4	2237-917	50.64	.5898	.8488	9/16	3/4	7-1/2	2237-937	101.69
.2782	.4112	1/4	3/8	5-3/4	2237-918	48.32	.6200	.8800	5/8	3/4	8-1/4	2237-940	117.80
.3095	.4425	5/16	7/16	6	2237-920	54.38	.6512	.9112	5/8	3/4	8-1/4	2237-941	117.80
.3251	.4581	5/16	7/16	6	2237-921	54.38	.6825	.9425	5/8	3/4	8-1/4	2237-942	128.14
.3408	.4738	5/16	7/16	6	2237-922	51.91	.7450	1.0050	3/4	1	8-13/16	2237-948	125.37
.3720	.5675	3/8	1/2	6-1/2	2237-924	62.89	.7762	1.0362	3/4	1	8-13/16	2237-949	149.36
							.8075	1.0675	3/4	1	8-13/16	2237-950	157.08

1960 Series: Straight Shank – High Speed Steel

2

PILOT DIA.	CUTTER DIA.	FOR CAP SCREW	SHK. DIA.	OAL	ORDER NO.	PRICE EACH	PILOT DIA.	CUTTER DIA.	FOR CAP SCREW	SHANK DIA.	OAL	ORDER NO.	PRICE EACH
.3095	.4738	5/16	7/16	6	2237-820	\$55.14	.3251	.4894	5/16	7/16	6	2237-821	55.14
.3408	.5050	5/16	7/16	6	2237-822	51.63	.4345	.6612	7/16	1/2	7	2237-828	74.90
.4501	.6769	7/16	1/2	7	2237-829	74.90	.4658	.6925	7/16	1/2	7	2237-830	74.90
.6210	.9425	5/8	3/4	8-1/4	2237-840	124.49	.6512	.9738	5/8	3/4	8-1/4	2237-841	113.23
.6825	1.0050	5/8	3/4	8-1/4	2237-842	128.14	.7450	1.1300	3/4	1	8-13/16	2237-848	154.31
.7762	1.1612	3/4	1	8-13/16	2237-849	165.00	.8075	1.1925	3/4	1	8-13/16	2237-850	164.28
.9950	1.5050	1	1	8-13/16	2237-864	272.35	1.0575	1.5675	1	1	8-13/16	2237-865	316.74

Cap Screw Counterbores - High Speed Steel



1

SIZE/ APPLICATION	PILOT DIA.	PILOT LGTH.	FLUTE DIA.	FLUTE LG'TH.	OAL	SHK. DIA.	ORDER NO.	PRICE EACH
#4 STD.	.1120		.1860				2237-003	\$29.40
#4 1/64 o/s	.1270	5/32	.2020	11/16	3-7/8	.1562	2237-002	29.40
#4 1/32 o/s	.1430		.2180				2237-001	29.40
#5 STD.	.1250		.2050				2237-006	30.65
#5 1/64 o/s	.1400	3/16	.2210	11/16	4-1/8	.1875	2237-005	30.65
#5 1/32 o/s	.1560		.2370				2237-004	30.65
#6 STD.	.1380		.2280				2237-009	34.15
#6 1/64 o/s	.1530	7/32	.2440	7/8	4-5/8	.2188	2237-008	34.15
#6 1/32 o/s	.1690		.2600				2237-007	34.15
#8 STD.	.1640		.2720				2237-012	37.15
#8 1/64 o/s	.1790	1/4	.2880	15/16	5	.2500	2237-011	37.15
#8 1/32 o/s	.1950		.3040				2237-010	37.15
#10 STD.	.1900		.3140				2237-015	38.80
#10 1/64 o/s	.2050	9/32	.3300	1-1/8	5-1/4	.2812	2237-014	38.80
#10 1/32 o/s	.2210		.3460				2237-013	38.80
1/4" STD.	.2500		.3820				2237-018	42.00
1/4" 1/64 o/s	.2650	5/16	.3980	1-5/16	5-5/8	.3125	2237-017	42.00
1/4" 1/32 o/s	.2810		.4140				2237-016	42.00
5/16" STD.	.3125		.4750				2237-021	47.40
5/16" 1/64 o/s	.3280	3/8	.4910	1-5/16	6-1/8	.3750	2237-020	47.40
5/16" 1/32 o/s	.3430		.5070				2237-019	47.40
3/8" STD.	.3750		.5720				2237-024	58.85
3/8" 1/64 o/s	.3900	1/2	.5880	1-5/8	6-1/2	.5000	2237-023	58.85
3/8" 1/32 o/s	.4060		.6040				2237-022	58.85
7/16" STD.	.4375		.6630				2237-027	75.55
7/16" 1/64 o/s	.4520	1/2	.6790	1-11/16	7	.5000	2237-026	75.55
7/16" 1/32 o/s	.4680		.6950				2237-025	75.55
1/2" STD.	.5000		.7570				2237-030	91.55
1/2" 1/64 o/s	.5150	1/2	.7730	2	7-1/2	.5000	2237-029	91.55
1/2" 1/32 o/s	.5310		.7890				2237-028	91.55
5/8" STD.	.6250		.9450				2237-033	143.40
5/8" 1/64 o/s	.6400	5/8	.9610	2	7-5/8	.6250	2237-032	143.40
5/8" 1/32 o/s	.6560		.9770				2237-031	143.40
3/4" STD.	.7500		1.1330				2237-036	169.40
3/4" 1/64 o/s	.7650	3/4	1.1490	2-1/8	7-3/4	.7500	2237-035	169.40
3/4" 1/32 o/s	.7810		1.1650				2237-034	169.40
7/8" STD.	.8750		1.3220				2237-039	213.90
7/8" 1/64 o/s	.8910	7/8	1.3380	2-1/8	8	.8750	2237-038	213.90
7/8" 1/32 o/s	.9060		1.3540				2237-037	213.90
1" STD.	1.000		1.5100				2237-042	266.70
1" 1/64 o/s	1.0150	1	1.5260	2-1/4	8-1/2	1.0000	2237-041	266.70
1" 1/32 o/s	1.0310		1.5420				2237-040	266.70

SOCKET CAP SCREW COUNTERBORE SETS

10 counterbores 4-40 - 1/2"

Standard Set: Order No. 2237-047 Set Price...\$595.85

1/64" Oversize Set: Order No. 2237-046 Set Price...\$595.85

1/32" Oversize Set: Order No. 2237-045 Set Price...\$595.85

Counterbores

WARNING: This product contains Cobalt and/or Nickel and/or Lead a chemical known to the state of California to cause cancer or birth defects or other reproductive harm. For more information: www.p66s.ca.gov.
WARNING: Cutting tools may shatter. Always wear approved safety glasses and mask when regrinding.

Capscrew Counterbores

Straight Shank - High Speed Steel

3



CAP SCREW SIZE	PILOT DIAM.	CUTTER DIAM.	SHANK DIAM.	OVERALL LENGTH	ORDER NO.	PRICE EACH
#5	.141	.221	3/16	3	2237-505	\$21.06
#6	.150	.242	7/32	3	2237-506	21.06
#8	11/64	19/64	1/4	3	2237-508	21.06
#10	13/64	21/64	5/16	3-1/2	2237-510	22.68
1/4	9/32	13/32	3/8	5	2237-616	25.38
5/16	11/32	1/2	7/16	5	2237-620	27.71
3/8	13/32	19/32	1/2	6	2237-624	31.64
7/16	15/32	11/16	1/2	7	2237-628	37.82
1/2*	17/32	25/32	1/2	7-1/2	2237-631	43.09
1/2	17/32	25/32	3/4	7-1/2	2237-632	43.09
1/2*	9/16	13/16	3/4	7-1/2	2237-633	43.09
5/8	21/32	31/32	3/4	7-1/2	2237-640	61.96
5/8*	11/16	1	3/4	7-1/2	2237-641	61.96
3/4	13/16	1-3/16	1	8	2237-648	87.72
7/8	15/16	1-3/8	1	8	2237-656	131.88
1	1-1/16	1-9/16	1	10	2237-664	171.14

COUNTERBORE SETS

6 PC. SET				7 PC. SET			
SETS	6 PC.	7 PC.	1/4-3/4	2237-698	289.06	2237-697	94.05
			#6-1/2				

*Not included in any set.

Taper Shank - High Speed Steel

3



CAP SCREW SIZE	PILOT DIAM.	CUTTER DIAM.	SHANK TAPER	OVERALL LENGTH	ORDER NO.	PRICE EACH
1/4	9/32	13/32	2MT	5-3/4	2237-716	\$27.56
5/16	11/32	1/2	2MT	6	2237-720	30.26
3/8	13/32	19/32	2MT	6-1/2	2237-724	36.00
7/16	15/32	11/16	2MT	7	2237-728	42.64
1/2	17/32	25/32	2MT	7-1/4	2237-732	47.25
5/8	21/32	31/32	2MT	7-1/2	2237-740	66.94
5/8	11/16	1	2MT	7-1/2	2237-741	66.94
3/4	13/16	1-3/16	3MT	9	2237-748	95.63
7/8	15/16	1-3/8	3MT	9	2237-756	144.00
1	1-1/16	1-9/16	3MT	10	2237-764	182.25

Metric - Straight Shank - High Speed Steel

All Measurements (mm)



3

CAP SCREW SIZE	PILOT DIAM.	CUTTER DIAM.	ORDER NO.	PRICE EACH
M3	3.4	6	2232-030	\$40.17
M4	4.5	8	2232-040	48.23
M5	5.5	10	2232-050	62.38
M6	6.6	11	2232-060	70.34
M8	9	15	2232-080	28.86
M10	11	18	2232-100	32.96
M12	14	20	2232-120	39.40
M14	15	24	2232-140	44.89
M16	17	26	2232-160	64.54
M20	21	33	2232-200	91.38
TAPER SHANK - #2MT				
M14	15	24	2232-314	49.88
M16	17	26	2232-316	64.54
M20	21	33	2232-320	91.38

Aircraft Counterbores & Spot Facers - High Speed Steel



1/4" Shank Diameter

3



Long Set

3

SHANK SIZE						
DIAM.	OVER. LENGTH	DIAM.	LENGTH	NO. OF FLUTES	HOLE DIAM.	ORDER NO.
1/4	2-3/8	1/4	1	4	3/32	2235-016
9/32	2-3/8	1/4	1	4	3/32	2235-018
5/16	2-3/8	1/4	1	4	3/32	2235-020
11/32	2-3/8	1/4	1	4	3/32	2235-022
3/8	2-3/8	1/4	1	4	3/32	2235-024
13/32	2-13/16	1/4	7/8	4	1/8	2235-026
7/16	2-13/16	1/4	7/8	4	1/8	2235-028
15/32	2-13/16	1/4	7/8	4	1/8	2235-030
1/2	2-13/16	1/4	7/8	4	1/8	2235-032
17/32	2-13/16	1/4	7/8	4	1/8	2235-034
9/16	2-13/16	1/4	7/8	4	1/8	2235-036
19/32	2-13/16	1/4	7/8	4	1/8	2235-038
5/8	2-13/16	1/4	7/8	4	1/8	2235-040
21/32	3-1/8	1/4	7/8	4	3/16	2235-042
11/16	3-1/8	1/4	7/8	4	3/16	2235-044
23/32	3-1/8	1/4	7/8	4	3/16	2235-046
3/4	3-1/8	1/4	7/8	4	3/16	2235-048
25/32	3-1/8	1/4	7/8	4	3/16	2235-050
13/16	3-1/8	1/4	7/8	4	3/16	2235-052
27/32	3-1/8	1/4	7/8	4	3/16	2235-054
7/8	3-1/8	1/4	7/8	4	3/16	2235-056
29/32	3-1/8	1/4	7/8	4	3/16	2235-058
15/16	3-1/8	1/4	7/8	4	3/16	2235-060
31/32	3-1/8	1/4	7/8	4	3/16	2235-062
1	3-1/8	1/4	7/8	4	3/16	2235-064

SHANK SIZE						
DIAM.	OVER. LENGTH	DIAM.	LENGTH	NO. OF FLUTES	HOLE DIAM.	ORDER NO.
1/4	4	15/64	3-1/4	4	3/32	2236-016
9/32	4	17/64	3-1/4	4	3/32	2236-018
5/16	4	19/64	3-1/4	4	3/32	2236-020
11/32	4	5/16	3-1/4	4	3/32	2236-022
3/8	4	5/16	3-1/4	4	3/32	2236-024
13/32	4	5/16	3-1/4	4	1/8	2236-026
7/16	4	5/16	3-1/4	4	1/8	2236-028
15/32	4-1/4	7/16	3-1/16	4	1/8	2236-030
1/2	4-1/4	7/16	3-1/16	4	1/8	2236-032
17/32	4-1/4	1/2	3-1/16	4	1/8	2236-034
9/16	4-1/4	1/2	3-1/16	4	1/8	2236-036
19/32	4-1/4	1/2	3-1/16	4	1/8	2236-038
5/8	4-1/4	1/2	3-1/16	4	1/8	2236-040
21/32	5-3/8	1/2	3-5/8	4	3/16	2236-042
11/16	5-3/8	1/2	3-5/8	4	3/16	2236-044
23/32	5-3/8	1/2	3-5/8	4	3/16	2236-046
3/4	5-3/8	1/2	3-5/8	4	3/16	2236-048
25/32	5-3/8	1/2	3-5/8	4	3/16	2236-050
13/16	5-3/8	1/2	3-5/8	4	3/16	2236-052
27/32	5-3/8	1/2	3-5/8	4	3/16	2236-054
7/8	5-3/8	1/2	3-5/8	4	3/16	2236-056
29/32	5-3/8	1/2	3-5/8	4	3/16	2236-058
15/16	5-3/8	1/2	3-5/8	4	3/16	2236-060
31/32	5-3/8	1/2	3-5/8	4	3/16	2236-062
1	5-3/8	1/2	3-5/8	4	3/16	2236-064

Pittsburg
ALLEGANY

Triple Crown Series - High Performance Taps

WARNING: This product contains Cobalt and/or Nickel and/or Lead a chemical known to the state of California to cause cancer or birth defects or other reproductive harm. For more information: www.prop65.ca.gov.
WARNING: Cutting tools may shatter. Always wear approved safety glasses and mask when regrinding.

REGAL CUTTING TOOLS 4

Blue Band Spiral Point Taps - For Tough Materials

SIZE	LIMIT	OAL	THD. LG'TH.	SHANK DIA.	UNC - COARSE PITCH THREADS			UNF - FINE PITCH THREADS		
					PER INCH	ORDER NO.	PRICE EACH	PER INCH	ORDER NO.	PRICE EACH
#6	GH3	2"	.413"	.141"	32	3621-001	\$12.71	-	-	-
#8	GH3	2-1/8	.453	.168	32	3621-013	12.71	-	-	-
#10	GH3	2-3/8	.531	.194	24	3621-025	12.71	32	3621-031	\$12.71
1/4"	GH3	2-1/2	.591	.255	20	3621-037	14.64	28	3621-043	19.52
5/16	GH3	2-23/32	.669	.318	18	3621-049	24.38	24	3621-055	24.38
3/8	GH3	2-15/16	.748	.381	16	3621-061	25.01	24	3621-067	25.01
7/16	GH3	3-5/32	.866	.323	14	3621-073	39.88	20	3621-079	39.88
1/2	GH3	3-3/8	.984	.367	13	3621-085	35.83	20	3621-091	45.01
5/8	GH3	3-13/16	1.083	.480	11	3621-109	46.27	18	3621-115	46.27
3/4	GH3	4-1/4	1.201	.590	10	3621-121	65.41	16	3621-127	65.41



Blue TC-SS

Applications:

- For tough material. Up to HRc25.
- Steel, Al, Copper Brass, Stainless Steel.

Material: HSS-V3 HSS with V 3%

Coating: Steam homo

Geometry: USCTI 302A (Thread L: 12p)

Plug, middle rake, High chamfer angle.

Spiral Point Length: 5P~8P

Features:

- High wear resistance, good chip removal

Blue Band Spiral Pointed Taps - Metric - For Tough Materials

SIZE	LIMIT	PITCH	OAL	THD. LG'TH.	SHANK DIA.	ORDER NO.	PRICE EACH
3mm	D3	.50mm	1-15/16"	.374"	.141"	3623-007	\$26.99
4	D4	.70	2-1/8	.453	.168	3623-019	19.52
5	D4	.80	2-3/8	.531	.194	3623-031	22.62
6	D5	1.00	2-1/2	.591	.255	3623-043	22.62
8	D5	1.25	2-23/32	.669	.318	3623-067	28.78
10	D5	1.50	2-15/16	.748	.381	3623-079	45.86
12	D6	1.75	3-3/8	.984	.367	3623-091	41.50



Blue TC-SS

Applications:

- For tough material. Up to HRc25. Steel, Al, Copper Brass, Stainless Steel.

Material: HSS-V3 HSS with V 3%

Coating: Steam homo

Geometry: Spiral Point: USCTI 302A (Thread L: 12p) Plug, middle rake, High chamfer angle. Spiral Point Length: 5P~8P

Features: High wear resistance, good chip removal

Blue Band Spiral Flute Taps - For Tough Materials

UNC - COARSE PITCH								UNF - FINE PITCH			
SIZE	LIMIT	OAL	SHANK DIA.	THD.	THD. LG'TH.	ORDER NO.	PRICE EACH	THD.	THD. LG'TH.	ORDER NO.	PRICE EACH
				PER INCH				PER INCH			
#6	GH3	2"	.141"	32	.276"	3622-001	\$39.62	—	—	—	—
#8	GH3	2-1/8	.168	32	.276	3622-013	22.43	—	—	—	—
#10	GH3	2-3/8	.194	24	.354	3622-025	28.98	32	.276	3622-031	\$22.04
1/4"	GH3	2-1/2	.255	20	.453	3622-037	29.38	28	.354	3622-043	29.38
5/16	GH3	2-23/32	.318	18	.472	3622-049	30.52	24	.394	3622-055	30.52
3/8	GH3	2-15/16	.381	16	.551	3622-061	36.75	24	.394	3622-067	36.75
7/16	GH3	3-5/32	.323	14	.591	3622-073	55.03	—	—	—	—
1/2	GH3	3-3/8	.367	13	.630	3622-085	73.85	20	.472	3622-091	60.07
5/8	GH3	3-13/16	.480	11	.748	3622-109	61.85	18	.512	3622-115	61.85
3/4	GH3	4-1/4	.590	10	.827	3622-121	126.39	16	.591	3622-127	87.44



Blue Band TC-SS

Applications:

- For tough material. Up to HRc25.
- Steel, Al, Copper Brass, Stainless Steel.

Material: HSS-V3 HSS with V 3%

Coating: Steam homo

Geometry: Spiral Flute: USCTI 302A (Except with shorter thread L; 12p->8.5p) Semi-bottoming, high rake, 45° spiral flute, low chamfer relief.

Features:

- High wear resistance, good chip removal

Blue Band Spiral Fluted Taps - Metric - For Tough Materials

SIZE	LIMIT	PITCH	OAL	THD. LG'TH.	SHANK DIA.	ORDER NO.	PRICE EACH
3mm	D3	.50mm	1-15/16"	.197"	.141"	3624-007	\$25.79
4	D3	.70	2-1/8	.276	.168	3624-019	25.79
5	D4	.80	2-3/8	.276	.194	3624-031	25.79
6	D4	1.00	2-1/2	.433	.255	3624-043	25.79
8	D5	1.25	2-23/32	.472	.318	3624-067	42.38
10	D5	1.50	2-15/16	.512	.381	3624-079	63.23
12	D6	1.75	3-3/8	.591	.367	3624-091	69.26



Blue TC-SS

Applications:

- For tough material. Up to HRc25. Steel, Al, Copper Brass, Stainless Steel.

Material: HSS-V3 HSS with V 3%

Coating: Steam homo

Geometry: Spiral Flute: USCTI 302A (Except with shorter thread L; 12p->8.5p) Semi-bottoming, high rake, 45° spiral flute, low chamfer relief.

Features:

- High wear resistance, good chip removal

Triple Crown Series - High Performance Taps

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WARNING: Cutting tools may shatter. Always wear approved safety glasses and mask when regrinding.

REGAL CUTTING TOOLS 4

Red Band Spiral Flute Taps - For High Tensile Materials

SIZE	LIMIT	OAL	SHANK DIA.	UNC - COARSE PITCH				UNF - FINE PITCH			
				THD. PER INCH	THD. LG'TH.	ORDER NO.	PRICE EACH	THD. PER INCH	THD. LG'TH.	ORDER NO.	PRICE EACH
#6	GH3	2"	.141"	32	.276	3622-201	\$48.71	—	—	—	—
#8	GH3	2-1/8	.168	32	.276	3622-213	39.13	—	—	—	—
#10	GH3	2-3/8	.194	24	.354	3622-225	39.13	32	.276	3622-231	\$39.13
1/4"	GH3	2-1/2	.255	20	.433	3622-237	43.67	28	.354	3622-243	43.67
5/16	GH3	2-23/32	.318	18	.472	3622-249	47.81	24	.394	3622-255	47.81
3/8	GH3	2-15/16	.381	16	.551	3622-261	55.22	24	.394	3622-267	55.22
7/16	GH3	3-5/32	.323	14	.591	3622-273	77.26	20	.472	3622-279	94.95
1/2	GH3	3-3/8	.367	13	.630	3622-285	85.36	20	.472	3622-291	85.36
5/8	GH3	3-13/16	.480	11	.748	3622-309	192.86	18	.512	3622-315	192.86
3/4	GH3	4-1/4	.590	10	.827	3622-321	303.70	16	.591	3622-327	247.39



Red Band - TC-HT

Applications:

- For tapping high tensile materials up to HRC44.
- Alloyed & tool steel, Ni alloy, Ti alloy.

Material: HSS-PM Powder Metal Steel

Coating: Steam homo

Geometry: Spiral Flute:USCTI 302A (Except with shorter thread L; 12p->8.5p) Semi-bottoming, low rake, 15° spiral flute, high chamfer relief.

Features:

- Long tool life, good chip removal

Red Band Spiral Point Taps - For High Tensile Materials

SIZE	LIMIT	OAL	THD. LG'TH.	SHANK DIA.	UNC - COARSE PITCH			UNF - FINE PITCH		
					THD. PER INCH	ORDER NO.	PRICE EACH	THD. PER INCH	ORDER NO.	PRICE EACH
#6	GH3	2"	.413"	.141"	32	3621-201	\$28.16	—	—	—
#8	GH3	2-1/8	.453	.168	32	3621-213	28.16	—	—	—
#10	GH3	2-3/8	.531	.194	24	3621-225	28.16	32	3621-231	\$28.16
1/4"	GH3	2-1/2	.591	.255	20	3621-237	33.29	28	3621-243	33.29
5/16	GH3	2-23/32	.669	.318	18	3621-249	37.15	24	3621-255	37.15
3/8	GH3	2-15/16	.748	.381	16	3621-261	42.38	24	3621-267	42.38
7/16	GH3	3-5/32	.866	.323	14	3621-273	32.50	20	3621-279	74.02
1/2	GH3	3-3/8	.984	.367	13	3621-285	66.39	20	3621-291	66.39
5/8	GH3	3-13/16	1.083	.480	11	3621-309	152.75	18	3621-315	152.75
3/4	GH3	4-1/4	1.201	.590	10	3621-321	242.31	16	3621-327	197.30



Red TC-HT

Applications:

- For tapping high tensile materials up to HRC44.
- Alloyed & tool steel, Ni alloy, Ti alloy.

Material: HSS-PM Powder Metal Steel

Coating: Steam homo

Geometry: Spiral Point: USCTI 302A

(Thread L: 12p) Plug, low rake; High chamfer angle.

Spiral Point Length: 5P~8P

Features:

- Long tool life, good chip removal

Yellow Band Spiral Flute Taps - For General Ductile Materials

SIZE	LIMIT	OAL	THD. LG'TH.	SHANK DIA.	UNC - COARSE PITCH			UNF - FINE PITCH		
					THD. PER INCH	ORDER NO.	PRICE EACH	THD. PER INCH	ORDER NO.	PRICE EACH
#6	2B	2"	3/8"	.141"	32	3622-401	\$24.01	—	—	—
#8	2B	2-1/8	3/8	.168	32	3622-413	24.01	—	—	—
#10	2B	2-3/8	1/2	.194	24	3622-425	23.61	32	3622-431	\$23.61
1/4"	2B	2-1/2	5/8	.255	20	3622-437	24.01	28	3622-443	24.01
5/16	2B	2-23/32	11/16	.318	18	3622-449	30.52	24	3622-455	30.52
3/8	2B	2-15/16	3/4	.381	16	3622-461	36.66	24	3622-467	36.66
7/16	2B	3-5/32	7/8	.323	14	3622-473	55.03	—	—	—
1/2	2B	3-3/8	15/16	.367	13	3622-485	73.85	20	3622-491	60.07
5/8	2B	3-13/16	1-3/32	.480	11	3622-509	65.81	18	3622-515	65.81
3/4	2B	4-1/4	1-7/32	.590	10	3622-521	107.25	16	3622-527	102.95



Yellow Band TC-LT

Applications:

- For general purpose.
- Steel, Al alloy, Stainless Steel, Cast Iron.

Material: HSS-V M7

Coating: Steam homo

Geometry: Spiral Flute: USCTI 302A

(Thread L; 12p) Bottoming, middle rake, 50° spiral flute, low chamfer relief.

Features:

- Suitable for general-purpose operation.

High Performance Taps

High Speed Steel - EV High Vanadium - Ground Thread, RH

Features: • Made of 4% Vanadium CPM - M4 Steel • Special Penta thread relief provide freer cutting • Designed for tougher, more abrasive materials up to 35 Rc

2



MADE IN USA

WARNING: This product contains Cobalt and/or Nickel and/or Lead a chemical known to the state of California to cause cancer or birth defects or other reproductive harm. For more information: www.prop65.ca.gov.
WARNING: Cutting tools may shatter. Always wear approved safety glasses and mask when regrinding.

Spiral Flute



Applications:

Soft Stainless Steel • Aluminum • Alloy Steel • Bronze
• Annealed Tool Steel • Carbon Steels

Features:

- Designed for tough jobs in through hole tapping
- Blue Diamond surface treatment eliminates surface welding
- 30° spiral flute design provides excellent chip evacuation
- Better tool life • Bottom 1 to 2 thread chamfer

SIZE	NC NF	PITCH DIA.	NO. OF FLUTES	ORDER NO.	PRICE EACH
6-32	NC	H3	3	3872-060	\$21.25
8-32	NC	H3	3	3872-080	21.25
10-24	NC	H3	3	3872-100	21.30
10-32	NF	H3	3	3872-102	21.30
1/4-20	NC	H3	3	3872-160	23.40
1/4-28	NF	H3	3	3872-162	23.40
5/16-18	NC	H3	3	3872-200	25.80
5/16-24	NF	H3	3	3872-202	25.80
3/8-16	NC	H3	3	3872-240	30.15
3/8-24	NF	H3	3	3872-242	30.15
7/16-14	NC	H3	3	3872-280	47.70
7/16-20	NF	H3	3	3872-282	47.70
1/2-13	NC	H3	3	3872-320	56.90
1/2-20	NF	H3	3	3872-322	56.90
9/16-12	NC	H3	3	3872-360	64.40
9/16-18	NF	H3	3	3872-362	64.40
5/8-11	NC	H3	3	3872-400	81.40
5/8-18	NF	H3	3	3872-402	81.40
3/4-10	NC	H3	3	3872-480	114.55
3/4-16	NF	H3	3	3872-482	114.55
METRIC SIZES					
M3X0.5		D3	2	3872-530	32.30
M3.5X0.6		D4	3	3872-535	25.75
M4X0.7		D4	3	3872-540	25.75
M5X0.8		D4	3	3872-550	25.75
M6X1.0		D5	3	3872-560	28.30
M8X1.25		D5	3	3872-580	31.20
M10X1.5		D6	3	3872-600	57.20
M12X1.75		D6	3	3872-620	68.90
M14X2		D7	3	3872-640	77.95
M16X2		D7	3	3872-660	98.50

Spiral Point



Applications:

Stainless steel up to 35 Rc • Alloy Steel • Annealed Tool Steel
• Aluminum • Brass • Carbon Steels

Features:

- Blue Diamond surface treatment eliminates surface welding
- Spiral point taps shoot chips ahead of the cutting action, thus reducing loading and clogging in the flutes
- Used for production tapping in through hole applications

SIZE	NC NF	PITCH DIA.	NO. OF FLUTES	ORDER NO.	PRICE EACH
4-40	NC	H2	2	3873-040	\$16.95
5-40	NC	H2	2	3873-050	16.95
6-32	NC	H3	3	3873-060	13.85
8-32	NC	H3	3	3873-080	14.30
10-24	NC	H3	3	3873-100	14.75
10-32	NF	H3	3	3873-102	14.75
1/4-20	NC	H3	3	3873-160	15.10
1/4-28	NF	H3	3	3873-162	15.10
5/16-18	NC	H3	3	3873-200	18.10
5/16-24	NF	H3	3	3873-202	18.10
3/8-16	NC	H3	3	3873-240	20.00
3/8-24	NF	H3	3	3873-242	20.00
7/16-14	NC	H3	3	3873-280	21.65
7/16-20	NF	H3	3	3873-282	21.65
1/2-13	NC	H3	3	3873-320	37.60
1/2-20	NF	H3	3	3873-322	37.60
9/16-12	NC	H3	3	3873-360	50.90
9/16-18	NF	H3	3	3873-362	50.90
5/8-11	NC	H3	3	3873-400	63.55
5/8-18	NF	H3	3	3873-402	63.55
3/4-10	NC	H3	3	3873-480	88.05
3/4-16	NF	H3	3	3873-482	88.05
METRIC SIZES					
M3X0.5		D3	2	3873-530	20.45
M3.5X0.6		D4	3	3873-535	16.65
M4X0.7		D4	3	3873-540	17.25
M5X0.8		D4	3	3873-550	17.75
M6X1.0		D5	3	3873-560	18.20
M8X1.25		D5	3	3873-580	21.85
M10X1.5		D6	3	3873-600	38.90
M12X1.75		D6	3	3873-620	45.35
M14X2		D7	3	3873-640	61.40
M16X2		D7	3	3873-660	76.75

Hand Taps – Machine Screw Sizes

High Speed Steel & TiN Coated

2



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WARNING: Cutting tools may shatter. Always wear approved safety glasses and mask when regrinding.



Bottom



Plug



Taper

													
NOMINAL SIZE	H LIMITS	# OF FLT.	THR. LGTH.	OVERALL LGTH.					TIN COATED				
					TAPER ORDER NO.	HSS PLUG ORDER NO.	BOTTOM ORDER NO.	PRICE EACH	SET ORDER NO.	PRICE EACH	PLUG ORDER NO.	BOTTOM ORDER NO.	PRICE EACH
0-80 UNF	1	2	5/16	1-5/8	3740-113	3740-112	3740-111	\$13.00	3700-011	\$44.84	4160-112	4160-111	\$16.63
0-80 UNF	2	2	5/16	1-5/8	-	3740-122	3740-121	15.30	-	-	-	-	-
1-64 UNC	1	2	3/8	1-11/16	3740-313	3740-312	3740-311	14.95	3700-031	44.84	4160-312	4160-311	15.41
1-64 UNC	2	2	3/8	1-11/16	-	3740-322	-	19.10	-	-	-	-	-
1-72 UNF	1	2	3/8	1-11/16	3740-513	3740-512	3740-511	14.37	3700-051	44.84	4160-512	4160-511	17.28
1-72 UNF	2	2	3/8	1-11/16	-	3740-522	3740-521	14.95	-	-	-	-	-
2-56 UNC	1	3	7/16	1-3/4	3740-713	3740-712	3740-711	13.27	-	-	-	-	-
2-56 UNC	2	2	7/16	1-3/4	-	3750-722	3750-721	13.25	-	-	-	-	-
2-56 UNC	2	3	7/16	1-3/4	3740-723	3740-722	3740-721	14.95	3700-072	44.84	4160-722	4160-721	15.40
2-64 UNF	2	3	7/16	1-3/4	3740-923	3740-922	3740-921	14.95	3700-092	44.84	4160-922	4160-921	15.40
3-48 UNC	1	3	1/2	1-13/16	-	3741-112	-	10.55	-	-	-	-	-
3-48 UNC	2	2	1/2	1-13/16	-	3751-122	3751-121	10.64	-	-	-	-	-
3-48 UNC	2	3	1/2	1-13/16	3741-123	3741-122	3741-121	9.92	3700-112	29.76	4161-122	4161-121	10.67
3-56 UNF	2	3	1/2	1-13/16	3741-323	3741-322	3741-321	11.90	3700-132	35.71	4161-322	4161-321	12.13
4-40 UNC	1	2	9/16	1-7/8	-	3751-712	-	8.69	-	-	-	-	-
4-40 UNC	2	2	9/16	1-7/8	3751-723	3751-722	3751-721	8.34	-	-	-	-	-
4-40 UNC	2	3	9/16	1-7/8	3741-723	3741-722	3741-721	9.26	3700-172	27.77	4161-722	4161-721	9.80
4-48 UNC	2	3	9/16	1-7/8	3741-923	3741-922	3741-921	9.26	3700-192	27.77	4161-922	4161-921	10.35
4-36 NS	2	3	9/16	1-7/8	3741-523	3741-522	3741-521	14.95	-	-	-	-	-
5-40 UNC	1	3	5/8	1-15/16	-	3742-112	-	10.11	-	-	-	-	-
5-40 UNC	2	2	5/8	1-15/16	-	3752-122	3752-121	8.34	-	-	-	-	-
5-40 UNC	2	3	5/8	1-15/16	3742-123	3742-122	3742-121	9.26	3700-212	27.77	4162-122	4162-121	9.80
5-44 UNF	2	3	5/8	1-15/16	3742-323	3742-322	3742-321	10.45	3700-232	31.35	4162-322	4162-321	10.26
6-32 UNC	1	2	11/16	2	-	3752-512	-	7.27	-	-	-	-	-
6-32 UNC	1	3	11/16	2	3742-513	3742-512	3742-511	7.27	-	-	-	-	-
6-32 UNC	2	2	11/16	2	-	3752-522	3752-521	7.27	-	-	-	-	-
6-32 UNC	2	3	11/16	2	3742-523	3742-522	3742-521	6.61	-	-	-	-	-
6-32 UNC	3	2	11/16	2	-	3752-532	3752-531	7.45	-	-	-	-	-
6-32 UNC	3	3	11/16	2	3742-533	3742-532	3742-531	7.67	3700-253	23.01	4162-532	4162-531	8.47
6-40 UNF	1	3	11/16	2	-	3742-712	-	11.23	-	-	-	-	-
6-40 UNF	2	2	11/16	2	-	3752-722	-	9.62	-	-	-	-	-
6-40 UNF	2	3	11/16	2	3742-723	3742-722	3742-721	7.67	3700-272	23.01	4162-722	4162-721	8.57
8-32 UNC	1	2	3/4	2-1/8	-	3752-912	-	11.27	-	-	-	-	-
8-32 UNC	1	4	3/4	2-1/8	3742-913	3742-912	3742-911	8.97	-	-	-	-	-
8-32 UNC	2	2	3/4	2-1/8	-	3752-922	3752-921	7.92	-	-	-	-	-
8-32 UNC	2	3	3/4	2-1/8	-	3712-922	3712-921	8.27	-	-	-	-	-
8-32 UNC	2	4	3/4	2-1/8	3742-923	3742-922	3742-921	8.34	-	-	-	-	-
8-32 UNC	3	2	3/4	2-1/8	-	3752-932	3752-931	8.43	-	-	-	-	-
8-32 UNC	3	3	3/4	2-1/8	-	3712-932	3712-931	8.90	-	-	-	-	-
8-32 UNC	3	4	3/4	2-1/8	3742-933	3742-932	3742-931	7.67	3700-293	23.01	4162-932	4162-931	8.47
8-36 UNF	2	4	3/4	2-1/8	3743-123	3743-122	3743-121	8.92	3700-312	26.78	4163-122	4163-121	10.23
10-24 UNC	1	4	7/8	2-3/8	3743-313	3743-312	3743-311	8.80	-	-	-	-	-
10-24 UNC	2	2	7/8	2-3/8	-	3753-322	3753-321	8.45	-	-	-	-	-
10-24 UNC	2	3	7/8	2-3/8	-	3713-322	-	19.82	-	-	-	-	-
10-24 UNC	2	4	7/8	2-3/8	3743-323	3743-322	3743-321	8.75	-	-	-	-	-
10-24 UNC	3	2	7/8	2-3/8	-	3753-332	3753-331	7.85	-	-	-	-	-
10-24 UNC	3	3	7/8	2-3/8	-	3713-332	3713-331	8.71	-	-	-	-	-
10-24 UNC	3	4	7/8	2-3/8	3743-333	3743-332	3743-331	8.92	3700-333	26.78	4163-332	4163-331	10.23
10-32 UNF	1	2	7/8	2-3/8	-	3753-512	-	8.69	-	-	-	-	-
10-32 UNF	1	4	7/8	2-3/8	3743-513	3743-512	3743-511	8.59	-	-	-	-	-
10-32 UNF	2	2	7/8	2-3/8	-	3753-522	3753-521	11.16	-	-	-	-	-
10-32 UNF	2	3	7/8	2-3/8	-	3713-522	3713-521	7.38	-	-	-	-	-
10-32 UNF	2	4	7/8	2-3/8	3743-523	3743-522	3743-521	8.15	-	-	-	-	-
10-32 UNF	3	2	7/8	2-3/8	-	3753-532	3753-531	8.62	-	-	-	-	-
10-32 UNF	3	3	7/8	2-3/8	-	3713-532	3713-531	6.80	-	-	-	-	-
10-32 UNF	3	4	7/8	2-3/8	3743-533	3743-532	3743-531	8.92	3700-353	26.78	4163-532	4163-531	10.23
12-24 UNC	3	4	15/16	2-3/8	3743-733	3743-732	3743-731	8.92	3700-373	26.78	4163-732	4163-731	10.23
12-28 UNF	3	4	15/16	2-3/8	3743-933	3743-932	3743-931	8.92	3700-393	26.78	4163-932	4163-931	10.23

Hand Taps – Fractional Sizes

High Speed Steel & TiN Coated

WARNING: This product contains Cobalt and/or Nickel and/or Lead a chemical known to the state of California to cause cancer or birth defects or other reproductive harm. For more information: www.pro65.ca.gov.
WARNING: Cutting tools may shatter. Always wear approved safety glasses and mask when grinding.



MADE IN USA

2



Bottoming



Plug



Taper

NOMINAL SIZE	H LIMIT	# OF FLT.	THR. LGTH.	OVERALL LGTH.	TAPER ORDER NO.	HSS PLUG ORDER NO.	BOTTOM ORDER NO.	PRICE EACH	SET ORDER NO.	PRICE EACH	TIN COATED PLUG ORDER NO.
1/4-20 UNC	1	3	1	2-1/2	-	3714-112	-	\$9.25	-	-	-
1/4-20 UNC	1	4	1	2-1/2	3744-113	3744-112	3744-111	8.91	-	-	-
1/4-20 UNC	2	3	1	2-1/2	-	3714-122	-	8.59	-	-	-
1/4-20 UNC	2	4	1	2-1/2	3744-123	3744-122	3744-121	8.99	-	-	-
1/4-20 UNC	3	2	1	2-1/2	-	3754-132	3754-131	8.45	-	-	-
1/4-20 UNC	3	3	1	2-1/2	-	3714-132	3714-131	10.41	-	-	-
1/4-20 UNC	3	4	1	2-1/2	3744-133	3744-132	3744-131	8.92	3700-413	\$26.78	4164-132
1/4-20 UNC	5	3	1	2-1/2	-	3714-152	-	8.45	-	-	-
1/4-20 UNC	5	4	1	2-1/2	-	3744-152	3744-151	8.08	-	-	-
1/4-20 UNC	11	4	1	2-1/2	-	3744-192	-	8.59	-	-	-
1/4-28 UNF	1	4	1	2-1/2	-	3744-312	3744-311	25.18	-	-	-
1/4-28 UNF	2	4	1	2-1/2	-	3744-322	3744-321	8.91	-	-	-
1/4-28 UNF	3	2	1	2-1/2	-	3754-332	3754-331	9.27	-	-	-
1/4-28 UNF	3	3	1	2-1/2	-	3714-332	3714-331	9.64	-	-	-
1/4-28 UNF	3	4	1	2-1/2	3744-333	3744-332	3744-331	8.92	3700-433	\$26.78	4164-332
1/4-28 UNF	4	4	1	2-1/2	-	3744-342	3744-341	9.92	-	-	-
5/16-18 UNC	1	4	1-1/8	2-23/32	-	3744-512	3744-511	12.20	-	-	-
5/16-18 UNC	2	4	1-1/8	2-23/32	-	3744-522	3744-521	11.71	-	-	-
5/16-18 UNC	3	2	1-1/8	2-23/32	-	3754-632	3754-631	12.20	-	-	-
5/16-18 UNC	3	3	1-1/8	2-23/32	-	3714-532	3714-531	11.04	-	-	-
5/16-18 UNC	3	4	1-1/8	2-23/32	3744-533	3744-532	3744-531	9.92	3700-453	29.76	4164-532
5/16-18 UNC	5	4	1-1/8	2-23/32	-	3744-552	3744-551	11.27	-	-	-
5/16-18 UNC	11	4	1-1/8	2-23/32	-	3744-592	-	12.60	-	-	-
5/16-24 UNF	1	4	1-1/8	2-23/32	-	3744-712	3744-711	10.20	-	-	-
5/16-24 UNF	2	4	1-1/8	2-23/32	-	3744-722	-	12.65	-	-	-
5/16-24 UNF	3	3	1-1/8	2-23/32	-	3714-732	3714-731	10.64	-	-	-
5/16-24 UNF	3	4	1-1/8	2-23/32	3744-733	3744-732	3744-731	9.92	3700-473	29.76	4164-732
5/16-24 UNF	4	4	1-1/8	2-23/32	-	3744-742	3744-741	9.43	-	-	-
3/8-16 UNC	1	4	1-1/4	2-15/16	-	3744-912	3744-911	13.04	-	-	-
3/8-16 UNC	2	4	1-1/4	2-15/16	-	3744-922	3744-921	12.09	-	-	-
3/8-16 UNC	3	3	1-1/4	2-15/16	-	3714-932	3714-931	11.39	-	-	-
3/8-16 UNC	3	4	1-1/4	2-15/16	3744-933	3744-932	3744-931	13.31	3700-493	35.32	4164-932
3/8-16 UNC	5	4	1-1/4	2-15/16	-	3744-952	3744-951	12.65	-	-	-
3/8-16 UNC	11	4	1-1/4	2-15/16	-	3744-992	-	27.90	-	-	-
3/8-24 UNF	1	4	1-1/4	2-15/16	-	3745-112	3745-111	29.06	-	-	-
3/8-24 UNF	2	4	1-1/4	2-15/16	-	3745-122	3745-121	16.16	-	-	-
3/8-24 UNF	3	3	1-1/4	2-15/16	-	3715-132	3715-131	12.16	-	-	-
3/8-24 UNF	3	4	1-1/4	2-15/16	3745-133	3745-132	3745-131	13.31	3700-513	35.32	4165-132
3/8-24 UNF	4	4	1-1/4	2-15/16	-	3745-142	3745-141	25.32	-	-	-
7/16-14 UNC	3	3	1-7/16	3-5/32	-	3715-332	-	17.68	-	-	-
7/16-14 UNC	3	4	1-7/16	3-5/32	3745-333	3745-332	3745-331	19.73	3700-533	59.20	4165-332
7/16-14 UNC	5	4	1-7/16	3-5/32	-	3745-352	3745-351	19.05	-	-	-
7/16-14 UNC	11	4	1-7/16	3-5/32	-	3745-392	-	19.82	-	-	-
7/16-20 UNF	3	3	1-7/16	3-5/32	-	3715-532	-	18.84	-	-	-
7/16-20 UNF	3	4	1-7/16	3-5/32	3745-533	3745-532	3745-531	19.73	3700-553	59.20	4165-532
7/16-20 UNF	5	4	1-7/16	3-5/32	-	3745-552	3745-551	20.14	-	-	-
1/2-13 UNC	1	4	1-21/32	3-3/8	-	3745-712	-	20.82	-	-	-
1/2-13 UNC	3	3	1-21/32	3-3/8	-	3715-732	3715-731	26.33	-	-	-
1/2-13 UNC	3	4	1-21/32	3-3/8	3745-733	3745-732	3745-731	26.01	3700-573	66.54	4165-732
1/2-13 UNC	5	4	1-21/32	3-3/8	-	3745-752	3745-751	20.82	-	-	-
1/2-13 UNC	11	4	1-21/32	3-3/8	-	3745-792	-	20.82	-	-	-
1/2-20 UNF	1	4	1-21/32	3-3/8	-	3745-912	3745-911	33.40	-	-	-
1/2-20 UNF	3	3	1-21/32	3-3/8	-	3715-932	-	21.03	-	-	-
1/2-20 UNF	3	4	1-21/32	3-3/8	3745-933	3745-932	3745-931	26.01	3700-593	78.04	4165-932
1/2-20 UNF	5	4	1-21/32	3-3/8	-	3745-952	-	21.40	-	-	-
9/16-12 UNC	3	4	1-21/32	3-19/32	3746-133	3746-132	3746-131	41.62	3700-613	124.87	4166-132
9/16-12 UNC	5	4	1-21/32	3-19/32	-	3746-152	-	30.79	-	-	-
9/16-18 UNF	2	4	1-21/32	3-19/32	-	3746-322	-	30.79	-	-	-
9/16-18 UNF	3	4	1-21/32	3-19/32	3746-333	3746-332	3746-331	41.62	3700-633	124.87	4166-332
9/16-18 UNF	5	4	1-21/32	3-19/32	-	3746-352	-	30.79	-	-	-

Sizes in Bold will be furnished unless otherwise specified.

(Continued)

Hand Taps – Fractional Sizes (Continued)

High Speed Steel & TiN Coated

WARNING: This product contains Cobalt and/or Nickel and/or Lead a chemical known to the state of California to cause cancer or birth defects or other reproductive harm. For more information: www.prop65.ca.gov.
WARNING: Cutting tools may shatter. Always wear approved safety glasses and mask when regrinding.



Bottoming



Plug



Taper

														
NOMINAL SIZE	H LIMIT	# OF FLT.	THR. LGTH.	OVERALL LGTH.	HIGH SPEED STEEL				TIN COATED					
					TAPER ORDER NO.	PLUG ORDER NO.	BOTTOM ORDER NO.	PRICE EACH	SET ORDER NO.	PRICE EACH	PLUG ORDER NO.	BOTTOM ORDER NO.	PRICE EACH	
5/8-11 UNC	2	4	1-13/16	3-13/16	-	3746-522	-	\$39.15	-	-	-	-	-	
5/8-11 UNC	3	4	1-13/16	3-13/16	3746-533	3746-532	3746-531	53.13	3700-653	\$159.39	4166-532	4166-531	\$46.93	
5/8-11 UNC	5	4	1-13/16	3-13/16	-	3746-552	3746-551	39.15	-	-	-	-	-	
5/8-11 UNC	11	4	1-13/16	3-13/16	-	3746-592	-	39.15	-	-	-	-	-	
5/8-18 UNF	2	4	1-13/16	3-13/16	-	3746-722	-	45.32	-	-	-	-	-	
5/8-18 UNF	3	4	1-13/16	3-13/16	3746-733	3746-732	3746-731	53.13	3700-673	159.39	4166-732	4166-731	46.93	
5/8-18 UNF	5	4	1-13/16	3-13/16	-	3746-752	3746-751	39.15	-	-	-	-	-	
11/16-11 UNC	3	4	1-13/16	4-1/32	3746-933	3746-932	3746-931	66.85	3700-693	200.54	-	-	-	
11/16-16 UNF	3	4	1-13/16	4-1/32	3747-133	3747-132	3747-131	66.85	3700-713	200.54	-	-	-	
3/4-10 UNC	2	4	2	4-1/4	-	3747-322	-	51.38	-	-	-	-	-	
3/4-10 UNC	3	4	2	4-1/4	3747-333	3747-332	3747-331	70.29	3700-733	210.86	4167-332	4167-331	60.39	
3/4-10 UNC	5	4	2	4-1/4	-	3747-352	3747-351	51.38	-	-	-	-	-	
3/4-16 UNF	1	4	2	4-1/4	-	3747-512	-	57.55	-	-	-	-	-	
3/4-16 UNF	2	4	2	4-1/4	-	3747-522	-	62.76	-	-	-	-	-	
3/4-16 UNF	3	4	2	4-1/4	3747-533	3747-532	3747-531	70.29	3700-753	210.86	4167-532	4167-531	60.39	
3/4-16 UNF	5	4	2	4-1/4	-	3747-552	3747-551	51.38	-	-	-	-	-	
7/8-9 UNC	4	4	2-7/32	4-11/16	3747-743	3747-742	3747-741	95.63	3700-744	286.90	-	-	-	
7/8-9 UNC	6	4	2-7/32	4-11/16	-	3747-762	-	69.75	-	-	-	-	-	
7/8-14 UNF	2	4	2-7/32	4-11/16	-	3747-922	-	69.75	-	-	-	-	-	
7/8-14 UNF	4	4	2-7/32	4-11/16	3747-943	3747-942	3747-941	95.63	3700-794	286.90	-	-	-	
1"-8 UNC	4	4	2-1/2	5-1/8	3748-143	3748-142	3748-141	130.41	3700-814	312.98	-	-	-	
1"-8 UNC	6	4	2-1/2	5-1/8	-	3748-162	-	91.18	-	-	-	-	-	
1"-12 UNF	4	4	2-1/2	5-1/8	3748-343	3748-342	3748-341	130.41	3700-834	391.23	-	-	-	
1"-14 UNF	4	4	2-1/2	5-1/8	3748-543	3748-542	3748-541	130.41	3700-854	391.23	-	-	-	
1-1/8-7 UNC	4	4	2-9/16	5-7/16	3748-743	3748-742	3748-741	212.52	3700-874	637.56	-	-	-	
1-1/8-12 UNF	4	4	2-9/16	5-7/16	3748-943	3748-942	3748-941	212.75	3700-894	638.25	-	-	-	
1-1/4-7 UNC	4	4	2-9/16	5-3/4	3749-143	3749-142	3749-141	267.87	3700-914	803.62	-	-	-	
1-1/4-12 UNF	4	6	2-9/16	5-3/4	3749-343	3749-342	3749-341	267.87	3700-934	803.62	-	-	-	
1-3/8-6 UNC	4	4	3	6-1/6	3749-543	3749-542	3749-541	382.54	3700-954	1147.61	-	-	-	
1-3/8-12 UNF	4	6	3	6-1/6	3749-743	3749-742	3749-741	382.54	3700-974	1147.61	-	-	-	
1-1/2-6 UNC	4	4	3	6-3/8	3749-843	3749-842	3749-841	425.04	3700-984	1275.12	-	-	-	
1-1/2-12 UNF	4	6	3	6-3/8	3749-943	3749-942	3749-941	425.04	3700-994	1275.12	-	-	-	

Ground Thread Hand Taps -

High Speed Steel - NC, NF & NS - RH

WARNING: This product contains Cobalt and/or Nickel and/or Lead a chemical known to the state of California to cause cancer or birth defects or other reproductive harm. For more information: www.prop65.ca.gov.
WARNING: Cutting tools may shatter. Always wear approved safety glasses and mask when regrinding.



Bottoming

[3]



Plug

[2]



Taper

 																
SIZE	NC NF NS	DIAM. LIMIT	NO. OF FLTS.	BOTT. ORDER NO.	PLUG ORDER NO.	TAPER ORDER NO.	PRICE EACH	SETS		BOTT. ORDER NO.	PLUG ORDER NO.	TAPER ORDER NO.	PRICE EACH	SETS		
								ORDER NO.	SET PRICE					ORDER NO.	SET PRICE	
0-80	NF	H1	2	3510-111	3510-112	3510-113	\$5.25	2300-011	\$25.34	3570-111	3570-112	3570-113	\$11.30	2200-011	POA	
0-80	NF	H2	2	3510-121	3510-122	3510-123	5.25	-	-	3570-121	3570-122	3570-123	9.24	-	-	
1-64	NC	H1	2	3510-311	3510-312	3510-313	8.25	2300-031	24.75	3570-311	3570-312	3570-313	11.30	2200-031	POA	
1-64	NC	H2	2	3510-321	3510-322	3510-323	4.88	-	-	3570-411	3570-412	3570-413	9.24	-	-	
1-72	NF	H1	2	3510-511	3510-512	3510-513	4.88	2300-051	14.64	3570-511	3570-512	3570-513	13.93	-	-	
1-72	NF	H2	2	3510-521	3510-522	3510-523	8.25	2300-061	POA	3570-521	3570-522	3570-523	9.24	2200-061	POA	
2-56	NC	H1	3	3510-711	3510-712	3510-713	4.23	2300-071	12.69	3570-621	3570-622	3570-623	7.97	-	-	
2-56	NC	H2	3	3510-721	3510-722	3510-723	6.86	2300-072	20.59	3570-721	3570-722	3570-723	11.30	2200-072	POA	
2-64	NF	H1	3	3510-911	3510-912	3510-913	4.23	-	-	3570-821	3570-822	3570-823	8.57	-	-	
2-64	NF	H2	3	3510-921	3510-922	3510-923	6.86	2300-092	20.59	3570-921	3570-922	3570-923	11.30	2200-092	POA	
3-48	NC	H1	3	3511-111	3511-112	3511-113	3.27	-	-	3571-021	3571-022	3571-023	6.12	-	-	
3-48	NC	H2	3	3511-121	3511-122	3511-123	5.41	2300-112	16.24	3571-121	3571-122	3571-123	7.50	2200-112	POA	
3-56	NF	H1	3	3511-311	3511-312	3511-313	3.27	-	-	3571-221	3571-222	3571-223	6.85	-	-	
3-56	NF	H2	3	3511-321	3511-322	3511-323	5.41	2300-132	16.24	3571-321	3571-322	3571-323	9.00	2200-132	POA	
4-40	NC	H1	3	3511-711	3511-712	3511-713	2.88	2300-171	8.64	3571-711	3571-712	3571-713	8.18	-	-	
4-40	NC	H2	3	3511-721	3511-722	3511-723	3.89	2300-172	11.68	3571-721	3571-722	3571-723	7.00	2200-172	POA	
4-48	NF	H1	3	3511-911	3511-912	3511-913	8.01	-	-	3571-821	3571-822	3571-823	5.43	-	-	
4-48	NF	H2	3	3511-921	3511-922	3511-923	3.89	2300-192	11.68	3571-921	3571-922	3571-923	7.00	2200-192	POA	
4-36	NS	H1	3	3511-511	3511-512	3511-513	2.88	-	-	3571-421	3571-422	3571-423	5.43	-	-	
4-36	NS	H2	3	3511-521	3511-522	3511-523	3.89	2300-152	11.68	3571-521	3571-522	3571-523	8.18	2200-152	POA	
5-40	NC	H1	3	3512-111	3512-112	3512-113	2.68	-	-	3572-111	3572-112	3572-113	5.43	-	-	
5-40	NC	H2	3	3512-121	3512-122	3512-123	4.06	2300-212	12.18	3572-121	3572-122	3572-123	7.00	2200-212	POA	
5-44	NF	H1	3	3512-311	3512-312	3512-313	2.68	-	-	3572-311	3572-312	3572-313	5.43	-	-	
5-44	NF	H2	3	3512-321	3512-322	3512-323	4.06	2300-232	12.18	3572-321	3572-322	3572-323	7.90	2200-232	POA	
6-32	NC	H1	3	3512-511	3512-512	3512-513	2.24	2300-251	6.72	3572-511	3572-512	3572-513	4.07	-	-	
6-32	NC	H2	3	3512-521	3512-522	3512-523	2.24	2300-252	6.72	3572-521	3572-522	3572-523	6.14	-	-	
6-32	NC	H3	3	3512-531	3512-532	3512-533	3.23	2300-253	9.70	3572-531	3572-532	3572-533	5.80	2200-253	POA	
6-32	NC	H7	3	3512-571	3512-572	3512-573	2.24	-	-	3572-571	3572-572	3572-573	4.07	-	-	
6-40	NF	H1	3	3512-711	3512-712	3512-713	2.24	2300-271	6.72	3572-711	3572-712	3572-713	4.07	-	-	
6-40	NF	H2	3	3512-721	3512-722	3512-723	3.23	2300-272	9.70	3572-721	3572-722	3572-723	5.80	2200-272	POA	
8-32	NC	H1	4	3512-911	3512-912	3512-913	2.24	2300-291	6.72	3572-911	3572-912	3572-913	4.22	-	-	
8-32	NC	H2	4	3512-921	3512-922	3512-923	2.24	2300-292	6.72	3572-921	3572-922	3572-923	6.36	-	-	
8-32	NC	H3	4	3512-931	3512-932	3512-933	3.23	2300-293	9.70	3572-931	3572-932	3572-933	5.80	2200-293	POA	
8-32	NC	H7	4	3512-971	3512-972	3512-973	2.24	-	-	3572-971	3572-972	3572-973	POA	-	-	
8-36	NF	H1	4	3513-111	3513-112	3513-113	2.24	-	-	3572-111	3572-112	3572-113	POA	-	-	
8-36	NF	H2	4	3513-121	3513-122	3513-123	3.23	2300-312	9.70	3573-121	3573-122	3573-123	6.75	2200-312	POA	
10-24	NS	H1	4	3513-311	3513-312	3513-313	2.40	2300-331	7.20	3573-311	3573-312	3573-313	POA	-	-	
10-24	NS	H2	4	3513-321	3513-322	3513-323	2.40	2300-332	7.20	3573-321	3573-322	3573-323	POA	-	-	
10-24	NS	H3	4	3513-331	3513-332	3513-333	3.23	2300-333	9.70	3573-331	3573-332	3573-333	6.75	2200-333	POA	
10-24	NS	H7	4	3513-371	3513-372	3513-373	2.40	-	-	3573-371	3573-372	3573-373	POA	-	-	
10-32	NF	H1	4	3513-511	3513-512	3513-513	2.40	2300-351	7.20	3573-511	3573-512	3573-513	POA	-	-	
10-32	NF	H2	4	3513-521	3513-522	3513-523	2.40	2300-352	7.20	3573-521	3573-522	3573-523	POA	-	-	
10-32	NF	H3	4	3513-531	3513-532	3513-533	3.23	2300-353	9.70	3573-531	3573-532	3573-533	6.75	2200-353	POA	
10-32	NF	H7	4	3513-571	3513-572	3513-573	2.40	-	-	3573-571	3573-572	3573-573	POA	-	-	
12-24	NC	H2	4	3513-721	3513-722	3513-723	2.55	-	-	3573-721	3573-722	3573-723	POA	-	-	
12-24	NC	H3	4	3513-731	3513-732	3513-733	3.43	2300-373	10.30	3573-731	3573-732	3573-733	6.75	2200-373	POA	
12-28	NF	H1	4	3513-911	3513-912	3513-913	2.55	2300-391	7.65	3573-911	3573-912	3573-913	POA	-	-	
12-28	NF	H2	4	3513-921	3513-922	3513-923	2.55	-	-	3573-921	3573-922	3573-923	POA	-	-	
12-28	NF	H3	4	3513-931	3513-932	3513-933	3.43	2300-393	10.30	3573-931	3573-932	3573-933	6.75	2200-393	POA	

Alternate Flute Taps available upon request.

(Continued)

Ground Thread Hand Taps -

High Speed Steel - NC, NF & NS - RH

WARNING: This product contains Cobalt and/or Nickel and/or Lead a chemical known to the state of California to cause cancer or birth defects or other reproductive harm. For more information: www.prodds.ca.gov.
WARNING: Cutting tools may shatter. Always wear approved safety glasses and mask when regrinding.



Bottoming



Plug



Taper

3

2

 															
SIZE	NC NF NS	DIAM. LIMIT	NO. OF FLTS.	BOTT. ORDER NO.	PLUG ORDER NO.	TAPER ORDER NO.	PRICE EACH	SETS		BOTT. ORDER NO.	PLUG ORDER NO.	TAPER ORDER NO.	PRICE EACH	SETS	
								ORDER NO.	SET PRICE					ORDER NO.	SET PRICE
1/4-20	NC	H1	4	3514-111	3514-112	3514-113	\$ 2.74	2300-411	\$ 8.22	3574-111	3574-112	3574-113	\$5.70	-	-
1/4-20	NC	H2	4	3514-121	3514-122	3514-123	2.74	2300-412	8.22	3574-121	3574-122	3574-123	5.45	-	-
1/4-20	NC	H3	4	3514-131	3514-132	3514-133	3.23	2300-413	9.70	3574-131	3574-132	3574-133	6.75	2200-413	POA
1/4-20	NC	H5	4	3514-151	3514-152	3514-153	2.74	2300-415	8.22	3574-151	3574-152	3574-153	5.45	-	-
1/4-28	NF	H1	4	3514-311	3514-312	3514-313	2.74	2300-431	8.22	3574-311	3574-312	3574-313	5.45	-	-
1/4-28	NF	H2	4	3514-321	3514-322	3514-323	2.74	2300-432	8.22	3574-321	3574-322	3574-323	5.70	-	-
1/4-28	NF	H3	4	3514-331	3514-332	3514-333	3.23	2300-433	9.70	3574-331	3574-332	3574-333	6.75	2200-433	POA
1/4-28	NF	H4	4	3514-341	3514-342	3514-343	2.74	2300-434	8.22	3574-341	3574-342	3574-343	5.70	-	-
5/16-18	NC	H1	4	3514-511	3514-512	3514-513	3.26	2300-451	9.78	3574-511	3574-512	3574-513	6.11	-	-
5/16-18	NC	H2	4	3514-521	3514-522	3514-523	3.26	2300-452	9.78	3574-521	3574-522	3574-523	6.11	-	-
5/16-18	NC	H3	4	3514-531	3514-532	3514-533	4.16	2300-453	12.47	3574-531	3574-532	3574-533	7.50	2200-453	POA
5/16-18	NC	H5	4	3514-551	3514-552	3514-553	3.26	2300-455	9.78	3574-551	3574-552	3574-553	6.11	-	-
5/16-24	NF	H1	4	3514-711	3514-712	3514-713	3.26	2300-471	9.78	3574-711	3574-712	3574-713	6.11	-	-
5/16-24	NF	H2	4	3514-721	3514-722	3514-723	3.26	2300-472	9.78	3574-721	3574-722	3574-723	6.11	-	-
5/16-24	NF	H3	4	3514-731	3514-732	3514-733	4.16	2300-473	12.47	3574-731	3574-732	3574-733	7.50	2200-473	POA
5/16-24	NF	H4	4	3514-741	3514-742	3514-743	3.26	2300-474	9.78	3574-741	3574-742	3574-743	6.11	-	-
3/8-16	NC	H1	4	3514-911	3514-912	3514-913	3.52	2300-491	10.56	3574-911	3574-912	3574-913	8.21	-	-
3/8-16	NC	H2	4	3514-921	3514-922	3514-923	3.52	2300-492	10.56	3574-921	3574-922	3574-923	7.16	-	-
3/8-16	NC	H3	4	3514-931	3514-932	3514-933	4.69	2300-493	14.06	3574-931	3574-932	3574-933	8.90	2200-493	POA
3/8-16	NC	H5	4	3514-951	3514-952	3514-953	3.52	2300-495	10.56	3574-951	3574-952	3574-953	7.16	-	-
3/8-24	NF	H1	4	3515-111	3515-112	3515-113	3.52	2300-511	10.56	3575-111	3575-112	3575-113	8.21	-	-
3/8-24	NF	H2	4	3515-121	3515-122	3515-123	3.52	2300-512	10.56	3575-121	3575-122	3575-123	7.16	-	-
3/8-24	NF	H3	4	3515-131	3515-132	3515-133	4.69	2300-513	14.06	3575-131	3575-132	3575-133	8.90	2200-513	POA
3/8-24	NF	H4	4	3515-141	3515-142	3515-143	3.52	2300-514	10.56	3575-141	3575-142	3575-143	7.16	-	-
7/16-14	NC	H1	4	3515-311	3515-312	3515-313	5.36	-	-	3575-311	3575-312	3575-313	11.53	-	-
7/16-14	NC	H2	4	3515-321	3515-322	3515-323	5.36	-	-	3575-321	3575-322	3575-323	11.53	-	-
7/16-14	NC	H3	4	3515-331	3515-332	3515-333	7.69	2300-533	23.07	3575-331	3575-332	3575-333	13.20	2200-533	POA
7/16-14	NC	H5	4	3515-351	3515-352	3515-353	5.36	2300-535	16.08	3575-351	3575-352	3575-353	11.53	-	-
7/16-20	NF	H1	4	3515-521	3515-522	3515-523	5.36	-	-	3575-521	3575-522	3575-523	11.53	-	-
7/16-20	NF	H2	4	3515-524	3515-525	3515-526	5.36	-	-	3575-524	3575-525	3575-526	10.52	-	-
7/16-20	NF	H3	4	3515-531	3515-532	3515-533	7.69	2300-553	23.07	3575-531	3575-532	3575-533	13.20	2200-553	POA
7/16-20	NF	H5	4	3515-551	3515-552	3515-553	5.36	2300-555	16.08	3575-551	3575-552	3575-553	11.53	-	-
1/2-13	NC	H1	4	3515-711	3515-712	3515-713	6.74	2300-571	20.22	3575-711	3575-712	3575-713	13.45	-	-
1/2-13	NC	H2	4	3515-721	3515-722	3515-723	6.74	-	-	3575-721	3575-722	3575-723	13.45	-	-
1/2-13	NC	H3	4	3515-731	3515-732	3515-733	8.55	2300-573	25.64	3575-731	3575-732	3575-733	14.50	2200-573	POA
1/2-13	NC	H5	4	3515-751	3515-752	3515-753	6.74	2300-575	20.22	3575-751	3575-752	3575-753	13.71	-	-
1/2-20	NF	H1	4	3515-911	3515-912	3515-913	6.74	2300-591	20.22	3575-911	3575-912	3575-913	13.45	-	-
1/2-20	NF	H2	4	3515-921	3515-922	3515-923	6.74	-	-	3575-921	3575-922	3575-923	13.45	-	-
1/2-20	NF	H3	4	3515-931	3515-932	3515-933	8.55	2300-593	25.64	3575-931	3575-932	3575-933	14.50	2200-593	POA
1/2-20	NF	H5	4	3515-951	3515-952	3515-953	6.74	2300-595	20.22	3575-951	3575-952	3575-953	13.45	-	-
9/16-12	NC	H1	4	3516-111	3516-112	3516-113	8.79	-	-	3576-111	3576-112	3576-113	POA	-	-
9/16-12	NC	H2	4	3516-121	3516-122	3516-123	8.79	-	-	3576-121	3576-122	3576-123	POA	-	-
9/16-12	NC	H3	4	3516-131	3516-132	3516-133	13.93	2300-613	41.80	3576-131	3576-132	3576-133	23.20	2200-613	POA
9/16-12	NC	H5	4	3516-151	3516-152	3516-153	8.79	2300-615	26.37	3576-151	3576-152	3576-153	20.40	-	-
9/16-18	NF	H1	4	3516-311	3516-312	3516-313	8.79	-	-	3576-311	3576-312	3576-313	POA	-	-
9/16-18	NF	H2	4	3516-321	3516-322	3516-323	8.79	-	-	3576-321	3576-322	3576-323	POA	-	-
9/16-18	NF	H3	4	3516-331	3516-332	3516-333	13.93	2300-633	41.80	3576-331	3576-332	3576-333	23.20	2200-633	POA
9/16-18	NF	H5	4	3516-351	3516-352	3516-353	8.79	-	-	3576-351	3576-352	3576-353	20.40	-	-
5/8-11	NC	H1	4	3516-511	3516-512	3516-513	10.18	-	-	3576-511	3576-512	3576-513	POA	-	-
5/8-11	NC	H2	4	3516-521	3516-522	3516-523	10.18	2300-652	30.54	3576-521	3576-522	3576-523	POA	-	-
5/8-11	NC	H3	4	3516-531	3516-532	3516-533	17.02	2300-653	51.06	3576-531	3576-532	3576-533	27.50	2200-655	POA
5/8-11	NC	H5	4	3516-551	3516-552	3516-553	10.18	2300-655	30.54	3576-551	3576-552	3576-553	25.87	-	-
5/8-18	NF	H1	4	3516-711	3516-712	3516-713	10.18	-	-	3576-711	3576-712	3576-713	POA	-	-
5/8-18	NF	H2	4	3516-721	3516-722	3516-723	10.18	2300-672	30.54	3576-721	3576-722	3576-723	POA	-	-
5/8-18	NF	H3	4	3516-731	3516-732	3516-733	17.02	2300-673	51.06	3576-731	3576-732	3576-733	27.50	2200-673	POA
5/8-18	NF	H5	4	3516-751	3516-752	3516-753	10.18	2300-675	30.54	3576-751	3576-752	3576-753	25.87	-	-
11/16-11	NC	H3	4	3516-931	3516-932	3516-933	20.46	2300-693	61.38	3576-931	3576-932	3576-933	34.60	-	-
11/16-16	NF	H3	4	3517-131	3517-132	3517-133	20.46	2300-713	61.38	3577-131	3577-132	3577-133	34.60	2200-713	POA

Alternate Flute Taps available upon request.

(Continued)

Ground Thread Hand Taps - NC, NF & NS

WARNING: This product contains Cobalt and/or Nickel and/or Lead a chemical known to the state of California to cause cancer or birth defects or other reproductive harm. For more information: www.prop65.ca.gov.
WARNING: Cutting tools may shatter. Always wear approved safety glasses and mask when regrinding.



Bottoming



Plug



Taper

SETS									SETS						
SIZE	NC NF NS	DIAM. LIMIT	NO. OF FLTS.	BOTT. ORDER NO.	PLUG ORDER NO.	TAPER ORDER NO.	PRICE EACH	ORDER NO.	SET PRICE	BOTT. ORDER NO.	PLUG ORDER NO.	TAPER ORDER NO.	PRICE EACH	ORDER NO.	SET PRICE
3/4-10	NC	H1	4	3517-311	3517-312	3517-313	\$15.59	—	—	3577-311	3578-312	3578-313	POA	—	—
3/4-10	NC	H2	4	3517-321	3517-322	3517-323	15.59	2300-732	\$46.77	3577-321	3577-322	3577-323	POA	—	—
3/4-10	NC	H3	4	3517-331	3517-332	3517-333	22.94	2300-733	68.81	3577-331	3577-332	3577-333	\$36.38	2200-733	POA
3/4-10	NC	H5	4	3517-351	3517-352	3517-353	15.59	2300-735	46.77	3577-351	3577-352	3577-353	34.42	—	—
3/4-16	NF	H1	4	3517-511	3517-512	3517-513	15.59	2300-751	46.77	3577-511	3577-512	3577-513	POA	—	—
3/4-16	NF	H2	4	3517-521	3517-522	3517-523	15.59	2300-752	46.77	3577-521	3577-522	3577-523	POA	—	—
3/4-16	NF	H3	4	3517-531	3517-532	3517-533	22.94	2300-753	68.81	3577-531	3577-532	3577-533	36.38	2200-755	POA
3/4-16	NF	H5	4	3517-551	3517-552	3517-553	15.59	2300-755	46.77	3577-551	3577-552	3577-553	34.42	—	—
7/8-9	NC	H1	4	3517-711	3517-712	3517-713	19.55	—	—	3577-711	3577-712	3577-713	POA	—	—
7/8-9	NC	H2	4	3517-721	3517-722	3517-723	19.55	—	—	3577-721	3577-722	3577-723	POA	—	—
7/8-9	NC	H3	4	3517-731	3517-732	3517-733	19.55	—	—	3577-731	3577-732	3577-733	POA	—	—
7/8-9	NC	H4	4	3517-741	3517-742	3517-743	32.67	2300-774	98.01	3577-741	3577-742	3577-743	49.50	2200-774	POA
7/8-9	NC	H6	4	3517-761	3517-762	3517-763	19.55	2300-776	58.65	3577-761	3577-762	3577-763	POA	—	—
7/8-14	NF	H1	4	3517-911	3517-912	3517-913	19.55	—	—	3577-911	3577-912	3577-913	POA	—	—
7/8-14	NF	H2	4	3517-921	3517-922	3517-923	19.55	2300-792	58.65	3577-921	3577-922	3577-923	POA	—	—
7/8-14	NF	H3	4	3517-931	3517-932	3517-933	19.55	—	—	3577-931	3577-932	3577-933	POA	—	—
7/8-14	NF	H4	4	3517-941	3517-942	3517-943	32.67	2300-794	98.01	3577-941	3577-942	3577-943	49.50	2200-794	POA
7/8-14	NF	H6	4	3517-961	3517-962	3517-963	19.55	2300-796	58.65	3577-961	3577-962	3577-963	POA	—	—
1-8	NC	H1	4	3518-111	3518-112	3518-113	28.82	—	—	3578-111	3578-112	3578-113	POA	—	—
1-8	NC	H2	4	3518-121	3518-122	3518-123	28.82	—	—	3578-121	3578-122	3578-123	POA	—	—
1-8	NC	H3	4	3518-131	3518-132	3518-133	28.82	—	—	3578-131	3578-132	3578-133	POA	—	—
1-8	NC	H4	4	3518-141	3518-142	3518-143	42.90	2300-814	128.70	3578-141	3578-142	3578-143	67.50	2200-814	POA
1-8	NC	H6	4	3518-161	3518-162	3518-163	28.82	2300-816	86.46	3578-161	3578-162	3578-163	POA	—	—
1-12	NF	H1	4	3518-311	3518-312	3518-313	28.82	—	—	3578-311	3578-312	3578-313	POA	—	—
1-12	NF	H2	4	3518-321	3518-322	3518-323	28.82	—	—	3578-321	3578-322	3578-323	POA	—	—
1-12	NF	H4	4	3518-341	3518-342	3518-343	42.90	2300-834	128.70	3578-341	3578-342	3578-343	67.50	2200-834	POA
1-14	NS	H1	4	3518-511	3518-512	3518-513	28.82	—	—	3578-511	3578-512	3578-513	POA	—	—
1-14	NS	H2	4	3518-521	3518-522	3518-523	POA	—	—	3578-521	3578-522	3578-523	POA	—	—
1-14	NS	H4	4	3518-541	3518-542	3518-543	42.90	2300-854	128.70	3578-541	3578-542	3578-543	67.50	2200-854	POA
1-14	NS	H6	4	3518-561	3518-562	3518-563	POA	—	—	3578-611	3578-612	3578-613	POA	—	—
1-1/8-7	NC	H4	4	3518-741	3518-742	3518-743	68.05	2300-874	204.14	3578-741	3578-742	3578-743	110.00	2200-874	POA
1-1/8-12	NF	H4	4	3518-941	3518-942	3518-943	68.05	2300-894	204.14	3578-941	3578-942	3578-943	110.12	2200-894	POA
1-1/4-7	NC	H4	4	3519-141	3519-142	3519-143	88.90	2300-914	266.71	3579-141	3579-142	3579-143	138.65	2200-914	POA
1-1/4-12	NF	H4	6	3519-341	3519-342	3519-343	88.90	2300-934	266.71	3579-341	3579-342	3579-343	138.65	2200-934	POA
1-3/8-6	NC	H4	4	3519-541	3519-542	3519-543	128.65	2300-954	335.61	3579-541	3579-542	3579-543	198.00	2200-954	POA
1-3/8-12	NF	H4	6	3519-741	3519-742	3519-743	128.65	2300-974	335.61	3579-741	3579-742	3579-743	198.00	2200-974	POA
1-1/2-6	NC	H4	4	3519-841	3519-842	3519-843	149.52	2300-984	390.06	3579-841	3579-842	3579-843	220.00	2200-984	POA
1-1/2-12	NF	H4	6	3519-941	3519-942	3519-943	149.52	2300-994	390.06	3579-941	3579-942	3579-943	220.00	2200-994	POA

Alternate Flute Taps available upon request.

Combined Tap & Drill

High Speed Steel



SIZE	OAL	DRILL LENGTH	THREAD LENGTH	ORDER NO.	PRICE EACH
4-40 NC	1-7/8	1/4	3/8	2333-001	\$7.20
4-48 NF	1-7/8	1/4	3/8	2333-008	12.70
5-40 NC	1-15/16	9/32	13/32	2333-015	12.70
5-44 NF	1-15/16	9/32	13/32	2333-022	12.70
6-32 NC	2	5/16	7/16	2333-030	7.20
6-40 NF	2	5/16	7/16	2333-036	11.76
8-32 NC	2-1/8	3/8	1/2	2333-044	7.20
8-36 NC	2-1/8	3/8	1/2	2333-051	11.76
10-24 NC	2-3/8	13/32	5/8	2333-058	7.20
10-32 NF	2-3/8	13/32	5/8	2333-065	7.20

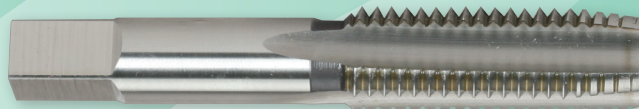
SIZE	OAL	DRILL LENGTH	THREAD LENGTH	ORDER NO.	PRICE EACH
12-24 NC	2-3/8	15/32	21/32	2333-072	\$8.10
12-28 NF	2-3/8	15/32	21/32	2333-079	13.44
1/4-20 NC	2-1/2	17/32	25/32	2333-086	7.20
1/4-28 NF	2-1/2	17/32	25/32	2333-093	8.10
5/16-18 NC	2-27/32	11/16	15/16	2333-100	8.70
5/16-24 NF	2-27/32	11/16	15/16	2333-107	8.70
3/8-16 NC	3-3/8	13/16	1-1/16	2333-114	9.00
3/8-24 NF	3-3/8	13/16	1-1/16	2333-121	9.00
7/16-14 NC	3-3/4	1	1-1/4	2333-128	13.50
7/16-20 NF	3-3/4	1	1-1/4	2333-135	13.50
1/2-13 NC	4-1/16	1-1/8	1-3/8	2333-142	15.00
1/2-20 NF	4-1/16	1-1/8	1-3/8	2333-149	15.00

Ground Thread Taps

For Cast Iron – High Speed Steel ²



WARNING: This product contains Cobalt and/or Nickel and/or Lead a chemical known to the state of California to cause cancer or birth defects or other reproductive harm. For more information: www.prop65.ca.gov.
WARNING: Cutting tools may shatter. Always wear approved safety glasses and mask when regrinding.



- Designed with flutes and cutting face for tapping cast iron
- Right hand ground thread

SIZE	GH	FLUTES	ORDER NO.		PRICE EACH
			BOTTOM	PLUG	
10-24	NC	H3	4	—	4183-332 \$3.56
1/4-20	NC	H3	4	4184-131	4184-132 6.88
1/4-20	NC	H5	4	4184-151	4184-152 8.36
1/4-28	NF	H3	4	4184-331	4184-332 7.00
5/16-18	NC	H3	4	4184-531	4184-532 8.18
5/16-18	NC	H5	4	4184-551	4184-552 9.21
5/16-24	NF	H3	4	4184-731	4184-732 8.31
3/8-16	NC	H3	4	4184-931	4184-932 9.55
3/8-16	NC	H5	4	4184-951	4184-952 10.80
3/8-24	NF	H3	4	4185-131	4185-132 9.73
7/16-14	NC	H3	4	4185-331	4185-332 16.15
7/16-14	NC	H5	4	4185-351	4185-352 17.72
7/16-20	NF	H3	4	4185-531	4185-532 16.15
7/16-20	NF	H5	4	4185-551	— 10.72
1/2-13	NC	H3	4	4185-731	4185-732 16.83

Alternate Flute Taps available upon request.

SIZE	GH	FLUTES	ORDER NO.		PRICE EACH
			BOTTOM	PLUG	
1/2-13	NC	H5	4	4185-751	4185-752 \$20.66
1/2-20	NF	H3	4	4185-931	4185-932 19.05
9/16-12	NC	H3	4	4186-131	4186-132 28.79
9/16-18	NF	H3	4	4186-331	4186-332 28.79
5/8-11	NC	H3	4	4186-531	4186-532 33.93
5/8-11	NC	H5	4	4186-551	4186-552 39.74
5/8-18	NF	H3	4	4186-731	4186-732 33.93
3/4-10	NC	H3	4	4187-331	4187-332 49.13
3/4-10	NC	H5	4	4187-351	4187-352 52.89
3/4-16	NF	H3	4	4187-531	4187-532 49.13

Metric Sizes

SIZE	GH	FLUTES	ORDER NUMBER		PRICE EACH
			BOTTOM	PLUG	
6 x 1	D5	3	4187-945	4187-946	\$ 3.69
8 x 1.25	D5	4	4187-956	4187-957	4.22
10 x 1.5	D6	4	4187-969	4187-970	4.77
12 x 1.75	D6	4	—	4187-981	9.47

Carbon Steel Hand Taps

Right Hand - For Hand Tapping Applications ³



Taper



Plug



Bottom

SIZE	NO. OF	TAPER	PLUG	BOTTOMING	PRICE	SET	PRICE
		ORDER	ORDER	ORDER	NO.	ORDER	NO.
		FLUTES	NO.	NO.		EACH	
0 – 80 NF	2	2320-003	2320-002	2320-001	POA	2321-000	POA
1 – 64 NC	2	2320-015	2320-014	2320-013	POA	2321-005	POA
1 – 72 NF	3	2320-021	2320-020	2320-019	POA	2321-010	POA
2 – 56 NC	3	2320-026	2320-025	2320-024	POA	2321-015	POA
2 – 64 NF	3	2320-031	2320-030	2320-029	POA	2321-020	POA
3 – 48 NC	3	2320-036	2320-035	2320-034	\$2.16	2321-025	POA
3 – 56 NF	3	2320-041	2320-040	2320-039	POA	2321-030	POA
4 – 32 NC	3	2320-046	2320-045	2320-044	POA	2321-035	POA
4 – 36 NC	3	2320-052	2320-051	2320-050	POA	2321-040	POA
4 – 40 NC	3	2320-058	2320-057	2320-056	2.16	2321-045	POA
4 – 48 NF	3	2320-064	2320-063	2320-062	2.16	2321-050	POA
5 – 40 NC	3	2320-076	2320-075	2320-074	1.79	2321-055	POA
5 – 44 NF	3	2320-082	2320-081	2320-080	1.79	2321-057	POA
6 – 32 NC	3	2320-088	2320-087	2320-086	1.79	2321-060	POA
6 – 36 NS	4	2320-100	2320-099	2320-098	2.48	2321-065	POA
6 – 40 NF	3	2320-094	2320-093	2320-092	1.79	2321-070	POA
8 – 32 NC	4	2320-106	2320-105	2320-104	1.79	2321-075	POA
8 – 36 NF	4	2320-012	2320-111	2320-110	1.79	2321-080	POA
8 – 40 NS	4	2320-118	2320-117	2320-116	POA	2321-085	POA
10 – 24 NC	4	2320-124	2320-123	2320-122	1.93	2321-090	POA
10 – 32 NF	4	2320-135	2320-134	2320-133	1.97	2321-095	POA
12 – 24 NC	4	2320-141	2320-140	2320-139	2.24	2321-100	POA
12 – 28 NF	4	2320-147	2320-146	2320-145	2.24	2321-110	POA
12 – 32 NEF	4	2320-150	2320-149	2320-148	0.93	2321-120	POA
14 – 20 NF	4	2320-153	2320-152	2320-151	2.24	2321-130	POA
14 – 24 NC	4	2320-159	2320-158	2320-157	0.93	2321-140	POA
1/4 – 20 NC	4	2320-219	2320-218	2320-217	2.25	2321-155	POA
1/4 – 24 NS	4	2320-222	2320-221	2320-220	2.93	2321-157	POA
1/4 – 28 NF	4	2320-225	2320-224	2320-223	2.25	2321-160	POA
1/4 – 32 NEF	4	2320-231	2320-230	2320-229	1.07	2321-163	POA
5/16 – 18 NC	4	2320-237	2320-236	2320-235	2.75	2321-165	POA
5/16 – 24 NF	4	2320-243	2320-242	2320-241	2.75	2321-170	POA
5/16 – 32 NEF	4	2320-246	2320-245	2320-244	1.17	2321-173	POA

SIZE	NO. OF	TAPER	PLUG	BOTTOMING	PRICE	SET	PRICE
	FLUTES	ORDER	ORDER	ORDER	NO.	ORDER	NO.
		NO.	NO.	NO.		NO.	
3/8 – 16 NC	4	2320-249	2320-248	2320-247	\$3.08	2321-175	POA
3/8 – 24 NF	4	2320-255	2320-254	2320-253	3.08	2321-180	POA
7/16 – 14 NC	4	2320-261	2320-260	2320-259	4.04	2321-185	POA
9/16 – 18 NF	4	2320-267	2320-266	2320-265	4.04	2321-190	POA
1/2 – 13 NC	4	2320-273	2320-272	2320-271	4.64	2321-195	POA
1/2 – 20 NF	4	2320-279	2320-278	2320-277	4.64	2321-200	POA
9/16 – 12 NC	4	2320-285	2320-284	2320-283	6.29	2321-205	POA
9/16 – 18 NF	4	2320-291	2320-290	2320-289	6.29	2321-210	POA
5/8 – 11 NC	4	2320-297	2320-296	2320-295	6.98	2321-215	POA
5/8 – 18 NF	4	2320-303	2320-302	2320-301	6.98	2321-220	\$20.93
3/4 – 10 NC	4	2320-321	2320-320	2320-319	9.92	2321-235	POA
3/4 – 16 NF	4	2320-327	2320-326	2320-325	9.92	2321-240	POA
7/8 – 9 NC	4	2320-333	2320-332	2320-331	15.58	2321-245	POA
7/8 – 14 NF	4	2320-339	2320-338	2320-337	15.58	2321-250	POA
1 – 8 NC	4	2320-345	2320-344	2320-343	19.39	2321-255	POA
1 – 12 NF	4	2320-351	2320-350	2320-349	17.31	2321-260	POA
1 – 14 NS	4	2320-357	2320-356	2320-355	17.31	2321-265	POA
1-1/8 – 7 NC	4	2320-363	2320-362	2320-361	38.66	2321-270	POA
1-1/8 – 12 NF	4	2320-366	2320-365	2320-364	38.66	2321-275	POA
1-1/4 – 7 NC	4	2320-372	2320-371	2320-370	44.52	2321-280	POA
1-1/4 – 12 NF	6	2320-378	2320-377	2320-376	44.52	2321-285	POA
1-3/8 – 6 NC	4	2320-384	2320-383	2320-382	52.64	2321-290	POA
1-3/8 – 12 NF	6	2320-390	2320-389	2320-388	52.64	2321-295	POA
1-1/2 – 6 NC	4	2320-396	2320-395	2320-394	62.03	2321-300	POA
1-1/2 – 12 NF	6	2320-402	2320-401	2320-400	62.03	2321-305	POA
1-3/4 – 5 NC	-	2320-407	2320-406	2320-405	POA	2321-310	POA
1-7/8 – 12 NF	-	2320-410	2320-409	2320-408	POA	2321-315	POA
2 – 4-1/2 NC	-	2320-413	2320-412	2320-411	POA	2321-320	POA
2-1/8 – 12 NF	-	2320-416	2320-415	2320-414	POA	2321-325	POA
2-1/4 – 4-1/2 NC	-	2320-421	2320-420	2320-419	POA	2321-330	POA
2-1/2 – 4 NC	-	2320-427	2320-426	2320-425	POA	2321-335	POA
2-7/8 – 12 NF	-	2320-433	2320-432	2320-431	POA	2321-340	POA
3 – 12 NF	-	2320-439	2320-438	2320-437	POA	2321-345	POA

Metric Taps

Ground Thread – High Speed Steel



WARNING: This product contains Cobalt and/or Nickel and/or Lead a chemical known to the state of California to cause cancer or birth defects or other reproductive harm. For more information: www.prop65.ca.gov
WARNING: Cutting tools may shatter. Always wear approved safety glasses and mask when regrinding.



Taper



Plug



Bottom

Hand Taps

2

NOMINAL SIZE	D LMT.	# OF FLT.	THR. LGTH.	OAL	TAPER	PLUG	BOTTOM	PRICE EACH	SET ORDER NO.	SET PRICE T/P/B
M1.6 x .35	3	2	5/16	1-5/8	3777-085	3777-084	3777-083	\$14.90	3780-005	POA
M1.8 x .35	3	2	3/8	1-11/16	3777-102	3777-101	3777-100	13.93	3780-010	POA
M2 x .4	3	3	7/16	1-3/4	3777-120	3777-119	3777-118	22.23	3780-015	\$41.76
M2.2 x .45	3	3	7/16	1-3/4	3777-147	3777-146	3777-145	24.50	3780-020	POA
M2.5 x .45	3	3	1/2	1-13/16	3777-174	3777-173	3777-172	10.27	3780-025	POA
M3 x .5	3	3	5/8	1-15/16	3777-228	3777-227	3777-226	13.28	3780-030	39.84
M3.5 x .6	4	3	11/16	2	3777-282	3777-281	3777-280	10.04	3780-035	POA
M4 x .7	4	4	3/4	2-1/8	3777-327	3777-326	3777-325	9.52	3780-040	28.56
M4.5 x .75	4	4	7/8	2-3/8	3777-354	3777-353	3777-352	9.52	3780-045	20.01
M5 x .8	4	4	7/8	2-3/8	3777-390	3777-389	3777-388	10.00	3780-050	30.00
M6 x 1	5	4	1	2-1/2	3777-466	3777-465	3777-464	10.00	3780-055	30.00
M7 x 1	5	4	1-1/8	2-23/32	3777-525	3777-524	3777-523	10.89	3780-065	37.80
M8 x 1.25	5	4	1-1/8	2-23/32	3777-579	3777-578	3777-577	10.89	3780-070	32.67
M8 x 1	5	4	1-1/8	2-23/32	3777-570	3777-569	3777-568	12.18	3780-068	23.70
M10 x 1.5	6	4	1-1/4	2-15/16	3777-696	3777-695	3777-694	20.38	3780-080	61.14
M10 x 1.25	5	4	1-1/4	2-15/16	3777-687	3777-686	3777-685	15.67	3780-075	34.92
M12 x 1.75	6	4	1-21/32	3-3/8	3777-803	3777-802	3777-801	30.50	3780-090	73.20
M12 x 1.25	5	4	1-21/32	3-3/8	3777-780	3777-779	3777-778	30.50	3780-085	41.49
M14 x 2	7	4	1-21/32	3-19/32	3777-965	3777-964	3777-963	45.26	3780-100	108.63
M14 x 1.5	6	4	1-21/32	3-19/32	3777-947	3777-946	3777-945	45.26	3780-095	61.56

NOMINAL SIZE	D LMT.	# OF FLT.	THR. LGTH.	OAL	TAPER	PLUG	BOTTOM	PRICE EACH	SET ORDER NO.	SET PRICE T/P/B
M16 x 2	7	4	1-13/16	3-13/16	3778-072	3778-071	3778-070	\$51.01	3780-110	\$99.19
M16 x 1.5	6	4	1-13/16	3-13/16	3778-063	3778-062	3778-061	51.01	3780-105	133.08
M18 x 2.5	7	4	1-13/16	4-1/32	3778-153	3778-152	3778-151	59.64	3780-120	133.08
M18 x 1.5	6	4	1-13/16	4-1/32	3778-135	3778-134	3778-133	41.24	3780-115	91.83
M20 x 2.5	7	4	2	4-15/32	3778-243	3778-242	3778-241	81.02	3780-130	243.06
M20 x 1.5	6	4	2	4-15/32	3778-225	3778-224	3778-223	61.25	3780-135	POA
M22 x 2.5	7	4	2-7/32	4-11/16	3778-306	3778-305	3778-304	92.76	3780-140	150.51
M22 x 1.5	6	4	2-7/32	4-11/16	3778-288	3778-287	3778-286	92.76	3780-145	POA
M24 x 3	8	4	2-7/32	4-29/32	3778-342	3778-341	3778-340	108.25	3780-150	324.75
M24 x 2	7	4	2-7/32	4-29/32	3778-324	3778-323	3778-322	91.04	3780-155	POA
M27 x 3	8	4	2-1/2	5-1/8	3778-468	3778-467	3778-466	131.58	3780-160	POA
M27 x 2	7	4	2-1/2	5-1/8	3778-459	3778-458	3778-457	123.66	3780-165	POA
M30 x 3.5	9	4	2-9/16	5-7/16	3778-565	3778-564	3778-563	146.91	3780-170	440.70
M30 x 2	7	4	2-9/16	5-7/16	3778-549	3778-548	3778-547	146.91	3780-175	POA
M33 x 3.5	9	4	2-9/16	5-3/4	3778-630	3778-629	3778-628	153.10	3780-180	POA
M33 x 2	7	4	2-9/16	5-3/4	3778-612	3778-611	3778-610	153.10	3780-185	POA
M36 x 4	9	4	3	6-1/16	3778-693	3778-692	3778-691	202.78	3780-190	POA
M36 x 3	8	4	3	6-1/16	3778-702	3778-701	3778-700	202.78	3780-195	POA
M39 x 4	9	6	3-3/16	6-11/16	3778-747	3778-746	3778-745	274.13	3780-205	POA
M39 x 3	8	6	3-3/16	6-11/16	3778-738	3778-737	3778-736	274.13	3780-210	POA

Metric Hand Taps – Ground Thread, High Speed Steel, Quality Import

3



SIZE	PLUG ORDER NO.	BOTTOM ORDER NO.	TAPER ORDER NO.	PRICE EACH	SETS ORDER NO.	PRICE EACH
1.0 x 0.20	2327-010	2327-009	2327-011	29.61	2335-000	POA
1.0 x 0.25	2327-013	2327-012	2327-014	POA	2335-001	POA
1.10 x 0.25	2327-016	2327-015	2327-017	POA	2335-002	POA
1.2 x 0.20	2327-028	2327-027	2327-029	44.42	2335-003	POA
1.2 x 0.25	2327-037	2327-036	2327-038	44.42	2335-004	POA
1.4 x 0.20	2327-046	2327-045	2327-047	44.42	2335-005	POA
1.4 x 0.30	2327-057	2327-056	2327-058	44.42	2335-006	POA
1.5 x 0.30	2327-064	2327-063	2327-065	29.61	2335-007	POA
1.5 x 0.35	2327-074	2327-073	2327-075	POA	2335-008	POA
1.6 x 0.35	2327-084	2327-083	2327-085	\$38.09	2335-009	POA
1.7 x 0.20	2327-093	2327-092	2327-094	38.09	2335-010	POA
1.7 x 0.35	2327-096	2327-095	2327-097	POA	2335-011	POA
1.8 x 0.35	2327-100	2327-101	2327-102	38.09	2335-012	POA
2.0 x 0.25	2327-113	2327-112	2327-114	36.29	2335-013	POA
2.0 x 0.35	2327-107	2327-106	2327-108	POA	2335-014	POA
2.0 x 0.40	2327-118	2327-119	2327-120	36.29	2335-015	\$19.50
2.0 x 0.45	2327-127	2327-126	2327-128	36.29	2335-016	POA
2.2 x 0.40	2327-125	2327-124	2327-12	POA	2335-017	POA
2.2 x 0.45	2327-145	2327-146	2327-147	24.19	2335-018	POA
2.3 x 0.40	2327-163	2327-164	2327-165	24.19	2335-019	POA
2.5 x 0.45	2327-172	2327-173	2327-174	22.30	2335-020	POA
2.5 x 0.50	2327-176	2327-175	2327-177	POA	2335-021	POA
2.5 x 0.55	2327-179	2327-178	2327-180	POA	2335-022	POA
2.6 x 0.35	2327-181	2327-182	2327-183	22.30	2335-023	POA
2.6 x 0.45	2327-199	2327-200	2327-201	13.81	2335-024	POA
3.0 x 0.35	2327-208	2327-209	2327-210	8.82	2335-025	POA
3.0 x 0.50	2327-226	2327-227	2327-228	8.82	2335-030	10.71
3.0 x 0.60	2327-235	2327-236	2327-237	4.06	2335-031	POA
3.0 x 0.75	-	2327-247	-	POA	-	-
3.5 x 0.35	2327-262	2327-263	2327-264	POA	2335-033	POA
3.5 x 0.50	2327-271	2327-272	2327-273	POA	2335-034	POA
3.5 x 0.60	2327-280	2327-281	2327-282	7.29	2335-035	POA
3.5 x 0.75	2327-289	2327-290	-	POA	-	-
4.0 x 0.35	2327-307	2327-306	2327-308	POA	2335-037	POA
4.0 x 0.50	2327-316	2327-317	2327-318	7.56	2335-038	POA
4.0 x 0.70	2327-325	2327-326	2327-327	7.29	2335-040	8.67
4.0 x 0.75	2327-336	2327-335	2327-337	15.88	2335-041	POA
4.5 x 0.50	2327-342	2327-341	2327-343	POA	2335-042	POA
4.5 x 0.75	2327-352	2327-353	2327-354	7.29	2335-045	8.67

SIZE	PLUG ORDER NO.	BOTTOM ORDER NO.	TAPER ORDER NO.	PRICE EACH	SETS ORDER NO.	PRICE EACH
5.0 x 0.50	2327-363	2327-362	2327-364	\$7.56	2335-046	POA
5.0 x 0.70	-	-	2327-371	POA	2335-047	POA
5.0 x 0.75	2327-379	2327-380	2327-381	POA	2335-048	POA
5.0 x 0.80	2327-388	2327-389	2327-390	7.29	2335-050	\$8.67
5.0 x 0.90	2327-397	2327-398	2327-399	9.07	2335-051	POA
5.0 x 1.00	2327-406	2327-405	2327-407	9.07	2335-052	POA
5.5 x 0.70	2327-409	2327-408	2327-410	POA	2335-053	POA
5.5 x 0.90	2327-433	2327-434	2327-435	7.56	2335-054	POA
6.0 x 0.50	2327-442	2327-443	2327-444	7.74	2335-059	POA
6.0 x 0.75	2327-460	2327-461	2327-462	7.74	2335-060	POA
6.0 x 1.00	2327-464	2327-465	2327-466	7.74	2335-055	9.30
6.0 x 1.25	2327-471	2327-470	2327-472	3.71	2335-056	POA
6.3 x 1.00	2327-487	2327-488	2327-489	10.88	2335-057	POA
7.0 x 0.50	2327-497	2327-496	2327-498	10.88	2335-058	POA
7.0 x 0.75	2327-516	2327-515	2327-517	10.88	2335-059	POA
7.0 x 1.00	2327-523	2327-524	2327-525	10.88	2335-065	10.71
7.0 x 1.25	2327-532	2327-533	2327-534	10.88	2335-061	POA
8.0 x 0.50	2327-557	2327-556	2327-558	10.76	2335-062	POA
8.0 x 0.75	2327-559	2327-560	2327-561	10.76	2335-063	POA
8.0 x 1.00	2327-568	2327-569	2327-570	10.76	2335-068	10.44
8.0 x 1.25	2327-577	2327-578	2327-579	8.28	2335-070	10.44
8.0 x 1.50	2327-588	2327-587	2327-589	4.40	2335-064	POA
8.5 x 1.50	2327-591	2327-590	2327-592	POA	2335-066	POA
9.0 x 0.50	2327-594	2327-593	2327-595	POA	2335-067	POA
9.0 x 0.75	2327-613	2327-614	2327-615	22.85	2335-069	POA
9.0 x 1.00	2327-622	2327-623	2327-624	10.88	2335-071	POA
9.0 x 1.25	2327-631	2327-632	2327-633	16.32	2335-072	POA
9.0 x 1.50	2327-640	2327-641	2327-642	16.32	2335-074	POA
9.0 x 2.00	2327-638	2327-637	2327-639	POA	2335-076	POA
10.0 x 0.50	2327-649	2327-650	2327-651	17.69	2335-077	POA
10.0 x 0.75	2327-658	2327-659	2327-660	17.69	2335-078	POA
10.0 x 1.00	2327-676	2327-677	2327-678	17.69	2335-073	17.61
10.0 x 1.25	2327-685	2327-686	2327-687	17.69	2335-075	15.06
10.0 x 1.50	2327-694	2327-695	2327-696	14.90	2335-080	15.9

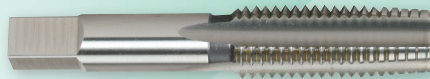
Metric Hand Taps (continued)

Ground Thread, High Speed Steel, Quality Import

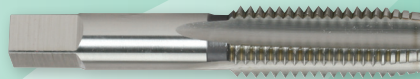
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Taper



Plug



Bottom

	PLUG ORDER NO.	BOTTOM ORDER NO.	TAPER ORDER NO.	PRICE EACH	SETS ORDER NO.	PRICE EACH		PLUG ORDER NO.	BOTTOM ORDER NO.	TAPER ORDER NO.	PRICE EACH	SETS ORDER NO.	PRICE EACH
SIZE							SIZE						
12.0 x 0.50	2327-750	2327-749	2327-751	POA	2335-086	POA	25.0 x 1.00	2328-349	2328-350	2328-351	206.58	2335-161	POA
12.0 x 0.75	2327-758	2327-757	2327-759	POA	2335-088	POA	25.0 x 1.50	2328-367	2328-368	2328-369	\$206.58	2335-162	POA
12.0 x 0.80	2327-766	2327-767	2327-768	POA	2335-091	POA	25.0 x 2.00	2328-387	2328-386	2328-388	206.58	2335-163	POA
12.0 x 1.00	2327-775	2327-776	2327-777	\$18.90	2335-092	POA	25.0 x 3.00	2328-400	2328-399	2328-401	POA	2335-164	POA
12.0 x 1.25	2327-778	2327-779	2327-780	18.90	2335-085	\$22.59	26.0 x 1.50	2328-405	2328-404	2328-406	206.58	2335-165	POA
12.0 x 1.50	2327-785	2327-784	2327-786	22.68	2335-087	22.59	26.0 x 2.00	2328-421	2328-422	2328-423	206.58	2335-166	POA
12.0 x 1.75	2327-801	2327-802	2327-803	18.90	2335-090	22.59	27.0 x 1.00	2328-441	2328-440	2328-442	173.52	2335-167	POA
13.0 x 0.50	2327-815	2327-814	2327-816	POA	2335-094	POA	27.0 x 1.50	2328-447	2328-446	2328-448	173.52	2335-168	POA
13.0 x 1.00	2327-848	2327-847	2327-849	POA	2335-096	POA	27.0 x 2.00	2328-457	2328-458	2328-459	173.52	2335-169	POA
13.0 x 1.25	2327-857	2327-856	2327-858	42.12	2335-097	POA	27.0 x 2.50	2328-461	2328-460	2328-462	POA	2335-171	POA
13.0 x 1.50	2327-875	2327-874	2327-876	42.12	2335-098	POA	27.0 x 3.00	2328-466	2328-467	2328-468	102.51	2335-172	POA
13.0 x 1.75	2327-884	2327-883	2327-885	POA	2335-099	POA	28.0 x 1.50	2328-495	2328-494	2328-496	248.46	2335-173	POA
13.0 x 2.00	2327-893	2327-892	2327-894	42.12	2335-101	POA	28.0 x 2.00	2328-504	2328-503	2328-505	248.46	2335-174	POA
14.0 x 0.50	2327-902	2327-901	2327-903	39.31	2335-102	POA	28.0 x 3.00	2328-513	2328-512	2328-514	248.46	2335-175	POA
14.0 x 0.75	2327-912	2327-911	2327-913	39.31	2335-104	POA	30.0 x 1.00	2328-531	2328-530	2328-532	POA	2335-176	POA
14.0 x 1.00	2327-920	2327-919	2327-921	39.31	2335-106	POA	30.0 x 1.50	2328-538	2328-539	2328-540	248.46	2335-177	POA
14.0 x 1.25	2327-927	2327-928	2327-929	39.31	2335-093	POA	30.0 x 2.00	2328-547	2328-548	2328-549	248.46	2335-178	POA
14.0 x 1.50	2327-945	2327-946	2327-947	28.08	2335-095	POA	30.0 X 3.00	2328-558	2328-557	2328-559	248.46	2335-179	POA
14.0 x 1.75	2327-956	2327-955	2327-957	POA	2335-107	POA	30.0 x 3.50	2328-565	2328-563	2328-567	248.46	2335-170	POA
14.0 x 2.00	2327-963	2327-964	2327-965	39.31	2335-100	POA	32.0 x 1.50	2328-591	2328-590	2328-592	265.05	2335-180	POA
15.0 x 0.50	2327-967	2327-966	2327-968	POA	2335-108	POA	32.0 x 2.00	2328-588	2328-587	2328-589	POA	2335-181	POA
15.0 x 1.00	2327-992	2327-991	2327-993	48.22	2335-109	POA	32.0 x 3.50	2328-594	2328-593	2328-595	265.05	2335-182	POA
15.0 x 1.25	2327-995	2327-994	2327-996	POA	2335-111	POA	33.0 x 1.50	2328-601	2328-600	2328-602	338.42	2335-183	POA
15.0 x 1.50	2328-011	2328-010	2328-012	48.22	2335-112	POA	33.0 x 2.00	2328-610	2328-611	2328-612	265.05	2335-184	POA
15.0 x 2.00	2328-025	2328-026	2328-027	48.22	2335-113	POA	33.0 x 3.50	2328-628	2328-629	2328-630	265.05	2335-185	POA
16.0 x 0.50	2328-029	2328-028	2328-030	POA	2335-114	POA	34.0 x 1.50	2328-632	2328-631	2328-633	POA	2335-186	POA
16.0 x 0.75	2328-041	2328-040	2328-042	POA	2335-116	POA	34.0 x 2.00	2328-635	2328-634	2328-636	POA	2335-187	POA
16.0 x 1.00	2328-043	2328-044	2328-045	34.44	2335-103	POA	35.0 x 1.00	2328-638	2328-637	2328-639	POA	2335-188	POA
16.0 x 1.25	2328-054	2328-053	2328-055	POA	2335-117	POA	35.0 x 1.50	2328-671	2328-670	2328-672	338.42	2335-189	POA
16.0 x 1.50	2328-061	2328-062	2328-063	34.44	2335-105	POA	36.0 x 1.50	2328-687	2328-686	2328-688	POA	2335-190	POA
16.0 x 1.75	2328-065	2328-064	2328-066	POA	2335-118	POA	36.0 x 2.00	2328-698	2328-697	2328-699	338.42	2335-191	POA
16.0 x 2.00	2328-070	2328-071	2328-072	34.44	2335-110	POA	36.0 x 3.00	2328-700	2328-701	2328-702	338.42	2335-192	POA
16.0 x 2.50	2328-075	2328-074	2328-076	POA	2335-119	POA	36.0 x 4.00	2328-691	2328-692	2328-693	338.42	2335-193	POA
17.0 x 0.50	2328-078	2328-077	2328-079	POA	2335-121	POA	38.0 x 1.00	2328-708	2328-707	2328-709	POA	2335-194	POA
17.0 x 0.75	2328-081	2328-080	2328-082	POA	2335-122	POA	38.0 x 1.50	2328-711	2328-710	2328-712	POA	2335-195	POA
17.0 x 1.00	2328-084	2328-083	2328-085	POA	2335-123	POA	38.0 x 4.00	2328-724	2328-723	2328-725	POA	2335-196	POA
17.0 x 1.50	2328-097	2328-098	2328-099	POA	2335-124	POA	39.0 x 1.50	2328-729	2328-728	2328-730	446.95	2335-197	POA
17.0 x 2.00	2328-115	2328-116	2328-117	POA	2335-125	POA	39.0 x 2.00	2328-734	2328-733	2328-735	446.95	2335-198	POA
18.0 x 0.50	2328-101	2328-100	2328-102	POA	2335-126	POA	39.0 x 3.00	2328-736	2328-737	2328-738	496.61	2335-199	POA
18.0 x 0.75	2328-119	2328-118	2328-120	POA	2335-127	POA	39.0 x 4.00	2328-745	2328-746	2328-747	446.95	2335-200	POA
18.0 x 1.00	2328-124	2328-123	2328-126	46.26	2335-128	POA	40.0 x 1.50	2328-768	2328-767	2328-769	574.56	2335-201	POA
18.0 x 1.25	2328-130	2328-129	2328-131	POA	2335-129	POA	40.0 x 2.00	2328-771	2328-770	2328-772	POA	2335-202	POA
18.0 x 1.50	2328-133	2328-134	2328-135	46.26	2335-115	POA	40.0 x 4.00	2328-775	2328-773	2328-774	POA	2335-203	POA
18.0 x 1.75	2328-137	2328-136	2328-138	POA	2335-131	POA	42.0 x 1.50	2328-810	2328-809	2328-811	574.56	2335-204	POA
18.0 x 2.00	2328-142	2328-143	2328-144	46.26	2335-132	POA	42.0 x 2.00	2328-827	2328-826	2328-828	574.56	2335-205	POA
18.0 x 2.50	2328-151	2328-152	2328-153	46.26	2335-120	POA	42.0 x 3.00	2328-830	2328-829	2328-831	POA	2335-206	POA
19.0 x 0.50	2328-156	2328-155	2328-157	POA	2335-133	POA	42.0 x 4.50	2328-837	2328-836	2328-838	574.56	2335-207	POA
19.0 x 1.00	2328-162	2328-161	2328-163	77.71	2335-134	POA	45.0 x 1.50	2328-873	2328-872	2328-874	574.56	2335-208	POA
19.0 x 1.50	2328-178	2328-179	2328-180	77.71	2335-135	POA	45.0 x 2.00	2328-876	2328-875	2328-877	POA	2335-209	POA
19.0 x 2.00	2328-182	2328-181	2328-183	POA	2335-136	POA	45.0 x 3.00	2328-880	2328-881	2328-882	574.56	2335-210	POA
20.0 x 0.75	2328-197	2328-196	2328-198	88.06	2335-137	POA	45.0 x 4.00	2328-884	2328-883	2328-885	POA	2335-211	POA
20.0 x 1.00	2328-205	2328-206	2328-207	88.06	2335-138	POA	45.0 x 4.50	2328-891	2328-890	2328-892	574.56	2335-212	POA
20.0 x 1.25	2328-214	2328-215	2328-216	88.06	2335-139	POA	48.0 x 1.50	2328-909	2328-908	2328-910	611.10	2335-213	POA
20.0 x 1.50	2328-223	2328-224	2328-225	62.90	2335-141	POA	48.0 x 2.00	2328-912	2328-911	2328-913	POA	2335-214	POA
20.0 x 2.00	2328-232	2328-233	2328-234	62.90	2335-142	POA	48.0 x 3.00	2328-922	2328-923	2328-924	611.10	2335-215	POA
20.0 x 2.50	2328-241	2328-242	2328-243	62.90	2335-130	POA	48.0 x 4.50	2328-915	2328-914	2328-916	POA	2335-216	POA
21.0 x 0.75	2328-247	2328-246	2328-248	POA	2335-143	POA	48.0 x 5.00	2328-925	2328-926	2328-927	611.10	2335-217	POA
21.0 x 1.00	2328-218	2328-217	2328-219	POA	2335-144	POA	50.0 x 1.50	2328-936	2328-935	2328-937	611.10	2335-218	POA
21.0 x 1.50	2328-221	2328-220	2328-222	POA	2335-145	POA	50.0 x 3.00	2328-939	2328-938	2328-940			

Spiral Point Taps - Ground Thread High Speed Steel

Look for
ALLEGIANCE
AMERICAN MADE



WARNING: This product contains Cobalt and/or Nickel and/or Lead a chemical known to the state of California to cause cancer or birth defects or other reproductive harm. For more information: www.prop65.ca.gov.
WARNING: Cutting tools may shatter. Always wear approved safety glasses and mask when regrinding.



Machine Screw Sizes

2

NOMINAL SIZE	H LIMITS	# OF FLUTES	THREAD LENGTH	OVERALL LENGTH	PLUG ORDER NO.	PRICE EACH	BOTTOM ORDER NO.	PRICE EACH
0-80 UNF	1	2	5/16	1-5/8	3720-112	\$23.21	3720-111	\$17.60
0-80 UNC	2	2	5/16	1-5/8	3720-122	18.96	3720-121	22.61
1-64 UNC	1	2	3/8	1-11/16	3720-312	13.34	-	-
1-64 UNC	2	2	3/8	1-11/16	3720-322	19.10	-	-
1-72 UNF	1	2	3/8	1-11/16	3720-512	17.05	-	-
1-72 UNF	2	2	3/8	1-11/16	3720-522	23.21	-	-
2-56 UNC	1	2	7/16	1-3/4	3720-712	16.49	3720-711	19.35
2-56 UNC	2	2	7/16	1-3/4	3720-722	10.30	3720-721	13.60
2-64 UNF	2	2	7/16	1-3/4	3720-922	23.21	-	-
3-48 UNC	2	2	1/2	1-13/16	3721-122	8.22	3721-121	10.85
3-56 UNF	1	2	1/2	1-13/16	3721-312	14.21	-	-
3-56 UNF	2	2	1/2	1-13/16	3721-322	8.92	-	-
4-40 UNC	1	2	9/16	1-7/8	3721-712	10.83	-	-
4-40 UNC	2	2	9/16	1-7/8	3721-722	11.56	3721-721	8.76
4-48 UNF	1	2	9/16	1-7/8	3721-912	11.76	-	-
4-48 UNF	2	2	9/16	1-7/8	3721-922	7.68	3721-921	10.14
4-36 UNF	2	2	9/16	1-7/8	3721-522	16.01	-	-

NOMINAL SIZE	H LIMITS	# OF FLUTES	THREAD LENGTH	OVERALL LENGTH	PLUG ORDER NO.	PRICE EACH	BOTTOM ORDER NO.	PRICE EACH
5-40 UNC	1	2	5/8	1-15/16	3722-112	\$14.21	-	-
5-40 UNC	2	2	5/8	1-15/16	3722-122	6.95	3722-121	\$9.18
5-44 UNF	2	2	5/8	1-15/16	3722-322	13.83	-	-
6-32 UNC	1	2	11/16	2	3722-512	8.87	-	-
6-32 UNC	2	2	11/16	2	3722-522	7.78	3722-521	7.28
6-32 UNC	3	2	11/16	2	3722-532	9.60	3722-531	7.28
6-40 UNF	2	2	11/16	2	3722-722	10.93	3722-721	8.29
8-32 UNC	1	2	3/4	2-1/8	3722-912	11.20	-	-
8-32 UNC	2	2	3/4	2-1/8	3722-922	8.45	3722-921	13.30
8-32 UNC	3	2	3/4	2-1/8	3722-932	9.60	3722-931	7.28
8-36 UNF	2	2	3/4	2-1/8	3723-122	6.28	-	-
10-24 UNC	1	2	7/8	2-3/8	3723-312	11.90	-	-
10-24 UNC	2	2	7/8	2-3/8	3723-322	9.11	3723-321	15.95
10-24 UNC	3	2	7/8	2-3/8	3723-332	5.52	3723-331	7.28
10-32 UNC	1	2	7/8	2-3/8	3723-512	8.87	3723-511	14.11
10-32 UNF	2	2	7/8	2-3/8	3723-522	8.43	3723-521	11.36
10-32 UNF	3	2	7/8	2-3/8	3723-532	9.60	3723-531	7.28
12-24 UNC	3	2	1	2-1/2	3723-732	6.28	3723-731	8.29
12-28 UNF	3	2	1	2-1/2	3723-932	6.28	-	-

Fractional Sizes

2

NOMINAL SIZE	H LIMITS	# OF FLUTES	THREAD LENGTH	OVERALL LENGTH	PLUG ORDER NO.	PRICE EACH	BOTTOM ORDER NO.	PRICE EACH
1/4-20 UNC	1	2	1	2-1/2	3724-112	\$10.15	-	-
1/4-20 UNC	2	2	1	2-1/2	3724-122	10.15	-	-
1/4-20 UNC	3	2	1	2-1/2	3724-132	7.57	3724-131	\$6.94
1/4-20 UNC	5	2	1	2-1/2	3724-149	9.11	-	-
1/4-20 UNF	11	2	1	2-1/2	3724-192	9.76	-	-
1/4-20 UNF	3	3	1	2-1/2	3724-135	9.76	-	-
1/4-20 UNF	5	3	1	2-1/2	3724-152	9.76	-	-
1/4-28 UNF	1	2	1	2-1/2	3724-312	12.13	-	-
1/4-28 UNF	2	2	1	2-1/2	3724-322	11.23	-	-
1/4-28 UNF	3	2	1	2-1/2	3724-332	5.26	3724-331	6.94
1/4-28 UNF	4	2	1	2-1/2	3724-339	11.50	-	-
1/4-28 UNF	2	3	1	2-1/2	3724-325	11.39	-	-
1/4-28 UNF	4	3	1	2-1/2	3724-342	9.73	-	-
5/16-18 UNC	1	2	1-1/8	2-23/32	3724-512	14.49	-	-
5/16-18 UNC	2	2	1-1/8	2-23/32	3724-522	13.39	-	-
5/16-18 UNC	3	2	1-1/8	2-23/32	3724-532	11.02	3724-531	10.09
5/16-18 UNC	5	2	1-1/8	2-23/32	3724-549	13.39	-	-
5/16-18 UNC	11	2	1-1/8	2-23/32	3724-592	12.83	-	-
5/16-18 UNC	3	3	1-1/8	2-23/32	3724-535	12.20	-	-
5/16-18 UNC	5	3	1-1/8	2-23/32	3724-552	11.16	-	-
5/16-24 UNF	1	2	1-1/8	2-23/32	3724-712	18.07	-	-
5/16-24 UNF	2	2	1-1/8	2-23/32	3724-722	11.27	-	-
5/16-24 UNF	3	2	1-1/8	2-23/32	3724-732	7.65	3724-731	10.09
5/16-24 UNF	4	2	1-1/8	2-23/32	3724-742	11.88	-	-
5/16-24 UNF	4	3	1-1/8	2-23/32	3724-745	19.47	-	-
3/8-16 UNC	1	3	1-1/4	2-15/16	3724-912	14.77	-	-
3/8-16 UNC	2	3	1-1/4	2-15/16	3724-922	12.32	-	-
3/8-16 UNC	3	3	1-1/4	2-15/16	3724-932	7.69	-	-
3/8-16 UNC	5	3	1-1/4	2-15/16	3724-952	13.88	-	-

NOMINAL SIZE	H LIMITS	# OF FLUTES	THREAD LENGTH	OVERALL LENGTH	PLUG ORDER NO.	PRICE EACH	BOTTOM ORDER NO.	PRICE EACH
3/8-16 UNF	11	3	1-1/4	2-15/16	3724-992	\$14.04	-	-
3/8-24 UNF	1	3	1-1/4	2-15/16	3725-112	17.72	-	-
3/8-24 UNF	2	3	1-1/4	2-15/16	3725-122	15.23	-	-
3/8-24 UNF	3	3	1-1/4	2-15/16	3725-132	12.46	-	-
3/8-24 UNF	4	3	1-1/4	2-15/16	3725-142	17.26	-	-
7/16-14 UNC	2	3	1-7/16	3-5/32	3725-322	23.31	-	-
7/16-14 UNC	3	3	1-7/16	3-5/32	3725-332	12.60	-	-
7/16-14 UNC	5	3	1-7/16	3-5/32	3725-352	26.62	-	-
7/16-14 UNC	11	3	1-7/16	3-5/32	3725-392	22.57	-	-
7/16-20 UNF	3	3	1-7/16	3-5/32	3725-532	12.60	-	-
7/16-20 UNF	5	3	1-7/16	3-5/32	3725-552	22.12	-	-
1/2-13 UNC	1	3	1-21/32	3-3/8	3725-712	25.97	-	-
1/2-13 UNC	2	3	1-21/32	3-3/8	3725-722	25.13	-	-
1/2-13 UNC	3	3	1-21/32	3-3/8	3725-732	22.95	-	-
1/2-13 UNC	5	3	1-21/32	3-3/8	3725-752	25.57	-	-
1/2-13 UNC	11	3	1-21/32	3-3/8	3725-792	24.22	-	-
1/2-20 UNF	1	3	1-21/32	3-3/8	3725-912	24.06	-	-
1/2-20 UNF	2	3	1-21/32	3-3/8	3725-922	24.92	-	-
1/2-20 UNF	3	3	1-21/32	3-3/8	3725-932	22.95	-	-
1/2-20 UNF	5	3	1-21/32	3-3/8	3725-952	26.11	-	-
9/16-12 UNC	3	3	1-21/32	3-19/32	3726-132	25.48	-	-
9/16-12 UNC	5	3	1-21/32	3-19/32	3726-152	36.00	-	-
5/8-11 UNC	3	3	1-13/16	3-3/16	3726-532	27.50	-	-
5/8-11 UNC	5	3	1-13/16	3-3/16	3726-552	38.87	-	-
5/8-11 UNC	11	3	1-13/16	3-3/16	3726-592	38.87	-	-
5/8-18 UNF	3	3	1-13/16	3-3/16	3726-732	27.50	-	-
3/4-10 UNC	3	3	2	4-1/4	3727-332	38.80	-	-
3/4-10 UNC	5	3	2	4-1/4	3727-352	54.87	-	-

Metric Sizes

2

NOMINAL SIZE	D LIMITS	NO. OF FLUTES	THREAD LENGTH	OVERALL LENGTH	ORDER NO.	PRICE EACH
M1.6 x .35	3	2	5/16	1-5/8	3779-133	\$16.80
M1.8 x .35	3	2	3/8	1-11/16	3779-139	17.65
M2 x .4	3	2	7/16	1-3/4	3779-148	15.88
M2.2 x .45	3	2	7/16	1-3/4	3779-157	13.69
M2.5 x .45	3	2	1/2	1-13/16	3779-166	12.46
M3 x .5	3	2	5/8	1-15/16	3779-184	10.41
M3.5 x .6	4	2	11/16	2	3779-202	8.57
M4 x .7	4	2	3/4	2-1/8	3779-217	9.80
M4.5 x .75	4	2	7/8	2-3/8	3779-226	12.39
M5 x .8	4	2	7/8	2-3/8	3779-238	8.97
M6 x 1	5	2	1	2-1/2	3779-263	10.92

NOMINAL SIZE	D LIMITS	NO. OF FLUTES	THREAD LENGTH	OVERALL LENGTH	ORDER NO.	PRICE EACH
M7 x 1	5	2	1-1/8	2-23/32	3779-280	\$16.33
M8 x 1.25	5	2	1-1/8	2-23/32	3779-298	14.14
M8 x 1	5	2	1-1/8	2-23/32	3779-290	14.14
M10 x 1.5	6	3	1-1/4	2-15/16	3779-337	14.30
M10 x 1.25	5	3	1-1/4	2-15/16	3779-334	17.16
M12 x 1.75	6	3	1-21/32	3-3/8	3779-373	18.56
M12 x 1.25	5	3	1-21/32	3-3/8	3779-365	21.38
M14 x 2	7	3	1-21/32	3-19/32	3779-427	31.93
M14 x 1.5	6	3	1-21/32	3-19/32	3779-421	31.93
M16 x 2	7	3	1-13/16	3-13/16	3779-463	38.94
M16 x 1.5	6	3	1-13/16	3-13/16	3779-460	38.94
M18 x 2.5	7	4	1-13/16	4-1/32	3779-490	54.99
M20 x 2.5	7	3	2	4-15/32	3779-516	85.94

Spiral Point Taps

WARNING: This product contains Cobalt and/or Nickel and/or Lead a chemical known to the state of California to cause cancer or birth defects or other reproductive harm. For more information: www.prop65.ca.gov. **WARNING:** Cutting tools may shatter. Always wear approved safety glasses and mask when regrinding.



Machine Screw & Fractional Sizes HSS & TiN Coated

Pittsburg® Metric Sizes - RH - HSS

3					2				
Pittsburg® ALLEGHANY					ALLEGIANCE® AMERICAN MADE				
SIZE	GH	FLUTES	HIGH SPEED STEEL PLUG ORDER NO.	PRICE EACH	HIGH SPEED STEEL PLUG ORDER NO.	PRICE EACH	TIN COATED PLUG ORDER NO.	PRICE EACH	
0-80 NF	1	2	3550-112	\$6.01	3610-112	\$13.34	-	-	
0-80 NF	2	2	3550-122	6.01	3610-122	12.26	-	-	
1-64 NC	1	2	3550-312	23.21	3610-312	POA	-	-	
1-64 NC	2	2	3550-322	5.82	3610-322	11.08	-	-	
1-72 NF	1	2	3550-512	5.82	3610-512	POA	-	-	
1-72 NF	2	2	3550-522	5.82	3610-522	11.08	-	-	
2-56 NC	1	2	3550-712	4.31	3610-712	10.60	-	-	
2-56 NC	2	2	3550-722	4.31	3610-722	17.92	-	-	
2-56 NC	3	2	3550-732	POA	3610-732	POA	-	-	
2-64 NF	1	2	3550-912	4.31	3610-912	8.88	-	-	
2-64 NF	2	2	3550-922	4.31	3610-922	13.34	-	-	
3-48 NC	1	2	3551-112	3.34	3611-112	POA	-	-	
3-48 NC	2	2	3551-122	3.34	3611-122	14.30	-	-	
3-56 NF	1	2	3551-312	3.34	3611-312	POA	-	-	
3-56 NF	2	2	3551-322	3.34	3611-322	15.52	-	-	
4-40 NC	1	2	3551-712	3.16	3611-712	POA	-	-	
4-40 NC	2	2	3551-722	3.16	3611-722	6.64	4171-722	\$13.72	
4-46 NS	2	2	3551-522	3.16	3611-522	POA	-	-	
4-48 NF	1	2	3551-912	3.16	3611-912	POA	-	-	
4-48 NF	2	2	3551-922	3.16	3611-922	13.37	4171-922	13.72	
5-40 NC	1	2	3552-112	2.73	3612-112	POA	-	-	
5-40 NC	2	2	3552-122	2.73	3612-122	12.09	4172-122	13.72	
5-44 NF	1	2	3552-312	2.73	3612-312	POA	-	-	
5-44 NF	2	2	3552-322	2.73	3612-322	7.95	4172-322	13.72	
6-32 NC	1	2	3552-512	2.47	3612-512	5.79	-	-	
6-32 NC	2	2	3552-522	2.47	3612-522	5.09	-	-	
6-32 NC	3	2	3552-532	5.14	3612-532	5.52	4172-532	11.56	
6-32 NC	6	2	3550-542	POA	3610-542	POA	-	-	
6-32 NC	7	2	3552-572	2.76	3612-572	5.79	-	-	
6-40 NF	1	2	3552-712	2.76	3612-712	POA	-	-	
6-40 NF	2	2	3552-722	2.76	3612-722	6.28	4172-722	11.56	
8-32 NC	1	2	3552-912	2.47	3612-912	POA	-	-	
8-32 NC	2	2	3552-922	2.47	3612-922	5.28	-	-	
8-32 NC	3	2	3552-932	5.14	3612-932	5.52	4172-932	11.56	
8-32 NC	5	2	3550-942	POA	3610-942	POA	-	-	
8-32 NC	7	2	3552-972	2.76	3612-972	6.00	-	-	
8-36 NF	1	2	3553-112	2.76	3613-112	6.00	-	-	
8-36 NF	2	2	3553-122	2.76	3613-122	10.93	4173-122	11.56	
8-36 NF	3	2	3550-142	POA	3610-142	POA	-	-	
10-24 NC	1	2	3553-312	2.65	3613-312	6.53	-	-	
10-24 NC	2	2	3553-322	2.65	3613-322	6.00	-	-	
10-24 NC	3	2	3553-332	2.65	3613-332	9.60	4173-332	11.56	
10-24 NC	5	2	3550-342	POA	3610-342	POA	-	-	
10-24 NC	7	2	3553-372	2.76	3613-372	6.53	-	-	
10-32 NF	1	2	3553-512	2.65	3613-512	6.00	-	-	
10-32 NF	2	2	3553-522	2.65	3613-522	5.28	-	-	
10-32 NF	3	2	3553-532	5.14	3613-532	5.52	4173-532	11.56	
10-32 NF	5	2	3550-542	POA	3610-542	POA	-	-	
10-32 NF	7	2	3553-572	2.76	3613-572	6.53	-	-	
12-24 NC	1	2	3553-712	9.10	3613-712	5.79	-	-	
12-24 NC	2	2	3550-722	4.31	3610-722	17.92	-	-	
12-24 NC	3	2	3553-732	2.81	3613-732	10.93	4173-732	13.18	
12-28 NF	3	2	3553-932	2.81	3613-932	10.93	4173-932	13.18	
1/4-20 NC	1	2	3554-112	8.45	3614-112	6.00	-	-	
1/4-20 NC	2	2	3554-122	8.45	3614-122	6.00	-	-	
1/4-20 NC	3	2	3554-132	5.50	3614-132	5.26	4174-132	7.50	
1/4-20 NC	3	3	3554-135	3.21	3614-135	6.53	-	-	
1/4-20 NC	5	2	3554-149	3.00	3614-149	POA	-	-	
1/4-20 NC	5	3	3554-152	3.21	3614-152	6.00	-	-	
1/4-28 NF	1	2	3554-312	3.00	3614-312	6.53	-	-	
1/4-28 NF	2	2	3554-322	3.00	3614-322	6.00	-	-	
1/4-28 NF	2	3	3554-325	3.21	3614-325	6.53	-	-	
1/4-28 NF	3	2	3554-332	5.50	3614-332	7.57	4174-332	7.50	

SIZE MM x PITCH	ORDER NO.	PRICE EACH
1.4 x 0.30	2329-130	POA
1.5 x 0.30	2329-131	POA
1.5 x 0.35	2329-132	POA
1.6 x 0.35	2329-133	\$19.34
1.7 x 0.20	2329-134	POA
1.7 x 0.35	2329-135	POA
1.8 x 0.35	2329-139	19.34
2.0 x 0.25	2329-145	POA
2.0 x 0.40	2329-148	17.82
2.0 x 0.45	2329-151	POA
2.2 x 0.45	2329-157	5.14
2.3 x 0.40	2329-160	POA
2.5 x 0.45	2329-166	14.22
2.5 x 0.50	2329-167	POA
2.6 x 0.35	2329-170	POA
2.6 x 0.45	2329-175	POA
2.8 x 0.45	2329-176	POA
3.0 x 0.35	2329-180	POA
3.0 x 0.50	2329-184	10.23
3.0 x 0.60	2329-185	POA
3.5 x 0.50	2329-200	POA
3.5 x 0.60	2329-202	8.81
4.0 x 0.35	2329-205	POA
4.0 x 0.50	2329-207	POA
4.0 x 0.70	2329-217	8.81
4.0 x 0.75	2329-220	3.90
4.5 x 0.50	2329-225	POA
4.5 x 0.75	2329-226	8.81
5.0 x 0.50	2329-229	3.74
5.0 x 0.75	2329-230	POA
5.0 x 0.80	2329-238	8.81
5.0 x 0.90	2329-239	POA
5.0 x 1.00	2329-240	POA
5.5 x 0.90	2329-250	POA
6.0 x 0.50	2329-255	POA
6.0 x 0.75	2329-267	3.90
6.0 x 0.80	2329-268	POA
6.0 x 1.00	2329-263	8.81
6.3 x 1.00	2329-271	3.90
7.0 x 0.50	2329-275	POA
7.0 x 0.75	2329-279	POA
7.0 x 1.00	2329-280	10.23
8.0 x 0.50	2329-285	POA
8.0 x 0.75	2329-289	POA
8.0 x 1.00	2329-290	10.23
8.0 x 1.25	2329-298	10.23
8.0 x 1.50	2329-299	POA

SIZE MM x PITCH	ORDER NO.	PRICE EACH
9.0 x 0.50	2329-303	POA
9.0 x 1.00	2329-305	POA
9.0 x 1.25	2329-307	POA
10.0 x 0.50	2329-310	POA
10.0 x 0.75	2329-311	POA
10.0 x 1.00	2329-331	\$7.61
10.0 x 1.25	2329-334	16.90
10.0 x 1.50	2329-337	16.90
11.0 x 0.50	2329-340	POA
11.0 x 0.75	2329-341	POA
11.0 x 1.00	2329-345	POA
11.0 x 1.50	2329-347	POA
12.0 x 0.50	2329-355	POA
12.0 x 0.75	2329-357	POA
12.0 x 0.80	2329-360	POA
12.0 x 1.00	2329-363	POA
12.0 x 1.25	2329-365	20.70
12.0 x 1.50	2329-367	8.93
12.0 x 1.75	2329-373	20.70
13.0 x 0.50	2329-375	POA
13.0 x 1.00	2329-378	POA
13.0 x 1.25	2329-380	POA
13.0 x 1.50	2329-383	POA
13.0 x 2.00	2329-387	POA
14.0 x 0.50	2329-389	POA
14.0 x 0.75	2329-391	POA
14.0 x 1.25	2329-400	POA
14.0 x 1.50	2329-421	31.37
14.0 x 2.00	2329-427	31.37
16.0 x 1.00	2329-454	14.35
16.0 x 1.50	2329-460	36.57
16.0 x 2.00	2329-463	\$36.57
18.0 x 1.00	2329-481	31.51
18.0 x 1.25	2329-482	POA
18.0 x 1.50	2329-484	POA
18.0 x 2.00	2329-486	POA
18.0 x 2.50	2329-490	45.78
20.0 x 1.00	2329-510	POA
20.0 x 1.50	2329-514	26.62
20.0 x 2.00	2329-515	POA
20.0 x 2.50	2329-517	66.48
22.0 x 1.50	2329-525	POA
22.0 x 2.50	2329-527	POA
24.0 x 2.00	2329-550	POA
24.0 x 3.00	2329-553	106.69

(continued)

Spiral Point Taps - (Continued)

Ground Thread – High Speed Steel & TiN Coated

WARNING: This product contains Cobalt and/or Nickel and/or Lead a chemical known to the state of California to cause cancer or birth defects or other reproductive harm. For more information: www.prop65.ca.gov.
WARNING: Cutting tools may chatter. Always wear approved safety glasses and mask when regrinding.



 HIGH SPEED STEEL PLUG ORDER NO. PRICE EACH					 HIGH SPEED STEEL PLUG ORDER NO. PRICE EACH				 TIN COATED PLUG ORDER NO. PRICE EACH	
SIZE	GH	FLUTES	ORDER NO.	PRICE EACH	ORDER NO.	PRICE EACH	ORDER NO.	PRICE EACH	ORDER NO.	PRICE EACH
1/4-28 NF	4	2	3554-339	\$3.00	3614-339	POA	-	-	-	-
1/4-28 NF	4	3	3554-342	3.21	3614-342	POA	-	-	-	-
1/4-28 NF	5	2	3557-345	POA	3617-345	POA	-	-	-	-
5/16-18 NC	1	2	3554-512	3.60	3614-512	3.60	-	-	-	-
5/16-18 NC	2	2	3554-522	11.05	3614-522	POA	-	-	-	-
5/16-18 NF	3	2	3554-532	6.01	3614-532	\$7.65	4174-532	\$12.43	-	-
5/16-18 NC	3	3	3554-535	3.85	-	-	-	-	-	-
5/16-18 NC	5	2	3554-549	3.60	3614-549	POA	-	-	-	-
5/16-18 NC	5	3	3554-552	3.85	-	-	-	-	-	-
5/16-24 NF	1	2	3554-712	3.60	3614-712	POA	-	-	-	-
5/16-24 NF	2	2	3554-722	3.60	3614-722	POA	-	-	-	-
5/16-24 NF	2	3	3554-725	3.85	-	-	-	-	-	-
5/16-24 NF	3	2	3554-732	3.60	3614-732	11.02	4174-732	12.43	-	-
5/16-24 NF	4	2	3554-742	3.60	3614-742	POA	-	-	-	-
5/16-24 NF	4	3	3554-745	3.85	-	-	-	-	-	-
5/16-24 NF	5	2	3557-747	POA	3617-747	POA	-	-	-	-
3/8-16 NC	1	3	3554-912	3.88	3614-912	POA	-	-	-	-
3/8-16 NC	2	3	3554-922	3.88	3614-922	POA	-	-	-	-
3/8-16 NC	3	3	3554-932	5.50	3614-932	12.46	4174-932	15.89	-	-
3/8-16 NC	5	3	3554-952	3.88	3614-952	POA	-	-	-	-
3/8-24 NF	1	3	3555-112	3.88	-	-	-	-	-	-
3/8-24 NF	2	3	3555-122	3.88	3614-122	POA	-	-	-	-
3/8-24 NF	3	3	3555-132	5.50	3615-132	7.69	4175-132	25.39	-	-
3/8-24 NF	4	3	3555-142	3.88	3615-142	POA	-	-	-	-
3/8-24 NF	7	3	3555-145	POA	3617-145	POA	-	-	-	-
7/16-14 NC	2	3	3555-322	5.89	3615-322	POA	-	-	-	-
7/16-14 NC	3	3	3555-332	11.55	3615-332	20.41	4175-332	25.39	-	-
7/16-14 NC	5	3	3555-352	5.89	3615-352	POA	-	-	-	-
7/16-20 NF	2	3	3555-522	5.89	3615-522	POA	-	-	-	-
7/16-20 NF	3	3	3555-532	5.89	3615-532	20.41	4175-532	25.44	-	-
7/16-20 NF	5	3	3555-552	5.89	3615-552	POA	-	-	-	-
1/2-13 NC	1	3	3555-712	7.43	3615-712	POA	-	-	-	-
1/2-13 NC	2	3	3555-722	7.43	3615-722	POA	-	-	-	-
1/2-13 NC	3	3	3555-732	12.71	3615-732	13.08	4175-732	25.44	-	-
1/2-13 NC	5	3	3555-752	7.43	-	-	-	-	-	-
1/2-20 NF	1	3	3555-912	7.43	3615-912	POA	-	-	-	-
1/2-20 NF	2	3	3555-922	21.93	3615-922	POA	-	-	-	-
1/2-20 NF	3	3	3555-932	12.71	3615-932	13.08	4175-932	25.44	-	-
1/2-20 NF	5	3	3555-952	7.43	3615-952	POA	-	-	-	-
9/16-12 NC	3	3	3556-132	42.25	3616-132	33.12	-	-	-	-
9/16-18 NF	3	3	3556-332	8.97	3616-332	POA	-	-	-	-
5/8-11 NC	3	3	3556-532	12.76	3616-532	35.75	4176-532	49.20	-	-
5/8-11 NC	5	3	3556-552	12.76	3616-552	POA	-	-	-	-
5/8-18 NF	3	3	3556-732	12.76	3616-732	35.75	4176-732	49.20	-	-
5/8-18 NF	5	3	3556-752	12.76	-	-	-	-	-	-
3/4-10 NC	3	3	3557-332	38.28	3617-332	50.44	4177-332	66.00	-	-
3/4-10 NC	5	3	3557-352	18.53	3617-352	POA	-	-	-	-
3/4-16 NF	3	3	3557-532	38.28	3617-532	50.44	4177-532	66.00	-	-
3/4-16 NF	5	3	3557-552	POA	3617-552	POA	-	-	-	-
7/8-9 NC	4	3	3557-742	24.44	3617-742	POA	-	-	-	-
7/8-14 NF	4	3	3557-942	55.03	3617-942	POA	-	-	-	-
1-8 NC	4	3	3558-142	73.31	3618-142	POA	-	-	-	-
1-8 NC	6	3	3558-162	32.50	-	-	-	-	-	-
1-12 NF	4	3	3558-342	73.31	3618-342	POA	-	-	-	-
1-14 NS	4	3	3558-542	32.50	3618-542	POA	-	-	-	-

Popular Special Thread Taps

Right Hand, High Speed Steel

WARNING: This product contains Cobalt and/or Nickel and/or Lead a chemical known to the state of California to cause cancer or birth defects or other reproductive harm. For more information: www.prop65.ca.gov.
WARNING: Cutting tools may shatter. Always wear approved safety glasses and mask when regrinding.



Bottom



Plug



Taper



Spiral Point- Plug

  											
SIZE	GH LIMIT	BOTTOMING	PLUG	TAPER	PRICE EACH	BOTTOMING	PLUG	TAPER	PRICE EACH	SPIRAL POINT	PRICE EACH
1-56	1	—	—	—	—	3290-335	3290-336	3290-337	\$36.61	—	—
1-56	2	2340-335	2340-336	2340-337	\$13.44	—	—	—	—	2360-186	POA
1-80	2	2340-350	2340-351	2340-352	13.44	3290-350	3290-351	3290-352	24.50	2360-200	POA
2-72	2	2340-454	2340-455	2340-456	13.44	3290-454	3290-455	3290-456	23.80	2360-250	POA
2-80	2	2340-470	2340-471	2340-472	13.44	3290-470	3290-471	3290-472	23.80	2360-260	\$16.38
3-64	2	2340-535	2340-536	2340-537	13.44	3290-535	3290-536	3290-537	20.40	2360-295	POA
3-72	2	2340-550	2340-551	2340-552	13.44	3290-550	3290-551	3290-552	20.40	2360-305	POA
3-80	2	2340-570	2340-571	2340-572	13.44	3290-570	3290-571	3290-572	20.40	2360-310	16.38
4-32	2	2340-615	2340-616	2340-617	13.44	3290-615	3290-616	3290-617	27.06	2360-336	16.38
4-56	2	2340-635	2340-636	2340-637	13.44	3290-635	3290-636	3290-637	18.60	2360-350	16.38
4-64	2	2340-650	2340-651	2340-652	13.44	3290-650	3290-651	3290-652	18.60	2360-355	16.38
4-80	2	2340-665	2340-666	2340-667	13.44	3290-665	3290-666	3290-667	18.60	2360-365	16.38
5-32	2	2340-740	2340-741	2340-742	14.09	3290-740	3290-741	3290-742	18.60	2360-400	16.20
5-36	2	2340-760	2340-761	2340-762	14.09	3290-760	3290-761	3290-762	18.60	2360-405	16.20
5-48	2	2340-775	2340-776	2340-777	14.09	—	3290-776	3290-777	18.60	2360-415	16.20
5-80	2	2340-825	2340-826	2340-827	14.09	3290-825	3290-826	3290-827	18.60	2360-440	16.20
6-36	2	2340-925	2340-926	2340-927	12.16	3290-925	3290-926	—	16.80	2360-482	13.34
6-48	2	2340-940	2340-941	2340-942	12.16	3290-940	3290-941	3290-942	24.52	2360-494	13.34
6-56	2	2340-955	2340-956	2340-957	12.16	3290-955	3290-956	—	16.80	2360-500	13.34
6-60	2	2340-970	2340-971	2340-972	12.16	3290-970	3290-971	—	16.80	2360-505	13.34
6-64	2	2340-985	2340-986	2340-987	12.16	3290-985	—	—	16.80	2360-511	13.34
6-72	2	2340-996	2340-997	2340-998	POA	3290-996	3290-997	—	16.80	2360-515	POA
6-80	2	2341-006	2341-007	2341-008	12.16	3291-006	3291-007	3291-008	16.80	2360-520	13.34
8-24	3	2341-148	2341-149	2341-150	12.16	3291-148	3291-149	3291-150	25.92	2360-605	13.99
8-30	2	2341-160	2341-161	2341-162	12.16	3291-160	3291-161	—	16.80	2360-611	13.99
8-40	2	2341-175	2341-176	2341-177	12.16	3291-175	3291-176	3291-177	27.99	2360-621	13.99
8-48	2	2341-190	2341-191	2341-192	12.16	3291-190	3291-191	—	16.80	2360-628	13.99
8-56	2	2341-193	2341-194	2341-195	12.16	3291-193	3291-194	—	16.80	2360-636	13.99
8-60	2	2341-205	2341-206	2341-207	12.16	3291-205	3291-206	—	16.80	2360-640	13.99
8-64	2	2341-225	2341-226	2341-227	12.16	3291-225	3291-226	—	16.80	2360-644	13.99
8-80	2	2341-255	2341-256	2341-257	12.16	—	3291-256	—	16.80	2360-660	13.99
10-28	3	2341-435	2341-436	2341-437	12.16	3291-435	3291-436	3291-437	19.98	2360-747	13.99
10-30	3	2341-450	2341-451	2341-452	12.16	3291-450	3291-451	3291-452	19.98	2360-749	13.99
10-36	2	2341-465	2341-466	2341-467	12.16	3291-465	3291-466	3291-467	25.92	2360-755	13.99
10-40	2	2341-480	2341-481	2341-482	12.16	3291-480	3291-481	3291-482	25.92	2360-759	13.99
10-44	2	2341-487	2341-488	2341-489	POA	3291-487	3291-488	—	16.80	—	—
10-46	2	2341-493	2341-494	2341-495	POA	3291-493	3291-494	—	16.80	—	—
10-48	2	2341-498	2341-496	2341-497	12.16	3291-496	3291-497	3291-498	25.92	2360-767	13.99
10-56	2	2341-505	2341-506	2341-507	12.16	3291-505	3291-506	3291-507	25.92	2360-775	13.99
10-60	2	2341-520	2341-521	2341-522	12.16	3291-520	3291-521	—	16.80	2360-779	13.99
10-64	2	2341-535	2341-536	2341-537	12.16	3291-535	3291-536	3291-537	27.29	2360-783	13.99
10-72	2	2341-550	2341-551	2341-552	12.16	3291-550	3291-551	—	16.80	2360-791	POA
10-80	2	2341-565	2341-566	2341-567	12.16	3291-565	3291-566	—	16.80	2360-799	13.99
12-32	NEF 3	2341-710	2341-711	2341-712	12.16	3291-710	3291-711	3291-712	11.11	2360-896	13.99
12-32	NEF 5	2341-713	2341-714	2341-715	POA	—	—	—	—	2360-898	POA
12-36	2	2341-724	2341-725	2341-723	12.16	3291-723	3291-724	3291-725	28.02	2360-900	13.99
12-40	2	2341-743	2341-741	2341-742	12.16	—	3291-742	—	17.50	2360-904	13.99
12-48	2	2341-755	2341-756	2341-757	12.16	—	3291-756	—	17.50	2360-909	13.99
5/32-32	2	2343-825	2343-826	2343-827	12.16	3293-825	3293-826	3293-827	27.41	2362-060	13.99
3/16-24	3	2344-006	2344-007	2344-008	12.16	3294-006	3294-007	3294-008	27.41	2362-161	13.99
7/32-32	3	2344-240	2344-241	2344-242	12.16	3294-240	3294-241	3294-242	40.29	2362-280	13.99
7/32-40	2	2344-260	2344-261	2344-262	12.16	3294-260	3294-261	—	18.70	2362-285	POA
1/4-24	3	2344-475	2344-476	2344-477	12.16	3294-475	3294-476	3294-477	20.91	2362-398	13.99
1/4-27	3	2344-485	2344-486	2344-487	12.16	3294-485	3294-486	3294-487	20.91	2362-402	13.99
1/4-32	NEF 3	2344-493	2344-491	2344-492	12.16	3294-490	3294-491	3294-492	11.39	2362-408	13.99
1/4-32	NEF 5	2344-494	2344-495	2344-505	POA	—	—	—	—	2362-407	170.20
1/4-36	2	2344-506	2344-507	2344-508	12.16	3294-506	3294-507	3294-508	32.42	2362-411	13.99
1/4-40	2	2344-520	2344-521	2344-522	12.16	3294-520	3294-521	3294-522	26.06	2362-415	13.99
1/4-48	2	2344-535	2344-536	2344-537	12.16	3294-535	3294-536	3294-537	28.67	2362-423	13.99
1/4-56	2	2344-550	2344-551	2344-552	12.16	3294-550	3294-551	3294-552	29.06	2362-431	13.99
1/4-64	2	2344-580	2344-581	2344-582	12.16	3294-580	—	—	12.40	2362-439	13.99
1/4-80	2	2344-620	2344-621	2344-622	12.16	3294-620	3294-621	3294-622	30.28	2362-455	13.99

(continued)

Popular Special Thread Taps

Right Hand, High Speed Steel

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WARNING: Cutting tools may shatter. Always wear approved safety glasses and mask when regrinding.



Bottom



Plug



Taper



Spiral Point- Plug

SIZE	GH LIMIT	BOTTOMING	PLUG	TAPER	PRICE EACH	BOTTOMING	PLUG	TAPER	PRICE EACH	SPIRAL POINT	PRICE EACH
9/32-32	3	2344-880	2344-881	2344-882	\$12.16	3294-880	3294-881	3294-882	\$27.99	2362-580	POA
9/32-40	2	2344-900	2344-901	2344-902	12.16	3294-900	3294-901	—	19.10	2362-589	\$14.68
5/16-20	3	2345-070	2345-071	2345-072	12.16	3295-071	3295-072	3295-073	21.66	2362-700	14.68
5/16-27	3	2345-090	2345-091	2345-092	12.16	3295-090	3295-091	3295-092	22.50	2362-707	14.68
5/16-28	3	2345-111	2345-110	2345-109	12.16	3295-109	3295-110	3295-111	22.50	2362-709	14.68
5/16-32 NEF	3	2345-120	2345-121	2345-122	12.16	3295-120	3295-121	3295-122	15.14	2362-714	14.68
5/16-32 NEF	5	2345-126	2345-127	2345-128	POA	—	—	—	—	2362-713	172.20
5/16-36	2	2345-135	2345-136	2345-137	12.16	—	—	—	—	2362-717	14.68
5/16-40	2	2345-153	2345-151	2345-152	12.16	3295-150	3295-151	3295-152	28.58	2362-721	14.68
5/16-48	2	2345-165	2345-166	2345-167	12.16	—	3295-166	—	—	2362-729	14.68
5/16-56	2	2345-186	2345-187	2345-188	12.16	3295-186	3295-187	—	19.10	2362-737	14.68
5/16-64	2	2345-200	2345-201	2345-202	12.16	3295-200	3295-201	—	19.10	2362-745	14.68
5/16-80	2	2345-230	2345-231	2345-232	12.16	3295-230	3295-231	—	19.10	2362-761	14.68
11/32-32	3	2345-470	2345-471	2345-472	12.94	3295-470	3295-471	3295-472	31.07	2362-884	14.85
3/8-14	3	2345-722	2345-723	2345-724	12.38	3295-722	3295-723	—	20.90	2363-000	POA
3/8-18	3	2345-725	2345-726	2345-727	12.38	3295-725	3295-726	3295-727	24.52	2363-013	14.85
3/8-20	3	2345-740	2345-741	2345-742	12.38	3295-741	3295-742	3295-743	23.99	2363-017	14.85
3/8-27	3	2345-760	2345-761	2345-762	12.38	3295-760	3295-761	3295-762	26.60	2363-025	14.85
3/8-28	3	2345-769	2345-770	2345-771	12.38	3295-769	3295-770	3295-771	28.85	2363-028	14.85
3/8-32 NEF	3	2345-781	2345-782	2345-783	12.38	3295-777	3295-778	3295-779	15.58	2363-031	14.85
3/8-32 NEF	5	2345-787	2345-788	2345-789	POA	—	—	—	—	2363-035	POA
3/8-36	2	2345-804	2345-805	2345-806	12.38	3295-804	3295-805	—	20.90	2363-040	14.85
3/8-40	2	2345-828	2345-829	2345-830	12.38	3295-828	3295-829	3295-830	24.34	2363-045	14.85
3/8-48	2	2345-852	2345-853	2345-854	12.38	3295-852	3295-853	3295-854	28.95	2363-055	14.85
3/8-56	2	2345-876	2345-877	2345-878	12.38	3295-876	3295-877	—	20.90	2363-065	14.85
3/8-64	2	2345-902	2345-903	2345-904	12.38	3295-902	3295-903	—	20.90	2363-075	14.85
3/8-72	2	2345-914	2345-915	2345-916	POA	3295-914	3295-915	—	20.90	2363-085	POA
3/8-80	2	2345-938	2345-939	2345-940	12.38	3295-938	3295-939	—	20.90	2363-095	14.85
13/32-20	3	2346-087	2346-088	2346-089	13.68	3296-087	3296-088	—	24.00	2363-190	POA
13/32-32	3	2346-116	2346-117	2346-118	13.68	3296-116	3296-117	3296-118	37.80	2363-201	17.43
7/16-16	3	2346-300	2346-301	2346-302	13.68	3296-300	3296-301	3296-302	27.71	2363-303	17.43
7/16-18	3	2346-312	2346-313	2346-314	13.68	3296-312	3296-313	3296-314	48.46	2363-306	17.43
7/16-24	3	2346-324	2346-325	2346-326	13.68	3296-324	3296-325	3296-326	27.71	2363-314	17.43
7/16-27	3	2346-336	2346-337	2346-338	13.68	3296-336	3296-337	3296-338	27.71	2363-318	17.43
7/16-28 NEF	3	2346-351	2346-349	2346-350	13.68	3296-348	3296-349	3296-350	20.63	2363-321	17.43
7/16-28 NEF	5	2346-354	2346-355	2346-356	POA	—	—	—	—	2363-324	182.40
7/16-32	3	2346-366	2346-367	2346-368	13.68	3296-366	3296-367	3296-368	27.71	2363-329	17.43
7/16-36	2	2346-400	2346-401	2346-402	13.68	3296-400	3296-401	—	24.00	2363-334	17.43
7/16-40	2	2346-415	2346-416	2346-417	13.68	3296-415	3296-416	3296-417	38.59	2363-339	17.43
7/16-48	2	2346-430	2346-431	2346-432	13.68	3296-430	3296-431	—	24.00	2363-349	17.43
7/16-56	2	2346-436	2346-437	2346-438	13.68	3296-436	3296-437	—	24.00	2363-359	POA
7/16-64	2	2346-450	2346-451	2346-452	13.68	3296-450	3296-451	—	24.00	2363-369	17.43
15/32-32	3	2346-660	2346-661	2346-662	15.59	3296-660	3296-661	3296-662	39.43	2363-468	21.63
1/2-12	3	2346-815	2346-816	2346-817	15.59	3296-815	3296-816	3296-817	38.45	2363-560	21.63
1/2-14	3	2346-820	2346-821	2346-822	15.59	3296-820	3296-821	3296-822	38.45	2363-563	POA
1/2-16	3	2346-832	2346-831	2346-830	15.59	3296-830	3296-831	3296-832	50.07	2363-565	21.63
1/2-18	3	2346-850	2346-851	2346-852	15.59	3296-850	3296-851	3296-852	39.22	2363-568	21.63
1/2-24	3	2346-865	2346-866	2346-867	15.59	3296-865	3296-866	3296-867	41.57	2363-577	21.63
1/2-27	3	2346-880	2346-881	2346-882	15.59	3296-880	3296-881	3296-882	32.42	2363-582	21.63
1/2-28 NEF	3	2346-895	2346-896	2346-897	15.59	3296-895	3296-896	3296-897	23.10	2363-585	21.63
1/2-28 NEF	5	2346-901	2346-902	2346-903	POA	—	—	—	—	2363-588	POA
1/2-32	3	2346-925	2346-926	2346-927	15.59	3296-925	3296-926	3296-927	32.42	2363-598	21.63
1/2-36	2	2346-940	2346-941	2346-942	15.59	—	—	—	—	2363-604	21.63
1/2-40	2	2346-965	2346-966	2346-964	15.59	3296-940	3296-941	3296-942	38.73	2363-610	21.63
1/2-48	2	2346-980	2346-981	2346-982	15.59	3296-980	3296-981	—	26.60	2363-620	21.63
1/2-56	2	2346-995	2346-996	2346-997	15.59	3296-995	3296-996	—	26.60	2363-630	21.63
1/2-60	2	2347-010	2347-011	2347-012	15.59	3297-010	3297-011	—	26.60	2363-635	21.63
1/2-64	2	2347-025	2347-026	2347-027	15.59	3297-025	3297-026	—	26.60	2363-640	21.63
9/16-16	3	2347-391	2347-392	2347-393	19.31	3297-391	3297-392	3297-393	53.01	2363-850	25.96
9/16-20	3	2347-406	2347-407	2347-408	19.31	3297-403	3297-404	3297-405	35.56	2363-855	25.96
9/16-24 NEF	3	2347-421	2347-422	2347-423	19.31	3297-421	3297-422	3297-423	25.41	2363-857	25.96
9/16-24 NEF	5	2347-427	—	2347-429	POA	—	—	—	—	2363-859	POA
9/16-27	3	2347-442	2347-443	2347-444	19.31	3297-442	3297-443	3297-444	40.59	2363-861	25.96
9/16-28	3	2347-457	2347-458	2347-459	19.31	3297-457	3297-458	—	29.00	2363-864	25.96
9/16-32	3	2347-472	2347-473	2347-474	19.31	3297-472	3297-473	3297-474	40.59	2363-870	25.96
9/16-40	2	2347-502	2347-503	2347-504	19.31	3297-502	—	—	29.00	2363-880	25.96

SIZES NOT SHOWN ARE P.O.A.

(continued)

Popular Special Thread Taps

Right Hand, High Speed Steel

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Bottom



Plug



Taper



Spiral Point- Plug

														
SIZE	GH LIMIT	BOTTOMING	PLUG	TAPER	PRICE EACH	BOTTOMING	PLUG	TAPER	PRICE EACH	SPIRAL POINT	PRICE EACH			
5/8-10	3	2347-899	2347-900	2347-901	\$23.91	3297-901	3297-902	3297-903	\$50.37	2364-107	\$30.28			
5/8-12	3	2347-915	2347-916	2347-917	23.91	3297-915	3297-916	3297-917	53.87	2364-109	30.28			
5/8-14	3	2347-930	2347-931	2347-932	23.91	3297-930	3297-931	-	33.70	2364-111	30.28			
5/8-16	3	2347-945	2347-946	2347-947	23.91	3297-945	3297-946	3297-947	53.87	2364-113	30.28			
5/8-20	3	2347-957	2347-958	2347-959	23.91	3297-957	3297-958	3297-959	53.87	2364-117	30.28			
5/8-24	NEF	3	2347-969	2347-970	2347-971	23.91	3297-969	3297-970	3297-971	37.19	2364-121	30.28		
5/8-24	NEF	5	2347-975	2347-976	2347-977	POA	-	-	-	2364-123	199.70			
5/8-27	3	2347-987	2347-988	2347-989	23.91	3297-987	3297-988	3297-989	47.81	2364-127	30.28			
5/8-28	3	2347-999	2348-000	2348-001	23.91	3298-000	3298-001	3298-002	47.81	2364-131	30.28			
5/8-32	3	2348-011	2348-012	2348-013	23.91	3298-011	3298-012	3298-013	50.14	2364-136	30.28			
5/8-36	2	2348-023	2348-024	2348-025	23.91	-	3298-024	-	33.70	2364-140	30.28			
5/8-40	2	2348-035	2348-036	2348-037	23.91	-	-	-	-	2364-145	30.28			
11/16-12	3	2348-406	2348-407	2348-408	27.53	-	-	-	-	2364-367	41.85			
11/16-14	3	2348-418	2348-419	2348-420	27.53	-	-	-	-	2364-369	41.85			
11/16-18	3	2348-430	2348-431	2348-432	27.53	3298-430	3298-431	3298-432	60.76	2364-373	41.85			
11/16-20	3	2348-442	2348-443	2348-444	27.53	3298-442	3298-443	3298-444	60.76	2364-375	41.85			
11/16-24	NEF	3	2348-455	2348-456	2348-457	27.53	3298-455	3298-456	3298-457	41.45	2364-383	41.85		
11/16-24	NEF	5	2348-461	2348-462	-	POA	-	-	-	2364-385	210.10			
11/16-27	3	2348-473	2348-474	2348-475	27.53	3298-473	-	-	37.00	2364-387	41.85			
11/16-28	3	2348-485	2348-486	2348-487	27.53	3298-482	3298-483	3298-484	58.18	2364-390	POA			
11/16-32	3	2348-497	2348-498	2348-499	27.53	3298-497	3298-498	3298-499	57.57	2364-395	41.85			
11/16-36	2	2348-509	2348-510	2348-511	27.53	-	-	-	-	2364-400	41.85			
3/4-12	3	2348-898	2348-899	2348-900	29.58	-	-	-	-	2364-618	50.45			
3/4-12	4	-	-	-	-	3298-898	3298-899	3298-900	62.88	2364-620	POA			
3/4-14	3	2348-921	2348-922	2348-923	29.58	-	-	-	-	2364-622	POA			
3/4-18	3	2348-915	2348-916	2348-917	29.58	3298-915	3298-916	3298-917	85.28	2364-626	50.45			
3/4-20	NEF	3	2348-930	2348-931	2348-932	29.58	3298-930	3298-931	3298-932	43.34	2364-630	50.45		
3/4-20	NEF	5	2348-936	2348-937	2348-938	POA	-	-	-	2364-633	POA			
3/4-24	3	2348-951	2348-952	2348-953	29.58	3298-945	3298-946	3298-947	60.88	2364-640	50.45			
3/4-27	3	2348-966	2348-967	2348-968	29.58	3298-966	3298-967	3298-968	90.78	2364-645	50.45			
3/4-28	3	2348-981	2348-982	2348-983	29.58	-	-	-	-	2364-648	50.45			
3/4-32	3	2348-996	2348-997	2348-998	29.58	3298-996	3298-997	3298-998	90.78	2364-654	50.45			
3/4-40	2	2349-026	2349-027	2349-028	29.58	3299-026	3299-027	3299-028	90.78	2364-665	50.45			
13/16-10	4	2349-500	2349-501	2349-502	36.02	3299-500	3299-501	3299-502	74.94	2364-912	62.02			
13/16-12	4	2349-512	2349-513	2349-514	36.02	3299-512	3299-513	3299-514	74.94	2364-916	62.02			
13/16-16	3	2349-525	2349-526	2349-527	36.02	3299-525	3299-526	3299-527	74.94	2364-921	62.02			
13/16-18	3	2349-540	2349-541	2349-542	36.02	3299-540	3299-541	3299-542	74.94	2364-925	62.02			
13/16-20	NEF	3	2349-555	2349-556	2349-557	36.02	3299-555	3299-556	3299-557	71.94	2364-929	62.02		
13/16-20	NEF	5	2349-561	-	-	POA	-	-	-	2364-932	POA			
13/16-24	3	2349-576	2349-577	2349-578	36.02	3299-576	3299-577	3299-578	95.67	2364-937	62.02			
13/16-27	3	2349-591	2349-592	2349-593	36.02	-	-	-	-	2364-941	62.02			
13/16-28	3	2349-606	2349-607	2349-608	36.02	-	-	-	-	2364-944	62.02			
13/16-32	3	2349-621	2349-622	2349-623	36.02	-	-	-	-	2364-950	62.02			
7/8-12	4	2350-029	2350-030	2350-031	38.06	3300-030	3300-031	3300-032	81.60	2365-180	72.12			
7/8-16	3	2350-043	2350-044	2350-045	38.06	3300-043	3300-044	3300-045	81.60	2365-185	55.48			
7/8-18	3	2350-055	2350-056	2350-057	38.06	3300-055	3300-056	3300-057	81.60	2365-189	72.12			
7/8-20	NEF	3	2350-070	2350-071	2350-072	38.06	3300-070	3300-071	3300-072	60.60	2365-194	72.12		
7/8-20	NEF	5	2350-076	-	-	POA	-	-	-	2365-197	POA			
7/8-24	3	2350-091	2350-092	2350-093	38.06	3300-091	3300-092	3300-093	83.75	2365-203	72.12			
7/8-27	3	2350-106	2350-107	2350-108	38.06	3300-106	3300-107	3300-108	83.75	2365-208	72.12			
7/8-28	3	2350-121	2350-122	2350-123	38.06	3300-121	-	-	POA	2365-211	POA			
7/8-32	3	2350-136	2350-137	2350-138	38.06	3300-136	3300-137	3300-138	83.75	2365-216	72.12			
7/8-36	3	2350-151	2350-152	2350-153	38.06	-	-	-	-	2365-221	72.12			
7/8-40	3	2350-166	2350-167	2350-168	38.06	-	-	-	-	2365-226	72.12			
15/16-12	4	2350-536	2350-537	2350-538	45.24	3300-536	3300-537	3300-538	82.89	2365-436	76.45			
15/16-14	4	2350-551	2350-552	2350-553	45.24	3300-551	3300-552	3300-553	82.89	2365-438	POA			
15/16-16	3	2350-566	2350-567	2350-568	45.24	3300-566	3300-567	3300-568	82.88	2365-440	POA			
15/16-18	3	2350-581	2350-582	2350-583	45.24	3300-581	3300-582	3300-583	82.89	2365-442	76.45			

(continued)

Popular Special Thread Taps

Right Hand, High Speed Steel

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Bottom



Plug



Taper



Spiral Point- Plug

3

2

1

  											
SIZE	GH LIMIT	BOTTOMING	PLUG	TAPER	PRICE EACH	BOTTOMING	PLUG	TAPER	PRICE EACH	SPIRAL POINT	PRICE EACH
15/16-20NEF	3	2350-596	2350-597	2350-598	\$45.24	3300-596	3300-597	3300-598	\$76.29	2365-444	\$ 76.45
15/16-24	3	2350-617	2350-618	2350-619	45.24	-	-	-	-	2365-452	76.45
15/16-27	3	2350-632	2350-633	2350-634	45.24	3300-632	-	-	55.00	2365-457	POA
15/16-28	3	2350-647	2350-648	2350-649	45.24	-	-	-	-	2365-460	POA
15/16-32	3	2350-662	2350-663	2350-664	45.24	3300-662	3300-663	3300-664	90.31	2365-465	76.45
1-10	4	2351-034	2351-035	2351-036	51.60	3301-034	3301-035	3301-036	90.31	2365-694	POA
1-16	3	2351-047	2351-048	2351-049	51.60	-	-	-	-	2365-702	82.42
1-16	4	-	-	-	-	3301-047	3301-048	3301-049	95.90	2365-703	POA
1-18	3	2351-060	2351-061	2351-062	51.60	3301-060	3301-061	3301-062	126.27	2365-705	POA
1-20 NEF	3	2351-072	2351-073	2351-074	51.60	3301-072	3301-073	3301-074	97.65	2365-708	82.42
1-20 NEF	5	2351-078	2351-079	-	POA	-	-	-	-	2365-711	POA
1-24	3	2351-090	2351-091	2351-092	51.60	3301-090	3301-091	3301-092	120.12	2365-716	82.42
1-27	3	2351-102	2351-103	2351-104	51.60	3301-102	3301-103	3301-104	120.12	2365-721	POA
1-32	3	2351-114	2351-115	2351-116	51.60	3301-114	3301-115	3301-116	120.12	2365-727	POA
1-36	3	2351-126	2351-127	2351-128	51.60	-	-	-	-	2365-733	82.42
1-40	3	2351-138	2351-139	2351-140	51.60	3301-138	-	-	47.00	2365-739	82.42
1 1/16-8 **	5	2351-448	2351-449	2351-450	74.72	3301-449	-	-	65.00	-	-
1 1/16-12 **	4	2351-462	2351-463	2351-464	74.72	-	-	-	-	-	-
1 1/16-12 **	5	-	-	-	-	3301-462	3301-463	3301-464	113.07	-	-
1 1/16-14	4	2351-474	2351-475	2351-476	74.72	-	-	-	-	-	-
1 1/16-14	5	-	-	-	-	3301-474	3301-475	3301-476	148.58	-	-
1 1/16-16	4	2351-486	2351-487	2351-488	74.72	3301-486	3301-487	3301-488	148.58	-	-
1 1/16-18NEF	4	2351-498	2351-499	2351-500	74.72	3301-498	3301-499	3301-500	117.68	-	-
1 1/16-18NEF	6	2351-504	-	-	POA	-	-	-	-	-	-
1 1/16-20	4	2351-516	2351-517	2351-518	74.72	3301-516	3301-517	3301-518	122.10	-	-
1 1/16-24	4	2351-528	2351-529	2351-530	74.72	3301-528	3301-529	3301-530	122.10	-	-
1 1/16-32	4	2351-543	2351-544	2351-545	74.72	-	-	-	-	-	-
1 1/8-8 **	4	2351-738	2351-739	2351-740	78.13	-	-	-	-	-	-
1 1/8-8 **	5	-	-	-	-	3301-744	3301-745	3301-746	109.20	-	-
1 1/8-10 **	4	2351-750	2351-751	2351-752	78.13	-	-	-	-	-	-
1 1/8-10 **	5	-	-	-	-	3301-750	3301-751	3301-752	143.39	-	-
1 1/8-14	4	2351-772	2351-773	2351-774	78.13	-	-	-	-	-	-
1 1/8-14	5	-	-	-	-	3301-772	3301-773	3301-774	131.44	-	-
1 1/8-16	4	2351-787	2351-788	2351-789	78.13	3301-787	3301-788	3301-789	119.33	-	-
1 1/8-18NEF	4	2351-799	2351-800	2351-801	78.13	3301-799	3301-800	3301-801	127.23	-	-
1 1/8-18NEF	6	2351-805	2351-806	2351-807	POA	-	-	-	-	-	-
1 1/8-20	4	2351-817	2351-818	2351-819	78.13	3301-817	3301-818	3301-819	128.72	2365-817	POA
1 1/8-24	4	2351-829	2351-830	2351-831	78.13	3301-829	3301-830	3301-831	131.44	2365-829	POA
1 1/8-27	4	2351-842	2351-843	2351-844	78.13	-	-	-	-	-	-
1 1/8-32	4	2351-866	2351-867	2351-868	78.13	3301-866	3301-867	3301-868	157.25	-	-
1 3/16-8 **	4	2352-045	2352-046	2352-047	98.15	-	-	-	-	-	-
1 3/16-8 **	5	-	-	-	-	3302-045	-	-	67.50	-	-
1 3/16-12 **	4	2352-060	2352-061	2352-062	98.15	-	-	-	-	-	-
1 3/16-12 **	5	-	-	-	-	3302-060	3302-061	3302-062	132.05	-	-
1 3/16-12 **	6	2352-066	2352-067	2352-068	POA	-	-	-	-	-	-
1 3/16-14	4	2352-072	2352-073	2352-074	98.15	-	-	-	-	-	-
1 3/16-14	5	-	-	-	-	3302-072	3302-073	3302-074	134.66	-	-
1 3/16-14	6	2352-075	2352-076	2352-077	POA	-	-	-	-	-	-
1 3/16-16	4	2352-078	2352-079	2352-080	98.15	3302-078	3302-079	3302-080	118.52	-	-
1 3/16-18NEF	4	2352-087	2352-088	2352-089	98.15	3302-087	3302-088	3302-089	148.05	-	-
1 3/16-18NEF	6	2352-093	2352-094	2352-095	POA	-	-	-	-	-	-
1 3/16-20	4	2352-105	2352-106	2352-107	98.15	3302-105	3302-106	3302-107	116.54	-	-
1 3/16-32	4	2352-135	2352-136	2352-137	98.15	-	-	-	-	-	-

** LONG BLANK

(continued)

Popular Special Thread Taps

Right Hand, High Speed Steel

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Bottom



Plug



Taper

3 2									
SIZE	GH LIMIT	BOTTOMING	PLUG	TAPER	PRICE EACH	BOTTOMING	PLUG	TAPER	PRICE EACH
1 1/4-8 **	4	2352-300	2352-301	2352-302	\$98.15	—	—	—	—
1 1/4-8 **	5	—	—	—	—	3302-303	3302-304	3302-305	\$133.07
1 1/4-10 **	4	2352-312	2352-313	2352-314	98.15	—	—	—	—
1 1/4-10 **	5	—	—	—	—	3302-312	3302-313	3302-314	148.23
1 1/4-14	4	2352-336	2352-337	2352-338	98.15	—	—	—	—
1 1/4-14	5	—	—	—	—	3302-336	3302-337	3302-338	116.56
1 1/4-16	4	2352-348	2352-349	2352-350	98.15	3302-348	3302-349	3302-350	117.84
1 1/4-18 NEF	4	2352-360	2352-361	2352-362	98.15	3302-360	3302-361	3302-362	119.66
1 1/4-18 NEF	6	2352-366	—	—	POA	—	—	—	—
1 1/4-20	4	2352-378	2352-379	2352-380	98.15	3302-378	3302-379	3302-380	134.45
1 1/4-24	4	2352-390	2352-391	2352-392	98.15	3302-390	3302-391	3302-392	171.43
1 1/4-32	4	2352-417	2352-418	2352-419	98.15	3302-417	3302-418	3302-419	171.43
1 5/16-8 **	5	2352-546	2352-547	2352-548	126.95	—	—	—	—
1 5/16-12 **	4	2352-560	2352-561	2352-562	126.95	—	—	—	—
1 5/16-12 **	5	—	—	—	—	3302-560	3302-561	3302-562	136.59
1 5/16-14	4	2352-578	2352-579	2352-580	126.95	—	—	—	—
1 5/16-14	5	—	—	—	—	3302-578	3302-579	3302-580	171.43
1 5/16-16	4	2352-584	2352-585	2352-586	126.95	3302-584	3302-585	3302-586	152.71
1 5/16-18 NEF	4	2352-593	2352-594	2352-595	126.95	3302-593	3302-594	3302-595	169.80
1 5/16-18 NEF	6	2352-599	2352-600	2352-598	POA	—	—	—	—
1 5/16-20	4	2352-611	2352-612	2352-613	126.95	3302-611	3302-612	3302-613	171.45
1 3/8-8 **	4	2352-800	2352-801	2352-802	126.95	—	—	—	—
1 3/8-8 **	5	—	—	—	—	3302-803	3302-804	3302-805	170.57
1 3/8-14	4	2352-830	2352-831	2352-832	126.95	—	—	—	—
1 3/8-16	4	2352-842	2352-843	2352-844	126.95	3302-842	3302-843	3302-844	215.96
1 3/8-18 NEF	4	2352-854	2352-855	2352-856	126.95	3302-854	3302-855	3302-856	143.72
1 3/8-18 NEF	6	2352-860	2352-861	—	POA	—	—	—	—
1 3/8-20	4	2352-872	2352-873	2352-874	126.95	3302-872	3302-873	3302-874	171.45
1 3/8-24	4	2352-887	2352-888	2352-889	126.95	3302-887	—	—	76.50
1 7/16-8 **	5	2353-045	2353-046	2353-047	166.74	3303-045	—	—	117.10
1 7/16-12 **	4	2353-063	2353-064	2353-065	166.74	—	—	—	—
1 7/16-12 **	5	—	—	—	—	3303-063	—	—	117.10
1 7/16-16	4	2353-087	2353-088	2353-089	166.74	—	—	—	—
1 7/16-18	4	2353-099	2353-100	2353-101	166.74	3303-099	3303-100	3303-101	161.39
1 1/2-8 **	5	2353-286	2353-287	2353-288	168.62	3303-286	3303-287	3303-288	182.96
1 1/2-10 **	4	2353-298	2353-299	2353-300	168.62	—	—	—	—
1 1/2-10 **	5	—	—	—	—	3303-298	3303-299	3303-300	175.16
1 1/2-14	4	2353-312	2353-313	2353-314	168.62	—	—	—	—
1 1/2-16	4	2353-325	2353-326	2353-327	168.62	3303-325	3303-326	3303-327	175.16
1 1/2-18 NEF	4	2353-331	2353-332	2353-333	168.62	3303-331	3303-332	3303-333	171.45
1 1/2-20	4	2353-339	2353-340	2353-341	168.62	3303-339	3303-340	3303-341	175.16
1 1/2-24	4	2353-353	2353-354	2353-355	168.62	3303-353	3303-354	3303-355	240.74
1 9/16-12	4	2353-660	2353-661	2353-662	180.90	—	—	—	—
1 9/16-16	5	2353-675	2353-676	2353-677	180.90	3303-675	3303-676	3303-677	291.11
1 9/16-18	4	2353-695	2353-696	2353-697	180.90	—	—	—	—
1 9/16-18	5	—	—	—	—	3303-695	3303-696	3303-697	261.42
1 9/16-20	4	2353-710	2353-711	2353-712	180.90	—	—	—	—
1 5/8-5 1/2**	6	2353-876	2353-877	2353-878	185.84	—	—	—	—
1 5/8-5 1/2**	7	—	—	—	—	3303-876	3303-877	3303-878	319.06
1 5/8-8 **	6	2353-888	2353-889	2353-890	185.84	3303-888	3303-889	3303-890	221.27
1 5/8-10 **	4	2353-900	2353-901	2353-902	185.84	—	—	—	—
1 5/8-12	6	2353-912	2353-913	2353-914	185.84	3303-912	3303-913	3303-914	177.04
1 5/8-16	4	2353-939	2353-940	2353-941	185.84	—	—	—	—
1 5/8-16	5	—	—	—	—	3303-939	3303-940	3303-941	268.82
1 5/8-18	5	—	—	—	—	3303-954	3303-955	3303-956	268.82
1 5/8-18	6	2353-954	2353-955	2353-956	185.84	—	—	—	—
1 5/8-20	6	2353-966	2353-967	2353-968	185.84	—	—	—	—
1 5/8-24	6	2353-978	2353-979	2353-980	185.84	—	—	—	—

** LONG BLANK

(continued)

Popular Special Thread Taps

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Bottom



Plug



Taper

3

2

SIZE	GH LIMIT	BOTTOMING	PLUG	TAPER	PRICE EACH	BOTTOMING	PLUG	TAPER	PRICE EACH
1 11/16-12	4	2354-095	2354-096	2354-097	\$212.36	-	-	-	-
1 11/16-16	4	2354-122	2354-123	2354-124	212.36	-	-	-	-
1 11/16-18	5	2354-134	2354-135	2354-136	212.36	-	-	-	-
1 11/16-20	6	2354-146	2354-147	2354-148	212.36	-	-	-	-
1 3/4-5**	7	2354-206	2354-207	2354-208	235.76	3304-206	3304-207	3304-208	\$298.10
1 3/4-6**	6	2354-218	2354-219	2354-220	235.76	-	-	-	-
1 3/4-8**	6	2354-230	2354-231	2354-232	235.76	3304-230	3304-231	3304-232	224.81
1 3/4-10	6	2354-242	2354-243	2354-244	235.76	3304-242	3304-243	3304-244	310.09
1 3/4-12	6	2354-254	2354-255	2354-256	235.76	3304-254	3304-255	3304-256	192.02
1 3/4-14	6	2354-266	2354-267	2354-268	235.76	-	-	-	-
1 3/4-16	5	-	-	-	-	3304-278	3304-279	3304-280	274.55
1 3/4-16	6	2354-278	2354-279	2354-280	235.76	-	-	-	-
1 3/4-18	5	2354-290	2354-291	2354-292	235.76	3304-290	3304-291	3304-292	298.10
1 3/4-20	5	2354-302	2354-303	2354-304	235.76	-	-	-	-
1 13/16-16	6	2354-428	2354-429	2354-430	259.55	-	-	-	-
1 13/16-18	6	2354-440	2354-441	2354-442	259.55	3304-440†	-	-	157.50
1 13/16-20	6	2354-452	2354-453	2354-454	259.55	-	-	-	-
1 7/8-5**	6	2354-515	2354-516	2354-517	283.32	-	-	-	-
1 7/8-5**	7	-	-	-	-	3304-515	3304-516	3304-517	343.44
1 7/8-8**	6	2354-530	2354-531	2354-532	282.74	3304-530	3304-531	3304-532	258.44
1 7/8-12	6	2354-545	2354-546	2354-547	283.32	3304-545	3304-546	3304-547	227.07
1 7/8-16	5	-	-	-	-	3304-572	3304-573	3304-574	240.88
1 7/8-16	6	2354-572	2354-573	2354-574	283.32	-	-	-	-
1 7/8-18	6	2354-584	2354-585	2354-586	283.32	-	-	-	-
1 7/8-20	4	2354-599	2354-600	2354-601	283.32	-	-	-	-
1 15/16-12	6	2354-773	2354-774	2354-775	298.87	-	-	-	-
1 15/16-16	6	2354-797	2354-798	2354-799	298.87	-	-	-	-
1 15/16-18	6	2354-809	2354-810	2354-811	298.87	3304-809†	-	3304-811†	164.90
2-4 1/2**	6	2354-894	2354-895	2354-896	306.74	-	-	-	-
2-4 1/2**	7	-	-	-	-	3304-894	3304-895	3304-896	326.74
2-6 **	7	2354-910	2354-911	2354-912	306.74	-	-	-	-
2-8 **	6	2354-925	2354-926	2354-927	306.74	3304-925	3304-926	3304-927	306.57
2-10	6	2354-937	2354-938	2354-939	306.74	3304-937†	-	-	164.90
2-12	6	2354-949	2354-950	2354-951	306.74	3304-949	3304-950	3304-951	241.34
2-14	6	2354-961	2354-962	2354-963	306.74	-	-	-	-
2-16	5	-	-	-	-	3304-973	3304-974	3304-975	241.34
2-16	6	2354-973	2354-974	2354-975	306.74	-	-	-	-
2-18	6	2354-985	2354-986	2354-987	306.74	3304-985†	-	-	164.90
2-20	5	-	-	-	-	3304-997	3304-998	3304-999	328.84
2-20	6	2354-997	2354-998	2354-999	306.74	-	-	-	-
2 1/16-12	6	2355-116	2355-117	2355-118	368.23	-	-	-	-
2 1/8-8**	6	2355-210	2355-211	2355-212	376.03	3305-210	3305-211	3305-212	409.35
2 1/8-12	6	2355-234	2355-235	2355-236	376.03	3305-234	3305-235	3305-236	328.84
2 1/8-16	5	2355-250	2355-244	2355-245	376.03	3305-245	3305-246	3305-247	325.81
2 1/8-18	6	2355-262	2355-263	2355-264	376.03	-	-	-	-
2 1/8-20	6	2355-274	2355-275	2355-276	376.03	-	-	-	-
2 1/4-4-1/2**	7	2355-442	2355-443	2355-444	402.19	3305-442	3305-443	3305-444	466.10
2 1/4-8**	6	2355-464	2355-465	2355-466	402.19	3305-464	3305-465	3305-466	439.09
2 1/4-12	6	2355-486	2355-487	2355-488	402.19	3305-486	3305-487	3305-488	334.78
2 1/4-16	5	2355-516	2355-517	2355-518	402.19	3305-516	3305-517	3305-518	335.43
2 1/4-18	6	2355-531	2355-532	2355-533	402.19	-	-	-	-
2 1/4-20	6	2355-543	2355-544	2355-545	402.19	-	-	-	-
2 3/8-8**	6	2355-695	2355-696	2355-697	420.07	3305-695	3305-696	3305-697	613.50
2 3/8-12	6	2355-720	2355-721	2355-722	305.50	3305-720	3305-721	3305-722	403.46
2 3/8-16	5	2355-735	2355-736	2355-737	420.07	3305-735	3305-736	3305-737	403.46
2 3/8-18	6	2355-750	2355-751	2355-752	420.07	-	-	-	-
2 1/2-4**	7	2355-894	2355-895	2355-896	518.38	3305-894	3305-895	3305-896	547.10
2 1/2-8**	6	2355-916	2355-917	2355-918	518.38	3305-916	3305-917	3305-918	532.27
2 1/2-12	6	2355-931	2355-932	2355-933	506.68	3305-931	3305-932	3305-933	409.40
2 1/2-16	5	2355-958	2355-959	2355-960	518.38	3305-958	3305-959	3305-960	441.35
2 1/2-18	6	2355-973	2355-974	2355-975	518.38	-	-	-	-
2 1/2-20	6	2355-988	2355-989	2355-990	POA	-	-	-	-

** LONG BLANK

Popular Special Thread Taps

Right Hand, High Speed Steel

WARNING: This product contains Cobalt and/or Nickel and/or Lead a chemical known to the state of California to cause cancer or birth defects or other reproductive harm. For more information: www.prop65.ca.gov.
WARNING: Cutting tools may shatter. Always wear approved safety glasses and mask when regrinding.



Bottom



Plug



Taper

Pittsburg® ALLEGHANY						ALLEGIANCE® AMERICAN MADE			
SIZE	GH LIMIT	BOTTOMING	PLUG	TAPER	PRICE EACH	BOTTOMING	PLUG	TAPER	PRICE EACH
2 5/8-8**	8	2356-156	2356-157	2356-158	\$652.44	3306-156	3306-157	3306-158	\$627.29
2 5/8-12	7	2356-174	2356-175	2356-176	652.44	-	-	-	-
2 5/8-16	6	2356-198	2356-199	2356-200	652.44	-	-	-	-
2 5/8-18	5	2356-210	2356-211	2356-212	652.44	-	-	-	-
2 3/4-4**	7	2356-308	2356-309	2356-310	802.59	-	-	-	-
2 3/4-8**	8	2356-326	2356-327	2356-328	802.59	3306-320	3306-321	3306-322	646.80
2 3/4-12	5	2356-334	2356-335	2356-336	802.59	3306-334	3306-335	3306-336	472.37
2 3/4-16	6	2356-348	2356-349	2356-350	802.59	-	-	-	-
2 3/4-18	6	2356-360	2356-361	2356-362	802.59	-	-	-	-
2 7/8-8**	8	2356-458	2356-459	2356-460	831.19	3306-458	3306-459	3306-460	810.64
2 7/8-12	6	2356-472	2356-473	2356-474	831.19	-	-	-	-
3-4 **	9	2356-631	2356-632	2356-633	934.87	3306-631	3306-632	3306-633	848.20
3-8 **	8	2356-649	2356-650	2356-651	934.87	3306-649	3306-650	3306-651	833.58
3-12	7	2356-661	2356-662	2356-663	934.87	3306-661	3306-662	3306-663	669.49
3-16	7	2356-664	2356-665	2356-666	934.87	3306-664	3306-665	3306-666	673.14
3 1/8-12	7	2356-760	2356-761	2356-762	1018.88	3306-760	3306-761	3306-762†	653.67
3 1/4-4**	9	2356-818	2356-819	2356-820	1081.44	3306-818†	3306-819†	3306-820†	POA
3 1/4-8**	8	2356-833	2356-834	2356-835	1081.44	3306-833	3306-834	3306-835	1090.11
3 1/4-12	7	2356-848	2356-849	2356-850	1081.44	3306-848	3306-849	-	706.21
3 1/2-4**	9	2357-059	2357-060	2357-061	1208.35	3307-059	3307-060	3307-061†	1099.70
3 1/2-8**	8	2357-074	2357-075	2357-076	1208.35	3307-074	3307-075	3307-076	1211.26
3 1/2-12	7	2357-089	2357-090	2357-091	929.50	3307-089	3307-090	-	802.12
3 3/4-4**	9	2357-252	2357-253	2357-254	1084.88	3307-252	3307-253	-	1423.79
3 3/4-8**	8	2357-267	2357-268	2357-269	1084.88	3307-267	3307-268	3307-269	1475.58
3 3/4-12	7	2357-282	2357-283	2357-284	1084.88	3307-282	3307-283	-	993.43
4-4 **	9	2357-412	2357-413	2357-414	1221.00	3307-412	3307-413	3307-414†	1450.87
4-8 **	8	2357-428	2357-429	2357-430	1221.00	3307-428	3307-429	3307-430	1651.74
4-12	7	2357-456	2357-457	2357-458	1221.00	3307-456	3307-457	-	1065.58

** LONG BLANK

Locknut Thread Taps & Dies

Right Hand



		CARBON STEEL BOTTOM TAPS		HIGH SPEED PLUG TAPS		CARBON STEEL HEX DIES		HIGH SPEED HEX DIES	
LOCKNUT NO.	SIZE	ORDER NO.	PRICE EACH	ORDER NO.	PRICE EACH	ORDER NO.	PRICE EACH	ORDER NO.	PRICE EACH
N-00	0.391-32	-	-	2332-001	\$ 180.30	2487-001	\$ 43.20	2487-051	\$ 64.80
N-01	0.496-32	-	-	2332-002	186.10	2487-002	44.40	2487-052	68.40
N-02	0.586-32	-	-	2332-003	195.50	2487-003	45.60	2487-053	72.00
N-03	0.664-32	-	-	2332-004	206.00	2487-004	48.00	2487-054	73.20
N-04	0.781-32	-	-	2332-005	225.10	2487-005	50.40	2487-055	76.80
N-05	0.969-32	-	-	2332-006	260.20	2487-006	54.00	2487-056	80.40
N-06	1.173-18	-	-	2332-007	296.70	2487-007	64.80	2487-057	102.00
N-07	1.376-18	-	-	2332-008	342.90	2487-008	68.40	2487-058	105.60
N-08	1.563-18	-	-	2332-009	409.10	2487-009	163.20	2487-059	216.00
N-09	1.767-18	-	-	2332-010	447.30	2487-010	200.40	2487-060	232.80
N-10	1.967-18	-	-	2332-011	465.70	2487-011	241.20	2487-061	274.80
N-11	2.157-18	-	-	2332-012	600.30	2487-012	255.60	2487-062	289.20
N-12	2.360-18	-	-	2332-013	634.30	2487-013	288.00	2487-063	326.40
N-13	2.548-18	-	-	2332-014	731.90	2487-014	308.40	2487-064	343.20
N-14	2.751-18	-	-	2332-015	777.10	2487-015	309.60	2487-065	351.60
N-15	2.933-12	-	-	2332-016	841.90	2487-016	458.40	2487-066	499.20
N-16	3.137-12	-	-	2332-017	1056.60	2487-017	460.80	2487-067	511.20
N-17	3.340-12	2332-118†	\$ 342.39	2332-018	1156.40	2487-018	470.40	2487-068	538.80
N-18	3.527-12	2332-119†	374.54	2332-019	1209.30	2487-019	608.40	2487-069	722.40
N-19	3.730-12	2332-120†	391.98	2332-020	1265.70	2487-020	615.60	2487-070	745.20
N-20	3.918-12	2332-121†	430.01	2332-021	1388.60	2487-021	634.80	2487-071	776.40
N-21	4.122-12	2332-122†	468.75	2332-022	2139.00	2487-022	POA	2487-072	POA
N-22	4.325-12	2332-123†	519.50	2332-023	2247.80	2487-023	POA	2487-073	POA
N-24	4.716-12	2332-124†	576.65	2332-024	2247.80	2487-024	POA	2487-074	POA
N-26	5.106-12	2332-125†	630.00	2332-025	2600.00	2487-025	POA	2487-075	POA
N-28	5.497-12	2332-126†	699.50	2332-026	2747.90	2487-026	POA	2487-076	POA
N-30	5.888-12	2332-127†	768.75	2332-027	3027.80	2487-027	POA	2487-077	POA
N-32	6.284-8	2332-128†	1330.90	2332-028	POA	2487-028	POA	2487-078	POA
N-34	6.659-8	2332-129†	1818.75	2332-029	POA	2487-029	POA	2487-079	POA

Full Special Hand Taps

Right Hand, High Speed Steel

POPULAR SPECIAL TAPS
SEE PAGES 111-117

FOR 2 OR MORE PIECES,
CALL FOR PRICE

WARNING: This product contains Cobalt and/or Nickel and/or Lead a chemical known to the state of California to cause cancer or birth defects or other reproductive harm. For more information: www.prop65.ca.gov. **WARNING:** Cutting tools may shatter. Always wear approved safety glasses and mask when grinding.



Bottom



Plug



Taper



Spiral Point

1

Pittsburg® ALLEGHENY							
SIZE	GH LIMIT	BOTTOMING	PLUG	TAPER	PRICE EACH	SPIRAL POINT	PRICE EACH
9/64-40	GH2	2343-756	2343-757	2343-758	\$POA	2362-020	\$POA
5/32-24	GH3	2343-822	2343-823	2343-824	POA	-	POA
5/32-32	GH4	-	-	-	-	2362-062	POA
5/32-38	GH3	2343-840	2343-841	2343-842	POA	-	-
5/32-48	GH2	2343-850	2343-851	2343-852	POA	2362-070	POA
5/32-50	GH2	2343-855	2343-856	2343-857	POA	-	-
5/32-64	GH2	2343-862	2343-863	-	POA	2362-078	POA
5/32-80	GH2	2343-865	2343-866	2343-867	POA	-	-
11/64-24	GH3	2343-920	2343-921	2343-922	POA	-	-
11/64-32	GH3	2343-930	2343-931	2343-932	POA	-	-
11/64-38	GH3	2343-935	2343-936	2343-937	POA	-	-
11/64-40	GH2	2343-940	2343-941	2343-942	POA	-	-
11/64-80	GH2	2343-970	2343-971	2343-972	POA	-	-
3/16-14	GH3	2343-976	2343-977	2343-978	POA	-	-
3/16-16	GH3	2343-979	2343-980	2343-981	12.16	-	-
3/16-18	GH3	2343-985	2343-986	2343-987	12.16	-	-
3/16-18	GH5	2343-982	2343-983	2343-984	POA	-	-
3/16-20	GH3	2343-988	2343-989	2343-990	POA	-	-
3/16-26	GH3	2343-994	2343-995	2343-996	POA	-	-
3/16-27	GH3	2344-010	2344-011	2344-012	POA	2362-156	POA
3/16-48	GH2	2344-035	2344-036	2344-037	POA	2362-175	POA
3/16-50	GH2	2344-050	2344-051	2344-052	POA	2362-180	POA
13/64-24	GH3	2344-136	2344-137	2344-138	POA	-	-
13/64-56	GH2	2344-150	2344-151	2344-152	POA	-	-
7/32-26	GH3	2344-225	2344-226	2344-227	POA	-	-
7/32-38	GH3	2344-250	2344-251	2344-252	POA	-	-
7/32-48	GH2	2344-234	2344-235	2344-236	POA	-	-
7/32-60	GH2	2344-270	2344-271	2344-272	POA	-	-
7/32-72	GH3	2344-276	2344-277	2344-278	POA	-	-
7/32-80	GH2	2344-280	2344-281	2344-282	POA	-	-
15/64-20	GH3	2344-344	2344-345	2344-346	POA	-	-
15/64-22	GH3	2344-347	2344-348	2344-350	POA	-	-
15/64-24	GH3	-	2344-351	2344-352	POA	-	-
15/64-28	GH3	2344-355	2344-356	2344-357	POA	-	-
15/64-32	GH3	2344-360	2344-361	2344-362	POA	-	-
15/64-36	GH3	2344-365	2344-366	2344-367	POA	-	-
15/64-40	GH2	2344-370	2344-371	2344-372	POA	-	-
15/64-64	GH2	2344-375	2344-376	2344-377	POA	-	-
15/64-80	GH2	2344-380	2344-381	2344-382	POA	-	-
1/4-10	GH3	2344-439	2344-440	2344-441	POA	-	-
1/4-12	GH3	2344-445	2344-446	2344-447	POA	-	-
1/4-14	GH3	2344-451	2344-452	2344-453	POA	-	-
1/4-16	GH3	2344-457	2344-458	2344-459	12.16	2362-388	13.99
1/4-18	GH3	2344-450	2344-448	2344-449	12.16	2362-393	13.99
1/4-22	GH3	2344-463	2344-464	2344-465	12.16	-	-
1/4-23	GH3	2344-469	2344-470	2344-471	POA	-	-
1/4-24	GH5	2344-478	2344-479	2344-480	POA	-	-
1/4-25	GH3	2344-488	2344-489	2344-490	POA	-	-
1/4-26	GH3	2344-481	2344-482	2344-483	12.16	-	-
1/4-34	GH2	2344-496	2344-497	2344-498	POA	-	-
1/4-36	GH7	2344-699	2344-700	2344-701	POA	-	-
1/4-38	GH2	2344-509	2344-510	-	12.16	-	-
1/4-42	GH3	2344-511	2344-512	2344-513	12.16	2362-420	POA
1/4-44	GH3	2344-514	2344-515	2344-516	POA	-	-
1/4-46	GH3	2344-517	2344-518	2344-519	POA	-	-
1/4-50	GH2	2344-523	2344-524	2344-525	POA	2362-427	POA
1/4-52	GH2	2344-529	2344-530	2344-531	POA	-	-
1/4-60	GH2	2344-565	2344-566	2344-567	12.16	2362-435	13.99
1/4-72	GH2	2344-600	2344-601	2344-602	12.16	2362-447	POA
1/4-96	GH	2344-626	2344-627	2344-628	POA	-	-
1/4-120	GH2	2344-541	2344-542	2344-543	POA	-	-
17/64-18	GH3	2344-716	2344-717	2344-718	POA	-	-
17/64-20	GH3	2344-720	2344-721	2344-722	POA	-	-
17/64-24	GH3	2344-724	2344-725	2344-726	POA	-	-
17/64-28	GH3	2344-712	2344-713	2344-714	POA	-	-
17/64-32	GH3	2344-730	2344-731	2344-732	POA	-	-
17/64-36	GH3	2344-735	2344-736	2344-737	POA	-	-
17/64-40	GH2	2344-740	2344-741	2344-742	POA	-	-
9/32-16	GH3	2344-814	2344-815	2344-816	POA	-	-
9/32-18	GH3	2344-818	2344-819	2344-820	POA	-	-
9/32-20	GH3	2344-825	2344-826	2344-827	12.16	2362-569	POA

							
SIZE	GH LIMIT	BOTTOMING	PLUG	TAPER	PRICE EACH	SPIRAL POINT	PRICE EACH
9/32-24	GH3	2344-840	2344-841	2344-842	\$9.23	2362-573	\$14.68
9/32-26	GH3	2344-845	2344-846	2344-847	POA	-	-
9/32-27	GH3	2344-860	2344-861	2344-862	POA	2362-576	POA
9/32-28	GH3	2344-865	2344-866	2344-867	POA	2362-578	POA
9/32-32	GH5	2344-877	2344-878	2344-879	POA	-	-
9/32-36	GH3	2344-885	2344-886	2344-887	POA	-	-
9/32-48	GH2	2344-915	2344-916	2344-917	POA	2362-598	POA
9/32-56	GH2	2344-895	2344-896	2344-897	POA	2362-508	POA
9/32-64	GH2	2344-905	2344-906	2344-907	POA	-	-
9/32-80	GH2	2344-912	2344-913	2344-914	POA	-	-
19/64-16	GH2	2344-972	2344-973	2344-974	POA	-	-
19/64-16	GH3	2344-918	2344-919	2344-920	POA	-	-
19/64-18	GH3	2344-976	2344-977	2344-978	POA	-	-
19/64-20	GH3	2344-980	2344-981	2344-982	POA	-	-
19/64-24	GH3	-	2344-985	2344-986	POA	-	-
19/64-28	GH3	2344-990	2344-991	2344-992	POA	-	-
19/64-32	GH3	2344-996	2344-997	2344-998	POA	-	-
19/64-34	GH2	2344-999	2345-000	2345-001	POA	-	-
19/64-40	GH2	2345-002	2345-003	2345-004	POA	-	-
5/16-10	GH3	2345-060	2345-061	2345-062	POA	-	-
5/16-12	GH3	2345-066	2345-067	2345-068	POA	-	-
5/16-14	GH3	2345-073	2345-074	2345-075	POA	2362-690	POA
5/16-16	GH3	2345-077	2345-078	2345-079	12.16	2362-695	14.68
5/16-22	GH3	2345-083	2345-084	2345-085	12.16	-	-
5/16-26	GH3	2345-089	2345-088	2345-087	9.35	2362-704	POA
5/16-30	GH3	2345-095	2345-096	2345-097	12.16	2362-584	POA
5/16-34	GH3	2345-100	2345-101	2345-102	POA	-	-
5/16-42	GH1	2345-112	2345-113	2345-114	POA	-	-
5/16-42	GH2	2345-106	2345-107	2345-108	POA	-	-
5/16-44	GH2	2345-117	2345-118	2345-119	POA	-	-
5/16-50	GH2	2345-123	2345-124	2345-125	POA	-	-
5/16-52	GH2	2345-130	2345-131	2345-132	POA	-	-
5/16-60	GH2	2345-142	2345-143	2345-144	12.16	-	-
5/16-72	GH2	2345-215	2345-216	2345-217	12.16	2362-753	POA
5/16-100	GH1	2345-148	2345-149	2345-150	POA	-	-
21/64-16	GH3	2345-340	2345-341	2345-342	POA	2362-820	POA
21/64-18	GH3	2345-347	2345-348	2345-349	POA	2362-825	POA
21/64-24	GH3	2345-355	2345-356	2345-357	POA	2362-831	POA
21/64-28	GH3	2345-362	2345-363	2345-364	POA	2362-836	POA
21/64-32	GH2	2345-365	2345-366	2345-367	POA	-	-
21/64-32	GH3	-	2345-345	2345-346	POA	-	-
21/64-36	GH3	2345-372	2345-373	2345-374	POA	2362-841	POA
21/64-40	GH2	2345-378	2345-379	2345-380	POA	-	-
21/64-40	GH3	2345-350	2345-351	2345-352	POA	-	-
21/64-48	GH2	2345-384	2345-385	2345-386	POA	2362-845	POA
21/64-64	GH2	2345-402	2345-403	2345-404	POA	2362-848	POA
11/32-16	GH3	2345-432	2345-433	2345-434	POA	2362-870	POA
11/32-18	GH3	2345-436	2345-437	2345-438	POA	2362-871	POA
11/32-20	GH3	2345-440	2345-441	2345-442	12.94	2362-872	POA
11/32-22	GH3	2345-444	2345-445	2345-446	POA	2362-873	POA
11/32-24	GH3	2345-448	2345-449	2345-450	POA	2362-874	POA
11/32-26	GH3	2345-455	2345-456	2345-457	POA	2362-875	POA
11/32-27	GH3	2345-462	2345-463	2345-464	POA	2362-876	POA
11/32-28	GH3	2345-469	-	-	POA	2362-877	POA
11/32-30	GH3	2345-474	2345-475	2345-476	POA	2362-880	POA
11/32-36	GH3	2345-477	2345-478	2345-479	POA	2362-897	POA
11/32-40	GH2	2345-484	2345-485	2345-486	POA	2362-901	POA
11/32-48	GH2	2345-491	2345-492	2345-493	POA	2362-909	POA
11/32-56	GH2	2345-498	2345-499	2345-500	POA	2362-917	POA
11/32-60	GH2	2345-505	2345-506	2345-507	POA	2362-921	POA
11/32-64	GH2	2345-512	2345-513	2345-514	POA	2362-926	POA
11/32-72	GH2	2345-522	2345-523	2345-524	POA	2362-934	POA
11/32-96	GH1	2345-540	2345-541	2345-542	POA	-	-
23/64-16	GH3	2345-620	2345-621	2345-622	POA	2362-960	POA
23/64-24	GH3	2345-630	2345-631	2345-632	POA	2362-970	POA
23/64-40	GH2	2345-648	2345-649	2345-650	POA	2362-980	POA
3/8-10	GH3	2345-704	2345-705	2345-706	POA	-	-
3/8-12	GH3	2345-710	2345-711	2345-712	POA	-	-
3/8-13	GH3	2345-716	2345-717	2345-718	12.38	-	-
3/8-18	GH1	2345-728	2345-729	2345-730	POA	-	-
3/8-18	GH5	2345-731	2345-732	2345-733	POA	-	-

Full Special Hand Taps

Right Hand, High Speed Steel

POPULAR SPECIAL TAPS
SEE PAGES 111-117

FOR 2 OR MORE PIECES,
CALL FOR PRICE

WARNING: This product contains Cobalt and/or Nickel and/or Lead a chemical known to the state of California to cause cancer or birth defects or other reproductive harm. For more information: www.pro65.ca.gov. **WARNING:** Cutting tools may shatter. Always wear approved safety glasses and mask when regrinding.



Bottom



Plug



Taper



Spiral Point

1

Pittsburg® ALLEGHANY								
SIZE	GH LIMIT	BOTTOMING	PLUG	TAPER	PRICE EACH	SPIRAL POINT	PRICE EACH	
3/8-22	GH3	2345-734	2345-735	2345-736	\$12.38	-	-	
3/8-25	GH3	2345-743	2345-744	2345-745	POA	-	-	
3/8-26	GH3	2345-746	2345-747	2345-748	12.38	2363-019	POA	
3/8-27	GH5	2345-763	2345-764	2345-765	POA	-	-	
3/8-30	GH3	2345-773	2345-774	2345-775	12.38	-	-	
3/8-32	GH2	2345-777	2345-778	2345-779	POA	-	-	
3/8-38	GH3	2345-752	2345-753	2345-754	POA	-	-	
3/8-40	GH7	2345-831	2345-832	2345-833	POA	-	-	
3/8-42	GH2	2345-834	2345-835	2345-836	POA	-	-	
3/8-44	GH2	2345-840	2345-841	2345-842	POA	-	-	
3/8-46	GH2	2345-846	2345-847	2345-848	POA	-	-	
3/8-60	GH2	2345-890	2345-891	2345-892	12.38	2363-070	\$14.85	
25/64-16	GH3	2345-984	2345-985	2345-986	POA	2363-135	POA	
25/64-20	GH3	2345-990	2345-991	2345-992	POA	2363-139	POA	
25/64-24	GH3	2345-997	2345-998	2345-999	POA	2363-143	POA	
25/64-27	GH3	2346-004	2346-005	2346-006	POA	2363-147	POA	
25/64-32	GH3	2346-011	2346-012	2346-013	POA	2363-150	POA	
25/64-40	GH2	2346-020	2346-021	2346-022	POA	-	-	
25/64-48	GH2	2346-023	2346-024	2346-025	POA	2363-155	POA	
25/64-64	GH2	2346-041	2346-042	2346-043	POA	2363-160	POA	
13/32-16	GH3	2346-076	2346-077	2346-078	POA	2363-185	POA	
13/32-18	GH3	2346-081	2346-082	2346-083	POA	2363-187	POA	
13/32-22	GH3	2346-093	2346-094	2346-095	POA	-	-	
13/32-24	GH3	2346-090	2346-091	2346-092	13.68	2363-195	POA	
13/32-26	GH3	2346-097	2346-098	2346-099	POA	2363-197	POA	
13/32-27	GH3	2346-104	2346-105	2346-106	POA	2363-198	POA	
13/32-28	GH3	2346-111	2346-112	2346-113	POA	2363-199	POA	
13/32-28	GH4	2346-108	2346-109	2346-110	POA	-	-	
13/32-36	GH3	2346-123	2346-124	2346-125	13.68	2363-205	17.43	
13/32-40	GH2	2346-130	2346-131	2346-132	13.68	2363-209	17.43	
13/32-48	GH2	2346-142	2346-143	2346-144	POA	2363-217	POA	
13/32-64	GH2	2346-152	2346-153	2346-154	POA	2363-220	POA	
27/64-14	GH3	2346-192	2346-193	2346-194	POA	2363-245	POA	
27/64-18	GH3	2346-198	2346-199	2346-200	POA	-	-	
27/64-20	GH3	2346-204	2346-205	2346-206	POA	2363-250	POA	
27/64-24	GH3	2346-211	2346-212	2346-213	POA	2363-255	POA	
27/64-28	GH3	2346-218	2346-219	2346-220	POA	2363-260	POA	
27/64-32	GH3	2346-225	2346-226	2346-227	POA	2363-263	POA	
27/64-36	GH3	2346-232	2346-233	2346-234	POA	2363-269	POA	
27/64-48	GH2	2346-244	2346-245	2346-246	POA	2363-271	POA	
7/16-10	GH3	2346-288	2346-289	2346-290	POA	-	-	
7/16-12	GH3	2346-294	2346-295	2346-296	13.68	-	-	
7/16-13	GH3	2346-297	2346-298	2346-299	POA	2363-300	POA	
7/16-16	GH5	2346-306	2346-307	2346-308	POA	-	-	
7/16-18	GH5	2346-315	2346-316	2346-317	POA	2363-309	POA	
7/16-22	GH3	2346-318	2346-319	2346-320	POA	-	-	
7/16-24	GH4	2346-328	2346-329	2346-330	POA	-	-	
7/16-24	GH5	2346-237	2346-238	2346-239	POA	-	-	
7/16-24	GH7	2346-339	2346-340	2346-341	POA	-	-	
7/16-24	GH8	2346-379	2346-380	2346-381	POA	-	-	
7/16-24	GH9	2346-382	2346-383	2346-384	POA	-	-	
7/16-26	GH3	2346-332	2346-333	2346-334	13.68	-	-	
7/16-27	GH5	2346-342	2346-343	2346-344	POA	-	-	
7/16-27	GH9	2346-345	2346-348	2346-347	POA	-	-	
7/16-30	GH3	2346-360	2346-361	2346-362	POA	-	-	
7/16-32	GH5	2346-372	2346-373	2346-374	POA	-	-	
7/16-40	GH5	2346-418	2346-419	2346-420	POA	-	-	
7/16-44	GH2	2346-421	2346-422	2346-423	POA	-	-	
7/16-60	GH2	2346-442	2346-443	2346-444	POA	-	-	
7/16-80	GH2	2346-456	2346-457	2346-458	POA	-	-	
29/64-14	GH3	2346-520	2346-521	2346-522	POA	2363-405	POA	
29/64-20	GH3	2346-527	2346-528	2346-529	POA	2363-410	POA	
29/64-24	GH3	2346-535	2346-536	2346-537	POA	2363-413	POA	
29/64-36	GH3	2346-547	2346-548	2346-549	POA	2363-418	POA	
29/64-40	GH2	2346-554	2346-555	2346-556	POA	2363-420	POA	
29/64-64	GH2	2346-572	2346-573	2346-574	POA	2363-425	POA	

							
	GH				PRICE	SPIRAL	PRICE
SIZE	LIMIT	BOTTOMING	PLUG	TAPER	EACH	POINT	EACH
15/32-12	GH3	2346-600	2346-601	2346-602	POA	2363-445	POA
15/32-13	GH3	2346-607	2346-608	2346-609	POA	2363-448	POA
15/32-14	GH3	2346-613	2346-614	2346-615	POA	2363-450	POA
15/32-16	GH3	2346-620	2346-621	2346-622	POA	2363-453	POA
15/32-18	GH3	2346-627	2346-628	2346-629	POA	2363-458	POA
15/32-20	GH3	2346-634	2346-635	2346-636	POA	2363-460	POA
15/32-24	GH3	2346-641	2346-642	2346-643	15.59	2363-462	POA
15/32-27	GH3	2346-655	2346-656	2346-657	POA	2363-464	POA
15/32-28	GH3	2346-648	2346-649	2346-650	POA	2363-466	POA
15/32-36	GH3	2346-667	2346-668	2346-669	15.59	2363-470	\$21.63
15/32-40	GH2	2346-673	2346-674	2346-675	15.59	2363-475	21.63
31/64-12	GH3	2346-720	2346-721	2346-722	POA	-	-
31/64-13	GH3	2346-728	2346-729	2346-730	POA	2363-515	POA
31/64-14	GH3	2346-735	2346-736	2346-737	POA	2363-518	POA
31/64-20	GH3	2346-742	2346-743	2346-744	POA	2363-520	POA
31/64-26	GH3	2346-749	2346-750	2346-751	POA	-	-
31/64-32	GH3	2346-761	2346-762	2346-763	POA	2363-530	POA
1/2-8	GH3	2346-800	2346-801	2346-802	POA	-	-
1/2-10	GH3	2346-808	2346-809	2346-810	15.59	2363-555	21.63
1/2-11	GH3	2346-812	2346-813	2346-814	POA	-	-
1/2-12	GH5	2346-840	2346-841	2346-842	POA	-	-
1/2-14	GH5	2346-823	2346-824	2346-825	POA	-	-
1/2-16	GH5	-	2346-835	2346-836	POA	-	-
1/2-18	GH7	2346-862	2346-863	2346-864	POA	-	-
1/2-22	GH3	2346-826	2346-827	2346-828	15.59	-	-
1/2-24	GH5	2346-876	2346-877	2346-878	POA	-	-
1/2-24	GH8	2346-870	2346-871	2346-872	POA	-	-
1/2-25	GH3	2346-873	2346-874	2346-875	POA	-	-
1/2-26	GH3	2346-837	2346-838	2346-839	15.59	-	-
1/2-30	GH3	2346-916	2346-917	2346-918	15.59	2363-593	21.63
1/2-34	GH3	2346-943	2346-944	2346-945	POA	-	-
1/2-38	GH3	2346-949	2346-950	2346-951	POA	-	-
1/2-44	GH3	2346-955	2346-956	2346-957	POA	-	-
1/2-50	GH2	2346-961	2346-962	2346-963	15.59	-	-
1/2-54	GH2	2346-967	2346-968	2346-969	POA	-	-
1/2-68	GH2	2347-031	-	2347-033	POA	-	-
1/2-72	GH2	2347-049	2347-050	2347-051	POA	2363-650	189.60
1/2-80	GH2	2347-064	2347-065	2347-066	15.59	2363-660	21.63
33/64-12	GH3	2347-080	2347-081	2347-082	POA	2363-685	POA
33/64-13	GH3	2347-095	2347-096	2347-097	POA	2363-686	POA
33/64-18	GH3	2347-102	2347-103	2347-104	POA	2363-691	POA
33/64-20	GH3	2347-109	2347-110	2347-111	POA	2363-695	POA
33/64-32	GH3	2347-127	2347-128	2347-129	POA	-	-
33/64-60	GH2	2347-151	2347-152	2347-153	POA	2363-700	POA
33/64-80	GH2	2347-145	2347-146	2347-147	POA	-	-
17/32-12	GH3	2347-172	2347-173	2347-174	POA	2363-735	POA
17/32-13	GH3	2347-179	2347-180	2347-181	POA	2363-736	POA
17/32-16	GH3	2347-186	2347-187	2347-188	POA	2363-739	POA
17/32-18	GH3	2347-193	2347-194	2347-195	POA	2363-741	POA
17/32-20	GH3	2347-200	2347-201	2347-202	POA	2363-743	POA
17/32-24	GH3	2347-207	2347-208	2347-209	POA	2363-744	POA
17/32-27	GH3	2347-214	2347-215	2347-216	POA	2363-747	POA
17/32-28	GH3	2347-221	2347-222	2347-223	POA	2363-748	POA
17/32-32	GH3	2347-228	2347-229	2347-230	19.31	2363-752	POA
17/32-36	GH3	-	2347-232	-	POA	-	-
17/32-40	GH2	2347-235	2347-236	2347-237	POA	2363-760	POA
17/32-48	GH2	2347-242	2347-243	2347-244	POA	2363-768	POA
17/32-64	GH2	2347-254	2347-255	2347-256	POA	2363-772	POA
35/64-12	GH3	2347-304	2347-305	2347-306	POA	-	-
35/64-18	GH3	2347-310	2347-311	2347-312	POA	-	-
35/64-28	GH3	2347-316	2347-317	2347-318	POA	-	-
9/16-10	GH3	2347-384	2347-385	-	19.31	-	-
9/16-16	GH1	2347-386	2347-387	2347-388	POA	-	-
9/16-16	GH5	2347-397	2347-398	2347-399	POA	-	-
9/16-20	GH5	2347-403	2347-404	2347-405	POA	-	-

Full Special Hand Taps

Right Hand, High Speed Steel

POPULAR SPECIAL TAPS
SEE PAGES 111-117

FOR 2 OR MORE PIECES,
CALL FOR PRICE

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WARNING: Cutting tools may shatter. Always wear approved safety glasses and mask when regrinding.



Bottom



Plug



Taper



Spiral Point

1

Pittsburg® ALLEGHENY							
SIZE	GH LIMIT	BOTTOMING	PLUG	TAPER	PRICE EACH	SPIRAL POINT	PRICE EACH
9/16-20	GH12	2347-409	2347-410	2347-411	POA	-	-
9/16-20	GH20	-	2347-415	-	POA	-	-
9/16-22	GH3	2347-412	2347-413	2347-414	POA	-	-
9/16-26	GH3	2347-418	2347-419	2347-420	POA	-	-
9/16-27	GH5	2347-448	2347-449	2347-450	POA	-	-
9/16-30	GH3	2347-463	2347-464	2347-465	\$19.31	-	-
9/16-32	GH5	2347-478	2347-479	2347-480	POA	-	-
9/16-32	GH7	2347-481	2347-482	2347-483	POA	-	-
9/16-32	GH9	2347-484	2347-485	2347-486	POA	-	-
9/16-36	GH2	2347-487	2347-488	2347-489	19.31	2363-875	\$25.96
9/16-40	GH6	2347-514	2347-515	2347-516	POA	-	-
9/16-48	GH2	2347-517	2347-518	2347-519	19.31	2363-890	25.96
9/16-56	GH2	2347-523	2347-524	2347-525	POA	-	-
9/16-24	GH2	2347-529	2347-530	2347-531	POA	-	-
9/16-80	GH2	2347-542	2347-543	2347-544	POA	-	-
37/64-10	GH3	2347-592	2347-593	2347-594	POA	2363-945	POA
37/64-12	GH3	2347-599	2347-600	2347-601	POA	2363-947	POA
37/64-18	GH3	2347-606	2347-607	2347-608	POA	2363-953	POA
37/64-40	GH2	2347-630	2347-631	2347-632	POA	2363-960	POA
37/64-56	GH2	2347-648	2347-649	2347-650	POA	2363-968	POA
19/32-11	GH3	2347-684	2347-685	2347-686	POA	2363-995	POA
19/32-12	GH3	2347-691	2347-692	2347-693	POA	2363-997	POA
19/32-16	GH3	2347-698	2347-699	2347-700	POA	2364-000	POA
19/32-18	GH3	2347-705	2347-706	2347-707	POA	2364-002	POA
19/32-20	GH3	2347-712	2347-713	2347-714	POA	2364-004	POA
19/32-24	GH3	2347-719	2347-720	2347-721	POA	2364-008	POA
19/32-27	GH3	2347-726	2347-727	2347-728	POA	2364-011	POA
19/32-28	GH3	2347-733	2347-734	2347-735	POA	2364-012	POA
19/32-32	GH3	2347-740	2347-741	2347-742	POA	2364-016	POA
19/32-36	GH3	2347-747	2347-748	2347-749	POA	2364-020	POA
19/32-40	GH2	2347-754	2347-755	2347-756	POA	2364-024	POA
19/32-48	GH2	2347-761	2347-762	2347-763	POA	2364-032	POA
19/32-64	GH2	2347-773	2347-774	2347-775	POA	2364-036	POA
19/32-80	GH1	2347-790	2347-791	2347-792	POA	2364-040	POA
39/64-11	GH3	2347-812	2347-813	2347-814	POA	2364-060	POA
39/64-18	GH3	2347-819	2347-820	2347-821	POA	2364-067	POA
5/8-8	GH3	2347-896	2347-897	2347-898	POA	-	-
5/8-9	GH3	2347-912	2347-913	2347-914	POA	-	-
5/8-11 1/2	GH4	2347-905	2347-906	2347-907	POA	-	-
5/8-13	GH3	2347-921	2347-922	2347-923	15.20	-	-
5/8-25	GH3	2347-981	2347-982	2347-983	POA	-	-
5/8-26	GH3	2347-984	2347-985	2347-986	23.91	-	-
5/8-28	GH5	2348-002	2348-003	2348-004	POA	-	-
5/8-30	GH3	2348-005	2348-006	2348-007	23.91	-	-
5/8-38	GH2	2348-029	2348-030	2348-031	POA	-	-
5/8-44	GH2	2348-041	2348-042	2348-043	POA	-	-
5/8-48	GH2	2348-047	2348-048	2348-049	23.91	2364-155	30.28
5/8-56	GH2	2348-059	2348-060	2348-061	23.91	2364-165	30.28
5/8-64	GH2	2348-071	2348-072	2348-073	23.91	2364-175	30.28
5/8-80	GH2	2348-077	2348-078	2348-079	POA	-	-
41/64-11	GH4	2348-135	2348-136	2348-137	POA	2364-216	POA
41/64-18	GH3	2348-142	2348-143	2348-144	POA	2364-222	POA
41/64-24	GH3	2348-154	2348-155	2348-156	POA	2364-228	POA
41/64-32	GH3	2348-166	2348-167	2348-168	POA	2364-236	POA
21/32-11	GH3	2348-208	2348-209	2348-210	POA	2364-260	POA
21/32-12	GH3	2348-213	2348-214	2348-215	POA	2364-261	POA
21/32-16	GH3	2348-219	2348-220	2348-221	POA	2364-265	POA
21/32-18	GH3	2348-224	2348-225	2348-226	POA	2364-266	POA
21/32-19	GH3	2348-227	2348-229	2348-228	POA	-	-
21/32-20	GH3	-	2348-230	2348-231	POA	2364-268	POA
21/32-24	GH3	2348-236	2348-237	2348-238	POA	2364-272	POA
21/32-27	GH3	2348-241	2348-242	2348-243	POA	2364-275	POA
21/32-28	GH3	2348-246	2348-247	2348-248	POA	2364-276	POA
21/32-30	GH3	2348-251	2348-252	2348-253	POA	2364-278	POA
21/32-32	GH3	2348-256	2348-257	2348-258	POA	2364-280	POA
21/32-40	GH2	2348-268	2348-269	2348-270	POA	2364-288	POA
21/32-48	GH2	2348-280	2348-281	2348-282	POA	2364-296	POA
43/64-11	GH3	2348-324	2348-325	2348-326	POA	2364-320	POA

							
SIZE	GH LIMIT	BOTTOMING	PLUG	TAPER	PRICE EACH	SPIRAL POINT	PRICE EACH
43/64-16	GH3	2348-329	-	-	POA	-	-
11/16-10	GH3	2348-400	2348-401	2348-402	POA	-	-
11/16-10	GH4	2348-403	2348-404	2348-405	POA	-	-
11/16-13	GH3	2348-412	2348-413	2348-414	POA	-	-
11/16-20	GH5	2348-448	2348-449	2348-450	POA	-	-
11/16-22	GH3	2348-451	2348-452	2348-453	POA	-	-
11/16-26	GH3	2348-470	2348-471	2348-472	POA	-	-
11/16-28	GH5	2348-482	2348-483	2348-484	POA	-	-
11/16-32	GH5	2348-500	2348-501	2348-502	POA	-	-
11/16-40	GH2	2348-521	2348-522	2348-523	POA	2364-405	\$41.85
11/16-40	GH3	2348-527	2348-528	2348-529	\$27.53	-	-
11/16-40	GH4	2348-330	2348-331	2348-332	POA	-	-
11/16-48	GH2	2348-538	2348-539	2348-540	27.53	2364-415	41.85
11/16-80	GH2	2348-544	2348-545	2348-546	POA	-	-
45/64-11	GH3	2348-592	2348-593	2348-594	POA	2364-455	POA
45/64-12	GH3	2348-599	2348-600	2348-601	POA	2364-456	POA
45/64-16	GH3	2348-606	2348-607	2348-608	POA	2364-460	POA
23/32-10	GH3	2348-672	2348-673	2348-674	POA	2364-500	POA
23/32-11	GH3	2348-679	2348-680	2348-681	POA	2364-501	POA
23/32-12	GH3	2348-686	2348-687	2348-688	POA	2364-502	POA
23/32-14	GH3	2348-693	2348-694	2348-695	POA	2364-504	POA
23/32-16	GH3	2348-700	2348-701	2348-702	POA	2364-508	POA
23/32-18	GH3	2348-707	2348-708	2348-709	POA	2364-510	POA
23/32-20	GH3	2348-712	2348-713	2348-714	POA	2364-512	POA
23/32-24	GH3	2348-719	2348-720	2348-721	POA	2364-516	POA
23/32-28	GH3	2348-726	2348-727	2348-728	POA	2364-520	POA
23/32-30	GH3	2348-731	2348-732	2348-733	POA	2364-522	POA
23/32-32	GH3	2348-736	2348-737	2348-738	POA	2364-524	POA
23/32-40	GH2	2348-748	2348-749	2348-750	POA	2364-532	POA
23/32-48	GH2	2348-760	2348-761	2348-762	POA	2364-540	POA
47/64-10	GH3	2348-800	2348-801	2348-802	POA	2364-565	POA
47/64-13	GH3	2348-805	2348-806	2348-807	POA	2364-568	POA
47/64-16	GH3	2348-811	2348-812	2348-813	POA	2364-571	POA
47/64-18	GH3	2348-817	2348-818	2348-819	POA	2364-573	POA
47/64-40	GH2	2348-841	2348-842	2348-843	POA	2364-580	POA
3/4-6	GH4	2348-882	2348-880	2348-881	POA	-	-
3/4-8	GH3	2348-885	2348-886	2348-887	29.58	2364-612	50.45
3/4-11	GH3	2348-894	2348-895	2348-896	29.58	-	-
3/4-11 1/2	GH4	2348-891	2348-892	2348-893	29.58	-	-
3/4-13	GH3	2348-905	2348-906	2348-907	POA	-	-
3/4-15	GH1	2348-909	2348-910	2348-911	POA	-	-
3/4-15	GH3	2348-912	2348-913	2348-914	POA	-	-
3/4-22	GH3	2348-942	2348-943	2348-944	29.58	-	-
3/4-24	GH5	2348-945	2348-946	2348-947	POA	-	-
3/4-26	GH3	2348-957	2348-958	2348-959	29.58	-	-
3/4-27	GH5	2348-969	2348-970	2348-971	POA	-	-
3/4-30	GH3	2348-987	2348-988	2348-989	29.58	-	-
3/4-32	GH5	2348-100	2348-101	2348-102	POA	2364-657	POA
3/4-36	GH2	2349-011	2349-012	2349-013	29.58	2364-660	50.45
3/4-36	GH5	2349-014	2349-015	2349-016	POA	-	-
3/4-48	GH2	2349-041	2349-042	2349-043	29.58	2364-675	50.45
3/4-56	GH2	2349-056	2349-057	2349-058	29.58	2364-685	50.45
3/4-60	GH2	2349-062	2349-063	2349-064	POA	-	-
3/4-64	GH2	2349-071	2349-072	2349-073	29.58	2364-695	50.45
3/4-72	GH2	2349-074	2349-075	2349-076	POA	-	-
3/4-80	GH2	2349-077	2349-078	2349-079	POA	-	-
49/64-10	GH4	2349-178	2349-179	2349-180	POA	2364-745	POA
49/64-16	GH3	2349-185	2349-186	2349-187	POA	2364-749	POA
49/64-18	GH3	2349-190	2349-191	2349-192	POA	2364-751	POA
49/64-20	GH3	2349-196	2349-197	2349-198	POA	2364-753	POA
49/64-24	GH3	2349-203	2349-204	2349-205	POA	2364-757	POA
49/64-32	GH3	2349-209	2349-210	2349-211	POA	-	-
25/32-10	GH4	2349-268	2349-269	2349-270	POA	2364-795	POA
25/32-12	GH3	2349-274	2349-275	2349-276	POA	2364-797	POA
25/32-14	GH3	2349-280	2349-281	2349-282	POA	2364-799	POA
25/32-16	GH3	2349-288	2349-289	2349-290	POA	2364-801	POA
25/32-18	GH3	2349-294	2349-295	2349-296	POA	2364-803	POA
25/32-20	GH3	2349-300	2349-301	2349-302	POA	2364-805	POA
25/32-24	GH3	2349-308	2349-309	2349-310	POA	2364-809	POA
25/32-27	GH3	2349-314	2349-315	2349-316	POA	2364-812	POA
25/32-28	GH3	2349-320	2349-321	2349-322	POA	2364-813	POA

Full Special Hand Taps

Right Hand, High Speed Steel

POPULAR SPECIAL TAPS
SEE PAGES 111-117

FOR 2 OR MORE PIECES,
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WARNING: This product contains Cobalt and/or Nickel and/or Lead a chemical known to the state of California to cause cancer or birth defects or other reproductive harm. For more information: www.p66s.ca.gov
WARNING: Cutting tools may shatter. Always wear approved safety glasses and mask when regrinding.



Bottom



Plug



Taper



Spiral Point

1

Pittsburg® ALLEGHANY							
SIZE	GH LIMIT	BOTTOMING	PLUG	TAPER	PRICE EACH	SPIRAL POINT	PRICE EACH
25/32-40	GH2	2349-334	2349-335	2349-336	POA	2364-817	POA
25/32-48	GH2	2349-346	2349-347	2349-348	POA	2364-825	POA
51/64-17	GH3	2349-417	2349-418	2349-419	POA	-	-
51/64-20	GH3	2349-423	2349-424	2349-425	POA	2364-875	POA
13/16-8	GH3	2349-491	2349-492	2349-493	POA	-	-
13/16-9	GH4	2349-497	2349-498	2349-499	POA	-	-
13/16-11	GH3	2349-507	2349-508	2349-506	POA	-	-
13/16-13	GH3	2349-518	2349-519	2349-520	POA	-	-
13/16-14	GH3	2349-521	2349-522	2349-523	\$36.02	-	-
13/16-16	GH5	2349-528	2349-529	2349-530	POA	-	-
13/16-18	GH6	2349-543	2349-544	2349-545	POA	-	-
13/16-25	GH3	2344-013	2344-014	2344-015	POA	-	-
13/16-26	GH3	2344-024	2344-025	2344-026	36.02	-	-
13/16-27	GH5	2349-597	2349-598	2349-599	POA	-	-
13/16-28	GH5	2349-612	2349-613	2349-614	POA	-	-
13/16-30	GH3	2344-030	2344-031	2344-032	POA	-	-
13/16-32	GH6	2349-624	2349-625	2349-626	POA	-	-
13/16-40	GH3	2344-040	2344-041	2344-042	36.02	-	-
13/16-48	GH2	2344-046	2344-047	2344-048	36.02	-	-
27/32-9	GH3	2349-804	2349-805	2349-806	POA	2365-065	POA
27/32-12	GH3	2349-810	2349-811	2349-812	POA	2365-068	POA
27/32-14	GH3	2349-816	2349-817	2349-818	POA	2365-070	POA
27/32-16	GH3	2349-822	2349-823	2349-824	POA	2365-072	POA
27/32-18	GH3	2349-828	2349-829	2349-830	POA	2365-074	POA
27/32-20	GH3	2349-834	2349-835	2349-836	POA	2365-076	POA
27/32-24	GH3	2349-841	2349-842	2349-843	POA	2365-080	POA
27/32-27	GH3	2349-848	2349-849	2349-850	POA	2365-083	POA
27/32-28	GH3	2349-854	2349-855	2349-856	POA	2365-084	POA
27/32-32	GH3	2349-861	2349-862	2349-863	POA	2365-088	POA
27/32-40	GH2	2349-873	2349-874	2349-875	POA	2365-092	POA
27/32-48	GH2	2349-882	2349-883	2349-884	POA	2365-097	POA
55/64-6	GH4	2349-920	2349-921	2349-922	POA	2365-125	POA
55/64-9	GH4	2349-926	2349-927	2349-928	POA	2365-128	POA
55/64-12	GH4	2349-932	2349-933	2349-934	POA	2365-131	POA
55/64-14	GH4	2349-938	2349-939	2349-940	POA	2365-133	POA
55/64-18	GH4	2349-945	2349-946	2349-947	POA	2365-137	POA
55/64-20	GH3	2349-951	2349-952	2349-953	POA	2365-139	POA
55/64-27	GH3	2349-959	2349-960	2349-961	POA	2365-142	POA
55/64-32	GH3	2349-966	2349-967	2349-968	POA	2365-147	POA
7/8-8	GH4	2350-010	2350-011	2350-012	38.06	-	-
7/8-10	GH4	2350-020	2350-021	2350-022	38.06	2365-177	\$72.12
7/8-10	GH5	2350-026	2350-027	2350-028	POA	-	-
7/8-11	GH4	2350-023	2350-024	2350-025	38.06	-	-
7/8-15	GH3	2350-035	2350-036	2350-037	POA	-	-
7/8-18	GH5	2350-061	2350-062	2350-063	POA	2365-192	POA
7/8-26	GH3	2350-097	2350-098	2350-099	38.06	-	-
7/8-30	GH3	2350-127	2350-128	2350-129	38.06	-	-
7/8-30	GH4	2350-130	2350-131	2350-132	POA	-	-
7/8-40	GH5	2350-169	2350-170	2350-171	POA	-	-
7/8-48	GH2	2350-176	2350-177	2350-178	38.06	-	-
7/8-50	GH2	2350-182	2350-183	2350-184	POA	-	-
7/8-50	GH6	2350-185	2350-186	2350-187	POA	-	-
57/64-9	GH4	2350-236	2350-237	2350-238	POA	2365-280	POA
57/64-14	GH4	2350-233	2350-234	2350-235	POA	2365-286	POA
57/64-18	GH3	2350-240	2350-241	2350-242	POA	2365-290	POA
29/32-9	GH4	2350-316	2350-317	2350-318	POA	2365-325	POA
29/32-11	GH4	2350-322	2350-324	2350-325	POA	2365-327	POA
29/32-12	GH4	2350-328	2350-329	2350-330	POA	2365-328	POA
29/32-14	GH4	2350-334	2350-335	2350-336	POA	2365-330	POA
29/32-16	GH4	2350-340	2350-341	2350-342	POA	2365-332	POA
29/32-18	GH4	2350-346	2350-347	2350-348	POA	2365-334	POA
29/32-20	GH4	2350-352	2350-353	2350-354	POA	2365-336	POA
29/32-27	GH4	2350-360	2350-361	2350-362	POA	2365-343	POA
29/32-28	GH4	2350-366	2350-367	2350-368	POA	2365-344	POA
29/32-32	GH4	2350-374	2350-375	2350-376	POA	2365-348	POA
29/32-40	GH4	2350-386	2350-387	2350-388	POA	2365-355	POA
59/64-16	GH4	2350-436	2350-437	2350-438	POA	-	-
59/64-18	GH4	2350-442	2350-443	2350-444	POA	2365-395	POA
15/16-6	GH4	2350-500	2350-501	2350-502	POA	-	-

Pittsburg[®] ALLEGHANY							
SIZE	GH LIMIT	BOTTOMING	PLUG	TAPER	PRICE EACH	SPIRAL POINT	PRICE EACH
15/16-9	GH4	2350-521	2350-522	2350-523	\$45.24	2365-433	POA
15/16-9	GH6	2350-524	2350-525	2350-526	POA	-	-
15/16-18	GH5	2350-587	2350-588	2350-589	POA	-	-
15/16-26	GH3	2350-625	2350-626	2350-627	POA	-	-
15/16-27	GH5	2350-628	2350-629	2350-630	POA	-	-
15/16-40	GH3	2350-669	2350-670	2350-671	45.24	-	-
15/16-48	GH3	2350-676	2350-677	2350-678	POA	-	-
31/32-8	GH4	2350-804	2350-805	2350-806	POA	2365-575	POA
31/32-12	GH4	2350-811	2350-812	2350-813	POA	2365-579	POA
31/32-14	GH4	2350-817	2350-818	2350-819	POA	2365-581	POA
31/32-16	GH4	2350-822	2350-823	2350-824	POA	2365-583	\$96.85
31/32-18	GH4	2350-828	2350-829	2350-830	POA	2365-585	POA
31/32-20	GH4	2350-834	2350-835	2350-836	POA	2365-587	POA
31/32-24	GH4	2350-831	2350-832	2350-833	POA	2365-591	POA
31/32-28	GH4	2350-838	2350-839	2350-840	POA	2365-595	POA
31/32-32	GH4	2350-845	2350-846	2350-847	POA	2365-599	POA
31/32-40	GH4	2350-857	2350-858	2350-859	POA	2365-607	POA
31/32-56	GH4	2350-875	2350-876	2350-877	POA	2365-620	POA
63/64-14	CG	2350-881	2350-882	2350-883	POA	-	-
1"-6	GH4	2351-000	2351-001	2351-002	POA	-	-
1"-7	GH4	2351-007	2351-008	2351-009	POA	-	-
1"-9	GH4	2351-025	2351-026	2351-027	POA	-	-
1"-11	GH4	2351-040	2351-041	2351-042	POA	-	-
1"-18	GH6	2351-066	2351-067	2351-068	POA	-	-
1"-22	GH4	2351-085	2351-086	2351-087	POA	-	-
1"-26	GH3	2351-098	2351-099	2351-100	51.60	-	-
1"-28	GH1	2351-105	2351-106	2351-107	51.60	-	-
1"-28	GH3	2351-110	2351-111	2351-112	39.69	-	-
1"-48	GH3	2351-150	2351-151	2351-152	51.60	2365-750	82.42
1"-56	GH3	2351-162	2351-163	2351-164	51.60	2365-760	82.42
1"-64	GH3	2351-175	2351-176	2351-177	51.60	2365-770	82.42
1 1/64-8	GH4	2351-224	2351-225	2351-226	POA	-	-
1 1/64-12	GH4	2351-231	2351-232	2351-233	POA	-	-
1 1/64-14	GH4	2351-236	2351-237	2351-238	POA	-	-
1 1/32-8	GH4	2351-304	2351-305	2351-306	POA	-	-
1 1/32-12	GH4	2351-311	2351-312	2351-313	POA	-	-
1 1/32-14	GH4	2351-317	2351-318	2351-319	POA	-	-
1 1/32-16	GH4	2351-322	2351-323	2351-324	POA	-	-
1 1/32-20	GH4	2351-330	2351-331	2351-332	POA	-	-
1 1/32-24	GH4	2351-337	2351-338	2351-339	POA	-	-
1 1/32-32	GH4	2351-350	2351-351	2351-352	POA	-	-
1 3/64-7	GH4	2351-430	2351-431	2351-432	POA	-	-
1 1/16-7	GH1	2351-442	2351-443	2351-444	POA	-	-
1 1/16-10	GH5	2351-451	2351-452	2351-453	74.72	-	-
1 1/16-11	GH3	2351-454	2351-455	2351-456	POA	-	-
1 1/16-12	GH1	2351-465	2351-466	2351-467	POA	-	-
1 1/16-13	GH3	2351-468	2351-469	2351-470	POA	-	-
1 1/16-16	GH6	2351-492	2351-493	2351-494	POA	-	-
1 1/16-26	GH4	2351-531	2351-532	2351-533	POA	-	-
1 1/16-27	GH4	2351-534	2351-535	2351-536	74.72	-	-
1 1/16-28	GH4	2351-537	2351-538	2351-539	74.72	-	-
1 1/16-40	GH3	2351-549	2351-550	2351-551	74.72	-	-
1 1/16-40	GH5	2351-555	2351-556	2351-557	POA	-	-
1 1/16-48	GH3	2351-561	2351-562	2351-563	POA	-	-
1 5/64-20	GH5	2351-643	2351-644	2351-645	POA	-	-
1 3/32-8	GH4	2351-656	2351-657	2351-658	POA	-	-
1 3/32-9	GH4	2351-662	2351-663	2351-664	POA	-	-
1 3/32-12	GH4	2351-668	2351-669	2351-670	POA	-	-
1 3/32-14	GH4	2351-674	2351-675	2351-676	POA	-	-
1 3/32-16	GH4	2351-680	2351-681	2351-682	POA	-	-
1 3/32-18	GH4	2351-686	2351-687	2351-688	POA	-	-
1 3/32-20	GH4	2351-692	2351-693	2351-694	POA	-	-
1 3/32-24	GH4	2351-700	2351-701	2351-702	POA	-	-
1 3/32-28	CG	2351-706	2351-707	2351-708	POA	-	-
1 3/32-32	GH4	2351-710	2351-711	2351-712	POA	-	-
1 3/32-40	GH4	2351-718	2351-719	2351-720	POA	-	-
1 3/32-48	GH4	2351-724	2351-725	2351-726	POA	-	-

Full Special Hand Taps

Right Hand, High Speed Steel

POPULAR SPECIAL TAPS
SEE PAGES 111-117

FOR 2 OR MORE PIECES,
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1



Bottom



Plug



Taper

Pittsburg [®] ALLEGHANY					
SIZE	GH LIMIT	BOTTOMING	PLUG	TAPER	PRICE EACH
1 1/8-11	CG	2351-756	2351-757	2351-758	POA
1 1/8-15	GH4	2351-778	2351-779	2351-780	POA
1 1/8-16	GH6	2351-790	2351-791	2351-792	POA
1 1/8-24	GH6	2351-835	2351-836	2351-837	POA
1 1/8-28	GH4	2351-854	2351-855	2351-856	\$78.13
1 1/8-36	GH3	2351-872	2351-873	2351-874	POA
1 1/8-40	GH4	2351-880	2351-881	2351-882	78.13
1 1/8-48	GH3	2351-886	2351-887	2351-888	POA
1 9/64-7	GH4	2351-901	2351-902	2351-903	POA
1 9/64-12	GH4	2351-907	2351-908	2351-909	POA
1 5/32-7	GH4	2351-924	2351-925	2351-926	POA
1 5/32-10	GH4	2351-931	2351-932	2351-933	POA
1 5/32-12	GH4	2351-937	2351-938	2351-939	POA
1 5/32-14	GH4	2351-940	2351-941	2351-942	126.95
1 5/32-18	GH4	2351-945	2351-946	2351-947	POA
1 5/32-20	GH4	2351-951	2351-952	2351-953	POA
1 5/32-24	GH4	2351-959	2351-960	2351-961	POA
1 5/32-28	GH4	2351-966	2351-967	2351-968	POA
1 5/32-30	GH4	2351-972	2351-973	2351-974	POA
1 5/32-32	GH4	2351-978	2351-979	2351-980	98.15
1 3/16-10	GH5	2352-051	2352-052	2352-053	98.15
1 3/16-24	GH4	2352-120	2352-121	2352-122	98.15
1 3/16-27	GH4	2352-126	2352-127	2352-128	98.15
1 3/16-28	GH4	2352-129	2352-130	2352-131	98.15
1 3/16-30	GH4	2352-141	2352-142	2352-143	POA
1 3/16-40	GH3	2352-144	2352-145	2352-146	98.15
1 7/32-7	GH4	2352-216	2352-217	2352-218	POA
1 7/32-12	GH4	2352-224	2352-225	2352-226	POA
1 7/32-14	GH4	2352-230	2352-231	2352-232	POA
1 7/32-18	GH4	2352-236	2352-237	2352-238	POA
1 7/32-20	GH4	2352-242	2352-243	2352-244	POA
1 1/4-26	GH4	2352-396	2352-397	2352-398	98.15
1 1/4-27	GH4	2352-393	2352-394	2352-395	98.15
1 1/4-28	GH4	2352-408	2352-406	2352-407	98.15
1 1/4-30	GH4	2352-411	2352-412	2352-413	POA
1 1/4-40	GH4	2352-429	2352-430	2352-431	98.15
1 1/4-48	GH3	2352-437	2352-438	2352-439	POA
1 17/64-12	GH4	2352-403	2352-404	2352-405	POA
1 9/32-7	GH4	2352-460	2352-461	2352-462	POA
1 9/32-12	GH4	2352-468	2352-469	2352-470	POA
1 9/32-18	GH4	2352-476	2352-477	2352-478	POA
1 9/32-24	GH4	2352-484	2352-485	2352-486	POA
1 19/64-12	GH4	2352-502	2352-503	2352-504	POA
1 5/16-7	GH4	2352-543	2352-544	2352-545	POA
1 5/16-9	CG	2352-552	2352-553	2352-554	POA
1 5/16-10	GH4	2352-555	2352-556	2352-557	POA
1 5/16-12	GH10	2352-572	2352-573	2352-574	POA
1 5/16-20	GH6	2352-617	2352-618	2352-619	POA
1 5/16-24	GH4	2352-626	2352-627	2352-628	126.95
1 5/16-28	GH4	2352-629	2352-630	2352-631	126.95
1 5/16-32	GH3	2352-632	2352-633	2352-634	126.95
1 5/16-40	GH4	2352-635	2352-636	2352-637	POA
1 5/16-48	GH4	2352-638	2352-639	2352-640	POA
1 21/64-12	GH6	2352-601	2352-602	2352-603	POA
1 11/32-7	GH4	2352-716	2352-717	2352-718	POA
1 11/32-12	GH4	2352-724	2352-725	2352-726	POA
1 11/32-14	GH4	2352-731	2352-732	2352-733	130.74
1 11/32-18	GH4	2352-739	2352-740	2352-741	POA
1 11/32-19	GH4	2352-744	2352-745	2352-746	POA
1 11/32-32	GH4	2352-759	2352-760	2352-761	POA
1 3/8-10	GH5	2352-812	2352-813	2352-814	126.95
1 3/8-16	GH6	2352-845	2352-846	2352-847	POA
1 3/8-16	GH18	2352-848	2352-849	2352-850	POA
1 3/8-27	GH4	2352-893	2352-894	2352-895	126.95
1 3/8-32	GH4	2352-905	2352-906	2352-907	POA
1 3/8-40	GH4	2352-911	2352-912	2352-913	POA
1 25/64-6	GH4	2352-945	2352-946	2352-947	POA
1 25/64-12	GH4	2352-948	2352-949	2352-950	POA

Pittsburg [®] ALLEGHANY					
SIZE	GH LIMIT	BOTTOMING	PLUG	TAPER	PRICE EACH
1 13/32-6	GH4	2352-960	2352-961	2352-962	POA
1 13/32-7	GH4	2352-966	2352-967	2352-968	POA
1 13/32-8	GH4	2352-972	2352-973	2352-974	POA
1 13/32-12	GH4	2352-979	2352-980	2352-981	POA
1 13/32-18	GH4	2352-987	2352-988	2352-989	POA
1 13/32-20	GH4	2352-993	2352-994	2352-995	POA
1 7/16-6	GH4	2353-039	2353-040	2353-041	\$166.74
1 7/16-10	GH4	2353-051	2353-052	2353-053	POA
1 7/16-14	GH4	2353-075	2353-076	2353-077	166.74
1 7/16-16	GH11	2353-094	2353-095	2353-096	POA
1 7/16-20	GH4	2353-108	2353-109	2353-110	166.74
1 7/16-24	GH4	2353-111	2353-112	2353-113	166.74
1 7/16-28	GH4	2353-114	2353-115	2353-116	POA
1 7/16-32	GH4	2353-117	2353-118	2353-119	POA
1 7/16-40	GH4	2353-120	2353-121	2353-122	POA
1 15/32-12	GH5	2353-199	2353-200	2353-201	POA
1 1/2-7	GH5	2353-280	2353-281	2353-282	POA
1 1/2-9	GH4	2353-295	2353-296	2353-297	POA
1 1/2-13	GH4	2353-304	2353-305	2353-306	POA
1 1/2-27	GH4	2353-359	2353-360	2353-361	POA
1 1/2-28	GH4	2353-369	2353-370	2353-371	168.62
1 1/2-32	GH4	2353-385	2353-386	2353-387	168.62
1 1/2-40	GH4	2353-411	2353-412	2353-413	168.62
1 33/64-6	GH4	2353-460	2353-461	2353-462	POA
1 33/64-12	GH4	2353-469	2353-470	2353-471	POA
1 17/32-6	GH4	2353-540	2353-541	2353-542	POA
1 17/32-7	GH4	2353-546	2353-547	2353-548	POA
1 17/32-8	GH4	2353-552	2353-553	2353-554	POA
1 17/32-12	GH4	2353-560	2353-561	2353-562	POA
1 17/32-16	GH4	2353-568	2353-569	2353-570	POA
1 17/32-18	GH4	2353-576	2353-577	2353-578	POA
1 17/32-20	GH4	2353-584	2353-585	2353-586	POA
1 9/16-6	GH7	2353-600	2353-601	2353-602	180.90
1 9/16-8	GH6	2353-606	2353-607	2353-608	180.90
1 9/16-10	GH6	2353-612	2353-613	2353-614	180.90
1 9/16-14	GH6	2353-666	2353-667	2353-668	180.90
1 9/16-16	GH7	2353-681	2353-682	2353-683	POA
1 9/16-24	GH4	2353-725	2353-726	2353-727	180.90
1 9/16-32	GH4	2353-731	2353-732	2353-733	180.90
1 39/64-8	GH4	2353-796	2353-797	2353-798	POA
1 5/8-7	GH6	2353-882	2353-883	2353-884	POA
1 5/8-8	GH8	2353-891	2353-892	2353-893	POA
1 5/8-10	GH8	2353-906	2353-907	2353-908	POA
1 5/8-11 1/2	CG	2353-909	2353-910	2353-911	POA
1 5/8-12	GH8	2353-918	2353-919	2353-920	220.50
1 5/8-14	GH6	2353-924	2353-925	2353-926	185.84
1 5/8-28	GH4	2353-984	2353-985	2353-986	185.84
1 5/8-32	GH4	2353-990	2353-991	2353-992	185.84
1 5/8-40	GH4	2353-996	2353-997	2353-998	POA
1 21/32-5 1/2	GH4	2354-055	2354-056	2354-057	POA
1 21/32-48	GH4	2354-060	2354-061	2354-062	POA
1 43/64-5	GH4	2354-063	2354-064	2354-065	POA
1 11/16-8	GH6	2354-069	2354-070	2354-071	212.36
1 11/16-10	GH6	2354-075	2354-076	2354-077	POA
1 11/16-14	GH6	2354-107	2354-108	2354-109	POA
1 11/16-24	GH6	2354-161	2354-162	2354-163	212.36
1 47/64-7	GH7	2354-187	2354-188	2354-189	POA
1 47/64-10	GH4	2354-190	2354-191	2354-192	POA
1 3/4-7	GH4	2354-224	2354-225	2354-226	POA
1 3/4-12	GH8	2354-257	2354-258	2354-259	POA
1 3/4-24	GH4	2354-308	2354-309	2354-310	235.76
1 3/4-40	GH4	2354-323	2354-324	2354-325	235.76
1 25/32-5	GH4	2354-370	2354-371	2354-372	POA
1 13/16-11	GH4	2354-401	2354-402	2354-403	POA
1 13/16-12	GH6	2354-404	2354-405	2354-406	259.55
1 13/16-14	GH6	2354-416	2354-417	2354-418	259.55
1 13/16-24	GH4	2354-458	2354-459	2354-460	259.55
1 13/16-32	GH4	2354-464	2354-465	2354-466	259.55

Full Special Hand Taps

Right Hand, High Speed Steel

POPULAR SPECIAL TAPS
SEE PAGES 111-117

FOR 2 OR MORE PIECES,
CALL FOR PRICE

WARNING: This product contains Cobalt and/or Nickel and/or Lead a chemical known to the state of California to cause cancer or birth defects or other reproductive harm. For more information: www.pro65.ca.gov.
WARNING: Cutting tools may shatter. Always wear approved safety glasses and mask when regrinding.



Bottom



Plug



Taper



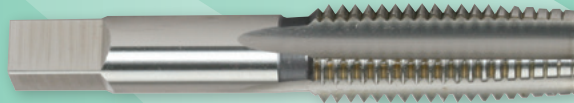
Pittsburg® ALLEGHANY					
SIZE	GH LIMIT	BOTTOMING	PLUG	TAPER	PRICE EACH
1 53/64-11 GH4		2354-490	2354-491	2354-492	POA
1 27/32-32 GH4		2354-496	2354-497	2354-498	POA
1 7/8-6 GH6		2354-521	2354-522	2354-523	POA
1 7/8-9 GH6		2354-542	2354-543	2354-544	POA
1 7/8-10 GH5		2354-536	2354-537	2354-538	\$283.32
1 7/8-10 GH8		2354-539	2354-540	2354-541	POA
1 7/8-12 GH11		2354-551	2354-552	2354-553	POA
1 7/8-14 GH6		2354-561	2354-562	2354-560	283.32
1 7/8-24 GH6		2354-617	2354-618	2354-619	282.74
1 7/8-32 GH4		2354-623	2354-624	2354-625	283.32
1 7/8-40 GH4		2354-629	2354-630	2354-631	POA
1 29/32-18 GH4		2354-672	2354-673	2354-674	POA
1 29/32-32 GH4		2354-730	2354-731	2354-732	POA
1 15/16-4 1/2 GH7		2354-700	2354-701	2354-702	POA
1 15/16-8 GH6		2354-706	2354-707	2354-708	298.87
1 15/16-10 GH6		2354-712	2354-713	2354-714	298.87
1 15/16-14 GH6		2354-785	2354-786	2354-787	298.87
1 15/16-20 GH6		2354-821	2354-822	2354-823	298.87
1 15/16-32 GH5		2354-827	2354-828	2354-829	298.87
1 15/16-40 GH5		2354-833	2354-834	2354-835	POA
2"-16 GH9		2354-979	2354-980	2354-981	POA
2"-24 GH6		2355-015	2355-016	2355-017	306.74
2"-28 GH5		2355-021	2355-022	2355-023	306.74
2"-32 GH5		2355-036	2355-037	2355-038	306.74
2"-40 GH4		2355-042	2355-043	2355-044	POA
2 1/16-8 GH6		2355-100	2355-101	2355-102	POA
2 1/16-10 GH6		2355-106	2355-107	2355-108	POA
2 1/16-14 GH6		2355-128	2355-129	2355-130	POA
2 1/16-16 GH6		2355-140	2355-141	2355-142	POA
2 1/16-18 GH6		2355-146	2355-147	2355-148	368.23
2 1/16-20 GH5		2355-152	2355-153	2355-154	POA
2 1/16-24 GH5		2355-155	2355-156	2355-157	POA
2 7/64-12 CG		-	2355-186	-	POA
2 1/8-4 1/2 GH6		2355-201	2355-202	2355-203	376.03
2 1/8-4 1/2 GH9		2355-204	2355-205	2355-206	POA
2 1/8-6 GH6		2355-200	-	-	POA
2 1/8-10 GH6		2355-222	2355-223	2355-224	POA
2 1/8-12 GH8		2355-240	2355-241	2355-242	POA
2 1/8-14 GH6		2355-246	2355-247	2355-248	POA
2 1/8-24 GH6		2355-280	2355-281	2355-282	POA
2 1/8-32 GH5		2355-286	2355-287	2355-288	POA
2 5/32-12 CG		2355-251	2355-252	2355-253	POA
2 3/16-4 1/2 GH7		2355-300	2355-301	2355-302	POA
2 3/16-10 GH		2355-306	2355-307	2355-308	POA
2 3/16-12 GH6		2355-372	2355-373	2355-374	POA
2 3/16-14 GH6		2355-384	2355-385	2355-386	POA
2 3/16-16 GH6		2355-390	2355-391	2355-392	POA
2 3/16-18 GH6		2355-396	2355-397	2355-398	POA
2 3/16-20 GH6		2355-402	2355-403	2355-404	POA
2 3/16-24 GH6		2355-408	2355-409	2355-410	POA
2 15/64-12 GH4		2355-430	2355-431	2355-432	POA
2 1/4-5 GH5		2355-451	2355-452	2355-453	POA
2 1/4-10 CG		2355-473	2355-474	2355-475	POA
2 5/16-12 GH6		2355-616	2355-617	2355-618	411.13
2 5/16-14 GH6		2355-628	2355-629	2355-630	411.13
2 5/16-16 GH6		2355-634	2355-635	2355-636	411.13
2 5/16-18 GH6		2355-643	2355-644	2355-645	411.13
2 5/16-20 GH6		2355-649	2355-650	2355-651	POA
2 5/16-24 GH6		2355-655	2355-656	2355-657	POA
2 3/8-4 GH6		2355-680	2355-681	2355-682	420.07
2 3/8-4 GH8		2355-686	2355-687	2355-688	POA
2 3/8-10 GH6		2355-707	2355-708	2355-709	POA
2 3/8-20 GH6		2355-765	2355-766	2355-767	420.07
2 3/8-24 GH6		2355-771	2355-772	2355-773	420.07
2 3/8-32 GH5		2355-777	2355-778	2355-779	POA
2 7/16-6 GH8		2355-888	2355-889	2355-890	POA
2 7/16-12 GH4		2355-891	2355-892	2355-893	518.38
2 31/64-12 GH4		2355-880	2355-881	2355-882	POA
2 1/2-6 GH7		2355-900	2355-901	2355-902	518.38
2 1/2-7 GH7		2355-906	2355-907	2355-908	POA
2 1/2-10 GH4		2355-922	2355-923	2355-924	POA
2 1/2-14 GH6		2355-943	2355-944	2355-945	POA
2 1/2-16 GH7		2355-961	2355-962	2355-964	POA
2 1/2-24 GH6		2355-994	2355-995	2355-996	POA

Pittsburg® ALLEGHANY					
SIZE	GH LIMIT	BOTTOMING	PLUG	TAPER	PRICE EACH
2 1/2-28 GH7		2356-000	2356-001	2356-002	POA
2 1/2-32 GH6		2356-006	2356-007	2356-008	\$518.38
2 9/16-12 GH6		2356-070	2356-071	2356-072	580.94
2 9/16-14 GH6		2356-080	2356-081	2356-082	POA
2 9/16-16 GH6		2356-092	2356-093	2356-094	POA
2 9/16-18 GH6		2356-098	2356-099	2356-100	POA
2 5/8-4 GH9		2356-147	2356-148	2356-149	652.44
2 5/8-10 GH6		2356-165	2356-166	2356-167	POA
2 5/8-14 GH6		2356-186	2356-187	2356-188	POA
2 5/8-20 GH6		2356-220	2356-221	2356-222	652.44
2 3/4-10 CG		2356-331	2356-332	2356-333	POA
2 3/4-14 GH6		2356-340	2356-341	2356-342	POA
2 3/4-14 CG		2356-345	2356-346	2356-347	POA
2 7/8-4 GH9		2356-400	2356-401	2356-402	831.19
2 7/8-5 GH8		2356-406	2356-407	2356-408	POA
2 7/8-6 GH8		2356-412	2356-413	2356-414	POA
2 7/8-10 GH7		2356-465	2356-466	2356-467	POA
2 7/8-14 GH6		2356-485	2356-486	2356-487	POA
2 7/8-16 GH6		2356-490	2356-491	2356-492	831.19
2 7/8-18 GH5		2356-502	2356-503	2356-504	831.19
2 7/8-32 GH7		2356-520	2356-521	2356-522	POA
2 15/16-12 GH6		2356-615	2356-616	2356-617	POA
2 15/16-16 GH7		2356-618	2356-619	2356-620	POA
2 15/16-20 GH5		2356-625	2356-626	2356-627	POA
3"-3 1/2 GH10		2356-628	2356-629	2356-630	POA
3"-6 GH6		2356-638	2356-639	2356-640	POA
3"-8 GH10		2356-655	2356-656	2356-657	POA
3"-14 GH7		2356-667	2356-668	2356-669	POA
3"-18 GH6		2356-691	2356-692	-	934.87
3 1/16-16 GH7		2356-702	2356-703	2356-704	POA
3 1/16-20 GH7		2356-705	2356-706	2356-707	POA
3 1/8-8 GH6		2356-747	2356-748	2356-749	1018.88
3 3/16-16 GH7		2356-822	2356-823	2356-824	POA
3 1/4-4 GH16		-	2356-828	-	POA
3 1/4-10 GH7		2356-840	2356-841	2356-842	POA
3 1/4-14 GH6		2356-855	2356-856	2356-857	POA
3 1/4-24 GH7		2356-862	2356-863	2356-864	POA
3 5/16-12 GH8		2356-896	2356-897	2356-898	POA
3 3/8-8 GH8		2356-989	2356-990	2356-991	1164.53
3 3/8-10 GH8		2356-992	2356-993	2356-994	POA
3 3/8-12 GH7		2356-995	2356-996	2356-997	1164.53
3 3/8-16 GH7		2357-002	2357-003	2357-004	1164.53
3 3/8-18 GH7		2357-008	2357-009	2357-010	POA
3 3/8-24 GH7		2357-015	2357-016	2357-017	POA
3 1/2-16 GH7		2357-099	2357-100	2357-101	929.50
3 9/16-12 CG		2357-222	2357-223	2357-224	POA
3 5/8-8 GH8		2357-184	2357-185	2357-186	1007.16
3 5/8-12 GH5		2357-195	2357-196	2357-197	1007.16
3 5/8-16 GH7		2357-204	2357-205	2357-206	1007.16
3 3/4-16 GH7		2357-295	2357-296	2357-297	1084.88
3 7/8-6 GH9		2357-345	2357-346	2357-347	POA
3 7/8-8 GH8		2357-350	2357-351	2357-352	1152.93
3 7/8-12 GH7		2357-360	2357-361	2357-362	1152.93
3 7/8-16 GH8		2357-369	2357-370	2357-371	1152.93
4"-16 GH7		2357-472	2357-473	2357-474	1221.00
4 1/4-8 GH8		-	2357-526	-	POA
4 1/4-12 GH7		-	2357-529	-	POA
4 7/16-4 GH13		-	2357-535	-	POA
4 1/2-8 GH8		-	2357-581	-	POA
4 1/2-12 GH7		-	2357-584	-	2281.13
4 3/4-8 GH8		-	2357-587	-	4180.55
4 3/4-12 GH7		-	2357-588	-	4180.55
5"-8 GH8		-	2357-589	-	5205.09
5"-12 GH7		-	2357-594	-	5205.09
5 1/4-8 GH8		-	2357-626	-	POA
5 1/4-12 GH7		-	2357-629	-	POA
5 1/2-8 GH8		-	2357-651	-	POA
5 1/2-12 GH7		-	2357-657	-	POA
5 3/4-8 GH8		-	2357-664	-	POA
5 3/4-12 GH7		-	2357-669	-	POA
6"-8 GH8		-	2357-676	-	POA
6"-12 GH7		-	2357-681	-	POA

Optional Flute Taps - Ground Thread Taps

High Speed Steel

WARNING: This product contains Cobalt and/or Nickel and/or Lead a chemical known to the state of California to cause cancer or birth defects or other reproductive harm. For more information: www.prcp65.ca.gov.
WARNING: Cutting tools may shatter. Always wear approved safety glasses and mask when regrinding.



 									
SIZE	GH	FLTS.	ORDER NO.		PRICE	ORDER NO.		PRICE	
			BOTTOM	PLUG	EACH	BOTTOM	PLUG	EACH	
2-56	NC	1	2	- 3530-712†	\$3.31	-	-	-	
2-56	NC	2	2	- 3530-722†	3.31	3750-721	3750-722	\$13.25	
3-48	NC	2	2	3531-121† 3531-122†	2.54	3751-121	3751-122	10.64	
4-40	NC	1	2	3531-711† 3531-712†	1.93	-	3751-712	8.69	
4-40	NC	2	2	3531-721†	1.93	3751-721	3751-722	8.34	
5-40	NC	2	2	3532-121† 3532-122†	2.01	3752-121	3752-122	8.34	
5-44	NF	2	2	3532-321† 3532-322†	2.01	-	-	-	
6-32	NC	1	2	3532-511† 3532-512†	1.63	-	3752-512	7.27	
6-32	NC	2	2	-	-	3752-521	3752-522	7.27	
6-32	NC	3	2	-	-	3752-531	3752-532	7.45	
6-40	NF	2	2	3532-721† 3532-722†	1.63	-	3752-722	9.62	
8-32	NC	1	2	3532-911† 3532-912†	1.63	-	3752-912	11.27	
8-32	NC	2	2	-	-	3752-921	3752-922	7.92	
8-32	NC	3	2	-	-	3752-931	3752-932	8.43	
8-32	NC	1	3	3542-911† 3542-912†	1.63	-	-	-	
8-32	NC	2	3	3542-921†	-	3712-921	3712-922	8.27	
8-32	NC	3	3	3542-931†	-	3712-931	3712-932	8.90	
10-24	NC	1	2	3533-311† 3533-312†	1.68	-	-	-	
10-24	NC	2	2	- 3533-322†	1.68	3753-321	3753-322	8.45	
10-24	NC	3	2	-	-	3753-331	3753-332	7.85	
10-24	NC	2	3	3543-321†	-	-	3713-322	19.82	
10-24	NC	3	3	3543-331† 3543-332†	1.68	3713-331	3713-332	8.71	
10-32	NF	1	2	3533-511† 3533-512†	1.68	3593-511	3753-512	8.69	
10-32	NF	2	2	-	-	3753-521	3753-522	11.16	
10-32	NF	3	2	-	-	3753-531	3753-532	8.62	

 									
SIZE	GH	FLTS.	ORDER NO.		PRICE	ORDER NO.		PRICE	
			BOTTOM	PLUG	EACH	BOTTOM	PLUG	EACH	
10-32	NF	2	3	- 3543-512	\$ 1.68	-	3603-512	\$ 4.90	
10-32	NF	2	3	3543-521† 3543-522†	1.68	3713-521	3713-522	7.38	
10-32	NF	3	3	3543-531† 3543-532†	1.68	3713-531	3713-532	6.80	
10-32	NF	7	3	- 3543-572†	1.68	-	-	-	
1/4-20	NC	3	2	-	-	3754-131	3754-132	8.45	
1/4-20	NC	1	3	3544-111† 3544-112†	1.62	-	3714-112	9.25	
1/4-20	NC	2	3	3544-121† 3544-122†	1.62	-	3714-122	8.59	
1/4-20	NC	3	3	3544-131†	-	3714-131	3714-132	10.41	
1/4-20	NC	5	3	3544-151†	-	-	3714-152	8.45	
1/4-28	NF	3	2	3534-331†	-	3754-331	3754-332	9.27	
1/4-28	NF	3	3	3544-331† 3544-332†	1.62	3714-331	3714-332	9.64	
5/16-18	NC	3	2	-	-	3754-631	3754-632	12.20	
5/16-18	NC	3	3	3544-531† 3544-532†	11.70	3714-531	3714-532	11.04	
5/16-18	NC	5	2	-	-	-	3594-552	9.00	
5/16-24	NC	3	3	3544-731† 3544-732†	1.96	3714-731	3714-732	10.64	
3/8-16	NC	1	3	3544-911† 3544-912†	2.19	-	3604-912	12.37	
3/8-16	NC	3	3	-	-	3714-931	3714-932	11.39	
3/8-16	NC	5	3	-	-	-	3604-952	12.37	
3/8-24	NF	3	3	- 3545-132†	2.19	3715-131	3715-132	12.16	
7/16-14	NC	3	3	3545-331† 3545-332†	3.77	-	3715-332	17.68	
7/16-20	NC	3	3	3545-531†	-	-	3715-532	18.84	
1/2-13	NF	3	3	3545-731†	-	3715-731	3715-732	26.33	
1/2-20	NF	3	3	3545-931† 3545-932†	3.97	-	3715-932	21.03	

+ .005 Oversize Taps

Ground Thread – High Speed Steel



Plug



Spiral Point

Bottom & Taper Chamfer Available on Request

PLUG STYLE					SPIRAL POINT STYLE				
SIZE		ORDER NO.	PRICE EACH		ORDER NO.	PRICE EACH			
5-40	NC	2308-101	\$9.72		2309-101	\$10.16			
5-44	NF	2308-110	3.37		2309-107	3.47			
6-32	NC	2308-119	9.02		2309-114	9.89			
6-40	NF	2308-128	9.02		2309-121	9.89			
8-32	NC	2308-137	9.02		2309-128	9.89			
8-36	NF	2308-146	9.02		2309-135	9.89			
10-24	NC	2308-155	9.02		2309-142	9.89			
10-32	NC	2308-164	9.02		2309-149	9.89			
1/4-20	NC	2308-191	8.84		2309-170	8.53			
1/4-28	NF	2308-200	11.22		2309-177	8.53			
5/16-18	NC	2308-209	11.22		2309-184	9.80			
5/16-24	NF	2308-218	11.22		2309-191	9.80			
3/8-16	NC	2308-227	12.84		2309-198	11.14			
3/8-24	NF	2308-236	12.84		2309-205	11.14			

PLUG STYLE					SPIRAL POINT STYLE				
SIZE		ORDER NO.	PRICE EACH		ORDER NO.	PRICE EACH			
7/16-14	NC	2308-245	\$19.32		2309-212	\$ 17.98			
7/16-20	NF	2308-254	19.32		2309-219	17.98			
1/2-13	NC	2308-263	21.55		2309-226	19.97			
1/2-20	NF	2308-272	21.55		2309-233	19.97			
9/16-12	NC	2308-281	35.95		2309-240	30.94			
9/16-18	NF	2308-290	35.95		2309-247	30.94			
5/8-11	NC	2308-299	40.81		2309-254	34.10			
5/8-18	NF	2308-308	40.81		2309-261	34.10			
3/4-10	NC	2308-335	53.95		2309-282	44.96			
3/4-16	NF	2308-344	53.95		2309-289	44.96			
7/8-9	NC	2308-353	64.75		2309-296	56.23			
7/8-14	NF	2308-362	64.75		2309-303	56.23			
1-8	NC	2308-371	74.93		2309-310	62.99			
1-12	NF	2308-380	74.93		2309-317	62.99			
1-14	NS	2308-389	74.93		2309-324	62.99			

Spiral Fluted Taps - High Speed Steel

WARNING: This product contains Cobalt and/or Nickel and/or Lead a chemical known to the state of California to cause cancer or birth defects or other reproductive harm. For more information: www.prop65.ca.gov.
WARNING: Cutting tools may shatter. Always wear approved safety glasses and mask when regrinding.



Slow Spiral - 30°

3



Fast Spiral - 48° - 52°

3

2

30 DEGREE - SLOW SPIRAL										48-52 DEGREE - FAST SPIRAL									
Pittsburg®										Pittsburg®									
ORDER NO.										ORDER NO.									
SIZE	GH	FLUTES	PLUG	BOTTOM	PRICE EACH	FLUTES	PLUG	BOTTOM	PRICE EACH	SIZE	GH	FLUTES	PLUG	BOTTOM	PRICE EACH	FLUTES	PLUG	BOTTOM	PRICE EACH
2-64	2	2	2306-099	2306-100	POA	2	2307-099	2307-100	POA	2-64	2	2	2306-099	2306-100	POA	2	2307-099	2307-100	POA
3-48	2	2	2306-101	2306-102	\$21.56	2	2307-101	2307-102	\$5.58	3-48	2	2	2306-101	2306-102	\$21.56	2	2307-101	2307-102	\$5.58
3-56	2	2	2306-108	2306-109	POA	2	2307-108	2307-109	POA	3-56	2	2	2306-108	2306-109	POA	2	2307-108	2307-109	POA
4-40	2	2	2306-122	2306-123	16.04	2	2307-122	2307-123	14.58	4-40	2	2	2306-122	2306-123	16.04	2	2307-122	2307-123	14.58
4-48	2	2	2306-129	2306-130	POA	2	2307-129	2307-130	POA	4-48	2	2	2306-129	2306-130	POA	2	2307-129	2307-130	POA
5-40	2	2	2306-136	2306-137	16.04	2	2307-136	2307-137	14.58	5-40	2	2	2306-136	2306-137	16.04	2	2307-136	2307-137	14.58
5-44	2	2	2306-143	2306-144	5.14	2	2307-143	2307-144	14.58	5-44	2	2	2306-143	2306-144	5.14	2	2307-143	2307-144	14.58
6-32	1	2	2306-148	2306-149	POA	2	2307-148	2307-149	POA	6-32	1	2	2306-148	2306-149	POA	2	2307-148	2307-149	POA
6-32	2	2	2306-150	2306-151	13.12	2	2307-150	2307-151	11.93	6-32	2	2	2306-150	2306-151	13.12	2	2307-150	2307-151	11.93
6-32	3	2	2306-152	2306-153	3.98	2	2307-152	2307-153	POA	6-32	3	2	2306-152	2306-153	3.98	2	2307-152	2307-153	POA
6-40	3	2	2306-157	2306-158	3.98	2	2307-157	2307-158	POA	6-40	3	2	2306-157	2306-158	3.98	2	2307-157	2307-158	POA
8-32	3	2	2306-164	2306-165	13.12	3	2307-164	2307-165	11.93	8-32	3	2	2306-164	2306-165	13.12	3	2307-164	2307-165	11.93
8-36	3	2	2306-171	2306-172	15.51	3	2307-171	2307-172	POA	8-36	3	2	2306-171	2306-172	15.51	3	2307-171	2307-172	POA
10-24	3	2	2306-178	2306-179	13.12	3	2307-178	2307-179	11.93	10-24	3	2	2306-178	2306-179	13.12	3	2307-178	2307-179	11.93
10-24	3	3	2306-180	2306-181	POA	3	2307-180	2307-181	POA	10-24	3	3	2306-180	2306-181	POA	3	2307-180	2307-181	POA
10-32	3	2	2306-186	2306-187	13.12	3	2307-186	2307-187	11.93	10-32	3	2	2306-186	2306-187	13.12	3	2307-186	2307-187	11.93
10-32	3	3	2306-188	2306-189	POA	3	2307-188	2307-189	POA	10-32	3	3	2306-188	2306-189	POA	3	2307-188	2307-189	POA
12-24	3	2	2306-193	2306-194	14.19	3	2307-193	2307-194	12.92	12-24	3	2	2306-193	2306-194	14.19	3	2307-193	2307-194	12.92
12-28	3	3	2306-195	2306-196	POA	3	2307-195	2307-196	POA	12-28	3	3	2306-195	2306-196	POA	3	2307-195	2307-196	POA
1/4-20	3	3	2306-200	2306-201	14.37	3	2307-200	2307-201	POA	1/4-20	3	3	2306-200	2306-201	14.37	3	2307-200	2307-201	POA
1/4-28	1	3	2306-202	2306-203	POA	3	2307-202	2307-203	POA	1/4-28	1	3	2306-202	2306-203	POA	3	2307-202	2307-203	POA
1/4-28	3	3	2306-214	2306-215	14.37	3	2307-214	2307-215	12.56	1/4-28	3	3	2306-214	2306-215	14.37	3	2307-214	2307-215	12.56
5/16-18	3	3	2306-221	2306-222	20.26	3	2307-221	2307-222	15.98	5/16-18	3	3	2306-221	2306-222	20.26	3	2307-221	2307-222	15.98
5/16-18	5	3	2306-223	2306-224	POA	3	2307-223	2307-224	POA	5/16-18	5	3	2306-223	2306-224	POA	3	2307-223	2307-224	POA
5/16-24	3	3	2306-228	2306-229	21.05	3	2307-228	2307-229	15.98	5/16-24	3	3	2306-228	2306-229	21.05	3	2307-228	2307-229	15.98
3/8-16	3	3	2306-235	2306-236	23.17	3	2307-235	2307-236	18.36	3/8-16	3	3	2306-235	2306-236	23.17	3	2307-235	2307-236	18.36
3/8-24	3	3	2306-242	2306-243	6.26	3	2307-242	2307-243	18.36	3/8-24	3	3	2306-242	2306-243	6.26	3	2307-242	2307-243	18.36
7/16-14	3	3	2306-254	2306-255	31.90	3	2307-254	2307-255	POA	7/16-14	3	3	2306-254	2306-255	31.90	3	2307-254	2307-255	POA
7/16-14	5	3	2306-256	2306-257	POA	3	2307-256	2307-257	POA	7/16-14	5	3	2306-256	2306-257	POA	3	2307-256	2307-257	POA
7/16-20	3	3	2306-261	2306-262	38.13	3	2307-261	2307-262	27.45	7/16-20	3	3	2306-261	2306-262	38.13	3	2307-261	2307-262	27.45
1/2-13	3	3	2306-268	2306-269	38.13	3	2307-268	2307-269	33.08	1/2-13	3	3	2306-268	2306-269	38.13	3	2307-268	2307-269	33.08
1/2-13	5	3	2306-270	2306-271	POA	3	2307-270	2307-271	POA	1/2-13	5	3	2306-270	2306-271	POA	3	2307-270	2307-271	POA
1/2-20	3	3	2306-275	2306-276	38.13	3	2307-275	2307-276	33.08	1/2-20	3	3	2306-275	2306-276	38.13	3	2307-275	2307-276	33.08
1/2-20	5	3	2306-277	2306-278	POA	3	2307-277	2307-278	POA	1/2-20	5	3	2306-277	2306-278	POA	3	2307-277	2307-278	POA
9/16-12	3	4	2306-237	2306-238	POA	4	2307-237	2307-238	POA	9/16-12	3	4	2306-237	2306-238	POA	4	2307-237	2307-238	POA
9/16-12	4	3	2306-239	2306-240	POA	3	2307-239	2307-240	POA	9/16-12	4	3	2306-239	2306-240	POA	3	2307-239	2307-240	POA
9/16-18	3	3	2306-272	2306-273	POA	3	2307-272	2307-273	POA	9/16-18	3	3	2306-272	2306-273	POA	3	2307-272	2307-273	POA
9/16-18	5	3	2306-280	2306-281	POA	3	2307-280	2307-281	POA	9/16-18	5	3	2306-280	2306-281	POA	3	2307-280	2307-281	POA
5/8-11	3	3	2306-282	2306-283	POA	4	2307-282	2307-283	49.23	5/8-11	3	3	2306-282	2306-283	POA	4	2307-282	2307-283	49.23
5/8-18	3	4	2306-263	2306-264	POA	4	2307-263	2307-264	POA	5/8-18	3	4	2306-263	2306-264	POA	4	2307-263	2307-264	POA
11/16-11	3	4	2306-265	2306-266	POA	4	2307-265	2307-266	POA	11/16-11	3	4	2306-265	2306-266	POA	4	2307-265	2307-266	POA
11/16-16	3	4	2306-204	2306-205	POA	4	2307-204	2307-205	POA	11/16-16	3	4	2306-204	2306-205	POA	4	2307-204	2307-205	POA
3/4-10	3	3	2306-284	2306-285	POA	4	2307-284	2307-285	58.72	3/4-10	3	3	2306-284	2306-285	POA	4	2307-284	2307-285	58.72
3/4-10	3	4	2306-286	2306-287	POA	4	2307-286	2307-287	POA	3/4-10	3	4	2306-286	2306-287	POA	4	2307-286	2307-287	POA
3/4-16	3	4	2306-288	2306-289	POA	4	2307-288	2307-289	58.72	3/4-16	3	4	2306-288	2306-289	POA	4	2307-288	2307-289	58.72
7/8-14	3	4	2306-290	2306-291	POA	4	2307-290	2307-291	POA	7/8-14	3	4	2306-290	2306-291	POA	4	2307-290	2307-291	POA
1-8	4	4	2306-292	2306-293	POA	4	2307-292	2307-293	POA	1-8	4	4	2306-292	2306-293	POA	4	2307-292	2307-293	POA
1-14	4	4	2306-294	2306-295	POA	4	2307-294	2307-295	POA	1-14	4	4	2306-294	2306-295	POA	4	2307-294	2307-295	POA

Metric - Fast Spiral

• Ground thread • High Speed Steel

2



					 USA MADE			
NOMINAL SIZE AND PITCH	D LIMIT	FLUTE NO.	PLUG ORDER NO.	PRICE EACH	BOTTOM ORDER NO.	PRICE EACH	PLUG ORDER NO.	PRICE EACH
3 x 0.5	D3	2	3782-227	\$5.09	3781-226	\$18.37	3781-227	\$18.37
3.5 x 0.6	D4	3	3782-281	5.65	3781-280	20.21	3781-281	POA
4 x 0.5	D4	3	3782-325	POA	—	—	—	—
4 x 0.7	D4	3	3782-326	4.32	3781-325	14.95	3781-326	15.21
4.5 x 0.75	D4	3	3782-353	5.65	—	—	—	—
5 x 0.8	D4	3	3782-389	4.32	3781-388	14.95	3781-389	14.95
6 x 1	D5	3	3782-465	4.32	3781-464	16.28	3781-465	16.28
7 x 1	D5	3	3782-524	4.76	3781-523	24.48	3781-524	23.08
8 x 1	D5	3	3782-569	4.87	3781-568	21.98	3781-569	21.78
8 x 1.25	D5	3	3782-578	5.31	3781-577	20.01	3781-578	20.31

Left Hand Taps – Ground Thread – High Speed Steel

WARNING: This product contains Cobalt and/or Nickel and/or Lead a chemical known to the state of California to cause cancer or birth defects or other reproductive harm. For more information: www.pro65.ca.gov.
WARNING: Cutting tools may shatter. Always wear approved safety glasses and mask when regrinding.



Bottom



Plug



Taper

  USA MADE															
ORDER NUMBER										ORDER NUMBER					
SIZE	GH	FLUTES	BOTTOM	PLUG	TAPER	PRICE EACH	SET ORDER NO.	PRICE EACH	BOTTOM	PLUG	TAPER	PRICE EACH	SET ORDER NO.	PRICE EACH	
6-32	NC	3	3	3522-531	3522-532	3522-533	\$6.76	2301-253	\$20.28	3792-531	3792-532	—	\$16.72	—	—
6-40	NF	2	3	3522-721	3522-722	3522-723	6.76	—	—	—	—	—	—	—	—
8-32	NC	3	4	3522-931	3522-932	3522-933	6.76	2301-293	20.28	3792-931	3792-932	3792-933	12.91	—	—
8-36	NF	2	4	3523-121	3523-122	3523-123	6.76	—	—	—	—	—	—	—	—
10-24	NC	3	4	3523-331	3523-332	3523-333	6.76	2301-333	20.28	3793-331	3793-332	3793-333	21.54	—	—
10-32	NC	3	4	3523-531	3523-532	3523-533	6.76	2301-353	20.28	3793-531	3793-532	3793-533	19.45	—	—
1/4-20	NC	3	4	3524-131	3524-132	3524-133	7.91	2301-413	23.73	3794-131	3794-132	3794-133	21.47	3791-413	\$46.20
1/4-28	NF	3	4	3524-331	3524-332	3524-333	7.91	2301-433	23.73	3794-331	3794-332	3794-333	20.63	—	—
5/16-18	NC	3	4	3524-531	3524-532	3524-533	8.77	2301-453	26.31	3794-531	3794-532	3794-533	23.36	3791-453	53.82
5/16-24	NF	3	4	3524-731	3524-732	3524-733	8.77	2301-473	26.31	3794-731	3794-732	3794-733	27.95	3791-473	57.60
3/8-16	NC	3	4	3524-931	3524-932	3524-933	11.35	2301-493	34.05	3794-931	3794-932	3794-933	25.64	3791-493	56.64
3/8-24	NF	3	4	3525-131	3525-132	3525-133	11.35	2301-513	34.05	3795-131	3795-132	3795-133	25.20	3791-513	59.67
7/16-14	NC	3	4	3525-331	3525-332	3525-333	14.51	2301-533	43.53	3795-331	3795-332	3795-333	41.92	3791-533	86.40
7/16-20	NF	3	4	3525-531	3525-532	3525-533	14.51	2301-553	43.53	3795-531	3795-532	3795-533	41.92	3791-553	92.58
1/2-13	NC	3	4	3525-731	3525-732	3525-733	17.15	2301-573	51.45	3795-731	3795-732	3795-733	43.36	3791-573	89.40
1/2-20	NF	3	4	3525-931	3525-932	3525-933	17.15	2301-593	51.45	3795-931	3795-932	3795-933	40.92	3791-593	90.39
9/16-12	NC	3	4	3526-131	3526-132	3526-133	25.59	2301-613	76.77	3796-131	3796-132	3796-133	44.25	3791-613	91.20
9/16-18	NF	3	4	3526-331	3526-332	3526-333	25.59	2301-633	76.77	3796-331	3796-332	3796-333	45.41	3791-633	100.29
5/8-11	NC	3	4	3526-531	3526-532	3526-533	32.47	2301-653	97.41	3796-531	3796-532	3796-533	45.95	3791-653	113.55
5/8-18	NF	3	4	3526-731	3526-732	3526-733	32.47	2301-673	97.41	3796-731	3796-732	3796-733	55.08	3791-673	121.65
11/16-11	NC	3	4	3526-931	3526-932	3526-933	35.74	—	—	3796-931	3796-932	3796-933	51.00	—	—
11/16-16	NF	3	4	3527-131	3527-132	3527-133	35.74	—	—	3797-131	3797-132	3797-133	64.86	—	—
3/4-10	NC	3	4	3527-331	3527-332	3527-333	42.34	2301-733	127.02	3797-331	3797-332	3797-333	96.77	3791-733	162.81
3/4-16	NF	3	4	3527-531	3527-532	3527-533	42.34	2301-753	127.02	3797-531	3797-532	3797-533	73.71	3791-753	162.81
7/8-9	NC	4	4	3527-741	3527-742	3527-743	57.48	2301-774	172.44	3797-741	3797-742	3797-743	95.55	3791-774	183.60
7/8-14	NF	4	4	3527-941	3527-942	3527-943	57.48	2301-794	172.44	3797-941	3797-942	3797-943	83.12	3791-794	183.60
1-8	NC	4	4	3528-141	3528-142	3528-143	75.23	2301-814	225.69	3798-141	3798-142	3798-143	115.89	3791-814	206.58
1-12	NF	4	4	3528-341	3528-342	3528-343	75.23	2301-834	225.69	3798-341	3798-342	3798-343	115.89	3791-834	206.58
1-14	NS	4	4	3528-541	3528-542	3528-543	75.23	2301-854	225.69	3798-541	3798-542	3798-543	115.89	3791-854	206.58
1-1/8-7	NC	4	4	3528-741	3528-742	3528-743	126.59	—	—	3798-741	3798-742	3798-743	170.71	—	—
1-1/8-12	NF	4	4	3528-941	3528-942	3528-943	126.59	—	—	3798-941	3798-942	3798-943	155.45	—	—
1-1/4-7	NC	4	4	3529-041	3529-042	3529-043	159.81	—	—	3799-041	3799-042	3799-043	220.62	—	—
1-1/4-12	NF	4	6	3529-141	3529-142	3529-143	159.81	—	—	3799-141	3799-142	3799-143	220.62	—	—
1-3/8-6	NC	4	4	3529-541	3529-542	3529-543	199.03	—	—	3799-541	3799-542	3799-543	240.95	—	—
1-3/8-12	NF	4	6	3529-741	3529-742	3529-743	199.03	—	—	3799-741	3799-742	3799-743	179.94	—	—
1-1/2-6	NC	4	4	3529-841	3529-842	3529-843	231.00	—	—	3799-841	3799-842	3799-843	274.79	—	—
1-1/2-12	NF	4	6	3529-941	3529-942	3529-943	231.00	—	—	3799-941	3799-942	3799-943	274.79	—	—

Left Hand Metric Taps ²

						USA MADE			
SIZE	PITCH DIA LIMIT	FLUTE NO.	BOTT. ORDER NO.	PLUG ORDER NO.	PRICE EACH	BOTT. ORDER NO.	PLUG ORDER NO.	TAPER ORDER NO.	PRICE EACH
M1.70 X 0.35	D2	2	3787-315	3787-316	POA	-	-	-	-
M2.0 x 0.40	D4	3	3787-317	3787-318	POA	-	-	-	-
M2.6 x 0.45	D4	3	3787-319	3787-320	POA	-	-	-	-
M3.0 x 0.50	D4	3	3787-321	3787-322	POA	-	-	-	-
M3.5 x 0.60	D4	3	3787-323	3787-324	POA	3789-028	3789-029	3789-030	\$19.70
M4.0 x 0.70	D4	4	3787-325	3787-326	\$14.71	3789-034	3789-035	3789-036	23.13
M5.0 x 0.80	D4	4	3787-388	3787-389	15.50	3789-043	3789-044	3789-045	24.08
M6.0 x 1.00	D5	4	3787-390	3787-391	POA	3789-058	3789-059	3789-060	15.72
M7.0 x 1.00	D5	4	3787-523	3787-524	5.04	3789-064	3789-065	3789-066	23.03
M8.0 x 1.00	D5	4	3787-525	3787-526	POA	3789-070	3789-071	3789-072	20.91
M8.0 x 1.25	D5	4	3787-577	3787-578	18.29	3789-073	3789-074	3789-075	18.09
M10.0 x 1.25	D5	4	3787-685	3787-686	21.03	3789-088	3789-089	3789-090	27.53
M10.0 x 1.50	D6	4	3787-694	3787-695	21.03	3789-091	3789-092	3789-093	26.74
M12.0 x 1.25	D5	4	3787-778	3787-779	40.95	3789-103	3789-104	3789-105	35.80
M12.0 x 1.75	D6	4	3787-780	3787-781	POA	3789-109	3789-110	3789-111	37.01
M14.0 x 1.50	D6	4	3787-782	3787-783	POA	3789-118	3789-119	3789-120	43.53
M14.0 x 2.00	D7	4	3787-963	3787-964	53.40	3789-121	3789-122	3789-123	38.66
M16.0 x 0.75	D6	4	3788-000	3788-001	POA	-	-	-	-
M16.0 x 1.25	D6	4	-	3788-052	29.10	-	-	-	-
M16.0 x 1.50	D6	4	3788-061	3788-062	POA	3789-130	3789-131	3789-132	45.51
M16.0 x 2.00	D7	4	3788-070	3788-071	POA	3789-133	3789-134	3789-135	49.56
M18.0 x 1.50	D6	4	3788-072	3788-073	POA	3789-139	3789-140	3789-141	60.48
M18.0 x 2.50	D7	4	3788-074	3788-075	POA	3789-145	3789-146	3789-147	72.85
M20.0 x 1.50	D6	4	3788-076	3788-077	POA	3789-151	3789-152	3789-153	71.05
M20.0 x 2.50	D7	4	3788-241	3788-242	108.39	3789-157	3789-158	3789-159	71.05
M22.0 x 1.50	D6	4	3788-268	3788-269	POA	3789-163	3789-164	3789-165	73.20
M22.0 x 2.50	D7	4	3788-270	3788-271	POA	3789-169	3789-170	3789-171	73.20
M24.0 x 2.00	D7	4	3788-272	3788-273	POA	3789-178	3789-179	3789-180	82.68
M24.0 x 3.00	D8	4	3788-274	3788-275	POA	3789-181	3789-182	3789-183	82.68
M27.0 x 2.00	-	4	3788-276	3788-277	POA	-	-	-	-
M27.0 x 3.00	-	4	3788-278	3788-279	POA	-	-	-	-
M30.0 x 2.00	-	4	3788-280	3788-281	POA	-	-	-	-
M30.0 x 3.00	-	4	3788-557	3788-558	100.70	-	-	-	-
M45.0 x 1.50	-	6	3788-559	3788-560	POA	-	-	-	-

Left Hand Special Hand Taps

High Speed Steel

FOR 2 OR MORE PIECES,
CALL FOR PRICE

WARNING: This product contains Cobalt and/or Nickel and/or Lead a chemical known to the state of California to cause cancer or birth defects or other reproductive harm. For more information: www.pro65.ca.gov.
WARNING: Cutting tools may alter. Always wear approved safety glasses and mask when regrinding.



Bottom



Plug



Taper

1

Pittsburg® ALLEGHANY						
SIZE	GH LIMIT	BOTTOMING	PLUG	TAPER	PRICE EACH	SPIRAL POINT
00-90	GH1	2370-165	2370-166	2370-167	POA	-
00-96	GH1	-	2370-182	-	POA	-
0-80	GH1	3520-111	3520-112	-	POA	2390-142
1-56	GH1	2370-335	2370-336	2370-337	POA	-
1-64	GH1	3520-311	-	-	POA	2390-159
1-72	GH1	3520-511	-	-	POA	2390-161
2-44	GH1	2370-427	2370-428	2370-429	POA	-
2-56	GH1	3520-711	3520-712	3520-713	POA	-
2-56	GH2	3520-721	3520-722	3520-723	\$8.25	-
2-64	GH2	2370-448	2370-449	2370-450	8.25	2390-205
3-36	GH2	2370-510	2370-511	2370-512	POA	-
3-48	GH1	2370-519	2370-520	2370-521	POA	-
3-48	GH2	3521-121	3521-122	3521-123	8.25	2390-291
3-56	GH2	3521-321	3521-322	-	8.25	2390-293
4-32	GH1	2370-615	2370-616	2370-617	POA	-
4-32	GH3	-	-	-	-	2390-336
4-36	GH2	2370-621	2370-622	2370-623	POA	2390-339
4-40	GH2	3521-721	3521-722	3521-723	7.59	2390-341
4-48	GH1	-	3521-912	-	POA	-
4-48	GH2	2370-627	2370-628	2370-629	8.25	2390-345
4-64	GH1	2370-650	2370-651	2370-652	POA	-
4-72	GH1	2370-653	2370-654	2370-655	POA	-
4-80	GH1	2370-665	2370-666	2370-667	POA	-
5-24	GH3	2370-742	2370-743	2370-744	POA	2390-395
5-36	GH2	2370-760	2370-761	2370-762	POA	-
5-40	GH1	2370-770	2370-771	2370-772	POA	-
5-40	GH2	3522-121	3522-122	3522-123	7.59	2390-410
5-44	GH2	3522-321	3522-322	3522-323	8.25	-
5-48	GH2	2370-775	2370-776	2370-777	POA	-
5-64	GH2	2370-805	2370-806	2370-807	POA	-
5-72	GH2	2370-808	2370-809	2370-810	POA	-
5-80	GH2	2370-825	2370-826	2370-827	POA	-
6-24	GH3	2370-916	2370-917	2370-918	POA	-
6-32	GH1	-	-	-	-	2390-432
6-32	GH7	-	-	-	-	2390-445
6-36	GH1	2370-925	2370-926	2370-927	POA	-
6-40	GH1	-	3522-712	3522-713	POA	2390-451
6-40	GH2	2370-931	2370-932	2370-933	POA	-
6-56	GH2	2370-955	2370-956	2370-957	POA	-
6-64	GH2	2370-985	2370-986	2370-987	POA	-
8-24	GH3	2371-148	2371-149	2371-150	POA	-
8-32	GH1	-	2371-159	-	POA	-
8-32	GH2	-	3522-912	-	POA	-
8-32	GH2	2371-155	2371-156	2371-157	POA	-
8-36	GH1	2371-172	2371-173	2371-174	POA	2390-621
8-40	GH2	2371-175	2371-176	2371-177	POA	2390-628
8-48	GH2	2371-190	2371-191	2371-192	POA	-
8-56	GH2	2371-193	2371-194	2371-195	POA	-
8-60	GH2	2371-205	2371-206	2371-207	POA	-
8-64	GH2	2371-222	2371-223	2371-224	POA	-
8-80	GH2	2371-255	2371-256	2371-257	POA	-
9-46	GH2	2371-396	2371-397	2371-398	POA	-
10-24	GH1	3523-311	3523-312	-	POA	-
10-24	GH4	2371-426	2371-427	2371-428	POA	-
10-28	GH2	2371-435	2371-436	2371-437	POA	-
10-32	GH2	2371-454	2371-455	2371-456	POA	-
10-32	GH7	-	-	-	-	2390-762
10-34	GH2	2371-459	2371-460	2371-461	POA	-
10-36	GH2	2371-465	2371-466	2371-467	POA	-
10-38	GH2	2371-438	2371-439	2371-440	POA	-
10-40	GH2	2371-480	2371-481	2371-482	POA	-
10-44	GH2	2371-487	2371-488	2371-489	POA	-
10-46	GH2	2371-493	2371-494	2371-495	POA	-
10-48	GH2	2371-498	2371-496	2371-497	POA	-
10-56	GH2	2371-505	2371-506	2371-507	POA	-
10-80	GH2	2371-565	2371-566	2371-567	POA	-
10-96	GH1	2371-510	2371-511	2371-512	POA	-
12-24	GH3	3523-731	3523-732	3523-733	7.91	2390-888
12-28	GH3	3523-931	3523-932	3523-933	7.91	2390-892
12-32	GH3	2371-710	2371-711	2371-712	POA	2390-896
12-40	GH2	2371-743	2371-741	2371-742	POA	2390-904
12-46	GH2	2371-745	2371-746	2371-747	POA	-
14-24	GH3	2371-951	2371-952	2371-953	POA	-
100-100	GH2	2373-001	2373-002	2373-003	POA	-
5/32-32	GH3	2373-825	2373-826	2373-827	POA	-
5/32-36	GH1	2373-836	2373-837	2373-838	POA	2392-064
5/32-40	GH2	2373-845	2373-846	2373-847	POA	-
3/16-24	GH2	2374-006	2374-007	2374-008	POA	-
3/16-32	GH2	2374-020	2374-021	2374-022	POA	2392-171
3/16-40	GH3	2373-424	2373-425	2373-426	POA	-
3/16-48	GH3	2374-035	2374-036	2374-037	POA	-
7/32-20	GH3	2374-214	2374-215	2374-216	POA	-
7/32-24	GH3	2374-220	2374-221	2374-222	POA	-

Pittsburg® ALLEGHANY							
SIZE	GH LIMIT	BOTTOMING	PLUG	TAPER	PRICE EACH	SPIRAL POINT	PRICE EACH
7/32-28	GH3	2374-230	2374-231	2374-232	POA	-	-
7/32-32	GH3	2374-240	2374-241	2374-242	POA	-	-
7/32-36	GH3	2374-245	2374-246	2374-247	POA	-	-
7/32-40	GH3	2374-260	2374-261	2374-262	POA	-	-
7/32-64	GH3	2374-273	2374-274	2374-275	POA	-	-
1/4-12	GH3	2374-445	2374-446	2374-447	POA	-	-
1/4-14	GH3	2374-451	2374-452	2374-453	POA	-	-
1/4-16	GH3	2374-457	2374-458	2374-459	POA	-	-
1/4-18	GH3	2374-450	2374-449	2374-448	POA	-	-
1/4-20	GH1	3524-111	3524-112	3524-113	POA	2392-394	POA
1/4-20	GH2	3524-121	3524-122	3524-123	POA	-	-
1/4-20	GH5	3524-151	3524-152	3524-153	POA	-	-
1/4-20	GH7	-	-	-	-	2392-398	POA
1/4-20	GH9	-	-	-	-	2392-400	POA
1/4-22	GH3	2374-463	2374-464	2374-465	POA	-	-
1/4-23	GH3	2374-469	2374-470	2374-471	POA	-	-
1/4-24	GH3	2374-475	2374-476	2374-477	POA	2392-403	POA
1/4-25	GH3	2374-488	2374-489	2374-490	POA	-	-
1/4-26	GH3	2374-481	2374-482	2374-483	POA	-	-
1/4-27	GH1	2374-485	2374-486	2374-487	POA	-	-
1/4-28	GH1	3524-311	3524-312	3524-313	POA	-	-
1/4-28	GH2	3524-321	3524-322	3524-323	POA	-	-
1/4-30	GH3	2374-491	2374-492	2374-493	POA	-	-
1/4-32	GH3	2374-505	2374-506	-	\$18.24	2392-413	POA
1/4-36	GH2	2374-510	2374-511	2374-512	POA	-	-
1/4-40	GH2	2374-520	2374-521	2374-522	POA	2392-420	POA
1/4-44	GH3	2374-514	2374-515	2374-516	POA	-	-
1/4-48	GH2	2374-535	2374-536	2374-537	POA	-	-
1/4-56	GH3	2374-550	2374-551	2374-552	POA	2392-431	POA
1/4-60	GH1	2374-565	2374-566	2374-567	POA	-	-
1/4-64	GH2	2374-580	2374-581	2374-582	POA	-	-
1/4-80	GH2	2374-620	2374-621	2374-622	POA	-	-
9/32-32	GH2	2374-880	2374-881	2374-882	POA	-	-
9/32-40	GH2	2374-900	2374-901	2374-902	POA	-	-
5/16-12	GH3	2375-066	2375-067	2375-068	POA	-	-
5/16-14	GH3	2375-073	2375-074	2375-075	POA	-	-
5/16-16	GH3	2375-077	2375-078	2375-079	POA	-	-
5/16-18	GH1	3524-511	3524-512	3524-513	POA	2392-600	POA
5/16-18	GH2	3524-521	3524-522	3524-523	POA	-	-
5/16-18	GH5	3524-551	3524-552	3524-553	POA	2392-608	POA
5/16-20	GH3	2375-070	2375-071	2375-072	POA	-	-
5/16-24	GH1	3524-711	3524-712	3524-713	POA	-	-
5/16-24	GH2	3524-721	3524-722	3524-723	POA	-	-
5/16-24	GH12	-	-	-	-	2392-705	POA
5/16-27	GH3	2375-090	2375-091	2375-092	18.24	-	-
5/16-28	GH3	2375-111	2375-112	2375-113	POA	2392-708	POA
5/16-30	GH1	2375-095	2375-096	2375-097	POA	-	-
5/16-32	GH3	2375-120	2375-121	2375-122	18.24	2392-713	POA
5/16-36	GH4	2375-135	2375-136	2375-137	POA	-	-
5/16-40	GH3	2375-153	2375-154	2375-155	POA	2392-721	POA
5/16-42	GH2	2375-106	2375-107	2375-108	POA	-	-
5/16-44	GH2	2375-117	2375-118	2375-119	POA	-	-
5/16-48	GH2	2375-165	2375-166	2375-167	POA	-	-
5/16-50	GH2	2375-123	2375-124	2375-125	POA	-	-
5/16-64	GH2	2375-200	2375-201	2375-202	POA	-	-
5/16-80	GH3	2375-230	2375-231	2375-232	POA	-	-
11/32-24	GH3	2375-448	2375-449	2375-450	POA	-	-
11/32-28	GH3	2375-467	2375-468	2375-469	POA	-	-
11/32-32	GH3	2375-470	2375-471	2375-472	POA	-	-
11/32-40	GH2	2375-484	2375-485	2375-486	POA	-	-
3/8-9	GH3	2375-707	2375-708	2375-709	POA	-	-
3/8-10	GH3	2375-704	2375-705	2375-706	POA	-	-
3/8-11	GH3	2375-713	2375-714	2375-715	POA	-	-
3/8-12	GH3	2375-710	2375-711	2375-712	POA	-	-
3/8-14	GH3	2375-722	2375-723	2375-724	POA	-	-
3/8-16	GH1	3524-911	3524-912	3524-913	POA	-	-
3/8-16	GH5	3524-951	3524-952	3524-953	POA	2393-017	POA
3/8-16	GH7	-	-	-	-	2393-016	POA
3/8-18	GH3	2375-728	2375-729	2375-730	POA	2393-018	POA
3/8-20	GH2	2375-740	2375-741	2375-742	POA	2393-022	POA
3/8-24	GH1	3525-111	3525-112	3525-113	POA	-	-
3/8-24	GH2	3525-121	3525-122	3525-123	POA	-	-
3/8-24	GH4	3525-141	3525-142	3525-143	POA	-	-
3/8-25	GH3	2375-743	2375-744	2375-745	POA	-	-
3/8-26	GH3	2375-746	2375-747	2375-748	POA	-	-
3/8-27	GH3	2375-760	2375-761	2375-762	POA	-	-
3/8-28	GH3	2375-769	2375-770	2375-771	POA	-	-
3/8-32	GH3	2375-777	2375-778	2375-779	18.56	-	-
3/8-36	GH2	2375-804	2375-805	2375-806	POA	-	-
3/8-40	GH3	2375-828	2375-829	2375-830	POA	-	-
25/64-16	GH3	2375-984	2375-985	2375-986	POA	-	-
13/32-16	GH3	2376-076	2376-077	2376-078	POA	-	-
13/32-18	GH3	2376-081	2376-082	2376-083	POA	-	-

Left Hand Special Hand Taps

High Speed Steel

FOR 2 OR MORE PIECES,
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WARNING: Cutting tools may shatter. Always wear approved safety glasses and mask when regrounding.



Bottom



Plug



Taper

1

Pittsburg® ALLEGHENY							
SIZE	GH LIMIT	BOTTOMING	PLUG	TAPER	PRICE EACH	SPIRAL POINT	PRICE EACH
13/32-20	GH2	2376-087	2376-088	2376-089	POA	-	-
13/32-24	GH3	2376-090	2376-091	2376-092	POA	-	-
13/32-32	GH3	2376-116	2376-117	2376-118	POA	-	-
27/64-32	GH3	2376-225	2376-226	2376-227	POA	-	-
7/16-10	GH3	2376-288	2376-289	2376-290	POA	-	-
7/16-12	GH3	2376-294	2376-295	2376-296	POA	-	-
7/16-13	GH3	2376-297	2376-298	2376-299	POA	-	-
7/16-14	GH4	-	3525-342	-	POA	-	-
7/16-14	GH5	3525-351	3525-352	3525-353	POA	2393-279	POA
7/16-14	GH12	3525-421	-	-	POA	-	-
7/16-16	GH3	2376-300	2376-301	2376-302	POA	-	-
7/16-18	GH3	2376-312	2376-313	2376-314	POA	-	-
7/16-20	GH5	3525-551	3525-552	3525-553	POA	-	-
7/16-20	GH8	2376-315	2376-316	2376-317	POA	-	-
7/16-20	GH9	2376-318	2376-319	2376-320	POA	-	-
7/16-20	GH13	2376-321	2376-322	2376-323	POA	-	-
7/16-24	GH3	2376-324	2376-325	2376-326	\$20.50	-	-
7/16-27	GH3	2376-336	2376-337	2376-338	POA	-	-
7/16-28	GH3	2376-349	2376-350	2376-351	POA	-	-
7/16-32	GH3	2376-366	2376-367	2376-368	POA	-	-
7/16-36	GH3	2376-400	2376-401	2376-402	POA	-	-
7/16-40	GH3	2376-415	2376-416	2376-417	POA	-	-
15/32-18	GH3	2376-627	2376-628	2376-629	POA	-	-
15/32-20	GH3	2376-634	2376-635	2376-636	POA	-	-
15/32-24	GH3	2376-641	2376-642	2376-643	POA	-	-
15/32-32	GH3	2376-660	2376-661	2376-662	POA	-	-
15/32-36	GH3	2376-667	2376-668	2376-669	POA	-	-
15/32-40	GH2	2376-673	2376-674	2376-675	POA	-	-
1/2-10	GH3	2376-808	2376-809	2376-810	POA	-	-
1/2-11	GH3	2376-812	2376-813	2376-814	POA	-	-
1/2-12	GH3	2376-815	2376-816	2376-817	POA	2393-566	POA
1/2-13	GH1	3525-711	3525-712	3525-713	POA	-	-
1/2-13	GH5	3525-751	3525-752	3525-753	POA	2393-567	POA
1/2-14	GH3	2376-820	2376-821	2376-822	POA	-	-
1/2-16	GH3	2376-830	2376-831	2376-832	POA	-	-
1/2-18	GH3	2376-850	2376-851	2376-852	POA	-	-
1/2-20	GH1	-	-	-	-	2393-573	POA
1/2-20	GH7	-	-	-	-	2393-579	POA
1/2-22	GH3	2376-826	2376-827	2376-828	POA	-	-
1/2-24	GH3	2376-865	2376-866	2376-867	23.39	-	-
1/2-26	GH3	2376-837	2376-838	2376-839	POA	-	-
1/2-27	GH3	2376-880	2376-881	2376-882	POA	-	-
1/2-28	GH3	2376-895	2376-896	2376-897	POA	-	-
1/2-32	GH3	2376-925	2376-926	2376-927	23.39	2393-603	\$20.69
1/2-36	GH3	2376-940	2376-941	2376-942	POA	-	-
1/2-40	GH3	2376-965	2376-966	2376-967	POA	-	-
1/2-44	GH3	2376-955	2376-956	2376-957	POA	-	-
1/2-50	GH3	2376-961	2376-962	2376-963	POA	-	-
1/2-64	GH1	2377-025	2377-026	2377-027	POA	-	-
1/2-68	GH3	2377-031	2377-032	2377-033	POA	-	-
1/2-80	GH2	2377-064	2377-065	2377-066	POA	-	-
33/64-13	GH3	2377-095	2377-096	2377-097	POA	-	-
37/64-18	GH3	2377-102	2377-103	2377-104	POA	-	-
17/32-13	GH3	2377-179	2377-180	2377-181	POA	-	-
17/32-20	GH3	2377-200	2377-201	2377-202	POA	-	-
9/16-8	GH4	2377-380	2377-381	2377-382	POA	-	-
9/16-10	GH5	2377-383	2377-384	2377-385	POA	-	-
9/16-11	GH3	2377-386	2377-387	2377-388	POA	-	-
9/16-12	GH3	-	-	-	-	2393-853	30.20
9/16-12	GH5	2377-389	2377-390	2377-391	POA	2393-855	POA
9/16-14	GH3	2377-392	2377-393	2377-394	POA	-	-
9/16-16	GH3	2377-399	2377-400	2377-401	POA	-	-
9/16-18	GH3	-	-	-	-	2393-860	30.20
9/16-20	GH3	2377-409	2377-410	2377-411	POA	-	-
9/16-20	GH20	-	2377-415	-	POA	-	-
9/16-24	GH3	2377-421	2377-422	2377-423	POA	-	-
9/16-27	GH3	2377-442	2377-443	2377-444	POA	-	-
9/16-28	GH3	2377-457	2377-458	2377-459	POA	-	-
9/16-32	GH3	2377-472	2377-473	2377-474	POA	-	-
9/16-40	GH3	2377-502	2377-503	2377-504	POA	-	-
19/32-32	GH3	2377-740	2377-741	2377-742	POA	-	-
5/8-9	GH3	2377-899	2377-900	2377-901	POA	-	-
5/8-10	GH3	2377-902	2377-903	2377-904	POA	-	-
5/8-11	GH5	3526-551	3526-552	3526-553	POA	-	-
5/8-11 1/2	GH3	2377-905	2377-906	2377-907	POA	-	-
5/8-12	GH3	2377-915	2377-916	2377-917	POA	-	-
5/8-14	GH3	2377-930	2377-931	2377-932	POA	-	-
5/8-16	GH3	2377-945	2377-946	2377-947	POA	-	-
5/8-18	GH1	2377-948	2377-949	2377-950	POA	-	-
5/8-18	GH5	3526-751	3526-752	3526-753	POA	-	-
5/8-20	GH3	2377-957	2377-958	2377-959	POA	-	-
5/8-24	GH3	2377-969	2377-970	2377-971	35.93	-	-
5/8-27	GH3	2377-987	2377-988	2377-989	POA	-	-
5/8-28	GH3	2377-999	2378-000	2378-001	POA	-	-
5/8-32	GH3	2378-011	2378-012	2378-013	35.93	-	-
5/8-40	GH3	2378-035	2378-036	2378-037	POA	-	-

Pittsburg® ALLEGHENY					
SIZE	GH LIMIT	BOTTOMING	PLUG	TAPER	PRICE EACH
41/64-11	GH3	2378-135	2378-136	2378-137	POA
41/64-18	GH3	2378-142	2378-143	2378-144	POA
11/16-10	GH3	2378-400	2378-401	2378-402	POA
11/16-11	PG1	2378-403	-	-	POA
11/16-12	GH3	2378-406	2378-407	2378-408	POA
11/16-14	GH3	2378-418	2378-419	2378-420	POA
11/16-18	GH3	2378-430	2378-431	-	\$44.36
11/16-20	GH3	2378-442	2378-443	2378-444	POA
11/16-24	GH3	2378-455	2378-456	2378-457	POA
11/16-24	GH5	2378-461	2378-462	2378-463	POA
11/16-32	GH3	2378-497	2378-498	2378-499	POA
11/16-40	GH2	2378-521	2378-522	2378-523	POA
23/32-12	GH3	2378-686	2378-687	2378-688	POA
3/4-8	GH4	2378-885	2378-886	2378-887	POA
3/4-10	GH1	2378-888	2378-889	2378-890	POA
3/4-10	GH5	2378-891	2378-892	2378-893	POA
3/4-11	GH3	2378-894	2378-895	2378-896	POA
3/4-12	GH3	2378-898	2378-899	2378-900	POA
3/4-14	GH3	2378-921	2378-922	2378-923	POA
3/4-16	GH12	2378-912	2378-913	-	POA
3/4-18	GH3	2378-915	2378-916	2378-917	44.36
3/4-20	GH3	2378-930	2378-931	-	44.36
3/4-24	GH3	2378-951	2378-952	2378-953	44.36
3/4-27	GH3	2378-981	2378-982	2378-983	POA
3/4-28	GH3	2378-984	2378-985	2378-986	POA
3/4-32	GH3	2378-996	2378-997	2378-998	44.36
3/4-40	GH3	2379-026	2379-027	2379-028	POA
49/64-10	GH3	2379-178	2379-179	2379-180	POA
49/64-12	GH3	2379-181	2379-182	2379-183	POA
25/32-18	GH5	2379-288	2379-289	2379-290	POA
25/32-32	GH3	2379-327	2379-328	2379-329	POA
13/16-10	GH4	2379-500	2379-501	2379-502	POA
13/16-12	GH3	2379-512	2379-513	2379-514	POA
13/16-12	GH5	2379-515	2379-516	2379-517	POA
13/16-14	GH3	2379-521	2379-522	2379-523	POA
13/16-16	GH4	2379-525	2379-526	2379-527	POA
13/16-16	GH5	2379-528	2379-529	2379-530	POA
13/16-18	GH3	2379-540	2379-541	2379-542	POA
13/16-20	GH2	2379-555	2379-556	2379-557	POA
13/16-24	GH3	2379-576	2379-577	2379-578	POA
13/16-32	GH2	2379-621	2379-622	2379-623	POA
7/8-9	GH3	2380-016	2380-017	2380-018	POA
7/8-9	GH6	2380-010	2380-011	2380-012	POA
7/8-9	GH12	2380-013	2380-014	2380-015	POA
7/8-10	GH3	2380-020	2380-021	2380-022	POA
7/8-11	GH3	2380-023	2380-024	2380-025	POA
7/8-12	GH5	2380-029	2380-030	2380-031	POA
7/8-14	GH6	2380-038	2380-039	2380-040	POA
7/8-14	GH7	2380-032	2380-033	2380-034	POA
7/8-14	GH12	2380-035	2380-036	2380-037	POA
7/8-18	GH4	2380-055	2380-056	2380-057	POA
7/8-20	GH3	2380-070	2380-071	2380-072	POA
7/8-24	GH3	2380-094	2380-095	2380-096	POA
7/8-24	GH4	2380-097	2380-098	2380-099	POA
7/8-24	GH7	2380-091	2380-092	2380-093	POA
7/8-27	GH3	2380-106	2380-107	2380-108	POA
7/8-28	GH3	2380-121	2380-122	2380-123	POA
7/8-32	GH3	2380-136	2380-137	2380-138	POA
7/8-40	GH3	2380-166	2380-167	2380-168	POA
57/64-9	GH4	2380-236	2380-237	2380-238	POA
29/32-9	GH4	2380-316	2380-317	2380-318	POA
29/32-14	GH4	2380-334	2380-335	2380-336	POA
29/32-14	GH5	2380-337	2380-338	2380-339	POA
29/32-18	GH3	2380-346	2380-347	2380-348	POA
29/32-32	GH3	2380-374	2380-375	2380-376	POA
15/16-9	GH3	2380-524	2380-525	2380-526	POA
15/16-12	GH4	2380-536	2380-537	2380-538	POA
15/16-14	GH4	2380-551	2380-552	2380-553	POA
15/16-16	GH4	2380-566	2380-567	2380-568	POA
15/16-18	GH4	2380-584	2380-585	2380-586	POA
15/16-20	GH4	2380-596	2380-597	2380-598	POA
15/16-24	GH4	2380-617	2380-618	2380-619	POA
15/16-32	GH3	2380-662	2380-663	2380-664	POA
15/16-40	GH3	2380-669	2380-670	2380-671	POA
31/32-32	GH3	2380-845	2380-846	2380-847	POA
1"-8	GH12	2381-013	2381-014	2381-015	POA
1"-9	GH4	2381-025	2381-026	2381-027	POA
1"-10	GH4	2381-041	2381-042	2381-043	POA
1"-16	GH3	2381-047	2381-048	-	POA
1"-18	GH4	2381-060	2381-061	2381-062	POA
1"-20	GH3	2381-072	2381-073	-	POA
1"-24	GH3	2381-090	2381-091	2381-092	POA
1"-27	GH3	2381-102	2381-103	2381-104	POA
1"-28	GH3	2381-110	2381-111	2381-112	POA
1"-29	GH3	2381-120	2381-121	2381-122	POA
1"-32	GH3	2381-114	2381-115	2381-116	POA
1"-40	GH3	2381-138	2381-139	2381-140	POA

Left Hand Special Hand Taps

High Speed Steel

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Bottom



Plug



Taper

1

Pittsburg® ALLEGHENY					
SIZE	GH LIMIT	BOTTOMING	PLUG	TAPER	PRICE EACH
1 1/64-8	GH4	2381-224	2381-225	2381-226	POA
1 1/64-14	GH4	2381-236	2381-237	2381-238	POA
1 1/32-8	GH4	2381-304	2381-305	2381-306	POA
1 1/32-14	GH4	2381-317	2381-318	2381-319	POA
1 1/16-12	GH4	2381-462	2381-463	2381-464	\$114.40
1 1/16-14	GH4	2381-474	2381-475	2381-476	POA
1 1/16-16	GH5	2381-486	2381-487	2381-488	POA
1 1/16-18	GH4	2381-498	2381-499	2381-500	114.40
1 1/16-20	GH4	2381-516	2381-517	2381-518	POA
1 1/16-24	GH4	2381-528	2381-529	2381-530	POA
1 1/8-6	GH4	2381-731	2381-732	2381-733	POA
1 1/8-7	GH1	2381-734	2381-735	2381-736	POA
1 1/8-8	GH4	2381-738	2381-739	2381-740	117.21
1 1/8-10	GH4	2381-750	2381-751	2381-752	POA
1 1/8-12	GH3	2381-763	2381-764	2381-765	POA
1 1/8-14	GH5	2381-772	2381-773	2381-774	POA
1 1/8-16	GH3	2381-787	2381-788	2381-789	POA
1 1/8-18	GH3	2381-799	2381-800	2381-801	POA
1 1/8-20	GH4	2381-817	2381-818	2381-819	POA
1 1/8-24	GH4	2381-829	2381-830	2381-831	POA
1 1/8-28	GH4	2381-854	2381-855	2381-856	POA
1 1/8-32	GH4	2381-866	2381-867	2381-868	POA
1 1/8-40	GH3	2381-880	2381-881	2381-882	POA
1 1/16-18	GH4	2381-886	2381-887	2381-888	POA
1 3/16-8	GH4	2382-045	2382-046	2382-047	POA
1 3/16-10	GH4	2382-051	2382-052	2382-053	POA
1 3/16-12	GH4	2382-060	2382-061	2382-062	POA
1 3/16-14	GH4	2382-072	2382-073	2382-074	POA
1 3/16-16	GH4	2382-078	2382-079	2382-080	POA
1 3/16-18	GH4	2382-087	2382-088	2382-089	POA
1 3/16-20	GH4	2382-105	2382-106	2382-107	POA
1 3/16-24	GH4	2382-120	2382-121	2382-122	POA
1 1/4-6	GH4	2382-290	2382-291	2382-292	POA
1 1/4-8	GH4	2382-300	2382-301	2382-302	117.21
1 1/4-10	GH4	2382-312	2382-313	2382-314	POA
1 1/4-14	GH4	2382-336	2382-337	2382-338	POA
1 1/4-16	GH4	2382-348	2382-349	2382-350	POA
1 1/4-18	GH4	2382-360	2382-361	2382-362	POA
1 1/4-20	GH3	2382-378	2382-379	2382-380	POA
1 1/4-24	GH4	2382-390	2382-391	2382-392	POA
1 1/4-32	GH4	2382-417	2382-418	2382-419	POA
1 1/4-40	GH3	2382-429	2382-430	2382-431	POA
1 9/32-20	GH2	2382-479	2382-480	2382-481	POA
1 5/16-7	GH4	2382-540	2382-541	2382-542	POA
1 5/16-8	GH6	2382-546	2382-547	2382-548	POA
1 5/16-12	GH4	2382-572	2382-573	2382-574	POA
1 5/16-14	GH2	2382-578	2382-579	2382-580	POA
1 5/16-16	GH2	2382-584	2382-585	2382-586	POA
1 5/16-18	GH2	2382-593	2382-594	2382-595	POA
1 5/16-20	GH4	2382-611	2382-612	2382-613	180.70
1 5/16-24	GH4	2382-626	2382-627	2382-628	POA
1 3/8-5	GH1	2382-790	2382-791	2382-792	POA
1 3/8-8	GH4	2382-800	2382-801	2382-802	190.42
1 3/8-10	GH4	2382-812	2382-813	2382-814	POA
1 3/8-14	GH2	2382-830	2382-831	2382-832	POA
1 3/8-14	GH4	2382-833	2382-834	2382-835	POA
1 3/8-16	GH3	2382-842	2382-843	2382-844	POA
1 3/8-16	GH4	2382-845	2382-846	2382-847	POA
1 3/8-18	GH4	2382-854	2382-855	2382-856	POA
1 3/8-20	GH4	2382-872	2382-873	2382-874	POA
1 3/8-24	GH4	2382-887	2382-888	2382-889	POA
1 3/8-32	GH4	2382-905	2382-906	2382-907	POA
1 7/16-10	GH5	2383-051	2383-052	2383-053	POA
1 7/16-12	GH4	2383-063	2383-064	2383-065	POA
1 7/16-16	GH4	2383-087	2383-088	2383-089	244.40
1 7/16-18	GH4	2383-099	2383-100	2383-101	POA
1 7/16-20	GH4	2383-108	2383-109	2383-110	POA
1 1/2-8	GH4	2383-286	2383-287	2383-288	252.94
1 1/2-10	GH4	2383-298	2383-299	2383-300	POA
1 1/2-14	GH4	2383-312	2383-313	2383-314	POA
1 1/2-14	GH5	2383-315	2383-316	2383-317	POA
1 1/2-16	GH6	2383-325	2383-326	2383-327	POA
1 1/2-18	GH4	2383-331	2383-332	2383-333	POA
1 1/2-20	GH4	2383-339	2383-340	2383-341	POA
1 1/2-24	GH4	2383-353	2383-354	2383-355	POA

Pittsburg® ALLEGHENY					
SIZE	GH LIMIT	BOTTOMING	PLUG	TAPER	PRICE EACH
1 9/16-8	GH4	2383-606	2383-607	2383-608	POA
1 9/16-12	GH6	2383-660	2383-661	2383-662	POA
1 9/16-16	GH5	2383-675	2383-676	2383-677	POA
1 9/16-18	GH6	2383-695	2383-696	2383-697	POA
1 9/16-20	GH8	2383-710	2383-711	2383-712	POA
1 5/8-5	GH6	2383-870	2383-871	2383-872	POA
1 5/8-5 1/2	GH6	2383-876	2383-877	2383-878	POA
1 5/8-6	GH7	2383-882	2383-883	2383-884	POA
1 5/8-8	GH4	2383-888	2383-889	2383-890	POA
1 5/8-10	GH6	2383-900	2383-901	2383-902	POA
1 5/8-12	GH5	2383-912	2383-913	2383-914	POA
1 5/8-14	GH6	2383-924	2383-925	2383-926	POA
1 5/8-16	GH6	2383-939	2383-940	2383-941	POA
1 5/8-18	GH5	2383-954	2383-955	2383-956	POA
1 5/8-20	GH5	2383-966	2383-967	2383-968	POA
1 5/8-24	GH3	2383-978	2383-979	2383-980	POA
1 11/16-10	GH4	2384-075	2384-076	2384-077	POA
1 11/16-12	GH4	2384-095	2384-096	2384-097	POA
1 11/16-16	GH4	2384-122	2384-123	2384-124	POA
1 11/16-24	GH4	2384-161	2384-162	2384-163	POA
1 3/4-5	GH5	2384-206	2384-207	2384-208	\$516.30
1 3/4-8	GH6	2384-230	2384-231	2384-232	353.63
1 3/4-10	GH5	2384-242	2384-243	2384-244	POA
1 3/4-12	GH5	2384-254	2384-255	2384-256	POA
1 3/4-16	GH5	2384-278	2384-279	2384-280	POA
1 3/4-18	GH6	2384-290	2384-291	2384-292	POA
1 3/4-20	GH8	2384-302	2384-303	2384-304	POA
1 3/4-24	GH6	2384-308	2384-309	2384-310	POA
1 13/16-20	GH4	2384-452	2384-453	2384-454	POA
1 7/8-5	GH7	2384-515	2384-516	2384-517	POA
1 7/8-8	GH7	2384-530	2384-531	2384-532	POA
1 7/8-10	GH7	2384-536	2384-537	2384-538	POA
1 7/8-12	GH5	2384-551	2384-552	2384-553	POA
1 7/8-16	GH5	2384-572	2384-573	2384-574	POA
1 7/8-18	GH5	2384-584	2384-585	2384-586	POA
1 7/8-20	GH5	2384-599	2384-600	2384-601	POA
1 29/32-20	GH5	2384-679	2384-680	2384-681	POA
1 15/16-10	GH6	2384-712	2384-713	2384-714	POA
1 15/16-12	GH6	2384-773	2384-774	2384-775	POA
1 15/16-16	GH6	2384-797	2384-798	2384-799	POA
1 15/16-18	GH6	2384-809	2384-810	2384-811	POA
1 15/16-20	GH6	2384-821	2384-822	2384-823	POA
2"-4 1/2	GH6	2385-445	2385-446	2385-447	POA
2"-6	GH6	2384-910	2384-911	2384-912	POA
2"-8	GH6	2384-925	2384-926	2384-927	POA
2"-10	GH6	2384-937	2384-938	2384-939	POA
2"-12	GH6	2384-949	2384-950	2384-951	POA
2"-14	GH6	2384-961	2384-962	2384-963	POA
2"-16	GH6	2384-973	2384-974	2384-975	POA
2"-18	GH6	2384-985	2384-986	2384-987	POA
2"-20	GH6	2384-997	2384-998	2384-999	POA
2 1/8-12	GH5	2385-234	2385-235	2385-236	POA
2 1/8-16	GH6	2385-243	2385-244	2385-245	POA
2 1/4-4 1/2	GH5	2385-442	2385-443	2385-444	POA
2 1/4-5	GH5	2385-486	2385-487	2385-488	POA
2 1/4-16	GH5	2385-516	2385-517	2385-518	POA
2 5/16-24	GH5	2385-641	2385-642	2385-643	POA
2 3/8-16	GH6	2385-735	2385-736	2385-737	POA
2 1/2-8	GH5	2385-916	2385-917	2385-918	POA
2 1/2-12	GH5	2385-931	2385-932	2385-933	POA
2 1/2-16	GH6	2385-958	2385-959	2385-960	POA
2 7/32-20	GH5	2385-524	2385-525	2385-526	POA
2 5/8-16	GH5	2386-198	2386-199	2386-200	POA
2 11/16-16	GH6	2386-248	2386-249	2386-250	POA
2 3/4-4	GH8	2386-308	2386-309	2386-310	POA
2 3/4-8	GH6	2386-320	2386-321	2386-322	POA
2 3/4-12	GH6	2386-334	2386-335	2386-336	POA
2 3/4-20	GH6	2386-370	2386-371	2386-372	POA
2 7/8-24	GH6	2386-465	2386-466	2386-467	POA
3"-8	GH6	2386-643	2386-644	2386-645	POA
3"-12	GH6	2386-661	2386-662	2386-663	POA
3"-16	GH6	2386-676	2386-677	2386-678	POA
3 1/4-6	GH6	-	2386-681	-	843.70

Metric STI - Screw Thread Insert Taps - High Speed Steel

WARNING: This product contains Cobalt and/or Nickel and/or Lead a chemical known to the state of California to cause cancer or birth defects or other reproductive harm. For more information: www.p665.ca.gov.
WARNING: Cutting tools may shatter. Always wear approved safety glasses and mask when regrinding.

STI - Metric Hand Taps



3



2

					 USA MADE				
SIZE	# OF FLTS.	LIMIT	ORDER NO. BOTTOM	PLUG	PRICE EACH	LIMIT	ORDER NO. BOTTOM	PLUG	PRICE EACH
2.2 x 0.45	3	D1	3490-145	3490-146	\$6.24	D1	3637-145	3637-146	\$15.70
2.5 X 0.45	3	D1	3490-172	3490-173	6.24	D1	3637-172	3637-173	15.70
3.0 x 0.50	3	D1	3490-227	3490-228	5.06	D1	3637-227	3637-228	14.46
3.5 x 0.60	3	D1	3490-281	3490-282	5.06	D4	3637-281†	3637-282†	8.98
4.0 x 0.70	3	D1	3490-326	3490-327	5.06	D1	3637-326	3637-327	14.46
5.0 x 0.80	3	D1	3490-389	3490-390	5.06	D1	3637-389	3637-390	19.70
6.0 x 1.00	3	D2	3490-465	3490-466	5.06	D2	3637-465	3637-466	15.91
8.0 x 1.00	4	D2	3490-568	3490-569	5.69	D5	3637-568†	-	10.07
8.0 x 1.25	4	D2	3490-576	3490-577	5.69	D2	3637-576	3637-577	17.28
9.0 x 1.25	4	-	-	-	-	D5	3637-631†	3637-632†	10.75
10.0 x 1.00	4	D2	3490-676	3490-677	11.13	D6	-	3637-677†	13.20
10.0 x 1.25	4	D2	3490-685	3490-686	11.13	D6	3637-685†	3637-686†	POA
10.0 x 1.50	4	D3	3490-694	3490-695	11.13	D3	3637-694	3637-695	22.24
11.0 x 1.00	4	-	-	-	-	D6	3637-712†	3637-713†	14.80
11.0 x 1.25	4	-	-	-	-	D6	3637-730†	3637-731†	14.80
11.0 x 1.50	4	-	-	-	-	D6	3637-739†	-	14.80
12.0 x 1.25	4	D3	3490-778	3490-779	13.06	-	-	-	-
12.0 x 1.50	4	D3	3490-784	3490-785	13.06	-	-	-	-
12.0 x 1.75	4	D3	3490-801	3490-802	13.06	D3	3637-801	3637-802	31.39
14.0 x 1.50	4	D3	3490-945	3490-946	22.06	D7	3637-945†	-	22.80
14.0 x 2.00	4	D4	3490-963	3490-964	22.06	D7	3637-963†	-	22.80
16.0 x 1.50	4	D3	3491-061	3491-062	25.36	D7	-	3638-062†	30.05
16.0 x 2.00	4	D4	3491-070	3491-071	25.36	-	-	-	-
18.0 x 1.50	4	D3	3491-133	3491-134	32.84	-	-	-	-
18.0 x 2.50	4	D4	3491-151	3491-152	32.84	D7	3638-151†	3638-152†	38.95
20.0 x 1.50	4	D3	3491-223	3491-224	44.94	D7	-	3638-224†	53.25
20.0 x 2.50	4	D4	3491-241	3491-242	44.94	-	-	-	-

Metric STI - Fast Spiral Flute Taps



2

 USA MADE					
SIZE	# OF FLTS.	LIMIT	ORDER NO. BOTTOM	PLUG	PRICE EACH
2.2 X 0.45	2	D1	3636-145	—	\$26.74
2.5 X 0.45	2	D1	3636-172	—	26.74
3.0 x 0.50	2	D1	3636-222	—	26.74
3.0 x 0.50	3	D1	3636-226	3636-227	26.74
3.5 x 0.60	3	D1	3636-280	—	26.74
4.0 x 0.70	3	D1	3636-325	3636-326	26.74
5.0 x 0.80	3	D1	3636-388	3636-389	27.90
6.0 x 1.00	3	D2	3636-464	3636-465	29.44
8.0 x 1.00	3	D2	3636-568	—	31.95
8.0 x 1.25	3	D2	3636-577	3636-578	31.95
10.0 x 1.00	3	D2	3636-676	—	41.13
10.0 x 1.25	3	D2	3636-685	—	41.13
10.0 x 1.50	3	D3	3636-694	3636-695	41.13
12.0 x 1.25	4	D3	3636-778	—	61.46
12.0 x 1.75	4	D3	3636-801	—	61.46

Metric STI - Spiral Point Plug Taps



2

 USA MADE				
SIZE	# OF FLTS.	LIMIT	ORDER NO.	PRICE EACH
2.5 X 0.45	2	D1	3635-166	\$18.58
3.0 x 0.50	2	D1	3635-184	16.63
3.5 x 0.60	2	D1	3635-202	16.63
4.0 x 0.70	2	D1	3635-217	16.63
4.0 x 0.70	2	D2	3635-219	16.63
5.0 x 0.80	2	D1	3635-238	17.33
5.0 x 0.80	2	D2	3635-240	17.33
6.0 x 1.00	2	D2	3635-263	33.70
8.0 x 1.00	3	D2	3635-290	21.22
8.0 x 1.25	3	D2	3635-298	19.87
10.0 x 1.00	3	D2	3635-331	25.59
10.0 x 1.25	3	D2	3635-334	42.18
10.0 x 1.50	3	D3	3635-337	25.59
12.0 x 1.25	3	D3	3635-365	58.46
12.0 x 1.50	3	D3	3635-367	38.22
12.0 x 1.75	3	D3	3635-373	38.22

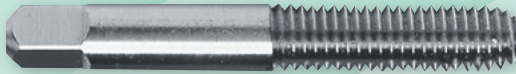
Thread Forming Taps

High Speed Steel

2



WARNING: This product contains Cobalt and/or Nickel and/or Lead a chemical known to the state of California to cause cancer or birth defects or other reproductive harm. For more information: www.pro65.ca.gov.
WARNING: Cutting tools may shatter. Always wear approved safety glasses and mask when regrinding.



SIZE	H-LIMIT	BOTTOM ORDER NO.	PLUG ORDER NO.	PRICE EACH
0-80	H2	6370-121	-	\$19.12
1-64	H2	6370-321	-	19.12
1-72	H2	6370-521	-	19.12
2-56	H2	6370-721	-	19.00
2-56	H3	6370-731	-	19.00
2-64	H2	6370-921	6370-922	19.00
2-64	H3	6370-931	-	19.00
3-48	H2	6371-121	-	12.61
3-48	H3	6371-131	-	19.00
3-56	H2	6371-321	6371-322	10.56
3-56	H3	6371-331	-	19.00
4-40	H3	6371-731	6371-732	17.12
4-40	H5	6371-751	6371-752	17.12
4-48	H3	6371-931	6371-932	17.12
4-48	H5	6371-951	6371-952	11.36
4-48	H6	6371-961	-	9.51
5-40	H3	6372-131	6372-132	17.12
5-40	H5	6372-151	6372-152	17.12
5-40	H7	-	6372-172	9.51
5-44	H3	6372-331	6372-332	9.51
5-44	H5	6372-351	6372-352	9.51
6-32	H3	6372-531	6372-532	14.11
6-32	H5	6372-551	6372-552	14.11
6-40	H3	6372-731	6372-732	14.11
6-40	H5	6372-751	6372-752	14.11
8-32	H3	6372-931	6372-932	14.63
8-32	H5	6372-951	6372-952	14.63
8-36	H3	6373-131	6373-132	14.63
8-36	H5	-	6373-152	7.84

SIZE	H-LIMIT	BOTTOM ORDER NO.	PLUG ORDER NO.	PRICE EACH
10-24	H4	6373-341	6373-342	\$ 14.63
10-24	H6	6373-361	6373-362	14.63
10-32	H4	6373-541	6373-542	14.63
10-32	H6	6373-561	6373-562	14.63
12-24	H4	6373-741	6373-742	14.11
12-24	H6	6373-761	6373-762	14.11
12-28	H4	6373-941	-	7.84
12-28	H6	6373-961	6373-962	7.84
1/4-20	H4	6374-141	6374-142	15.52
1/4-20	H6	6374-161	6374-162	15.52
1/4-28	H4	6374-341	6374-342	15.52
5/16-18	H5	6374-551	6374-552	16.64
5/16-18	H7	6374-571	6374-572	16.64
5/16-24	H5	6374-751	6374-752	16.64
5/16-24	H7	6374-771	6374-772	16.64
3/8-16	H5	6374-951	6374-952	17.25
3/8-16	H7	6374-971	-	19.70
3/8-24	H5	6375-151	6375-152	19.70
3/8-24	H7	6375-171	6375-172	19.70
7/16-14	H7	6375-371	-	16.07
7/16-14	H8	6375-381	6375-382	16.07
7/16-20	H5	6375-551	-	16.07
7/16-20	H8	6375-581	6375-582	19.19
1/2-13	H5	6375-751	6375-752	32.32
1/2-13	H8	6375-781	6375-782	32.32
1/2-20	H5	6375-951	6375-952	32.32
1/2-20	H8	-	6375-982	17.96

Pulley Taps

3



Plug Chamfer - High Speed Steel



SIZE	GH	NO. OF FLUTES	THREAD LENGTH	SHANK DIA.	4" OAL		6" OAL		8" OAL		10" OAL		12" OAL	
					ORDER NO.	PRICE EACH	ORDER NO.	PRICE EACH	ORDER NO.	PRICE EACH	ORDER NO.	PRICE EACH	ORDER NO.	PRICE EACH
0-80	2	3	5/16	.141	2323-002†	\$7.30	-	-	-	-	-	-	-	-
2-56	2	3	7/16	.141	2323-017†	7.30	-	-	-	-	-	-	-	-
2-64	2	3	7/16	.141	2323-027†	7.30	2323-032†	\$32.00	-	-	-	-	-	-
3-48	2	3	1/2	.141	-	-	2323-042†	32.00	-	-	-	-	-	-
3-56	2	3	1/2	.141	2323-052†	28.97	2323-057†	32.00	-	-	-	-	-	-
4-48	2	3	9/16	.141	-	-	2323-077†	32.00	-	-	-	-	-	-
5-40	2	3	5/8	.141	2323-082†	7.30	-	-	-	-	-	-	-	-
5-44	2	3	5/8	.141	-	-	2323-097†	32.00	-	-	-	-	-	-
6-32	1	2	11/16	.141	-	-	-	-	2323-111†	\$10.40	-	-	-	-
6-32	3	3	11/16	.141	2323-102†	8.10	2323-107	30.02	-	-	-	-	-	-
6-40	2	3	11/16	.141	-	-	2323-127†	30.02	-	-	-	-	-	-
8-32	3	4	3/4	.168	2323-132†	8.10	2323-137	30.02	2323-142†	39.38	-	-	-	-
8-36	3	4	3/4	.168	-	-	2323-147†	30.02	-	-	-	-	-	-
10-24	3	4	7/8	.194	2323-152†	8.10	2323-157	30.02	2323-162†	39.38	-	-	-	-
10-32	3	4	7/8	.194	2323-167†	8.10	2323-172	30.02	2323-177	39.38	-	-	-	-
12-28	3	4	15/16	.220	2323-196†	9.40	-	-	2323-207†	12.60	-	-	-	-
1/4-20	3	4	1"	.255	-	-	2323-277	34.20	2323-282	41.76	-	-	-	-
1/4-28	3	4	1"	.255	-	-	2323-297	34.20	2323-302	41.76	2323-307†	\$52.20	2323-312†	\$70.80
5/16-18	3	4	1-1/8	.318	-	-	2323-317	35.87	2323-322	42.93	2323-327†	55.80	2323-332†	70.80
5/16-24	3	4	1-1/8	.318	-	-	2323-337	35.87	2323-342	42.93	2323-347†	55.80	2323-352†	70.80
3/8-16	3	4	1-1/4	.381	-	-	2323-357	40.37	2323-362	47.97	2323-367	60.08	2323-372	80.96
3/8-24	3	4	1-1/4	.381	-	-	2323-377	40.37	2323-382	47.97	2323-387	60.08	2323-392	80.96
7/16-14	3	4	1-7/16	.444	-	-	2323-397	42.93	2323-402	56.25	2323-407	66.15	2323-412	82.44
7/16-20	3	4	1-7/16	.444	-	-	2323-417	42.93	2323-422	56.25	2323-427	66.15	2323-432	82.44
1/2-13	3	4	1-21/32	.507	-	-	2323-442	43.29	2323-437	56.25	2323-447	68.40	2323-452	85.00
1/2-20	3	4	1-21/32	.507	-	-	2323-457	43.29	2323-462	56.25	2323-467	68.40	2323-472	85.00
9/16-12	3	4	1-21/32	.570	-	-	2323-477	50.20	2323-482	83.00	2323-487	83.00	2323-492	98.00
9/16-18	3	4	1-21/32	.570	-	-	2323-497	50.20	2323-502	65.00	2323-507	83.00	2323-512	98.00
5/8-11	3	4	1-13/16	.633	-	-	2323-517	57.87	2323-522	73.80	2323-527	92.70	2323-532	108.00
5/8-18	3	4	1-13/16	.633	-	-	2323-537	57.87	2323-542	73.80	2323-547	92.70	2323-552	108.00
3/4-10	3	4	2"	.759	-	-	2323-557	78.75	2323-562	96.30	2323-567	109.22	2323-572	120.60
3/4-16	3	4	2"	.759	-	-	2323-577	78.75	2323-582	96.30	2323-587	109.22	2323-592	120.60

Pulley & Extension Taps

Plug Chamfer – High Speed Steel



2



Extension Tap

Pulley Tap

Type: E= Extension P= Pulley * Small Shank

SIZE	GH	# OF FLUTES	THREAD LENGTH	SHK. DIA.	TYPE E/P	6" OAL		8" OAL	
						ORDER NO.	PRICE EACH	ORDER NO.	PRICE EACH
6-32	3	3	11/16	.141	P	3763-107	\$33.98	-	-
8-32	3	4	3/4	.168	P	3763-137	33.98	-	-
10-24	3	4	7/8	.194	P	3763-157	33.98	-	-
10-32	3	4	7/8	.194	P	3763-172	33.98	-	-
1/4-20	3	4	1	.185*	E	3763-219	39.15	-	-
1/4-20	3	4	1	.255	P	3764-277	33.65	3764-282	\$44.23
1/4-28	3	4	1	.255	P	3764-297	37.17	-	-
5/16-18	3	4	1-1/8	.240*	E	3763-319	39.15	-	-
5/16-18	3	4	1-1/8	.318	P	3764-317	39.40	3764-322	45.93
5/16-24	3	4	1-1/8	.318	P	3764-337	42.32	-	-
3/8-16	3	4	1-1/4	.275*	E	3763-359	41.99	-	-
3/8-16	3	4	1-1/4	.381	P	3764-357	41.36	3764-362	49.63
3/8-24	3	4	1-1/4	.381	P	3764-377	41.80	-	-
7/16-14	3	4	1-7/16	.323	E	3763-397	51.98	-	-
7/16-14	3	4	1-7/16	.444	P	-	-	3764-402	105.10
7/16-20	3	4	1-7/16	.323	E	3763-417	51.98	-	-
1/2-13	3	4	1-21/32	.367	E	3763-437	48.11	-	-
1/2-13	3	4	1-21/32	.507	P	3764-435	64.16	3764-437	69.52
1/2-20	3	4	1-21/32	.367	E	3763-457	48.11	-	-
9/16-12	3	4	1-21/32	.429	E	3763-477	72.96	-	-
9/16-18	3	4	1-21/32	.429	E	3763-497	72.96	-	-
5/8-11	3	4	1-13/16	.480	E	3763-517	66.30	3763-527	83.56
5/8-18	3	4	1-13/16	.480	E	3763-537	66.30	-	-
3/4-10	3	4	2	.590	E	3763-557	84.24	3763-567	108.55

Pulley Taps - Bottom Chamfer

High Speed Steel



SIZE	GH	NO. OF FLUTES	THREAD LENGTH	SHANK DIA.	6" OAL		8" OAL	
					ORDER NO.	PRICE EACH	ORDER NO.	PRICE EACH
4-40	2	3	9/16	.141	2323-066†	\$8.90	-	-
6-32	1	2	11/16	.141	-	-	2323-110†	\$11.70
8-32	1	2	3/4	.168	2323-135†	9.90	2323-140†	11.70
8-32	3	4	3/4	.168	2323-136	9.90	-	-
10-24	1	2	7/8	.194	-	-	2323-161†	11.70
10-24	3	4	7/8	.194	2323-156	9.90	-	-
10-32	1	2	7/8	.194	-	-	2323-176†	11.70
10-32	2	4	7/8	.194	2323-170†	9.90	-	-
10-32	3	4	7/8	.194	2323-171	9.90	-	-
12-24	1	2	15/16	.220	2323-186†	11.50	2323-191†	14.20
12-24	3	4	15/16	.220	2323-187†	11.50	-	-
12-28	3	4	15/16	.220	2323-201†	11.50	-	-
1/4-20	3	4	1"	.255	2323-276	12.30	2323-281	41.76
5/16-18	3	4	1-1/8	.318	2323-316	12.90	2323-321	15.60
3/8-16	3	4	1-1/4	.381	2323-356	14.20	2323-361	17.30
7/16-14	3	4	1-7/16	.444	2323-396	15.60	2323-401	19.60
1/2-13	3	4	1-21/32	.507	2323-440	19.60	2323-441	26.50

WARNING: This product contains Cobalt and/or Nickel and/or Lead a chemical known to the state of California to cause cancer or birth defects or other reproductive harm. For more information: www.prop65.ca.gov
WARNING: Cutting tools may shatter. Always wear approved safety glasses and mask when regrinding.

Spiral Point Pulley Taps

Plug Chamfer – High Speed Steel



3

2

						4" OAL		6" OAL		8" OAL		10" OAL		12" OAL		USA MADE 6" OAL	
SIZE	GH	FLT. NO.	THD. LGTH.	SHK. DIA.		ORDER NO.	PRICE EACH	ORDER NO.	PRICE EACH	ORDER NO.	PRICE EACH	ORDER NO.	PRICE EACH	ORDER NO.	PRICE EACH	ORDER NO.	PRICE EACH
0-80	2	2	5/16	.141		2325-002	\$8.55	-	-	-	-	-	-	-	-	-	-
1-64	2	2	3/8	.141		2325-010	8.55	-	-	-	-	-	-	-	-	-	-
1-72	2	2	3/8	.141		2325-018	8.55	-	-	-	-	-	-	-	-	-	-
2-56	2	2	7/16	.141		2325-026	8.55	2325-028	\$28.97	-	-	-	-	-	-	-	-
2-64	2	2	7/16	.141		2325-034	8.55	2325-035	POA	-	-	-	-	-	-	-	-
3-48	1	2	1/2	.141		2325-042	26.50	-	-	-	-	-	-	-	-	-	-
3-48	2	2	1/2	.141		2325-043	POA	2325-044	28.97	-	-	-	-	-	-	-	-
3-56	2	2	1/2	.141		-	-	2325-052	28.97	-	-	-	-	-	-	-	-
4-36	2	2	9/16	.141		-	-	2325-060	28.97	-	-	-	-	-	-	-	-
4-40	2	2	9/16	.141		2325-066	26.50	2325-068	30.00	-	-	-	-	-	-	-	-
5-40	3	2	5/8	.141		-	-	2325-084	30.00	-	-	-	-	-	-	-	-
5-48	2	2	5/8	.141		-	-	2325-086	POA	-	-	-	-	-	-	-	-
6-32	1	2	11/16	.141		-	-	-	-	2325-102	\$11.90	-	-	-	-	-	-
6-32	3	2	11/16	.141		2325-098	26.50	2325-100	34.22	-	-	-	-	-	-	3763-600	\$34.93
6-40	1	2	11/16	.141		-	-	2325-108	10.30	-	-	-	-	-	-	-	-
8-32	1	2	3/4	.168		-	-	-	-	2325-118	11.90	-	-	-	-	-	-
8-32	3	2	3/4	.168		2325-114	26.50	2325-116	34.22	-	-	-	-	-	-	3763-616	35.61
8-36	2	2	3/4	.168		2325-122	9.50	-	-	-	-	-	-	-	-	-	-
8-36	3	2	3/4	.168		-	-	2325-124	34.22	-	-	-	-	-	-	-	-
10-24	1	2	7/8	.194		-	-	-	-	2325-134	11.90	-	-	-	-	-	-
10-24	3	2	7/8	.194		2325-130	26.50	2325-132	34.22	-	-	-	-	-	-	3763-632	36.59
10-32	1	2	7/8	.194		-	-	-	-	2325-142	11.90	-	-	-	-	-	-
10-32	3	2	7/8	.194		2325-138	26.50	2325-140	34.22	-	-	-	-	-	-	3763-640	36.59
12-24	1	2	15/16	.220		-	-	2325-148	10.30	2325-150	11.90	-	-	-	-	-	-
12-24	3	2	15/16	.220		2325-146	9.50	-	-	-	-	-	-	-	-	-	-
12-28	3	2	15/16	.220		2325-154	9.50	2325-156	34.22	-	-	-	-	-	-	-	-
1/4-20	3	2	1"	.255		2325-162	12.10	2325-164	36.72	2325-166	46.50	-	-	2325-167	POA	3763-664	49.16
1/4-28	3	2	1"	.255		2325-170	12.10	2325-172	36.72	2325-174	46.50	-	-	2325-175	POA	3763-672	41.10
5/16-18	3	2	1-1/8	.318		2325-178	12.70	2325-180	38.16	2325-182	49.85	-	-	2325-183	POA	3763-680	41.38
5/16-24	3	2	1-1/8	.318		2325-186	12.70	2325-188	46.00	2325-190	59.00	-	-	2325-191	POA	3763-688	41.38
3/8-16	3	3	1-1/4	.381		2325-194	13.90	2325-196	43.09	2325-198	55.75	-	-	2325-199	POA	3763-696	44.71
3/8-24	3	3	1-1/4	.381		2325-202	13.90	2325-204	43.09	2325-206	55.75	-	-	-	-	3763-704	44.71
7/16-14	3	3	1-7/16	.444		-	-	2325-212	45.14	2325-214	59.19	-	-	-	-	-	-
7/16-20	3	3	1-7/16	.444		-	-	2325-220	45.14	2325-222	59.19	-	-	-	-	-	-
1/2-13	3	3	1-21/32	.507		-	-	2325-228	46.17	2325-230	62.29	2325-232	POA	-	-	-	-
1/2-20	3	3	1-21/32	.507		-	-	2325-236	46.17	2325-238	62.29	-	-	-	-	-	-
5/8-11	3	3	1-13/16	.633		-	-	2325-246	60.53	2325-248	40.80	-	-	-	-	-	-
5/8-18	3	3	1-13/16	.633		-	-	2325-254	60.53	2325-256	40.80	-	-	2325-257	POA	-	-
3/4-10	3	3	---	---		-	-	2325-750	POA	-	-	2325-234	POA	2325-235	POA	-	-
3/4-6	3	3	---	---		-	-	2325-759	POA	-	-	-	-	-	-	-	-
7/8-9	3	3	---	---		-	-	2325-770	POA	-	-	-	-	-	-	-	-

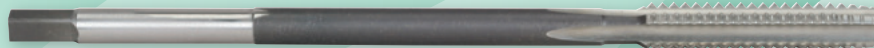
Extension Hand Taps

Small Shank - High Speed Steel

3



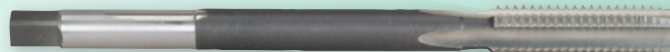
WARNING: This product contains Cobalt and/or Nickel and/or Lead a chemical known to the state of California to cause cancer or birth defects or other reproductive harm. For more information: www.prop65.ca.gov. **WARNING:** Cutting tools may shatter. Always wear approved safety glasses and mask when regrinding.



SIZE	GH	NO. OF FLUTES	THREAD LENGTH	SHK. DIA.	4" OAL PLUG		6" OAL BOTTOMING		6" OAL PLUG		8" OAL PLUG	
					ORDER NO.	PRICE EACH	ORDER NO.	PRICE EACH	ORDER NO.	PRICE EACH	ORDER NO.	PRICE EACH
4-36	2	3	9/16	.080	—	—	2324-059	\$11.10	2324-060	\$9.90	—	—
4-40	2	3	9/16	.080	2324-020	POA	2324-066	11.10	—	—	—	—
5-40	2	3	5/8	.093	2324-025	POA	2324-086	11.10	2324-087	9.90	—	—
5-44	2	3	5/8	.093	—	—	2324-096	11.10	2324-097	9.90	—	—
6-32	2	3	11/16	.097	—	—	—	—	2324-103	11.00	—	—
6-32	3	3	11/16	.097	—	—	—	—	2324-107	11.00	—	—
6-40	2	3	11/16	.097	2324-030	POA	2324-126	12.40	2324-127	11.00	—	—
8-32	3	4	3/4	.123	2324-035	POA	2324-136	12.40	2324-137	11.00	—	—
8-36	3	4	3/4	.123	2324-040	POA	—	—	—	—	—	—
10-24	3	4	7/8	.136	2324-045	POA	2324-156	12.40	2324-157	44.05	—	—
10-32	3	4	7/8	.136	2324-050	POA	2324-171	12.40	2324-172	44.05	—	—
12-28	3	4	15/16	.168	—	—	2324-201	14.40	2324-202	12.80	—	—
14-20	3	4	1"	.185	—	—	2324-207	14.40	—	—	—	—
14-24	3	4	1"	.185	—	—	2324-211	14.40	—	—	—	—
1/4-20	3	4	1"	.185	—	—	2324-216	15.40	2324-217	43.03	—	—
1/4-28	3	4	1"	.185	—	—	—	—	2324-297	43.03	—	—
5/16-18	3	4	1-1/8	.240	—	—	2324-316	16.20	2324-317	44.76	—	—
5/16-24	3	4	1-1/8	.240	—	—	—	—	2324-337	14.40	—	—
3/8-16	3	4	1-1/4	.275	—	—	2324-356	17.70	2324-357	57.19	2324-362	\$19.30
3/8-24	3	4	1-1/4	.275	2324-058	POA	—	—	2324-377	15.80	—	—
7/16-14	3	4	1-7/16	.323	—	—	—	—	2324-397	17.40	2324-402	21.90
7/16-20	3	4	1-7/16	.323	—	—	—	—	2324-417	17.40	2324-422	21.90
1/2-13	3	4	1-21/32	.367	—	—	2324-436	24.60	2324-437	60.55	2324-442	29.50
1/2-20	3	4	1-21/32	.367	—	—	—	—	2324-457	21.90	2324-462	29.50
5/8-11	3	4	1-13/16	.480	—	—	—	—	2324-517	30.80	2324-522	38.50
5/8-18	3	4	1-13/16	.480	—	—	—	—	2324-537	30.80	—	—
3/4-10	3	4	2"	.590	—	—	—	—	2324-557	39.80	2324-562	48.20
3/4-16	3	4	2"	.590	—	—	—	—	2324-577	39.80	2324-582	48.20

Spiral Point Extension Taps

6" OAL - Small Shank - High Speed Steel



3

2

								
SIZE	GH	# OF FLTS.	TH'D LGTH.	SHK. DIA.	ORDER NO.	PRICE EACH	ORDER NO.	PRICE EACH
4-40	2	2	9/16	.080	2325-574	POA	-	-
4-48	2	2	9/16	.080	2325-576	\$11.70	-	-
5-40	2	2	5/8	.093	2325-584	11.70	-	-
5-44	2	2	5/8	.093	2325-592	11.70	-	-
6-32	2	2	11/16	.097	2325-600	12.90	-	-
6-32	3	2	11/16	.097	2325-602	37.64	-	-
8-32	3	2	3/4	.123	2325-616	37.64	-	-
10-24	3	2	7/8	.136	2325-632	37.64	-	-
10-32	3	2	7/8	.136	2325-640	37.64	-	-
12-24	3	2	15/16	.168	2325-648	POA	-	-
12-28	3	2	15/16	.168	2325-656	12.90	-	-
1/4-20	3	2	1"	.185	2325-664	40.39	3763-665	\$42.29
1/4-28	3	2	1"	.185	2325-672	40.39	-	-
5/16-18	3	2	1-1/8	.240	2325-680	41.98	3763-681	41.38
5/16-24	1	2	1-1/8	.240	2325-688	17.30	-	-
5/16-24	3	2	1-1/8	.240	2325-689	41.98	-	-
3/8-16	3	3	1-1/4	.275	2325-696	47.40	3763-697	44.71
3/8-24	3	3	1-1/4	.275	2325-704	47.40	-	-
7/16-14	3	3	1-7/16	.323	2325-712	50.79	3763-712	57.90
7/16-20	1	3	1-7/16	.323	2325-718	20.80	-	-
7/16-20	3	3	1-7/16	.323	2325-720	50.79	3763-720	57.90
1/2-13	3	3	1-21/32	.367	2325-728	50.79	3763-728	55.45
1/2-20	3	3	1-21/32	.367	2325-736	50.79	3763-736	54.10

Nut Taps - Taper Chamfer

High Speed Steel



3

2

USA MADE							
SIZE	GH	THREAD LENGTH	OVERALL LENGTH	ORDER NO.	PRICE EACH	ORDER NO.	PRICE EACH
1/4-20	3	1-5/8	5	2326-185	\$64.67	3765-185	\$119.24
1/4-28	3	1-5/8	5	2326-187	64.67	—	—
5/16-18	3	1-13/16	5-1/2	2326-192	73.91	3765-192	89.92
5/16-24	3	1-13/16	5-1/2	2326-195	73.91	—	—
3/8-16	3	2	6	2326-199	90.08	3765-199	96.44
3/8-24	3	2	6	2326-206	90.08	—	—
7/16-14	3	2-3/8	6-1/2	2326-213	102.23	—	—
7/16-20	3	2-3/8	6-1/2	2326-220	102.23	—	—
1/2-13	3	2-1/2	7	2326-227	110.87	3765-227	131.40
1/2-20	3	2-1/2	7	2326-234	110.87	—	—
9/16-12	3	2-3/4	7-1/2	2326-241	113.52	—	—
9/16-18	3	2-3/4	7-1/2	2326-248	133.52	—	—
5/8-11	3	3	8	2326-255	117.48	—	—
5/8-18	3	3	8	2326-262	117.48	—	—
11/16-11	3	3-1/4	8-1/4	2326-263	POA	—	—
11/16-18	3	3-1/4	8-1/4	2326-264	POA	—	—
3/4-10	3	3-3/4	9	2326-269	126.72	—	—
3/4-16	3	3-3/4	9	2326-276	126.72	—	—
7/8-9	3	3-5/8	10	2326-283	158.40	—	—
7/8-14	3	3-5/8	10	2326-290	158.40	—	—
1-8	3	4	11	2326-297	194.70	—	—
1-12	3	4	11	2326-304	194.70	—	—
1-14	3	4	11	2326-305	POA	—	—
1-1/8	3	4	12	2326-306	POA	—	—

Taper Pipe Taps

WARNING: This product contains Cobalt and/or Nickel and/or Lead a chemical known to the state of California to cause cancer or birth defects or other reproductive harm. For more information: www.prop65.ca.gov.
WARNING: Cutting tools may shatter. Always wear approved safety glasses and mask when regrinding.

Taper Pipe Taps ANPT, NPT & NPTF Dryseal - Ground Thread



Pittsburg® ALLEGHANY								USA MADE		
SIZE	NO. OF FLUTES	THREAD LG'TH	OVERALL LENGTH	ANPT ORDER NO.	NPT ORDER NO.	NPTF ORDER NO.	PRICE EACH	NPT ORDER NO.	NPTF ORDER NO.	PRICE EACH
1/16-27	4	11/16	2-1/8	2312-001	2312-002	2312-003	\$ 22.95	3762-202	3762-203	\$ 26.97
1/8-27*	4	3/4	2-1/8	2312-007	2312-008	2312-009	22.95	3762-208	3762-209	26.97
1/8-27	4	3/4	2-1/8	2312-010	2312-011	2312-012	7.79	3762-212	3762-213	26.97
1/4-18	4	1-1/16	2-7/16	2312-016	2312-017	2312-018	25.30	3762-217	3762-218	29.72
3/8-18	4	1-1/16	2-9/16	2312-022	2312-023	2312-024	33.42	3762-223	3762-224	39.33
1/2-14	4	1-3/8	3-1/8	2312-028	2312-029	2312-030	52.97	3762-229	3762-230	62.48
3/4-14	5	1-3/8	3-1/4	2312-034	2312-035	2312-036	74.13	3762-235	3762-236	87.38
1-11-1/2	5	1-3/4	3-3/4	2312-040	2312-041	2312-042	113.85	3762-241	3762-242	132.91
1-1/4-11-1/2	5	1-3/4	4	2312-046	2312-047	2312-048	163.35	3762-247	3762-248	189.06
1-1/2-11-1/2	7	1-3/4	4-1/4	2312-049	2312-050	2312-051	225.23	3762-250	3762-251	254.52
2-11-1/2	7	1-3/4	4-1/2	2312-055	2312-056	2312-057	296.80	3762-256	3762-257	345.35
2-1/2-8	8	2-9/16	5-1/2	-	2312-062	2312-063	688.05	3762-262	3762-263	546.29
3-8	8	2-5/8	6	-	2312-068	2312-069	777.15	3762-268	3762-269	984.14
3-1/2-8	8	2-3/4	6-1/2	-	2312-074	2312-075	653.57	-	3762-275	1291.76
4-8	10	3	7	-	2312-080	2312-081	1340.90	-	3762-281	1601.79

* Large Shank

Taper Pipe Taps For Cast Iron NPT & NPTF Dryseal Ground Thread – High Speed Steel



Left Hand Taper Pipe Taps NPT & NPTF Dryseal Ground Thread High Speed Steel



- Designed with flutes and cutting face for tapping cast iron
- **Large shank design**

FOR CAST IRON						
SIZE	NO. OF FLUTES	THREAD LG'TH	OVERALL LENGTH	NPT ORDER NO.	NPTF ORDER NO.	PRICE EACH
1/16-27	4	11/16	2-1/8	-	-	-
1/8-27*	4	3/4	2-1/8	2312-408	2312-409	\$ 28.26
1/8-27	4	3/4	2-1/8	2312-411	2312-412	28.26
1/4-18	4	1-1/16	2-7/16	2312-417	2312-418	31.84
3/8-18	4	1-1/16	2-9/16	2312-423	2312-424	41.95
1/2-14	4	1-3/8	3-1/8	2312-429	2312-430	65.42
3/4-14	5	1-3/8	3-1/4	2312-435	2312-436	94.83
1-11-1/2	5	1-3/4	3-3/4	2312-441	2312-442	144.12
1-1/4-11-1/2	5	1-3/4	4	2312-447	2312-448	205.40
1-1/2-11-1/2	7	1-3/4	4-1/4	2312-450	2312-451	147.80

* Large Shank

SIZE	NO. OF FLUTES	THREAD LG'TH	OAL	LH NPT ORDER NO.	LH NPTF ORDER NO.	PRICE EACH
1/16-27	4	11/16	2-1/8	2313-001	2313-002	\$ 14.10
1/8-27*	4	3/4	2-1/8	2313-005	2313-006	14.10
1/8-27	4	3/4	2-1/8	2313-007	2313-008	14.10
1/4-18	4	1-1/16	2-7/16	2313-011	2313-012	16.80
3/8-18	4	1-1/16	2-9/16	2313-015	2313-016	34.19
1/2-14	4	1-3/8	3-1/8	2313-019	2313-020	54.19
3/4-14	5	1-3/8	3-1/4	2313-023	2313-024	75.82
1-11-1/2	5	1-3/4	3-3/4	2313-027	2313-028	72.20
1-1/4-11-1/2	5	1-3/4	4	2313-031	2313-032	103.20
1-1/2-11-1/2	7	1-3/4	4-1/4	2313-035	2313-036	134.20
2-11-1/2	7	1-3/4	4-1/2	2313-039	2313-040	303.56
2-1/2-8	8	2-9/16	5-1/2	2313-043	2313-044	510.45
3-8	8	2-5/8	6	2313-047	2313-048	701.65
3-1/2-8	8	2-3/4	6-1/2	2313-051	2313-052	855.75
4-8	10	3	7	2313-055	2313-056	1009.85

* Large Shank

Spiral Flute



Taper Pipe Taps – HSS



- Used in ductile or stringy material to aid chip ejection.

SIZE	NO. OF FLUTES	NPT ORDER NO.	NPTF ORDER NO.	PRICE EACH
1/8-27*	4	2312-508	2312-509	\$49.58
1/4-18	4	2312-517	2312-518	48.51
3/8-18	4	2312-523	2312-524	65.63
1/2-14	4	2312-529	2312-530	102.89
3/4-14	5	2312-535	2312-536	141.08
1-11-1/2	5	2312-541	2312-542	143.65

* Large Shank

Pipe Taps

WARNING: This product contains Cobalt and/or Nickel and/or Lead a chemical known to the state of California to cause cancer or birth defects or other reproductive harm. For more information: www.pro65.ca.gov.
WARNING: Cutting tools may shatter. Always wear approved safety glasses and mask when regrinding.

Taper Pipe Taps

NPT - Cut Thread - Carbon Steel



3

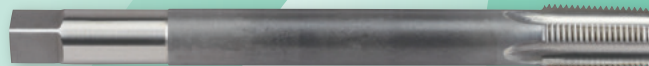
SIZE	NO. OF FLUTES	THREAD LENGTH	OVERALL LENGTH	ORDER NO.	PRICE EACH
1/8-27*	4	3/4	2-1/8	2322-040	\$ 11.00
1/8-27	4	3/4	2-1/8	2322-041	2.59
1/4-18	4	1-1/16	2-1/8	2322-042	12.67
3/8-18	4	1-1/16	2-9/16	2322-044	16.79
1/2-14	4	1-3/8	3-1/8	2322-046	22.30
3/4-14	5	1-3/8	3-1/4	2322-048	35.69
1-11-1/2	5	1-3/4	3-3/4	2322-050	52.57
1-1/4-11-1/2	5	1-3/4	4	2322-052	62.03
1-1/2-11-1/2	7	1-3/4	4-1/4	2322-054	87.57
2-11-1/2	7	1-3/4	4-1/2	2322-056	134.11
2-1/2-8	8	2-9/16	5-1/2	2322-058	268.65
3-8	8	2-5/8	6	2322-060	484.20
3-1/2-8	8	2-3/4	6-1/2	2322-062	POA
4-8	10	3	7	2322-064	1125.00

Sizes available to 6" Diameter - POA

* Large Shank

Extra Long Taper Pipe Taps

NPT - Ground Thread - High Speed Steel



3

SIZE	4" OAL		6" OAL		8" OAL		12" OAL	
	ORDER NO.	PRICE EACH	ORDER NO.	PRICE EACH	ORDER NO.	PRICE EACH	ORDER NO.	PRICE EACH
1/16-27	2318-001	\$22.95	2318-003	\$27.68	2318-005	POA	2318-009	\$51.60
1/8-27	2318-011	26.55	2318-013	27.68	2318-015	POA	2318-019	51.60
1/4-18	2318-021	30.56	2318-023	31.73	2318-025	POA	2318-029	53.10
3/8-18	2318-032	33.70	2318-034	39.75	2318-036	POA	2318-040	60.90
1/2-14	-	-	2318-042	51.08	2318-044	POA	2318-048	87.26
3/4-14	-	-	2318-050	72.68	2318-053	POA	2318-056	134.10
1-11-1/2	-	-	2318-058	103.50	2318-060	POA	2318-065	175.50
1-1/4-11-1/2	-	-	2318-067	159.89	2318-069	POA	2318-073	390.00
1-1/2-11-1/2	-	-	2318-075	211.42	2318-077	POA	2318-081	460.00

10" OAL available on request.

Interrupted Thread Taper Pipe Taps

NPT & NPTF Dryseal High Speed Steel



3



Interrupted Thread Taper Pipe Taps

NPT & NPTF Dryseal Ground Thread High Speed Steel



2



SIZE	NO. OF FLUTES	THREAD LENGTH	OVERALL LENGTH	INTERRUPTED THREAD		PRICE EACH
				NPT ORDER NO.	NPTF ORDER NO.	
1/16-27	4	11/16	2-1/8	2316-001	2316-002	\$ 34.44
1/8-27*	4	3/4	2-1/8	2316-005	2316-006	34.44
1/8-27	4	3/4	2-1/8	2316-007	2316-008	12.15
1/4-18	4	1-1/16	2-7/16	2316-011	2316-012	38.12
3/8-18	4	1-1/16	2-9/16	2316-015	2316-016	49.01
1/2-14	4	1-3/8	3-1/8	2316-019	2316-020	74.22
3/4-14	5	1-3/8	3-1/4	2316-023	2316-024	108.57
1-11-1/2	5	1-3/4	3-3/4	2316-027	2316-028	170.78
1-1/4-11-1/2	5	1-3/4	4	2316-031	2316-032	243.71
1-1/2-11-1/2	7	1-3/4	4-1/4	2316-035	2316-036	327.20
2-11-1/2	7	1-3/4	4-1/2	2316-039	2316-040	440.51
2-1/2-8	9	2-9/16	5-1/2	2319-041	2316-042	POA

* Large Shank

NOMINAL SIZE	NO. OF FLUTES	THREAD LENGTH	OVERALL LENGTH	SHANK DIA.	INTERRUPTED THREAD		PRICE EACH
					NPT ORDER NO.	NPTF ORDER NO.	
1/16-27	4	11/16	2-1/8	.3125	-	-	-
1/8-27* (Lg)	4	3/4	2-1/8	.4375	3762-308	3762-309	\$ 43.85
1/8-27* (Sm)	4	3/4	2-1/8	.3125	3762-312	3762-313	42.92
1/4-18	4	1-1/16	2-7/16	.5625	3762-317	3762-318	48.64
3/8-18	4	1-1/16	2-9/16	.7000	3762-323	3762-324	61.38
1/2-14	4	1-3/8	3-1/8	.6875	3762-329	3762-330	97.89
3/4-14	5	1-3/8	3-1/4	.9063	3762-335	3762-336	138.41
1"-11-1/2	5	1-3/4	3-3/4	1.1250	3762-341	3762-342	213.93
1-1/4-11-1/2	5	1-3/4	4	1.3125	3762-347	3762-348	300.82
1-1/2-11-1/2	7	1-3/4	4-1/4	1.5000	3762-350	-	404.10
2"-11-1/2	7	1-3/4	4-1/2	1.8750	3762-356	-	543.80

Combined Pipe Tap and Drill

NPT - High Speed Steel



1

SIZE	NO. OF FLUTES	OVERALL LENGTH	DRILL LENGTH	THREAD LENGTH	DRILL SIZE	ORDER NO.	PRICE EACH
1/16-27	4	2-13/16	11/16	11/16	D	2334-001	\$34.03
1/8-27	4	2-7/8	3/4	3/4	R	2334-002	21.42
1/4-18	4	3-5/16	7/8	1-1/16	7/16	2334-004	25.20
3/8-18	4	3-1/2	15/16	1-1/16	37/64	2334-005	31.50
1/2-14	4	4-3/8	1-1/4	1-3/8	45/64	2334-006	50.40
3/4-14	5	4-9/16	1-5/16	1-3/8	39/64	2334-007	97.65
1-11-1/2	4	5-3/8	1-5/8	1-3/4	1-5/32	2334-008	178.89

Straight Pipe Taps

Pittsburg[®] ALLEGHANY Straight Pipe Taps

NPS & NPSF Dryseal – Ground Thread – High Speed Steel



3

SIZE	NO. OF FLUTES	THREAD LG'TH	OAL	NPS ORDER NO.	NPSF ORDER NO.	PRICE EACH
1/16-27	4	11/16	2-1/8	2314-001	2314-002	\$ 23.12
1/8-27*	4	3/4	2-1/8	2314-013	2314-015	23.12
1/8-27	4	3/4	2-1/8	2314-014	2314-016	23.12
1/4-18	4	1-1/16	2-7/16	2314-027	2314-028	25.84
3/8-18	4	1-1/16	2-9/16	2314-039	2314-040	33.76
1/2-14	4	1-3/8	3-1/8	2314-051	2314-052	53.83
3/4-14	5	1-3/8	3-1/4	2314-063	2314-064	75.47
1-11-1/2	5	1-3/4	3-3/4	2314-075	2314-076	114.71
1-1/4-11-1/2	5	1-3/4	4	2314-087	2314-088	154.02
1-1/2-11-1/2	7	1-3/4	4-1/4	2314-096	2314-097	215.82
2-11-1/2	7	1-3/4	4-1/2	2314-104	2314-105	283.89
2-1/2-8	8	2-9/16	5-1/2	2314-112	2314-113	737.55
3-8	8	2-5/8	6	2314-120	2314-121	1039.50
3-1/2-8	8	2-3/4	6-1/2	2314-128	-	1098.90
4-8	10	3	7	2314-136	-	1336.50

* Large Shank

Pittsburg[®] ALLEGHANY Straight Pipe Tap

NH - Garden Hose Ground Thread High Speed Steel



2

SIZE	NO. OF FLUTES	THREAD LG'TH	OAL	ORDER NO.	PRICE EACH
3/4-11-1/2	4	1-3/8	3-1/4	2314-060	\$28.06

Pittsburg[®] ALLEGHANY

55° Whitworth Thread British Pipe Taps 2

BSPP & BSPT - Ground Thread High Speed Steel



BSPP STRAIGHT						BSPT TAPER			
SIZE	THREAD LG'TH	OAL	NO. OF FLUTES	ORDER NO.	PRICE EACH	NO. OF FLUTES	ORDER NO.	PRICE EACH	
1/8-28*	3/4	2-1/8	4	2319-103	\$ 37.69	4	2319-002	\$ 37.69	
1/8-28	3/4	2-1/8	4	2319-102	6.90	4	2319-003	13.70	
1/4-19	1-1/16	2-7/16	4	2319-104	41.94	4	2319-004	41.94	
3/8-19	1-1/16	2-9/16	4	2319-105	55.30	4	2319-005	55.30	
1/2-14	1-3/8	3-1/8	4	2319-106	87.48	4	2319-006	87.48	
5/8-14	1-3/8	3-3/16	4	2319-107	102.49	4	2319-007	102.49	
3/4-14	1-3/8	3-1/4	4	2319-108	119.70	5	2319-008	74.22	
7/8-14	1-9/16	3-1/2	4	2319-109	162.86	5	2319-009	162.86	
1-11	1-3/4	3-3/4	6	2319-110	180.79	5	2319-010	180.79	
1-1/4-11	1-3/4	4	6	2319-111	273.38	5	2319-011	273.38	
1-1/2-11	1-3/4	4-1/4	6	2319-112	358.43	7	2319-012	257.95	
1-3/4-11	1-3/4	4-3/8	6	2319-113	412.25	7	2319-013	153.30	
2-11	1-3/4	4-1/2	6	2319-114	528.00	7	2319-014	412.25	
2-1/4-11	2-1/8	5	6	2319-115	416.30	-	-	-	
2-1/2-11	2-9/16	5-1/2	6	2319-116	1140.00	7	2319-016	POA	
3-11	2-5/8	6	6	2319-118	918.30	-	-	-	

* Large Shank

Sizes through 4 inch diameter: POA



Straight Pipe Taps

NPS & NPSF Dryseal – Ground Thread – High Speed Steel



2

NOMINAL SIZE	NO. OF FLUTES	THREAD LENGTH	OVERALL LENGTH	SHANK DIA.	NPS		PRICE EACH
					ORDER NO.	NPSF ORDER NO.	
1/8-27* (Lg)	4	3/4	2-1/8	.4375	3762-408	3762-409	\$28.67
1/8-27* (Sm)	4	3/4	2-1/8	.3125	3762-412	3762-413	28.67
1/4-18	4	1-1/16	2-7/16	.5625	3762-417	3762-418	33.91
3/8-18	4	1-1/16	2-9/16	.7000	3762-423	3762-424	44.36
1/2-14	4	1-3/8	3-1/8	.6875	3762-429	3762-430	70.85
3/4-14	5	1-3/8	3-1/4	.9063	3762-435	3762-436	99.43
1-11-1/2	5	1-3/4	3-3/4	1.1250	3762-441	-	150.92
1-1/4-11-1/2	6	1-3/4	5-1/2	1.3125	3762-443	-	137.20
1-1/2-11-1/2	6	1-3/4	6	1.5000	3762-445	-	POA

* Unless specified, large shanks will be supplied.

Pittsburg[®] ALLEGHANY Left Hand Straight Pipe Taps

NPS & NPSF Dryseal - Ground Thread – High Speed Steel



2

SIZE	NO. OF FLUTES	THREAD LG'TH	OAL	LH NPS ORDER NO.	LH NPSF ORDER NO.	PRICE EACH
1/16-27	4	11/16	2-1/8	2315-001	2315-002	\$ 39.35
1/8-27*	4	3/4	2-1/8	2315-003	2315-004	43.50
1/8-27	4	3/4	2-1/8	2315-005	2315-006	43.50
1/4-18	4	1-1/16	2-7/16	2315-009	2315-010	51.85
3/8-18	4	1-1/16	2-9/16	2315-013	2315-014	60.15
1/2-14	4	1-3/8	3-1/8	2315-017	2315-018	79.90
3/4-14	5	1-3/8	3-1/4	2315-021	2315-022	110.25
1-11-1/2	5	1-3/4	3-3/4	2315-025	2315-026	140.55
1-1/4-11-1/2	5	1-3/4	4	2315-029	2315-030	202.10
1-1/2-11-1/2	7	1-3/4	4-1/4	2315-033	2315-034	244.55
2-11-1/2	7	1-3/4	4-1/2	2315-037	2315-038	318.75
2-1/2-8	8	2-9/16	5-1/2	2315-041	2315-042	510.45
3-8	8	2-5/8	6	2315-045	2315-046	701.65
3-1/2-8	8	2-3/4	6-1/2	2315-049	2315-050	855.75
4-8	10	3	7	2315-053	2315-054	1009.85

* Large Shank

BSPP & BSPT - ISO Standard Ground Thread High Speed Steel



BSPP STRAIGHT						BSPT TAPER			
SIZE	THREAD LG'TH (MM)	OAL (MM)	NO. OF FLUTES	ORDER NO.	PRICE EACH	NO. OF FLUTES	ORDER NO.	PRICE EACH	
1/8-28	14	59	4	2319-073	\$6.90	4	2319-053	\$13.70	
1/4-19	19	67	4	2319-074	10.45	4	2319-054	19.40	
3/8-19	21	75	4	2319-075	13.80	4	2319-055	22.85	
1/2-14	26	87	4	2319-076	20.70	4	2319-056	37.10	
5/8-14	26	91	4	2319-077	32.30	4	2319-057	42.15	
3/4-14	28	96	4	2319-078	29.20	5	2319-058	47.20	
7/8-14	29	102	4	2319-079	47.60	5	2319-059	52.00	
1-11	33	109	6	2319-080	46.15	5	2319-060	56.80	
1-1/4-11	36	119	6	2319-081	89.45	5	2319-061	110.05	
1-1/2-11	37	125	6	2319-082	107.60	7	2319-062	131.40	
1-3/4-11	39	132	6	2319-083	197.10	7	2319-063	153.30	
2-11	41	140	6	2319-084	195.90	7	2319-064	271.95	
2-1/2-11	45	153	6	2319-086	572.35	-	-	-	
3-11	48	164	6	2319-088	918.30	-	-	-	

British Thread Taps & Dies

55° Whitworth Thread – High Speed Steel

Hand Taps

Right Hand



Round Adjustable & Hexagon Rethreading Dies

Right Hand



WARNING: This product contains Cobalt and/or Nickel and/or Lead a chemical known to the state of California to cause cancer or birth defects or other reproductive harm. For more information: www.pro65.ca.gov.
WARNING: Cutting tools may shatter. Always wear approved safety glasses and mask when regrinding.

2

		PLUG TAP		BOTTOM TAP		SPIRAL POINT	
SIZE		ORDER NO.	PRICE EACH	ORDER NO.	PRICE EACH	ORDER NO.	PRICE EACH
1/8-40	BSW	2319-204	\$ 6.11	2319-204B	\$ 6.11	2319-304	\$ 10.49
5/32-32	BSW	2319-205	7.80	2319-205B	7.80	—	—
3/16-24	BSW	2319-206	6.01	2319-206B	6.01	2319-306	6.86
3/16-32	BSF	2319-207	7.94	2319-207B	7.94	2319-307	9.07
1/4-20	BSW	2319-208	6.11	2319-208B	6.11	2319-308	8.16
1/4-26	BSF	2319-209	6.74	2319-209B	6.74	2319-309	9.58
5/16-18	BSW	2319-210	6.74	2319-210B	6.74	2319-310	10.66
5/16-22	BSF	2319-211	8.17	2319-211B	8.17	2319-311	10.37
3/8-16	BSW	2319-212	9.10	2319-212B	9.10	2319-312	13.78
3/8-20	BSF	2319-213	10.16	2319-213B	10.16	2319-313	14.85
7/16-14	BSW	2319-214	13.09	2319-214B	13.09	2319-314	17.51
7/16-18	BSF	2319-215	14.21	2319-215B	14.21	2319-315	22.51
1/2-12	BSW	2319-216	13.40	2319-216B	13.40	2319-316	19.50
1/2-16	BSF	2319-217	16.21	2319-217B	16.21	2319-317	21.15
9/16-12	BSW	2319-218	23.50	2319-218B	23.50	2319-318	28.85
9/16-16	BSF	2319-219	23.44	2319-219B	23.44	2319-319	29.36
5/8-11	BSW	2319-220	17.89	2319-220B	17.89	2319-320	29.31
5/8-14	BSF	2319-221	23.44	2319-221B	23.44	2319-321	29.31
3/4-10	BSW	2319-222	26.25	2319-222B	48.09	2319-322	45.12
3/4-12	BSF	2319-224	34.67	2319-224B	34.67	2319-323	44.95
7/8-9	BSW	2319-225	43.33	2319-225B	43.33	2319-324	55.95
7/8-11	BSF	2319-226	47.01	2319-226B	47.01	2319-325	55.66
1"-8	BSW	2319-227	53.56	2319-227B	53.56	2319-326	68.81
1-10	BSF	2319-228	58.05	2319-228B	58.05	2319-327	68.81
1-1/8-7	BSW	2319-229	84.43	2319-229B	84.43	—	—
1-1/8-9	BSF	2319-230	84.12	2319-230B	84.12	—	—
1-1/4-7	BSW	2319-231	101.39	2319-231B	101.39	—	—
1-1/4-9	BSF	2319-232	101.07	2319-232B	101.07	—	—
1-1/2-6	BSW	2319-233	156.50	2319-233B	156.50	—	—
1-1/2-8	BSF	2319-234	156.75	2319-234B	156.75	—	—
2-4-1/2	BSW	2319-235	370.87	2319-235B	370.87	—	—
2-7	BSF	2319-236	372.43	2319-236B	372.43	—	—

Spiral Flute available on request.

		H.S. ROUND ADJ.		CS HEX.	
SIZE	O.D.	ORDER NO.	PRICE EACH	ORDER NO.	PRICE EACH
1/8-40	BSW 13/16	2437-207	\$ 20.90	—	—
3/16-24	BSW 13/16	2437-213	20.90	—	—
1/4-20	BSW 1	2437-225	38.49	2485-017	\$ 16.89
1/4-26	BSF 1	2437-229	29.61	2485-021	24.50
5/16-18	BSW 1	2437-237	38.49	2485-029	27.30
5/16-22	BSF 1	2437-241	29.61	2485-033	28.70
3/8-16	BSW 1	2437-246	38.49	2485-037	31.80
3/8-20	BSF 1	2437-249	29.61	2485-041	33.30
7/16-14	BSW 1-1/2	2437-256	43.80	2485-045	22.10
7/16-18	BSF 1-1/2	2437-260	50.20	2485-049	42.30
1/2-12	BSW 1-1/2	2437-261	57.92	2485-053	40.10
1/2-16	BSF 1-1/2	2437-266	44.55	2485-057	41.80
9/16-12	BSW 1-1/2	2437-270	43.80	2485-061	49.50
9/16-16	BSF 1-1/2	2437-273	50.20	2485-065	51.60
5/8-11	BSW 1-1/2	2437-276	43.80	2485-069	30.21
5/8-14	BSF 1-1/2	2437-279	44.55	2485-073	51.60
3/4-10	BSW 2	2437-288	60.70	2485-081	41.95
3/4-12	BSF 2	2437-291	63.30	2485-085	61.40
7/8-9	BSW 2	2437-300	98.98	2485-089	68.20
7/8-11	BSF 2	2437-303	76.14	2485-093	71.60
1"-8	BSW 2	2437-315	98.98	2485-097	52.79
1-10	BSF 2	2437-318	70.00	2485-101	95.70
1-1/8-7	BSW 3	2437-325	253.80	2485-109	166.50
1-1/8-9	BSF 3	2437-328	264.50	2485-113	POA
1-1/4-7	BSW 3	2437-331	184.50	2485-117	166.50
1-1/4-9	BSF 3	2437-334	192.20	2485-121	POA
1-1/2-6	BSW 3	2437-342	184.50	2485-133	203.00
1-1/2-8	BSF 3	2437-345	192.20	2485-137	203.00
1-5/8-5	BSF 3	2437-348	184.50	2485-145	148.43
1-5/8-8	BSF 3	—	—	2485-149	POA
1-3/4-5	BSW 3	2437-354†	184.50	2485-153	POA
1-3/4-7	BSF 3	2437-357†	184.50	2485-157	POA
2-4-1/2	BSW 3	2437-363†	184.50	2485-169	POA
2-7	BSF 3	2437-366†	184.50	2485-173	POA

Sizes not shown – P.O.A.

British Thread

Pipe Dies



BSPP & BSPT Round Adjustable Die High Speed Steel

		BSPP		BSPT	
SIZE	O.D.	ORDER NO.	PRICE EACH	ORDER NO.	PRICE EACH
1/16-28	1"	2438-101	\$ 7.40	2438-102	\$ 7.40
1/8-28	1"	2438-105	39.61	2438-106	7.40
1/8-28	1-1/2"	2438-109	44.55	2438-110	44.55
1/4-19	1-1/2"	2438-113	44.55	2438-114	44.55
3/8-19	1-1/2"	2438-117	44.55	2438-118	44.55
1/2-14	2"	2438-121	76.14	2438-122	76.14
5/8-14	2"	2438-125	76.14	2438-126	76.14
3/4-14	2"	2438-129	76.14	2438-130	76.14
1-11	3"	2438-137	96.30	2438-139	96.30
1-1/4-11	3"	2438-145	198.00	2438-146	96.30
1-1/2-11	4"	2438-149	242.90	2438-150	242.90
2-11	4"	2438-157	242.90	2438-158	242.90

Acme Taps & Dies

Tandem Acme Taps

Right Hand & Left Hand - Class 2G - High Speed Steel



					Pittsburg [®] ALLEGANY		USA MADE			
SIZE & PITCH	OVERALL LENGTH	THR'D LENGTH	BRONZE & STEEL	BRASS & CAST IRON	MAX. DEPTH OF NUT		RIGHT HAND		LEFT HAND	
							ORDER NO.	PRICE EACH	ORDER NO.	PRICE EACH
3/8-12	4-1/16	2-1/8	1	1-1/2			2331-001	\$111.26	2331-051	\$140.53
7/16-10*	5	3	1	1-1/2			—	—	2331-120	POA
7/16-12	4-9/16	2-3/8	1	1-1/2			2331-002	111.26	2331-052	POA
1/2-10	5	2-9/16	1	1-1/2			2331-003	111.26	2331-053	173.13
5/8-8	6-1/4	3-3/16	1-1/4	1-7/8			2331-004	124.60	2331-054	200.61
5/8-16	6-1/4	3-3/16	1-1/4	1-7/8			—	—	2331-136	POA
3/4-6	7-15/16	4-5/16	1-1/2	2-1/4			2331-005	170.46	2331-055	241.67
3/4-7	7-15/16	4-5/16	1-1/2	2-1/4			—	—	2331-143	POA
3/4-8	7-15/16	4-5/16	1-1/2	2-1/4			—	—	2331-144	309.51
7/8-6	8-5/8	4-3/8	1-3/4	2-5/8			2331-006	199.24	2331-056	294.56
7/8-8	8-5/8	4-3/8	1-3/4	2-5/8			—	—	2331-152	POA
7/8-10	8-5/8	4-3/8	1-3/4	2-5/8			—	—	2331-154	POA
1-5	10-1/8	5-1/4	2	3			2331-007	207.97	2331-057	375.28
1-1/8-5	10-3/4	5-1/4	2-1/4	3-1/8			2331-008	222.96	2331-058	476.16
1-1/4-5	11-1/8	5-1/4	2-1/2	3-3/4			2331-009	265.65	2331-059	440.18
1-3/8-4	12-1/4	5-7/8	2-3/4	4-1/8			2331-010	333.96	2331-060	660.17
1-1/2-4	12-5/8	5-7/8	3	4-1/2			2331-011	356.10	2331-061	624.40

* Single Pass

Sizes not shown - POA.

Special Acme Taps

29° Right Hand & Left Hand - Table 302
Hand Tap Dimensions - Ground Thread
High Speed Steel



			QUANTITY - PRICE				
DIA.	THREAD LENGTH	OVERALL LENGTH	1	2	3-5	6-11	EACH
1/4	1	2-1/2	P.O.A. Roughers & Finishers In Stock				
5/16	1-1/8	2-23/32					
3/8	1-1/4	2-15/16					
7/16	1-7/16	3-5/32					
1/2	1-21/32	3-3/8					
9/16	1-21/32	3-19/32					
5/8	1-13/16	3-13/16					
11/16	1-13/16	4-1/32					
3/4	2	4-1/4					
13/16	2	4-15/32					
7/8	2-7/32	4-11/16	P.O.A. Roughers & Finishers In Stock				
15/16	2-7/32	4-29/32					
1	2-1/2	5-1/8					
1-1/8	2-9/16	5-7/16					
1-1/4	2-9/16	5-3/4					
1-3/8	3	6-1/16					
1-1/2	3	6-3/8					

Acme Thread Round Adjustable Dies - High Speed Steel



		RIGHT HAND		LEFT HAND	
SIZE & PITCH	O.D.	ORDER NO.	PRICE EACH	ORDER NO.	PRICE EACH
1/4-16	1	2439-005	\$130.80	2439-405	\$130.80
5/16-14	1	2439-010	130.80	2439-410	130.80
3/8-12	1	2439-015	130.80	—	—
3/8-10	1 1/2	2439-025	168.00	2439-425	168.00
3/8-12	1 1/2	2439-027	168.00	2439-427	168.00
7/16-8	1 1/2	2439-033	168.00	2439-433	168.00
7/16-10	1 1/2	2439-035	168.00	2439-435	168.00
7/16-12	1 1/2	2439-037	168.00	2439-437	168.00
1/2-8	1 1/2	2439-047	168.00	2439-447	168.00
1/2-10	1 1/2	2439-049	168.00	2439-449	168.00
1/2-12	1 1/2	2439-051	168.00	2439-451	168.00
5/8-6	2	2439-070	220.80	2439-470	220.80
5/8-8	2	2439-072	220.80	2439-472	220.80
5/8-10	2	—	—	2439-474	220.80
3/4-5	2	2439-084	220.80	2439-484	220.80
3/4-6	2	2439-085	220.80	2439-485	220.80
3/4-8	2	2439-087	220.80	2439-487	220.80
3/4-10	2	2439-089	220.80	2439-489	220.80
7/8-5	2	2439-100	232.80	2439-500	232.80
7/8-6	2	2439-101	232.80	2439-501	232.80
7/8-8	2	—	—	2439-503	232.80
3/4-5	2 1/2	2439-125	313.20	—	—
3/4-6	2 1/2	2439-126	313.20	—	—
1-4	2 1/2	2439-136	313.20	2439-536	313.20
1-5	2 1/2	2439-137	313.20	2439-537	313.20
1-6	2 1/2	2439-138	313.20	2439-538	313.20
1-8	2 1/2	—	—	2439-540	313.20
1-10	2 1/2	—	—	2439-542	313.20
1-1/8-4	2 1/2	2439-170	324.00	2439-570	324.00
1-1/8-5	2 1/2	2439-171	324.00	2439-571	324.00
1-1/8-6	2 1/2	2439-172	324.00	2439-572	324.00
1-1/4-4	2 1/2	2439-182	324.00	2439-582	324.00
1-1/4-5	2 1/2	2439-183	324.00	2439-583	324.00
1-1/4-6	2 1/2	—	—	2439-584	324.00
1-3/8-4	2 1/2	2439-194	324.00	2439-594	324.00
1-3/8-5	2 1/2	2439-195	324.00	2439-595	324.00
1-1/2-4	2 1/2	2439-206	324.00	2439-606	324.00
1-1/2-5	2 1/2	2439-207	324.00	2439-607	324.00
1-3/8-4	3	2439-243	537.60	2439-643	537.60
1-1/2-4	3	2439-293	537.60	2439-693	537.60

Sizes not shown - POA.

Acme Thread Hexagon Rethreading Dies Carbon Steel



		RIGHT HAND		LEFT HAND	
SIZE & PITCH		ORDER NO.	PRICE EACH	ORDER NO.	PRICE EACH
1/4 - 16		2486-001	\$84.00	2486-301	\$84.00
5/16 - 14		2486-007	85.20	2486-307	85.20
3/8 - 12		2486-020	85.20	2486-320	85.20
7/16 - 12		2486-038	85.20	2486-338	85.20
1/2 - 10		2486-050	96.00	2486-350	96.00
5/8 - 8		2486-067	100.80	2486-367	100.80
3/4 - 6		2486-085	105.60	2486-385	105.60
7/8 - 6		2486-115	109.20	2486-415	109.20
1 - 5		2486-133	116.40	2486-433	116.40
1-1/8 - 5		2486-169	121.20	2486-469	121.20
1-1/4 - 5		2486-193	142.80	2486-493	142.80
1-3/8 - 4		2486-205	147.60	2486-505	147.60
1-1/2 - 4		2486-223	152.40	2486-523	152.40

Size not shown - POA

Carbon Steel Round Adjustable Dies

Right Hand - NC, NF & Special Pitch

WARNING: This product contains Cobalt and/or Nickel and/or Lead a chemical known to the state of California to cause cancer or birth defects or other reproductive harm. For more information: www.prodds.ca.gov. **WARNING:** Cutting tools may shatter. Always wear approved safety glasses and mask when regrinding.



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SIZE	SERIES	OUTSIDE DIAM.	ORDER NO.	PRICE EACH
00-112		13/16	2440-108	\$3.20
0-80	NF	5/8	2430-201	5.85
0-80	NF	13/16	2430-209	7.80
1-56		5/8	2440-188	6.00
1-60		5/8	2440-195	2.90
1-60		13/16	2440-197	3.20
1-64	NC	5/8	2440-200	5.85
1-64	NC	13/16	2430-210	7.80
1-72	NF	5/8	2430-202	2.90
1-72	NF	13/16	2430-211	7.80
1-80		5/8	2440-211	2.90
2-48		5/8	2440-230	2.90
2-48		13/16	2440-232	3.20
2-56	NC	5/8	2430-203	5.85
2-56	NC	13/16	2430-212	7.80
2-56	NC	1	2440-237	4.30
2-60		5/8	2440-240	2.90
2-60		13/16	2440-242	3.20
2-64	NF	5/8	2430-204	5.85
2-64	NF	13/16	2430-213	7.80
2-64	NF	1	2440-244	4.30
2-72		5/8	2440-249	2.90
3-40		5/8	2440-285	2.90
3-40		1	2440-287	4.30
3-48	NC	5/8	2430-205	5.85
3-48	NC	13/16	2430-214	7.80
3-48	NC	1	2440-291	4.30
3-54		5/8	2440-296	2.90
3-54		13/16	2440-298	3.20
3-56	NF	5/8	2430-206	5.85
3-56	NF	13/16	2430-215	7.80
3-56	NF	1	2440-303	4.30
3-60		5/8	2440-308	2.90
3-60		13/16	2440-310	3.20
4-32		5/8	2440-335	7.80
4-32		13/16	2440-336	9.75
4-32		1	2440-337	4.30
4-36	NS	5/8	2440-342	2.90
4-36	NS	13/16	2430-218	9.75
4-36	NS	1	2440-344	11.05
4-40	NC	13/16	2430-216	3.20
4-40	NC	1	2440-347	9.10
4-42		5/8	2440-350	2.90
4-42		1	2440-352	4.30
4-44		13/16	2440-357	3.20
4-48	NF	5/8	2430-208	2.90
4-48	NF	13/16	2430-217	7.80
4-48	NF	1	2440-362	4.30
4-56		5/8	2440-367	2.90
5-30		5/8	2440-394	2.90
5-32		5/8	2440-399	2.90
5-36		13/16	2440-406	3.20
5-40	NC	5/8	2440-411	5.85
5-40	NC	13/16	2430-219	7.80
5-40	NC	1	2440-413	9.10
5-44	NF	5/8	2440-418	5.85
5-44	NF	13/16	2430-220	7.80
5-44	NF	1	2440-420	4.30
5-48		13/16	2440-425	3.20
5-50		13/16	2440-430	3.20
6-24		13/16	2440-470	3.20
6-30		5/8	2440-475	2.90
6-30		13/16	2440-477	3.20
6-30		1	2440-479	4.30
6-32	NC	5/8	2440-483	5.85
6-32	NC	13/16	2430-221	7.80
6-32	NC	1	2430-229	9.10
6-36		5/8	2440-488	7.80
6-36		13/16	2440-490	9.75
6-36		1	2440-492	11.05
6-38		5/8	2440-497	2.90
6-40	NF	5/8	2440-502	5.85
6-40	NF	13/16	2430-222	7.80
6-40	NF	1	2440-504	9.10
7-24		13/16	2440-540	3.20
7-28		5/8	2440-545	2.90
7-32		5/8	2440-550	2.90
7-32		13/16	2440-552	3.20
7-36		5/8	2440-559	2.90
7-36		13/16	2440-561	3.20
7-36		1	2440-563	4.30
7-40		5/8	2440-568	2.90

SIZE	SERIES	OUTSIDE DIAM.	ORDER NO.	PRICE EACH
8-24		5/8	2440-605	\$2.90
8-24		13/16	2440-607	3.20
8-26		13/16	2440-612	3.20
8-28		13/16	2440-617	3.20
8-30		5/8	2440-622	2.90
8-30		13/16	2440-624	3.20
8-30		1	2440-626	4.30
8-32	NC	5/8	2440-631	5.85
8-32	NC	13/16	2430-223	7.80
8-32	NC	1	2430-230	9.10
8-34		13/16	2440-636	3.20
8-36	NF	5/8	2440-641	5.85
8-36	NF	13/16	2430-224	7.80
8-36	NF	1	2440-642	9.10
8-38		13/16	2440-647	3.20
8-40		5/8	2440-652	7.80
8-40		13/16	2440-654	9.75
8-40		1	2440-656	4.30
8-42		13/16	2440-661	3.20
8-48		13/16	2440-666	3.20
9-24		5/8	2440-695	2.90
9-28		13/16	2440-700	3.20
9-30		5/8	2440-705	2.90
9-32		13/16	2440-710	3.20
9-38		13/16	2440-720	3.20
10-20		13/16	2440-730	3.20
10-22		5/8	2440-735	2.90
10-24	NC	5/8	2440-740	5.85
10-24	NC	13/16	2430-225	7.80
10-24	NC	1	2430-231	9.10
10-27		5/8	2440-745	2.90
10-30		5/8	2440-750	9.75
10-30		13/16	2440-752	11.05
10-30		1	2440-754	4.30
10-32	NF	5/8	2440-759	5.85
10-32	NF	13/16	2430-226	7.80
10-32	NF	1	2430-232	9.10
10-34		13/16	2440-764	3.20
10-36		13/16	2440-769	3.20
10-36		1	2440-771	4.30
11-28		13/16	2440-850	3.20
11-36		13/16	2440-865	3.20
12-22		5/8	2440-890	2.90
12-24	NC	5/8	2440-894	5.85
12-24	NC	13/16	2430-227	7.80
12-24	NC	1	2430-233	9.10
12-28	NF	5/8	2440-902	5.85
12-28	NF	13/16	2430-228	7.80
12-28	NF	1	2440-904	9.10
12-30		13/16	2440-908	3.20
12-32	NEF	5/8	2440-912	9.10
12-32	NEF	13/16	2440-914	11.05
12-32	NEF	1	2440-916	12.35
12-34		13/16	2440-920	3.20
12-36		13/16	2440-924	3.20
13-20		13/16	2440-950	3.20
13-20		1	2440-952	4.30
13-22		13/16	2440-957	3.20
13-24		13/16	2440-962	3.20
13-28		13/16	2440-967	3.20
13-32		13/16	2440-972	3.20
14-16		13/16	2441-000	3.20
14-20		13/16	2441-007	11.05
14-20		1	2441-009	12.35
14-22		13/16	2441-014	3.20
14-24		5/8	2441-018	9.10
14-24		13/16	2441-020	11.05
14-24		1	2441-022	12.35
14-26		13/16	2441-026	3.20
14-32		13/16	2441-030	3.20
14-36		13/16	2441-034	3.20
15-18		5/8	2441-045	2.90
15-20		13/16	2441-050	3.20
15-22		5/8	2441-055	2.90
15-24		1	2441-060	4.30
15-32		13/16	2441-065	3.20
16-16		13/16	2441-090	3.20
16-20		5/8	2441-095	2.90
16-20		13/16	2441-097	3.20
16-22		13/16	2441-102	3.20
16-24		5/8	2441-107	2.90
16-24		1	2441-109	4.30
16-26		13/16	2441-114	3.20
16-28		13/16	2441-119	3.20

SIZE	SERIES	OUTSIDE DIAM.	ORDER NO.	PRICE EACH
16-32		13/16	2441-124	\$3.20
18-16		13/16	2441-195	3.20
18-16		1	2441-197	4.30
18-18		1	2441-202	4.30
18-20		5/8	2441-206	2.90
18-24		13/16	2441-211	3.20
18-30		13/16	2441-217	3.20
18-32		13/16	2441-221	3.20
19-16		13/16	2441-245	3.20
19-18		1	2441-250	4.30
19-30		13/16	2441-262	3.20
20-16		1	2441-285	4.30
20-18		1	2441-290	4.30
20-20		13/16	2441-295	3.20
20-22		1	2441-300	4.30
20-24		1	2441-305	4.30
22-16		1	2441-380	4.30
24-14		1	2441-465	4.30
24-16		1	2441-470	4.30
24-18		13/16	2441-475	3.20
24-24		1	2441-480	4.30
30-16		1	2441-740	4.30
1/16-56		5/8	2441-785	2.90
1/16-64		13/16	2441-790	11.05
5/64-56		13/16	2441-832	3.20
5/64-64		13/16	2441-837	3.20
3/32-40		13/16	2441-880	3.20
3/32-46		13/16	2441-885	3.20
3/32-48		13/16	2441-890	3.20
3/32-50		1	2441-895	4.30
3/32-52		5/8	2441-900	2.90
3/32-54		13/16	2441-905	3.20
3/32-60		13/16	2441-910	3.20
3/32-120		13/16	2441-920	3.20
7/64-32		13/16	2441-925	3.20
7/64-36		5/8	2441-930	2.90
7/64-40		5/8	2441-935	2.90
7/64-44		13/16	2441-940	3.20
7/64-48		13/16	2441-945	3.20
7/64-50		13/16	2441-950	3.20
7/64-56		13/16	2441-955	3.20
1/8-22		13/16	2441-970	3.20
1/8-27		13/16	2441-975	3.20
1/8-30		5/8	2441-980	2.90
1/8-40		13/16	2441-985	3.20
1/8-40		1	2430-234	12.35
1/8-42		5/8	2441-990	2.90
1/8-48		13/16	2441-995	3.20
1/8-48		1	2441-997	4.30
1/8-50		13/16	2442-001	3.20
1/8-56		5/8	2442-005	2.90
9/64-30		5/8	2442-015	2.90
5/32-24		13/16	2442-060	3.20
5/32-28		13/16	2442-065	3.20
5/32-30		13/16	2442-069	3.20
5/32-32		13/16	2442-073	11.05
5/32-32		1	2442-075	4.30
5/32-36		13/16	2442-080	3.20
5/32-36		1	2442-082	12.35
5/32-40		5/8	2442-087	2.90
5/32-50		13/16	2442-092	3.20
5/32-58		1	2442-097	4.30
11/64-36		5/8	2442-114	2.90
11/64-36		13/16	2442-116	3.20
11/64-40		13/16	2442-121	3.20
3/16-12		1 1/2	2442-155	9.40
3/16-22		13/16	2442-166	3.20
3/16-24		1	2430-235	12.35
3/16-27		13/16	2442-171	3.20
3/16-27		1	2442-173	4.30
3/16-28		5/8	2442-178	2.90
3/16-30		13/16	2442-183	3.20
3/16-30		1	2442-185	4.30
3/16-32		13/16	2442-190	9.75
3/16-32		1	2430-236	12.35
3/16-32		1 1/2	2442-192	9.40
3/16-36	WT	13/16	2442-197	3.20
3/16-40		13/16	2442-204	3.20
3/16-48		13/16	2442-209	3.20
13/64-24		13/16	2442-225	3.20
13/64-24		1	2442-227	4.30
13/64-30		5/8	2442-232	2.90

Carbon Steel Round Adjustable Dies

Right Hand - NC, NF & Special Pitch

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SIZE	SERIES	OUTSIDE DIAM.	ORDER NO.	PRICE EACH
13/64-30		13/16	2442-234	\$3.20
13/64-32		1	2442-239	4.30
13/64-38		13/16	2442-244	3.20
7/32-22		13/16	2442-275	3.20
7/32-24		13/16	2442-282	9.10
7/32-24		1	2442-284	12.35
7/32-28		1	2442-289	4.30
7/32-30		13/16	2442-294	3.20
7/32-32		13/16	2442-299	3.20
7/32-32		1	2442-301	4.30
7/32-34		5/8	2442-306	2.90
7/32-36		13/16	2442-311	3.20
15/64-22		13/16	2442-340	3.20
15/64-24		13/16	2442-345	3.20
15/64-24		1	2442-347	4.30
15/64-32		13/16	2442-352	3.20
15/64-32		1	2442-354	4.30
15/64-36		13/16	2442-359	3.20
1/4-18		13/16	2442-393	3.20
1/4-20	NC	5/8	2442-398	5.85
1/4-20	NC	13/16	2442-400	7.80
1/4-20	NC	1	2430-237	9.10
1/4-20	NC	1 5/16	2430-249	4.50
1/4-20	NC	1 1/2	2430-259	16.90
1/4-20	NC	2	2430-276	27.30
1/4-24		1	2430-239	12.35
1/4-24		1 1/2	2442-414	20.80
1/4-24		1 5/16	2442-412	17.55
1/4-24		2	2442-416	15.60
1/4-26		5/8	2442-426	2.90
1/4-26		1 5/16	2442-430	4.50
1/4-27		1	2442-435	4.30
1/4-27		1 1/2	2442-437	9.40
1/4-28	NF	5/8	2442-442	5.85
1/4-28	NF	13/16	2442-444	7.80
1/4-28	NF	1	2430-238	9.10
1/4-28	NF	1 5/16	2430-250	14.30
1/4-28	NF	1 1/2	2430-260	16.90
1/4-28	NF	2	2430-277	27.30
1/4-30		5/8	2442-449	2.90
1/4-32	NEF	13/16	2442-454	3.20
1/4-32	NEF	1	2430-240	12.35
1/4-32	NEF	1 5/16	2442-466	17.55
1/4-32	NEF	1 1/2	2442-456	20.80
1/4-32	NEF	2	2442-458	31.20
1/4-36		1 1/2	2442-471	9.40
1/4-50		13/16	2442-481	3.20
17/64-12		1	2442-510	4.30
17/64-18		1	2442-515	4.30
17/64-20		1	2442-520	4.30
17/64-24		13/16	2442-525	3.20
17/64-27		1	2442-530	4.30
17/64-28		13/16	2442-535	3.20
17/64-32		5/8	2442-540	2.90
9/32-16		1	2442-565	4.30
9/32-18		13/16	2442-570	3.20
9/32-20		5/8	2442-575	2.90
9/32-20		1	2442-577	4.30
9/32-20		1 1/2	2442-579	9.40
9/32-24		13/16	2442-584	3.20
9/32-26		1	2442-589	4.30
9/32-27		1	2442-594	4.30
9/32-28		1	2442-599	12.35
9/32-30		13/16	2442-604	3.20
9/32-32		13/16	2442-609	3.20
9/32-32		1	2442-611	4.30
9/32-46		13/16	2442-616	3.20
5/16-16		13/16	2442-690	3.20
5/16-16		1	2442-692	4.30
5/16-16		1 1/2	2442-694	9.40
5/16-18	NC	13/16	2442-699	7.80
5/16-18	NC	1	2430-241	9.10
5/16-18	NC	1 5/16	2430-251	4.50
5/16-18	NC	1 1/2	2430-261	16.90
5/16-18	NC	2	2430-278	27.30
5/16-20		13/16	2442-704	3.20
5/16-20		1	2442-706	12.35
5/16-20		1 1/2	2442-708	20.80
5/16-20		2	2442-710	15.60
5/16-20		2 1/4	2442-712	15.60
5/16-24	NF	13/16	2442-717	7.80
5/16-24	NF	1	2430-242	9.10
5/16-24	NF	1 5/16	2430-252	14.30
5/16-24	NF	1 1/2	2430-262	16.90
5/16-24	NF	2	2430-279	27.30

SIZE	SERIES	OUTSIDE DIAM.	ORDER NO.	PRICE EACH
5/16-26		1	2442-722	\$4.30
5/16-27		13/16	2442-727	3.20
5/16-27		1	2442-729	4.30
5/16-27		1 5/16	2442-429	4.50
5/16-32	NEF	13/16	2442-741	3.20
5/16-32	NEF	1	2430-243	12.35
5/16-32	NEF	1 5/16	2442-743	4.50
5/16-32	NEF	1 1/2	2442-745	9.40
5/16-32	NEF	2	2442-747	15.60
5/16-100		1	2442-800	4.30
21/64-18		13/16	2442-820	3.20
21/64-18		1 1/2	2442-822	9.40
21/64-36		13/16	2442-831	3.20
11/32-16		13/16	2442-870	3.20
11/32-20		1	2442-875	4.30
11/32-20		1 1/2	2442-877	9.40
11/32-24		1	2442-882	4.30
11/32-28		1	2442-887	4.30
11/32-40		1	2442-901	4.30
3/8-16	NC	1	2430-244	9.10
3/8-16	NC	1 5/16	2430-253	4.50
3/8-16	NC	1 1/2	2430-263	16.90
3/8-16	NC	2	2430-280	27.30
3/8-20		1	2443-024	4.30
3/8-20		1 5/16	2443-026	4.50
3/8-20		1 1/2	2443-028	16.00
3/8-20		2	2443-030	15.60
3/8-24	NF	1	2430-245	9.10
3/8-24	NF	1 5/16	2430-254	14.30
3/8-24	NF	1 1/2	2430-264	16.90
3/8-24	NF	2	2430-281	27.30
3/8-26		1 5/16	2443-040	4.50
3/8-27		1 1/2	2443-045	9.40
3/8-32	NEF	1 1/2	2443-050	9.40
3/8-32	NEF	2	2443-055	31.20
3/8-40		1	2443-060	4.30
13/32-16		1 1/2	2443-185	9.40
13/32-20		13/16	2443-190	3.20
13/32-20		1	2443-192	4.30
13/32-20		1 1/2	2443-194	9.40
13/32-24		13/16	2443-199	3.20
7/16-12		1	2443-295	4.30
7/16-14	NC	1	2430-246	9.10
7/16-14	NC	1 5/16	2430-255	14.30
7/16-14	NC	1 1/2	2430-265	16.90
7/16-14	NC	2	2430-282	27.30
7/16-16		1	2443-310	4.30
7/16-18		1 1/2	2443-315	9.40
7/16-20	NF	1	2430-247	9.10
7/16-20	NF	1 5/16	2430-256	4.50
7/16-20	NF	1 1/2	2430-266	16.90
7/16-20	NF	2	2430-283	27.30
7/16-24		1	2443-323	4.30
7/16-24		1 1/2	2443-325	9.40
7/16-24		2	2443-327	31.20
7/16-27		1	2443-332	12.35
7/16-28	NEF	2	2443-337	31.20
1/2-12		1 5/16	2443-560	4.50
1/2-12		1 1/2	2443-562	20.80
1/2-12		2	2443-564	31.20
1/2-13	NC	1	2443-569	9.10
1/2-13	NC	1 5/16	2430-257	14.30
1/2-13	NC	1 1/2	2430-267	9.40
1/2-13	NC	2	2430-284	27.30
1/2-20	NF	1	2443-582	9.10
1/2-20	NF	1 5/16	2430-258	14.30
1/2-20	NF	1 1/2	2430-268	16.90
1/2-20	NF	2	2430-285	27.30
1/2-24		1	2443-589	4.30
1/2-24		1 1/2	2443-591	9.40
1/2-24		2	2443-594	15.60
1/2-27		1 1/2	2443-599	9.40
1/2-28	NEF	2	2443-604	31.20
1/2-32		1 1/2	2443-609	9.40
17/32-40		1 1/2	2443-750	9.40
9/16-12	NC	1 1/2	2430-269	16.90
9/16-12	NC	2	2430-286	27.30
9/16-12	NC	2 1/2	2443-845	33.80
9/16-18	NF	1 1/2	2430-270	20.80
9/16-18	NF	2	2430-287	27.30
9/16-18	NF	2 1/2	2443-854	33.80
9/16-20		1 1/2	2443-859	9.40
9/16-20		2 1/2	2443-861	18.50
9/16-24	NEF	1 1/2	2443-865	9.40
9/16-24	NEF	2	2443-867	31.20
9/16-27		1 1/2	2443-872	19.00

SIZE	SERIES	OUTSIDE DIAM.	ORDER NO.	PRICE EACH
5/8-11	NC	1 1/2	2430-271	\$16.90
5/8-11	NC	2	2430-288	27.30
5/8-11	NC	2 1/2	2430-299	33.80
5/8-12		2	2444-110	15.60
5/8-13		1 1/2	2444-115	9.40
5/8-18	NF	1 1/2	2430-272	16.90
5/8-18	NF	2	2430-289	27.30
5/8-18	NF	2 1/2	2444-120	18.50
5/8-20		1 1/2	2444-127	24.70
5/8-20		2	2444-129	15.60
5/8-20		2 1/2	2444-131	18.50
5/8-24	NEF	1 1/2	2444-136	24.70
5/8-24	NEF	2	2444-138	15.60
5/8-32		2	2444-148	15.60
11/16-11	NC	1 1/2	2444-365	13.00
11/16-11	NC	2	2430-290	27.30
11/16-11	NC	2 1/2	2444-367	33.80
11/16-16	NF	1 1/2	2444-372	13.00
11/16-16	NF	2	2430-291	27.30
11/16-16	NF	2 1/2	2444-374	18.50
11/16-20		2 1/2	2444-384	18.50
11/16-27		1 1/2	2444-392	19.00
11/16-27		2	2444-394	15.60
11/16-32		2	2444-399	15.60
11/16-36		1 5/16	2444-404	4.50
45/64-32		2	2444-465	15.60
3/4-10	NC	1 1/2	2444-616	16.90
3/4-10	NC	2	2430-292	27.30
3/4-10	NC	2 1/2	2430-300	18.50
3/4-12		2	2444-621	15.60
3/4-16	NF	1 1/2	2444-626	16.90
3/4-16	NF	2	2430-293	27.30
3/4-16	NF	2 1/2	2430-301	33.80
3/4-18		1 1/2	2444-631	9.40
3/4-20	NEF	1 1/2	2444-636	9.40
3/4-20	NEF	2	2444-638	15.60
3/4-20	NEF	2 1/2	2444-640	18.50
3/4-27		2	2444-650	15.60
13/16-10		2	2444-915	15.60
13/16-14		2	2444-920	15.60
13/16-18		2	2444-925	15.60
13/16-20	NEF	2	2444-930	15.60
27/32-24		2	2445-076	15.60
7/8-9	NC	2	2430-294	27.30
7/8-9	NC	2 1/2	2430-302	33.80
7/8-9	NC	3	2445-180	22.00
7/8-12		2 1/2	2445-187	37.70
7/8-14	NF	2	2430-295	27.30
7/8-14	NF	2 1/2	2430-303	33.80
7/8-20	NEF	2	2445-199	15.60
7/8-20	NEF	2 1/2	2445-201	18.50
7/8-24		2 1/2	2445-206	18.50
7/8-30		2	2445-216	15.60
7/8-32		2 1/2	2445-221	18.50
59/64-18		2	2445-390	15.60
15/16-16		2 1/2	2445-444	18.50
15/16-18		2	2445-449	15.60
15/16-20	NEF	2	2445-454	15.60
15/16-20	NEF	2 1/2	2445-456	18.50
15/16-27		2	2445-466	15.60
31/32-38		2	2445-602	15.60
1-8	NC	2	2445-695	27.30
1-8	NC	2 1/2	2430-304	33.80
1-8	NC	3	2430-307	39.00
1-10		3	2445-700	22.00
1-12	NF	2	2445-710	27.30
1-12	NF	2 1/2	2430-305	33.80
1-12	NF	3	2430-308	39.00
1-14	NS	2	2445-715	27.30
1-14	NS	2 1/2	2430-306	33.80
1-14	NS	3	2430-309	39.00
1-16		2 1/2	2445-722	18.50
1-20	NEF	2	2445-727	15.60
1-20	NEF	2 1/2	2445-731	18.50
1-20	NEF	3	2445-733	22.00
1-24		2	2445-740	15.60
1-24		2 1/2	2445-742	18.50
1-27		3	2445-749	45.50
1 1/16-12		3	2445-905	22.00
1 1/16-14		2 1/2	2445-910	18.50
1 1/16-14		3	2445-912	22.00
1 1/16-17		3	2445-917	22.00
1 1/16-18	NEF	3	2445-922	22.00
1 1/16-20		2 1/2	2445-927	18.50

Carbon Steel Round Adjustable Dies

Right Hand - NC, NF & Special Pitch

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SIZE	SERIES	OUTSIDE DIAM.	ORDER NO.	PRICE EACH
1 3/32-20		2 1/2	2446-008	\$18.50
1 1/8- 7	NC	2	2446-050	15.60
1 1/8- 7	NC	3	2430-310	39.00
1 1/8- 8		3	2446-055	22.00
1 1/8-12	NF	3	2430-311	39.00
1 1/8-14		3	2446-061	22.00
1 1/8-16		2 1/2	2446-065	37.70
1 1/8-16		3	2446-067	22.00
1 1/8-18	NEF	2 1/2	2446-072	18.50
1 1/8-18	NEF	3	2446-074	22.00
1 1/8-20		2	2446-079	15.60
1 1/8-20		3	2446-081	22.00
1 1/8-24		2	2446-086	15.60
1 1/8-24		2 1/2	2446-088	18.50
1 1/8-32		2 1/2	2446-099	18.50
1 3/16-16		2 1/2	2446-207	18.50
1 3/16-18	NEF	2 1/2	2446-212	18.50
1 3/16-18	NEF	3	2446-214	22.00
1 3/16-20		2 1/2	2446-219	18.50
1 3/16-20		3	2446-221	22.00
1 3/16-32		3	2446-237	22.00
1 1/4- 7	NC	3	2430-312	39.00
1 1/4- 8		3	2446-330	22.00
1 1/4-12	NF	3	2430-313	39.00
1 1/4-16		2 1/2	2446-340	18.50
1 1/4-16		3	2446-342	22.00
1 1/4-18	NEF	2 1/2	2446-347	18.50
1 1/4-18	NEF	3	2446-349	22.00
1 1/4-20		2 1/2	2446-354	18.50
1 1/4-20		3	2446-356	22.00
1 1/4-24		3	2446-361	22.00
1 1/4-32		3	2446-371	22.00
1 5/16-12		2 1/2	2446-455	18.50
1 5/16-12		3	2446-457	22.00
1 5/16-20		3	2446-467	22.00
1 3/8- 6	NC	3	2430-314	39.00
1 3/8-12	NF	3	2430-315	39.00
1 3/8-14		3	2446-589	45.50
1 3/8-16		3	2446-594	22.00
1 3/8-18	NEF	2 1/2	2446-599	18.50
1 3/8-18	NEF	3	2446-601	22.00
1 3/8-20		2 1/2	2446-606	18.50
1 3/8-20		3	2446-608	22.00
1 7/16-12		3	2446-712	22.00
1 7/16-18		3	2446-722	22.00
1 7/16-20		3	2446-727	22.00
1 7/16-32		3	2446-742	22.00
1 1/2- 6	NC	3	2430-316	39.00
1 1/2-12	NF	3	2430-317	39.00
1 1/2-14		3	2446-841	22.00
1 1/2-16		2 1/2	2446-846	18.50
1 1/2-18	NEF	2 1/2	2446-851	18.50
1 1/2-18	NEF	3	2446-853	22.00
1 1/2-36		3	2446-877	22.00
1 9/16-24		3	2447-032	22.00
1 9/16-32		3	2447-042	22.00
1 5/8- 5 1/2		3	2447-135	45.50
1 5/8- 8		3	2447-140	22.00
1 5/8-10		3	2447-145	22.00
1 5/8-10		4	2447-147	73.50
1 5/8-12		3	2447-152	22.00
1 5/8-14		3	2447-157	22.00
1 5/8-16		3	2447-162	22.00

SIZE	SERIES	OUTSIDE DIAM.	ORDER NO.	PRICE EACH
1 5/8-18	NEF	3	2447-167	\$45.50
1 5/8-24		3	2447-172	22.00
1 5/8-32		3	2447-183	22.00
1 21/32-32		3	2447-215	22.00
1 11/16-16		3	2447-237	22.00
1 11/16-32		3	2447-253	22.00
1 3/4- 8		3	2447-305	22.00
1 13/16-18		3	2447-392	22.00
1 27/32-48		3	2447-435	22.00
1 7/8-4 1/2	WT	3 1/2	2447-445	42.50
1 7/8-4 1/2	WT	4	2447-447	73.50
1 7/8- 5		3	2447-452	22.00
1 7/8-10		3	2447-462	22.00
1 7/8-12		3	2447-467	22.00
1 7/8-16		3	2447-472	22.00
1 7/8-16		4	2447-474	73.50
1 7/8-18		3	2447-479	22.00
1 7/8-18		3 1/2	2447-481	42.50
1 29/32-32		3	2447-550	22.00
1 15/16-32		3	2447-605	22.00
1 15/16-48		3	2447-625	22.00
2- 4 1/2		3	2447-640	22.00
2-12		3	2447-650	22.00
2-12		4	2447-652	73.50
2-18		3	2447-662	22.00
2-20		3	2447-667	22.00
2-20		3 1/2	2447-669	42.50
2-32		3 1/2	2447-690	42.50
2 1/16-32		3 1/2	2447-755	42.50
2 3/32-32		3 1/2	2447-780	42.50
2 1/8- 8		3 1/2	2447-795	42.50
2 1/8-12		3 1/2	2447-800	42.50
2 1/8-12		4	2447-805	73.50
2 1/8-14		3 1/2	2447-808	42.50
2 1/8-16		4	2447-814	73.50
2 1/8-20		3 1/2	2447-819	42.50
2 1/8-24		3	2447-825	22.00
2 1/8-32		3 1/2	2447-835	42.50
2 3/16-12		4	2447-871	73.50
2 1/4- 4 1/2		4	2447-915	73.50
2 1/4-12		4	2447-925	73.50
2 1/4-16		4	2447-930	73.50
2 5/16-12		3 1/2	2447-995	42.50
2 5/16-12		4	2447-997	73.50
2 5/16-32		3 1/2	2448-012	42.50
2 3/8-12		4	2448-043	73.50
2 3/8-32		3 1/2	2448-065	42.50
2 7/16-16		4	2448-108	73.50
2 1/2- 7 1/2		5 1/2	2448-155	118.90
2 1/2-16		4	2448-171	73.50
2 5/8-12		4	2448-281	73.50
2 3/4-10		5	2448-375	118.90
2 3/4-12		5	2448-380	118.90
2 7/8-12		5	2448-446	118.90
3-10		5	2448-541	118.90
3-12		5	2448-546	118.90
3 1/8-12		5	2448-601	118.90
3 3/8-12		5 7/8	2448-736	118.90
3 3/8-12		6	2448-738	192.50
3 1/2-12		5	2448-785	118.90
3 1/2-12		6	2448-787	192.50
3 5/8-12		6	2448-841	192.50
5 1/4-12		8	2449-075	450.00

WT- Whitworth Thread

High Speed Steel Round Adjustable Dies

Right Hand & Left Hand – NC, NF, & NS

WARNING: This product contains Cobalt and/or Nickel and/or Lead a chemical known to the state of California to cause cancer or birth defects or other reproductive harm. For more information: www.p6605.ca.gov
WARNING: Cutting tools may shatter. Always wear approved safety glasses and mask when grinding.



188									188										
 USA MADE									 USA MADE										
			RIGHT HAND		RIGHT HAND		LEFT HAND					RIGHT HAND		RIGHT HAND		LEFT HAND			
NC	NF	NS	O.D.	ORDER NO.	PRICE EACH	ORDER NO.	PRICE EACH	ORDER NO.	PRICE EACH	NC	NF	NS	O.D.	ORDER NO.	PRICE EACH	ORDER NO.	PRICE EACH	ORDER NO.	PRICE EACH
SIZE										SIZE									
0-80	NF		5/8	—	—	2450-144	\$3.20	—	—	7/16-14	NC		1-1/2	2420-154	\$58.30	2430-154	\$40.50	2473-302	\$55.89
1-72	NF		5/8	—	—	2450-202	3.20	—	—	7/16-20	NF		1-1/2	2420-155	58.30	2430-155	40.50	2473-317	55.89
2-56	NC		5/8	—	—	2450-232	3.20	—	—	1/2-13	NC		1-1/2	2420-156	58.30	2430-156	40.50	2473-567	55.89
2-64	NF		5/8	—	—	2450-240	3.20	—	—	1/2-20	NF		1-1/2	2420-157	58.30	2430-157	40.50	2473-585	55.89
3-48	NC		5/8	—	—	2450-285	3.20	—	—	9/16-12	NC		1-1/2	2420-158	58.30	2430-158	40.50	2473-845	55.89
3-56	NF		5/8	—	—	2450-293	3.20	—	—	9/16-18	NF		1-1/2	2420-159	58.30	2430-159	40.50	2473-859	55.89
4-36	NS		5/8	—	—	2450-340	3.20	—	—	5/8-11	NC		1-1/2	2420-160	58.30	2430-160	40.50	2474-110	55.89
4-40	NC		5/8	—	—	2450-349	3.20	—	—	5/8-18	NF		1-1/2	2420-161	58.30	2430-161	40.50	2474-130	55.89
4-48	NF		5/8	—	—	2450-358	3.20	—	—	11/16-11	NC		1-1/2	—	—	2454-367	40.50	2474-368	55.89
5-40	NC		5/8	—	—	2450-409	3.20	—	—	11/16-16	NF		1-1/2	—	—	2454-382	40.50	2474-376	55.89
5-44	NF		5/8	—	—	2450-415	3.20	—	—	3/4-10	NC		1-1/2	2420-168	66.50	2454-618	40.50	2474-619	55.89
6-32	NC		5/8	—	—	2450-481	3.20	—	—	3/4-16	NF		1-1/2	2420-169	66.50	2454-643	40.50	2474-638	55.89
8-32	NC		5/8	—	—	2450-623	3.20	—	—	1/4-20	NC		2	—	—	2452-400	69.21	2472-401	95.22
8-36	NF		5/8	—	—	2450-629	3.20	—	—	1/4-28	NF		2	—	—	2452-428	69.21	2472-424	26.20
10-24	NC		5/8	—	—	2450-741	3.20	—	—	5/16-18	NC		2	—	—	2452-705	69.21	2472-708	95.22
10-32	NF		5/8	—	—	2450-760	3.20	—	—	5/16-24	NF		2	—	—	2452-717	69.21	2472-721	26.20
0-80	NF		13/16	—	—	2450-146	21.42	2470-142	\$29.50	3/8-16	NC		2	—	—	2453-017	69.21	2473-018	95.22
1-64	NC		13/16	—	—	2450-197	21.42	2470-190	29.50	3/8-24	NF		2	—	—	2453-038	69.21	2473-039	26.20
1-72	NF		13/16	—	—	2450-204	21.42	2470-199	29.50	7/16-14	NC		2	—	—	2453-307	69.21	2473-304	26.20
2-56	NC		13/16	—	—	2450-233	21.42	2470-230	29.50	7/16-20	NF		2	—	—	2453-322	69.21	2473-319	95.22
2-64	NF		13/16	—	—	2450-242	21.42	2470-240	29.50	1/2-13	NC		2	—	—	2453-568	69.21	2473-569	95.22
3-48	NC		13/16	—	—	2450-286	21.42	2470-280	29.50	1/2-20	NF		2	—	—	2453-588	69.21	2473-587	95.22
3-56	NF		13/16	—	—	2450-295	21.42	2470-290	29.50	9/16-12	NC		2	—	—	2453-851	69.21	2473-847	95.22
4-36	NS		13/16	—	—	2450-342	31.35	2470-340	30.65	9/16-18	NF		2	—	—	2453-864	69.21	2473-861	95.22
4-40	NC		13/16	—	—	2450-351	21.42	2470-345	29.50	5/8-11	NC		2	2420-162	81.70	2430-162	69.21	2474-112	95.22
4-48	NF		13/16	—	—	2450-359	21.42	2470-355	25.65	5/8-18	NF		2	2420-163	81.70	2430-163	69.21	2474-132	95.22
5-40	NC		13/16	2420-101	\$30.30	2430-101	21.42	2470-408	29.50	11/16-11	NC		2	—	—	2454-369	69.21	2474-370	95.22
5-44	NF		13/16	2420-102	30.30	2430-102	21.42	2470-415	29.50	11/16-16	NF		2	—	—	2454-384	69.21	2474-378	26.20
6-32	NC		13/16	2420-103	30.30	2430-103	21.42	2470-475	29.50	3/4-10	NC		2	2420-164	81.70	2430-164	69.21	2474-623	95.22
6-40	NF		13/16	2420-104	30.30	2430-104	21.42	2470-490	29.50	3/4-16	NF		2	2420-165	81.70	2430-165	69.21	2474-640	95.22
8-32	NC		13/16	2420-105	30.30	2430-105	21.42	2470-617	29.50	7/8-9	NC		2	2420-166	88.70	2430-166	69.21	2475-178	95.22
8-36	NF		13/16	2420-106	30.30	2430-106	21.42	2470-624	29.50	7/8-14	NF		2	2420-167	88.70	2430-167	69.21	2475-189	95.22
10-24	NC		13/16	2420-107	30.30	2430-107	21.42	2470-740	29.50	1-8	NC		2	2420-170	88.70	2455-696	69.21	2475-694	95.22
10-32	NF		13/16	2420-108	30.30	2430-108	21.42	2470-753	29.50	1-12	NF		2	2420-171	88.70	2455-710	69.21	2475-703	95.22
12-24	NC		13/16	2420-109	30.30	2430-109	21.42	2470-885	29.50	1-14	NS		2	2420-172	88.70	2455-719	69.21	2475-708	95.22
12-28	NF		13/16	2420-110	30.30	2430-110	21.42	2470-892	29.50	1 1/8-7	NC		2	—	—	2456-044	23.70	—	—
1/4-20	NC		13/16	2420-111	30.30	2430-111	31.35	2472-395	5.20	1 1/8-12	NF		2	—	—	2456-062	23.70	—	—
1/4-28	NF		13/16	2420-112	30.30	2430-112	21.42	2472-418	5.20	1/2-13	NC		2-1/2	—	—	2453-569	46.40	—	—
5/16-18	NC		13/16	2420-113	30.30	2430-113	21.42	2472-700	5.20	1/2-20	NF		2-1/2	—	—	2453-590	174.90	—	—
5/16-24	NF		13/16	2420-114	30.30	2430-114	21.42	2472-715	5.20	9/16-12	NC		2-1/2	—	—	2453-852	46.40	—	—
2-56	NC		1	—	—	2450-235	26.91	—	—	9/16-18	NF		2-1/2	—	—	2453-865	46.40	—	—
2-64	NF		1	—	—	2450-244	26.91	—	—	5/8-11	NC		2-1/2	—	—	2454-117	46.40	2474-114	50.80
3-48	NC		1	—	—	2450-288	26.91	—	—	5/8-18	NF		2-1/2	—	—	2454-139	46.40	—	—
3-56	NF		1	—	—	2450-297	26.91	—	—	3/4-10	NC		2-1/2	—	—	2454-622	46.40	2474-625	50.80
4-36	NS		1	—	—	2450-344	32.90	—	—	3/4-16	NF		2-1/2	—	—	2454-646	46.40	2474-642	50.80
4-40	NC		1	—	—	2450-353	26.91	2470-347	36.23	7/8-9	NC		2-1/2	—	—	2455-179	46.40	2475-180	131.96
4-48	NF		1	—	—	2450-360	26.91	2470-357	36.23	7/8-14	NF		2-1/2	—	—	2455-191	46.40	2475-191	50.80
5-40	NC		1	—	—	2450-410	26.91	2470-410	36.23	1-8	NC		2-1/2	—	—	2455-698	95.40	2475-696	50.80
5-44	NF		1	—	—	2450-416	26.91	2470-417	36.23	1-12	NF		2-1/2	—	—	2455-712	95.40	2475-705	50.80
6-32	NC		1	2420-115	37.30	2430-115	26.91	2470-477	36.23	1-14	NS		2-1/2	—	—	2455-721	95.40	2475-710	50.80
6-40	NF		1	2420-175	37.30	2450-502	26.91	2470-492	36.23	1-1/8-7	NC		2-1/2	2420-180	116.70	2456-046	95.40	2476-045	131.96
8-32	NC		1	2420-116	37.30	2430-116	26.91	2470-619	36.23	1-1/8-12	NF		2-1/2	2420-181	116.70	2456-064	95.40	2476-056	131.96
8-36	NF		1	2420-176	37.30	2450-630	26.91	2470-626	36.23	1-1/4-7	NC		2-1/2	2420-182	116.70	2456-328	95.40	2476-327	131.96
10-24	NC		1	2420-117	37.30	2430-117	26.91	2470-742	36.23	1-1/4-12	NF		2-1/2	2420-183	116.70	2456-343	95.40	2476-338	131.96
10-32	NF		1	2420-118	37.30	2430-118	26.91	2470-755	36.23	1-3/8-6	NC		2-1/2	—	—	2456-574	95.40	2476-5	

Popular Special R.H. Round Adjustable Dies

High Speed Steel

WARNING: This product contains Cobalt and/or Nickel and/or Lead a chemical known to the state of California to cause cancer or birth defects or other reproductive harm. For more information: www.pro65.ca.gov.
WARNING: Cutting tools may shatter. Always wear approved safety glasses and mask when grinding.

Pittsburg
 ALLEGANY



SIZE	O.D.	ORDER NUMBER	PRICE EACH
0-72	5/8	2450-136	\$3.20
5-48	5/8	2450-419	3.20
5-80	5/8	2450-178	3.20
1-56	13/16	2450-190	31.35
1-80	13/16	2450-209	31.35
2-72	13/16	2450-249	31.35
2-80	13/16	2450-255	31.35
3-64	13/16	2450-303	31.35
3-72	13/16	2450-308	31.35
3-80	13/16	2450-313	31.35
4-32	13/16	2450-336	31.35
4-56	13/16	2450-364	31.35
4-60	13/16	2450-368	31.35
4-64	13/16	2450-372	31.35
4-72	13/16	2450-376	31.35
4-80	13/16	2450-380	31.35
5-32	13/16	2450-400	31.35
5-48	13/16	2450-420	31.35
5-56	13/16	2450-426	5.70
5-60	13/16	2450-431	31.35
5-64	13/16	2450-435	31.35
5-72	13/16	2450-439	31.35
5-80	13/16	2450-443	31.35
6-36	13/16	2450-488	28.50
6-48	13/16	2450-513	31.35
6-56	13/16	2450-519	31.35
6-60	13/16	2450-525	31.35
6-64	13/16	2450-529	31.35
6-72	13/16	2450-533	5.70
6-80	13/16	2450-537	31.35
8-24	13/16	2450-606	31.35
8-30	13/16	2450-619	31.35
8-40	13/16	2450-637	31.35
8-48	13/16	2450-647	31.35
8-56	13/16	2450-652	31.35
8-60	13/16	2450-656	31.35
8-64	13/16	2450-660	31.35
8-80	13/16	2450-668	31.35
10-28	13/16	2450-751	31.35
10-30	13/16	2450-756	31.35
10-36	13/16	2450-767	31.35
10-40	13/16	2450-774	31.35
10-48	13/16	2450-781	31.35
10-56	13/16	2450-796	31.35
10-60	13/16	2450-799	31.35
10-64	13/16	2450-803	31.35
10-72	13/16	2450-807	31.35
10-80	13/16	2450-811	31.35
12-30	13/16	2450-902	31.35
12-32 NEF	13/16	2450-906	31.35
12-36	13/16	2450-913	31.35
12-40	13/16	2450-917	31.35
12-48	13/16	2450-921	31.35
12-56	13/16	2450-925	31.35
5/32-32	13/16	2452-062	5.70
7/32-32	13/16	2452-282	5.70
1/4-24	13/16	2452-410	5.70
1/4-32 NEF	13/16	2452-434	31.35
1/4-40	13/16	2452-449	5.70
5/16-32 NEF	13/16	2452-738	5.70
4-56	1	2450-365	32.90
4-64	1	2450-373	32.90
4-80	1	2450-381	32.90
5-32	1	2450-401	32.90
5-36	1	2450-406	32.90
5-48	1	2450-421	32.90
5-56	1	2450-427	32.90
6-36	1	2450-489	32.90
6-48	1	2450-514	32.90
6-56	1	2450-520	32.90
8-24	1	2450-607	32.90
8-30	1	2450-620	32.90
8-40	1	2450-638	32.90

SIZE	O.D.	ORDER NUMBER	PRICE EACH
10-28	1	2450-752	\$32.90
10-30	1	2450-757	32.90
10-36	1	2450-768	32.90
10-40	1	2450-775	32.90
10-44	1	2450-778	7.10
10-60	1	2450-800	7.10
10-64	1	2450-804	32.90
12-32 NEF	1	2450-907	32.90
12-36	1	2450-914	32.90
12-40	1	2450-918	32.90
12-48	1	2450-922	32.90
1/4-16	1	2452-394	32.90
1/4-18	1	2452-397	32.90
1/4-22	1	2452-404	32.90
1/4-24	1	2452-411	32.90
1/4-26	1	2452-419	32.90
1/4-27	1	2452-422	32.90
1/4-30	1	2452-431	32.90
1/4-32 NEF	1	2452-435	32.90
1/4-36	1	2452-441	32.90
1/4-40	1	2452-450	32.90
1/4-48	1	2452-463	32.90
1/4-56	1	2452-475	32.90
1/4-60	1	2452-479	32.90
1/4-64	1	2452-484	32.90
1/4-72	1	2452-492	32.90
1/4-80	1	2452-500	32.90
9/32-32	1	2452-588	7.10
5/16-16	1	2452-699	32.90
5/16-20	1	2452-708	32.90
5/16-22	1	2452-713	32.90
5/16-27	1	2452-723	32.90
5/16-28	1	2452-728	32.90
5/16-30	1	2452-733	32.90
5/16-32 NEF	1	2452-739	32.90
5/16-36	1	2452-749	32.90
5/16-40	1	2452-754	32.90
5/16-48	1	2452-768	32.90
5/16-56	1	2452-778	32.90
5/16-64	1	2452-786	32.90
5/16-80	1	2452-802	32.90
11/32-32	1	2452-889	32.90
3/8-14	1	2453-011	32.90
3/8-18	1	2453-020	32.90
3/8-20	1	2453-025	32.90
3/8-27	1	2453-047	32.90
3/8-28	1	2453-052	32.90
3/8-30	1	2453-057	32.90
3/8-32 NEF	1	2453-062	32.90
3/8-36	1	2453-069	32.90
3/8-40	1	2453-077	32.90
3/8-48	1	2453-089	32.90
3/8-56	1	2453-103	32.90
3/8-64	1	2453-110	32.90
3/8-72	1	2453-116	32.90
3/8-80	1	2453-122	32.90
13/32-32	1	2453-203	32.90
7/16-12	1	2453-298	32.90
7/16-16	1	2453-310	32.90
7/16-18	1	2453-315	32.90
7/16-24	1	2453-328	32.90
7/16-27	1	2453-337	32.90
7/16-28 NEF	1	2453-342	32.90
7/16-30	1	2453-349	32.90
7/16-32	1	2453-354	32.90
7/16-36	1	2453-360	32.90
7/16-40	1	2453-366	32.90
7/16-48	1	2453-373	32.90
7/16-56	1	2453-380	32.90
7/16-64	1	2453-387	32.90
1/2-12	1	2453-558	32.90
1/2-14	1	2453-571	32.90
1/2-16	1	2453-575	32.90

SIZE	O.D.	ORDER NUMBER	PRICE EACH
1/2-18	1	2453-580	\$32.90
1/2-24	1	2453-597	32.90
1/2-27	1	2453-612	32.90
1/2-28 NEF	1	2453-617	32.90
1/2-30	1	2453-623	32.90
1/2-32	1	2453-628	32.90
1/2-36	1	2453-636	32.90
1/2-40	1	2453-644	32.90
1/2-48	1	2453-651	32.90
1/2-56	1	2453-663	32.90
1/4-24	1-1/2	2452-413	49.50
1/4-27	1-1/2	2452-424	49.50
1/4-32 NEF	1-1/2	2452-437	49.50
1/4-36	1-1/2	2452-443	49.50
1/4-40	1-1/2	2452-452	49.50
5/16-20	1-1/2	2452-710	49.50
5/16-27	1-1/2	2452-725	49.50
5/16-28	1-1/2	2452-730	49.50
5/16-30	1-1/2	2452-735	49.50
5/16-32 NEF	1-1/2	2452-741	49.50
5/16-40	1-1/2	2452-756	49.50
11/32-32	1-1/2	2452-891	17.50
3/8-14	1-1/2	2453-012	49.50
3/8-18	1-1/2	2453-022	49.50
3/8-20	1-1/2	2453-029	49.50
3/8-27	1-1/2	2453-049	49.50
3/8-28	1-1/2	2453-054	49.50
3/8-30	1-1/2	2453-059	49.50
3/8-32 NEF	1-1/2	2453-064	49.50
3/8-36	1-1/2	2453-071	49.50
3/8-40	1-1/2	2453-079	49.50
3/8-48	1-1/2	2453-091	49.50
13/32-32	1-1/2	2453-205	17.50
7/16-12	1-1/2	2453-300	49.50
7/16-16	1-1/2	2453-312	49.50
7/16-18	1-1/2	2453-317	49.50
7/16-24	1-1/2	2453-330	49.50
7/16-27	1-1/2	2453-339	49.50
7/16-28 NEF	1-1/2	2453-344	49.50
7/16-30	1-1/2	2453-351	49.50
7/16-32	1-1/2	2453-356	49.50
7/16-36	1-1/2	2453-362	49.50
7/16-40	1-1/2	2453-368	49.50
7/16-48	1-1/2	2453-375	49.50
15/32-32	1-1/2	2453-480	49.50
1/2-12	1-1/2	2453-559	49.50
1/2-14	1-1/2	2453-572	49.50
1/2-16	1-1/2	2453-577	49.50
1/2-18	1-1/2	2453-582	49.50
1/2-24	1-1/2	2453-599	49.50
1/2-27	1-1/2	2453-614	49.50
1/2-28 NEF	1-1/2	2453-620	49.50
1/2-30	1-1/2	2453-625	49.50
1/2-32	1-1/2	2453-630	49.50
1/2-36	1-1/2	2453-638	49.50
1/2-40	1-1/2	2453-646	49.50
1/2-48	1-1/2	2453-653	49.50
1/2-56	1-1/2	2453-665	49.50
1/2-64	1-1/2	2453-671	17.50
9/16-14	1-1/2	2453-858	49.50
9/16-16	1-1/2	2453-861	49.50
9/16-20	1-1/2	2453-868	49.50
9/16-24 NEF	1-1/2	2453-874	49.50
9/16-27	1-1/2	2453-886	49.50
9/16-28	1-1/2	2453-889	49.50
9/16-32	1-1/2	2453-895	49.50
9/16-36	1-1/2	2453-900	49.50
9/16-40	1-1/2	2453-905	49.50
9/16-48	1-1/2	2453-911	49.50
5/8-10	1-1/2	2454-111	49.50
5/8-12	1-1/2	2454-120	49.50
5/8-14	1-1/2	2454-130	49.50
5/8-16	1-1/2	2454-133	49.50
5/8-20	1-1/2	2454-142	49.50

(continued)

Popular Special R.H. Round Adjustable Dies

High Speed Steel

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Pittsburg
 ALLEGHENY



SIZE	O.D.	ORDER NUMBER	PRICE EACH
5/8-24 NEF	1-1/2	2454-150	\$49.50
5/8-27	1-1/2	2454-161	49.50
5/8-28	1-1/2	2454-166	49.50
5/8-32	1-1/2	2454-174	49.50
5/8-36	1-1/2	2454-180	49.50
5/8-40	1-1/2	2454-185	49.50
5/8-48	1-1/2	2454-190	49.50
5/8-56	1-1/2	2454-195	49.50
5/8-64	1-1/2	2454-200	49.50
11/16-12	1-1/2	2454-372	49.50
11/16-14	1-1/2	2454-377	49.50
11/16-18	1-1/2	2454-387	49.50
11/16-20	1-1/2	2454-392	49.50
11/16-24 NEF	1-1/2	2454-398	49.50
11/16-27	1-1/2	2454-407	49.50
11/16-28	1-1/2	2454-412	17.50
11/16-32	1-1/2	2454-418	49.50
11/16-40	1-1/2	2454-429	49.50
3/4-12	1-1/2	2454-630	49.50
3/4-14	1-1/2	2454-635	49.50
3/4-18	1-1/2	2454-649	49.50
3/4-20 NEF	1-1/2	2454-654	49.50
3/4-24	1-1/2	2454-664	49.50
3/4-27	1-1/2	2454-675	49.50
3/4-28	1-1/2	2454-680	49.50
3/4-32	1-1/2	2454-688	49.50
3/4-40	1-1/2	2454-698	49.50
3/4-48	1-1/2	2454-706	49.50
1/2-12	2	2453-561	84.60
1/2-32	2	2453-632	84.60
9/16-20	2	2453-869	84.60
9/16-24 NEF	2	2453-876	84.60
5/8-12	2	2454-122	84.60
5/8-20	2	2454-144	84.60
5/8-24 NEF	2	2454-152	84.60
5/8-27	2	2454-163	84.60
5/8-32	2	2454-176	84.60
11/16-12	2	2454-374	84.60
11/16-14	2	2454-379	84.60
11/16-18	2	2454-389	84.60
11/16-20	2	2454-394	84.60
11/16-24 NEF	2	2454-400	84.60
11/16-27	2	2454-409	84.60
11/16-32	2	2454-420	84.60
11/16-36	2	2454-425	84.60
11/16-40	2	2454-431	84.60
3/4-12	2	2454-632	84.60
3/4-14	2	2454-637	84.60
3/4-18	2	2454-651	84.60
3/4-20 NEF	2	2454-656	84.60
3/4-24	2	2454-666	84.60
3/4-27	2	2454-677	84.60
3/4-28	2	2454-682	84.60
3/4-32	2	2454-690	84.60
3/4-36	2	2454-694	84.60
3/4-40	2	2454-700	84.60
3/4-48	2	2454-708	32.50
13/16-10	2	2454-916	84.60
13/16-12	2	2454-919	84.60
13/16-14	2	2454-925	84.60
13/16-16	2	2454-928	84.60
13/16-18	2	2454-931	84.60
13/16-20 NEF	2	2454-934	84.60
13/16-24	2	2454-939	84.60
13/16-27	2	2454-944	84.60
13/16-28	2	2454-947	84.60
13/16-32	2	2454-953	84.60
7/8-10	2	2455-184	84.60
7/8-12	2	2455-187	84.60
7/8-16	2	2455-196	84.60
7/8-18	2	2455-201	84.60
7/8-20 NEF	2	2455-206	84.60
7/8-24	2	2455-211	84.60
7/8-27	2	2455-219	84.60

SIZE	O.D.	ORDER NUMBER	PRICE EACH
7/8-28	2	2455-225	\$84.60
7/8-32	2	2455-231	84.60
7/8-36	2	2455-235	84.60
7/8-40	2	2455-240	84.60
15/16-12	2	2455-442	84.60
15/16-14	2	2455-445	84.60
15/16-16	2	2455-448	84.60
15/16-18	2	2455-451	84.60
15/16-20 NEF	2	2455-454	84.60
15/16-24	2	2455-462	84.60
15/16-27	2	2455-468	84.60
15/16-28	2	2455-471	84.60
15/16-32	2	2455-476	84.60
1-10	2	2455-704	126.90
1-16	2	2455-726	126.90
1-18	2	2455-733	126.90
1-20 NEF	2	2455-739	126.90
1-24	2	2455-748	126.90
1-27	2	2455-754	126.90
1-28	2	2455-761	126.90
1-32	2	2455-767	126.90
1-36	2	2455-774	126.90
1-40	2	2455-779	126.90
1-1/16-8	2	2455-902	32.50
1-1/16-12	2	2455-916	126.90
1-1/16-16	2	2455-925	126.90
1-1/16-18 NEF	2	2455-934	126.90
1-1/16-20	2	2455-939	126.90
1-1/16-24	2	2455-949	32.50
1-1/16-32	2	2455-964	32.50
1-1/8-8	2	2456-051	32.50
1-1/8-16	2	2456-076	32.50
1-1/8-18 NEF	2	2456-083	32.50
1-1/8-20	2	2456-090	126.90
1-1/8-24	2	2456-097	32.50
7/16-12	2-1/2	2453-303	54.30
3/4-20 NEF	2-1/2	2454-658	54.30
7/8-27	2-1/2	2455-221	54.30
15/16-20 NEF	2-1/2	2455-456	54.30
1-10	2-1/2	2455-706	174.90
1-16	2-1/2	2455-728	174.90
1-18	2-1/2	2455-735	174.90
1-20 NEF	2-1/2	2455-741	174.90
1-27	2-1/2	2455-756	174.90
1-32	2-1/2	2455-769	174.90
1-1/16-8	2-1/2	2455-904	174.90
1-1/16-12	2-1/2	2455-918	174.90
1-1/16-14	2-1/2	2455-922	174.90
1-1/16-16	2-1/2	2455-927	174.90
1-1/16-18 NEF	2-1/2	2455-936	174.90
1-1/16-20	2-1/2	2455-941	174.90
1-1/16-24	2-1/2	2455-951	174.90
1-1/16-32	2-1/2	2455-966	174.90
1-1/8-8	2-1/2	2456-053	174.90
1-1/8-10	2-1/2	2456-059	174.90
1-1/8-14	2-1/2	2456-070	174.90
1-1/8-16	2-1/2	2456-078	174.90
1-1/8-18 NEF	2-1/2	2456-085	174.90
1-1/8-20	2-1/2	2456-092	174.90
1-1/8-24	2-1/2	2456-099	174.90
1-1/8-27	2-1/2	2456-105	174.90
1-1/8-32	2-1/2	2456-113	174.90
1-3/16-8	2-1/2	2456-198	174.90
1-3/16-12	2-1/2	2456-204	174.90
1-3/16-14	2-1/2	2456-207	174.90
1-3/16-16	2-1/2	2456-210	174.90
1-3/16-18 NEF	2-1/2	2456-215	174.90
1-3/16-20	2-1/2	2456-220	174.90
1-3/16-32	2-1/2	2456-237	174.90
1-1/4-8	2-1/2	2456-333	174.90
1-1/4-10	2-1/2	2456-338	174.90
1-1/4-14	2-1/2	2456-347	174.90
1-1/4-16	2-1/2	2456-351	174.90

SIZE	O.D.	ORDER NUMBER	PRICE EACH
1-1/4-18 NEF	2-1/2	2456-358	\$174.90
1-1/4-20	2-1/2	2456-363	174.90
1-1/4-24	2-1/2	2456-369	174.90
1-1/4-32	2-1/2	2456-382	174.90
1-1/4-40	2-1/2	2456-390	174.90
1-5/16-8	2-1/2	2456-455	174.90
1-5/16-12	2-1/2	2456-461	174.90
1-5/16-14	2-1/2	2456-466	174.90
1-5/16-16	2-1/2	2456-471	174.90
1-5/16-18 NEF	2-1/2	2456-476	174.90
1-5/16-20	2-1/2	2456-481	174.90
1-3/8-8	2-1/2	2456-579	174.90
1-3/8-10	2-1/2	2456-584	174.90
1-3/8-14	2-1/2	2456-594	174.90
1-3/8-16	2-1/2	2456-597	174.90
1-3/8-18 NEF	2-1/2	2456-602	174.90
1-3/8-20	2-1/2	2456-607	174.90
1-3/8-24	2-1/2	2456-614	174.90
1-7/16-8	2-1/2	2456-710	174.90
1-7/16-12	2-1/2	2456-716	174.90
1-7/16-16	2-1/2	2456-724	174.90
1-7/16-18	2-1/2	2456-729	174.90
1-7/16-20	2-1/2	2456-734	174.90
1-7/16-24	2-1/2	2456-740	174.90
1-1/2-8	2-1/2	2456-835	174.90
1-1/2-10	2-1/2	2456-840	174.90
1-1/2-14	2-1/2	2456-850	174.90
1-1/2-16	2-1/2	2456-855	174.90
1-1/2-18 NEF	2-1/2	2456-860	174.90
1-1/2-20	2-1/2	2456-865	116.60
1-1/2-24	2-1/2	2456-872	174.90
1-1/2-28	2-1/2	2456-883	174.90
1-1/2-32	2-1/2	2456-888	174.90
1-1/2-40	2-1/2	2456-896	174.90
15/16-20 NEF	3	2455-458	94.90
1-16	3	2455-730	321.75
1-20 NEF	3	2455-743	321.75
1-27	3	2455-758	94.90
1-1/16-20	3	2455-943	321.75
1-1/16-32	3	2455-968	94.90
1-1/8-8	3	2456-055	321.75
1-1/8-16	3	2456-080	321.75
1-1/8-18 NEF	3	2456-087	321.75
1-3/16-18 NEF	3	2456-217	94.90
1-3/16-20	3	2456-222	94.90
1-1/4-8	3	2456-335	321.75
1-1/4-10	3	2456-340	321.75
1-1/4-16	3	2456-353	321.75
1-1/4-18 NEF	3	2456-360	321.75
1-1/4-20	3	2456-365	321.75
1-1/4-32	3	2456-384	321.75
1-5/16-12	3	2456-463	321.75
1-5/16-14	3	2456-468	321.75
1-5/16-16	3	2456-473	321.75
1-5/16-18 NEF	3	2456-478	321.75
1-5/16-20	3	2456-483	321.75
1-3/8-8	3	2456-581	321.75
1-3/8-10	3	2456-586	321.75
1-3/8-16	3	2456-599	321.75
1-3/8-18 NEF	3	2456-604	321.75
1-3/8-20	3	2456-609	321.75
1-3/8-24	3	2456-616	321.75
1-7/16-12	3	2456-718	321.75
1-7/16-16	3	2456-726	321.75
1-7/16-18	3	2456-731	321.75
1-7/16-20	3	2456-736	94.90
1-1/2-8	3	2456-837	321.75
1-1/2-10	3	2456-842	321.75
1-1/2-14	3	2456-852	321.75
1-1/2-16	3	2456-857	321.75
1-1/2-18 NEF	3	2456-862	321.75
1-1/2-20	3	2456-867	321.75
1-1/2-24	3	2456-874	321.75

(continued)

Popular Special R.H. Round Adjustable Dies

High Speed Steel

Pittsburg
ALLEGHANY



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SIZE	O.D.	ORDER NUMBER	PRICE EACH
1-9/16-12	3	2457-020	\$214.50
1-9/16-16	3	2457-026	214.50
1-9/16-18	3	2457-029	214.50
1-9/16-20	3	2457-031	214.50
1-5/8-5-1/2	3	2457-137	214.50
1-5/8-8	3	2457-143	214.50
1-5/8-10	3	2457-146	214.50
1-5/8-12	3	2457-152	214.50
1-5/8-14	3	2457-157	214.50
1-5/8-16	3	2457-160	214.50
1-5/8-18	3	2457-163	214.50
1-5/8-20	3	2457-166	214.50
1-5/8-24	3	2457-173	214.50
1-11/16-12	3	2457-236	214.50
1-11/16-16	3	2457-242	214.50
1-11/16-18	3	2457-246	214.50
1-11/16-20	3	2457-250	214.50
1-3/4-5	3	2457-298	195.00
1-3/4-6	3	2457-301	214.50
1-3/4-8	3	2457-307	214.50
1-3/4-10	3	2457-310	214.50
1-3/4-12	3	2457-315	214.50
1-3/4-14	3	2457-318	214.50
1-3/4-16	3	2457-321	214.50
1-3/4-18	3	2457-326	214.50
1-3/4-20	3	2457-329	214.50
1-3/4-24	3	2457-336	214.50
1-13/16-12	3	2457-389	214.50
1-13/16-16	3	2457-395	214.50
1-13/16-18	3	2457-398	214.50
1-7/8-5	3	2457-449	214.50
1-7/8-8	3	2457-457	214.50
1-7/8-10	3	2457-462	214.50
1-7/8-12	3	2457-465	214.50
1-7/8-14	3	2457-470	214.50
1-7/8-16	3	2457-475	214.50
1-7/8-18	3	2457-480	214.50
1-7/8-20	3	2457-483	214.50
1-15/16-12	3	2457-578	214.50
1-15/16-16	3	2457-583	214.50
1-15/16-18	3	2457-588	214.50
2-4-1/2	3	2457-640	195.00
2-6	3	2457-646	514.80
2-8	3	2457-649	514.80
2-10	3	2457-654	514.80
2-12	3	2457-659	514.80
2-14	3	2457-666	514.80
2-16	3	2457-671	514.80
2-18	3	2457-674	514.80
2-20	3	2457-681	514.80
1-5/8-20	3-1/2	2457-168	94.90
1-11/16-20	3-1/2	2457-252	94.90
1-11/16-24	3-1/2	2457-259	94.90
1-3/4-24	3-1/2	2457-338	94.90
1-13/16-12	3-1/2	2457-391	94.90
1-13/16-20	3-1/2	2457-402	94.90
1-7/8-5	3-1/2	2457-451	94.90
1-7/8-14	3-1/2	2457-472	94.90
1-15/16-18	3-1/2	2457-590	94.90
2-14	3-1/2	2457-668	94.90
2-18	3-1/2	2457-676	94.90
2-20	3-1/2	2457-683	94.90
2-1/8-8	3-1/2	2457-796	94.90
2-1/8-16	3-1/2	2457-813	94.90
1-3/4-10	4	2457-312	191.00

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SIZE	O.D.	ORDER NUMBER	PRICE EACH
2-12	4	2457-663	\$191.00
2-18	4	2457-678	633.60
2-1/8-8	4	2457-798	633.60
2-1/8-12	4	2457-806	633.60
2-1/8-16	4	2457-815	633.60
2-1/8-18	4	2457-819	633.60
2-1/4-4-1/2	4	2457-916	633.60
2-1/4-8	4	2457-924	633.60
2-1/4-12	4	2457-930	633.60
2-1/4-16	4	2457-936	633.60
2-1/4-18	4	2457-939	633.60
2-1/4-20	4	2457-942	633.60
2-3/8-8	4	2458-040	633.60
2-3/8-12	4	2458-046	633.60
2-3/8-16	4	2458-053	633.60
2-3/8-18	4	2458-058	633.60
2-3/8-20	4	2458-061	633.60
2-1/2-4	4	2458-150	633.60
2-1/2-8	4	2458-156	633.60
2-1/2-12	4	2458-164	633.60
2-1/2-16	4	2458-172	633.60
2-1/2-18	4	2458-176	633.60
2-1/2-20	4	2458-180	191.00
2-5/8-12	4	2458-288	448.80
2-5/8-16	4	2458-298	191.00
2-3/8-16	5	2458-054	419.70
2-5/8-8	5	2458-281	448.80
2-5/8-12	5	2458-291	448.80
2-5/8-14	5	2458-295	419.70
2-5/8-16	5	2458-299	448.80
2-5/8-18	5	2458-303	448.80
2-3/4-4	5	2458-370	448.80
2-3/4-8	5	2458-375	448.80
2-3/4-12	5	2458-381	419.70
2-3/4-16	5	2458-390	448.80
2-7/8-8	5	2458-443	448.80
2-7/8-12	5	2458-449	448.80
2-7/8-18	5	2458-458	448.80
3-4	5	2458-539	1256.64
3-8	5	2458-545	1256.64
3-12	5	2458-553	1256.64
3-16	5	2458-557	1256.64
3-18	5	2458-561	1256.64
3-1/8-4	5	2458-595	448.80
3-1/8-8	5	2458-599	1256.64
3-1/8-12	5	2458-606	1256.64
3-1/4-4	5	2458-640	1256.64
3-1/4-8	5	2458-645	1256.64
3-1/4-12	5	2458-650	1256.64
3-3/8-8	5	2458-738	1256.64
3-3/8-12	5	2458-742	1256.64
3-1/2-4	5	2458-775	1256.64
3-1/2-8	5	2458-780	1256.64
3-1/2-12	5	2458-785	1256.64
3-5/8-8	5	2458-840	1256.64
3-5/8-12	5	2458-845	1256.64
3-3/4-4	6	2458-880	1712.48
3-3/4-8	6	2458-885	1712.48
3-3/4-12	6	2458-890	1712.48
3-7/8-8	6	2458-930	1712.48
3-7/8-12	6	2458-935	1712.48
4-4	6	2458-970	1712.48
4-8	6	2458-975	1712.48
4-12	6	2458-980	1712.48

BRITISH - LEFT HAND - ACME : MULTIPLE LEAD THREADS ARE IN STOCK FOR IMMEDIATE DELIVERY. SIZES NOT LISTED AND U.S.A. MANUFACTURED DIES ARE QUOTED UPON REQUEST

Full Special Round Adjustable Dies

Right Hand, High Speed Steel

When inquiring, please specify size and quantity.

**POPULAR SPECIAL
ROUND DIES
SEE PAGES 144-146**

WARNING: This product contains Cobalt and/or Nickel and/or Lead a chemical known to the state of California to cause cancer or birth defects or other reproductive harm. For more information: www.prop65.ca.gov.
WARNING: Cutting tools may shatter. Always wear approved safety glasses and mask when regrinding.



SIZE	13/16 OD	1" OD	1-1/2" OD	PRICE EACH
00-90	2450-090	-	-	\$31.35
0-90	2450-155	-	-	POA
2-96	2450-265	-	-	POA
3-40	2450-280	-	-	POA
3-60	2450-301	-	-	POA
4-60	-	2450-369	-	32.90
4-72	-	2450-377	-	POA
4-90	2450-384	2450-385	-	POA
5-60	-	2450-432	-	32.90
5-64	-	2450-436	-	32.90
5-72	-	2450-440	-	POA
5-80	-	2450-444	-	POA
5-100	-	2450-460	-	POA
6-24	2450-465	2450-466	-	POA
6-28	2450-470	-	-	POA
6-30	2450-476	-	-	31.35
6-38	2450-495	2450-496	-	POA
6-42	-	2450-506	-	POA
6-44	-	2450-508	-	POA
6-64	-	2450-530	-	POA
6-72	-	2450-534	-	POA
6-80	-	2450-538	-	POA
7-30	-	2450-547	-	POA
7-32	2450-550	2450-551	-	POA
7-36	2450-554	2450-555	-	POA
7-40	2450-558	2450-559	-	POA
7-48	2450-567	-	-	POA
7-64	2450-578	2450-579	-	POA
8-26	2450-610	2450-611	-	POA
8-28	-	2450-615	-	POA
8-44	-	2450-644	-	POA
8-48	-	2450-648	-	32.90
8-56	-	2450-653	-	32.90
8-60	-	2450-657	-	POA
8-64	-	2450-661	-	32.90
8-72	2450-664	2450-665	-	POA
8-90	2450-673	-	-	POA
9-24	2450-696	2450-697	-	POA
9-30	-	2450-704	-	POA
9-32	2450-707	2450-708	-	POA
9-36	-	2450-712	-	POA
9-40	2450-718	2450-719	-	POA
9-56	2450-722	-	-	POA
10-20	2450-735	-	-	POA
10-38	-	2450-771	-	POA
10-48	-	2450-782	-	32.90
10-50	-	2450-786	-	POA
10-52	2450-789	2450-790	-	POA
10-56	-	2450-797	-	32.90
10-72	-	2450-808	-	POA
10-80	-	2450-812	-	32.90
10-96	-	2450-815	-	POA
11-24	-	2450-845	-	POA
11-28	-	2450-849	-	POA
11-32	-	2450-852	-	POA
11-36	-	2450-856	-	POA
11-40	-	2450-860	-	POA
11-48	-	2450-868	-	POA
12-64	-	2450-930	-	POA
12-72	-	2450-933	-	POA
12-80	-	2450-937	-	POA
13-28	-	2450-961	-	POA
14-18	2450-993	-	-	POA
14-20	2450-997	2450-998	-	31.35
14-24	2451-005	2451-006	-	31.35
14-28	2451-012	-	-	POA
14-32	-	2451-017	-	32.90
14-64	-	2451-028	-	POA
15-20	-	-	2451-049	POA
16-20	2451-100	-	-	POA
16-22	-	2451-104	-	POA
16-36	-	2451-118	-	POA
16-40	-	2451-123	-	POA
18-32	-	2451-215	-	POA
1/16-64	2451-791	-	-	POA

SIZE	5/8 OD	13/16 OD	1" OD	1-1/2" OD	PRICE EACH
3/32-32	-	2451-870	-	-	POA
3/32-48	-	2451-879	-	-	POA
3/32-50	-	2451-882	-	-	POA
3/32-80	-	2451-896	-	-	POA
1/100-100	2451-915	2451-917	-	-	POA
1/8-44	-	2451-975	-	-	POA
1/8-100	-	2451-995	-	-	POA
9/64-40	-	2452-018	-	-	POA
5/32-32	-	-	2452-063	-	\$32.90
5/32-36	-	2452-067	2452-068	-	32.90
5/32-40	2452-071	2452-072	2452-073	-	POA
5/32-50	-	-	2452-077	-	POA
5/32-60	-	2452-082	-	-	POA
5/32-64	-	-	2452-085	-	POA
5/32-80	-	2452-090	-	-	POA
11/64-40	-	2452-116	-	-	POA
3/16-18	-	2452-155	-	-	POA
3/16-20	-	2452-159	-	-	POA
3/16-24	-	2452-162	2452-163	-	POA
3/16-28	-	2452-168	-	-	POA
3/16-32	-	2452-172	2452-173	-	POA
3/16-40	-	-	2452-181	-	POA
3/16-48	-	2452-186	-	-	32.90
3/16-50	-	-	2452-190	-	POA
3/16-56	-	2452-194	-	-	POA
3/16-60	-	2452-196	-	-	POA
3/16-64	-	2452-198	-	-	POA
3/16-72	-	2452-202	-	-	POA
3/16-80	-	-	2452-206	-	POA
3/16-100	-	2452-214	-	-	POA
13/64-48	-	2452-235	-	-	POA
7/32-20	-	-	2452-272	-	POA
7/32-24	-	2452-274	-	-	POA
7/32-28	-	2452-277	-	-	POA
7/32-32	-	-	2452-283	-	32.90
7/32-36	-	2452-287	-	-	POA
7/32-40	-	2452-291	2452-292	-	POA
7/32-48	-	2452-296	2452-297	-	POA
7/32-60	-	2452-302	2452-303	-	POA
7/32-64	-	-	2452-307	-	POA
7/32-72	-	2452-310	-	-	POA
7/32-80	-	-	2452-315	-	POA
15/64-28	-	2452-340	-	-	POA
15/64-64	-	-	2452-354	-	POA
15/64-80	-	2452-360	-	-	POA
1/4-10	-	-	2452-384	-	POA
1/4-12	-	-	2452-388	-	POA
1/4-14	-	-	2452-391	-	32.90
1/4-23	-	-	2452-407	-	POA
1/4-25	-	-	2452-416	-	POA
1/4-38	-	-	2452-446	-	32.90
1/4-42	-	-	2452-455	-	POA
1/4-44	-	-	-	2452-459	POA
1/4-46	-	-	2452-461	-	POA
1/4-50	-	-	2452-467	-	POA
1/4-52	-	-	2452-470	-	POA
1/4-64	-	2452-483	-	-	POA
17/64-20	-	-	2452-511	-	POA
17/64-24	-	2452-516	-	-	POA
17/64-28	-	2452-520	-	-	POA
17/64-32	-	-	2452-525	-	POA
17/64-40	-	-	2452-550	-	POA
9/32-20	-	-	2452-570	-	POA
9/32-24	-	-	2452-575	-	POA
9/32-27	-	-	2452-580	-	POA
9/32-28	-	-	2452-583	-	POA
9/32-36	-	-	2452-593	-	POA
9/32-40	-	-	2452-598	-	POA
9/32-48	-	-	2452-606	-	POA
9/32-56	-	-	2452-614	-	POA
9/32-64	-	-	2452-622	-	POA
19/64-24	-	-	2452-650	-	POA
19/64-32	-	-	2452-658	-	POA
19/64-64	-	-	-	2452-668	POA
5/16-10	-	-	2452-690	-	POA
5/16-12	-	-	2452-693	-	POA
5/16-14	-	-	2452-696	-	POA
5/16-16	-	-	-	2452-701	49.50
5/16-26	-	-	2452-720	-	32.90

(continued)

Full Special Round Adjustable Dies

Right Hand, High Speed Steel

When inquiring, please specify size and quantity.

POPULAR SPECIAL

ROUND DIES

SEE PAGES 144-146



WARNING: This product contains Cobalt and/or Nickel and/or Lead a chemical known to the state of California to cause cancer or birth defects or other reproductive harm. For more information: www.prcp65.ca.gov.
WARNING: Cutting tools may shatter. Always wear approved safety glasses and mask when regrinding.



SIZE	1" OD	1 1/2" OD	2" OD	PRICE EACH
5/16-32 NEF	—	—	2452-743	POA
5/16-34	2452-746	—	—	POA
5/16-42	2452-759	—	—	POA
5/16-44	2452-762	—	—	POA
5/16-46	2452-765	—	—	POA
5/16-50	2452-771	—	—	POA
5/16-72	2452-794	—	—	\$32.90
5/16-100	2452-812	—	—	POA
21/64-36	2452-830	—	—	POA
11/32-18	2452-868	—	—	POA
11/32-20	2452-871	—	—	POA
11/32-24	2452-876	—	—	POA
11/32-27	2452-881	—	—	POA
11/32-28	2452-884	—	—	POA
11/32-36	—	2452-897	—	POA
11/32-40	2452-902	—	—	32.90
11/32-48	2452-910	—	—	POA
11/32-56	2452-918	—	—	POA
11/32-60	2452-923	—	—	POA
11/32-64	2452-928	—	—	POA
3/8-10	2453-005	—	—	POA
3/8-12	2453-008	—	—	POA
3/8-20	—	—	2453-031	POA
3/8-22	2453-034	—	—	32.90
3/8-25	2453-041	—	—	POA
3/8-26	2453-044	—	—	32.90
3/8-38	2453-074	—	—	POA
3/8-44	2453-084	—	—	POA
3/8-50	—	2453-095	—	POA
3/8-52	2453-098	—	—	POA
3/8-80	—	2453-124	—	POA
25/64-27	2453-132	—	—	POA
25/64-32	—	2453-137	—	POA
25/64-40	2453-141	—	—	POA
25/64-48	2453-149	—	—	POA
13/32-16	—	2453-180	—	POA
13/32-20	2453-184	—	—	POA
13/32-24	2453-188	2453-190	—	POA
13/32-26	—	2453-194	—	POA
13/32-27	2453-196	—	—	POA
13/32-28	2453-199	—	—	POA
13/32-36	2453-209	2453-211	—	32.90
13/32-40	2453-215	—	—	32.90
13/32-48	2453-220	—	—	POA
27/64-20	—	2453-249	—	POA
27/64-36	2453-258	—	—	POA
27/64-48	2453-260	—	—	POA
7/16- 8	—	2453-292	—	POA
7/16-10	—	2453-295	—	POA
7/16-22	2453-325	—	—	POA
7/16-26	—	2453-334	—	POA
7/16-28 NEF	—	—	2453-346	POA
7/16-56	—	2453-382	—	POA
7/16-64	—	2453-388	—	POA
15/32-14	—	2453-450	—	POA
15/32-18	—	2453-455	—	POA
15/32-20	2453-458	2453-460	—	POA
15/32-24	2453-465	2453-467	—	POA
15/32-27	2453-471	2453-473	—	POA
15/32-28	2453-476	—	—	POA
15/32-36	—	2453-485	—	POA
15/32-40	2453-489	2453-491	—	32.90
1/2- 8	—	2453-550	—	POA
1/2-10	2453-552	2453-553	—	32.90
1/2-11	—	2453-556	—	POA
1/2-22	2453-593	—	—	32.90
1/2-25	2453-602	2453-604	2453-606	POA
1/2-26	—	2453-609	—	49.50
1/2-28 WT	2453-618	—	—	POA
1/2-38	2453-641	—	—	POA
1/2-50	2453-656	2453-658	—	POA
1/2-60	—	2453-668	—	POA
1/2-68	2453-674	2453-675	—	POA
1/2-70	—	2453-678	—	POA
1/2-72	—	2453-681	—	POA
1/2-80	—	2453-685	—	POA
17/32-12	—	2453-735	—	POA
17/32-13	—	2453-738	—	POA

SIZE	1 1/2" OD	2" OD	PRICE EACH
17/32-18	2453-743	—	POA
17/32-20	2453-746	—	POA
17/32-24	2453-751	—	POA
17/32-27	2453-755	—	POA
17/32-28	2453-758	—	POA
17/32-32	2453-762	—	POA
17/32-36	2453-765	—	POA
17/32-40	2453-767	—	POA
17/32-48	2453-772	—	POA
35/64-28	2453-808	—	POA
9/16-10	2453-845	—	POA
9/16-11	2453-848	—	POA
9/16-13	2453-855	—	POA
9/16-25	2453-879	—	POA
9/16-26 WT	2453-882	—	POA
9/16-30	2453-892	—	\$49.50
9/16-80	2453-935	—	POA
37/64-40	2453-965	—	POA
19/32-18	2454-000	—	POA
19/32-20	2454-003	—	POA
19/32-24	2454-008	—	POA
19/32-27	2454-012	—	POA
19/32-28	2454-015	—	POA
19/32-32	2454-020	—	POA
19/32-40	2454-026	—	POA
19/32-48	2454-032	—	POA
19/32-64	2454-042	—	POA
5/8- 8	2454-105	—	POA
5/8- 9	2454-108	—	POA
5/8-13	2454-125	2454-127	POA
5/8-22	2454-147	—	49.50
5/8-25	—	2454-155	POA
5/8-26	2454-158	—	49.50
5/8-30	2454-169	2454-171	49.50
21/32-11	2454-261	—	POA
21/32-18	2454-266	—	POA
21/32-20	2454-269	—	POA
21/32-24	2454-273	—	POA
21/32-32	2454-279	2454-281	POA
21/32-40	2454-288	2454-290	POA
0.669-20	2454-310	—	POA
11/16-28	—	2454-414	84.60
11/16-48	2454-436	2454-438	49.50
23/32-18	2454-507	—	POA
23/32-20	—	2454-510	POA
23/32-24	—	2454-515	POA
23/32-32	—	2454-522	POA
23/32-40	—	2454-529	POA
23/32-48	—	2454-535	POA
3/4- 8	2454-613	2454-615	49.50
3/4-10 NC	—	2454-621*	23.70
3/4-11 1/2	—	2454-627	POA
3/4-15	2454-640	—	POA
3/4-22	2454-661	—	POA
3/4-25	—	2454-669	POA
3/4-26	—	2454-672	POA
3/4-30	—	2454-685	POA
3/4-56	—	2454-714	POA
3/4-64	—	2454-719	POA
3/4-72	—	2454-724	POA
25/32- 9	—	2454-792	POA
25/32-10	—	2454-795	POA
25/32-16	—	2454-804	POA
25/32-18	—	2454-807	POA
25/32-20	—	2454-810	POA
25/32-24	—	2454-815	POA
25/32-40	—	2454-830	POA
13/16- 9	—	2454-913	POA
13/16-13	—	2454-922	POA
13/16-40	—	2454-966	84.60
27/32-20	—	2455-074	POA
27/32-32	—	2455-084	POA
27/32-40	—	2455-091	POA
27/32-48	—	2455-098	POA
7/8- 8	—	2455-175	POA
7/8-26	—	2455-215	POA
7/8-26 WT	—	2455-216	POA
7/8-30	—	2455-228	84.60
7/8-48	—	2455-249	84.60

WT - Whitworth Thread

Full Special Round Adjustable Dies

Right Hand, High Speed Steel

When inquiring, please specify size and quantity.

**POPULAR SPECIAL
ROUND DIES
SEE PAGES 144-146**

WARNING: This product contains Cobalt and/or Nickel and/or Lead, a chemical known to the state of California to cause cancer or birth defects or other reproductive harm. For more information: www.p665.ca.gov.
WARNING: Cutting tools may chatter. Always wear approved safety glasses and mask when regrinding.



SIZE	2" OD	2 1/2" OD	3" OD	4" OD	PRICE EACH
29/32-14	2455-330	-	-	-	POA
29/32-18	2455-336	-	-	-	POA
29/32-20	2455-339	-	-	-	POA
29/32-24	2455-343	-	-	-	POA
29/32-32	2455-349	-	-	-	POA
15/16- 6	2455-430	-	-	-	POA
15/16- 9	2455-436	-	-	-	\$84.60
15/16-10	2455-439	-	-	-	84.60
15/16-26	2455-465	-	-	-	POA
15/16-40	2455-485	-	-	-	84.60
15/16-48	2455-494	-	-	-	POA
31/32-16	2455-583	-	-	-	POA
31/32-20	2455-586	-	-	-	POA
1-14	2455-720*	-	-	-	POA
1-26	2455-751	-	-	-	126.90
1-30	2455-764	-	-	-	126.90
1-48	2455-792	-	-	-	126.90
1-56	2455-800	-	-	-	126.90
1-64	2455-810	-	-	-	126.90
1 1/32-14	2455-840	-	-	-	POA
1 1/16-10	2455-907	2455-909	-	-	POA
1 1/16-11	-	-	2455-913	-	POA
1 1/16-17	-	-	2455-931	-	POA
1 1/16-22	2455-946	-	-	-	POA
1 1/16-27	-	2455-955	-	-	174.90
1 1/16-28	2455-958	2455-960	-	-	POA
1 1/16-40	-	2455-972	-	-	174.90
1 1/16-48	-	2455-980	-	-	POA
1 3/32-18	2456-010	-	-	-	POA
1 3/32-32	2456-025	-	-	-	POA
1 1/8-15	-	2456-073	-	-	POA
1 1/8-28	-	2456-108	-	-	174.90
1 1/8-40	2456-114	2456-121	-	-	POA
1 9/64-12	-	2456-130	-	-	POA
1 5/32-18	2456-145	-	-	-	POA
1 5/32-20	2456-148	-	-	-	POA
1 5/32-24	2456-153	2456-155	-	-	POA
1 5/32-32	2456-162	-	-	-	POA
1 3/16-10	-	2456-201	-	-	174.90
1 3/16-18 NEF	2456-213*	-	-	-	POA
1 3/16-24	-	2456-227	-	-	174.90
1 3/16-28	-	2456-232	-	-	174.90
1 3/16-40	-	2456-246	-	-	174.90
1 1/4-26	-	2456-371	-	-	174.90
1 1/4-26 WT	-	2456-372	-	-	POA
1 1/4-27	-	2456-375	-	-	174.90
1 1/4-28	-	2456-378	-	-	116.60
1 5/16-10	-	2456-458	-	-	POA
1 5/16-24	-	2456-488	-	-	174.90
1 5/16-28	-	2456-493	-	-	POA
1 5/16-32	-	2456-498	-	-	174.90
1 5/16-40	-	2456-506	-	-	POA
1 3/8-27	-	2456-618	-	-	174.90
1 3/8-28	-	2456-621	-	-	POA
1 3/8-32	-	2456-626	-	-	174.90
1 3/8-40	-	2456-633	-	-	POA
1 7/16-10	-	2456-713	-	-	POA
1 7/16-14	-	2456-721	-	-	POA
1 7/16-26	-	2456-743	-	-	POA
1 7/16-28	-	2456-745	-	-	174.90
1 7/16-32	-	2456-750	-	2456-753	POA
1 7/16-40	-	2456-760	-	-	POA
1 15/32-24	-	2456-797	-	-	POA
1 1/2-26 WT	-	-	2456-877	-	POA
1 1/2-27	-	2456-880	-	-	174.90
1 9/16- 8	-	2457-015	-	-	214.50
1 9/16-14	-	2457-023	-	-	POA
1 9/16-24	-	2457-037	-	-	214.50
1 9/16-32	-	2457-045	-	-	214.50

SIZE	3" OD	3 1/2" OD	4" OD	5" OD	6" OD	PRICE EACH
1 5/8- 6	2457-140	-	-	-	-	\$214.50
1 5/8-11 1/2	2457-149	-	-	-	-	POA
1 5/8-32	2457-181	-	-	-	-	214.50
1 5/8-40	2457-190	-	-	-	-	POA
1 11/16- 6	2457-228	-	-	-	-	214.50
1 11/16- 8	2457-231	-	-	-	-	214.50
1 11/16-14	2457-239	-	-	-	-	POA
1 11/16-24	2457-257	-	-	-	-	214.50
1 3/4- 7	2457-304	-	-	-	-	POA
1 3/4-16	-	-	2457-323	-	-	POA
1 3/4-32	2457-346	-	-	-	-	214.50
1 3/4-40	2457-354	-	-	-	-	214.50
1 13/16-32	2457-413	-	-	-	-	214.50
1 7/8- 6	2457-454	-	-	-	-	214.50
1 7/8-24	2457-490	-	-	-	-	214.50
1 29/32-18	-	-	2457-525	-	-	POA
1 15/16-20	2457-593	-	-	-	-	214.50
2-24	2457-688	-	-	-	-	514.80
2-27	2457-693	-	-	-	-	POA
2-32	2457-700	-	-	-	-	514.80
2 1/16-12	-	2457-740	2457-742	-	-	POA
2 1/16-16	-	-	2457-748	-	-	POA
2 1/16-18	-	2457-752	-	-	-	POA
2 1/16-20	-	2457-756	-	-	-	POA
2 1/16-24	-	-	2457-762	-	-	POA
2 1/8- 4 1/2	-	2457-791	-	-	-	POA
2 1/8-10	-	2457-801	-	-	-	POA
2 1/8-20	-	2457-823	-	-	-	POA
2 1/8-24	-	2457-829	-	-	-	POA
2 3/16-12	-	-	2457-870	-	-	POA
2 3/16-14	-	-	2457-873	-	-	POA
2 3/16-16	-	-	2457-876	-	-	POA
2 1/4- 6	-	-	-	2457-921	-	POA
2 1/4-10	-	-	2457-927	-	-	POA
2 1/4-14	-	-	2457-933	-	-	POA
2 1/4-24	-	-	2457-950	-	-	633.60
2 9/32-24	-	2457-980	-	-	-	POA
2 5/16-12	-	-	2457-996	-	-	633.60
2 5/16-16	-	-	2458-002	-	-	633.60
2 5/16-18	-	-	2458-005	-	-	POA
2 5/16-20	-	-	2458-008	-	-	POA
2 3/8- 4	-	-	2458-035	-	-	633.60
2 3/8-10	-	-	2458-043	-	-	POA
2 3/8-14	-	-	2458-049	-	-	POA
2 7/16-12	-	-	2458-108	-	-	POA
2 7/16-20	-	-	2458-118	-	-	POA
2 1/2-10	-	-	2458-160	-	-	POA
2 1/2-14	-	-	2458-168	-	-	POA
2 9/16-12	-	-	2458-236	-	-	POA
2 9/16-24	-	-	2458-245	-	-	POA
2 5/8- 4	-	-	-	2458-275	-	264.00
2 5/8-10	-	-	-	2458-285	-	POA
2 3/4-10	-	-	-	2458-379	-	POA
2 3/4-14	-	-	-	2458-385	-	POA
2 3/4-18	-	-	-	2458-395	-	448.80
2 3/4-24	-	-	-	2458-400	-	POA
2 7/8-10	-	-	-	2458-446	-	POA
2 15/16-12	-	-	-	2458-490	-	POA
3-10	-	-	-	2458-549	-	POA
3 1/8-16	-	-	-	2458-611	-	1256.64
3 1/8-18	-	-	-	2458-615	-	1256.64
3 1/4- 6	-	-	-	-	2458-643	POA
3 1/4-16	-	-	-	2458-655	-	1256.64
3 1/2-16	-	-	-	2458-790	-	1256.64
3 5/8-16	-	-	-	2458-850	-	1256.64
3 3/4-16	-	-	-	-	2458-895	1712.48
3 7/8-16	-	-	-	-	2458-940	1712.48
4-16	-	-	-	-	2458-985	1712.48
4 1/8-12	-	-	-	-	2459-015	POA

* 2 1/4" OD () WT - Whitworth Thread

Standard Metric Round Adjustable Dies

Right Hand - High Speed Steel

WARNING: This product contains Cobalt and/or Nickel and/or Lead a chemical known to the state of California to cause cancer or birth defects or other reproductive harm. For more information: www.p6605.ca.gov
WARNING: Cutting tools may shatter. Always wear approved safety glasses and mask when regrinding.

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SIZE	OUTSIDE DIAM.	ORDER NO.	PRICE EACH
1.6 x 0.35	13/16	2431-078	\$21.42
1.8 x 0.35	13/16	2431-090	21.42
2.0 x 0.40	13/16	2431-108	21.42
2.2 x 0.45	13/16	2431-126	21.42
2.5 x 0.45	13/16	2431-144	21.42
3.0 x 0.50	13/16	2431-174	21.42
3.5 x 0.60	13/16	2431-198	21.42
4.0 x 0.50	13/16	2431-207	21.42
4.0 x 0.70	13/16	2431-210	21.42
4.5 x 0.75	13/16	2431-222	21.42
5.0 x 0.80	13/16	2431-228	21.42
6.0 x 1.00	13/16	2431-234	21.42
6.3 x 1.00	13/16	2431-240	25.17
7.0 x 1.00	13/16	2431-246	21.42
8.0 x 1.00	13/16	2431-252	21.42
8.0 x 1.25	13/16	2431-258	21.42
1.6 x 0.35	1	2431-264	26.91
1.8 x 0.35	1	2431-270	26.91
2.0 x 0.40	1	2431-276	26.91
2.2 x 0.45	1	2431-282	26.91
2.3 x 0.40	1	2431-285	26.91
2.5 x 0.45	1	2431-288	26.91
2.6 x 0.45	1	2431-291	26.91
3.0 x 0.50	1	2431-294	26.91
3.0 x 0.60	1	2431-300	26.91
3.5 x 0.60	1	2431-306	26.91
4.0 x 0.50	1	2431-318	26.91
4.0 x 0.70	1	2431-324	26.91
4.5 x 0.50	1	2431-336	26.91
4.5 x 0.75	1	2431-342	26.91
5.0 x 0.50	1	2431-348	26.91
5.0 x 0.80	1	2431-360	26.91
5.0 x 0.90	1	2431-366	26.91
5.0 x 1.00	1	2431-372	26.91
5.5 x 0.90	1	2431-384	26.91
3.5 x 0.50	1	2431-304	26.91
6.0 x 0.50	1	2431-390	26.91
6.0 x 0.75	1	2431-402	26.91
6.0 x 1.00	1	2431-408	26.91
6.0 x 1.25	1	2431-414	26.91

SIZE	OUTSIDE DIAM.	ORDER NO.	PRICE EACH
6.3 x 1.00	1	2431-426	\$26.91
7.0 x 0.75	1	2431-438	26.91
7.0 x 1.00	1	2431-444	26.91
8.0 x 0.75	1	2431-474	26.91
8.0 x 1.00	1	2431-480	26.91
8.0 x 1.25	1	2431-486	26.91
9.0 x 1.00	1	2431-504	26.91
9.0 x 1.25	1	2431-510	26.91
10.0 x 0.75	1	2431-516	26.91
10.0 x 1.00	1	2431-528	26.91
10.0 x 1.25	1	2431-534	26.91
10.0 x 1.50	1	2431-540	26.91
11.0 x 1.50	1	2431-558	26.91
12.0 x 1.25	1	2431-576	26.91
12.0 x 1.75	1	2431-588	26.91
6.0 x 1.00	1 1/2	2431-600	40.50
7.0 x 1.00	1 1/2	2431-606	40.50
8.0 x 1.00	1 1/2	2431-612	40.50
8.0 x 1.25	1 1/2	2431-618	40.50
9.0 x 1.25	1 1/2	2431-624	40.50
10.0 x 0.75	1 1/2	2431-636	40.50
10.0 x 1.00	1 1/2	2431-642	40.50
10.0 x 1.25	1 1/2	2431-648	40.50
10.0 x 1.50	1 1/2	2431-654	40.50
11.0 x 1.00	1 1/2	2431-660	40.50
11.0 x 1.50	1 1/2	2431-672	40.50
12.0 x 1.00	1 1/2	2431-678	40.50
12.0 x 1.25	1 1/2	2431-684	40.50
12.0 x 1.50	1 1/2	2431-690	40.50
12.0 x 1.75	1 1/2	2431-696	40.50
14.0 x 1.00	1 1/2	2431-744	40.50
14.0 x 1.25	1 1/2	2431-750	40.50
14.0 x 1.50	1 1/2	2431-756	40.50
14.0 x 2.00	1 1/2	2431-768	40.50
16.0 x 1.00	1 1/2	2431-828	45.00
16.0 x 1.50	1 1/2	2431-840	40.50
16.0 x 2.00	1 1/2	2431-846	40.50
18.0 x 1.00	1 1/2	2431-951	40.50
18.0 x 1.50	1 1/2	2431-882	40.50

SIZE	OUTSIDE DIAM.	ORDER NO.	PRICE EACH
18.0 x 2.00	1 1/2	2431-894	\$40.50
18.0 x 2.50	1 1/2	2431-988	45.00
20.0 x 1.00	1 1/2	2432-000	40.50
20.0 x 1.50	1 1/2	2431-906	40.50
20.0 x 2.50	1 1/2	2431-912	40.50
14.0 x 1.25	2	2431-924	25.00
16.0 x 1.50	2	2431-930	69.21
16.0 x 2.00	2	2431-936	69.21
18.0 x 1.50	2	2431-960	69.21
18.0 x 2.00	2	2431-966	69.21
18.0 x 2.50	2	2431-972	69.21
20.0 x 1.50	2	2432-008	69.21
20.0 x 2.00	2	2432-014	69.21
20.0 x 2.50	2	2432-020	69.21
22.0 x 1.00	2	2432-032	69.21
22.0 x 1.50	2	2432-040	69.21
22.0 x 2.00	2	2432-045	69.21
22.0 x 2.50	2	2432-050	69.21
24.0 x 1.50	2	2432-074	69.21
24.0 x 2.00	2	2432-080	69.21
24.0 x 3.00	2	2432-086	69.21
27.0 x 2.00	2	2432-141	69.21
27.0 x 3.00	2	2432-143	69.21
30.0 x 1.50	2	2432-156	69.21
30.0 x 2.00	2	2432-158	69.21
30.0 x 3.50	2	2432-198	69.21
27.0 x 2.00	2 1/2	2432-170	95.40
27.0 x 3.00	2 1/2	2432-176	95.40
30.0 x 2.00	2 1/2	2432-194	95.40
30.0 x 3.50	2 1/2	2432-200	95.40
33.0 x 2.00	2 1/2	2432-218	95.40
33.0 x 3.50	2 1/2	2432-224	95.40
36.0 x 3.00	2 1/2	2432-254	95.40
36.0 x 4.00	2 1/2	2432-260	95.40
39.0 x 3.00	3	2432-374	175.50
39.0 x 4.00	3	2432-380	92.50
42.0 x 4.50	3	2432-408	175.50
45.0 x 4.50	3	2432-438	92.50
48.0 x 5.00	3	2432-464	175.50

Special Metric Round Adjustable Dies

Right Hand - HSS Any size not listed available on request. Many special sizes in stock.

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SIZE	OUTSIDE DIAM.	ORDER NO.	PRICE EACH
1.0 x 0.20	13/16	2431-030	\$21.42
1.0 x 0.25	13/16	2431-042	21.42
1.2 x 0.20	13/16	2431-048	21.42
1.4 x 0.20	13/16	2431-054	21.42
1.5 x 0.30	13/16	2431-066	21.42
1.7 x 0.20	13/16	2431-084	21.42
2.0 x 0.20	13/16	2431-096	21.42
2.0 x 0.25	13/16	2431-102	21.42
2.0 x 0.50	13/16	2431-120	21.42
2.3 x 0.25	13/16	2431-132	21.42
2.3 x 0.40	13/16	2431-138	21.42
2.5 x 0.50	13/16	2431-150	21.42
2.6 x 0.35	13/16	2431-156	21.42
3.0 x 0.60	13/16	2431-176	21.42
3.5 x 0.35	13/16	2431-192	25.17
4.0 x 0.35	13/16	2431-204	25.17
4.0 x 0.75	13/16	2431-212	21.42
4.0 x 0.75	1	2431-330	26.91
5.0 x 0.75	1	2431-354	26.91
5.5 x 0.75	1	2431-378	13.75
6.0 x 1.50	1	2431-420	26.91
7.0 x 1.25	1	2431-450	26.91
8.0 x 0.50	1	2431-462	26.91
8.0 x 1.50	1	2431-492	26.91
9.0 x 0.75	1	2431-498	26.91
10.0 x 1.75	1	2431-546	26.91

SIZE	OUTSIDE DIAM.	ORDER NO.	PRICE EACH
11.0 x 0.50	1	2431-550	\$26.91
11.0 x 0.75	1	2431-552	26.91
12.0 x 0.75	1	2431-564	40.50
12.0 x 1.00	1	2431-572	26.91
12.0 x 1.50	1	2431-582	26.91
11.0 x 1.25	1 1/2	2431-666	40.50
12.0 x 2.00	1 1/2	2431-702	40.50
13.0 x 1.00	1 1/2	2431-711	40.50
13.0 x 1.50	1 1/2	2431-713	40.50
13.0 x 1.75	1 1/2	2431-720	40.50
13.0 x 2.00	1 1/2	2431-725	40.50
14.0 x 0.50	1 1/2	2431-740	40.50
14.0 x 1.75	1 1/2	2431-760	40.50
15.0 x 0.75	1 1/2	2431-786	17.50
15.0 x 1.00	1 1/2	2431-792	40.50
15.0 x 1.50	1 1/2	2431-798	40.50
15.0 x 1.75	1 1/2	2431-804	17.50
15.0 x 2.00	1 1/2	2431-810	40.50
16.0 x 0.75	1 1/2	2431-820	40.50
16.0 x 1.25	1 1/2	2431-834	40.50
17.0 x 0.75	1 1/2	2431-852	17.50
17.0 x 1.00	1 1/2	2431-858	40.50
17.0 x 1.25	1 1/2	2431-864	40.50
17.0 x 1.50	1 1/2	2431-870	40.50
17.0 x 2.00	1 1/2	2431-876	40.50
18.0 x 1.25	1 1/2	2431-880	17.50
18.0 x 1.75	1 1/2	2431-888	40.50
18.0 x 1.00	2	2431-954	69.21

SIZE	OUTSIDE DIAM.	ORDER NO.	PRICE EACH
20.0 x 1.00	2	2432-002	\$69.21
23.0 x 1.50	2	2432-059	69.21
24.0 x 1.00	2	2432-062	69.21
25.0 x 1.00	2	2432-092	69.21
25.0 x 1.25	2	2432-104	69.21
25.0 x 1.50	2	2432-098	69.21
25.0 x 2.00	2	2432-110	69.21
26.0 x 1.50	2	2432-124	69.21
26.0 x 2.00	2	2432-128	69.21
27.0 x 1.00	2	2432-134	69.21
28.0 x 1.50	2	2432-150	69.21
28.0 x 1.50	2 1/2	2432-153	95.40
30.0 x 1.00	2 1/2	2432-182	95.40
30.0 x 1.50	2 1/2	2432-188	95.40
36.0 x 2.00	2 1/2	2432-248	95.40
34.0 x 1.50	2 1/2	2432-230	95.40
34.0 x 3.50	2 1/2	2432-233	65.50
35.0 x 1.50	2 1/2	2432-236	95.40
36.0 x 1.50	2 1/2	2432-242	95.40
38.0 x 4.00	2 1/2	2432-272	65.50
39.0 x 1.50	3	2432-368	175.50
40.0 x 1.50	3	2432-386	175.50
42.0 x 1.50	3	2432-398	175.50
42.0 x 3.00	3	2432-404	175.50
45.0 x 1.50	3	2432-428	175.50
48.0 x 3.00	3	2432-458	175.50

Left Hand Metric Round Adjustable Dies

High Speed Steel

WARNING: This product contains Cobalt and/or Nickel and/or Lead a chemical known to the state of California to cause cancer or birth defects or other reproductive harm. For more information: www.prop65.ca.gov.
WARNING: Cutting tools may shatter. Always wear approved safety glasses and mask when regrinding.

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SIZE	OUTSIDE DIAM.	ORDER NO.	PRICE EACH
2.0 x 0.40	1	2433-254	\$23.33
2.3 x 0.40	1	2433-257	POA
2.5 x 0.45	1	2433-259	POA
2.6 x 0.45	1	2433-261	POA
3.0 x 0.50	1	2433-294	32.89
3.5 x 0.60	1	2433-306	32.89
4.0 x 0.70	1	2433-334	32.89
4.5 x 0.75	1	2433-342	32.89
5.0 x 0.80	1	2433-360	32.89
5.5 x 0.90	1	2433-362	POA
6.0 x 1.00	1	2433-408	32.89
7.0 x 1.00	1	2433-444	32.89
8.0 x 1.00	1	2433-480	32.89
8.0 x 1.25	1	2433-485	32.89
9.0 x 1.25	1	2433-487	POA
10.0 x 1.0	1	2433-528	POA
10.0 x 1.25	1	2433-535	32.89
10.0 x 1.50	1	2433-540	32.89
10.0 x 1.75	1	2433-543	POA
11.0 x 1.0	1	2433-545	POA

SIZE	OUTSIDE DIAM.	ORDER NO.	PRICE EACH
12.0 x 1.25	1	2433-582	\$ 32.89
12.0 x 1.25	1 1/2	2433-684	49.50
12.0 x 1.75	1	2433-588	32.89
12.0 x 1.75	1 1/2	2433-696	49.50
14.0 x 1.00	1-1/2	2433-744	POA
14.0 x 1.25	1-1/2	2433-747	POA
14.0 x 1.50	1 1/2	2433-756	49.50
14.0 x 2.00	1	2433-600	9.70
14.0 x 2.00	1 1/2	2433-760	49.50
16.0 x 1.50	1 1/2	2433-840	49.50
16.0 x 2.00	1 1/2	2433-846	49.50
18.0 x 1.00	1-1/2	2433-848	POA
18.0 x 1.50	1 1/2	2433-882	49.50
18.0 x 2.50	1 1/2	2433-988	49.50
20.0 x 1.50	1-1/2	2433-991	POA
20.0 x 2.50	2	2434-020	70.50
22.0 x 2.50	2	2434-050	70.50
24.0 x 3.00	2	2434-086	70.50
27.0 x 3.00	2 1/2	2434-176	109.50
30.0 x 3.50	2 1/2	2434-224	109.50

Hexagon Rethreading Dies

Carbon Steel & High Speed Steel – NC, NF & NS



SIZE	NC NF NS	CARBON STEEL				HSS			
		ORDER NO.	PRICE EACH	ORDER NO.	PRICE EACH	ORDER NO.	PRICE EACH	ORDER NO.	PRICE EACH
2-56	NC	2490-230	\$12.24	-	-	-	-	-	-
2-64	NF	2490-240	12.24	-	-	-	-	-	-
3-48	NC	2490-280	12.24	-	-	-	-	-	-
3-56	NF	2490-290	12.24	-	-	-	-	-	-
4-40	NC	2490-345	12.24	2482-184	\$5.67	2500-345	\$17.10	-	-
4-48	NF	2490-353	12.24	-	-	-	-	-	-
5-40	NC	2490-410	12.24	2482-186	5.67	-	-	-	-
5-44	NF	2490-415	12.24	-	-	-	-	-	-
6-32	NC	2490-475	12.24	2482-188	20.39	2500-475	17.10	-	-
6-40	NF	2490-485	12.24	2482-189	POA	2500-485	3.74	-	-
8-32	NC	2490-615	12.24	2482-190	20.39	2500-615	17.10	-	-
8-36	NF	2490-620	12.24	-	-	2500-620	3.74	-	-
10-24	NC	2490-740	12.24	2482-192	20.39	2500-740	17.10	-	-
10-32	NF	2490-751	12.24	2482-194	17.73	2500-751	17.10	-	-
12-24	NC	2490-885	12.24	2482-196	20.39	2500-885	17.10	-	-
12-28	NF	2490-890	12.24	-	-	2500-890	3.74	-	-
1/4-20	NC	2482-101	12.24	2482-201	20.39	2502-405	17.10	-	-
1/4-28	NF	2482-102	12.24	2482-202	20.39	2502-417	17.10	-	-
5/16-18	NC	2482-103	13.50	2482-203	22.52	2502-698	19.80	-	-
5/16-24	NF	2482-104	13.50	2482-204	22.52	2502-706	19.80	-	-
3/8-16	NC	2482-105	14.22	2482-205	23.70	2503-011	21.33	-	-
3/8-24	NF	2482-106	14.22	2482-206	23.70	2503-025	21.33	-	-
7/16-14	NC	2482-107	16.02	2482-207	26.70	2503-300	24.03	-	-
7/16-20	NF	2482-108	16.02	2482-208	26.70	2503-315	24.03	-	-

SIZE	NC NF NS	CARBON STEEL				HSS			
		ORDER NO.	PRICE EACH	ORDER NO.	PRICE EACH	ORDER NO.	PRICE EACH	ORDER NO.	PRICE EACH
1/2-13	NC	2482-109	\$17.10	2482-209	\$28.52	2503-562	\$25.65	-	-
1/2-20	NF	2482-110	17.10	2482-210	28.52	2503-575	25.65	-	-
9/16-12	NC	2482-111	18.18	2482-211	30.33	2503-845	29.07	-	-
9/16-18	NC	2482-112	18.18	2482-212	30.33	2503-853	29.07	-	-
5/8-11	NF	2482-113	21.06	2482-213	35.14	2504-111	33.08	-	-
5/8-18	NF	2482-114	21.06	2482-214	35.14	2504-125	33.08	-	-
11/16-11	NC	2482-115	23.58	-	-	2504-365	41.85	-	-
11/16-16	NF	2482-116	23.58	2482-216	39.33	2504-380	41.85	-	-
3/4-10	NC	2482-117	27.90	2482-217	46.53	2504-617	50.22	-	-
3/4-16	NF	2482-118	27.90	2482-218	46.53	2504-626	41.85	-	-
7/8-9	NC	2482-119	31.32	2482-219	52.27	2505-177	57.02	-	-
7/8-14	NF	2482-120	31.32	2482-220	52.27	2505-185	57.02	-	-
1-8	NC	2482-121	35.82	2482-221	59.78	2505-697	74.05	-	-
1-12	NF	2482-122	35.82	2482-222	59.78	2505-703	74.05	-	-
1-14	NS	2482-123	35.82	2482-223	59.78	2505-706	74.05	-	-
1-1/8-7	NC	2482-124	41.94	2482-224	77.63	2506-050	89.38	-	-
1-1/8-12	NF	2482-125	41.94	2482-225	77.63	2506-059	89.38	-	-
1-1/4-7	NC	2482-126	50.40	2482-226	81.97	2506-327	103.50	-	-
1-1/4-12	NF	2482-127	50.40	2482-227	81.97	2506-337	103.50	-	-
1-3/8-6	NC	2482-128	53.82	2482-228	92.12	2506-575	121.50	-	-
1-3/8-12	NF	2482-129	53.82	2482-229	92.12	2506-592	121.50	-	-
1-1/2-6	NC	2482-130	58.32	2482-230	142.21	2506-830	157.50	-	-
1-1/2-12	NF	2482-131	58.32	2482-231	142.21	2506-847	157.50	-	-

Metric Hexagon Dies

Right Hand - Carbon Steel

WARNING: This product contains Cobalt and/or Nickel and/or Lead a chemical known to the state of California to cause cancer or birth defects or other reproductive harm. For more information: www.prop65.ca.gov.
WARNING: Cutting tools may shatter. Always wear approved safety glasses and mask when regrinding.

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Standard Metric Sizes

SIZE	ORDER NO.	PRICE EACH
M 3.0 X 0.50	2483-090	\$13.19
M 3.5 X 0.60	2483-097	13.19
M 4.0 X 0.07	2483-101	13.19
M 4.5 X 0.75	2483-104	13.19
M 5.0 X 0.80	2483-106	13.19
M 6.0 X 1.00	2483-111	13.89
M 6.3 X 1.00	2483-116	13.89
M 7.0 X 1.00	2483-121	15.63
M 8.0 X 1.00	2483-126	15.63
M 8.0 X 1.25	2483-131	15.63
M 9.0 X 1.00	2483-139	16.31
M 9.0 X 1.25	2483-140	16.31
M 10.0 X 1.00	2483-146	18.37
M 10.0 X 1.25	2483-151	18.37
M 10.0 X 1.50	2483-156	18.37

SIZE	ORDER NO.	PRICE EACH
M 12.0 x 1.25	2483-171	\$19.72
M 12.0 x 1.50	2483-173	19.72
M 12.0 x 1.75	2483-176	19.72
M 14.0 x 1.25	2483-186	21.00
M 14.0 x 1.50	2483-191	21.00
M 14.0 x 2.00	2483-196	21.00
M 16.0 x 1.50	2483-206	24.09
M 16.0 x 2.00	2483-211	24.09
M 18.0 x 1.50	2483-226	36.04
M 18.0 x 2.50	2483-236	36.04
M 20.0 x 1.50	2483-246	36.04
M 20.0 x 2.50	2483-251	36.04
M 22.0 x 1.50	2483-261	46.29
M 22.0 x 2.50	2483-266	46.29

SIZE	ORDER NO.	PRICE EACH
M 24.0 x 1.50	2483-271	\$46.29
M 24.0 x 2.00	2483-276	46.29
M 24.0 x 3.00	2483-281	46.29
M 27.0 x 2.00	2483-301	51.49
M 27.0 x 3.00	2483-306	51.49
M 30.0 X 1.50	2483-316	62.28
M 30.0 x 2.00	2483-321	62.28
M 30.0 x 3.50	2483-326	62.28
M 33.0 x 2.00	2483-331	68.53
M 33.0 x 3.50	2483-336	68.53
M 36.0 x 3.00	2483-343	75.47
M 36.0 x 4.00	2483-346	75.47
M 39.0 x 3.00	2483-354	82.59
M 39.0 x 4.00	2483-355	82.59

Special Metric Sizes

SIZE	ORDER NO.	PRICE EACH
M 2.0 X 0.45	2483-086	\$3.46
M 3.0 X 0.60	2483-091	13.19
M 4.0 X 0.75	2483-099	13.19
M 5.5 X 0.90	2483-109	14.23
M 8.0 X 1.50	2483-136	15.63
M11.0 X 1.00	2483-159	18.37
M11.0 X 1.25	2483-161	18.37
M12.0 X 1.00	2483-166	19.72
M14.0 X 1.00	2483-181	21.00
M15.0 X 1.50	2483-199	24.09
M15.0 X 1.75	2483-201	7.62
M16.0 X 1.00	2483-202	24.09
M16.0 X 1.25	2483-203	24.09
M17.0 X 1.00	2483-216	36.04

SIZE	ORDER NO.	PRICE EACH
M17.0 X 1.50	2483-221	\$36.04
M18.0 X 1.75	2483-231	10.17
M20.0 X 1.00	2483-241	36.04
M20.0 X 1.25	2483-243	36.04
M22.0 X 1.00	2483-253	46.29
M22.0 X 2.00	2483-264	46.29
M24.0 X 2.50	2483-279	46.29
M25.0 X 1.50	2483-286	51.49
M25.0 X 2.00	2483-288	51.49
M26.0 X 1.50	2483-291	51.49
M26.0 X 3.00	2483-296	51.49
M27.0 X 1.50	2483-299	51.49
M28.0 X 1.50	2483-308	62.28
M28.0 X 2.00	2483-309	62.28

SIZE	ORDER NO.	PRICE EACH
M 28.0 X 3.00	2483-311	\$17.84
M 30.0 X 3.00	2483-324	62.28
M 32.0 X 1.50	2483-327	68.53
M 33.0 X 1.50	2483-329	68.53
M 35.0 X 1.50	2483-341	75.47
M 36.0 X 1.50	2483-342	75.47
M 39.0 X 1.50	2483-352	82.59
M 40.0 X 1.50	2483-353	102.63
M 40.0 X 2.00	2483-356	102.63
M 42.0 X 1.50	2483-358	102.63
M 42.0 X 4.50	2483-359	102.63
M 45.0 X 1.50	2483-361	124.20
M 50.0 X 1.50	2483-366	155.25
M 60.0 X 2.00	2483-386	POA

Hexagon Rethreading Dies- Left Hand Carbon Steel & High Speed Steel - NC, NF & NS

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SIZE	NC NF NS	CARBON STEEL		HSS	
		ORDER NO.	PRICE EACH	ORDER NO.	PRICE EACH
4-40	NC	2510-345	\$3.98	-	-
4-48	NF	2510-353	3.98	-	-
5-40	NC	2510-410	3.98	-	-
5-44	NF	2510-415	3.98	-	-
6-32	NC	2510-475	3.98	-	-
6-40	NF	2510-485	3.98	-	-
8-32	NC	2510-615	3.98	-	-
8-36	NF	2510-620	3.98	-	-
10-24	NC	2510-740	3.98	-	-
10-32	NF	2510-751	3.98	-	-
12-24	NC	2510-885	3.98	-	-
12-28	NC	2510-890	3.98	-	-
1/4-20	NC	2512-403	13.46	2522-403	POA
1/4-28	NF	2512-417	13.46	2522-417	POA

SIZE	NC NF NS	CARBON STEEL		HSS	
		ORDER NO.	PRICE EACH	ORDER NO.	PRICE EACH
5/16-18	NC	2512-698	\$14.85	2522-698	POA
5/16-24	NF	2512-706	14.85	2522-706	POA
3/8-16	NC	2513-010	16.65	2523-010	POA
3/8-24	NF	2513-026	16.65	2523-026	POA
7/16-14	NC	2513-300	17.91	2523-300	POA
7/16-20	NC	2513-313	17.91	2523-313	POA
1/2-13	NC	2513-562	21.15	2523-562	POA
1/2-20	NF	2513-575	21.15	2523-575	POA
9/16-12	NC	2513-845	23.85	2523-845	POA
9/16-18	NF	2513-852	23.85	2523-852	POA
5/8-11	NC	2514-111	26.10	2524-111	POA
5/8-18	NF	2514-125	26.10	2524-125	POA
11/16-11	NC	2514-367	30.90	2524-367	POA
11/16-16	NF	2514-375	30.90	2524-375	POA

SIZE	NC NF NS	CARBON STEEL		HSS	
		ORDER NO.	PRICE EACH	ORDER NO.	PRICE EACH
3/4-10	NC	2514-617	\$35.34	2524-617	POA
3/4-16	NF	2514-626	35.34	2524-626	POA
7/8-9	NC	2515-177	39.72	2525-177	POA
7/8-14	NF	2515-185	8.22	2525-185	POA
1-8	NC	2515-697	44.94	2525-697	POA
1-12	NF	2515-703	44.94	2525-703	POA
1-14	NS	2515-706	44.94	2525-706	POA
1-1/8-7	NC	2516-050	58.50	-	-
1-1/8-12	NF	2516-059	58.50	-	-
1-1/4-7	NC	2516-327	69.50	2526-327	POA
1-1/4-12	NF	2516-337	69.50	2526-337	POA
1-3/8-6	NC	2516-577	72.25	2526-577	POA
1-3/8-12	NF	2516-592	72.25	2526-592	POA
1-1/2-6	NC	2516-832	78.90	2526-832	POA
1-1/2-12	NF	2516-847	78.90	2526-847	POA

Popular Special Hexagon Dies

Carbon Steel - Right Hand

WARNING: This product contains Cobalt and/or Nickel and/or Lead a chemical known to the state of California to cause cancer or birth defects or other reproductive harm. For more information: www.p6605.ca.gov.
WARNING: Cutting tools may shatter. Always wear approved safety glasses and mask when regrinding.

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CARBON STEEL RIGHT HAND		
SIZE	ORDER NO.	PRICE EACH
4-32	2490-335	\$3.50
6-36	2490-480	3.50
12-32	2490-895	3.50
14-20	2491-005	18.07
1/4-24	2492-410	18.07
1/4-27	2492-415	18.07
1/4-32	2492-425	18.07
1/4-36	2492-430	18.07
1/4-40	2492-435	18.07
1/4-48	2492-445	18.07
9/32-32	2492-585	3.97
5/16-20	2492-702	19.93
5/16-27	2492-710	19.93
5/16-28	2492-713	19.93
5/16-32	2492-723	19.93
5/16-40	2492-733	19.93
3/8-18	2493-015	20.99
3/8-20	2493-020	20.99
3/8-27	2493-033	20.99
3/8-28	2493-036	18.25
3/8-32	2493-046	20.99
3/8-40	2493-055	20.99
3/8-48	2493-065	4.18
7/16-16	2493-305	4.71
7/16-18	2493-310	4.71
7/16-24	2493-320	23.64
7/16-27	2493-325	4.71
7/16-28	2493-330	23.64
7/16-32	2493-340	23.64
7/16-40	2493-350	23.64
1/2-12	2493-560	25.24
1/2-14	2493-564	5.59
1/2-16	2493-568	25.24
1/2-18	2493-572	25.24
1/2-24	2493-582	25.24
1/2-27	2493-589	25.24
1/2-28	2493-592	25.24
1/2-32	2493-600	25.24
1/2-40	2493-610	25.24
9/16-16	2493-850	26.83
9/16-20	2493-855	26.83
9/16-24	2493-860	26.83
9/16-27	2493-868	6.42
9/16-32	2493-876	26.83
9/16-40	2493-986	6.42
5/8-10	2494-109	31.08
5/8-12	2494-113	31.08
5/8-14	2494-119	7.06
5/8-16	2494-123	31.08
5/8-20	2494-128	31.08
5/8-24	2494-133	31.08
5/8-27	2494-139	7.06
5/8-28	2494-142	7.06
5/8-32	2494-147	31.08
5/8-40	2494-157	7.06

CARBON STEEL RIGHT HAND		
SIZE	ORDER NO.	PRICE EACH
11/16-14	2494-373	\$8.70
11/16-18	2494-378	34.80
11/16-20	2494-382	34.80
11/16-24	2494-387	34.80
11/16-27	2494-392	8.70
11/16-28	2494-395	8.70
11/16-32	2494-400	8.70
3/4-12	2494-620	41.18
3/4-18	2494-629	41.18
3/4-20	2494-633	41.18
3/4-24	2494-638	41.18
3/4-27	2494-645	8.70
3/4-32	2494-653	41.18
13/16-10	2494-915	46.22
13/16-12	2494-920	232.71
13/16-16	2494-930	46.22
13/16-18	2494-935	46.22
13/16-20	2494-940	46.22
13/16-24	2494-945	46.22
13/16-27	2494-950	9.34
13/16-28	2494-955	9.34
13/16-32	2494-960	46.22
7/8-10	2495-179	46.22
7/8-12	2495-183	36.54
7/8-16	2495-187	46.22
7/8-18	2495-191	46.22
7/8-20	2495-195	46.22
7/8-24	2495-201	46.22
7/8-27	2495-208	9.49
7/8-28	2495-211	9.49
7/8-32	2495-217	46.22
7/8-40	2495-227	46.22
15/16-12	2495-445	52.87
15/16-16	2495-451	52.87
15/16-18	2495-455	52.87
15/16-20	2495-459	52.87
15/16-24	2495-465	12.12
15/16-27	2495-470	12.12
15/16-32	2495-477	12.12
1-10	2495-700	52.87
1-16	2495-709	52.87
1-18	2495-713	52.87
1-20	2495-717	52.87
1-24	2495-723	52.87
1-27	2495-728	12.12
1-32	2495-737	52.87
1 1/16-12	2495-911	61.89
1 1/16-14	2495-915	15.20
1 1/16-16	2495-919	61.89
1 1/16-18	2495-923	61.89
1 1/16-20	2495-927	15.20
1 1/16-24	2495-933	15.20
1 1/8-8	2496-052	61.89
1 1/8-10	2496-056	15.20
1 1/8-14	2496-062	15.20

CARBON STEEL RIGHT HAND		
SIZE	ORDER NO.	PRICE EACH
1 1/8-16	2496-066	\$61.89
1 1/8-18	2496-070	61.89
1 1/8-20	2496-074	61.89
1 3/16-8	2496-198	74.38
1 3/16-12	2496-206	74.38
1 3/16-16	2496-214	74.38
1 3/16-18	2496-218	74.38
1 1/4-8	2496-330	74.38
1 1/4-10	2496-334	74.38
1 1/4-14	2496-340	15.89
1 1/4-16	2496-344	74.38
1 1/4-18	2496-348	74.38
1 1/4-20	2496-352	74.38
1 5/16-8	2496-458	79.43
1 5/16-12	2496-466	79.43
1 5/16-18	2496-478	79.43
1 3/8-8	2496-583	79.43
1 3/8-10	2496-589	79.43
1 3/8-16	2496-599	79.43
1 3/8-18	2496-600	79.43
1 3/8-20	2496-605	79.43
1 7/16-8	2496-713	86.07
1 7/16-12	2496-721	86.07
1 7/16-16	2496-729	86.07
1 7/16-18	2496-733	86.07
1 1/2-8	2496-838	86.07
1 1/2-14	2496-850	86.07
1 1/2-16	2496-854	86.07
1 1/2-18	2496-858	86.07
1 1/2-20	2496-862	86.07
1 5/8-5 1/2	2497-138	131.38
1 5/8-8	2497-145	131.38
1 5/8-12	2497-153	114.24
1 5/8-14	2497-157	131.38
1 5/8-16	2497-161	131.38
1 5/8-18	2497-165	131.38
1 5/8-20	2497-169	37.05
1 3/4-5	2497-298	158.73
1 3/4-6	2497-301	158.73
1 3/4-8	2497-307	158.73
1 3/4-10	2497-311	158.73
1 3/4-12	2497-315	158.73
1 3/4-16	2497-323	158.73
1 3/4-18	2497-327	158.73
1 3/4-20	2497-331	158.73
1 7/8-5	2497-448	232.71
1 7/8-8	2497-455	232.71
1 7/8-12	2497-463	232.71
1 7/8-14	2497-467	42.78
1 7/8-16	2497-471	232.71
1 7/8-18	2497-475	232.71
1 7/8-20	2497-479	42.78
2-4 1/2	2497-640	232.71
2-8	2497-650	232.71
2-12	2497-660	232.71

CARBON STEEL RIGHT HAND		
SIZE	ORDER NO.	PRICE EACH
2-16	2497-668	\$232.71
2-18	2497-672	232.71
2-20	2497-676	232.71
2 1/8-8	2497-800	318.78
2 1/8-12	2497-808	318.78
2 1/8-16	2497-816	318.78
2 1/4-4 1/2	2497-918	318.78
2 1/4-8	2497-926	318.78
2 1/4-12	2497-934	318.78
2 1/4-16	2497-942	318.78
2 1/4-18	2497-946	318.78
2 3/8-8	2498-040	371.91
2 3/8-12	2498-048	371.91
2 3/8-16	2498-056	371.91
2 1/2-4	2498-150	280.00
2 1/2-8	2498-163	371.91
2 1/2-12	2498-171	371.91
2 1/2-16	2498-179	371.91
2 5/8-4	2498-275	504.74
2 5/8-8	2498-281	504.74
2 5/8-12	2498-289	504.74
2 3/4-4	2498-370	504.74
2 3/4-8	2498-376	504.74
2 3/4-12	2498-384	504.74
2 7/8-8	2498-450	555.54
2 7/8-12	2498-455	555.54
3-4	2498-537	418.25
3-8	2498-545	555.54
3-12	2498-553	555.54
3-16	2498-559	555.54
3 1/8-4	2498-595	698.33
3 1/8-8	2498-600	698.33
3 1/8-12	2498-605	698.33
3 1/4-4	2498-642	525.75
3 1/4-8	2498-650	698.33
3 1/4-12	2498-655	698.33
3 3/8-8	2498-735	754.45
3 3/8-12	2498-740	754.45
3 1/2-4	2498-775	568.00
3 1/2-8	2498-785	754.45
3 1/2-12	2498-790	754.45
3 5/8-8	2498-840	810.23
3 5/8-12	2498-845	810.23
3 3/4-4	2498-880	610.00
3 3/4-8	2498-885	810.23
3 3/4-12	2498-890	810.23
3 7/8-12	2498-935	896.57
4-4	2498-970	675.00
4-8	2498-975	896.57
4-12	2498-980	896.57
4 1/4-12	2499-025	961.40
4 1/2-8	2499-105	1052.71
4 1/2-12	2499-110	1052.71
5-12	2499-185	1240.51

We stock RH & LH, Carbon Steel & High Speed, Screw Machine, Fractional, and Decimal Size Special Hex Dies. Price on application.

Full Special Hexagon Dies

Right & Left Hand

Please specify quantity when ordering.

POPULAR SPECIAL CARBON STEEL R.H. HEX DIES: SEE PAGE 153

WARNING: This product contains Cobalt and/or Nickel and/or Lead a chemical known to the state of California to cause cancer or birth defects or other reproductive harm. For more information: www.prop65.ca.gov.
WARNING: Cutting tools may shatter. Always wear approved safety glasses and mask when regrinding.



CARBON STEEL RIGHT HAND			H.S.S. RIGHT HAND		CARBON STEEL LEFT HAND		CARBON STEEL RIGHT HAND			H.S.S. RIGHT HAND		CARBON STEEL LEFT HAND	
SIZE	ORDER NO.	PRICE EACH	ORDER NO.	PRICE EACH	ORDER NO.	PRICE EACH	SIZE	ORDER NO.	PRICE EACH	ORDER NO.	PRICE EACH	ORDER NO.	PRICE EACH
4-36	2490-340	12.24	-	-	-	-	5/8-16	See Popular Specials	-	-	-	2514-123	POA
5-32	2490-400	POA	-	-	-	-	5/8-20	See Popular Specials	2504-128	POA	-	2514-128	POA
5-64	-	-	2500-435	POA	-	-	5/8-24	See Popular Specials	2504-135	POA	-	2514-133	POA
6-36	See Popular Specials	-	-	-	2510-480	POA	5/8-32	See Popular Specials	2504-147	POA	-	2514-147	POA
8-40	2490-625	POA	2500-625	POA	2510-625	POA	21/32-20	2494-270	POA	-	-	-	-
10-28	2490-745	POA	-	-	-	-	21/32-32	2494-280	POA	-	-	-	-
10-30	2490-748	POA	-	-	-	-	11/16-10	2494-365	POA	-	-	-	-
12-56	2490-915	POA	-	-	-	-	11/16-12	2494-369	34.80	-	-	-	-
12-60	2490-920	POA	-	-	-	-	11/16-18	See Popular Specials	2504-378	POA	2514-378	POA	-
14-24	2491-010	18.07	-	-	-	-	11/16-20	See Popular Specials	2504-382	POA	2514-382	POA	-
1/16-64	2491-795	POA	-	-	-	-	11/16-24	See Popular Specials	2504-387	POA	2514-387	POA	-
3/32-48	2491-885	POA	-	-	-	-	11/16-40	2494-410	POA	-	-	-	-
5/32-32	2492-060	POA	-	-	-	-	3/4-8	2494-615	POA	2504-615	POA	-	-
5/32-36	2492-065	POA	-	-	-	-	3/4-12	See Popular Specials	-	-	2514-620	POA	-
3/16-24	2492-165	16.42	-	-	-	-	3/4-14	2494-624	POA	-	2514-624	POA	-
3/16-32	2492-175	16.42	-	-	-	-	3/4-18	See Popular Specials	-	-	2514-629	POA	-
7/32-24	2492-275	POA	-	-	-	-	3/4-20	See Popular Specials	2504-633	POA	2514-633	POA	-
7/32-32	2492-285	POA	-	-	-	-	3/4-24	See Popular Specials	-	-	2514-638	POA	-
1/4-16	2492-395	POA	-	-	-	-	3/4-25	2494-641	POA	-	-	-	-
1/4-18	2492-400	POA	-	-	-	-	3/4-28	2494-648	POA	-	-	-	-
1/4-24	See Popular Specials	-	2502-410	POA	2512-410	POA	3/4-32	See Popular Specials	2504-653	POA	-	-	-
1/4-26	-	-	-	-	2512-413	POA	3/4-40	2494-663	POA	-	-	-	-
1/4-27	See Popular Specials	-	-	-	2512-415	POA	25/32-9	2494-790	POA	-	-	-	-
1/4-30	2492-420	POA	-	-	-	-	25/32-16	2494-800	POA	-	-	-	-
1/4-32	See Popular Specials	-	2502-425	POA	2512-425	POA	13/16-8	2494-910	POA	-	-	-	-
1/4-36	See Popular Specials	-	-	-	2512-430	POA	13/16-10	See Popular Specials	2504-915	POA	2514-915	POA	-
1/4-40	See Popular Specials	-	-	-	2512-435	POA	13/16-14	2494-925	POA	-	-	-	-
5/16-20	See Popular Specials	-	2502-702	POA	2512-702	POA	13/16-16	See Popular Specials	-	-	2514-930	POA	-
5/16-30	2492-718	POA	-	-	-	-	13/16-18	See Popular Specials	-	-	2514-935	POA	-
5/16-32	See Popular Specials	-	2502-723	POA	2512-723	POA	13/16-20	See Popular Specials	2504-940	POA	2514-940	POA	-
5/16-40	See Popular Specials	-	-	-	2512-733	POA	13/16-24	See Popular Specials	-	-	2514-945	POA	-
5/16-50	-	-	2502-744	POA	-	-	13/16-40	2494-970	POA	-	-	-	-
21/64-20	2492-825	POA	-	-	-	-	7/8-8	2495-175	POA	-	-	-	-
11/32-24	2492-876	POA	-	-	-	-	7/8-12	See Popular Specials	-	-	2515-183	POA	-
3/8-18	See Popular Specials	-	2503-015	POA	-	-	7/8-16	See Popular Specials	-	-	2515-187	POA	-
3/8-20	See Popular Specials	-	2503-020	POA	2513-020	POA	7/8-18	See Popular Specials	-	-	2515-191	POA	-
3/8-26	2493-030	POA	-	-	-	-	7/8-20	See Popular Specials	2505-195	POA	2515-195	POA	-
3/8-28	See Popular Specials	-	2503-036	POA	-	-	7/8-24	See Popular Specials	-	-	2515-201	POA	-
3/8-30	2493-041	POA	-	-	-	-	7/8-25	2495-204	POA	-	-	-	-
3/8-32	See Popular Specials	-	2503-046	POA	2513-046	POA	15/16-8	2495-435	POA	-	-	-	-
3/8-40	See Popular Specials	-	-	-	2513-055	POA	15/16-9	2495-438	52.87	-	-	-	-
13/32-28	2493-197	POA	-	-	-	-	15/16-10	2495-441	52.87	-	-	-	-
13/32-40	2493-210	POA	-	-	-	-	15/16-12	See Popular Specials	-	-	2515-445	POA	-
17/64-36	2493-265	POA	-	-	-	-	15/16-16	See Popular Specials	2505-451	POA	2515-451	POA	-
7/16-18	See Popular Specials	-	-	-	2513-310	POA	15/16-18	See Popular Specials	-	-	2515-455	POA	-
7/16-24	See Popular Specials	-	2503-320	POA	2513-320	POA	15/16-20	See Popular Specials	2505-459	POA	2515-459	POA	-
7/16-28	See Popular Specials	-	2503-330	POA	2513-330	POA	15/16-32	See Popular Specials	2505-477	POA	-	-	-
7/16-30	2493-335	POA	-	-	-	-	31/32-12	2495-580	POA	-	-	-	-
7/16-32	See Popular Specials	-	-	-	2513-340	POA	1-7	2495-695	POA	-	-	-	-
7/16-40	See Popular Specials	-	-	-	2513-350	POA	1-10	See Popular Specials	-	-	2515-700	POA	-
1/2-12	See Popular Specials	-	2503-560	POA	-	-	1-16	See Popular Specials	2505-709	POA	2515-709	POA	-
1/2-16	See Popular Specials	-	-	-	2513-568	POA	1-18	See Popular Specials	2505-713	POA	2515-713	POA	-
1/2-18	See Popular Specials	-	-	-	2513-572	POA	1-20	See Popular Specials	2505-717	POA	2515-717	POA	-
1/2-22	2493-578	POA	-	-	-	-	1-24	See Popular Specials	-	-	2515-723	POA	-
1/2-24	See Popular Specials	-	-	-	2513-582	POA	1-28	2495-731	POA	-	-	-	-
1/2-25	2493-585	POA	-	-	-	-	1-32	See Popular Specials	2505-737	POA	-	-	-
1/2-27	See Popular Specials	-	2503-589	POA	2513-589	POA	1-40	2495-747	POA	-	-	-	-
1/2-28	See Popular Specials	-	2503-592	POA	2513-592	POA	1 1/32-12	2495-836	POA	-	-	-	-
1/2-30	2493-596	POA	-	-	-	-	1 1/16-7	2495-900	POA	2505-900	POA	-	-
1/2-32	See Popular Specials	-	-	-	2513-600	POA	1 1/16-8	2495-903	61.89	-	-	-	-
1/2-40	See Popular Specials	-	-	-	2513-610	POA	1 1/16-10	2495-907	POA	-	2515-903	POA	-
9/16-8	2493-840	POA	-	-	-	-	1 1/16-12	See Popular Specials	2505-911	POA	2515-911	POA	-
9/16-16	See Popular Specials	-	-	-	2513-850	POA	1 1/16-18	See Popular Specials	2505-923	POA	-	-	-
9/16-20	See Popular Specials	-	2503-855	POA	2513-855	POA	1 1/16-20	See Popular Specials	2505-927	POA	-	-	-
9/16-24	See Popular Specials	-	2503-860	POA	2513-860	POA	1 1/16-32	2495-943	POA	-	-	-	-
9/16-25	2493-863	POA	2503-863	POA	-	-	1 1/8-5	2496-045	POA	-	-	-	-
9/16-28	2493-871	POA	-	-	-	-	1 1/8-6	2496-048	POA	-	-	-	-
9/16-32	See Popular Specials	-	2503-876	POA	2513-876	POA	1 1/8-8	See Popular Specials	2506-052	POA	2516-052	POA	-
5/8-8	2494-105	POA	-	-	-	-	1 1/8-10	See Popular Specials	-	-	2516-056	POA	-
5/8-12	See Popular Specials	-	-	-	2514-113	POA	1 1/8-16	See Popular Specials	2506-066	POA	2516-066	POA	-
5/8-13	2494-116	POA	-	-	-	-	1 1/8-18	See Popular Specials	2506-070	POA	2516-070	POA	-

(continued)

Full Special Hexagon Dies

Right & Left Hand

Please specify quantity when ordering.

POPULAR SPECIAL CARBON STEEL R.H. HEX DIES: SEE PAGE 153

WARNING: This product contains Cobalt and/or Nickel and/or Lead a chemical known to the state of California to cause cancer or birth defects or other reproductive harm. For more information: www.p665.ca.gov.
WARNING: Cutting tools may shatter. Always wear approved safety glasses and mask when regrinding.



CARBON STEEL RIGHT HAND			H.S.S. RIGHT HAND		CARBON STEEL LEFT HAND		CARBON STEEL RIGHT HAND			H.S.S. RIGHT HAND		CARBON STEEL LEFT HAND	
SIZE	ORDER NO.	PRICE EACH	ORDER NO.	PRICE EACH	ORDER NO.	PRICE EACH	SIZE	ORDER NO.	PRICE EACH	ORDER NO.	PRICE EACH	ORDER NO.	PRICE EACH
1 1/8-20	See Popular Specials		2506-074	POA	2516-074	POA	1 11/16-5	2497-225	POA	-	-	-	-
1 1/8-24	2496-080	POA	-	-	-	-	1 11/16-8	2497-230	POA	-	-	-	-
1 1/8-32	2496-090	POA	-	-	-	-	1 11/16-12	2497-235	POA	-	-	-	-
1 5/32-14	2496-145	POA	-	-	-	-	1 11/16-16	2497-240	POA	-	-	-	-
1 5/32-18	2496-150	POA	-	-	-	-	1 11/16-18	2497-245	158.73	-	-	2517-245	POA
1 5/32-32	2496-165	POA	-	-	-	-	1 3/4-5	See Popular Specials		2507-298	POA	2517-298	POA
1 3/16-7	2496-195	POA	-	-	-	-	1 3/4-7	2497-304	POA	-	-	-	-
1 3/16-8	See Popular Specials		-	-	2516-198	POA	1 3/4-8	See Popular Specials		2507-307	POA	2517-307	POA
1 3/16-10	2496-202	74.38	-	-	2516-202	POA	1 3/4-10	See Popular Specials		2507-311	POA	-	-
1 3/16-12	See Popular Specials		-	-	2516-206	POA	1 3/4-12	See Popular Specials		2507-315	POA	2517-315	POA
1 3/16-14	2496-210	POA	-	-	2516-210	POA	1 3/4-14	2497-319	158.73	-	-	-	-
1 3/16-18	See Popular Specials		2506-218	POA	-	-	1 3/4-16	See Popular Specials		-	-	2517-323	POA
1 3/16-20	2496-222	POA	-	-	-	-	1 13/16-12	2497-390	POA	-	-	-	-
1 3/16-24	2496-228	POA	-	-	-	-	1 13/16-16	2497-395	POA	-	-	-	-
1 3/16-32	2496-238	POA	-	-	-	-	1 7/8-5	See Popular Specials		2507-448	POA	2517-448	POA
1 1/4-8	See Popular Specials		2506-330	POA	2516-330	POA	1 7/8-6	2497-451	POA	2507-451	POA	-	-
1 1/4-10	See Popular Specials		2506-334	POA	2516-334	POA	1 7/8-8	See Popular Specials		2507-455	POA	2517-455	POA
1 1/4-16	See Popular Specials		2506-344	POA	2516-344	POA	1 7/8-10	2497-459	POA	2507-459	POA	2517-459	POA
1 1/4-18	See Popular Specials		2506-348	POA	2516-348	POA	1 7/8-12	See Popular Specials		2507-463	POA	2517-463	POA
1 1/4-20	See Popular Specials		-	-	2516-352	POA	1 7/8-16	See Popular Specials		2507-471	POA	2517-471	POA
1 1/4-24	2496-358	POA	-	-	-	-	1 15/16-8	2497-575	POA	-	-	2517-575	POA
1 1/4-27	2496-363	POA	-	-	-	-	1 15/16-10	-	-	-	-	2517-577	POA
1 1/4-28	2496-366	POA	-	-	-	-	1 15/16-12	2497-580	POA	-	-	-	-
1 1/4-32	2496-372	POA	-	-	-	-	1 15/16-16	2497-585	POA	-	-	-	-
1 5/16-7	2496-455	POA	-	-	-	-	1 15/16-18	2497-590	POA	-	-	-	-
1 5/16-8	See Popular Specials		-	-	2516-458	POA	2-4	-	-	2507-640	POA	-	-
1 5/16-10	2496-462	POA	-	-	-	-	2-4 1/2	See Popular Specials		2507-641	POA	2517-640	POA
1 5/16-12	See Popular Specials		2506-466	POA	2516-466	POA	2-5	2497-643	POA	-	-	-	-
1 5/16-14	2496-470	POA	-	-	-	-	2-6	2497-646	POA	-	-	2517-646	POA
1 5/16-16	2496-474	79.43	-	-	2516-474	POA	2-8	See Popular Specials		2507-650	POA	2517-650	POA
1 5/16-18	See Popular Specials		2506-478	POA	-	-	2-10	2497-654	232.71	2507-654	POA	2517-654	POA
1 5/16-20	2496-482	POA	2506-482	POA	2516-482	POA	2-11	2497-657	POA	-	-	-	-
1 5/16-24	2496-488	POA	-	-	-	-	2-12	See Popular Specials		2507-660	POA	2517-660	POA
1 5/16-32	2496-498	POA	-	-	-	-	2-14	2497-664	232.71	-	-	-	-
1 3/8-7	2496-580	79.43	-	-	-	-	2-16	See Popular Specials		-	-	2517-668	POA
1 3/8-8	See Popular Specials		2506-583	POA	2516-583	POA	2-20	See Popular Specials		2507-668	POA	-	-
1 3/8-9	2496-586	POA	-	-	-	-	2 1/16-12	2497-745	POA	-	-	-	-
1 3/8-14	2496-595	POA	-	-	-	-	2 1/16-16	2497-750	POA	-	-	-	-
1 3/8-16	See Popular Specials		-	-	2516-599	POA	2 1/16-40	2497-768	POA	-	-	-	-
1 3/8-18	See Popular Specials		2506-601	POA	2516-602	POA	2 1/8-4 1/2	2497-795	318.78	2507-795	POA	-	-
1 3/8-20	See Popular Specials		-	-	2516-605	POA	2 1/8-8	See Popular Specials		2507-800	POA	2517-800	POA
1 3/8-24	2496-611	POA	2506-611	POA	-	-	2 1/8-10	2497-804	POA	-	-	-	-
1 3/8-32	2496-621	POA	-	-	-	-	2 1/8-12	See Popular Specials		2507-808	POA	2517-808	POA
1 7/16-7	2496-710	POA	-	-	-	-	2 1/8-14	2497-812	318.78	-	-	-	-
1 7/16-10	2496-717	POA	-	-	-	-	2 1/8-18	2497-820	318.78	-	-	-	-
1 7/16-12	See Popular Specials		2506-721	POA	2516-721	POA	2 1/8-20	2497-824	POA	-	-	-	-
1 7/16-14	2496-725	POA	-	-	-	-	2 3/16-8	2497-870	POA	-	-	-	-
1 7/16-18	See Popular Specials		2506-733	POA	2516-733	POA	2 3/16-12	2497-875	POA	-	-	-	-
1 7/16-20	2496-737	POA	-	-	-	-	2 3/16-16	2497-880	POA	-	-	-	-
1 7/16-24	2496-743	POA	-	-	-	-	2 3/16-18	2497-884	POA	-	-	-	-
1 7/16-32	2496-753	POA	-	-	-	-	2 3/16-20	2497-888	POA	2507-888	POA	-	-
1 1/2-7	2496-835	POA	-	-	-	-	2 1/4-4	2497-915	318.78	-	-	-	-
1 1/2-8	See Popular Specials		2506-838	POA	2516-838	POA	2 1/4-4 1/2	See Popular Specials		2507-918	POA	2517-918	POA
1 1/2-9	2496-841	POA	-	-	-	-	2 1/4-6	2497-922	318.78	-	-	-	-
1 1/2-10	2496-844	POA	-	-	2516-844	POA	2 1/4-8	See Popular Specials		2507-926	POA	2517-926	POA
1 1/2-16	See Popular Specials		-	-	2516-854	POA	2 1/4-10	2497-930	318.78	-	-	-	-
1 1/2-18	See Popular Specials		2506-858	POA	2516-858	POA	2 1/4-12	See Popular Specials		2507-934	POA	2517-934	POA
1 1/2-20	See Popular Specials		-	-	2516-862	POA	2 1/4-14	2497-938	318.78	-	-	-	-
1 1/2-24	2496-868	POA	-	-	-	-	2 1/4-20	2497-950	POA	-	-	-	-
1 1/2-32	2496-878	POA	-	-	-	-	2 5/16-12	2498-000	POA	-	-	2518-000	POA
1 9/16-8	2497-015	131.38	-	-	-	-	2 3/8-4	2498-035	371.91	-	-	-	-
1 9/16-12	2497-020	131.38	-	-	-	-	2 3/8-8	See Popular Specials		2508-040	POA	-	-
1 9/16-14	2497-024	POA	-	-	-	-	2 3/8-10	2498-044	371.91	2508-044	POA	-	-
1 9/16-16	2497-028	131.38	-	-	-	-	2 3/8-12	See Popular Specials		2508-048	POA	2518-048	POA
1 9/16-18	-	-	2507-032	POA	2517-031	POA	2 3/8-14	2498-052	371.91	-	-	-	-
1 9/16-20	2497-034	131.38	-	-	-	-	2 3/8-18	2498-060	371.91	-	-	-	-
1 5/8-5	2497-135	131.38	-	-	-	-	2 3/8-20	2498-064	POA	-	-	-	-
1 5/8-5 1/2	See Popular Specials		2507-138	POA	2517-138	POA	2 7/16-12	2498-110	POA	-	-	-	-
1 5/8-6	2497-141	131.38	-	-	-	-	2 1/2-4	See Popular Specials		2508-150	POA	2518-150	POA
1 5/8-8	See Popular Specials		2507-145	POA	2517-145	POA	2 1/2-4 1/2	2498-153	371.91	-	-	-	-
1 5/8-10	2497-149	131.38	-	-	-	-	2 1/2-5	2498-156	371.91	-	-	-	-
1 5/8-12	See Popular Specials		2507-153	POA	2517-153	POA	2 1/2-6	2498-159	371.91	-	-	-	-
1 5/8-16	See Popular Specials		-	-	2517-161	POA							

(continued)

Full Special Hexagon Dies

Right & Left Hand (Continued)

Please specify quantity when ordering.

**POPULAR SPECIAL CARBON
STEEL R.H. HEX DIES:
SEE PAGE 153**

Pittsburg
ALLEGHANY

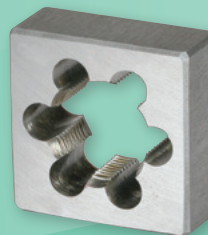


WARNING: This product contains Cobalt and/or Nickel and/or Lead a chemical known to the state of California to cause cancer or birth defects or other reproductive harm. For more information: www.prop65.ca.gov.
WARNING: Cutting tools may shatter. Always wear approved safety glasses and mask when regrinding.

CARBON STEEL RIGHT HAND			H.S.S. RIGHT HAND		CARBON STEEL LEFT HAND		CARBON STEEL RIGHT HAND			H.S.S. RIGHT HAND		CARBON STEEL LEFT HAND	
SIZE	ORDER NO.	PRICE EACH	ORDER NO.	PRICE EACH	ORDER NO.	PRICE EACH	SIZE	ORDER NO.	PRICE EACH	ORDER NO.	PRICE EACH	ORDER NO.	PRICE EACH
2 1/2-8	See Popular Specials		2508-163	POA	2518-163	POA	3 1/2-4	See Popular Specials	—	—		2518-775	POA
2 1/2-10	2498-167	371.91	—	—	—	—	3 1/2-6	2498-780	POA	—	—	—	—
2 1/2-12	See Popular Specials		2508-171	POA	2518-171	POA	3 1/2-8	See Popular Specials	2508-785	POA	—	—	—
2 1/2-14	2498-175	POA	—	—	—	—	3 1/2-12	See Popular Specials	2508-790	POA	—	2518-790	POA
2 1/2-16	See Popular Specials		2508-179	POA	—	—	3 1/2-16	2498-795	POA	—	—	—	—
2 1/2-18	2498-183	371.91	—	—	—	—	3 5/8-12	See Popular Specials	—	—	—	2518-845	POA
2 9/16-8	—	—	2508-235	POA	—	—	3 5/8-16	2498-850	POA	—	—	—	—
2 9/16-18	2498-240	POA	—	—	—	—	3 3/4-16	2498-895	POA	—	—	—	—
2 5/8-8	See Popular Specials		2508-281	POA	—	—	3 3/4-18	2498-900	POA	—	—	—	—
2 5/8-10	2498-285	POA	—	—	—	—	4-3 1/4	2498-965	POA	—	—	—	—
2 5/8-14	2498-293	504.74	—	—	—	—	4-4	See Popular Specials	—	—	—	2518-970	POA
2 5/8-16	2498-297	504.74	2508-297	POA	—	—	4-12	See Popular Specials	—	—	—	2518-980	POA
2 11/16-8	2498-325	POA	—	—	—	—	4-16	2498-985	POA	—	—	—	—
2 3/4-4	See Popular Specials		2508-370	POA	2518-370	POA	4 1/4-4	2499-015	POA	—	—	—	—
2 3/4-8	See Popular Specials		2508-376	POA	2518-376	POA	4 1/4-8	2499-020	961.40	—	—	2518-650	POA
2 3/4-10	2498-380	504.74	—	—	—	—	4 1/4-12	See Popular Specials	2509-025	POA	—	—	—
2 3/4-12	See Popular Specials		2508-384	POA	2518-384	POA	4 3/8-8	2499-070	POA	—	—	—	—
2 3/4-14	2498-388	504.74	—	—	—	—	4 3/8-12	2499-075	POA	—	—	—	—
2 3/4-16	2498-392	504.74	—	—	—	—	4 1/2-4	2499-100	POA	—	—	2519-100	POA
2 3/4-18	2498-396	POA	—	—	—	—	4 3/4-4	2499-130	POA	—	—	—	—
2 7/8-4	2498-440	555.54	—	—	—	—	4 3/4-8	2499-135	POA	—	—	—	—
2 7/8-6	2498-445	555.54	—	—	—	—	4 3/4-12	2499-140	POA	2509-140	POA	—	—
2 7/8-8	See Popular Specials		2508-450	POA	—	—	5-4	2499-170	POA	—	—	—	—
2 7/8-16	2498-460	555.54	—	—	—	—	5-6	2499-175	POA	—	—	—	—
3-3 1/2	2498-535	POA	—	—	—	—	5-8	2499-180	1240.51	—	—	—	—
3-4	See Popular Specials		2508-537	POA	2518-537	POA	5 1/4-4	2499-200	POA	—	—	—	—
3-6	2498-541	POA	—	—	—	—	5 1/4-8	2499-205	POA	—	—	—	—
3-8	See Popular Specials		2508-545	POA	—	—	5 1/4-12	2499-210	POA	—	—	—	—
3-10	2498-549	POA	—	—	—	—	5 1/2-4	2499-240	POA	—	—	—	—
3-12	See Popular Specials		2508-553	POA	2518-553	POA	5 1/2-8	2499-245	POA	—	—	—	—
3-16	See Popular Specials		—	—	2518-559	POA	5 1/2-12	2499-250	POA	—	—	—	—
3 1/8-16	2498-610	POA	—	—	—	—	5 3/4-6	2499-280	POA	—	—	—	—
3 1/8-18	2498-615	POA	—	—	—	—	5 3/4-8	2499-285	POA	—	—	—	—
3 1/8-20	2498-620	POA	—	—	—	—	5 3/4-12	2499-290	POA	—	—	—	—
3 1/4-4	See Popular Specials		2508-642	POA	2518-642	POA	6-4	2499-305	POA	—	—	—	—
3 1/4-6	2498-646	POA	—	—	—	—	6-8	2499-310	POA	—	—	—	—
3 1/4-12	See Popular Specials		—	—	2518-655	POA	6-12	2499-315	POA	—	—	—	—
3 1/4-16	2498-660	POA	—	—	—	—	6 3/8-12	2499-380	POA	—	—	—	—

Square Bolt Dies

Carbon Steel



Pittsburg
ALLEGHANY

2

SIZE	SQUARE SIZE	THICKNESS	ORDER NO.	PRICE EACH	SIZE	SQUARE SIZE	THICKNESS	ORDER NO.	PRICE EACH
1/4-20	2-1/2	1/2	2530-001	\$ 34.10	7/8-9	2-1/2	3/4	2530-018	\$ 43.91
5/16-18	2-1/2	1/2	2530-004	34.10	1-8	2-1/2	1	2530-020	63.16
3/8-16	2-1/2	1/2	2530-006	34.10	1-1/8-7	2-1/2	1	2530-023	63.16
7/16-14	2-1/2	1/2	2530-008	31.00	1-1/4-7	2-1/2	1	2530-025	63.16
7/16-20	2-1/2	1/2	2530-009	18.00	1-3/8-6	2-1/2	1	2530-027	63.16
1/2-13	2-1/2	3/4	2530-010	43.91	1-1/2-6	3	1	2530-030	72.33
5/8-11	2-1/2	3/4	2530-014	43.91	1-3/4-5	3	1-1/4	2530-034	84.27
3/4-10	2-1/2	3/4	2530-016	43.91	2-4-1/2	3-3/4	2	2530-036	101.12

Pipe Dies

Round Adjustable

NPT (Taper Pipe) & NPS (Straight Pipe) Right Hand, High Speed Steel



[8]

SIZE	OD	NPT TAPER		NPS STRAIGHT	
		ORDER NO.	PRICE EACH	ORDER NO.	PRICE EACH
1/16-27	1	2436-102	\$ 26.91	2436-101	\$ 26.91
1/8-27	1	2436-106	26.91	2436-105	26.91
1/8-27	1-1/2	2436-110	40.50	2436-109	40.50
1/4-18	1-1/2	2436-118	40.50	2436-119	40.50
3/8-18	1-1/2	2436-126	40.50	2436-125	40.50
1/4-18	2	2436-122	69.21	2436-121	69.21
3/8-18	2	2436-130	69.21	2436-129	69.21
1/2-14	2	2436-134	69.21	2436-133	69.21
3/4-14	2	2436-142	69.21	2436-141	69.21
3/4-14	2-1/2	2436-146	95.40	2436-145	95.40
1-11-1/2	2-1/2	2436-154	95.40	2436-153	95.40
1-11-1/2	3	2436-158	175.50	2436-157	91.70
1-1/4-11-1/2	3	2436-162	175.50	2436-161	175.50
1-1/2-11-1/2	3	2436-170	175.50	2436-169	175.50
1-1/2-11-1/2	4	2436-172	229.50	2436-171	229.50
2-11-1/2	4	2436-178	229.50	2436-177	229.50
2-1/2-8	5	2436-182	310.00	2436-181	461.70
3-8	5	2436-188	310.00	2436-187	310.00

Left Hand

Round Adjustable

NPT (Taper Pipe) & NPS (Straight Pipe) High Speed Steel



[2]

SIZE	OD	LH NPT TAPER		LH NPS STRAIGHT	
		ORDER NO.	PRICE EACH	ORDER NO.	PRICE EACH
1/16-27	1	2436-302	\$42.12	2436-301	\$42.12
1/8-27	1	2436-306	42.12	2436-305	42.12
1/8-27	1-1/2	2436-310	63.72	2436-309	63.72
1/4-18	1-1/2	2436-318	69.21	2436-317	63.72
3/8-18	1-1/2	2436-330	63.72	2436-329	63.72
1/4-18	2	2436-322	102.60	2436-321	102.60
3/8-18	2	2436-334	102.60	2436-333	102.60
1/2-14	2	2436-338	102.60	2436-337	102.60
3/4-14	2	2436-346	102.60	2436-345	102.60
3/4-14	2-1/2	2436-350	145.80	2436-349	145.80
1-11-1/2	2-1/2	2436-358	145.80	2436-357	145.80
1-11-1/2	3	2436-362	333.60	2436-361	333.60
1-1/4-11-1/2	3	2436-366	259.20	2436-365	259.20
1-1/2-11-1/2	3	2436-374	259.20	2436-373	259.20
2-11-1/2	4	2436-382	378.00	2436-381	378.00
2-1/2-8	5	2436-386	915.60	2436-385	763.20
3-8	5	2436-392	951.60	2436-391	793.20

Hexagon Rethreading Dies

**NPT (Taper Pipe)
NPS (Straight Pipe)
Right Hand – Carbon Steel**



[8]

[2]

[8]

SIZE	Pittsburg ALLEGHANY		Pittsburg ALLEGHANY AMERICAN MADE		Pittsburg ALLEGHANY	
	NPT ORDER NUMBER	PRICE EACH	NPT ORDER NUMBER	PRICE EACH	NPS ORDER NUMBER	PRICE EACH
1/16-27	2484-002	\$ 3.26	—	—	2484-001	\$18.81
1/8-27	2484-006	17.10	2483-906	\$ 24.80	2484-005	18.81
1/4-18	2484-018	25.56	2483-918	37.08	2484-017	28.12
3/8-18	2484-030	33.66	2483-930	48.83	2484-029	37.03
1/2-14	2484-034	44.28	2483-934	64.22	2484-033	48.71
3/4-14	2484-042	56.70	2483-942	83.07	2484-041	62.37
1-11-1/2	2484-054	75.42	2483-954	109.46	2484-053	82.96
1-1/4-11-1/2	2484-062	107.55	—	—	—	—
1-1/2-11-1/2	2484-070	157.50	—	—	—	—
2-11-1/2	2484-078	319.50	—	—	—	—
2-1/2-8	2484-082	382.50	—	—	—	—
3-8	2484-087	414.00	—	—	—	—
3-1/2-8	2484-092	621.22	—	—	—	—
4-8	2484-097	619.97	—	—	—	—

Left Hand Sizes – POA

Round Adjustable Dies

**NPSH Pipe–Garden Hose
High Speed Steel**

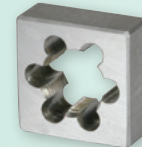


[8]

SIZE	O.D.	ORDER NUMBER	PRICE EACH
3/4-11-1/2	2"	2436-143	\$152.90
3/4-11-1/2	2-1/2	2436-144	217.00

Square Pipe Dies

**NPT (Taper Pipe)
Right Hand –
Carbon Steel**



Left Hand Threads, Special Square Sizes and High Speed Steel Dies are available on request.

[2]

SIZE	BLANK NO.	SQUARE SIZE	ORDER NO.	PRICE EACH
1/8-27	0	2 x 1/2	2531-009	\$48.41
1/4-18	0	2 x 1/2	2531-016	48.41
3/8-18	0	2 x 1/2	2531-030	48.41
1/2-14	0	2 x 1/2	2531-047	48.41
1/8-27	1	2-1/2 x 3/4	2531-011	59.54
1/4-18	1	2-1/2 x 3/4	2531-019	59.54
3/8-18	1	2-1/2 x 3/4	2531-036	59.54
1/2-14	1	2-1/2 x 3/4	2531-050	59.54
3/4-14	1	2-1/2 x 3/4	2531-061	59.54
1-11-1/2	1	2-1/2 x 3/4	2531-072	59.54
1/2-14	1-1/2	3 x 3/4	2531-053	91.20
3/4-14	1-1/2	3 x 3/4	2531-064	91.20
1-11-1/2	1-1/2	3 x 3/4	2531-075	99.48
1-1/4-11-1/2	1-1/2	3 x 3/4	2531-086	91.20
1-11-1/2	2	4 x 1	2531-078	100.11
1-1/4-11-1/2	2	4 x 1	2531-092	100.11
1-1/2-11-1/2	2	4 x 1	2531-100	100.11
2-11-1/2	2	4 x 1	2531-105	100.11

Hexagon Rethreading Dies

**NPT (Taper Pipe),
Right Hand –
High Speed Steel**



[8]

SIZE	ORDER NUMBER	PRICE EACH
1/16-27	2484-102	\$8.81
1/8-27	2484-106	26.10
1/4-18	2484-118	19.30
3/8-18	2484-130	23.62
1/2-14	2484-134	66.60
3/4-14	2484-142	65.48
1-11 1/2	2484-154	127.20
1 1/4-11 1/2	2484-162	123.83
1 1/2-11 1/2	2484-170	180.14

Tap & Die Sets- Round Dies

WARNING: This product contains Cobalt and/or Nickel and/or Lead a chemical known to the state of California to cause cancer or birth defects or other reproductive harm. For more information: www.prop65.ca.gov. **WARNING:** Cutting tools may chatter. Always wear approved safety glasses and mask when regrinding.

2

39 Pieces - Round Adj. Dies #4 THRU 1/2" Taps & 1" Round Adjustable Dies

- Plastic Storage Case Included
- Contains one Plug Tap and Round Die in the following thread:

Carbon Steel



Order No. 2591-505
Price Each: \$77.30

High Speed Steel



Order No. 2591-507
Price Each: \$159.50



MACH. SCREW	THREAD SIZES	
	FRACTIONAL	FRACTIONAL
4-40 NC	1/4"-20 NC	7/16"-14 NC
6-32 NC	1/4"-28 NF	7/16"-20 NF
8-32 NC	5/16"-18 NC	1/2"-13 NC
10-24 NC	5/16"-24 NF	1/2"-20 NF
10-32 NF	3/8"-16 NC	Pipe
12-24 NC	3/8"-24 NF	1/8"-27 NPT
THREADING TOOLS		
Adj. Die Stock - 1" Round Dies		
T-Handle Wrench - Taps No. 0 - 1/4"		
Adj. Handle Tap Wrench - Taps No. 0 - 1/2"		
18 Leaf Standard Thread Pitch Gage		

39 Pieces - Solid Round Dies #4 THRU 1/2" Taps & 1" Solid Round Dies

- Plastic Storage Case Included
- Contains one Plug Tap and Round Die in the following thread:

Carbon Steel

IRWIN HANSON.

Order No. 2591-599 Price Each: \$370.99



MACH. SCREW	THREAD SIZES	
	FRACTIONAL	FRACTIONAL
4-40 NC	1/4"-20 NC	7/16"-14 NC
6-32 NC	1/4"-28 NF	7/16"-20 NF
8-32 NC	5/16"-18 NC	1/2"-13 NC
10-24 NC	5/16"-24 NF	1/2"-20 NF
10-32 NF	3/8"-16 NC	Pipe
12-24 NC	3/8"-24 NF	1/8"-27 NPT
THREADING TOOLS		
Adj. Die Stock - 1" Round Dies		
T-Handle Wrench - Taps No. 0 - 1/4"		
Adj. Handle Tap Wrench - Taps No. 0 - 1/2"		
18 Leaf Standard Thread Pitch Gage		

41 Pieces - 1/4 THRU 3/4" Carbon Steel Tap & Adjustable/Solid Round 1-1/2" Die Super Set

- Plastic Storage Case Included
- Contains one Plug Tap and Round Die in the following thread:

Carbon Steel

IRWIN HANSON.

Order No. 2591-600

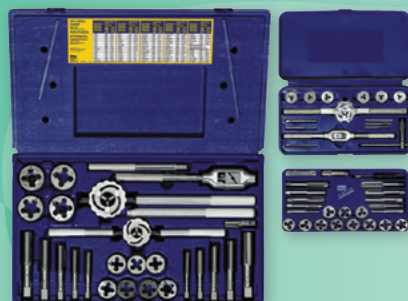
Price Each: \$966.60



THREAD SIZES		
FRACTIONAL	FRACTIONAL	FRACTIONAL
1/4"-20 NC	7/16"-14 NC	5/8"-11 NC
1/4"-28 NF	7/16"-20 NF	5/8"-18 NF
5/16"-18 NC	1/2"-13 NC	3/4"-10 NC
5/16"-24 NF	1/2"-20 NF	3/4"-16 NF
3/8"-16 NC	9/16"-12 NC	Pipe-1/8"-27 NPT
3/8"-24 NF	9/16"-18 NF	Pipe-1/4"-18 NPT
THREADING TOOLS		
Adj. Die Stock - 1-1/2" Round Dies		
T-Handle Wrench - Taps No. 1/4" to 1/2"		
Adj. Handle Tap Wrench - Taps 1/4" to 1"		
18 Leaf Standard Thread Pitch Gage		

64 Pieces - #4 THRU 1" Adjustable/Solid Round Die Super Set

- Plastic Storage Case Included
- Contains one Plug Tap and Round Die in the following thread:



Carbon Steel



Order No. 2591-510
Price Each: \$319.44

High Speed Steel



Order No. 777H64
Price Each: \$719.60

MACH. SCREW	THREAD SIZES	
	FRACTIONAL	FRACTIONAL/PIPE
1" Adj. Round	1" Adj. Round	1-1/2" Adj. Round
4-40 NC	1/4"-20 NC	5/8"-11 NC
6-32 NC	1/4"-28 NF	5/8"-18 NF
8-32 NC	5/16"-18 NC	3/4"-10 NC
10-24 NC	5/16"-24 NF	3/4"-16 NF
10-32 NF	3/8"-16 NC	2" Adj. Round
12-24 NC	3/8"-24 NF	7/8"-9 NC
	7/16"-14 NC	7/8"-14 NF
	7/16"-20 NF	1"-8 NC
	1/2"-13 NC	1"-12 NS
	1/2"-20 NF	1" Solid Round
	1-1/2" Adj. Round	Pipe-1/8"-27 NPT
	9/16"-12 NC	1-1/2" Solid Round
	9/16"-18 NF	Pipe-1/4"-18 NPT
THREADING TOOLS		
Adj. Die Stock - 1-1/2" Adj. Round Dies		
Adj. Die Stock - 2" Adj. Round Dies		
Adj. Handle Tap Wrench - Taps 0 to 1/2"		
Adj. Handle Tap Wrench - Taps 1/4" to 1"		
T-Handle Wrench - Taps No. 0 to 1/4"		
18 Leaf Standard Thread Pitch Gage		

Tap & Die Sets

IRWIN HANSON.

117 Pieces #4 THRU 1/2" Fractional/Metric



Carbon Steel
IRWIN HANSON.

Order No. 2591-598 Price Each: \$1099.64 ²

- Plastic storage case included
- Contains one Plug Tap and Hexagon Re-threading Die in the following thread:

MACH. SCREW	THREAD SIZES	
	FRACTIONAL	FRACTIONAL & PIPE
4-40 NC	3/8"-24 NF	7 mm - 1.00
6-32 NC	7/16"-14 NC	8 mm - 1.00
8-32 NC	7/16"-20 NF	8 mm - 1.25
10-24 NC	1/2"-13 NC	9 mm - 1.00
10-32 NF	1/2"-20 NF	9 mm - 1.25
12-24 NC	Metric	10 mm - 1.25
Fractional	3 mm - 0.50	10 mm - 1.50
1/4"-20 NC	4 mm - 0.70	11 mm - 1.50
1/4"-28 NF	4 mm - 0.75	12 mm - 1.50
5/16"-18 NC	5 mm - 0.80	12 mm - 1.75
5/16"-24 NF	5 mm - 0.90	Pipe-1/8"-27 NPT
3/8"-16 NC	6 mm - 1.00	Pipe-1/4"-18 BSP

SPIRAL FLUTE SCREW EXTRACTOR

EX-1, EX-2, EX-3, EX-4, EX-5

THREADING TOOLS

Adj. Die Stock - 1 Dies
Plain Die Stock - 5/8" Hex Dies
Adj. Handle Tap Wrench - Taps 0 to 1/2"
2-in-1 Tap Wrench - Taps 1/4" to 1/2"
T-Handle Wrench - Taps No. 0 to 1/4"
16 Leaf Metric Thread Pitch Gage
18 Leaf Standard Thread Pitch Gage
Empty Plastic Case

DRILL BITS

0.003, 0.007, 0.009, 0.0016, 0.0019, 0.0020, 0.0021, 0.0025, 0.0029, 0.0030, 0.0036, 0.0039, 0.0043, Letter B, Letter F, Letter H, Letter I, Letter J, Letter O, Letter Q, Letter R, Letter S, Letter U, Letter Z, 5/64", 7/64", 5/32", 1/4", 19/64", 5/16", 21/64", 3/8", 25/64", 13/32", 27/64", 29/64"

GEARWRENCH®

11-pc. Master Ratcheting Tap & Die Drive Tool Set



- Set includes: Large & Medium Ratcheting "T" Wrench, Large Locking Tap Adapter, Large Hex Die Adapter, Medium & Small Tap Adapter, Medium Die Adapter, Male Extension Adapter, Female Extension Adapter, Sliding T for Adapters, 4mm Hex Key

Order No. 7442-469 Price Each: \$276.23 ³

GEARWRENCH®

5 Pc. Medium Ratcheting Tap and Die Drive Tool Set

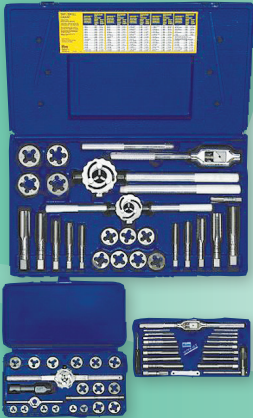


- Set includes: Tap and Die Ratcheting "T" Wrench, Small & Medium Tap Adapters, Medium Hex Die Adaptor, Sliding "T" for Adapters

Order No. 7442-470 Price Each: \$ 122.76 ³

Tap & Die Sets

66 Pieces #4 THRU 1" Taps & 1" Hexagon Dies



Carbon Steel
IRWIN HANSON.

Order No. 2591-625
Price Each: \$1447.88

- Plastic storage cases
- Contains one Tap and Hexagon Re-threading Die in the following thread:

THREAD SIZES		PIPE
MACH. SCREW/FRAC. FRACTIONAL		
4-40 NC	7/16"-14 NC	1/8"-27 NPT
6-32 NC	7/16"-20 NF	1/4"-18 NPT
8-32 NC	1/2"-13 NC	
10-24 NC	1/2"-20 NF	
10-32 NF	9/16"-12 NC	
12-24 NC	9/16"-12 NF	
	5/8"-11 NC	
	5/8"-18 NF	
Fractional	3/4"-10 NC	
1/4"-20 NC	3/4"-16 NF	
1/4"-28 NF	7/8"-9 NC	
5/16"-18 NC	7/8"-14 NF	
5/16"-24 NF	1"-8 NC	
3/8"-16 NC	1"-8 NC	
3/8"-24 NF	1"-12 NS	

THREADING TOOLS	
Adj. Die Stock - 1" Dies • Plain Die Stock 5/8" Hex Dies	
Adj. Die Stock - 1-7/16" Hex Dies	
Adj. Die Stock - 1-13/16" Hex Dies	
Adj. Handle Tap Wrench - Taps 0 to 1/2"	
Adj. Handle Tap Wrench - Taps 1/4" to 1"	
T-Handle Wrench - Taps No. 0 to 1/4"	
18 Leaf Standard Thread Pitch Gage	

76 Pieces #4 THRU 1/2" Fractional/Metric • Plastic storage case included

• Contains one Tap and Hexagon Re-threading Die in the following thread:



Carbon Steel
IRWIN HANSON.

Order No. 2591-597
Price Each: \$734.13

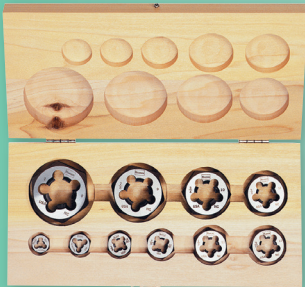
Republic
DRILL & CUTTING TOOLS

Order No. 777X
Price Each: \$299.00

THREAD SIZES		METRIC & PIPE
MACH. SCREW	FRAC./METRIC	
4-40 NC	3/8"-24 NF	7 mm - 1.00
6-32 NC	7/16"-14 NC	8 mm - 1.00
8-32 NC	7/16"-20 NF	8 mm - 1.25
10-24 NC	1/2"-13 NC	9 mm - 1.00
10-32 NF	1/2"-20 NF	9 mm - 1.25
12-24 NC	Metric	10 mm - 1.25
Fractional	3 mm - 0.50	10 mm - 1.50
1/4"-20 NC	4 mm - 0.70	11 mm - 1.50
1/4"-28 NF	4 mm - 0.75	12 mm - 1.50
5/16"-18 NC	5 mm - 0.80	12 mm - 1.75
5/16"-24 NF	5 mm - 0.90	Pipe-1/8"-27 NPT
3/8"-16 NC	6 mm - 1.00	Pipe-1/4"-18 BSP

THREADING TOOLS	
Plain Die Stock - 5/8" Hex Dies	
Adj. Handle Tap Wrench - Taps 0 to 1/2"	
Adj. Handle Tap Wrench - Taps 1/4" to 1/2"	
T-Handle Wrench - Taps No. 0 to 1/4"	
16 Leaf Metric Thread Pitch Gage	
18 Leaf Standard Thread Pitch Gage	
Empty Plastic Case	

10 Pieces - Re-threading Hex Die Sets- NC & NF Fractional



NC - Carbon Steel

Pittsburg® Order No. 2591-500 Price Each: \$66.50

- Wooden storage case
- Contains one of each re-threading Hex Die in the following thread:

THREAD SIZES	
NC	
1/4"-20 NC	9/16"-12 NC
5/16"-18 NC	5/8"-11 NC
3/8"-16 NC	3/4"-10 NC
7/16"-14 NC	7/8"-9 NC
1/2"-13 NC	1"-8 NC

12 Pieces- Taps & Re-threading Pipe Die Sets



- Storage case
- Contains one tap and one of each re-threading Hex Die in the following thread sizes:

THREAD SIZES	
NPT	
1/8"-27 NPT	1/2"-14 NPT
1/4"-18 NPT	3/4"-14 NPT
3/8"-18 NPT	1"-11-1/2 NPT

Carbon Steel

Pittsburg®
ALLEGHANY

Order No. 2591-508 Price Each: \$106.00

High Speed Steel Taps,
Carbon Steel Hex Dies

Pittsburg®
ALLEGHANY

Order No. 2591-509 Price Each: \$217.30

6 Pieces - Re-threading Hex Pipe Die Set



Carbon Steel
IRWIN HANSON.

Order No. 2591-644 Price Each: \$371.07

- Wooden storage case
- Contains one of each re-threading Hex Die in the following thread

DIE SIZES NPT	
1/8" - 27 NPT	1/2" - 14 NPT
1/4" - 18 NPT	3/4" - 14 NPT
3/8" - 18 NPT	1" - 11-1/2 NPT

Tap & Die Sets - Hex Dies

WARNING: This product contains Cobalt and/or Nickel and/or Lead a chemical known to the state of California to cause cancer or birth defects or other reproductive harm. For more information: www.prop65.ca.gov.
WARNING: Cutting tools may shatter. Always wear approved safety glasses and mask when regrinding.

2



Carbon Steel

IRWIN HANSON.

Order No. 2591-596 Price Each: \$96.96

12 Pieces 6-32 THRU 1/4" Taps & 5/8" Hex Dies

- Carded set
- Top 5 machine screw & fractional sizes
- Contains one Tap and Hexagon Die in the following thread:

THREAD SIZES	
MACH. SCREW	FRACTIONAL
6-32 NC	1/4"-20 NC
8-32 NC	
10-24 NC	
10-32 NF	
THREADING TOOLS	
Plain Die Stock - 5/8" Hex Dies	
T-Handle Wrench - Taps No. 0 - 1/4"	



Republic
DRILL & CUTTING TOOLS

Carbon Steel

Order No. 777CB12 Price Each: \$35.92

High Speed Steel

Order No. 777H12 Price Each: \$67.93

12 Pieces Fractional 1/4" THRU 1/2" Taps & 1" Hex Dies

- Plastic Storage Case Included
- Contains one Tap and Hexagon Die in the following thread:

THREAD SIZES FRACTIONAL	
1/4"-20 NC	1/2"-13 NC
5/16"-18 NC	
3/8"-16 NC	
7/16"-14 NC	
THREADING TOOLS	
Plain Die Stock - 1" Dies	
Offset Adj. Tap Wrench - Taps No. 0 - 1/2"	



Carbon Steel

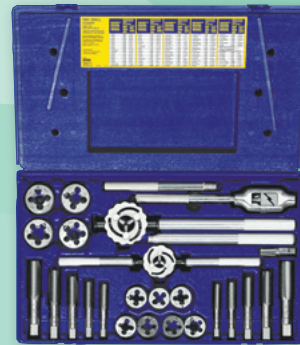
IRWIN HANSON.

Order No. 2591-594 Price Each: \$262.57

24 Pieces Fractional 1/4" - 1/2" Taps & 1" Hex Dies

- Plastic storage case
- Contains one Plug Tap and Hexagon Die in the following thread:

THREAD SIZES FRACTIONAL	
1/4"-20 NC	7/16"-14 NC
1/4"-28 NF	7/16"-20 NF
5/16"-18 NC	1/2"-13 NC
5/16"-24 NF	1/2"-20 NF
3/8"-16 NC	Pipe
3/8"-24 NF	1/8"-27 NPT
THREADING TOOLS	
Plain Die Stock - 1" Round Dies	
Offset Adj. Tap Wrench - Taps No. 0 - 1/2"	



Carbon Steel

IRWIN HANSON.

Order No. 2591-615 Price Each: \$1011.20

25 Pieces Fractional 9/16" - 1" Taps & 1-7/16" & 1-13/16" Hex Dies

- Plastic storage case
- Contains one Tap and Hexagon Die in the following thread:

THREAD SIZES FRACTIONAL	
9/16"-12 NC	7/8"-9 NC
9/16"-18 NF	7/8"-14 NF
5/8"-11 NC	1"-8 NC
5/8"-18 NF	1"-14 NS
3/4"-10 NC	Pipe
3/4"-16 NF	1/4"-18 NPT
THREADING TOOLS	
Adj. Die Stock: 1-7/16" Hex Dies	
Adj. Die Stock: 1-13/16" Hex Dies	
Adj. Tap Wrench - Tap No. 1/4-1"	



Carbon Steel

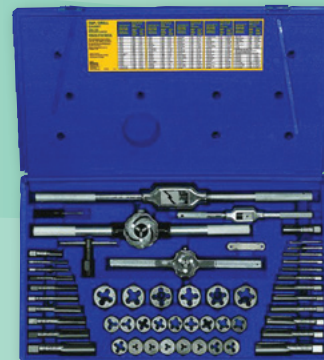
Republic
DRILL & CUTTING TOOLS

Order No. 777CB Price Each: \$129.00

41 Pieces #4 THRU 1/2" Taps & 5/8" & 1" Hex Dies

- Plastic storage case
- Contains one Tap and Hex Die in the following thread:

MACH. SCREW	THREAD SIZES FRACTIONAL	FRAC./PIPE
4-40 NC	1/4"-20 NC	7/16"-14 NC
6-32 NC	1/4"-28 NF	7/16"-20 NF
8-32 NC	5/16"-18 NC	1/2"-13 NC
10-24 NC	5/16"-24 NF	1/2"-20 NF
10-32 NF	3/8"-16 NC	Pipe
12-24 NC	3/8"-24 NF	1/8"-27 NPT
THREADING TOOLS		
Adj. Die Stock- 1"Dies /Plain Die Stock 5/8" Hex Dies		
Adj. Tap Wrench- Taps No. 0 to 1/4"		
2-in-1 Tap Wrench- 1/4" to 1/2"		
18-Leaf Std. Thread Pitch Gauge		



Carbon Steel

IRWIN HANSON.

Order No. 2591-593 Price Each: \$811.58

53 Pieces #6 THRU 3/4" Taps & 1" & 1-7/16" Hex Dies

- Plastic storage case
- Contains one Tap and Hexagon Die in the following thread:

MACH. SCREW	THREAD SIZES FRACTIONAL	FRAC./PIPE
6-32 NC	1/4"-20 NC	9/16"-12 NC
8-32 NC	1/4"-28 NF	9/16"-18 NF
10-24 NC	5/16"-18 NC	5/8"-11 NC
10-32 NF	5/16"-24 NF	5/8"-18 NF
12-24 NC	3/8"-16 NC	3/4"-10 NC
	3/8"-24 NF	3/4"-16 NF
	7/16"-14 NC	
	7/16"-20 NF	Pipe
	1/2"-13 NC	1/8"-27 NPT
	1/2"-20 NF	1/4"-18 NPT
THREADING TOOLS		
Adj. Die Stock- 1"Dies /Adj. Die Stock 1-7/16" Hex Dies		
T-Handle Wrench - Taps No. 0 to 1/4"		
(2) Adj. Tap Wrenches- Taps No. 0 to 1/2", 1/4"-1"		
18-Leaf Std. Thread Pitch Gauge		

Tap & Die Sets– Hex Dies– Metric

WARNING: This product contains Cobalt and/or Nickel and/or Lead a chemical known to the state of California to cause cancer or birth defects or other reproductive harm. For more information: www.prodds.ca.gov
WARNING: Cutting tools may shatter. Always wear approved safety glasses and mask when regrounding.

2



Carbon Steel

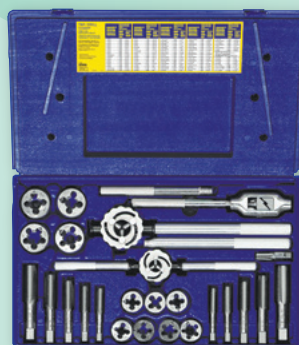
IRWIN HANSON.

Order No. 2591-520 Price Each: \$255.12

24 Pieces 3mm to 12mm Taps & 1" Hex Dies

- Plastic Storage Case Included
- Contains one Tap and Hex Die in the following thread:

THREAD SIZES FRACTIONAL	
3 mm - 0.50	9 mm - 1.25
4 mm - 0.70	10 mm - 1.50
5 mm - 0.80	12 mm - 1.50
6 mm - 1.00	12 mm - 1.75
7 mm - 1.00	Pipe
8 mm - 1.25	1/8"-28 BSP
THREADING TOOLS	
Plain Die Stock: 1" Dies	
Offset Adj. Tap Wrench - Taps No. 0 to 1/2"	



Carbon Steel

IRWIN HANSON.

Order No. 2591-592 Price Each: \$1011.20

25 Pieces 14mm to 24mm Taps & 1-7/16" & 1-13/16" Hex Dies

- Plastic Storage Case Included
- Contains one Tap and Hex Die in the following thread:

THREAD SIZES FRACTIONAL	
14 mm - 1.25	18 mm - 2.50
14 mm - 1.50	20 mm - 2.50
14 mm - 2.00	22 mm - 1.50
16 mm - 1.50	24 mm - 2.00
16 mm - 2.00	24 mm - 3.00
18 mm - 1.50	
THREADING TOOLS	
Adj. Die Stock: 1-7/16" Hex Dies	
Adj. Die Stock: 1-13/16" Hex Dies	
Adj. Handle Tap Wrench - Taps No. 1/4-1"	



Carbon Steel

IRWIN HANSON.

Order No. 2591-605 Price Each: \$436.68

41 Pieces 3mm to 12mm Taps & 5/8" & 1" Hex Dies

- Plastic Storage Case Included
- Contains one Tap and Hex Die in the following thread:

THREAD SIZES FRACTIONAL	
3 mm - 0.50	9 mm - 1.00
4 mm - 0.75	9 mm - 1.25
5 mm - 0.80	10 mm - 1.25
5 mm - 0.90	11 mm - 1.50
6 mm - 1.00	12 mm - 1.50
7 mm - 1.00	12 mm - 1.75
8 mm - 1.00	Pipe
8 mm - 1.25	1/8"-28 BSP
THREADING TOOLS	
Adj. Die Stock: 1" Dies	
Plain Die Stock: 5/8" Hex Dies	
Adj. Handle Tap Wrench - Taps No. 0 to 1/2"	
2-in-1 Tap Wrench- 1/4" to 1/2"	
16-Leaf Metric Thread Pitch Gauge	



Carbon Steel

IRWIN HANSON.

Order No. 2591-591 Price Each: \$436.68

41 Pieces Fractional/Metric Taps & 5/8" & 1" Hex Dies

- Plastic Storage Case Included
- Contains one Tap and Hex Die in the following thread:

THREAD SIZES MACH. SCREW/FRACTIONAL/METRIC		METRIC
6-32 NC	7/16"-14 NC	7 mm - 1.00
8-32 NC	1/2"-13 NC	8 mm - 1.25
10-24 NC	1/8"-27 NPT	10 mm - 1.25
Fractional	Metric	10 mm - 1.50
1/4"-20 NC	4 mm - 0.75	12 mm - 1.75
5/16"-18 NC	5 mm - 0.80	
3/8"-16 NC	6 mm - 1.00	
THREADING TOOLS		
Adj. Die Stock- 1" Dies / Plain Die Stock 5/8" Hex Dies		
Adj. Tap Wrench- Taps No. 0 to 1/2"		
T-handle Tap Wrench- Taps No. 0 to 1/4"		
2-in-1 Tap Wrench- Taps 1/4" to 1/2"		
Std. & Metric Thread Pitch Gauge		



Carbon Steel

IRWIN HANSON.

Order No. 2591-606 Price Each: \$874.78

53 Pieces 3mm to 18mm Taps & 1" & 1-7/16" Hex Dies

- Plastic Storage Case Included
- Contains one Tap and Hex Die in the following thread:

THREAD SIZES METRIC		
3 mm - 0.50	9 mm - 1.25	16 mm - 1.50
4 mm - 0.70	10 mm - 1.25	16 mm - 2.00
5 mm - 0.80	10 mm - 1.50	18 mm - 1.50
5 mm - 0.90	11 mm - 1.50	18 mm - 2.50
6 mm - 1.00	12 mm - 1.50	
7 mm - 1.00	12 mm - 1.75	Pipe
8 mm - 1.25	14 mm - 1.25	1/8"-28 BSP
9 mm - 1.00	14 mm - 2.00	1/4"-19 BSP
THREADING TOOLS		
Adj. Die Stock: 1" Dies / Adj. Die Stock: Hex Dies		
T-handle Wrench- Taps No. 0 to 1/4"		
T-handle Wrench- Taps No. 0 to 1/2"		
Adj. Handle Tap Wrench- Taps 1/4 to 1"		
16-Leaf Metric Thread Pitch Gauge		



Carbon Steel

IRWIN HANSON.

Order No. 2591-612 Price Each: \$1447.88

66 Pieces 3 mm to 24 mm Taps & 5/8", 1", 1-7/16", 1-13/16" Solid Round Dies

- Plastic Storage Case Included
- Contains one Tap and Hex Die in the following thread:

THREAD SIZES METRIC		
3 mm - 0.50	9 mm - 1.25	16 mm - 2.00
4 mm - 0.70	10 mm - 1.25	18 mm - 1.50
4 mm - 0.75	10 mm - 1.50	18 mm - 2.50
5 mm - 0.80	11 mm - 1.50	20 mm - 2.50
5 mm - 0.90	12 mm - 1.50	22 mm - 1.50
6 mm - 1.00	12 mm - 1.75	24 mm - 2.00
7 mm - 1.00	14 mm - 1.25	24 mm - 3.00
8 mm - 1.00	14 mm - 1.50	
8 mm - 1.25	14 mm - 2.00	Pipe
9 mm - 1.00	16 mm - 1.50	1/8"-28 BSP
THREADING TOOLS		
Adj. Die Stock - 1 Dies		
Adj. Die Stock - 1-7/16" Dies		
Adj. Die Stock - 1-3/16" Dies		
Plain Die Stock - 5/8" Hex Dies		
Adj. Handle Tap Wrench - Taps 0 to 1/2"		
Adj. Handle Tap Wrench - Taps 1/4" to 1"		
2-in-1 Tap Wrench - Taps 1/4" to 1/2"		
16 Leaf Metric Thread Pitch Gauge		

Extractors



Straight Flute Extractors



• Will not expand material being removed, resulting in easier removal ²

DESC.	DRILL TO USE	FOR SCREW & BOLT SIZES	ORDER NO.	PRICE EACH
ST-1	9/64"	3/16-5/16", 5-8mm, #10	2591-361	\$ 2.93
ST-2	3/16"	3/8", 10mm	2591-362	3.17
ST-3	15/64"	7/16" and 1/8" NPT, 10mm, 1/8" BSP	2591-363	3.24
ST-4	5/16"	1/2"-9/16" and 1/4" NPT, 12-14mm, 1/4" BSP	2591-364	3.92
ST-5	3/8"	5/8" and 3/8" NPT, 16mm, 3/8" BSP	2591-365	4.71
ST-6	15/32"	3/4" and 1/2" NPT, 20mm, 1/2" BSP	2591-366	10.45
ST-7	9/16"	7/8", 22mm, 5/8" BSP	2591-367	17.60
SETS				
5-pc. set		ST-1 - ST-5	2591-370	18.27
6-pc. set		ST-1 - ST-6	2591-372	24.34



Spiral Extractor & Drill Bit Combo Packs ²

MADE IN USA



10-piece Vinyl Pouch Set

DESCRIPTION	DRILL BITS
EX-1	5/64"
EX-2	7/64"
EX-3	5/32"
EX-4	1/4"
EX-5	19/64"
ORDER NO.	PRICE EACH
2591-398	\$ 48.23

10-piece Metal Index Set

DESCRIPTION	DRILL BITS
EX-1	5/64"
EX-2	7/64"
EX-3	5/32"
EX-4	1/4"
EX-5	19/64"
ORDER NO.	PRICE EACH
2591-399	\$ 128.03



10-Piece Extractor Set ³ Spiral Flute & Drill Bit

Set Includes:
Screw extractor sizes: No. 1 - 5
with left-hand spiral HS drill sizes:
5/64, 7/64, 5/32, 1/4, & 17/64.

Order No. 2591-250
Price Each \$18.05



Screw Extractors Spiral Flute



EXTR. NO.	DRILL TO USE	FOR SCREW & BOLT SIZES	FOR PIPE SIZES	ORDER NO.	PRICE EACH
1	5/64	3/16-1/4	. .	2591-210	\$ 1.34
2	7/64	1/4-5/16	. .	2591-212	1.58
3	5/32	5/16-7/16	. .	2591-214	1.68
4	1/4	7/16-9/16	. .	2591-216	1.94
5	17/64	9/16-3/4	1/8	2591-218	2.87
5-1/4	23/64	11/16-15/16	1/4	2591-220	4.08
6	13/32	3/4-1	. .	2591-222	5.45
6-3/8	31/64	15/16-1-1/8	3/8	2591-224	13.30
7	17/32	1-1-3/8	. .	2591-226	9.41
7-1/2	39/64	1-1/8-1-1/2	1/2	2591-228	14.68
8	13/16	1-3/8-1-3/4	3/4	2591-230	14.36
9	1-1/16	1-3/4-2-1/8	1	2591-232	20.79
10	1-5/16	2-1/8-2-1/2	1-1/4	2591-234	33.66
11	1-9/16	2-1/2-3	1-1/2	2591-236	48.51
12	1-15/16	3-3-1/2	2	2591-238	74.25



Screw Extractor Sets ³

Supplied In Plastic Case/Pouch

EXTRACTORS INCLUDED	ORDER NUMBER	PRICE EACH
1,2,3,4,5+	2591-245	\$ 5.43
1,2,3,4,5,6+	2591-246	8.84
6,7,8,9	2591-247	24.93
1,2,3,4,5,6,7,8,9	2591-248	29.59
4,5,6	2591-249	6.57



Spiral Flute Extractors



MADE IN USA



DESC.	DRILL TO USE	FOR SCREW & BOLT SIZES	ORDER NO.	PRICE EACH
EX-1	5/64"	3/32"- 5/32", 2.5mm-4mm, No. 3-6	2591-381	\$ 2.76
EX-2	7/64"	5/32"- 7/32", 4mm-6mm, No. 6-12	2591-382	2.93
EX-3	5/32"	7/32"- 9/32", 6mm-8mm, No. 12	2591-383	3.63
EX-4	1/4"	9/32"-3/8", 1/8" NPT, 1/8" BSP 8mm-10mm	2591-384	3.94
EX-5	19/64"	3/8"-5/8", 1/4" NPT, 1/4" BSP, 10mm-16mm	2591-385	4.73
EX-6	13/32"	5/8"-7/8", 3/8" NPT, 3/8" BSP, 16mm-22mm	2591-386	11.13
EX-7	17/32"	7/8" - 1-1/8", 1/2" NPT, 1/2" BSP, 22mm-27mm	2591-387	17.89
EX-8	13/16"	1-1/8" - 1-3/8", 3/4" NPT, 3/4" BSP, 27mm-36mm	2591-388	28.13
EX-9	1-1/16"	1-3/8" - 2", 1" NPT, 1" BSP, 1" BSP, 36mm - 52mm	2591-389	41.51
EX-10	1-5/16"	2-1/8" - 2-1/2", 1-1/4" NPT, 1-1/4" BSP, 52mm - 68mm	2591-390	57.63
EX-11	1-9/16"	2-1/2"-3", 1-1/2" NPT/BSP	2591-391	88.13
EX-12	1-15/16"	3"-3-1/2", 1-3/4" NPT/BSP	2591-392	67.50
SETS				
5-pc set:		EX-1 - EX-5	2591-395	19.41
6-pc set:		EX-1 - EX-6	2591-396	49.56

Extractors

IRWIN Bolt Extractors HANSON®

Fractional 9-piece Set [2]

REMOVES METRIC SIZE BOLTS	REMOVES FRACTIONAL SIZE BOLTS	DRIVE SIZE
—	1/4"	3/8"
8 mm	5/16"	3/8"
—	3/8"	3/8"
11 mm	7/16"	3/8"
—	1/2"	3/8"
14 mm	9/16"	3/8"
16 mm	5/8"	3/8"
—	11/16"	3/8"
19 mm	3/4"	1/2"



Order No. 2591-440 Price Each \$280.90

Individual Sizes

REMOVES METRIC BOLTS	REMOVES FRACTIONAL BOLTS	DRIVE SIZE	ORDER NO.	PRICE EACH
—	1/4"	3/8"	2591-421	\$11.26
—	3/8"	3/8"	2591-423	11.26
—	1/2"	3/8"	2591-427	11.91
13 mm	—	3/8"	2591-428	11.91
14 mm	9/16"	3/8"	2591-429	14.55
17 mm	—	3/8"	2591-431	16.57
—	11/16"	3/8"	2591-432	16.57
19 mm	3/4"	1/2"	2591-434	23.82
21 mm	13/16"	1/2"	2591-435	23.82
—	1"	1/2"	2591-438	23.82

- Reversal spiral flutes are designed to bite down to produce maximum gripping power
- High carbon steel ensures longer life and greater durability
- Universal lobular design fits all types of fasteners
- 3/8" square drive for use with hand ratchets, impact sockets and air ratchets; hex flats for use with flat wrench, adj. wrench, sockets, or VISE-GRIP locking pliers

IRWIN Hex Head Multi Spline HANSON®

- Aggressive left-hand spiral design provides extra gripping power
- Designed to remove broken studs, bolts, socket screws and fittings for high-torque applications
- Constructed of high-carbon steel for strength under stressful conditions
- Designed for use with socket or flat wrenches



10-pc set:
1/8" to 13/32"

[2]

DESC.	HEX HEAD SIZE	BOLT DIA.	REC. DRILL BIT DIA.	ORDER NO.	PRICE EACH
1/8"	1/2"	#12	1/8"	2591-451	\$ 7.06
5/32"	1/2"	1/4"	5/32"	2591-452	7.06
3/16"	1/2"	5/16"	3/16"	2591-453	7.06
7/32"	1/2"	3/8"	7/32"	2591-454	7.06
1/4"	1/2"	7/16"	1/4"	2591-455	7.06
9/32"	1/2"	1/2"	9/32"	2591-456	7.06
5/16"	1/2"	9/16"	5/16"	2591-457	7.06
11/32"	1/2"	5/8"	11/32"	2591-458	7.06
3/8"	1/2"	11/16"	3/8"	2591-459	7.06
13/32"	1/2"	3/4"	13/32"	2591-460	7.06

SETS

10-pc set:	1/8" to 13/32"	2591-480	81.31
15-pc set:	1/8" to 9/16"	2591-482	119.16
25-pc set:	1/8" to 7/8"	2591-484	209.26

IRWIN HANSON®

13- pc. Professionals Industrial Bolt Extractor Set

Order No. 2591-442
Price Each \$403.02



REMOVES METRIC SIZE BOLTS	REMOVES FRACTIONAL SIZE BOLTS	DRIVE SIZE
—	1/4"	3/8"
8 mm	5/16"	3/8"
—	3/8"	3/8"
10 mm	—	3/8"
11 mm	7/16"	3/8"
12 mm	—	3/8"
—	1/2"	3/8"
13 mm	—	3/8"
14 mm	9/16"	3/8"
16 mm	5/8"	3/8"
17 mm	—	3/8"
—	11/16"	3/8"
19 mm	3/4"	3/8"

IRWIN HANSON®

Lugnut Specialty Set

REMOVES METRIC BOLTS	REMOVES FRACTIONAL BOLTS	DRIVE SIZE
19 mm	3/4"	1/2"
21 mm	13/16"	1/2"
22 mm	7/8"	1/2"
24 mm	15/16"	1/2"
—	1"	1/2"



Order No. 2591-444 Price Each \$274.77

WALTON REPS- Pipe, Stud, & Screw Extractors



- Four point grip, which assures strong bite
- Shallow grip which lessens expansion and jamming
- Instant release from bite after job is completed
- Rust-resistant black oxide finish

With REPS extractors on hand, you are assured that expensive machinery will not be damaged by makeshift methods of removing broken pipes and studs. REPS extractors work by pulling, rather than reaming, and are designed for strength, durability, and easy handling.

Individual Sizes

Standard extractors are for right-hand pipe & studs.
Left hand available upon request.

[6]

EXTRACTOR NO.	FOR PIPE SIZES	FOR SCREW OR STUD SIZES	ORDER NO.	PRICE EACH
1	1/8"	3/8"	3153-001	\$ 10.83
2	1/4"	1/2"	3153-002	17.30
3	3/8"	5/8" or 3/4"	3153-003	19.90
4	1/2"	—	3153-004	24.20
10	—	7/8" or 1"	3153-010	29.90
5	3/4"	1-1/8" or 1-1/4"	3153-005	33.90
6	1"	1-1/2" or 1-3/4"	3153-006	45.20
7	1-1/4"	2"	3153-007	63.80
8	1-1/2"	2-1/4" or 2-1/2"	3153-008	105.00
9	2"	3" or 3-1/2"	3153-009	169.85

Sets

MFG. NO.	EXTRACTORS INCLUDED	ORDER NUMBER	PRICE EACH
205	1,2,3,4,5	3153-705	\$126.65
206	1,2,3,4,5,6	3153-706	172.00
207	1,2,3,4,10,5,6	3153-707	201.85
210	1 each all 10	3153-710	567.45





Tap Extractors for Machine Screw and Hand Taps

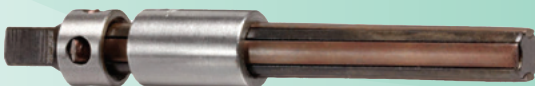


WARNING: This product contains Cobalt and/or Nickel and/or Lead a chemical known to the state of California to cause cancer or birth defects or other reproductive harm. For more information: www.prepd5.ca.gov
WARNING: Cutting tools may shatter. Always wear approved safety glasses and mask when regrinding.

WALTON TAP EXTRACTOR SIZE	COMPLETE TAP EXTRACTOR					EXTRA FINGERS				EXTRA COLLAR OR SLEEVE HOLDER (EACH)		
	6-FLUTE	4-FLUTE	3-FLUTE	2-FLUTE	NET PRICE EACH	6-FLUTE	4-FLUTE	3-FLUTE	2-FLUTE	NET PRICE EACH		
#4 (3mm)	-	-	3149-304	3149-204	\$19.00	-	-	3150-304	3150-204	\$0.77		
#5 (1/8") (3.2mm)	-	-	3149-305	3149-205	19.00	-	-	3150-305	3150-205	0.77		
#6 (3.5mm)	-	3149-406	3149-306	3149-206	19.00	-	3150-406	3150-306	3150-206	0.77		
#8 (4mm)	-	3149-408	3149-308	3149-208	19.00	-	3150-408	3150-308	3150-208	0.77		
#10 (3/16") (5mm)	-	3149-410	3149-310	3149-210	19.00	-	3150-410	3150-310	3150-210	1.10		
#12 (5.5mm)	-	3149-412	3149-312	3149-212	19.55	-	3150-412	3150-312	3150-212	1.10		
1/4" (6mm)	-	3149-416	3149-316	3149-216	19.55	-	3150-416	3150-316	3150-216	1.35		
9/32" (7mm)	-	3149-418	-	-	19.55	-	3150-418	-	-	1.35		
5/16" (7mm, 8mm)	-	3149-420	3149-320	3149-220	20.45	-	3150-420	3150-320	3150-220	1.53		
11/32"	-	3149-422	-	-	20.45	-	3150-422	-	-	1.53	P.	P.
3/8" (9mm, 10mm)	-	3149-424	3149-324	3149-224	20.45	-	3150-424	3150-324	3150-224	1.53		
13/32" (10mm)	-	3149-426	-	-	21.45	-	3150-426	-	-	1.58	O.	O.
7/16" (11mm)	-	3149-428	3149-328	3149-228	21.45	-	3150-428	3150-328	3150-228	1.58		
1/2" (12mm)	-	3149-432	3149-332	3149-232	22.85	-	3150-432	3150-332	3150-232	1.98		
9/16" (14mm)	-	3149-436	3149-336	-	31.45	-	3150-436	3150-336	-	2.30	A.	A.
5/8" (16mm)	-	3149-440	3149-340	-	34.10	-	3150-440	3150-340	-	2.80		
11/16" (18mm)	-	3149-444	-	-	37.85	-	3150-444	-	-	2.80		
3/4" (18mm, 20mm)	-	3149-448	3149-348	-	43.95	-	3150-448	3150-348	-	3.27		
7/8" (22mm)	-	3149-456	3149-356	-	47.70	-	3150-456	3150-356	-	4.26		
1" (25mm)	-	3149-464	3149-364	-	53.55	-	3150-464	3150-364	-	4.26		
1-1/8" (28mm)	3149-672	3149-472	-	-	126.50	3150-672	3150-472	-	-	8.55		
1-1/4" (32mm)	3149-680	3149-480	-	-	144.40	3150-680	3150-480	-	-	10.20		
1-3/8" (35mm)	3149-688	3149-488	-	-	160.70	3150-688	3150-488	-	-	10.20		
1-1/2" (38mm)	3149-696	3149-496	-	-	181.15	3150-696	3150-496	-	-	11.95		

EDP Part Number shown indicates available flute style for each size. Parts are not interchangeable between flute styles. 4-Flute style supplied, unless otherwise specified.

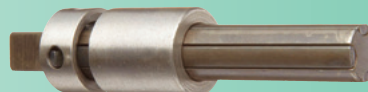
Tap Extractors for S.T.I. Taps



WALTON STI TAP EXTRACTOR SIZE	COMPLETE TAP EXTRACTOR				EXTRA FINGERS			
	4-FLUTE	3-FLUTE	2-FLUTE	NET PRICE EACH	4-FLUTE	3-FLUTE	2-FLUTE	NET PRICE EACH
#4	-	3151-304	3151-204	\$ 25.25	-	3152-304	3152-204	\$1.18
#5	-	3151-305	3151-205	25.25	-	3152-305	3152-205	1.18
#6	-	3151-306	3151-206	25.25	-	3152-306	3152-206	1.18
#8	-	3151-308	3151-208	25.25	-	3152-308	3152-208	1.71
#10	3151-110	3151-310	3151-210	25.25	3152-110	3152-310	3152-210	1.71
#12	-	3151-312	3151-212	25.25	-	3152-312	3152-212	1.71
1/4"	3151-116	3151-316	3151-216	26.55	3152-116	3152-316	3152-216	2.08
5/16"	3151-120	3151-320	-	27.10	3152-120	3152-320	-	2.08
3/8"	3151-124	3151-324	-	30.05	3152-124	3152-324	-	2.90
7/16"	3151-128	-	-	33.10	3152-128	-	-	3.25
1/2"	3151-132	-	-	35.70	3152-132	-	-	3.26
9/16"	3151-136	-	-	38.50	3152-136	-	-	3.51
5/8"	3151-140	-	-	40.00	3152-140	-	-	3.50

Designed specifically to remove broken HELICAL COIL WIRE SCREW THREAD INSERT (STI) Taps. Orders for Extractors and Extra Fingers must clearly state STI TAPS or TAPS FOR HELICAL COIL WIRE SCREW THREAD INSERTS and must specify 4-FLUTE, 3-FLUTE, OR 2-FLUTE.

Tap Extractors for Pipe Taps



WALTON PIPE TAP EXTRACTOR SIZE	COMPLETE TAP EXTRACTOR			EXTRA FINGERS		
	5-FLUTE	4-FLUTE	NET PRICE EACH	5-FLUTE	4-FLUTE	NET PRICE EACH
1/8"	3151-508	3151-408	\$ 27.35	3152-508	3152-408	\$2.02
1/4"	3151-516	3151-416	32.45	3152-516	3152-416	2.87
3/8"	3151-525	3151-424	39.70	3152-524	3152-424	3.54
1/2"	3151-532	3151-432	45.15	3152-532	3152-432	3.99
3/4"	3151-548	-	58.30	3152-548	-	5.08
1"	3151-564	-	69.40	3152-564	-	8.52

Designed specifically to remove broken Pipe Taps. Orders for Extractors and Extra Fingers must clearly state PIPE TAP and must specify 4-FLUTE or 5-FLUTE.

Tap Extensions

for Machine and Hand Tapping
8" OAL

Style B

TAP SIZE	EDP NO.	A	C	F	PRICE EACH
#0-#6	3154-106	5/16	.142	.255	\$46.85
#8	3154-108	3/8	.169	.255	50.65
#10 (3/16")	3154-110	3/8	.195	.255	53.70
#12	3154-112	7/16	.221	.255	55.20
1/4"	3154-116	7/16	.256	.381	57.95
5/16"	3154-120	1/2	.319	.381	61.00
3/8"	3154-124	5/8	.382	.367	66.95
7/16"	3154-128	5/8	.324	.381	26.75
1/2"	3154-132	5/8	.368	.381	73.00
SET NO. 9 3153-509 SET OF 9 EXTENSIONS ABOVE					
9/16"	3154-136	11/16	.430	.428	\$82.40
5/8"	3154-140	3/4	.481	.479	87.75
3/4"	3154-148	7/8	.591	.589	107.05
7/8"	3154-156	1-1/16	.698	.696	128.10
1"	3154-162	1-1/16	.801	.799	149.21

16th & sizes through 1-1/2: POA

Set No. 9 packed in a sturdy plastic case at no extra cost.

Tap Extensions

for Pipe Taps
8" OAL

Style B

PIPE TAP SIZE	EDP NO.	PRICE
1/16" & 1/8"	3154-200	\$114.20
1/8"	3154-208	121.95
1/4"	3154-216	129.60
3/8"	3154-224	139.95
1/2"	3154-232	155.15

Empty Plastic Set Case

Order No. 3154-410
Price Each...\$23.39

Spare Parts

for all Style "B"
Tap Extensions

HEX KEY SIZE	EDP NO.	PRICE
.050	3154-300	\$1.15
5/64"	3154-305	1.35
1/8"	3154-308	1.40
5/32"	3154-310	1.55

SET SCREW SIZE	EDP NO.	PRICE
#3-48 x 3/32"	3154-401	\$0.65
#8-36 x 1/8"	3154-402	0.60
1/4-28 x 3/16"	3154-403	0.60
5/16-24 x 1/4"	3154-404	0.75



6

Standard Sets

Set No. 1 3/16, 1/4, 5/16, 3/8, 7/16, 1/2 #3153-501.....	\$126.35
Set No. 2 1/4, 5/16, 3/8, 7/16, 1/2, 5/8 #3153-502.....	\$141.50
Set No. 3 5/16, 3/8, 7/16, 1/2, 9/16, 5/8 #3153-503.....	\$153.50
Set No. 11 1/8*, 3/16, 1/4, 5/16, 3/8, 7/16, 1/2, 5/8, 3/4, 7/8, 1 #3153-511.....	\$319.05
Set No. 13 4-5-6-8-10-12-1/4-5/16-3/8- 7/16-1/2-5/8-3/4 #3153-513.....	\$297.60
Set No. 15 4-5-6-8-10-12-1/4-5/16-3/8- 7/16-1/2-5/8-3/4-7/8, 1 #3153-515.....	\$393.90

Sets packed in sturdy compartmented case at no extra cost. Refer to catalog #778 for sizes and flute styles in each standard set. May be specified in * other flute styles at same price.

Kits and Insert Packets



WARNING: This product contains Cobalt and/or Nickel and/or Lead a chemical known to the state of California to cause cancer or birth defects or other reproductive harm. For more information: www.prop65.ca.gov.
WARNING: Cutting tools may shatter. Always wear approved safety glasses and mask when regrinding.

The Recoil System...

- Provides stronger and more efficient threads.
- Creates superior threads with greater holding power.
- Is quick and easy to use.
- Is the simple way to repair stripped or damaged threads.
- Saves time and money.
- Is suitable for new applications requiring strong threads.
- Is ideal for alloys and other light materials.
- Simplifies changeover from imperial to metric, & vice versa.
- Installed inserts meet current military & aviation standards.
- Inserts are interchangeable with other brands of helically wound inserts.

- Inserts are manufactured from type 304 (18-8) stainless steel.
- Inserts are available to meet the following military standards and specifications: MS 122076 series, MS 124651 series, MS 21209, MIL-1-8846, SBAC standards, DTD-734, Defense Standards, on request.

The Recoil system consists of Recoil stainless steel helically wound precision inserts, high-quality HSS taps and installation tools. Inserts are available in both free-running or locking types in a wide range of imperial, metric and spark plug sizes.

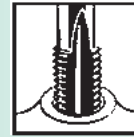
How Recoil Works...

Drill...



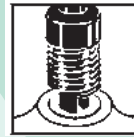
Drill to clear out the damaged thread (if necessary).

Tap ...



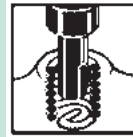
Thread insert tap supplied. Tap thread should match up with bolt.

Install...



Wind insert in with light downward pressure until 1/4 to 1/2 turn below surface, driving tang towards bottom of hole.

Tang Removal...



Remove tool and sit back on top of tang. Tap down sharply. Do not try to twist tang off. Sparkplug and fine threads, use long nose pliers and pull tang out.



Recoil Threaded Inserts

Recoil repair kits consist of high quality taps, drills, insertion tool, inserts and instructions.

Kits



Insert Packets



Metric Threaded Insert Kits



Metric Threaded Insert Packets



REPAIR KIT SIZE	ORDER NO.	PRICE EACH
2-56UNC	3536-070	\$48.15
3-48UNC	3536-080	76.20
3-56UNF	3536-090	44.25
4-40UNC	3536-100	46.10
4-48UNF	3536-105	75.00
5-40UNC	3536-108	78.95
6-32UNC	3536-110	41.30
6-40UNF	3536-115	83.45
8-32UNC	3536-120	41.60
8-36UNF	3536-125	94.15
10-24UNC	3536-130	43.75
10-32UNF	3536-138	48.30
12-24UNC	3536-148	100.50
1/4-20UNC	3536-158	36.55
1/4-28UNF	3536-166	48.75
5/16-18UNC	3536-186	47.75
5/16-24UNF	3536-192	50.10
3/8-16UNC	3536-212	52.30
3/8-24UNF	3536-220	55.35
7/16-14UNC	3536-240	54.65
7/16-20UNF	3536-246	57.50
1/2-13UNC	3536-266	69.65
1/2-20UNF	3536-273	70.00
9/16-12UNC	3536-280	81.25
9/16-18UNF	3536-283	91.70
5/8-11UNC	3536-293	93.85
5/8-18UNF	3536-296	99.25
3/4-16UNF	3536-300	113.70
3/4-10UNC	3536-303	114.45
7/8-9UNC	3536-305	186.75
7/8-14UNF	3536-306	215.20
1-8UNC	3536-308	234.95
1-12UNF	3536-309	279.35
1-14UNF	3536-310	276.65
1-1/8-7UNC	3536-312	636.35
1-1/8-12UNF	3536-313	435.75
1-1/4-7UNC	3536-315	443.80
1-1/4-12UNF	3536-316	305.40
1-3/8-6UNC	3536-318	329.65
1-3/8-12UNF	3536-319	1317.75
1-1/2-6UNC	3536-321	503.25
1-1/2-12UNF	3536-322	719.90

PACKET SIZE	ORDER NO.	PKG. QTY.	PRICE P/PKG.
2-56 x 1.5D	3536-390	10	\$7.85
3-48 x 1.5D	3536-393	10	7.85
4-40 x 1.5D	3536-400	10	7.35
4-48 x 1.5D	3536-403	10	4.80
5-40 x 1.5D	3536-407	10	7.35
6-32 x 1.5D	3536-410	10	7.35
6-40 x 1.5D	3536-415	10	4.80
8-32 x 1.5D	3536-420	10	7.35
8-36 x 1.5D	3536-423	10	7.35
10-24 x 1.5D	3536-427	10	7.35
10-32 x 1.5D	3536-430	10	7.35
1/4-20 x 1.5D	3536-434	10	7.35
12-24 x 1.5D	3536-435	10	9.85
1/4-28 x 1.5D	3536-438	10	7.35
5/16-18 x 1.5D	3536-458	10	8.20
5/16-24 x 1.5D	3536-466	10	9.70
3/8-16 x 1.5D	3536-486	10	9.70
3/8-24 x 1.5D	3536-492	10	11.45
7/16-14 x 1.5D	3536-512	10	10.75
7/16-20 x 1.5D	3536-520	10	10.75
1/2-13 x 1.5D	3536-540	10	15.75
1/2-20 x 1.5D	3536-546	10	15.75
9/16-12 x 1.5D	3536-556	5	14.75
9/16-18 x 1.5D	3536-558	5	14.75
5/8-11 x 1.5D	3536-566	5	18.85
5/8-18 x 1.5D	3536-570	5	18.85
3/4-10 x 1.5D	3536-573	5	27.45
3/4-16 x 1.5D	3536-593	5	27.45
7/8-9 x 1.5D	3536-597	3	21.90
7/8-14 x 1.5D	3536-599	3	21.90
1-8 x 1.5D	3536-601	3	28.75
1-12 x 1.5D	3536-602	3	28.75
1-14 x 1.5D	3536-603	3	28.75
1-1/8-7 x 1.5D	3536-610	1	7.80
1-1/8-12 x 1.5D	3536-611	1	7.80
1-1/2-12 x 1.5D	3536-612	1	10.20
1-1/4-7 x 1.5D	3536-614	1	8.70
1-1/4-12 x 1.5D	3536-615	1	8.70
1-3/8-6 x 1.5D	3536-617	1	9.70
1-3/8-12 x 1.5D	3536-618	1	9.70
1-1/2-6 x 1.5D	3536-620	1	11.75

Spark plug kits include a pilot nose tap which guides and cuts the larger size, ensuring accurate alignment. No drilling is required.

SIZE	ORDER NO.	PRICE EACH
M3 x 0.50	3536-335	\$70.55
M4 x 0.70	3536-339	49.15
M5 x 0.80	3536-341	48.60
M6 x 1.00	3536-343	49.05
M8 x 1.00	3536-351	85.00
M8 x 1.25	3536-353	50.40
M10 x 1.25	3536-361	71.70
M10 x 1.50	3536-363	55.45
M12 x 1.25	3536-369	77.15
M12 x 1.50	3536-371	77.15
M12 x 1.75	3536-373	68.20
SPARK PLUG KITS		
M10 x 1.00	3536-359	\$87.75
M12 x 1.25	3536-325	96.50
M14 x 1.25	3536-323	125.65
M18 x 1.50	3536-324	135.90

SIZE	ORDER NO.	PKG. QTY.	PRICE P/PKG.
M 3 x 0.50 x 1.5D	3536-621	10	\$ 6.25
M 4 x 0.70 x 1.5D	3536-622	10	6.25
M 5 x 0.80 x 1.5D	3536-624	10	6.25
M 6 x 1.00 x 1.5D	3536-623	10	7.35
M 8 x 1.00 x 1.5D	3536-631	10	9.70
M 8 x 1.25 x 1.5D	3536-633	10	9.70
M10 x 1.00 x 1.5D	3536-637	10	10.40
M10 x 1.25 x 1.5D	3536-641	10	10.40
M10 x 1.50 x 1.5D	3536-643	10	10.40
M12 x 1.25 x 1.5D	3536-647	10	12.70
M12 x 1.50 x 1.5D	3536-651	10	12.70
M12 x 1.75 x 1.5D	3536-653	10	12.70
SPARK PLUG THREADED INSERT PACKETS			
M10 x 1.00 x 1/2	3536-640	10	\$10.20
M12 x 1.25 x 1/2	3536-649	10	12.65
M12 x 1.25 x 3/4	3536-650	10	12.70
M14 x 1.25 x 3/8	3536-663	10	10.20
M14 x 1.25 x 1/2	3536-664	10	12.70
M14 x 1.25 x 3/4	3536-665	10	18.50
M18 x 1.50 x 1/2	3536-683	10	10.20

Recoil Range Kits

SIZE	ORDER NO.	PRICE EACH
UNC 1/4-1/2	3536-700	\$257.55
UNF 1/4-1/2	3536-701	257.55
M5X .8-12 X 1.75	3536-702	257.85



Keyserts & Installation Tools

2



The Solid Alternative for Thread Repair

Keyserts are solid, one-piece, key-locking inserts used to repair damaged threads for use in original equipment. The keysert locking keys provide a positive mechanical lock which prevents rotation due to vibration or torsion.

FEATURES:

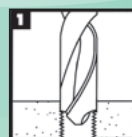
- Installed with standard drills and taps • Easy installation
- May be used in many materials; aluminum, magnesium, and cold rolled steel
- Easy to remove

Heavy Duty Keyserts - Inch Sizes - Carbon Steel

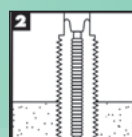
I.D. INT. THREAD	TAP DRILL SIZE	O.D. EXT. THREAD	LENGTH	CARBON STEEL		INSTALLATION	
				INSERT PART NO.	PRICE EACH	TOOL PART NO.	PRICE EACH
8-32	I	5/16-18	0.31	3536-808	\$1.40	3537-308	\$24.12
10-24	Q	3/8-16	0.31	3536-810	1.40	3537-310	20.36
10-32	Q	3/8-16	0.31	3536-811	1.40		
5/16-18	29/64	1/2-13	0.43	3536-820	1.90	3537-320	22.40
5/16-24	29/64	1/2-13	0.43	3536-821	1.90	3537-324	20.36
3/8-16	33/64	9/16-12	0.50	3536-824	2.04		
1/2-13	45/64	3/4-16	0.62	3536-832	3.10	3537-332	24.40
9/16-12	45/64	3/4-16	0.81	3536-836	3.14		
5/8-18	53/64	7/8-14	0.87	3536-841	3.84	3537-340	24.40
1-8	15/16	13/8-12	1.37	-	-	3537-364 (1" KEYSERT INSTALL TOOL)	28.86
1-12	15/16	13/8-12	1.37	-	-		
1-14	15/16	13/8-12	1.37	-	-		



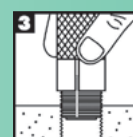
Installation



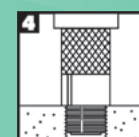
Drill out old threads w/std. drill. Chamfer hole w/standard countersink (82-100").



Tap new threads with a std. tap.

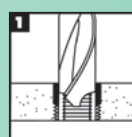


Screw in the insert until slightly below the surface.

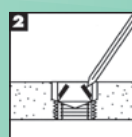


Drive keys down with several hammer taps on the proper installation tool.

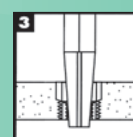
Removal



Drill out material between keys and internal thread with std. drill to spec. depth.



Deflect keys inward and break off.



Remove using an E-Z out or similar type tool.



Same size replacement insert may be installed in the original hole.

Important Note:
Keyserts are not recommended for use in brittle materials, like cast iron or plastic

Thin Wall Keyserts - Inch Sizes - Carbon Steel

I.D. INT. THREAD	TAP DRILL SIZE	O.D. EXT. THREAD	LENGTH	CARBON STEEL		INSTALLATION	
				INSERT PART NO.	PRICE EACH	TOOL PART NO.	PRICE EACH
1/4-28	Q	3/8-16	0.37	3536-917	\$1.40	3537-316	\$18.64
5/16-18	X	7/16-14	0.43	3536-920	1.86	3537-320	22.40
3/8-16	29/64	1/2-13	0.50	3536-924	2.02	3537-324	20.36
7/16-14	33/64	9/16-12	0.56	3536-928	2.52		
1/2-13	37/64	5/8-11	0.62	3536-932	3.00	3537-332	24.40

Thin Wall Keyserts - Metric Sizes - Carbon Steel

I.D. INTERNAL TAP DRILL	O.D. EXT. THREAD	LENGTH	CARBON STEEL		INSTALLATION	
			INSERT PART NO.	PRICE EACH	TOOL PART NO.	PRICE EACH
M5-0.8	M8-1.25	6.90	3537-058	\$1.78	3537-310	\$20.36
M10-1.5	M14-1.5	12.80	3537-105	2.14	3537-324	20.36

Thread Restorers

WARNING: This product contains Cobalt and/or Nickel and/or Lead a chemical known to the state of California to cause cancer or birth defects or other reproductive harm. For more information: www.prodds.ca.gov.
WARNING: Cutting tools may shatter. Always wear approved safety glasses and mask when regrinding.

Thread Restorers

Battered Bolt Or Pipe Threads Restored Quickly Without Changing Fit

A few easy passes with the appropriate THREAD RESTORER over damaged threads will restore the thread without reducing the diameter. Since only the displaced metal is removed the original fit is preserved. Any bolt or pipe of the corresponding thread regardless of diameter may be repaired instantly.



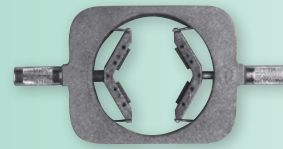
1

FOR	TOOL NO.	THREAD SIZES ON EACH TOOL	ORDER NO.	PRICE EACH
BOLTS	1-NU	11, 12, 13, 14, 16, 18, 20 & 24	2591-075	\$ 9.50
	2-NU	9, 10, 12, 16, 20, 27, 28 & 32	2591-077	9.50
PIPE - EXTERNAL	5-NU	8, 10, 11-1/2 & 14	2591-081	27.30
	7-NU	8 & 11-1/2	2591-085	9.50
PIPE - INTERNAL	6-NU	8, 10	2591-083	18.07
METRIC	8-NU	0.75mm, 1.00mm, 1.25mm, 1.50mm 1.75mm, 2.00mm, 2.50mm, 3.00mm	2591-087	9.50
SINGLE PITCH EXTERNAL BOLTS AND PIPE	10-NU	10	2591-089	18.30
	11-NU	11	2591-091	18.30
	12-NU	12	2591-093	18.30
	13-NU	13	2591-095	18.30
	14-NU	14	2591-097	18.30
	16-NU	16	2591-099	18.30
	18-NU	18	2591-101	18.30
	20-NU	20	2591-103	18.30
	24-NU	24	2591-105	18.30
	27-NU	27	2591-107	18.30
	28-NU	28	2591-109	18.30
	32-NU	32	2591-111	18.30

Buckingham Thread Restorers



Model 6103



Model 62070

Just one tool, with the standard set of die blades, handles SAE, USS, NPT or Metric type threads in any pitch from 6 to 28 threads to the inch - right or left hand threads - in any outside diameter within its specified limits, all without changing a die.

Model 6103 - Automatically adjusts to SAE, USS, NPT and metric threads with pitches of 6 to 28 per inch and right or left handed threading. Has an outside diameter capacity of 1/4" to 1".

Model 6203 - Outside diameter capacity of 1/4" to 1". Has maximum handle swing of 3 in. for work in closely confined areas. For such applications as cylinder head studs, "U" bolts, wheel lugs, etc.

Model 62070 - Has a plain guide die blade which allows dies to pass over key ways and milled flats on threaded parts. Outside diameter capacity of 4" - 6".

Model 62040 - Outside dia. capacity of 1" to 29/16". Same general design as 62070.

Model 61060 - Outside dia. capacity of 1-3/4" to 4". Same general design as 62070.

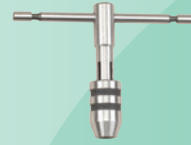
Model 63060 - For sanitary application (dairy & plumbing industry).

1

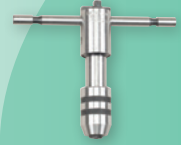
MODEL	WEIGHT	OUTSIDE DIA. CAPACITY	MAX. HANDLE SWING	WORKING DIST. FROM SHLDRS.	ORDER NO.	PRICE EACH
6103	1 lb., .50 kg	1/4"-1" (6-25mm)	7" (18cm)	1/2" (13mm)	2591-060	\$132.40
6203	1-1/4 lb., .52 kg	1/4"-1" (6-25mm)	3" (8cm)	1/2" (13mm)	2591-061	260.40
62040	2-3/4 lb., 1.24 kg	1"-2-9/16" (25-62mm)	5-1/4" (13cm)	5/16" (8mm)	2591-062	326.60
61060	3-3/4 lb., 1.69 kg	1-3/4"-4" (44.5-102mm)	7" (18cm)	5/16" (8mm)	2591-063	407.70
62070	4-1/2 lb., 2.02 kg	4"-6" (102-152mm)	8" (20cm)	5/16" (8mm)	2591-064	468.50
63060	3-3/4 lb., 1.69 kg	1-3/4"-4" (44.5-102mm)	7" (18cm)	5/16" (8mm)	2591-066	184.65

Tap & Die Accessories

T-Handle Tap Wrenches



GENERAL



WARNING: This product contains Cobalt and/or Nickel and/or Lead a chemical known to the state of California to cause cancer or birth defects or other reproductive harm. For more information: www.pro65.ca.gov. **WARNING:** Cutting tools may shatter. Always wear approved safety glasses and mask when regrinding.

FRACTIONAL TAPS	MACHINE SCREW TAPS	STANDARD TYPE		PRECISION TYPE	
		ORDER NO.	PRICE EACH	ORDER NO.	PRICE EACH
Slip Handle 1/16 to 5/32 5/32 to 1/4 1/4 to 1/2	0 to 8 0 to 14 12 to 14	2591-168 2591-172 2591-173	\$2.95 7.15 11.38	2591-169 2591-170 2591-171	\$ 4.10 5.20 7.60
Ratchet Type 1/16 to 5/32 5/32 to 1/4 1/4 to 1/2 5/32 to 1/4 (13" OAL) 1/4 to 1/2 (13" OAL)	0 to 14 12 to 14	— — — — —	— — — — —	2591-167 2591-176 2591-177 2591-165 2591-166	12.71 14.24 26.10 29.12 24.70
Long Slip Handle 5/32 to 1/4 (13" OAL) 1/4 to 1/2 (13" OAL)	0 to 14 12 to 14	— —	— —	2591-174 2591-175	21.71 30.29

PLAIN TAP WRENCHES

- No. 163 has rigid T-handle.
- Nos. 164 and 166 have sliding T-handle for fitting into tight spaces with greater leverage.

8

TAP CAPACITY MODEL (NOS. AND INCHES)		LENGTH	ORDER NO.	PRICE
PLAIN TYPE				
163	No. 0 to No. 8 (1.6 to 4mm)	2-1/4"	6931-212	\$14.62
164	No. 0 to 1/4" (1.6 to 6.3mm)	2-3/4"	6931-215	16.11
166	No. 12 to 1/2" (6 to 12.5mm)	3-3/4"	6931-218	19.40
RATCHET TYPE				
160R	No. 0 to No. 8 (1.6 to 4mm)	2-3/4"	6931-200	\$40.49
161R	No. 0 to No. 1/4" (1.6 to 6.3mm)	3-1/2"	6931-203	40.53
162R	No. 12 to 1/2" (6 to 12.5mm)	4-1/4"	6931-209	51.53

REVERSIBLE RATCHET TAP WRENCHES

- Ratchet can be set for right or left hand operation or locked for non ratchet use.
- Self centering hardened tool steel jaws and knurled chuck sleeve provide positive grip on taps, reamers, and small tools.
- Replacement jaws available; specify tool number.
- No. 161R conforms to government specifications GGG-W-680a.

Straight Tap Wrenches



3

CAPACITY - (TAP SIZES)					
OLD NO.	CAPACITY HAND REAMERS	FRACTIONAL TAPS	MACHINE SCREW TAPS	PIPE REAMERS	ORDER NO. PRICE EACH
0	1/8 to 21/64	1/16 to 1/4	0 to 14	—	2591-151 \$19.34
14	1/8 to 25/64	1/16 to 3/8	0 to 14	—	2591-152 26.00
15	11/64 to 7/16	5/32 to 1/2	7 to 14	1/8	2591-153 36.80
13	11/64 to 41/64	5/32 to 3/4	7 to 14	1/8 to 1/4	2591-154 36.80
7	9/32 to 29/32	1/4 to 1-1/8	—	1/8 to 3/4	2591-155 41.03
8	37/64 to 1-11/32	3/4 to 1-5/8	—	3/8 to 1-1/4	2591-157 122.68
22	7/8 to 1-1/8	1 to 2-1/2	—	3/4 to 2	2591-159 159.25

Hex & Round Die Adapters



3

I.D.	ORDER NO.	PRICE EACH
13/16	2591-011	\$24.30
1	2591-012	24.30
1-5/16	2591-013†	7.50
1-1/2	2591-014	25.38
2	2591-015	26.46
2-1/2	2591-016	39.96
3	2591-017	58.50
3-1/2	2591-018†	25.85
6	2591-021†	58.35

ROUND		ORDER NO.	PRICE EACH
FROM	TO		
13/16	1-5/16	2591-001†	\$ 8.70
1	1-5/16	2591-002†	8.70
1-1/2	2-1/2	2591-006†	10.40
2-1/2	3	2591-007†	12.30

† Limited Quantities

3 Screw Type Die Stocks



3

O.D. OF DIE	ORDER NUMBER	PRICE EACH
5/8	2591-180	\$ 17.10
13/16	2591-181	17.10
1	2591-182	19.80
1-1/2	2591-185	30.60
2	2591-186	39.69
2-1/2	2591-188	55.08
3	2591-189	91.80
3-1/2	2591-190	33.85
4	2591-191	152.10
5	2591-192	247.50

Tap Extensions



3

	ORDER NO.	PRICE EACH
0 to 1/4 (7-3/4" OAL)	2591-178	\$12.87
12 to 1/2 (10-3/4" OAL)	2591-179	15.60

Die Holder



3

SIZE	SHANK DIAM.	BODY DIAM.	ORDER NO.	PRICE EACH
13/16	1/2	1-1/2	2591-145	\$26.10
1	1/2	1-1/2	2591-146	26.10
1-1/2	3/4	2	2591-147	39.60

Piloted Spindle Tapper - Imported

3

TAP SIZE CAPACITY	ORDER NO.	PRICE EACH
1/16-1/4	3109-925	\$15.60
1/4-1/2	3109-930	19.50

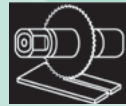


Plain Metal Slitting Saws

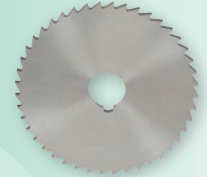
Hollow Ground –High Speed Steel ²

WARNING: This product contains Cobalt and/or Nickel and/or Lead a chemical known to the state of California to cause cancer or birth defects or other reproductive harm. For more information: www.pro65.ca.gov.
WARNING: Cutting tools may shatter. Always wear approved safety glasses and mask when regrinding.

DIA.	THICK- NESS	HOLE	Pittsburgh ORDER NO.	PRICE EACH	USA ORDER NO.	PRICE EACH	CLOSEOUT ORDER NO.	PRICE EACH
1-1/4	1/32	1/2	-	-	2755-282	\$18.83	-	-
1-1/4	1/16	1/2	-	-	2755-284	18.83	-	-
1-1/2	1/32	1/2	-	-	2755-302	23.40	2750-302	\$22.11
1-1/2	1/16	1/2	-	-	2755-304	23.40	-	-
1-1/2	3/32	1/2	-	-	2755-306	24.82	-	-
1-3/4	1/64	1/2	-	-	-	-	2750-501	8.13
1-3/4	1/32	1/2	2750-502	\$23.28	2755-502	27.08	-	-
1-3/4	3/64	1/2	-	-	-	-	2750-503	8.13
1-3/4	1/16	1/2	-	-	2755-504	27.08	2750-504	23.28
1-3/4	3/32	1/2	-	-	2755-506	27.95	2750-506	23.28
1-3/4	7/64	1/2	-	-	-	-	2750-507	8.13
1-3/4	1/8	1/2	-	-	2755-508	29.35	-	-
1-3/4	1/64	5/8	-	-	-	-	2750-701	8.13
1-3/4	3/64	5/8	-	-	-	-	2750-703	8.13
1-3/4	1/16	5/8	-	-	-	-	2750-704	8.13
1-3/4	3/32	5/8	-	-	-	-	2750-706	8.13
1-3/4	7/64	5/8	-	-	-	-	2750-707	8.13
1-3/4	1/8	5/8	-	-	-	-	2750-708	8.13
1-3/4	5/32	5/8	-	-	-	-	2750-710	8.13
1-3/4	3/16	5/8	-	-	-	-	2750-712	8.13
1-3/4	1/64	3/4	-	-	-	-	2750-901	8.13
1-3/4	1/32	3/4	-	-	-	-	2750-902	8.13
1-3/4	3/64	3/4	-	-	-	-	2750-903	8.13
1-3/4	1/16	3/4	-	-	-	-	2750-904	8.13
1-3/4	3/32	3/4	-	-	-	-	2750-906	8.13
1-3/4	7/64	3/4	-	-	-	-	2750-907	8.13
1-3/4	1/8	3/4	-	-	-	-	2750-908	8.13
1-3/4	5/32	3/4	-	-	-	-	2750-910	8.13
1-3/4	3/16	3/4	-	-	-	-	2750-912	8.13
1-3/4	1/64	1	-	-	-	-	2751-101	8.13
1-3/4	1/32	1	-	-	-	-	2751-102	8.13
1-3/4	3/64	1	-	-	-	-	2751-103	8.13
1-3/4	1/16	1	-	-	-	-	2751-104	8.13
1-3/4	3/32	1	-	-	-	-	2751-106	8.13
1-3/4	7/64	1	-	-	-	-	2751-107	8.13
1-3/4	1/8	1	-	-	-	-	2751-108	8.13
1-3/4	5/32	1	-	-	-	-	2751-110	8.13
1-3/4	3/16	1	-	-	-	-	2751-112	8.13
2	1/32	1/2	-	-	2756-302	29.35	-	-
2	1/16	1/2	2751-304	25.74	2756-304	29.35	-	-
2	3/32	1/2	2751-306	28.67	2756-306	32.47	-	-
2	1/8	1/2	2751-308	30.30	2756-308	33.85	-	-
2-1/4	1/64	3/4	-	-	-	-	2751-501	8.13
2-1/4	1/32	3/4	-	-	-	-	2751-502	8.13
2-1/4	3/64	3/4	-	-	-	-	2751-503	8.13
2-1/4	1/16	3/4	-	-	-	-	2751-504	8.13
2-1/4	3/32	3/4	-	-	-	-	2751-506	8.13
2-1/4	7/64	3/4	-	-	-	-	2751-507	8.13
2-1/4	1/8	3/4	-	-	-	-	2751-508	8.13
2-1/4	5/32	3/4	-	-	-	-	2751-510	8.13
2-1/4	3/16	3/4	-	-	-	-	2751-512	8.13
2-1/4	1/64	1	-	-	-	-	2751-701	8.13
2-1/4	1/32	1	-	-	-	-	2751-702	8.13
2-1/4	3/64	1	-	-	-	-	2751-703	8.13
2-1/4	1/16	1	-	-	-	-	2751-704	8.13
2-1/4	3/32	1	-	-	-	-	2751-706	8.13
2-1/4	7/64	1	-	-	-	-	2751-707	8.13
2-1/4	1/8	1	-	-	-	-	2751-708	8.13
2-1/4	5/32	1	-	-	-	-	2751-710	8.13
2-1/4	3/16	1	-	-	-	-	2751-712	8.13
2-1/2	1/32	1/2	-	-	-	-	2751-802	8.13
2-1/2	1/32	7/8	2751-902	33.23	2756-902	37.75	-	-
2-1/2	3/64	7/8	2751-903	33.23	2756-903	37.75	-	-
2-1/2	1/16	7/8	2751-904	33.23	2756-904	37.75	-	-
2-1/2	3/32	7/8	2751-906	33.23	2756-907	39.51	-	-
2-1/2	1/8	7/8	2751-908	36.27	2756-908	40.89	-	-
3	1/64	1	2752-201	42.16	-	-	-	-
3	1/32	1	2752-202	38.32	2757-202	43.59	-	-
3	3/64	1	2752-203	38.32	2757-203	43.59	-	-
3	1/16	1	2752-204	39.78	2757-204	44.97	-	-
3	5/64	1	2752-205	14.41	-	-	-	-
3	3/32	1	2752-206	39.78	2757-206	48.41	-	-
3	7/64	1	2752-207	39.78	-	-	-	-
3	1/8	1	2752-208	40.95	2757-208	49.37	-	-
3	9/64	1	2752-209	40.95	-	-	-	-
3	5/32	1	2752-210	43.24	2757-210	59.53	-	-



Used for medium, deep cutting, and cut off operations.



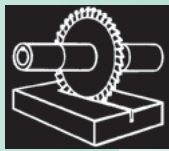
DIA.	THICK- NESS	HOLE	Pittsburgh ORDER NO.	PRICE EACH	USA ORDER NO.	PRICE EACH	CLOSEOUT ORDER NO.	PRICE EACH
3	11/64	1	-	-	-	-	2752-211	\$43.24
3	3/16	1	2752-212	\$43.24	-	-	-	-
3-1/2	1/32	1	-	-	2752-402	\$45.58	-	-
3-1/2	3/64	1	2752-403	45.58	-	-	-	-
3-1/2	1/16	1	2752-404	45.58	-	-	-	-
3-1/2	3/32	1	2752-406	45.58	-	-	-	-
3-1/2	5/32	1	-	-	2752-410	45.58	-	-
3-1/2	3/16	1	-	-	2752-412	45.58	-	-
4	1/64	1	2752-601	53.53	-	-	-	-
4	1/32	1	2752-602	53.53	2757-602	55.67	-	-
4	3/64	1	2752-603	54.41	2757-603	57.19	-	-
4	1/16	1	2752-604	55.17	2757-604	59.53	-	-
4	5/64	1	2752-605	55.17	-	-	-	-
4	3/32	1	2752-606	58.27	2757-606	64.73	-	-
4	7/64	1	2752-607	58.27	-	-	-	-
4	1/8	1	2752-608	61.54	2757-608	76.81	-	-
4	9/64	1	2752-609	63.88	-	-	-	-
4	5/32	1	2752-610	63.88	2757-610	97.65	-	-
4	11/64	1	-	-	-	-	2752-611	81.02
4	3/16	1	2752-612	67.51	2757-612	106.51	-	-
4-1/2	1/32	1	-	-	2752-902	72.62	-	-
4-1/2	3/64	1	-	-	2752-903	72.62	-	-
4-1/2	3/32	1	2752-906	78.30	-	-	-	-
4-1/2	1/8	1	2752-908	87.06	-	-	-	-
4-1/2	1/16	1	-	-	2752-904	72.62	-	-
4-1/2	5/32	1	-	-	-	-	2752-910	87.06
4-1/2	3/16	1	-	-	-	-	2752-912	19.93
5	3/64	1	2753-103	132.59	-	-	-	-
5	1/16	1	2753-104	81.32	2758-104	78.39	-	-
5	5/64	1	2753-105	26.73	-	-	-	-
5	3/32	1	2753-106	81.32	2758-106	91.76	-	-
5	7/64	1	2753-107	88.34	-	-	-	-
5	1/8	1	2753-108	88.34	2758-108	109.06	-	-
5	9/64	1	2753-109	91.56	-	-	-	-
5	5/32	1	2753-110	91.56	2758-110	137.13	-	-
5	3/16	1	2753-112	91.56	2758-112	143.33	-	-
5	1/16	1-1/4	2753-304	62.55	-	-	-	-
5	3/32	1-1/4	2753-306	115.00	-	-	-	-
5	1/8	1-1/4	2753-308	88.34	2758-308	109.06	-	-
5	5/32	1-1/4	2753-310	91.56	-	-	-	-
5	3/16	1-1/4	2753-312	91.56	-	-	-	-
6	3/64	1	2753-503	93.48	-	-	-	-
6	1/16	1	2753-504	93.48	-	-	-	-
6	5/64	1	2753-505	93.48	-	-	-	-
6	3/32	1	2753-506	107.06	-	-	-	-
6	7/64	1	2753-507	107.06	-	-	-	-
6	1/8	1	2753-508	110.40	-	-	-	-
6	9/64	1	2753-509	131.63	-	-	-	-
6	5/32	1	2753-510	131.63	-	-	-	-
6	3/16	1	2753-512	131.63	-	-	-	-
6	7/32	1	-	-	-	-	2753-514	32.70
6	5/16	1	-	-	-	-	2753-520	32.70
6	1/16	1-1/4	2753-704	93.48	-	-	-	-
6	3/32	1-1/4	2753-706	107.06	-	-	-	-
6	1/8	1-1/4	2753-708	110.40	-	-	-	-
6	5/32	1-1/4	2753-710	49.89	-	-	-	-
6	3/16	1-1/4	2753-712	131.63	-	-	-	-
6	7/32	1-1/4	-	-	-	-	2753-714	32.70
7	1/8	1	-	-	-	-	2754-008	114.74
8	1/8	1	2754-208	228.50	-	-	-	-
8	3/16	1	2754-212	272.61	-	-	-	-
8	5/64	1-1/4	-	-	-	-	2754-405	51.51
8	3/32	1-1/4	2754-406	87.45	-	-	-	-
8	1/8	1-1/4	2754-408	228.50	-	-	-	-
8	3/16	1-1/4	2754-412	272.61	-	-	-	-
8	7/32	1-1/4	-	-	-	-	2754-414	64.58
10	3/32	1-1/4	2754-906	381.60	-	-	-	-
10	1/8	1-1/4	2754-908	358.02	-	-	-	-
10	3/16	1-1/4	2754-912	409.50	-	-	-	-
10	1/4	1-1/4	2754-916	409.50	-	-	-	-
12	5/16	1-1/4	-	-	-	-	2755-220	102.50
12	3/8	1-1/4	-	-	-	-	2755-224	102.50

Metal Slitting Saws



WARNING: This product contains Cobalt and/or Nickel and/or Lead a chemical known to the state of California to cause cancer or birth defects or other reproductive harm. For more information: www.pro65.ca.gov.
WARNING: Cutting tools may shatter. Always wear approved safety glasses and mask when regrinding.

Side Chip - High Speed Steel

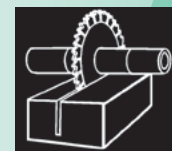


- For deep slotting & cut off operations

DIAM.	THICK-NESS	HOLE	SIDE CHIP ORDER NO.	PRICE EACH	ST'GD. TOOTH ORDER NO.	PRICE EACH
2-1/2	1/16	7/8	2781-041	\$56.66	-	-
2-1/2	3/32	7/8	2781-061	56.66	-	-
2-1/2	3/32	1	2781-062	56.66	-	-
2-1/2	1/8	7/8	2781-081	56.66	-	-
3	1/16	1	2782-041	76.46	-	-
3	5/64	1	2782-051	76.46	-	-
3	3/32	1	2782-061	76.46	-	-
3	7/64	1	2782-071	76.46	-	-
3	1/8	1	2782-081	76.46	2791-081	\$71.40
3	9/64	1	2782-091	84.24	-	-
3	5/32	1	2782-101	84.24	2791-101	71.40
3	11/64	1	2782-111†	88.13	-	-
3	3/16	1	2782-121	88.13	2791-121	72.94
3	7/32	1	-	-	2791-141	75.58
3	1/4	1	-	-	2791-161	75.58
4	1/16	1	2783-041	87.04	-	-
4	5/64	1	2783-051	97.20	-	-
4	3/32	1	2783-061	97.20	-	-
4	7/64	1	2783-071	97.20	-	-
4	1/8	1	2783-081	97.20	2792-081	95.88
4	9/64	1	2783-091	97.20	2792-091	100.80
4	5/32	1	2783-101	97.20	2792-101	100.80
4	11/64	1	2783-111†	103.68	2792-111	100.80
4	3/16	1	2783-121	103.68	2792-121	100.80
4	7/32	1	2783-141	103.68	2792-141	108.00
4	1/4	1	2783-161	103.68	2792-161	108.00
5	1/16	1	2784-041	116.64	-	-
5	3/32	1	2784-061	123.12	-	-
5	1/8	1	2784-081	123.12	2793-081	118.80
5	1/8	1-1/4	2784-082	123.12	-	-
5	5/32	1	2784-101	125.71	-	-
5	3/16	1	2784-121	132.19	2793-121	134.40
5	1/4	1	2784-161	165.89	2793-161	138.00
5	1/4	1-1/4	-	-	2793-162†	138.00
5	9/32	1	-	-	2793-181†	44.85
5	9/32	1-1/4	-	-	2793-182†	44.85
5	5/16	1	-	-	2793-201†	44.85

† Limited Quantities

Staggered Tooth - High Speed Steel



- For deep slotting & heavy duty cutting

DIAM.	THICK-NESS	HOLE	SIDE CHIP ORDER NO.	PRICE EACH	ST'GD. TOOTH ORDER NO.	PRICE EACH
6	1/16	1	2785-041	\$194.09	-	-
6	3/32	1	2785-061	154.22	-	-
6	1/8	1	2785-081	162.00	2794-080	\$162.00
6	1/8	1-1/4	2785-082	162.00	2794-081	162.00
6	9/64	1-1/4	2785-092†	207.36	-	-
6	5/32	1	2785-101	207.36	2794-101	167.88
6	5/32	1-1/4	2785-102†	207.36	-	-
6	3/16	1	2785-121	207.36	2794-121	182.40
6	3/16	1-1/4	2785-122	207.36	2794-122	182.40
6	1/4	1	2785-161	226.80	2794-161	186.00
6	1/4	1-1/4	-	-	2794-162	186.00
6	9/32	1	-	-	2794-181†	60.79
6	9/32	1-1/4	-	-	2794-182†	201.60
6	5/16	1	-	-	2794-201†	60.79
6	5/16	1-1/4	-	-	2794-202†	60.79
8	1/8	1	2786-081	356.40	-	-
8	1/8	1-1/4	2786-082	356.40	-	-
8	9/64	1-1/4	-	-	2795-091†	111.13
8	3/16	1	-	-	2795-121	342.00
8	3/16	1-1/4	2786-122	369.36	2795-122	342.00
8	7/32	1-1/4	2786-142†	103.24	2795-142†	114.98
8	1/4	1-1/4	2786-162†	421.20	2795-162	358.80
8	9/32	1-1/4	-	-	2795-182†	114.98
8	11/32	1-1/4	-	-	2795-222†	114.98
10	3/16	1-1/4	-	-	2796-121	744.00
10	7/32	1-1/4	2787-141†	203.37	-	-
10	1/4	1-1/4	-	-	2796-161	753.60
10	5/16	1-1/4	-	-	2796-201†	196.95
10	3/8	1-1/4	2787-241†	203.37	2796-241†	183.76
12	3/16	1-1/2	2788-122†	997.92	2797-121†	1386.00
12	1/4	1-1/4	2788-161†	997.92	-	-
12	5/16	1-1/4	2788-201†	871.28	-	-
12	5/16	1-1/2	2788-202†	871.28	2797-201†	1440.00
12	3/8	1-1/4	2788-241†	989.11	-	-
12	3/8	1-1/2	-	-	2797-241†	1008.90

Carbide Tipped Slitting Saws

Standard Tooth - General Purpose for Non-Ferrous Metals



Coarse Tooth - For Stainless, Non-Ferrous, Cast Iron, Steel

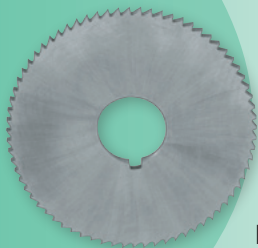


DIAM.	THICK-NESS	HOLE	NO. OF TEETH	ORDER NO.	PRICE EACH
3	5/32	1	12	3032-021†	\$76.88
4	5/64	1	14	3032-611†	85.38
4	5/32	1	14	3032-661†	96.30
4	3/16	1	14	3032-681†	100.50
5	3/32	1	16	3033-261†	108.00
5	3/16	1	16	3033-321†	127.88
5	3/16	1-1/4	16	3033-322†	127.88
6	3/64	1	18	3033-831†	89.90
6	1/16	1	18	3033-881†	94.50
6	1/16	1-1/4	18	3033-882†	94.50
6	3/32	1-1/4	18	3033-902†	122.50
6	5/32	1	18	3033-941†	139.86
6	3/16	1-1/4	18	3033-962†	147.25

† Limited Quantities

FOR STAINLESS STEEL					FOR NON-FERROUS				CAST IRON				STEEL	
FACE DIAM.	ARBORNO. OF WIDTH HOLE	TEETH	ORDER NO.	PRICE EACH	NO. OF TEETH	ORDER NO.	PRICE EACH	NO. OF TEETH	ORDER NO.	ORDER NO.	PRICE EACH			
3	3/32	1	8	3856-671	\$194.10	—	—	—	—	—	—			
3	1/8	1	8	3856-672	211.30	—	—	—	—	—	—			
3	3/16	1	8	3856-673	219.45	—	—	—	—	—	—			
4	3/32	1	10	3856-674	279.33	6	3856-501	\$222.97	—	—	—			
4	1/8	1	10	3856-675	283.00	6	3856-502	229.51	8	3856-026	271.53 \$271.53			
4	3/16	1	10	3856-676	286.75	6	3856-503	233.00	8	3856-027	292.62 292.62			
5	3/32	1	12	3856-677	398.00	—	—	—	—	—	—			
5	1/8	1	12	3856-678	406.30	—	—	—	—	—	—			
5	3/16	1	12	3856-679	422.50	—	—	—	—	—	—			
6	1/8	1-1/4	14	3856-680	453.44	8	3856-504	328.48	12	3856-028	472.23 472.23			
6	3/16	1-1/4	14	3856-681	465.25	—	—	—	12	3856-029	487.82 487.82			
6	1/4	1-1/4	14	3856-682	472.75	—	—	—	12	3856-030	498.34 498.34			
8	1/8	1-1/4	—	—	—	10	3856-505	440.20	—	—	—			
8	3/16	1-1/4	—	—	—	—	—	—	16	3856-031	671.29 671.29			
8	1/4	1-1/4	—	—	—	—	—	—	16	3856-032	696.98 696.98			

Screw Slotting Saws - High Speed Steel



For slotting screw heads and shallow cuts

THICK- DIA.	NESS HOLE	TEETH	Pittsburg ORDER NO.	PRICE EACH	USA ORDER NO.	PRICE EACH	CLOSEOUT ORDER NO.	PRICE EACH
1-3/4	.006	5/8	90	-	2763-110	\$ 25.44	-	-
1-3/4	.006	5/8	132	-	2763-111	25.46	-	-
1-3/4	.008	5/8	90	-	2763-114	23.65	2760-114	\$25.56
1-3/4	.008	5/8	132	-	2763-115	23.65	-	-
1-3/4	.010	5/8	90	-	2763-118	21.82	2760-118	24.01
1-3/4	.010	5/8	132	-	2763-119	21.80	-	-
1-3/4	.012	5/8	90	-	2763-120	21.13	-	-
1-3/4	.012	5/8	132	-	2763-122	21.13	-	-
1-3/4	.013	5/8	90	-	-	-	2760-124	26.68
1-3/4	.014	5/8	90	-	2763-126	19.53	2760-126	17.55
1-3/4	.014	5/8	132	-	2763-128	19.53	-	-
1-3/4	.016	5/8	90	-	2763-130	19.53	2760-130	17.13
1-3/4	.016	5/8	132	-	2763-132	19.53	-	-
1-3/4	.018	5/8	90	-	2763-134	18.42	2760-134	16.56
1-3/4	.018	5/8	132	-	2763-136	18.42	-	-
1-3/4	.020	5/8	90	2760-138	\$ 16.00	2763-138	17.78	-
1-3/4	.020	5/8	132	-	2763-140	17.78	-	-
1-3/4	.023	5/8	90	2760-144	16.00	2763-144	17.78	-
1-3/4	.023	5/8	132	-	2763-146	17.78	-	-
1-3/4	.025	5/8	90	2760-148	16.00	2763-148	17.78	-
1-3/4	.025	5/8	132	-	2763-150	17.78	-	-
1-3/4	.028	5/8	60	-	-	-	2760-154	3.33
1-3/4	.028	5/8	90	2760-156	16.00	2763-156	17.78	-
1-3/4	.028	5/8	132	-	2763-158	17.78	-	-
1-3/4	.032	5/8	90	2760-164	16.00	2763-164	18.01	-
1-3/4	.032	5/8	132	-	2763-166	18.01	-	-
1-3/4	.036	5/8	90	2760-172	16.56	2763-172	18.65	-
1-3/4	.036	5/8	132	-	2763-174	18.65	-	-
1-3/4	.040	5/8	90	2760-180	16.56	2763-180	18.65	-
1-3/4	.040	5/8	132	-	2763-182	18.65	-	-
1-3/4	.045	5/8	90	2760-190	16.56	2763-190	18.65	-
1-3/4	.045	5/8	132	-	2763-192	18.65	-	-
1-3/4	.051	5/8	90	2760-199	16.56	2763-199	18.65	-
1-3/4	.051	5/8	132	-	2763-201	18.65	-	-
1-3/4	.057	5/8	90	2760-211	17.55	2763-211	21.38	-
1-3/4	.057	5/8	132	-	2763-213	21.38	-	-
1-3/4	.064	5/8	90	2760-225	18.67	2763-225	21.80	-
1-3/4	.064	5/8	132	-	2763-227	21.80	-	-
1-3/4	.072	5/8	90	2760-232	18.67	-	-	-
2-1/4	.006	5/8	60	-	2763-391	30.81	2760-391	26.68
2-1/4	.006	5/8	132	-	2763-392	30.81	-	-
2-1/4	.008	5/8	60	-	2763-395	27.26	2760-395	26.68
2-1/4	.008	5/8	132	-	2763-397	27.26	-	-
2-1/4	.010	5/8	60	-	2763-399	23.65	2760-399	26.68
2-1/4	.010	5/8	132	-	2763-400	23.65	-	-
2-1/4	.012	5/8	60	-	2763-402	22.71	-	-
2-1/4	.012	5/8	132	-	2763-404	22.71	-	-
2-1/4	.013	5/8	60	-	-	-	2760-405	30.04
2-1/4	.014	5/8	60	-	2763-406	21.59	2760-406	25.42
2-1/4	.014	5/8	132	-	2763-408	21.59	-	-
2-1/4	.016	5/8	60	-	2763-410	20.91	2760-410	25.42
2-1/4	.016	5/8	132	-	2763-412	20.91	-	-
2-1/4	.018	5/8	60	-	2763-414	18.65	2760-414	21.06
2-1/4	.018	5/8	132	-	2763-416	18.65	-	-
2-1/4	.020	5/8	60	2760-418	21.06	2763-418	18.13	-
2-1/4	.020	5/8	132	-	2763-420	18.13	-	-
2-1/4	.023	5/8	60	2760-424	21.06	2763-424	18.13	-
2-1/4	.023	5/8	132	-	2763-426	18.13	-	-
2-1/4	.025	5/8	60	2760-428	21.06	2763-428	18.13	-
2-1/4	.025	5/8	132	-	2763-430	18.13	-	-
2-1/4	.028	5/8	60	2760-434	22.15	2763-434	18.13	-
2-1/4	.028	5/8	132	-	2763-436	18.13	-	-
2-1/4	.032	5/8	60	2760-438	19.94	2763-438	21.13	-
2-1/4	.032	5/8	132	-	2763-440	21.13	-	-
2-1/4	.036	5/8	60	2760-446	19.94	2763-446	21.13	-
2-1/4	.036	5/8	132	-	2763-448	21.13	-	-

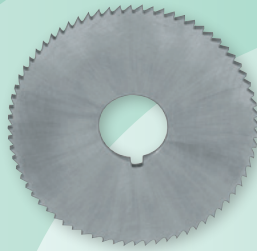
THICK- DIA.	NESS HOLE	TEETH	Pittsburg ORDER NO.	PRICE EACH	USA ORDER NO.	PRICE EACH	CLOSEOUT ORDER NO.	PRICE EACH
2-1/4	.040	5/8	60	2760-454	\$ 21.06	2763-454	\$ 21.13	-
2-1/4	.040	5/8	132	-	-	2763-456	21.13	-
2-1/4	.045	5/8	60	2760-464	22.20	2763-464	22.71	-
2-1/4	.045	5/8	132	-	-	2763-466	22.71	-
2-1/4	.051	5/8	60	2760-468	17.08	2763-468	22.71	-
2-1/4	.051	5/8	90	-	-	-	-	2760-465
2-1/4	.051	5/8	132	-	-	2763-470	22.71	-
2-1/4	.057	5/8	60	2760-475	22.18	2763-475	24.33	-
2-1/4	.057	5/8	132	-	-	2763-477	24.33	-
2-1/4	.064	5/8	60	2760-485	22.18	2763-485	24.33	-
2-1/4	.064	5/8	132	-	-	2763-487	24.33	-
2-1/4	.072	5/8	60	2760-495	22.18	2763-495	28.22	-
2-1/4	.081	5/8	60	2760-505	23.73	2763-505	29.48	-
2-1/4	.091	5/8	60	2760-515	25.56	2763-515	31.82	-
2-1/4	.102	5/8	60	2760-525	27.79	2763-525	34.03	-
2-1/4	.035	3/4	44	-	-	-	-	2760-625
2-1/4	.071	3/4	44	-	-	-	-	-
2-1/4	.064	3/4	60	-	-	-	-	2760-655
2-1/4	.081	3/4	44	-	-	-	-	2760-665
2-1/4	.102	3/4	44	-	-	-	-	2760-675
2-1/4	.128	3/4	44	-	-	-	-	2760-685
2-1/4	.182	3/4	56	-	-	-	-	2760-695
2-1/4	.016	1	44	-	-	-	-	2760-805
2-1/4	.025	1	44	-	-	-	-	2760-821
2-1/4	.144	1	44	-	-	-	-	2760-871
2-1/4	.162	1	44	-	-	-	-	2760-881
2-1/4	.182	1	44	-	-	-	-	2760-891
2-3/4	.006	1/2	72	-	-	-	-	2760-991
2-3/4	.008	1/2	72	-	-	-	-	2760-995
2-3/4	.010	1/2	72	-	-	-	-	2760-999
2-3/4	.013	1/2	72	-	-	-	-	2761-005
2-3/4	.014	1/2	72	-	-	-	-	2761-007
2-3/4	.018	1/2	72	-	-	-	-	2761-015
2-3/4	.020	1/2	72	-	-	-	-	2761-019
2-3/4	.023	1/2	72	-	-	-	-	2761-025
2-3/4	.025	1/2	72	-	-	-	-	2761-029
2-3/4	.028	1/2	72	-	-	-	-	2761-035
2-3/4	.036	1/2	72	-	-	-	-	2761-051
2-3/4	.040	1/2	72	-	-	-	-	2761-059
2-3/4	.045	1/2	72	-	-	-	-	2761-069
2-3/4	.051	1/2	72	-	-	-	-	2761-079
2-3/4	.057	1/2	72	-	-	-	-	2761-089
2-3/4	.064	1/2	72	-	-	-	-	2761-099
2-3/4	.010	5/8	72	-	-	-	-	2761-199
2-3/4	.013	5/8	72	-	-	-	-	2761-205
2-3/4	.014	5/8	72	-	-	-	-	2761-207
2-3/4	.018	5/8	72	-	-	-	-	2761-215
2-3/4	.020	5/8	72	-	-	-	-	2761-219
2-3/4	.023	5/8	72	-	-	-	-	2761-223
2-3/4	.025	5/8	72	-	-	-	-	2761-225
2-3/4	.028	5/8	72	-	-	-	-	2761-231
2-3/4	.036	5/8	72	-	-	-	-	2761-247
2-3/4	.040	5/8	72	-	-	-	-	2761-255
2-3/4	.064	5/8	72	-	-	-	-	2761-285
2-3/4	.006	3/4	72	-	-	2764-385	35.44	2761-385
2-3/4	.008	3/4	72	-	-	2764-389	30.81	2761-389
2-3/4	.010	3/4	72	-	-	2764-393	26.60	2761-393
2-3/4	.012	3/4	72	-	-	2764-395	24.99	-
2-3/4	.013	3/4	72	-	-	-	-	2761-399
2-3/4	.014	3/4	72	-	-	2764-401	23.65	2761-401
2-3/4	.016	3/4	72	-	-	2764-405	21.59	2761-405
2-3/4	.018	3/4	72	-	-	2764-409	20.91	2761-409
2-3/4	.020	3/4	72	2761-413	22.18	2764-413	18.65	-
2-3/4	.023	3/4	72	2761-419	22.18	2764-419	18.65	-
2-3/4	.025	3/4	72	2761-426	22.18	2764-426	18.65	-
2-3/4	.028	3/4	56	-	-	-	-	2764-432
2-3/4	.028	3/4	72	2761-436	22.18	2764-436	18.65	-
2-3/4	.032	3/4	56	-	-	-	-	2761-444
2-3/4	.032	3/4	72	2761-447	22.18	2764-447	21.80	-
2-3/4	.036	3/4	56	-	-	-	-	2761-455
2-3/4	.036	3/4	72	2761-458	22.18	2764-458	21.80	-

WARNING: This product contains Cobalt and/or Nickel and/or Lead a chemical known to the state of California to cause cancer or birth defects or other reproductive harm. For more information: www.pro65.ca.gov.
WARNING: Cutting tools may shatter. Always wear approved safety glasses and mask when regrounding.

2

Screw Slotting Saws, (Continued)

High Speed Steel



For slotting screw heads and shallow cuts

WARNING: This product contains Cobalt and/or Nickel and/or Lead a chemical known to the state of California to cause cancer or birth defects or other reproductive harm. For more information: www.prop65.ca.gov.
WARNING: Cutting tools may shatter. Always wear approved safety glasses and mask when regrinding.

2

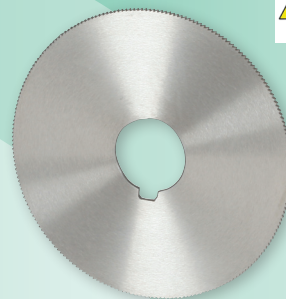
DIA.	THICK- NESS	HOLE	TEETH	Pittsburg ORDER NO.	PRICE EACH	USA ORDER NO.	PRICE EACH	CLOSEOUT ORDER NO.	PRICE EACH
2-3/4	.040	3/4	56	—	—	—	—	2764-466	\$ 5.27
2-3/4	.040	3/4	72	2761-469	\$ 22.18	2764-469	\$21.80	—	—
2-3/4	.045	3/4	56	—	—	—	—	2764-479	5.77
2-3/4	.045	3/4	72	2761-482	26.68	2764-482	23.86	—	—
2-3/4	.051	3/4	56	—	—	—	—	2761-492	5.56
2-3/4	.051	3/4	72	2761-497	26.68	2764-497	25.23	—	—
2-3/4	.057	3/4	56	—	—	—	—	2761-507	5.56
2-3/4	.057	3/4	72	2761-510	26.68	2764-510	26.57	—	—
2-3/4	.064	3/4	56	—	—	—	—	2761-520	26.68
2-3/4	.064	3/4	72	2761-523	26.68	2764-523	27.26	—	—
2-3/4	.072	3/4	72	2761-536	26.68	2764-536	29.35	—	—
2-3/4	.081	3/4	56	—	—	—	—	2764-546	7.24
2-3/4	.081	3/4	72	2761-549	31.03	2764-549	30.01	—	—
2-3/4	.091	3/4	56	—	—	—	—	2764-559	7.75
2-3/4	.091	3/4	72	2761-563	33.41	2764-563	32.09	—	—
2-3/4	.102	3/4	56	—	—	—	—	2764-573	8.57
2-3/4	.102	3/4	72	2761-576	35.10	2764-576	35.44	—	—
2-3/4	.114	3/4	56	—	—	—	—	2764-586	10.44
2-3/4	.114	3/4	72	2761-589	36.22	2764-589	43.22	—	—
2-3/4	.128	3/4	72	2761-602	36.22	2764-602	46.34	—	—
2-3/4	.162	3/4	56	—	—	—	—	2761-622	9.76
2-3/4	.162	3/4	72	2761-625	46.89	—	—	—	—
2-3/4	.182	3/4	72	2761-629	54.90	—	—	—	—
2-3/4	.006	1	72	—	—	2764-725	35.44	2761-725	42.82
2-3/4	.008	1	72	—	—	2764-729	30.81	2761-729	31.64
2-3/4	.010	1	72	—	—	2764-733	26.60	—	—
2-3/4	.013	1	72	—	—	—	—	2761-739	36.65
2-3/4	.014	1	72	—	—	2764-744	23.65	—	—
2-3/4	.016	1	72	—	—	2764-748	21.59	2761-748	32.15
2-3/4	.018	1	72	—	—	2764-752	20.91	—	—
2-3/4	.020	1	36	—	—	—	—	2761-754	4.64
2-3/4	.020	1	56	—	—	—	—	2761-756	8.69
2-3/4	.020	1	72	2761-759	22.18	2764-759	18.65	—	—
2-3/4	.023	1	56	2761-765	8.69	2764-765	18.65	—	—
2-3/4	.023	1	72	2761-769	22.18	2764-769	18.65	—	—
2-3/4	.025	1	44	—	—	—	—	2761-775	4.64
2-3/4	.025	1	56	2761-779	8.69	2764-779	18.65	—	—
2-3/4	.025	1	72	2761-782	22.18	2764-782	18.65	—	—
2-3/4	.028	1	56	2761-786	8.69	2764-786	18.65	—	—
2-3/4	.028	1	72	2761-789	22.18	2764-789	18.65	—	—
2-3/4	.032	1	56	2761-799	8.69	2764-799	21.80	—	—
2-3/4	.032	1	72	2761-802	22.18	2764-802	21.80	—	—
2-3/4	.036	1	56	2761-810	8.69	2764-810	21.80	—	—
2-3/4	.036	1	72	2761-813	22.18	2764-813	21.80	—	—
2-3/4	.040	1	56	2761-821	8.69	2764-821	21.80	—	—
2-3/4	.040	1	72	2761-824	22.18	2764-824	21.80	—	—
2-3/4	.045	1	56	2761-834	10.40	2764-834	23.86	—	—
2-3/4	.045	1	72	2761-837	26.68	2764-837	23.86	—	—
2-3/4	.051	1	56	2761-847	26.68	2764-847	25.23	—	—
2-3/4	.051	1	72	2761-850	26.68	2764-850	25.23	—	—
2-3/4	.057	1	56	2761-863	10.40	2764-863	26.57	—	—

DIA.	THICK- NESS	HOLE	TEETH	Pittsburg ORDER NO.	PRICE EACH	USA ORDER NO.	PRICE EACH	CLOSEOUT ORDER NO.	PRICE EACH
2-3/4	.057	1	72	2761-869	\$26.68	2764-869	\$26.57	—	—
2-3/4	.064	1	56	2761-879	10.40	2764-879	27.26	—	—
2-3/4	.064	1	72	2761-882	26.68	2764-882	27.26	—	—
2-3/4	.072	1	56	2761-892	10.40	2764-892	29.35	—	—
2-3/4	.072	1	72	2761-896	26.68	2764-896	29.35	—	—
2-3/4	.081	1	56	2761-996	12.07	2764-996	30.01	—	—
2-3/4	.081	1	72	2761-999	31.03	2764-999	30.01	—	—
2-3/4	.091	1	56	2762-009	13.06	2765-009	32.09	—	—
2-3/4	.091	1	72	2762-012	33.41	2765-012	32.09	—	—
2-3/4	.102	1	56	2762-022	13.63	2765-022	35.44	—	—
2-3/4	.102	1	72	2762-025	35.15	2765-025	35.44	—	—
2-3/4	.114	1	56	2762-035	14.16	2765-035	43.22	—	—
2-3/4	.114	1	72	2762-038	36.22	2765-038	43.22	—	—
2-3/4	.128	1	56	2762-048	14.54	2765-048	46.34	—	—
2-3/4	.128	1	72	2762-051	37.35	2765-051	46.34	—	—
2-3/4	.144	1	56	2762-061	16.67	—	—	—	—
2-3/4	.144	1	72	2762-064	42.97	2765-064	52.00	—	—
2-3/4	.162	1	56	2762-074	18.24	—	—	—	—
2-3/4	.162	1	72	2762-077	46.89	2765-077	54.98	—	—
2-3/4	.182	1	56	—	—	—	—	2762-087	\$11.43
2-3/4	.182	1	72	2762-090	54.90	2765-090	62.46	—	—
3	.128	1/2	56	—	—	—	—	2762-190	7.79
3	.018	3/4	56	—	—	—	—	2762-200	6.69
3	.020	3/4	72	—	—	—	—	2762-204	4.64
3	.023	3/4	56	—	—	—	—	2762-210	4.64
3	.023	3/4	72	—	—	—	—	2762-213	4.64
3	.025	3/4	72	—	—	—	—	2762-217	4.64
3	.035	3/4	56	—	—	—	—	2762-236	4.64
3	.035	3/4	72	—	—	—	—	2762-239	4.64
3	.036	3/4	56	—	—	—	—	2762-241	4.64
3	.036	3/4	72	—	—	—	—	2762-244	4.64
3	.040	3/4	56	—	—	—	—	2762-252	4.64
3	.040	3/4	72	—	—	—	—	2762-255	4.64
3	.045	3/4	56	—	—	—	—	2762-265	5.56
3	.045	3/4	72	—	—	—	—	2762-268	5.56
3	.072	3/4	56	—	—	—	—	2762-278	5.56
3	.072	3/4	72	—	—	—	—	2762-281	5.56
3	.081	3/4	56	—	—	—	—	2762-291	6.46
3	.081	3/4	72	—	—	—	—	2762-294	6.46
3	.091	3/4	56	—	—	—	—	2762-295	6.97
3	.091	3/4	72	—	—	—	—	2762-298	6.97
3	.023	1	72	—	—	—	—	2762-404	4.64
3	.144	1	56	—	—	—	—	2762-542	8.94
3	.144	1	72	—	—	—	—	2762-552	8.94
3	.182	1	72	—	—	—	—	2762-572	11.43

Jewelers Saws – High Speed Steel

WARNING: This product contains Cobalt and/or Nickel and/or Lead a chemical known to the state of California to cause cancer or birth defects or other reproductive harm. For more information: www.pro65.ca.gov.
WARNING: Cutting tools may shatter. Always wear approved safety glasses and mask when regrounding.

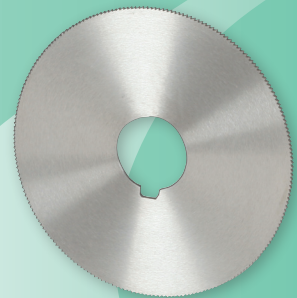
2



DIA.	THICK- NESS	HOLE	TEETH	Pittsburgh ORDER NO.	PRICE EACH	USA ORDER NO.	PRICE EACH	CLOSEOUT ORDER NO.	PRICE EACH
1	.032	1/4	76	2770-010	\$13.63	2775-001	\$ 11.16	-	-
1	.028	1/4	76	2770-020	13.63	2775-002	11.16	-	-
1	.025	1/4	76	2770-030	11.28	2775-003	9.76	-	-
1	.023	1/4	76	2770-040	11.28	2775-004	9.76	-	-
1	.020	1/4	76	2770-050	12.37	2775-005	9.76	-	-
1	.018	1/4	76	2770-060	12.37	2775-006	9.76	-	-
1	.016	1/4	76	2770-070	13.63	2775-007	10.91	-	-
1	.014	1/4	76	2770-080	14.41	2775-008	10.91	-	-
1	.012	1/4	98	2770-090	15.66	2775-009	10.91	-	-
1	.010	1/4	98	2770-100	15.66	2775-010	10.91	-	-
1	.008	1/4	98	2770-110	20.20	2775-011	12.05	-	-
1	.006	1/4	98	-	-	2775-012	14.28	2770-120	\$ 20.20
1	.032	5/16	76	-	-	-	-	2770-130	13.63
1	.028	5/16	76	-	-	-	-	2770-140	13.63
1	.025	5/16	76	-	-	-	-	2770-150	11.28
1	.023	5/16	76	-	-	-	-	2770-160	11.28
1	.020	5/16	76	-	-	-	-	2770-170	12.37
1	.018	5/16	76	-	-	-	-	2770-180	12.37
1	.016	5/16	76	-	-	-	-	2770-190	13.63
1	.014	5/16	76	-	-	-	-	2770-200	14.41
1	.012	5/16	98	-	-	-	-	2770-210	15.66
1	.010	5/16	98	-	-	-	-	2770-220	15.66
1	.008	5/16	98	-	-	-	-	2770-230	20.20
1	.006	5/16	98	-	-	-	-	2770-240	20.20
1	.032	3/8	76	2770-250	13.63	2775-025	11.16	-	-
1	.028	3/8	76	2770-260	13.63	2775-026	11.16	-	-
1	.025	3/8	76	2770-270	11.28	2775-027	9.76	-	-
1	.023	3/8	76	2770-280	11.28	2775-028	9.76	-	-
1	.020	3/8	76	2770-290	12.37	2775-029	9.76	-	-
1	.018	3/8	76	2770-300	12.37	2775-030	9.76	-	-
1	.016	3/8	76	2770-310	13.63	2775-031	10.91	-	-
1	.014	3/8	76	2770-320	14.41	2775-032	10.91	-	-
1	.012	3/8	98	2770-330	15.66	2775-033	10.91	-	-
1	.010	3/8	98	2770-340	15.66	2775-034	10.91	-	-
1	.008	3/8	98	2770-350	22.45	2775-035	12.05	-	-
1	.006	3/8	98	-	-	2775-036	14.28	-	-
1	.025	1/2	76	-	-	-	-	2770-390	11.28
1	.023	1/2	76	-	-	-	-	2770-400	11.28
1	.020	1/2	76	-	-	-	-	2770-410	12.37
1	.018	1/2	76	-	-	-	-	2770-420	12.37
1	.016	1/2	76	-	-	-	-	2770-430	13.63
1	.014	1/2	76	-	-	-	-	2770-440	14.41
1	.012	1/2	98	-	-	-	-	2770-450	15.66
1	.010	1/2	98	-	-	-	-	2770-460	15.66
1	.008	1/2	98	-	-	-	-	2770-470	20.20
1-1/4	.032	5/16	98	2770-490	14.41	2775-049	11.83	-	-
1-1/4	.028	5/16	98	-	-	2775-050	11.83	2770-500	13.63
1-1/4	.025	5/16	98	2770-510	13.63	2775-051	10.91	-	-
1-1/4	.023	5/16	98	2770-520	13.63	2775-052	10.91	-	-
1-1/4	.020	5/16	98	2770-530	14.41	2775-053	11.16	-	-
1-1/4	.018	5/16	98	2770-540	15.66	2775-054	11.83	-	-
1-1/4	.016	5/16	98	-	-	2775-055	11.83	2770-550	16.91
1-1/4	.014	5/16	98	-	-	2775-056	12.27	2770-560	16.91
1-1/4	.012	5/16	120	2775-057	12.27	-	-	2770-570	17.55
1-1/4	.010	5/16	120	2770-580	21.76	2775-058	13.23	-	-
1-1/4	.008	5/16	120	2775-059	14.28	-	-	2770-590	23.81
1-1/4	.006	5/16	120	-	-	2775-060	17.10	2770-600	23.81
1-1/4	.032	3/8	98	2770-610	14.41	2775-061	11.83	-	-
1-1/4	.028	3/8	98	2770-620	14.41	2775-062	11.83	-	-
1-1/4	.025	3/8	98	2770-630	13.63	2775-063	10.91	-	-
1-1/4	.023	3/8	98	2770-640	13.63	2775-064	10.91	-	-
1-1/4	.020	3/8	98	2770-650	14.41	2775-065	11.16	-	-
1-1/4	.018	3/8	98	2770-660	15.66	2775-066	11.83	-	-
1-1/4	.016	3/8	98	2770-670	16.91	2775-067	11.83	-	-
1-1/4	.014	3/8	98	2770-680	16.91	2775-068	12.27	-	-
1-1/4	.012	3/8	120	2770-690	17.55	2775-069	12.27	-	-
1-1/4	.010	3/8	120	2770-700	21.76	2775-070	13.23	-	-
1-1/4	.008	3/8	120	2770-710	23.81	2775-071	14.28	-	-
1-1/4	.006	3/8	120	-	-	2775-072	17.10	-	-
1-1/4	.032	1/2	98	2770-730	14.41	2775-073	11.83	-	-
1-1/4	.028	1/2	98	2770-740	14.41	2775-074	11.83	-	-
1-1/4	.025	1/2	98	2775-075	10.91	-	-	2770-750	13.63
1-1/4	.023	1/2	98	2775-076	10.91	-	-	2770-760	13.63
1-1/4	.020	1/2	98	2770-770	14.41	2775-077	11.16	-	-
1-1/4	.018	1/2	98	2770-780	15.66	2775-078	11.83	-	-

	THICK- DIA.	NESS HOLE	TEETH	 ORDER NO.	PRICE EACH	USA ORDER NO.	PRICE EACH	CLOSEOUT ORDER NO.	PRICE EACH
1-1/4	.016	1/2	98	2770-790	\$ 16.91	2775-079	\$ 11.83	-	-
1-1/4	.014	1/2	98	2770-800	16.91	2775-080	12.27	-	-
1-1/4	.012	1/2	120	2770-810	17.55	2775-081	12.27	-	-
1-1/4	.010	1/2	120	2770-820	21.76	2775-082	13.23	-	-
1-1/4	.008	1/2	120	2770-830	23.81	2775-083	14.28	-	-
1-1/4	.006	1/2	120	-	-	2775-084	17.10	2770-840	\$ 23.81
1-1/2	.032	3/8	110	2770-850	17.85	2775-085	12.27	-	-
1-1/2	.028	3/8	110	2770-860	15.66	2775-086	12.27	-	-
1-1/2	.025	3/8	110	2770-870	15.66	2775-087	12.05	-	-
1-1/2	.023	3/8	110	2770-880	15.66	2775-088	12.05	-	-
1-1/2	.020	3/8	110	2770-890	15.66	2775-089	12.05	-	-
1-1/2	.018	3/8	110	2770-900	16.91	2775-090	12.05	-	-
1-1/2	.016	3/8	110	2770-910	17.55	2775-091	13.23	-	-
1-1/2	.014	3/8	110	2770-920	18.79	2775-092	14.11	-	-
1-1/2	.012	3/8	140	2770-930	20.20	2775-093	14.54	-	-
1-1/2	.010	3/8	140	2770-940	29.44	2775-094	17.10	-	-
1-1/2	.008	3/8	140	2770-950	29.44	2775-095	18.15	-	-
1-1/2	.006	3/8	140	-	-	2775-096	19.53	2770-960	29.44
1-1/2	.032	1/2	110	2770-970	17.85	2775-097	12.27	-	-
1-1/2	.028	1/2	110	2770-980	15.66	2775-098	12.27	-	-
1-1/2	.025	1/2	110	2770-990	15.66	2775-099	12.05	-	-
1-1/2	.023	1/2	110	2771-000	15.66	2775-100	12.05	-	-
1-1/2	.020	1/2	110	2771-010	15.66	2775-101	12.05	-	-
1-1/2	.018	1/2	110	2771-020	16.91	2775-102	12.05	-	-
1-1/2	.016	1/2	110	2771-030	17.55	2775-103	13.23	-	-
1-1/2	.014	1/2	110	2771-040	18.79	2775-104	14.11	-	-
1-1/2	.012	1/2	140	2771-050	20.20	2775-105	14.54	-	-
1-1/2	.010	1/2	140	2771-060	29.44	2775-106	17.10	-	-
1-1/2	.008	1/2	140	2771-070	29.44	2775-107	18.15	-	-
1-1/2	.006	1/2	140	-	-	2775-108	19.53	2771-080	29.44
1-3/4	.032	3/8	132	2771-090	16.91	2775-109	13.23	-	-
1-3/4	.028	3/8	132	2775-110	13.23	-	-	2771-100	16.91
1-3/4	.025	3/8	132	2771-110	15.66	2775-111	12.97	-	-
1-3/4	.023	3/8	132	2775-112	12.97	-	-	2771-120	15.66
1-3/4	.020	3/8	132	2771-130	17.98	2775-113	14.11	-	-
1-3/4	.018	3/8	132	2771-140	18.79	2775-114	14.28	-	-
1-3/4	.016	3/8	132	2775-115	14.54	-	-	2771-150	20.20
1-3/4	.014	3/8	132	2771-160	20.82	2775-116	14.54	-	-
1-3/4	.012	3/8	160	2771-170	25.84	2775-117	15.49	-	-
1-3/4	.010	3/8	160	2771-180	29.44	2775-118	17.78	-	-
1-3/4	.008	3/8	160	2775-119	18.63	-	-	2771-190	31.64
1-3/4	.006	3/8	160	-	-	2775-120	21.36	2771-200	25.84
1-3/4	.032	1/2	132	2771-210	16.91	2775-121	13.23	-	-
1-3/4	.028	1/2	132	2771-220	16.91	2775-122	13.23	-	-
1-3/4	.025	1/2	132	2771-230	15.66	2775-123	12.97	-	-
1-3/4	.023	1/2	132	2771-240	15.66	2775-124	12.97	-	-
1-3/4	.020	1/2	132	2771-250	17.55	2775-125	14.11	-	-
1-3/4	.018	1/2	132	2771-260	18.79	2775-126	14.28	-	-
1-3/4	.016	1/2	132	2771-270	20.20	2775-127	14.54	-	-
1-3/4	.014	1/2	132	2771-280	20.82	2775-128	14.54	-	-
1-3/4	.012	1/2	160	2771-290	20.82	2775-129	15.49	-	-
1-3/4	.010	1/2	160	2771-300	29.44	2775-130	17.78	-	-
1-3/4	.008	1/2	160	-	-	2775-131	18.63	-	-
1-3/4	.006	1/2	160	-	-	2775-132	21.36	2771-320	25.84
2	.057	3/8	110	2771-330	23.95	2775-133	18.63	-	-
2	.051	3/8	110	2771-340	23.95	2775-134	18.63	-	-
2	.045	3/8	110	2771-350	21.46	2775-135	18.15	-	-
2	.040	3/8	110	2771-360	21.46	2775-136	18.15	-	-
2	.035	3/8	110	2771-370	20.20	2775-137	17.52	-	-
2	.032	3/8	110	2771-380	20.20	2775-138	17.52	-	-
2	.028	3/8	152	2771-390	20.20	2775-139	15.49	-	-
2	.025	3/8	152	2771-400	20.20	2775-140	15.49	-	-
2	.023	3/8	152	2771-410	18.79	2775-141	15.49	-	-
2	.020	3/8	152	2771-420	20.20	2775-142	15.49	-	-

Jewelers Saws – High Speed Steel (Continued)



WARNING: This product contains Cobalt and/or Nickel and/or Lead a chemical known to the state of California to cause cancer or birth defects or other reproductive harm. For more information: www.prop65.ca.gov.
WARNING: Cutting tools may shatter. Always wear approved safety glasses and mask when grinding.

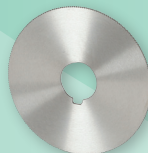
2

DIA.	THICK- NESS	HOLE	TEETH	ORDER NO.	PRICE EACH	USA ORDER NO.	PRICE EACH	CLOSEOUT ORDER NO.	PRICE EACH
2	.018	3/8	152	2771-430	\$ 21.46	2775-143	\$ 17.78	-	-
2	.016	3/8	152	2771-440	23.95	2775-144	18.42	-	-
2	.014	3/8	152	2771-450	26.62	2775-145	20.91	-	-
2	.012	3/8	190	2771-460	32.89	2775-146	21.32	-	-
2	.010	3/8	190	2771-470	35.24	2775-147	21.80	-	-
2	.008	3/8	190	2771-480	36.64	2775-148	24.08	-	-
2	.006	3/8	190	-	-	2775-149	25.74	2771-490	\$ 36.64
2	.057	1/2	110	2771-500	23.95	2775-150	18.63	-	-
2	.051	1/2	110	2771-510	23.95	2775-151	18.63	-	-
2	.045	1/2	110	2771-520	21.46	2775-152	18.15	-	-
2	.040	1/2	110	2771-530	21.46	2775-153	18.15	-	-
2	.035	1/2	110	2771-540	20.20	2775-154	17.52	-	-
2	.032	1/2	110	2771-550	20.20	2775-155	17.52	-	-
2	.028	1/2	152	2771-560	20.20	2775-156	15.49	-	-
2	.025	1/2	152	2771-570	20.20	2775-157	15.49	-	-
2	.023	1/2	152	2771-580	18.79	2775-158	15.49	-	-
2	.020	1/2	152	2771-590	20.20	2775-159	15.49	-	-
2	.018	1/2	152	2771-600	21.46	2775-160	17.78	-	-
2	.016	1/2	152	2771-610	23.95	2775-161	18.42	-	-
2	.014	1/2	152	2771-620	26.62	2775-162	20.91	-	-
2	.012	1/2	190	2771-630	32.89	2775-163	21.32	-	-
2	.010	1/2	190	2771-640	35.24	2775-164	21.77	-	-
2	.008	1/2	190	2771-650	36.64	2775-165	24.08	-	-
2	.006	1/2	190	-	-	2775-166	25.74	-	-
2-1/4	.032	1/2	168	-	-	-	-	2771-670	25.84
2-1/4	.025	1/2	168	-	-	-	-	2771-680	4.85
2-1/4	.018	1/2	168	-	-	-	-	2771-710	25.84
2-1/4	.016	1/2	168	-	-	-	-	2771-720	4.85
2-1/4	.014	1/2	168	-	-	-	-	2771-730	36.18
2-1/4	.012	1/2	210	-	-	-	-	2771-740	36.18
2-1/4	.010	1/2	210	2771-750	44.47	-	-	-	-
2-1/2	.057	1/2	140	2771-760	29.13	2775-176	23.65	-	-
2-1/2	.051	1/2	140	2771-770	29.13	2775-177	23.65	-	-
2-1/2	.045	1/2	140	2771-780	27.25	2775-178	21.82	-	-
2-1/2	.040	1/2	140	2771-790	27.25	2775-179	23.10	-	-
2-1/2	.035	1/2	140	2771-800	25.84	2775-180	21.33	-	-
2-1/2	.032	1/2	140	2771-810	23.95	2775-181	21.33	-	-
2-1/2	.028	1/2	190	2771-820	23.95	2775-182	21.33	-	-
2-1/2	.025	1/2	190	2771-830	21.46	2775-183	17.78	-	-
2-1/2	.023	1/2	190	2771-840	21.46	2775-184	17.78	-	-
2-1/2	.020	1/2	190	2771-850	23.17	2775-185	18.42	-	-
2-1/2	.018	1/2	190	2771-860	24.74	2775-186	19.53	-	-
2-1/2	.016	1/2	190	2771-870	29.13	2775-187	21.33	-	-
2-1/2	.014	1/2	190	2771-880	35.24	2775-188	21.82	-	-
2-1/2	.012	1/2	240	2771-890	38.83	2775-189	23.59	-	-
2-1/2	.010	1/2	240	2771-900	44.47	2775-190	27.76	-	-
2-1/2	.008	1/2	240	-	-	2775-191	33.79	-	-
2-1/2	.006	1/2	240	-	-	2775-192	38.90	-	-
3	.057	1/2	168	2771-930	34.29	2775-193	27.95	-	-
3	.051	1/2	168	2771-940	34.29	2775-194	27.95	-	-
3	.045	1/2	168	2771-950	32.26	2775-195	26.57	-	-
3	.040	1/2	168	2771-960	32.26	2775-196	26.57	-	-
3	.035	1/2	168	2771-970	32.26	2775-197	26.57	-	-
3	.032	1/2	168	2771-980	29.13	2775-198	24.99	-	-
3	.028	1/2	230	2771-990	29.13	2775-199	24.99	-	-
3	.025	1/2	230	2772-000	25.84	2775-200	21.82	-	-
3	.023	1/2	230	2772-010	25.84	2775-201	21.82	-	-
3	.020	1/2	230	2772-020	28.51	2775-202	23.65	-	-
3	.018	1/2	230	2772-030	34.61	2775-203	25.44	-	-
3	.016	1/2	230	2772-040	38.83	2775-204	27.95	-	-
3	.014	1/2	230	2772-050	45.41	2775-205	29.35	-	-
3	.012	1/2	280	2772-060	45.41	2775-206	30.14	-	-
3	.010	1/2	280	2772-070	51.05	2775-207	33.79	-	-
3	.008	1/2	280	-	-	2775-208	43.99	2772-080	64.96
3	.006	1/2	280	-	-	2775-209	50.45	2772-090	64.96
3	.057	3/4	168	-	-	-	-	2772-100	34.29
3	.051	3/4	168	-	-	-	-	2772-110	34.29
3	.045	3/4	168	-	-	-	-	2772-120	32.26
3	.040	3/4	168	-	-	-	-	2772-130	32.26
3	.035	3/4	168	-	-	-	-	2772-140	32.26
3	.032	3/4	168	-	-	-	-	2772-150	29.13
3	.028	3/4	230	-	-	-	-	2772-160	29.13
3	.025	3/4	230	-	-	-	-	2772-170	25.84
3	.023	3/4	230	-	-	-	-	2772-180	25.84
3	.020	3/4	230	-	-	-	-	2772-190	31.67
3	.018	3/4	230	-	-	-	-	2772-200	34.61
3	.016	3/4	230	-	-	-	-	2772-210	38.83
3	.014	3/4	230	-	-	-	-	2772-220	45.41
3	.012	3/4	280	-	-	-	-	2772-230	45.41
3	.010	3/4	280	-	-	-	-	2772-240	51.05
3	.008	3/4	280	-	-	-	-	2772-250	64.96

	THICK- DIA.	NESS	HOLE	TEETH	ORDER NO.	PRICE EACH	USA ORDER NO.	PRICE EACH	CLOSEOUT ORDER NO.	PRICE EACH
	3	.006	3/4	280	—	—	—	—	2772-260	\$64.96
	3	.057	1	168	2772-271	\$ 34.29	2775-227	\$ 27.95	—	—
	3	.051	1	168	2772-280	34.29	2775-228	27.95	—	—
	3	.045	1	168	2772-290	32.26	2775-229	26.57	—	—
	3	.043	1	168	—	—	—	—	2772-295	6.03
	3	.040	1	168	2772-300	32.26	2775-230	26.57	—	—
	3	.036	1	168	—	—	—	—	2772-305	6.03
	3	.035	1	168	2772-310	32.26	2775-231	26.57	—	—
	3	.032	1	168	2772-320	29.13	2775-232	24.99	—	—
	3	.028	1	230	2772-330	29.13	2775-233	24.99	—	—
	3	.025	1	230	2772-340	25.84	2775-234	21.82	—	—
	3	.023	1	230	2772-350	25.84	2775-235	21.82	—	—
	3	.020	1	230	2772-360	28.51	2775-236	23.65	—	—
	3	.018	1	230	2772-370	34.61	2775-237	25.44	—	—
	3	.017	1	168	—	—	—	—	2772-375	6.46
	3	.016	1	230	2772-380	38.83	2775-238	27.95	—	—
	3	.014	1	230	2772-390	45.41	2775-239	29.35	—	—
	3	.012	1	280	2772-400	45.41	2775-240	30.14	—	—
	3	.010	1	280	2772-410	51.05	2775-241	33.79	—	—
	3	.008	1	280	—	—	2775-242	43.99	2772-420	64.96
	3	.006	1	280	—	—	2775-243	50.45	2772-430	64.96
	4	.064	1/2	220	2772-440	55.27	2775-244	46.56	—	—
	4	.057	1/2	220	2772-450	55.27	2775-245	46.56	—	—
	4	.051	1/2	220	2772-460	54.19	2775-246	45.24	—	—
	4	.045	1/2	220	—	—	2775-247	45.24	2772-470	54.19
	4	.040	1/2	220	2772-480	49.01	2775-248	39.96	—	—
	4	.035	1/2	220	2772-490	49.01	2775-249	39.96	—	—
	4	.032	1/2	220	2772-500	47.14	2775-250	39.10	—	—
	4	.028	1/2	310	2772-510	43.38	2775-251	34.36	—	—
	4	.025	1/2	310	2772-520	43.38	2775-252	34.36	—	—
	4	.023	1/2	310	2772-530	47.14	2775-253	39.34	—	—
	4	.020	1/2	310	2772-540	58.88	2775-254	41.16	—	—
	4	.018	1/2	310	2772-550	61.86	2775-255	44.26	—	—
	4	.016	1/2	310	2772-560	66.40	2775-256	46.34	—	—
	4	.014	1/2	310	—	—	2775-257	48.41	2772-570	57.83
	4	.012	1/2	310	—	—	2775-258	54.09	2772-580	72.07
	4	.064	3/4	220	—	—	—	—	2772-590	55.27
	4	.057	3/4	220	—	—	—	—	2772-600	55.27
	4	.051	3/4	220	—	—	—	—	2772-610	54.19
	4	.045	3/4	220	—	—	—	—	2772-620	54.19
	4	.040	3/4	220	—	—	—	—	2772-630	49.01
	4	.035	3/4	220	—	—	—	—	2772-640	49.01
	4	.032	3/4	220	—	—	—	—	2772-650	47.14
	4	.028	3/4	310	—	—	—	—	2772-660	43.38
	4	.025	3/4	310	—	—	—	—	2772-670	43.38
	4	.023	3/4	310	—	—	—	—	2772-680	47.14
	4	.020	3/4	310	—	—	—	—	2772-690	58.88
	4	.018	3/4	310	—	—	—	—	2772-700	40.61
	4	.016	3/4	310	—	—	—	—	2772-710	66.40
	4	.014	3/4	310	—	—	—	—	2772-720	57.83
	4	.012	3/4	310	—	—	—	—	2772-730	72.07
	4	.064	1	220	2772-740	55.27	2775-274	46.56	—	—
	4	.057	1	220	2772-750	55.27	2775-275	46.56	—	—
	4	.051	1	220	2772-760	54.19	2775-276	45.24	—	—
	4	.045	1	220	2772-770	54.19	2775-277	45.24	—	—
	4	.040	1	220	2772-780	49.01	2775-278	39.96	—	—
	4	.035	1	220	2772-790	49.01	2775-279	39.96	—	—
	4	.032	1	220	2772-800	47.14	2775-280	39.10	—	—
	4	.028	1	310	2772-810	43.38	2775-281	34.36	—	—
	4	.025	1	310	2772-820	43.38	2775-282	34.36	—	—
	4	.023	1	310	2772-830	47.14	2775-283	39.34	—	—
	4	.020	1	310	2772-840	58.88	2775-284	41.16	—	—
	4	.018	1	310	2772-850	61.86	2775-285	44.26	—	—
	4	.016	1	310	2772-860	66.40	2775-286	46.34	—	—
	4	.014	1	310	—	—	2775-287	48.41	2772-870	57.83
	4	.012	1	310	—	—	2775-288	54.09	2772-880	72.07

Jewelers Saws – High Speed Steel (Continued)

2



Solid Carbide Slotting Saws

Look for
ALLEGIANCE
AMERICANMADE

1



To Order: Specify saw diameter, thickness and hole dia. Example: 1 x .020 x 5/16.
Tolerances: O.D. ±.005; Thickness ±.0005; I.D. +.001-.000

- These special order items are non-returnable. • A written confirmation is required.
- All orders subject to factory over and under allowances made.
- C-2 Micrograin Carbide 10% Cobalt • Side Clearance for maximum cutting performance & blade life
- Harder & more wear resistant than HSS • Rake angle 5° std. for 1-1/2" dia. and larger
- Rake angle 0° std. for smaller dias. • Special make sizes/tooth geometries available on request.

DIA.	THICK- NESS	HOLE	TEETH	Pittsburgh ORDER NO.	PRICE EACH	USA ORDER NO.	PRICE EACH	CLOSEOUT ORDER NO.	PRICE EACH
5	.064	1/2	280	2772-890	\$ 77.05	2775-289	\$ 60.86	-	-
5	.057	1/2	280	2772-900	77.05	2775-290	60.86	-	-
5	.051	1/2	280	2772-910	74.85	2775-291	60.20	-	-
5	.045	1/2	280	2772-920	74.85	2775-292	60.20	-	-
5	.040	1/2	280	2772-930	66.71	2775-293	54.09	-	-
5	.035	1/2	280	2772-940	66.71	2775-294	54.09	-	-
5	.032	1/2	280	2772-950	66.71	2775-295	54.09	-	-
5	.028	1/2	280	2772-960	78.92	2775-296	55.22	-	-
5	.025	1/2	380	2772-970	78.92	2775-297	55.22	-	-
5	.020	1/2	380	-	-	2775-298	60.86	-	-
5	.018	1/2	380	-	-	2775-299	63.80	-	-
5	.016	1/2	380	-	-	2775-300	66.29	-	-
5	.064	3/4	280	-	-	-	-	2773-010	\$ 14.40
5	.057	3/4	280	-	-	-	-	2773-020	77.05
5	.051	3/4	280	-	-	-	-	2773-030	14.00
5	.045	3/4	280	-	-	-	-	2773-040	74.85
5	.040	3/4	280	-	-	-	-	2773-050	66.71
5	.035	3/4	280	-	-	-	-	2773-060	12.45
5	.032	3/4	280	-	-	-	-	2773-070	12.45
5	.025	3/4	380	-	-	-	-	2773-090	78.92
5	.020	3/4	380	-	-	-	-	2773-100	14.77
5	.018	3/4	380	-	-	-	-	2773-110	81.49
5	.016	3/4	380	-	-	-	-	2773-120	14.77
5	.064	1	280	2773-130	77.05	2775-313	60.86	-	-
5	.062	1	280	-	-	-	-	-	-
5	.057	1	280	2773-140	77.05	2775-314	60.86	-	-
5	.051	1	280	2773-150	74.85	2775-315	60.20	-	-
5	.045	1	280	2773-160	74.85	2775-316	60.20	-	-
5	.040	1	280	2773-170	66.71	2775-317	54.09	-	-
5	.035	1	280	2773-180	66.71	2775-318	54.09	-	-
5	.032	1	280	2773-190	66.71	2775-319	54.09	-	-
5	.028	1	280	2773-200	78.92	2775-320	55.22	-	-
5	.025	1	380	2773-220	78.92	2775-321	55.22	-	-
5	.023	1	380	-	-	2775-322	58.41	-	-
5	.020	1	380	-	-	2775-323	60.86	-	-
5	.018	1	380	-	-	2775-324	63.80	2773-240	81.49
5	.016	1	380	-	-	2775-325	66.29	2773-250	86.33
6	.128	1/2	232	2773-260	214.22	2775-326	122.01	-	-
6	.114	1/2	232	-	-	2775-327	122.01	2773-270	195.75
6	.102	1/2	232	2773-280	135.30	2775-328	100.41	-	-
6	.091	1/2	232	2773-290	121.21	2775-329	100.41	-	-
6	.081	1/2	232	2773-300	20.81	2775-330	95.40	-	-
6	.072	1/2	232	2773-310	111.36	2775-331	95.40	-	-
6	.064	1/2	232	2773-320	107.74	2775-332	80.88	-	-
6	.057	1/2	232	-	-	2775-333	80.88	2773-330	107.74
6	.051	1/2	232	2773-340	107.74	2775-334	80.88	-	-
6	.045	1/2	340	2773-350	97.41	2775-335	74.95	-	-
6	.040	1/2	340	2773-360	107.74	2775-336	74.95	-	-
6	.035	1/2	340	-	-	2775-337	74.74	2773-370	108.23
6	.032	1/2	340	-	-	2775-338	74.95	-	-
6	.028	1/2	340	-	-	2775-339	80.88	-	-
6	.025	1/2	460	-	-	2775-340	87.67	-	-
6	.023	1/2	460	-	-	2775-341	95.70	2773-410	20.14
6	.020	1/2	460	-	-	2775-342	98.12	-	-
6	.128	3/4	232	-	-	-	-	2773-430	39.98
6	.114	3/4	232	-	-	-	-	2773-440	195.75
6	.102	3/4	232	-	-	-	-	2773-450	135.30
6	.091	3/4	232	-	-	-	-	2773-460	121.21
6	.081	3/4	232	-	-	-	-	2773-470	20.81
6	.072	3/4	232	-	-	-	-	2773-480	111.36
6	.064	3/4	232	-	-	-	-	2773-490	107.74
6	.057	3/4	232	-	-	-	-	2773-500	20.14
6	.051	3/4	232	-	-	-	-	2773-510	107.74
6	.045	3/4	340	-	-	-	-	2773-520	97.41
6	.040	3/4	340	-	-	-	-	2773-530	20.14
6	.035	3/4	340	-	-	-	-	2773-540	119.71
6	.028	3/4	340	-	-	-	-	2773-560	95.06
6	.023	3/4	460	-	-	-	-	2773-580	114.25
6	.020	3/4	460	-	-	-	-	2773-590	114.25
6	.128	1	232	2773-600	214.22	2775-360	122.01	-	-
6	.114	1	232	2773-610	195.75	2775-361	122.01	-	-
6	.102	1	232	2773-620	135.30	2775-362	100.41	-	-
6	.091	1	232	2773-630	121.21	2775-363	100.41	-	-
6	.081	1	232	2773-640	111.51	2775-364	95.40	-	-
6	.072	1	232	2773-650	111.36	2775-365	95.40	-	-
6	.064	1	232	2773-660	107.74	2775-366	80.88	-	-
6	.057	1	232	2773-670	107.74	2775-367	80.88	-	-
6	.051	1	232	2773-680	107.74	2775-368	80.88	-	-
6	.045	1	340	2773-690	97.41	2775-369	74.95	-	-
6	.040	1	340	2773-700	107.74	2775-370	74.95	-	-
6	.035	1	340	2773-710	107.74	2775-371	74.74	-	-
6	.032	1	340	-	-	2775-372	74.95	-	-
6	.028	1	340	-	-	2775-373	80.88	-	-
6	.025	1	460	-	-	2775-374	87.67	-	-
6	.023	1	460	-	-	2775-375	95.70	2773-750	114.25
6	.020	1	460	-	-	2775-376	98.12	-	-
8	.093	1	460	-	-	-	-	2773-770	51.51
8	.045	1	460	-	-	-	-	2773-780	51.51

DIAMETER	THICKNESS	HOLE DIAMETER	NUMBER OF TEETH	PRICE EACH
5/16"	.005-.007" .008-.009" .010-.045"	1/8"	14	\$ 36.71 34.00 27.20
3/8"	.005-.007" .008-.009" .010-.045"	1/8", 3/16"	14	37.90 35.11 28.09
1/2"	.005-.007" .008-.009" .010-.045"	1/8", 3/16"	14	39.86 36.91 29.53
9/16"	.005-.007" .008-.009" .010-.045"	1/4"	16	33.89 31.39 25.10
5/8"	.005-.007" .008-.009" .010-.065"	1/4"	16	34.25 31.71 25.36
3/4"	.005-.007" .008-.009" .010-.065"	1/4", 5/16"	18	35.95 33.29 26.63
7/8"	.005-.007" .008-.009" .010-.065"	5/16", 3/8"	20	43.14 39.95 31.96
1"	.005-.007" .008-.009" .010-.065"	1/4", 9/32", 5/16", 3/8"	20	53.11 49.19 39.35
1-1/4"	.005-.007" .008-.009" .010-.065"	5/16", 3/8", 1/2"	24	64.85 60.05 48.04
1-1/2"	.010-.019" .020-.030" .031"-050"	1/2"	36	88.25 72.58 75.73
1-3/4"	.051"-070" .010-.019" .020-.030"	1/2"	38	78.91 100.10 83.66
2"	.031"-050" .051"-070" .010-.019" .020-.030"	1/2", 1"	40	89.18 94.66 118.30 106.20
2-1/4"	.031"-050" .051"-070" .010-.019" .020-.030"	5/8", 1"	44	112.70 119.14 127.51 111.95
2-1/2"	.031"-050" .051"-070" .010-.019" .020-.030"	1"	48	118.65 125.08 133.54 168.55
2-3/4"	.051"-070" .010-.019" .020-.030" .031"-050"	1"	60	157.73 169.00 180.30 186.49
3"	.051"-070" .010-.019" .020-.030" .031"-050"	1"	72	182.11 195.63 203.25 283.05
3-1/4"	.051"-070" .010-.019" .020-.030" .031"-050"	1"	72	226.35 237.86 248.83 283.05
3-1/2"	.051"-070" .010-.019" .020-.030" .031"-050"	1"	72	226.35 237.86 248.83 283.05
3-3/4"	.051"-070" .010-.019" .020-.030" .031"-050"	1"	84	260.20 283.05 226.35 237.86
4"	.051"-070" .010-.019" .020-.030" .031"-050"	1"	80	248.83 260.20 205.78 216.24
5"	.051"-070" .010-.019" .020-.030" .031"-050"	1"	100	226.20 236.55 243.14 265.18
6"	.051"-070" .010-.019" .020-.030" .031"-050"	1"	120	297.58 330.48 369.38 401.63
	.071"-090" .091"-110" .111"-130" .131"-150" .151"-170"			413.11 461.71 502.03 543.25 583.70

WARNING: This product contains Cobalt and/or Nickel and/or Lead a chemical known to the state of California to cause cancer or birth defects or other reproductive harm. For more information: www.prop65.ca.gov.
WARNING: Cutting tools may shatter. Always wear approved safety glasses and mask when grinding.

Brazed-Carbide Hole Saws

RELTON

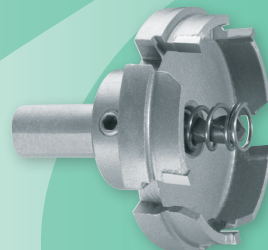
Will cut: • Carbon Steel • Cast Iron • Stainless Steel • Aluminum
• Hard Rubber • Titanium • Formica

Metal-Cutting HS Series

1" Drilling Depth Standard

Complete Saw Includes: • Hole Saw cutter-head • Shank (HS-S4 or HS-S6) • Pilot (High-Speed Steel)

WARNING: This product contains Cobalt and/or Nickel and/or Lead a chemical known to the state of California to cause cancer or birth defects or other reproductive harm. For more information: www.prop65.ca.gov.
WARNING: Cutting tools may shatter. Always wear approved safety glasses and mask when regrinding.



COMPLETE W/SHANK & PILOT					CUTTER-HEAD ONLY				REPLACEMENT SHANKS			REPLACEMENT PILOTS						
DIAMETER	MODEL NO.	ORDER NO.	WT. (lbs.)	PRICE EACH	MODEL NO.	ORDER NO.	WT. (lbs.)	PRICE EACH	MODEL NO.	ORDER NO.	PRICE EACH	MODEL NO.	ORDER NO.	WT. (lbs.)	PRICE EACH			
3/4"	HS-12	3110-012	0.4	\$ 84.00	HS-12HO	3110-112	0.3	\$52.00	S-12	3110-615	\$17.00	SP-41	3110-625	0.1	\$12.00			
7/8"	HS-14	3110-014	0.4	86.00	HS-14HO	3110-114	0.3	54.00	(See at right for specs)									
1"	HS-16	3110-016	0.6	87.00	HS-16HO	3110-116	0.3	55.00	HS-S4	3110-616	17.00							
1-1/8"	HS-18	3110-018	0.7	88.00	HS-18HO	3110-118	0.4	56.00	(Supplied w/ complete saw)									
1-1/4"	HS-20	3110-020	0.7	91.00	HS-20HO	3110-120	0.4	59.00	HS-S47	3110-614	24.00							
1-3/8"	HS-22	3110-022	0.8	95.00	HS-22HO	3110-122	0.4	63.00	HS-S410	3110-613	32.00							
1-1/2"	HS-24	3110-024	0.9	97.00	HS-24HO	3110-124	0.4	65.00	(See at right for specs)									
1-5/8"	HS-26	3110-026	1.0	99.00	HS-26HO	3110-126	0.5	67.00	ES-41	3110-618	\$ 3.00							
1-3/4"	HS-28	3110-028	1.1	101.00	HS-28HO	3110-128	0.6	69.00				Ejector Spring						
1-7/8"	HS-30	3110-030	1.1	112.00	HS-30HO	3110-130	0.6	80.00										
2"	HS-32	3110-032	1.1	113.00	HS-32HO	3110-132	0.6	81.00	HS-S6	3110-617	\$17.00	SP-61	3110-627	0.1	\$12.00			
2-1/8"	HS-34	3110-034	1.3	117.00	HS-34HO	3110-134	0.7	85.00								(Supplied w/ complete saw)		
2-1/4"	HS-36	3110-036	1.4	119.00	HS-36HO	3110-136	0.8	87.00								HS-S67	3110-612	24.00
2-3/8"	HS-38	3110-038	1.4	123.00	HS-38HO	3110-138	0.8	91.00										
2-1/2"	HS-40	3110-040	1.6	124.00	HS-40HO	3110-140	0.8	92.00	(See at right for specs)			ES-41	3110-618	\$ 3.00				
2-3/4"	HS-44	3110-044	1.6	129.00	HS-44HO	3110-144	0.8	97.00	Ejector Spring									
3"	HS-48	3110-048	1.7	140.00	HS-48HO	3110-148	1.7	108.00										
3-1/4"	HS-52	3110-052	1.9	150.00	HS-52HO	3110-152	1.6	118.00										
3-1/2"	HS-56	3110-056	2.3	159.00	HS-56HO	3110-156	1.9	127.00										
4"	HS-64	3110-064	2.6	183.00	HS-64HO	3110-164	2.2	151.00										

Hole Saw

Shank Specifications

HS-S4 Series Shanks:

- 3/4-10 threads
 - 1/4" pilot hole
 - 1/2" round shank w/3 flats
- HS-S4 - 3" OAL.....Wt. 0.4
HS-S47 - 7" OAL.....Wt. 0.8
HS-S410 - 10" OAL....Wt. 1.2

S-12 Shank:

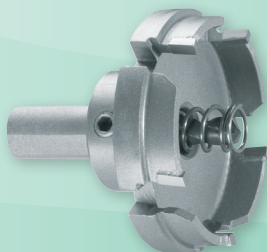
- 1/2-13 threads
- 1/4" pilot hole
- 3/8" round shank w/3 flats
- 3" OAL.....Wt. 0.4

HS-S6 Series Shanks

- 3/4-10 threads
- 3/8" pilot hole
- 1/2" round shank w/3 flats
- HS-S6 - 3" OAL.....Wt. 0.5
- HS-S67 - 7" OAL.....Wt. 0.8
- HS-S610 - 10" OAL.Wt. 1.2

Brazed-Carbide Thin-Gauge Hole Cutters

AVAILABLE SIZES				
DIAM.	MODEL NO.	ORDER NO.	WT. (lbs.)	PRICE EACH
3/4"	TG-12	3110-712	0.2	\$61.00
13/16"	TG-13	3110-713	0.2	\$62.00
7/8"	TG-14	3110-714	0.2	\$63.00
1"	TG-16	3110-716	0.3	\$65.00
1-1/16"	TG-17	3110-717	0.3	\$69.00
1-1/8"	TG-18	3110-718	0.3	\$71.00
1-7/32"	TG-19	3110-719	0.3	\$72.00
1-1/4"	TG-20	3110-720	0.3	\$74.00
1-5/16"	TG-21	3110-721	0.3	\$75.00
1-3/8"	TG-22	3110-722	0.3	\$77.00
1-7/16"	TG-23	3110-723	0.3	\$78.00
1-1/2"	TG-24	3110-724	0.3	\$83.00
1-5/8"	TG-26	3110-726	0.3	\$93.00
1-3/4"	TG-28	3110-728	0.4	\$97.00
2"	TG-32	3110-732	0.4	\$101.00
2-1/8"	TG-34	3110-734	0.4	\$115.00
2-1/4"	TG-36	3110-736	0.5	\$116.00
2-3/8"	TG-38	3110-738	0.5	\$117.00
2-1/2"	TG-40	3110-740	0.5	\$119.00



REPLACEMENT PILOTS			
DIAM.	MODEL NO.	ORDER NO.	WT. (lbs.)
1/4"	TGP-4	3110-710	0.1

- For materials up to 1/4" thick
- Excellent for all materials:
 - Sheet metal
 - Stainless steel
 - Thin plastics
- Smooth clean holes
- Easy plug removal
- Non-removable shank
- Special sizes on request!

Circular Saws For Wood



10" 40T / 60T

- #400 grit diamond ground teeth for a smooth finish
- Precision tensioned & balanced blade for an accurate cut
- Construction grade carbide teeth for longer life
- Thin kerf for fast cuts

40T Order No. WT6422-1215 Price Each: \$106.72

60T Order No. WT3255-1220 Price Each: \$106.72



#25130 7-14" 24T

- The best value for an economy blade
- Corrosion resistant coating helps prevent rusting
- Precision ground teeth for smooth, accurate cuts
- Slots for Straighter Cuts

Order No. 3255-445 Price Each: \$8.21

Annular Cutters



Unibor Annular Cutters, Made in England

Annular cutters are very efficient at cutting a hole through steel. They remove only a narrow wall of material, leaving behind a slug which is ejected at the end of the cut. When compared to a twist drill, annular cutters use far less energy and time to do the same work.

Unibor M42 Cobalt cutters offer up to 30% longer life when compared with standard high speed steel. Cobalt cutters feature a heavier wall thickness of 0.265".

Unibor cutters are fully ground and resharpenable.

Cutters from 3/4" to 1-7/16" diameter are typically supplied with a 3/4" Weldon shank.

UNIBOR® PINS				
MODEL NO.	DESCRIPTION	DIA. x OAL	ORDER NO.	PRICE EACH
USP-1A	For 7/16"x 1" Cutters	1/4 x 3	2854-891	\$3.40
USP-1	For 1" Cutters	1/4 (to 0.15) x 3	2854-890	3.40
USP-2	For 2" Cutters	1/4 x 4	2854-894	3.80
USP-2A	For 7/16"x 2" Cutters	1/4 (to 0.15) x 4	2854-895	3.80
USP-3	For 3" Cutters	1/4 x 5	2854-898	5.00

		HIGH SPEED STEEL				M42 - 5% COBALT			
		1" LENGTH	2" LENGTH			1" LENGTH	2" LENGTH		
SIZE	ORDER NO.	PRICE EACH	ORDER NO.	PRICE EACH	ORDER NO.	PRICE EACH	ORDER NO.	PRICE EACH	ORDER NO.
7/16	2855-114	\$ 30.69	2855-214	\$ 46.75	2855-314	\$ 28.70	2855-414	\$ 68.59	-
1/2	2855-116	31.07	2855-216	48.22	2855-316	28.70	2855-416	71.06	-
9/16	2855-118	32.38	2855-218	49.76	2855-318	31.20	2855-418	74.93	-
5/8	2855-120	35.02	2855-220	55.30	2855-320	35.10	2855-420	87.38	-
11/16	2855-122	35.44	2855-222	57.13	2855-322	35.80	2855-422	87.38	-
3/4	2855-124	38.53	2855-224	62.65	2855-324	38.70	2855-424	89.65	-
13/16	2855-126	39.93	2855-226	64.11	2855-326	40.90	2855-426	91.30	2855-526 81.00
7/8	2855-128	44.65	2855-228	73.27	2855-328	44.00	2855-428	94.99	-
15/16	2855-130	46.41	2855-230	65.80	2855-330	48.00	2855-430	99.00	2855-530 92.00
1	2855-132	56.84	2855-232	82.88	2855-332	51.20	2855-432	106.55	-
1-1/16	2855-134	56.96	2855-234	82.88	2855-334	52.50	2855-434	110.46	2855-534 109.60
1-1/8	2855-136	62.65	2855-236	94.48	2855-336	60.40	2855-436	122.92	-
1-3/16	2855-138	64.58	2855-238	98.36	2855-338	63.30	2855-438	136.49	-
1-1/4	2855-140	75.18	2855-240	108.00	2855-340	65.50	2855-440	149.90	-
1-5/16	2855-142	93.51	2855-242	117.63	2855-342	69.10	2855-442	163.42	-
1-3/8	2855-144	103.17	2855-244	122.46	2855-344	88.60	2855-444	170.96	-
1-7/16	2855-146	111.18	2855-246	130.79	2855-346	100.20	2855-446	177.67	-
1-1/2	2855-148	112.80	2855-248	135.00	2855-348	104.50	2855-448	188.28	-
1-9/16	2855-150	95.29	2855-250	155.28	2855-350	117.80	2855-450	198.42	-
1-5/8	2855-152	126.01	2855-252	160.76	2855-352	121.90	2855-452	209.35	-
1-11/16	2855-154	137.43	2855-254	169.99	2855-354	129.00	2855-454	225.72	-
1-3/4	2855-156	149.47	2855-256	194.30	2855-356	137.20	2855-456	241.93	-
1-13/16	2855-158	153.74	2855-258	201.64	2855-358	142.40	2855-458	259.25	-
1-7/8	2855-160	162.67	2855-260	222.84	2855-360	149.50	2855-460	270.29	-
1-15/16	2855-162	171.66	2855-262	228.98	2855-362	159.80	2855-462	278.57	-
2	2855-164	188.89	2855-264	232.42	2855-364	163.30	2855-464	295.57	-

Mag Drills

1



Model EQ35N

Portable Magnetic Drill

- High-Torque motor
- Safety interlocked controls
- Supplied coolant system
- Lightweight • QuickHitch arbor
- Includes: Warranty, Carrying case, Allen keys, Safety strap & guard, Cutting oil

- POWER: 1.5 hp
- ELECTRIC MOTOR: 1100 watts, 120V, 10 amps
- SPEED: (no load) 450 rpm
- HEIGHT: 14" • WEIGHT: 25 lbs.
- MAGNETIC DIMENSIONS: 6-1/4" x 3-1/8" x 2"
- MAGNETIC ADHESION: 1300 lbs.
- STROKE: 4-3/4"
- CUTTING THICKNESS: 1/2" - 2"

Order No. 2854-800 Price Each: \$750.00



Model EQ50

Portable Magnetic Drill

- Integral arbor support
- Solid state electronic control panel
- Supplied coolant system
- Quick conversion to twist drilling
- Available with reverse

- POWER: 1.5 hp
- ELECTRIC MOTOR: 1100 watts, 110V, 9 amps
- SPEED: (no load) 280/500 rpm
- HEIGHT: 15-1/2" • WEIGHT: 40 lbs.
- MAGNETIC DIMENSIONS: 7-3/8" x 4" x 2-3/8"
- MAGNETIC ADHESION: 2000 lbs.
- STROKE: 6-5/8"
- MORSE TAPER: 2
- CUTTING THICKNESS: 1/2" - 2"

Order No. 2854-805 Price Each: \$1062.47



Model E70

Portable Magnetic Drill

- Lightweight for it's capacity, this drill is a powerful machine perfect for the most difficult applications.
- Includes: Carrying Case, Hex Keys, Safety Strap, Guard, MT3 Coolant Arbor

- CUTTER CAPACITY: 2-3/4"
- DEPTH OF CUT: 4" (with 2 pc. pilot pin)
- TWIST DRILL CAPACITY: 1-1/4"
- DRILL CHUCK CAPACITY: 3/4"
- MORSE TAPER: MT3
- NO LOAD SPEED: 60-470RPM
- MOTOR: 120V, 1800W, 10 amps
- MAGNET ADHESION: 3372 lbs
- LENGTH: 13" • HEIGHT: 27-61/64"
- WIDTH: 10 5/8"
- MAGNET SIZE: 7-7/8" x 3-15/16"
- WEIGHT: 52.9 lbs • STROKE: 10-15/64"

Order No. 2854-807 Price Each: \$1250.00

Holesaws

Bi-Metal Holesaws

- Create clean, accurate holes in most machinable materials
- High speed cutting edge is electron-beam welded to tough alloy back
- Knockout holes allow for easy core removal
- Diameters from 9/16" to 6"
- Cutting depth for all diameters is 1-1/2"



Carbide-Tipped Holesaws

- Carbide saws cut clean holes in ceramics, brick, slate, laminate, fiberglass, and hard wood
- Carbide tips are fusion welded to alloy back
- Knockout holes allow for easy core removal
- Diameters from 9/16" to 6"
- Cutting depth for all diameters is 1-1/2"



SIZE	USE ARBOR	BI-METAL		CARBIDE TIPPED	
		ORDER NO.	PRICE EACH	ORDER NO.	PRICE EACH
9/16		3660-036	\$7.26	3660-409	\$15.01
5/8		3660-040	7.26	3660-410	15.01
11/16		3660-044	7.26	3660-411	15.01
3/4		3660-048	7.26	3660-412	15.01
13/16	3661-313	3660-052	7.26	3660-413	15.88
7/8	3661-316	3660-056	7.52	3660-414	15.88
15/16	3661-319	3660-060	7.52	3660-415	15.88
1		3660-064	7.69	3660-416	16.62
1-1/16		3660-068	8.23	3660-417	16.62
1-1/8		3660-072	8.23	3660-418	17.39
1-3/16		3660-076	8.23	3660-419	18.73
1-1/4		3660-080	8.23	3660-420	18.73
1-5/16		3660-084	8.23	3660-421	18.73
1-3/8		3660-088	8.23	3660-422	19.90
1-7/16		3660-092	8.23	3660-423	19.90
1-1/2		3660-096	8.23	3660-424	20.90
1-9/16		3660-100	8.23	3660-425	21.90
1-5/8		3660-104	8.23	3660-426	21.90
1-11/16	3661-314	3660-108	8.23	3660-427	21.90
1-3/4	3661-315	3660-112	10.57	3660-428	22.24
1-13/16		3660-116	10.57	3660-429	22.24
1-7/8	3661-318	3660-120	10.57	3660-430	23.74
2		3660-128	10.57	3660-432	25.25
2-1/16		3660-132	10.57	3660-433	25.25
2-1/8		3660-136	12.87	3660-434	26.42
2-1/4		3660-144	12.87	3660-436	28.92

WARNING: This product contains Cobalt and/or Nickel and/or Lead a chemical known to the state of California to cause cancer or birth defects or other reproductive harm. For more information: www.pro65.ca.gov.
WARNING: Cutting tools may shatter. Always wear approved safety glasses and mask when regrinding.



Holesaw Sets

7-pc. Bi-Metal Professional Hole Saw Kit



Assortment of holesaws:
 7/8", 1", 1-1/8", 1-1/4", 1-1/2"
 Arbors: 3661-316
 Order No. 3661-995
 Price Each.....\$70.22

9-pc. Bi-Metal Plumber's HoleSaw Kit



Assortment of holesaws:
 3/4", 7/8", 1", 1-1/8", 1-1/2", 1-3/4", 2-1/4"
 Arbors: 3661-316, 3661-314
 Extensions: 3661-120
 Order No. 3662-005
 Price Each...\$104.33

9-pc. Bi-Metal Electrician's Hole Saw Kit



Assortment of holesaws:
 7/8", 1-1/8", 1-3/8", 1-3/4", 2", 2-1/2"
 Arbors: 3661-316, 3661-314
 Extensions: 3661-120
 Order No. 3662-000
 Price Each...\$122.72

7-pc. Carbide-Tipped Professional Hole Saw Kit



Assortment of holesaws: 7/8", 1", 1-1/8", 1-1/4", 1-1/4", 2", 2-1/4", 2-1/2"
 Arbors: 3661-316, Adapter: 3661-642
 Order No. 3662-014
 Price Each...\$ 101.65

17 Piece Bi-Metal General Maintenance Kit



Assortment of holesaws:
 5/8", 3/4", 7/8", 1", 1-1/8", 1-1/4", 1-3/8", 1-1/2", 1-3/4", 2", 2-1/2", 3"
 Arbors: 3661-316, 3661-314
 Adapter: 3661-642 Drills: 3661-576
 Order No. 3662-010
 Price Each...\$161.17

21-pc. Bi-Metal Professional Hole Saw Kit



Assortment of holesaws: 3/4", 7/8", 1", 1-1/8", 1-3/8", 1-1/2", 1-3/4", 2", 2-1/4", 2-1/2", 3", 3-1/4", 3-5/8", 3-3/4", 4-1/8", 4-3/4"
 Arbors: 3661-316, 3661-314
 Adapter: 3661-642 Drills: 3661-576
 Order No. 3662-012
 Price Each...\$ 308.29

Arbors/Accessories

7/16" Hex Shank
 Order No. 3661-313 Price Each...\$9.86

11/32" Hex Shank Quick Change
 Order No. 3661-318 Price Each...\$16.12

11/32" Hex
 Order No. 3661-319 Price Each...\$10.33

1/4" Triangular Shank
 Order No. 3661-316 Price Each...\$6.82

5/8" Hex Shank Quick Change
 Order No. 3661-315 Price Each...\$16.12

7/16" Hex Shank Quick Change
 Order No. 3661-314 Price Each...\$16.12

Pilot Drills
 1/4" diameter - Order No. 3661-576 Price Each...\$3.95
 1/4" diameter - Carbide Tipped
 Order No. 3661-620 Price Each...\$17.05

Adapter
 Arbor Adapter—
 Adapts 1/2-20 holesaws (9/16" to 1-3/16") thread arbor to accommodate 5/8-18 thread holesaw (1-1/4" to 6")
 Order No. 3661-642 Price Each...\$4.35
 12" Extension for Arbors
 Order No. 3661-120 Price Each...\$15.38

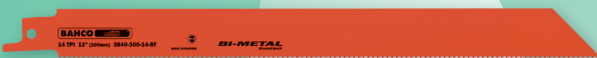


Reciprocating Saw Blades

More strength, power and precision.

Bahco by Snap-on reciprocating sawblades make it easier to cut precisely and safely through virtually any material.

Bimetal Blade, Straight Type



For straight and quick cutting of metal, plastic, laminates, and wood with nails.

Blade Length	TPI	Pack Qty	Order No.	Price Per Pack
4	14	5	3692-514	\$ 10.27
4	18	5	3692-518	10.20
4	24	5	3692-524	10.20
6	6	5	3692-536	9.70
6	8/12	5	3692-538	9.90
6	10	5	3692-540	9.70
6	14	5	3692-544	9.70
6	18	5	3692-548	9.53
6	24	5	3692-554	9.53
9	8/12	5	3692-568	16.69
9	10	5	3692-570	12.37
9	14	5	3692-574	12.20
9	18	5	3692-578	11.94
12	14	5	3692-584	15.41
12	18	5	3692-588	14.71

† Limited Quantities

Bimetal Blade, Slope Type



For all-round cutting of metal, plastic, laminates, and wood with nails.

Blade Length	TPI	Pack Qty	Order No.	Price Per Pack
6	5/8	5	3692-605	\$ 13.58
9	6	5	3692-610	17.72
12	6	5	3692-616	22.24
12	8/12	5	3692-618	22.40

Bi-Metal Reciprocating Saw Blades, Scroll Type



For contour sawing of metal, plastic, laminates, and wood with nails.

Blade Length	TPI	Pack Qty	Order No.	Price Per Pack
4	14	5	3692-634	\$ 10.00
4	18	5	3692-638	10.00
6	4/6	5	3692-644	14.75

Bi-Metal Reciprocating Saw Blades, Demolition



Extra heavy-duty bi-metal blade with coarse teeth for building and demolition work. Blade thickness is increased 0.62" (1.6mm) for greater strength to cut any building material, even heavy wood with large dimension nails.

Blade Length	TPI	Pack Qty	Order No.	Price Per Pack
6	5/8	5	3692-655	\$ 14.58
9	5/8	5	3692-660	18.22
12	5/8	5	3692-665	23.41

Wood Cutting Reciprocating Saw Blades, Slope Type



Blades with special teeth for general wood cutting. The teeth allow faster cross cutting and ripping compared to traditional blades. Blade coating minimizes friction to further increase cutting speed and ease.

Blade Length	TPI	Pack Qty	Order No.	Price Per Pack
6	7	5	3692-685	\$ 13.34
9	7	5	3692-690	16.05
12	7	5	3692-695	19.23

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WARNING: Cutting tools may shatter. Always wear approved safety glasses and mask when regrinding.



Hacksaw & Bandsaw Blades

Power Hacksaw Blades Hand Hacksaw Blades

All Hard High Speed Steel
High Speed Hacksaw Blades satisfy the highest requirements for power sawing bars, tubes, section, etc. High Speed blades are specially hardened and precision set. ²

SIZE	TEETH/INCH	ORDER NO.	PRICE EACH
12 x 5/8 x .032	14T	3811-200†	\$2.25
12 x 5/8 x .032	18T	3811-205†	2.25
12 x 1 x .050	10T	3811-210	4.90
12 x 1 x .050	14T	3811-215	4.90
14 x 1 x .050	10T	3811-400	5.70
14 x 1 x .050	14T	3811-405	5.70
14 x 1-1/4 x 0.62	6T	3811-410	9.05
14 x 1-1/4 x 0.62	10T	3811-415	9.05
14 x 1-1/4 x 0.65	4T	3811-435†	5.81
14 x 1-1/2 x 0.75	6T	3811-425	9.70
17 x 1 x .050	10T	3811-700	9.80
17 x 1 x .050	14T	3811-705	9.80
17 x 1-1/4 x 0.62	4T	3811-720†	6.84
17 x 1-1/4 x 0.62	6T	3811-710	10.65
17 x 1-1/4 x 0.62	10T	3811-715	10.65
17 x 1-1/4 x 0.65	10T	3811-725†	6.84
18 x 1-1/4 x 0.62	6T	3811-800	11.55
18 x 1-1/4 x 0.62	10T	3811-805	11.55
18 x 1-1/4 x 0.65	4T	3811-835†	7.36
18 x 1-1/4 x 0.65	10T	3811-840†	7.36
18 x 1-1/2 x .075	4T	3811-810	16.05
18 x 1-1/2 x .075	6T	3811-815	16.05
18 x 1-3/4 x .088	4T	3811-860	20.90
18 x 1-3/4 x .088	6T	3811-865	20.90
21 x 1-3/4 x .088	4T	3812-120	25.05
21 x 1-3/4 x .088	6T	3812-125	25.05
21 x 2 x .072	6T	3812-115†	17.10
24 x 1-3/4 x .088	4T	3812-415	29.05
24 x 1-3/4 x .088	6T	3812-420	29.05
24 x 1-7/8 x .050	4T	3812-405†	20.82
24 x 1-7/8 x .075	4T	3812-410†	20.82
24 x 2 x 1.00	4T	3812-430	36.35
24 x 2 x 1.00	6T	3812-435	36.35

† Limited Quantities



HIGH SPEED STEEL 					
SIZE	TEETH/INCH	ORDER NO.	PRICE P/10	ORDER NO.	PRICE EACH
10 x 1/2 x .025	18	3671-018†	\$ 7.84	—	—
10 x 1/2 x .025	24	3671-024†	7.84	3821-024†	\$0.49
10 x 1/2 x .025	32	3671-032†	7.84	—	—
12 x 1/2 x .025	14	—	—	3821-214	0.90
12 x 1/2 x .025	18	3671-218†	10.59	3821-218	0.90
12 x 1/2 x .025	24	—	—	3821-224	0.90
12 x 1/2 x .025	32	—	—	3821-232	0.90

† Limited Quantities

BI-METAL 					
SIZE	TEETH/INCH	ORDER NO.	PRICE P/10	ORDER NO.	PRICE EACH
10 x 1/2 x .025	18	3672-018	\$24.08	—	—
10 x 1/2 x .025	24	3672-024	24.08	—	—
10 x 1/2 x .025	32	3672-032	24.08	—	—
12 x 1/2 x .025	14	3672-214	24.08	—	—
12 x 1/2 x .025	18	3672-218	24.41	3821-318	\$0.85
12 x 1/2 x .025	24	3672-224	24.41	3821-324	0.85
12 x 1/2 x .025	32	3672-232	24.41	3821-332	0.85

† Limited Quantities

CARBON STEEL 			
SIZE	TEETH/INCH	ORDER NO.	PRICE P/10
10 x 1/2 x .025	18	3681-018†	\$2.96
10 x 1/2 x .025	24	3681-024†	2.96
10 x 1/2 x .025	32	3681-032†	2.96
12 x 1/2 x .025	14	3681-214†	2.96
12 x 1/2 x .025	18	3681-218†	2.96

† Limited Quantities

Hacksaws

Mini Hacksaw



Simple and quick, twist-action, blade-tensioning handle, made of beech wood and orange lacquered. Complete with 6", 32 TPI blade for metal cutting.

Order No. 3671-003 Price Ea. \$16.42 ¹

Professional Hacksaw – Import



Professional all metal hacksaw frame. Fits 10" and 12" blades. Comes with 12" Bi-Metal blade. Import

Order No. 3671-010 Price Ea. \$13.51 ²

Portable Bandsaw Blades Super Cobalt - Bimetal



- Multi-Purpose/Jobshop Cutting for Portable Hand Held Machines
- Multi purpose tooth shape provides excellent cuts in a wide variety of applications.
- M42 tooth tips offer heat and wear resistance for long blade life.
- Tough impact-resistant teeth delivers long life an exceptionally clean cuts with a range of materials, including thin wall tubes.
- Pre-welded loops supplied in 5 pack sleeves.

¹

LENGTH	WIDTH THICK	TEETH	T/TYPE	PKG. QTY.	ORDER NO.	PKG. PRICE
3' 8 1/2"	1/2"	.020 14	Regular	5	3659-032	\$41.63
3' 8 1/2"	1/2"	.020 24	Regular	5	3659-034	41.63
3' 8 1/2"	1/2"	.020 10-14	Combo	5	3659-035	41.63
3' 8 1/2"	1/2"	.020 14-18	Combo	5	3659-036	41.63

Easy Cut Bandsaw Blades

Milford's exclusive one blade for maintenance & general purpose bandsawing.



- Easy Cut blades cut almost anything - without changing blades!
- Tool Steel, Mild Steel, Stainless Steel, Aluminum, Copper, Brass, Wood, Plastic, Sheet Metal, Tubing, Solids
- Reduce inventory! Reduce expensive blade changes! Reduce machine down time!
- Ordering is easy:
 1. Tell us the width of your blade.
 2. Tell us the length of your blade.
- Blades for small & large work pieces available on request

AVAILABLE SIZES WIDTH/THK.	MEDIUM WORKPIECE SIZE RANGE	PRICE
1/2" x .025"	.08" - 1-1/2"	PRICED TO YOUR SPECIFICATIONS
3/4" x .035"	.08" - 3"	
1" x .035"	1/8" - 5"	
1-1/4" x .042"	3-1/8" - 6"	

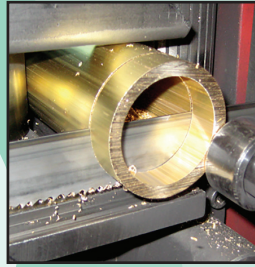
WARNING: This product contains Cobalt and/or Nickel and/or Lead a chemical known to the state of California to cause cancer or birth defects or other reproductive harm. For more information: www.prop65.ca.gov.
WARNING: Cutting tools may shatter. Always wear approved safety glasses and mask when regrinding.



Bandsaw Blades

Cobra - 3851

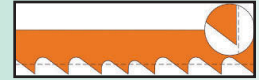
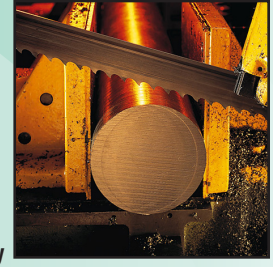
- The most flexible solution for cutting, from general purpose to production
- New improved high speed steel tooth edge gives a combination of higher hardness & higher toughness.
- Less vibrations, consequently less heat and better wear resistance.
- New geometry w/variable teeth pattern mathematically formulated to maximize cutting performance
- Superior surface finish generates less friction/vibration for improved performance.
- Best choice for production cutting of the toughest materials.
- General purpose applications, solids, bundle, even profiles and castings
- Contour cutting, including aluminum & stainless steel.
- Combo tooth type



Combo new tooth geometry with variable teeth 8-10° rake angle makes the 3851 toothings more robust and increases performance.

Sandflex M42®

- Manufactured from M42 High Speed Steel for durability and longer tool life.
- Perfect for solids, bundles, pipes, profiles and castings
- Multi-purpose tooth shapes for a variety of applications
- Designed for production and general purpose sawing
- Backing material allows band flexibility while holding up against fatigue
- Combo tooth type



Combo traditional shape tooth with varying degree 0°, 8° or 10° rake angle makes M42 suitable for multipurpose cutting of thin-walled tubes and profiles in most materials.

LENGTH	WIDTH	THK.	TPI	COBRA 3851	PRICE EACH	SANDFLEX M42	PRICE EACH
5'	1/2	.025	10-14	-	-	3656-401	\$30.67
5'	1/2	.020	10-14	3656-100	\$32.19	-	-
5' 4-1/2"	1/2"	.025	10-14	3656-103	32.01	3656-402	32.52
5' 8"	1/2	.020	10-14	3656-105	36.17	-	-
5' 8"	1/2	.025	10/14	-	-	3656-404	34.35
6' 9"	1/2	.020	10-14	3656-106	40.16	-	-
6' 9"	1/2	.025	10/14	-	-	3656-405	38.04
7' 9"	1/2	.020	10-14	3656-108	44.15	3656-406	41.72
7' 9"	3/4	.035	4-6	3656-111	51.08	3656-409	45.53
7' 9"	3/4	.035	5-8	3656-112	51.08	3656-410	45.53
7' 9"	3/4	.035	6-10	3656-113	51.08	3656-411	45.53
7' 9"	3/4	.035	8-12	3656-114	51.08	3656-412	45.53
7' 9"	3/4	.035	10-14	3656-115	51.08	3656-413	45.53
8' 5"	3/4	.035	10-14	3656-116	53.51	3656-414	47.61
8' 10-1/2"	3/4	.035	10-14	3656-117	55.93	3656-415	49.69
9'	3/4	.035	5-8	3656-118	55.93	3656-416	49.69
9'	3/4	.035	6-10	3656-119	55.93	3656-417	49.69
9'	3/4	.035	10-14	3656-120	55.93	3656-418	49.69
10'	3/4"	.035	6/10	3656-217	55.76	3656-419	53.85
10'	3/4"	.035	10/14	3656-218	55.76	3656-420	53.85
10'	1"	.035	6/10	3656-220	60.46	3656-442	60.85
10'	1"	.035	10/14	3656-221	60.46	3656-443	60.85
10' 5"	3/4	.035	8-12	3656-123	63.21	3656-421	55.93
10' 5"	3/4	.035	10-14	3656-124	63.21	3656-422	55.93
10' 9"	3/4	.035	4-6	3656-125	65.64	3656-423	58.01
10' 9"	3/4	.035	6-10	3656-126	65.64	3656-424	58.01
10' 10-1/2"	3/4	.035	5-8	3656-128	65.64	3656-425	58.01
10' 10-1/2"	3/4	.035	6-10	3656-129	65.64	3656-426	58.01
10' 10-1/2"	3/4	.035	8-12	3656-130	65.64	3656-427	58.01
10' 10-1/2"	3/4	.035	10-14	3656-131	65.64	3656-428	58.01
10' 10-1/2"	1	.035	4-6	3656-134	71.21	3656-444	65.49
10' 10-1/2"	1	.035	5-8	3656-135	71.21	3656-445	65.49
10' 10-1/2"	1	.035	6-10	3656-136	71.21	3656-446	65.49
10' 10-1/2"	1	.035	8-12	3656-137	71.21	3656-446	65.49
10' 10-1/2"	1	.035	10-14	3656-138	71.21	3656-448	65.49
11'	1	.035	4-6	3656-140	71.21	3656-449	65.49
11'	1	.035	5-8	3656-141	71.21	3656-450	65.49
11'	1	.035	6-10	3656-142	71.21	3656-451	65.49
11'	1	.035	8-12	3656-143	71.21	3656-452	65.49
11' 6"	3/4	.035	4-6	3656-146	68.07	3656-429	60.09
11' 6"	3/4	.035	5-8	3656-147	68.07	3656-430	60.09
11' 6"	3/4	.035	6-10	3656-148	68.07	3656-431	60.09
11' 6"	3/4	.035	8-12	3656-149	68.07	3656-432	60.09
11' 6"	3/4	.035	10-12	-	-	3656-433	60.09
11' 6"	3/4	.035	10-14	3656-150	68.07	-	-
11' 6"	1	.035	4/6	3656-152	67.48	3656-453	67.81
11' 6"	1	.035	5-8	3656-153	73.79	3656-454	67.81
11' 6"	1	.035	6-10	3656-154	73.79	3656-455	67.81
11' 6"	1	.035	8-12	3656-155	73.79	3656-456	67.81
11' 6"	1	.035	10-14	3656-156	73.79	3656-457	67.81
12'	1	.035	3-4	3656-158	76.36	3656-458	70.12
12'	1	.035	4-6	3656-159	76.36	3656-459	70.12

LENGTH	WIDTH	THK.	TPI	COBRA 3851	PRICE EACH	SANDFLEX M42	PRICE EACH
12'	1	.035	5-8	3656-160	\$76.36	3656-460	\$70.12
12'	1	.035	6-10	3656-161	76.36	3656-461	70.12
12'	1	.035	8-12	3656-162	76.36	3656-462	70.12
12'	1	.035	10-14	3656-163	76.36	3656-463	70.12
12'	1-1/4	.042	3-4	3656-164	89.98	3656-464	83.22
12'	1-1/4	.042	4-6	3656-165	89.98	3656-485	83.22
12'	1-1/4	.042	5-8	3656-166	89.98	3656-486	83.22
12' 6"	1/2	.020	10-14	3656-168	62.09	-	-
12' 6"	1/2	.025	10-14	-	-	3656-408	58.30
12' 6"	1	.035	4-6	3656-169	78.94	-	-
12' 6"	1	.035	5-8	3656-170	78.94	-	-
12' 6"	1	.035	6-10	3656-171	78.94	-	-
12' 6"	1	.035	8-12	3656-172	78.94	-	-
12' 6"	1	.035	10-14	3656-173	78.94	-	-
12' 10"	3/4	.035	4-6	3656-219	69.02	3656-434	66.33
13' 6"	1	.035	4-6	3656-174	84.10	3656-469	77.08
13' 6"	1	.035	5-8	3656-175	84.10	3656-470	77.08
13' 6"	1	.035	6-10	3656-176	84.10	3656-471	77.08
13' 6"	1	.035	8-12	3656-177	84.10	3656-472	77.08
13' 6"	1-1/4	.042	4-6	3656-178	99.21	3656-487	91.61
13' 6"	1-1/4	.042	5-8	3656-179	99.21	3656-488	91.61
13' 11"	1	.035	5-8	3656-182	86.68	-	-
13' 11"	1	.035	6-10	3656-183	86.68	3656-474	79.40
13' 11"	1	.035	8-12	3656-184	86.68	3656-475	79.40
13' 11"	1	.035	10-14	3656-185	86.68	3656-476	79.40
14' 6"	3/4	.035	5-8	3656-186	82.63	3656-435	72.57
14' 6"	3/4	.035	6-10	3656-187	82.63	3656-436	72.57
14' 6"	3/4	.035	10-14	3656-188	82.63	3656-437	72.57
14' 6"	1	.035	3-4	3656-190	89.26	3656-477	81.72
14' 6"	1	.035	4-6	3656-191	89.26	3656-478	81.72
14' 6"	1	.035	5-8	3656-192	89.26	3656-479	81.72
14' 6"	1	.035	6-10	3656-193	89.26	3656-480	81.72
14' 6"	1	.035	8-12	3656-194	89.26	3656-481	81.72
14' 6"	1	.035	10-14	3656-195	89.26	3656-482	81.72
14' 6"	1-1/4	.042	3-4	3656-196	105.36	3656-489	97.20
14' 6"	1-1/4	.042	4-6	3656-197	105.36	3656-490	97.20
14' 6"	1-1/4	.042	5-8	3656-198	105.36	3656-491	97.20
14' 8"	3/4	.035	5-8	3656-202	85.05	3656-438	74.65
14' 8"	3/4	.035	6-10	3656-203	85.05	3656-439	74.65
14' 8"	3/4	.035	8-12	3656-204	85.05	3656-440	74.65
14' 8"	3/4	.035	10-14	3656-205	85.05	3656-441	74.65
15'	1-1/4	.042	3-4	3656-206	108.44	3656-492	99.99
15'	1-1/4	.042	4-6	3656-207	108.44	3656-493	99.99
15'	1-1/4	.042	5-8	3656-208	108.44	3656-494	99.99
15' 6"	1	.035	3-4	3656-209	94.41	3656-483	86.35
15' 6"	1-1/4	.042	4-6	3656-210	111.51	3656-495	102.79
15' 8"	1-1/4	.042	4-6	3656-211	114.59	3656-496	105.58
16'	1-1/4	.042	4-6	3656-213	114.59	3656-497	105.58
17' 6"	1-1/2	.042	3-4	-	-	3656-498	133.68
17' 6"	1-1/2	.050	3-4	3656-215	148.85	-	-
18'	1-1/2	.042	4-6	-	-	3656-499	136.99
18'	1-1/2	.050	4-6	3656-216	152.59	-	-

Other Bandsaw Blade grades available on request; Sandvik 100' & 250' coils available on request.

Side Milling Cutters- Straight Tooth

High Speed Steel



2		1		Pittsburgh		ALLEGIANCE	
DIAM.		FACE	HOLE	ORDER	PRICE	ORDER	PRICE
		WIDTH		NO.	EACH	NO.	EACH
2	3/16	1/2		2810-010	\$43.22	2814-010	POA
2	1/4	1/2		2810-020	43.22	2814-020	POA
2	3/8	1/2		2810-030	43.22	2814-030	POA
2	3/16	5/8		2810-040	43.22	2814-040	POA
2	1/4	5/8		2810-050	39.22	2814-050	POA
2	3/8	5/8		2810-060	43.22	2814-060	POA
2	1/4	7/8		2810-070	43.22	-	-
2	5/16	7/8		2810-080	41.91	-	-
2	3/8	7/8		2810-090	43.22	-	-
2	7/16	7/8		2810-100	52.90	-	-
2-1/2	1/4	7/8		2810-120	52.74	2814-120	POA
2-1/2	5/16	7/8		2810-130	53.94	2814-130	POA
2-1/2	3/8	7/8		2810-140	58.81	2814-140	POA
2-1/2	1/2	7/8		2810-160	59.88	2814-160	POA
2-1/2	3/16	1		2810-170	50.83	-	-
2-1/2	1/4	1		2810-180	52.74	2814-180	POA
2-1/2	5/16	1		2810-190	53.94	2814-190	POA
2-1/2	3/8	1		2810-200	58.81	2814-200	POA
2-1/2	7/16	1		2810-210	67.85	2814-210	POA
2-1/2	1/2	1		2810-220	59.88	2814-220	POA
2-1/2	5/8	1		2810-230	69.35	2814-230	POA
3	3/16	1		2810-240	51.74	2814-240	POA
3	7/32	1		2810-250	55.98	2814-250	POA
3	1/4	1		2810-260	60.81	2814-260	POA
3	9/32	1		2810-270	62.68	2814-270	POA
3	5/16	1		2810-280	63.95	2814-280	POA
3	11/32	1		2810-290	65.21	2814-290	POA
3	3/8	1		2810-300	67.95	2814-300	POA
3	13/32	1		2810-310	69.86	2814-310	POA
3	7/16	1		2810-320	72.04	2814-320	POA
3	1/2	1		2810-330	73.03	2814-330	POA
3	9/16	1		2810-340	74.62	2814-340	POA
3	5/8	1		2810-350	76.85	2814-350	POA
3	11/16	1		2810-360	81.25	2814-360	POA
3	3/4	1		2810-370	82.96	2814-370	POA
3	13/16	1		2810-380	103.71	2814-380	POA
3	7/8	1		2810-390	121.85	2814-390	POA
3	15/16	1		2810-400	124.98	2814-400	POA
3	1	1		2810-410	131.55	2814-410	POA
3	1/4	1-1/4		2810-420	60.81	2814-420	POA
3	5/16	1-1/4		-	-	2814-430	POA
3	3/8	1-1/4		2810-440	67.95	2814-440	POA
3	7/16	1-1/4		2810-450	72.04	2814-450	POA
3	1/2	1-1/4		2810-460	73.03	2814-460	POA
3	5/8	1-1/4		2810-470	76.85	2814-470	POA
3	3/4	1-1/4		2810-480	82.96	2814-480	POA
3	7/8	1-1/4		-	-	2814-490	POA
3	1	1-1/4		-	-	2814-500	POA
3-1/2	3/16	1		-	-	2814-510	POA
3-1/2	1/4	1		-	-	2814-520	POA
3-1/2	5/16	1		2810-530	78.66	2814-530	POA
3-1/2	3/8	1		-	-	2814-540	POA
3-1/2	7/16	1		2810-550	83.27	2814-550	POA
3-1/2	1/2	1		-	-	2814-560	POA
3-1/2	5/8	1		2810-570	96.05	2814-570	POA
3-1/2	3/4	1		2810-580	119.03	2814-580	POA
3-1/2	7/8	1		2810-590	121.90	2814-590	POA
3-1/2	1	1		2810-600	124.20	2814-600	POA
3-1/2	7/16	1-1/4		-	-	2814-610	POA
3-1/2	1/2	1-1/4		-	-	2814-620	POA
4	3/16	1		2810-630	75.04	-	-
4	7/32	1		2810-640	78.45	-	-
4	1/4	1		2810-650	82.28	2814-650	POA
4	9/32	1		2810-660	82.80	-	-
4	5/16	1		2810-670	82.96	2814-670	POA
4	11/32	1		2810-680	89.14	2814-680	POA
4	3/8	1		2810-690	94.29	2814-690	101.40
4	13/32	1		-	-	2814-710	POA
4	7/16	1		-	-	2814-700	POA
4	1/2	1		2810-720	105.01	2814-720	POA
4	9/16	1		-	-	2814-730	POA
4	5/8	1		2810-740	117.16	2814-740	POA
4	11/16	1		2810-750	124.32	2814-750	POA
4	3/4	1		2810-760	124.32	2814-760	POA
4	13/16	1		2810-770	127.13	2814-770	POA

2		1		Pittsburgh		ALLEGIANCE	
DIAM.		FACE	HOLE	ORDER	PRICE	ORDER	PRICE
		WIDTH		NO.	EACH	NO.	EACH
4	7/8	1		2810-780	\$137.59	2814-780	POA
4	15/16	1		2810-790	143.45	2814-790	POA
4	1	1		2810-800	161.25	2814-800	POA
4	3/16	1-1/4		2810-810	75.04	-	-
4	7/32	1-1/4		2810-820	78.45	-	-
4	1/4	1-1/4		2810-830	82.28	-	-
4	9/32	1-1/4		-	-	2814-840	POA
4	5/16	1-1/4		2810-850	82.96	2814-850	POA
4	11/32	1-1/4		2810-860	89.14	2814-860	POA
4	3/8	1-1/4		2810-870	94.29	2814-870	POA
4	7/16	1-1/4		2810-880	95.17	2814-880	POA
4	13/32	1-1/4		2810-890	94.29	2814-890	POA
4	1/2	1-1/4		2810-900	105.01	-	-
4	9/16	1-1/4		2810-910	105.46	2814-910	POA
4	5/8	1-1/4		2810-920	117.16	2814-920	POA
4	11/16	1-1/4		2810-930	124.32	-	-
4	3/4	1-1/4		2810-940	124.32	2814-940	POA
4	13/16	1-1/4		2810-950	127.13	-	-
4	7/8	1-1/4		2810-960	137.59	2814-960	POA
4	15/16	1-1/4		2810-970	143.45	2814-970	POA
4	1	1-1/4		2810-980	161.25	2814-980	POA
4	1-1/8	1-1/4		2810-990	178.25	-	-
4	1-1/4	1-1/4		2811-000	193.20	-	-
4-1/2	3/8	1-1/4		-	-	2815-020	POA
4-1/2	1/2	1-1/4		2811-030	139.73	2815-030	POA
5	1/4	1		2811-040	119.03	2815-040	POA
5	9/32	1		2811-050	124.20	2815-050	POA
5	5/16	1		2811-060	127.11	2815-060	POA
5	11/32	1		2811-070	129.23	2815-070	POA
5	3/8	1		2811-080	139.82	2815-080	POA
5	13/32	1		2811-090	143.99	2815-090	POA
5	7/16	1		2811-100	147.73	2815-100	POA
5	1/2	1		2811-110	147.73	2815-110	POA
5	9/16	1		2811-120	159.39	2815-120	POA
5	5/8	1		2811-130	163.53	2815-130	POA
5	11/16	1		2811-140	175.95	2815-140	POA
5	3/4	1		2811-150	177.39	2815-150	POA
5	13/16	1		2811-160	186.82	2815-160	POA
5	7/8	1		2811-170	197.57	2815-170	POA
5	15/16	1		2811-180	201.83	2815-180	POA
5	1	1		2811-190	209.99	2815-190	POA
5	1/4	1-1/4		2811-200	119.03	2815-200	POA
5	9/32	1-1/4		2811-210	124.20	2815-210	POA
5	5/16	1-1/4		2811-220	127.11	2815-220	POA
5	11/32	1-1/4		2811-230	129.23	2815-230	POA
5	3/8	1-1/4		2811-240	139.82	2815-240	POA
5	13/32	1-1/4		2811-250	143.99	2815-250	POA
5	7/16	1-1/4		2811-260	147.73	2815-260	POA
5	1/2	1-1/4		2811-270	147.73	2815-270	POA
5	9/16	1-1/4		2811-280	159.39	2815-280	POA
5	5/8	1-1/4		2811-290	163.53	2815-290	POA
5	11/16	1-1/4		2811-300	175.95	2815-300	POA
5	3/4	1-1/4		2811-310	177.39	2815-310	POA
5	13/16	1-1/4		2811-320	186.82	2815-320	POA
5	7/8	1-1/4		2811-330	197.57	2815-330	POA
5	15/16	1-1/4		2811-340	201.83	-	-
5	1	1-1/4		2811-350	209.99	2815-350	POA
5	1-1/8	1-1/4		2811-360	65.95	-	-
5	1-1/4	1-1/4		2811-370	241.50	-	-
5	1-1/2	1-1/4		2811-380	65.95	-	-
6	3/16	1		-	-	-	-
6	1/4	1		2811-400	164.57	2815-400	POA
6	5/16	1		2811-410	170.78	2815-410	POA
6	3/8	1		2811-420	174.92	2815-420	POA
6	7/16	1		2811-430	176.25	2815-430	POA
6	1/2	1		2811-440	184.67	2815-440	POA
6	9/16	1		2811-450	191.48	2815-450	POA
6	5/8	1		-	-	2815-460	POA
6	11/16	1		2811-470	206.38	2815-470	POA
6	3/4	1		2811-480	236.56	2815-480	POA
6	13/16	1		2811-490	239.04	2815-490	POA
6	7/8	1		2811-500	244.04	2815-500	POA
6	15/16	1		2811-510	251.05	2815-510	POA
6	1	1		2811-520	279.97	2815-520	POA
6	1-1/4	1		2811-530	326.03	-	-
6	3/16	1-1/4		2811-540	46.75	-	-
6	1/4	1-1/4		2811-550	164.57	2815-550	POA
6	9/32	1-1/4		2811-560	170.78	2815-560	POA
6	5/16	1-1/4		2811-570	170.78	2815-570	POA
6	11/32	1-1/4		2811-580	174.92	2815-580	POA
6	3/8	1-1/4		2811-590	174.92	2815-590	POA
6	13/32	1-1/4		-	-	2815-600	POA
6	7/16	1-1/4		2811-610	176.25	2815-610	POA
6	1/2	1-1/4		2811-620	184.67	2815-620	

Side Milling Cutters - Staggered Tooth

High Speed
Steel



WARNING: This product contains Cobalt and/or Nickel and/or Lead a chemical known to the state of California to cause cancer or birth defects or other reproductive harm. For more information: www.prop65.ca.gov.
WARNING: Cutting tools may shatter. Always wear approved safety glasses and mask when regrinding.

			Pittsburg AMERICAN MADE		ALLEGIANCE AMERICAN MADE	
DIAM.	FACE WIDTH	HOLE	ORDER NO.	PRICE EACH	ORDER NO.	PRICE EACH
2-1/2	3/16	7/8	2820-010	\$82.63	—	—
2-1/2	1/4	7/8	2820-020	70.84	2824-020	POA
2-1/2	5/16	7/8	2820-030	69.97	2824-030	POA
2-1/2	3/8	7/8	2820-040	80.35	2824-040	POA
2-1/2	7/16	7/8	2820-050	84.36	—	—
2-1/2	1/2	7/8	2820-060	84.36	2824-060	POA
2-1/2	1/4	1	—	—	2824-070	POA
2-1/2	7/16	1	—	—	2824-080	POA
2-1/2	1/2	1	—	—	2824-090	POA
3	3/16	1	2820-100	67.95	2824-100	POA
3	7/32	1	2820-110	93.38	2824-110	POA
3	1/4	1	2820-120	67.49	2824-120	POA
3	9/32	1	2820-130	78.14	2824-130	POA
3	5/16	1	2820-140	80.01	2824-140	POA
3	11/32	1	2820-150	82.65	2824-150	POA
3	3/8	1	2820-160	82.65	2824-160	POA
3	13/32	1	2820-165	21.50	2824-165	POA
3	7/16	1	2820-170	84.04	2824-170	POA
3	1/2	1	2820-180	87.56	2824-180	POA
3	9/16	1	2820-190	87.77	2824-190	POA
3	5/8	1	2820-200	92.12	2824-200	POA
3	11/16	1	2820-210	96.95	2824-210	POA
3	3/4	1	2820-220	98.00	2824-220	POA
3	13/16	1	2820-230	113.33	2824-230	POA
3	7/8	1	2820-240	115.92	2824-240	POA
3	15/16	1	2820-250	134.55	2824-250	POA
3	1	1	2820-260	140.51	2824-260	POA
3	3/16	1-1/4	2820-270	67.95	2824-270	POA
3	7/32	1-1/4	2820-280	93.38	2824-280	POA
3	1/4	1-1/4	2820-290	67.49	2824-290	POA
3	9/32	1-1/4	2820-300	78.14	2824-300	POA
3	5/16	1-1/4	2820-310	80.01	2824-310	POA
3	11/32	1-1/4	2820-320	20.15	2824-320	POA
3	3/8	1-1/4	2820-330	84.04	2824-330	POA
3	13/32	1-1/4	2820-340	21.50	2824-340	POA
3	7/16	1-1/4	2820-350	87.56	2824-350	POA
3	1/2	1-1/4	2820-360	89.54	2824-360	POA
3	9/16	1-1/4	2820-370	92.12	2824-370	POA
3	5/8	1-1/4	2820-380	92.12	2824-380	POA
3	11/16	1-1/4	2820-390	96.95	2824-390	POA
3	3/4	1-1/4	2820-400	98.00	2824-400	POA
3	13/16	1-1/4	2820-410	113.33	2824-410	POA
3	7/8	1-1/4	2820-420	115.92	2824-420	POA
3	15/16	1-1/4	2820-430	134.55	2824-430	POA
3	1	1-1/4	2820-440	139.83	2824-440	POA
3	1-1/8	1-1/4	2820-450	40.10	—	—
3	1-1/4	1-1/4	2820-460	40.10	—	—
3-1/2	1/4	1	2820-480	98.33	2824-480	POA
3-1/2	5/16	1	2820-500	98.33	2824-500	POA
3-1/2	11/32	1	2820-510	29.65	—	—
3-1/2	3/8	1	2820-520	112.56	2824-520	POA
3-1/2	7/16	1	2820-540	120.84	—	—
3-1/2	1/2	1	2820-550	124.20	2824-550	POA
3-1/2	5/8	1	2820-570	139.73	2824-570	POA
3-1/2	11/16	1	2820-580	144.39	2824-580	POA
3-1/2	3/4	1	—	—	2824-590	POA
3-1/2	1/4	1-1/4	—	—	2824-600	POA
3-1/2	5/16	1-1/4	2820-610	29.65	2824-610	POA
3-1/2	3/8	1-1/4	2820-620	112.56	2824-620	POA
3-1/2	7/16	1-1/4	2820-630	34.05	2824-630	POA
3-1/2	1/2	1-1/4	—	—	2824-640	POA
3-1/2	9/16	1-1/4	—	—	2824-650	POA
3-1/2	5/8	1-1/4	—	—	2824-660	POA
3-1/2	11/16	1-1/4	—	—	2824-670	POA
3-1/2	3/4	1-1/4	—	—	2824-680	POA
3-1/2	13/16	1-1/4	—	—	2824-690	POA
3-1/2	7/8	1-1/4	2820-700	144.52	2824-700	POA
3-1/2	15/16	1-1/4	—	—	2824-710	POA
3-1/2	1	1-1/4	2820-720	183.10	2824-720	POA
4	3/16	1	2820-730	95.74	2824-730	POA
4	7/32	1	2820-740	99.36	2824-740	POA
4	1/4	1	2820-750	108.94	2824-750	POA
4	9/32	1	2820-760	113.44	2824-760	POA
4	5/16	1	2820-770	115.92	2824-770	POA
4	11/32	1	2820-780	117.88	2824-780	POA
4	3/8	1	2820-790	121.39	2824-790	POA
4	13/32	1	—	—	2824-800	POA
4	7/16	1	2820-810	125.19	2824-810	POA
4	1/2	1	2820-820	129.06	2824-820	POA
4	9/16	1	2820-830	134.25	2824-830	POA
4	5/8	1	2820-840	149.64	2824-840	POA
4	11/16	1	2820-850†	154.22	2824-850	POA

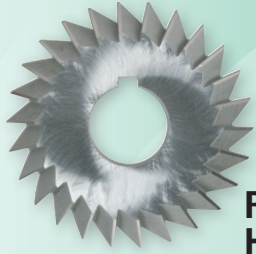
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				Pittsburg® ALUMINUM		ALLEGIANCE® AMERICAN MADE	
	FACE			ORDER	PRICE	ORDER	PRICE
DIAM.	WIDTH	HOLE		NO.	EACH	NO.	EACH
4	3/4	1		2820-860	\$156.86	2824-860	POA
4	13/16	1		2820-870	166.49	2824-870	POA
4	7/8	1		2820-880	166.49	2824-880	POA
4	15/16	1		2820-890	184.74	2824-890	POA
4	1	1		2820-900	192.51	2824-900	POA
4	3/16	1-1/4		2820-910	95.74	2824-910	POA
4	7/32	1-1/4		2820-920	99.36	2824-920	POA
4	1/4	1-1/4		2820-930	108.94	2824-930	POA
4	9/32	1-1/4		2820-940	113.44	2824-940	POA
4	5/16	1-1/4		2820-950	115.92	2824-950	POA
4	11/32	1-1/4		—	—	2824-960	POA
4	3/8	1-1/4		2820-970	121.39	2824-970	POA
4	13/32	1-1/4		2820-980	125.19	2824-980	POA
4	7/16	1-1/4		2820-990	126.68	2824-990	POA
4	1/2	1-1/4		2821-000	129.06	2825-000	POA
4	9/16	1-1/4		2821-010	134.25	2825-010	POA
4	5/8	1-1/4		2821-020	149.64	2825-020	POA
4	11/16	1-1/4		2821-030	154.22	2825-030	POA
4	3/4	1-1/4		2821-040	156.86	2825-040	POA
4	13/16	1-1/4		2821-050	166.49	2825-050	POA
4	7/8	1-1/4		—	—	2825-060	POA
4	15/16	1-1/4		2821-070	184.74	2825-070	POA
4	1	1-1/4		2821-080	192.51	2825-080	POA
4	1-1/8	1-1/4		—	—	2825-090	POA
4	1-3/16	1-1/4		2821-100	227.07	2825-100	POA
4	1-1/4	1-1/4		2821-110	276.00	2825-110	POA
4	1-1/2	1-1/4		—	—	2825-120	POA
4-1/2	1/4	1-1/4		2821-150	43.05	—	—
4-1/2	5/16	1-1/4		2821-160	45.65	—	—
4-1/2	7/8	1-1/4		2821-220	179.04	—	—
4-1/2	1	1-1/4		2821-230	219.06	—	—
5	7/32	1		—	—	2825-250	POA
5	1/4	1		2821-260	154.73	2825-260	POA
5	9/32	1		—	—	2825-270	POA
5	5/16	1		2821-280	159.14	2825-280	POA
5	11/32	1		2821-290†	45.65	2825-290	POA
5	3/8	1		2821-300	164.15	2825-300	POA
5	13/32	1		—	—	2825-310	POA
5	7/16	1		2821-320	170.89	2825-320	POA
5	1/2	1		2821-330	174.71	2825-330	POA
5	9/16	1		—	—	2825-340	POA
5	5/8	1		2821-350	195.44	2825-350	POA
5	11/16	1		2821-360	213.58	2825-360	POA
5	3/4	1		2821-370	211.20	2825-370	POA
5	13/16	1		2821-380	233.04	2825-380	POA
5	7/8	1		2821-390	233.04	2825-390	POA
5	7/32	1-1/4		—	—	2825-410	POA
5	1/4	1-1/4		2821-420	154.73	2825-420	POA
5	9/32	1-1/4		—	—	2825-430	POA
5	5/16	1-1/4		2821-440	159.14	2825-440	POA
5	11/32	1-1/4		2821-450†	45.65	2825-450	POA
5	3/8	1-1/4		2821-460	164.15	2825-460	POA
5	13/32	1-1/4		—	—	2825-470	POA
5	7/16	1-1/4		2821-480	170.89	2825-480	POA
5	1/2	1-1/4		2821-490	174.71	2825-490	POA
5	9/16	1-1/4		2821-500	182.16	2825-500	POA
5	5/8	1-1/4		2821-510	195.44	2825-510	POA
5	11/16	1-1/4		—	—	2825-520	POA
5	3/4	1-1/4		2821-530	211.20	2825-530	POA
5	13/16	1-1/4		—	—	2825-540	POA
5	7/8	1-1/4		2821-550	233.04	2825-550	POA
5	15/16	1-1/4		2821-560	258.84	2825-560	POA
5	1	1-1/4		2821-570	263.93	2825-570	POA
6	3/16	1		2821-580	55.45	—	—
6	1/4	1		2821-590	190.33	2825-590	POA
6	9/32	1		—	—	2825-600	POA
6	5/16	1		2821-610	204.93	2825-610	POA
6	11/32	1		2821-620	59.75	2825-620	POA
6	3/8	1		2821-630	204.93	2825-630	POA
6	7/16	1		2821-640	217.30	2825-640	POA
6	1/2	1		2821-650	230.81	2825-650	POA
6	9/16	1		—	—	2825-660	POA
6	5/8	1		—	—	2825-670	POA
6	11/16	1		—	—	2825-680	POA
6	3/4	1		2821-690	279.45	2825-690	POA
6	13/16	1		2821-700	331.20	2825-700	POA
6	7/8	1		2821-710	331.20	2825-710	POA
6	15/16	1		2821-720	350.87	—	—
6	1	1		2821-730	356.62	—	—
6	7/32	1-1/4		—	—	2825-745	POA
6	1/4	1-1/4		2821-750	190.33	2825-750	POA
6	9/32	1-1/4		2821-760	190.33	2825-760	POA
6	5/16	1-1/4		2821-770	204.93	2825-770	POA
6	11/32	1-1/4		—	—	2825-780	POA
6	3/8	1-1/4		2821-790	204.93	2825-790	POA
6	13/32	1-1/4		—	—	2825-800	POA
6	7/16	1-1/4		2821-810	217.30	2825-810	POA
6	1/2	1-1/4		2821-820	230.81	2825-820	POA
6	9/16	1-1/4		2821-830	246.30	2825-830	POA
6	5/8	1-1/4		2821-840	261.83	2825-840	POA
6	11/16	1-1/4		—	—	2825-850	POA
6	3/4	1-1/4		2821-860	279.45	2825-860	POA
6	13/16	1-1/4		2821-870	331.20	2825-870	POA
6	7/8	1-1/4		2821-880	331.20	2825-880	POA
6	15/16	1-1/4		2821-890	350.87	2825-890	POA
6	1	1-1/4		2821-900	356.62	2825-900	POA
6	1-1/8	1-1/4		2821-910	381.92	2825-910	POA
6	1-3/16	1-1/4		2821-920	381.92	2825-920	POA

Cutters

WARNING: This product contains Cobalt and/or Nickel and/or Lead a chemical known to the state of California to cause cancer or birth defects or other reproductive harm. For more information: www.prop65.ca.gov.
WARNING: Cutting tools may shatter. Always wear approved safety glasses and mask when regrinding.

Single Angle

Pittsburg
ALLEGANY



Right Hand



Left Hand

2

DIAM.	FACE WIDTH	ARBOR HOLE	45°		60°		PRICE EACH
			R.H. ORDER NO.	L.H. ORDER NO.	R.H. ORDER NO.	L.H. ORDER NO.	
2-1/2	1/2	7/8	—	2831-210	2831-410	2831-610	\$ 85.11
2-3/4	1/2	1	—	—	—	2831-620	95.35
3	1/2	1	—	—	—	2831-625	115.60
3	3/4	1	—	—	—	2831-640	186.18
3	1/2	1-1/4	—	2831-250	—	2831-650	115.60
3	5/8	1-1/4	—	2831-260	2831-460	2831-660	167.63
3	3/4	1-1/4	—	—	2831-470	2831-670	186.18
4	1/2	1-1/4	—	2831-280	—	2831-680	243.56
4	3/4	1-1/4	—	2831-290	2831-490	2831-690	268.04
4	1	1-1/4	—	—	—	2831-700	268.04
4-1/2	1/2	1-1/4	—	2831-305	—	—	62.15
5	3/4	1-1/4	—	2831-310	2831-510	—	309.66
5	1	1-1/4	—	2831-320	2831-520	2831-720	291.96
6	3/4	1-1/4	—	2831-330	2831-530	2831-730	414.34
6	1	1-1/4	—	2831-340	—	2831-740	493.65
6	1-1/4	1-1/4	—	—	—	2831-750	537.75

Double Angle

Pittsburg
ALLEGANY

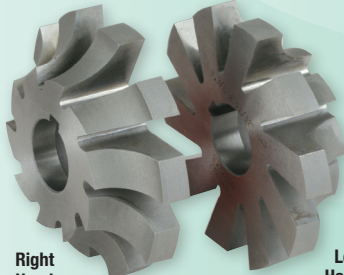


2

DIAM.	FACE WIDTH	ARBOR HOLE	45° ORDER NO.	60° ORDER NO.	90° ORDER NO.	PRICE EACH
			—	2835-245	2835-445	
3	3/4	1-1/4	—	2835-035	—	\$38.05
4	1/2	1	—	—	—	49.05
6	3/4	1-1/4	—	2835-100	—	423.83
6	1-1/4	1-1/4	—	2835-115	—	640.67
6	1-1/2	1-1/4	—	2835-120	—	614.54

Corner Rounding –Arbor Type

Pittsburg
ALLEGANY



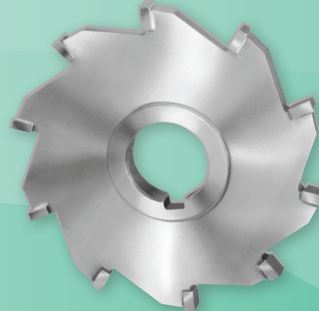
Right Hand

Left Hand

2

CIRCLE RADIUS	CUT. DIAM.	ARBOR HOLE	R.H. ORDER NO.	PRICE EACH	L.H. ORDER NO.	PRICE EACH
1/8	2	7/8	2834-010	\$ 77.63	2834-310	\$ 77.63
1/8	2-1/2	1	2834-020	79.58	2834-320	79.58
1/4	2-1/4	7/8	2834-050	105.23	—	—
5/16	2-3/4	1	—	—	2834-370	171.93
5/16	3	1	2834-080	192.48	2834-380	192.48
3/8	3	1	2834-090	157.03	2834-390	157.03
3/8	3-3/4	1-1/4	2834-100	157.03	2834-400	157.03
7/16	3-1/4	1	2834-110	204.76	2834-410	204.76
1/2	3-1/4	1	—	—	2834-420	209.82
1/2	4-1/2	1-1/4	2834-130	213.84	2834-430	213.84
9/16	3-1/2	1	—	—	2834-440	264.21
5/8	3-1/2	1	2834-150	236.33	2834-450	236.33
5/8	4-1/4	1-1/4	—	—	2834-460	241.79
7/8	4-1/2	1-1/4	2834-180	379.50	2834-480	379.50
1	4-1/2	1-1/4	—	—	2834-490	386.80

Carbide Tipped Milling Cutters



Closeout!

2

DIA.	FACE WIDTH	ARBOR HOLE	NO. OF TEETH	FOR CAST IRON		FOR STEEL	
				ORDER NO.	PRICE EACH	ORDER NO.	PRICE EACH
4	3/8	1	6	3856-908*	\$327.60	—	—
4	5/8	1-1/4	10	3035-302	110.50	3035-324	\$121.10
4	3/4	1-1/4	10	3035-304	110.50	3035-336	540.00
5	9/16	1-1/4	12	—	—	3035-348	129.95
5	5/8	1-1/4	12	3035-308	135.75	3035-360	152.55
5	3/4	1-1/4	12	3035-310	153.75	3035-372	558.00
6	3/4	1-1/4	12	3035-316	188.00	3035-408	711.12
6	1	1-1/4	12	3035-320	897.48	3035-432	762.72

Involute Gear Cutters

High Speed Steel



RANGE OF CUTTERS:

Finishing Gear Milling Cutters are made with eight cutters for each pitch and are adapted to cut from a pinion of 12 teeth to a rack. The individual cutters for each pitch have a range as follows:

No. 1
will cut gears from
135 teeth to a rack

No. 2
will cut gears from
55 teeth to 134 teeth

No. 3
will cut gears from
35 teeth to 54 teeth

No. 4
will cut gears from
26 teeth to 34 teeth

No. 5
will cut gears from
21 teeth to 25 teeth

No. 6
will cut gears from
17 teeth to 20 teeth

No. 7
will cut gears from
14 teeth to 16 teeth

No. 8
will cut gears from
12 teeth to 13 teeth

WARNING: This product contains Cobalt and/or Nickel and/or Lead a chemical known to the state of California to cause cancer or birth defects or other reproductive harm. For more information: www.pro65.ca.gov.
WARNING: Cutting tools may shatter. Always wear approved safety glasses and mask when regrinding.

2	DIAM. PITCH	CUT. DIAM.	ARBOR HOLE	14 - 1 / 2 ° PRESSURE ANGLE								PRICE EACH	
	1	2		1	2	3	4	5	6	7	8		
14 - 1 / 2 ° PRESSURE ANGLE	1	8-1/2	2	2840-010	2840-020	2840-030	2840-040	2840-050	2840-060	2840-070	2840-080	\$1970.10	
	1-1/4	7-3/4	2	2840-090	2840-100	2840-110	2840-120	2840-130	2840-140	2840-150	2840-160	1386.00	
	1-1/2	7	1-3/4	2840-170	2840-180	2840-190	2840-200	2840-210	2840-220	2840-230	2840-240	985.05	
	1-3/4	6-1/2	1-3/4	2840-250	2840-260	2840-270	2840-280	2840-290	2840-300	2840-310	2840-320	841.50	
	2	5-3/4	1-1/2	2840-330	2840-340	2840-350	2840-360	2840-370	2840-380	2840-390	2840-400	539.25	
	2-1/2	5-3/4	1-1/2	2840-410	-	2840-430	2840-440	2840-450	-	-	2840-480	420.33	
	3	5-1/4	1-1/2	2840-490	2840-500	2840-510	2840-520	2840-530	2840-540	2840-550	2840-560	367.40	
	3	4-3/4	1-1/4	2840-570	-	2840-590	2840-600	2840-610	-	-	2840-640	295.98	
	4	4-1/2	1-1/2	2840-650	2840-660	2840-670	2840-680	2840-690	2840-700	2840-710	2840-720	223.20	
	4	4-1/4	1-1/4	2840-730	2840-740	2840-750	2840-760	2840-770	2840-780	2840-790	2840-800	208.30	
	4	3-5/8	1	2840-810	2840-820	2840-830	2840-840	2840-850	2840-860	-	2840-880	183.71	
	5	3-3/4	1-1/4	-	2840-900	2840-910	2840-920	2840-930	-	2840-950	2840-960	164.30	
	5	3-3/8	1	2840-970	2840-980	2840-990	2841-000	2841-010	2841-020	2841-030	2841-040	159.35	
	6	3-1/2	1-1/4	2841-050	2841-060	2841-070	2841-080	2841-090	2841-100	2841-110	2841-120	147.24	
	6	3-1/8	1	2841-130	-	-	2841-160	2841-170	-	-	2841-200	129.14	
	7	3-3/8	1-1/4	2841-210	2841-220	2841-230	2841-240	2841-250	2841-260	2841-270	2841-280	147.24	
	7	2-7/8	1	2841-290	2841-300	2841-310	-	2841-330	2841-340	2841-350	2841-360	129.53	
	8	3-1/4	1-1/4	2841-370	2841-380	2841-390	2841-400	-	2841-420	2841-430	2841-440	123.88	
	9	2-3/4	1	2841-530	2841-540	2841-550	2841-560	2841-570	2841-580	2841-590	2841-600	106.18	
	10	3	1-1/4	-	-	-	-	-	2841-650	2841-660	2841-670	2841-680	31.35
	10	2-3/4	1	-	-	-	-	-	-	-	2841-750	2841-760	95.89
	10	2-3/8	7/8	-	-	-	-	-	-	-	-	2841-840	84.58
	11	2-3/8	7/8	2841-850	2841-860	2841-870	2841-880	2841-890	2841-900	-	-	2841-920	84.58
	12	2-7/8	1-1/4	-	2841-940	-	-	2841-970	2841-980	2841-990	-	2842-000	28.45
	12	2-5/8	1	2842-010	-	-	-	-	-	-	-	-	84.58
	12	2-1/4	7/8	2842-090	-	2842-110	-	-	-	-	-	-	74.73
	14	2-1/2	1	2842-170	-	-	2842-200	2842-210	2842-220	-	-	2842-240	85.24
	14	2-1/8	7/8	2842-250	-	2842-270	-	2842-290	-	2842-310	-	-	72.81
	16	2-1/2	1	-	-	-	-	2842-370	-	-	-	2842-400	85.24
	16	2-1/8	7/8	2842-410	-	-	-	-	-	-	-	2842-470	72.81
	18	2-3/8	1	2842-480	-	2842-500	-	-	2842-530	2842-540	-	-	77.44
	18	2	7/8	2842-560	2842-570	2842-580	-	2842-600	2842-610	2842-620	2842-630	-	64.85
	20	2-3/8	1	-	2842-650	-	-	2842-680	-	2842-700	-	-	77.44
	20	2	7/8	2842-720	2842-730	2842-740	-	2842-760	2842-770	2842-780	-	-	64.85
	22	2	7/8	2842-800	2842-810	2842-820	2842-830	2842-840	2842-850	2842-860	2842-870	-	64.85
	24	2-1/4	1	-	-	-	-	2842-930	2842-940	2842-950	-	-	77.44
	24	1-3/4	7/8	2842-960	-	2842-980	2842-990	2843-000	2843-010	2843-020	2843-030	-	64.85
	266	1-3/4	7/8	2843-040	2843-050	2843-060	2843-070	2843-080	2843-090	2843-100	2843-200	-	64.85
	28	1-3/4	7/8	2843-220	2843-230	2843-240	2843-250	2843-260	2843-270	2843-280	2843-290	-	64.85
	30	1-3/4	7/8	2843-300	2843-310	2843-320	2843-330	2843-340	2843-350	2843-360	2843-370	-	64.85
	32	1-3/4	7/8	2843-380	2843-390	-	2843-410	2843-420	-	2843-440	2843-450	-	60.45
	36	1-3/4	7/8	2843-460	2843-470	2843-480	2843-490	2843-500	2843-510	2843-520	2843-530	-	60.45
	40	1-3/4	7/8	2843-540	2843-550	2843-560	2843-570	2843-580	2843-590	2843-600	2843-610	-	60.45
	48	1-3/4	7/8	2843-620	2843-630	-	2843-650	2843-660	2843-670	2843-680	2843-690	-	60.45
	SPECIAL 20 ° PRESSURE ANGLE	1	8-1/2	2	2850-010	2850-020	-	2850-040	-	2850-060	2850-070	2850-080	2484.00
		1-1/4	7-3/4	2	2850-090	2850-100	-	2850-120	2850-130	-	-	-	1863.00
		1-3/4	6-1/2	1-3/4	-	-	2850-270	2850-280	2850-290	-	2850-310	2850-320	1138.50
		2	5-3/4	1-1/2	-	-	-	2850-360	-	-	-	-	879.75
2-1/2		5-3/4	1-1/2	2850-410	-	-	2850-440	2850-450	-	-	-	755.55	
3		5-1/4	1-1/2	2850-490	-	2850-510	-	2850-530	2850-540	2850-550	2850-560	121.00	
3		4-3/4	1-1/4	2850-570	-	-	-	2850-610	-	-	2850-640	615.83	
4		4-1/4	1-1/4	2850-650	-	-	2850-680	-	-	2850-710	-	507.15	
4		3-5/8	1	-	-	-	2850-760	-	2850-780	-	-	465.75	
5		3-3/4	1-1/4	2850-810	-	-	-	-	2850-860	2850-870	2850-880	486.45	
5		3-3/8	1	-	2850-900	2850-910	-	2850-930	2850-940	2850-950	2850-960	408.83	
6		3-1/2	1-1/4	2850-970	-	-	-	2851-010	-	2851-030	2851-040	320.85	
7		2-7/8	1	2851-130	-	-	2851-160	2851-170	2851-180	2851-190	-	388.13	
8		3-1/4	1-1/4	-	-	-	-	-	-	2851-270	2851-280	274.28	
9		2-3/4	1	2851-370	2851-380	2851-390	-	2851-410	2851-420	2851-430	2851-440	185.27	
10		3	1-1/4	2851-450	-	2851-470	2851-480	-	2851-500	2851-510	2851-520	73.15	
10		2-3/4	1	-	-	-	-	-	-	2851-590	2851-600	201.83	
10		2-3/8	7/8	2851-610	2851-620	2851-630	2851-640	2851-650	2851-660	2851-670	2851-680	181.13	
11		2-5/8	1	2851-690	2851-700	2851-710	2851-720	2851-730	2851-740	2851-750	2851-760	201.83	
11		2-3/8	7/8	2851-770	2851-780	2851-790	2851-800	2851-810	2851-820	2851-830	2851-840	181.13	
12		2-7/8	1-1/4	2851-850	-	-	2851-880	2851-890	-	2851-910	-	52.05	
12		2-5/8	1	2851-930	-	-	-	-	-	-	-	194.58	
12		2-1/4	7/8	2852-010	2852-020	-	2852-040	-	2852-060	2852-070	2852-080	170.78	
14		2-1/2	1	2852-090	2852-100	2852-110	2852-120	2852-130	2852-140	2852-150	2852-160	129.38	
14		2-1/8	7/8	2852-170	2852-180	2852-190	2852-200	2852-210	2852-220	2852-230	2852-240	95.22	
16		2-1/2	1	-	-	-	-	-	2852-300	-	-	-	142.83
16		2-1/8	7/8	2852-330	2852-340	-	2852-360	2852-370	2852-380	2852-390	2852-400	102.47	
18		2-3/8	1	2852-410	2852-420	2852-430	2852-440	2852-450	2852-460	2852-470	2852-480	142.83	
18		2	7/8	2852-490	2852-500	2852-510	2852-520	2852-530	2852-540	2852-550	2852-560	101.43	
20		2-3/8	1	-	-	-	-	-	2852-620	2852-630	2852-640	142.83	
20		2	7/8	2852-650	2852-660	-	2852-680	-	-	2852-710	2852-720	101.43	
22		2-1/4	1	2852-730	-	-	2852-760	2852-770	2852-780	2852-790	2852-800	171.35	
22		2	7/8	2852-810	2852-820	2852-830	2852-840	2852-850	2852-860	2852-870	2852-880	101.43	
24		2-1/4	1	-	2852-900	-	2852-920	2852-930	-	2852-950	2852-960	154.22	
24		1-3/4	7/8	2852-970	2852-980	-	2853-000	2853-010	2853-020	2853-030	2853-040	113.85	
26		2-1/4	1	2853-050	2853-060	2853-070	2853-080	2853-090	2853-100	2853-110	2853-120	154.22	
26		1-3/4	7/8	2853-130	2853-140	2853-150	2853-160	2853-170	2853-180	2853-190	2853-200	113.85	
28		2-1/4	1	2853-210	-	2853-230	-	2853-250	2853-260	2853-270	2853-280	153.18	
28		1-3/4	7/8	2853-290	2853-300	2853-310	-	-	2853-340	2853-350	2853-360	113.85	
30		2-1/4	1	2853-370	2853-380	2853-390	2853-400	2853-410	2853-420	2853-430	2853-440	153.18	
30		1-3/4	7/8	2853-450	2853-460	2853-470	2853-480	2853-490	2853-500	2853-510	2853-520	113.85	
32		2-											

Shell End Mills & Arbors



High Speed Steel



Right Hand



Left Hand

DIAM.	WIDTH	ARBOR HOLE	NO. OF TEETH	RIGHT HAND		LEFT HAND	
				ORDER NO.	PRICE EACH	ORDER NO.	PRICE EACH
1-1/4	1	1/2	8	2727-080	\$ 64.82	2731-080†	\$ 64.80
1-1/2	1-1/8	1/2	8	2727-096	70.43	2731-096†	66.83
1-3/4	1-1/4	3/4	8	2727-112	85.76	2731-112†	85.32
2	1-3/8	3/4	8	2727-128	95.94	2731-128†	101.48
2-1/4	1-1/2	1	10	2727-144	107.06	2731-144†	116.06
2-1/2	1-5/8	1	10	2727-160	126.66	2731-160†	124.20
2-3/4	1-5/8	1	10	2727-176	158.89	2731-176†	162.81
3	1-3/4	1-1/4	10	2727-192	181.23	2731-192†	191.70
3-1/2	1-7/8	1-1/4	12	2727-224	247.17	2731-224†	256.86
4	2-1/4	1-1/2	12	2727-256	303.73	2731-256†	322.65
4-1/2	2-1/4	1-1/2	14	—	—	2731-288†	419.40
5	2-1/4	1-1/2	14	2727-320	470.64	2731-320†	540.00
5-1/2	2-1/4	2	16	2727-352	667.84	2731-352†	718.20
6	2-1/4	2	16	2727-384	692.94	2731-384†	787.50

† Limited Quantities



For Aluminum – High Speed Steel



DIAM.	WIDTH	ARBOR HOLE	NO. OF FLUTES	ORDER NO.	PRICE EACH
1-1/2	1-1/8	1/2	4	2727-596	79.56
3	1-3/4	1-1/4	6	2727-692	196.56
4	2-1/4	1-1/2	6	2727-756	315.90
5	2-1/4	1-1/2	8	2727-820	570.96
5-1/2	2-1/4	2	8	2727-852†	748.80
6	2-1/4	2	8	2727-884	863.46

† Limited Quantities

Carbide Tipped



For Cast Iron

DIAM.	NO. OF TEETH	OVERALL LENGTH	WIDTH	DEPTH	DIAM. OF HOLE	ORDER NO.	PRICE EACH
1-1/2	6	1-1/8	1/4	5/32	1/2	3035-512	\$347.36
2	4	1-3/8	5/16	3/16	3/4	3035-524	483.50
2-1/4	4	1-1/2	5/16	7/32	1	3035-530	523.54
2-1/2	8	1-5/8	3/8	7/32	1	3035-536	548.70
2-3/4	6	1-5/8	3/8	7/32	1	3035-542	556.82
3	6	1-3/4	1/2	9/32	1-1/4	3035-548	626.08
4	10	2-1/4	5/8	3/8	1-1/2	3035-560	966.68
5	10	2-1/4			1-1/2	3035-572	301.05
6	12	2-1/4			2	3035-584	361.30

For Steel

DIAM.	NO. OF TEETH	OVERALL LENGTH	WIDTH	DEPTH	DIAM. OF HOLE	ORDER NO.	PRICE EACH
1-1/2	6	1-1/8	1/4	5/32	1/2	3035-612	\$347.36
2-1/2	6	1-5/8	3/8	7/32	1	3035-636	548.70
4	10	2-1/4	5/8	3/8	1-1/2	3035-660	966.68
5	10	2-1/4			1-1/2	3035-672	319.50
6	12	2-1/4			2	3035-684	383.45

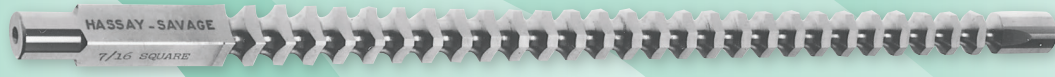
Broaches- High Speed Steel

WARNING: This product contains Cobalt and/or Nickel and/or Lead a chemical known to the state of California to cause cancer or birth defects or other reproductive harm. For more information: www.pro65.ca.gov
WARNING: Cutting tools may shatter. Always wear approved safety glasses and mask when regrinding.

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Minute Man
 Industrial Broaches

Hexagon



Hassay Savage



HEX SIZE	TOLERANCE	DIAGONAL DIMENSION	PILOT DIAM.	DRILL SIZE	BROACH LENGTH	MINIMUM LENGTH OF CUT	MAXIMUM LENGTH OF CUT	PRESSURE FOR MAX. L/C	ORDER NO.	PRICE EACH
1/8	.1255 - .1260	.1450 - .1470	.1245	1/8	4-5/8	3/16	3/8	120 lbs.	2900-008	\$ 230.91
5/32	.1565 - .1570	.1800 - .1820	.1557	5/32	5-1/2	1/4	1/2	340 lbs.	2900-010	266.82
3/16	.1880 - .1890	.2145 - .2155	.1870	3/16	5-9/16	1/4	5/8	520 lbs.	2900-012	245.49
7/32	.2190 - .2200	.2500 - .2520	.2182	7/32	6	1/4	3/4	890 lbs.	2900-014	293.05
1/4	.2505 - .2515	.2865 - .2875	.2495	1/4	6-1/2	1/4	3/4	1,250 lbs.	2900-016	245.49
9/32	.2815 - .2825	.3220 - .3240	.2807	9/32	7-3/4	3/8	1	1,650 lbs.	2900-018	308.01
5/16	.3130 - .3140	.3580 - .3590	.3120	5/16	8-1/4	3/8	1	2,175 lbs.	2900-020	257.15
11/32	.3440 - .3450	.3950 - .3970	.3432	11/32	8-1/4	3/8	1-1/4	3,500 lbs.	2900-022	376.32
3/8	.3755 - .3765	.4300 - .4310	.3745	3/8	9	3/8	1-1/4	3,700 lbs.	2900-024	305.27
13/32	.4065 - .4075	.4670 - .4690	.4057	13/32	10	1/2	1-3/8	4,100 lbs.	2900-026	454.88
7/16	.4385 - .4395	.5020 - .5030	.4370	7/16	10-3/4	1/2	1-3/8	4,575 lbs.	2900-028	384.65
15/32	.4690 - .4700	.5390 - .5410	.4682	15/32	12-3/8	1/2	1-3/8	4,700 lbs.	2900-030	548.97
1/2	.5005 - .5015	.5740 - .5750	.4995	1/2	12-1/2	1/2	1-3/8	5,300 lbs.	2900-032	448.58
9/16	.5630 - .5640	.6480 - .6500	.5620	9/16	14-1/4	1/2	1-1/2	6,700 lbs.	2900-036	548.65
5/8	.6260 - .6270	.7170 - .7185	.6245	5/8	16-7/8	5/8	1-5/8	7,250 lbs.	2900-040	630.15
11/16	.6880 - .6890	.7930 - .7950	.6870	11/16	17	5/8	1-5/8	9,300 lbs.	2900-044	695.84
3/4	.7510 - .7520	.8610 - .8625	.7495	3/4	17-7/8	5/8	1-5/8	13,500 lbs.	2900-048	734.55
7/8	.8755 - .8765	1.0060 - .10075	.8745	7/8	18-7/8	5/8	1-5/8	18,500 lbs.	2900-056	1154.91
1	1.0020 - 1.0030	1.1520 - 1.1530	.9995	1	19-7/8	5/8	1-5/8	22,050 lbs.	2900-064	1211.19

Standard Inch Square



SIZE SQUARE	TOLERANCE	DIMENSION ACROSS CORNERS	PILOT DIAM.	DRILL SIZE	BROACH LENGTH	MINIMUM LENGTH OF CUT	MAXIMUM LENGTH OF CUT	PRESSURE FOR MAX. L/C	ORDER NO.	PRICE EACH
1/8	.1250 - .1260	.1750 - .1770	.1280	#30	4-5/8	3/16	1/2	700 lbs.	2901-008	\$199.59
5/32	.1565 - .1575	.2180 - .2200	.1585	#21	5-5/8	1/4	1/2	800 lbs.	2901-010	227.05
3/16	.1880 - .1890	.2620 - .2640	.1930	#10	5-11/16	1/4	5/8	1,120 lbs.	2901-012	201.34
7/32	.2190 - .2200	.3050 - .3070	.2275	#1	6-7/8	1/4	3/4	1,580 lbs.	2901-014	227.05
1/4	.2505 - .2515	.3500 - .3520	.2651	17/64	7	1/4	3/4	1,740 lbs.	2901-016	199.59
9/32	.2815 - .2825	.3930 - .3950	.2964	19/64	7-1/4	3/8	1	2,300 lbs.	2901-018	248.27
5/16	.3130 - .3140	.4370 - .4390	.3276	21/64	8-1/8	3/8	1	2,630 lbs.	2901-020	202.89
11/32	.3440 - .3450	.4810 - .4830	.3589	23/64	9-5/8	3/8	1-1/4	3,050 lbs.	2901-022	326.22
3/8	.3755 - .3765	.5230 - .5250	.3901	25/64	9-7/8	3/8	1-1/4	3,625 lbs.	2901-024	261.37
13/32	.4065 - .4075	.5680 - .5700	.4214	27/64	10-7/8	1/2	1-3/8	5,200 lbs.	2901-026	389.31
7/16	.4385 - .4395	.6110 - .6130	.4526	29/64	11-3/8	1/2	1-3/8	5,700 lbs.	2901-028	331.02
15/32	.4690 - .4700	.6560 - .6580	.4995	1/2	12-1/2	1/2	1-3/8	5,900 lbs.	2901-030	512.63
1/2	.5005 - .5015	.6970 - .6990	.5307	17/32	12-5/8	1/2	1-3/8	6,000 lbs.	2901-032	381.20
9/16	.5630 - .5640	.7860 - .7880	.5932	19/32	14-7/8	1/2	1-1/2	6,200 lbs.	2901-036	491.54
5/8	.6260 - .6270	.8710 - .8730	.6557	21/32	16-13/16	5/8	1-5/8	7,100 lbs.	2901-040	576.04
11/16	.6885 - .6895	.9610 - .9630	.7495	3/4	18-1/2	5/8	1-5/8	7,300 lbs.	2901-044	668.40
3/4	.7510 - .7520	1.0450 - 1.0470	.8120	13/16	18-7/8	5/8	1-5/8	8,600 lbs.	2901-048	775.37
7/8	.8765 - .8775	1.2280 - 1.0300	.9370	15/16	22-3/4	1/2	2	12,000 lbs.	2901-056	1119.36
1	1.0020 - 1.0030	1.4030 - 1.4050	1.0932	1-3/32	24-1/2	1/2	2	12,500 lbs.	2901-064	1193.88

Broaches- High Speed Steel

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WARNING: Cutting tools may shatter. Always wear approved safety glasses and mask when regrinding.

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Keyway

BROACH	KEYWAY WIDTH TOL.	DIMENSIONS IN INCHES	NO. OF SHIMS	MINIMUM LENGTH OF CUT	MAXIMUM LENGTH OF CUT	PRESSURE REQUIRED FOR MAX. L/C	MADE IN U.S.A. ORDER NO.	PRICE EACH
1/16-A	.0625 - .0635	1/8 x 5-1/4	0	13/64	1-1/8	270 lbs.	2880-041	\$ 102.85
3/32-A	.0937 - .0947	1/8 x 5-1/4	0	13/64	1-1/8	810 lbs.	2880-061	102.85
1/8-A	.1252 - .1262	1/8 x 5-1/4	1	13/64	1-1/8	720 lbs.	2880-081	102.85
3/32-B	.0937 - .0947	3/16 x 7	0	19/64	1-11/16	990 lbs.	2880-062	122.19
1/8-B	.1252 - .1262	3/16 x 7	1	19/64	1-11/16	780 lbs.	2880-082	122.19
5/32-B	.1564 - .1574	3/16 x 7	1	19/64	1-11/16	1,560 lbs.	2880-102	122.19
3/16-B	.1877 - .1887	3/16 x 7	1	19/64	1-11/16	2,100 lbs.	2880-122	122.19
3/16-C	.1877 - .1887	3/8 x 11-7/8	1	13/32	2-1/2	1,440 lbs.	2880-123	154.03
1/4-C	.2502 - .2512	3/8 x 11-7/8	1	13/32	2-1/2	2,580 lbs.	2880-163	154.03
5/16-C	.3127 - .3137	3/8 x 11-7/8	1	13/32	2-1/2	4,200 lbs.	2880-203	154.03
3/8-C	.3755 - .3765	3/8 x 11-7/8	2	13/32	2-1/2	3,600 lbs.	2880-243	154.03
5/16-D	.3127 - .3137	9/16 x 13-7/8	1	3/4	6	9,250 lbs.	2880-204	235.53
3/8-D	.3755 - .3765	9/16 x 13-7/8	2	3/4	6	8,000 lbs.	2880-244	235.53
7/16-D	.4380 - .4390	9/16 x 13-7/8	2	3/4	6	11,750 lbs.	2880-284	235.53
1/2-D	.5006 - .5016	9/16 x 13-7/8	3	3/4	6	11,000 lbs.	2880-324	235.53
5/8-E	.6260 - .6270	3/4 x 15-1/4	4	3/4	6	11,500 lbs.	2880-405	393.12
3/4-E	.7515 - .7525	3/4 x 15-1/4	5	3/4	6	13,500 lbs.	2880-485	393.12
7/8-F	.8765 - .8775	1 x 19-1/4	6	3/4	6	11,000 lbs.	2880-566	809.24
1-F	1.0015 - 1.0025	1 x 19-1/4	7	3/4	6	14,000 lbs.	2880-646	809.24

NOTICE!

If your application cannot be handled with the broaches listed, we can supply special broaches. Send us your print for quotation.

Metric Keyway

BROACH	J-9 KEYWAY WIDTH TOL. IN INCHES	FOR STANDARD MILLIMETER KEYS	DIMENSION OF BROACH IN INCHES	NO. OF SHIMS	MINIMUM LENGTH OF CUT IN INCHES	MAXIMUM LENGTH OF CUT IN INCHES	PRESSURE REQUIRED FOR MAX. L/C	ORDER NO.	PRICE EACH
2 mm-A	.0787 - .0792	2 mm x 2 mm	1/8 x 5-1/4	0	13/64	1-1/8	510 lbs.	2890-021	\$ 102.85
3 mm-A	.1181 - .1186	3 mm x 3 mm	1/8 x 5-1/4	1	13/64	1-1/8	720 lbs.	2890-031	102.85
4 mm-B	.1575 - .1580	4 mm x 4 mm	1/4 x 7	1	19/64	1-11/16	1,140 lbs.	2890-042	122.19
5 mm-B	.1968 - .1973	5 mm x 5 mm	1/4 x 7	1	19/64	1-11/16	2,040 lbs.	2890-052	122.19
5 mm-C	.1968 - .1973	5 mm x 5 mm	3/8 x 11-7/8	1	13/32	2-1/2	1,680 lbs.	2890-053	154.17
6 mm-C	.2362 - .2367	6 mm x 6 mm	3/8 x 11-7/8	1	13/32	2-1/2	1,890 lbs.	2890-063	154.17
8 mm-C	.3150 - .3155	8 mm x 7 mm	3/8 x 11-7/8	1	13/32	2-1/2	3,995 lbs.	2890-083	154.17
10 mm-D	.3937 - .3942	10 mm x 8 mm	9/16 x 13-7/8	2	3/4	6	8,100 lbs.	2890-104	235.53
12 mm-D	.4724 - .4730	12 mm x 8 mm	9/16 x 13-7/8	2	3/4	6	10,550 lbs.	2890-124	235.53
14 mm-D	.5512 - .5519	14 mm x 9 mm	9/16 x 13-7/8	2	3/4	6	11,090 lbs.	2890-144	235.53
16 mm-E	.6299 - .6306	16 mm x 10 mm	3/4 x 15-1/4	3	3/4	6	11,375 lbs.	2890-165	393.12
18 mm-E	.7087 - .7093	18 mm x 11 mm	3/4 x 15-1/4	3	3/4	6	12,000 lbs.	2890-185	393.12
20 mm-F	.7874 - .7883	20 mm x 12 mm	1 x 19-1/4	3	3/4	6	11,000 lbs.	2890-206	809.24
22 mm-F	.8661 - .8669	22 mm x 14 mm	1 x 19-1/4	4	3/4	6	11,200 lbs.	2890-226	809.24
24 mm-F	.9449 - .9458	24 mm x 14 mm	1 x 19-1/4	4	3/4	6	13,075 lbs.	2890-246	809.24
25 mm-F	.9842 - .9851	25 mm x 14 mm	1 x 19-1/4	4	3/4	6	13,275 lbs.	2890-256	809.24

NOTICE!

Pressures listed are for max length of cut. If these lengths must be exceeded a special broach should be ordered.

Keyway Bushings



DIAM.	LENGTH	ORDER NO.	PRICE EACH
'A' BUSHINGS FOR 'A' BROACHES			
1/4	1-1/8	2884-016	\$24.99
5/16	1-1/8	2884-020	24.99
3/8	1-1/8	2884-024	24.99
7/16	1-1/8	2884-028	24.99
1/2	1-1/8	2884-032	24.99
'B' BUSHINGS FOR 'B' BROACHES			
1/2	1-11/16	2884-132	\$22.01
9/16	1-11/16	2884-136	22.01
5/8	1-11/16	2884-140	22.01
11/16	1-11/16	2884-144	22.01
3/4	1-11/16	2884-148	22.01
13/16	1-11/16	2884-152	22.01
7/8	1-11/16	2884-156	22.01

DIAM.	LENGTH	ORDER NO.	PRICE EACH
'C' BUSHINGS FOR 'C' BROACHES			
3/4	2-1/2	2884-348	\$28.20
13/16	2-1/2	2884-352	28.20
7/8	2-1/2	2884-356	28.20
15/16	2-1/2	2884-360	28.20
1	2-1/2	2884-364	28.20
1-1/16	2-1/2	2884-368	28.20
1-1/8	2-1/2	2884-372	31.23
1-3/16	2-1/2	2884-376	32.90
1-1/4	2-1/2	2884-380	32.90
1-5/16	2-1/2	2884-384	32.90
1-3/8	2-1/2	2884-388	32.90
1-7/16	2-1/2	2884-392	32.90
1-1/2	2-1/2	2884-396	32.90
1-9/16	2-1/2	2884-400	32.90
'D' PLAIN BUSHINGS FOR 'D' BROACHES			
1-7/16	4	2884-592	\$34.38
1-1/2	4	2884-596	34.38
1-9/16	4	2884-600	35.94
1-5/8	4	2884-604	35.94
1-11/16	4	2884-608	46.82
1-3/4	4	2884-612	46.82
1-13/16	5	2884-616	48.48
1-7/8	5	2884-620	48.48
1-15/16	5	2884-624	49.98
2	5	2884-628	49.98

DIAM.	LENGTH	ORDER NO.	PRICE EACH
'E' PLAIN BUSHINGS FOR 'E' BROACHES			
2-1/16	5	2884-632	\$49.98
2-1/8	5	2884-636	49.98
2-3/16	5	2884-640	51.52
2-1/4	5	2884-644	65.56
2-5/16	5	2884-648	65.56
2-3/8	6	2884-652	68.76
2-7/16	6	2884-656	68.76
2-1/2	6	2884-660	68.76
2-9/16	6	2884-664	89.11
2-5/8	6	2884-668	89.11
2-11/16	6	2884-672	89.11
2-3/4	6	2884-676	89.11
2-13/16	6	2884-680	89.11
2-7/8	6	2884-684	89.11
2-15/16	6	2884-688	90.60
3	6	2884-692	90.60
2-5/16	6	2884-748	\$76.56
2-3/8	6	2884-752	76.56
2-7/16	6	2884-756	78.04
2-13/16	6	2884-780	96.79
2-7/8	6	2884-784	96.79
2-15/16	6	2884-788	96.79
3	6	2884-792	96.79

X-tra Shim Sets For Keyway Bushings

SIZE	THICK-NESS	QTY. PER SET	ORDER NO.	PRICE EACH
1/8-A	.031	1	2882-081	\$566.05
1/8-B	.031	1	2882-082	1.84
5/32-B	.042	1	2882-102	1.84
3/16-B	.050	1	2882-122	1.84
3/16-C	.050	1	2882-123	1.84
1/4-C	.062	1	2882-163	1.84
5/16-C	.078	2	2882-203	1.84
3/8-C	.062	2	2882-243	10.75
5/16-D	.078	2	2882-204	1.84
3/8-D	.062	2	2882-244	216.29
7/16-D	.075	3	2882-284	90.26
1/2-D	.062	3	2882-324	1.56
5/8-E	.062	4	2882-405	2.30
7/8-F	.062	6	2882-566	2.30
1-F	.062	7	2882-646	62.90

Keyway – Broach Sets



No. 10 Our best selling broach set.

Standard Set C-1 – 4 Broaches & 9 Collared Bushings • 18 Keyway Combinations				
KEYWAY SIZES	BROACH STYLE	BUSHING DIAMETERS (HOLE SIZES)	ORDER NO.	PRICE EACH
1/8 3/16	B B	1/2, 5/8, 3/4, 7/8	2903-030	\$819.48
1/4 3/8	C C	1, 1-1/8, 1-1/4, 1-3/8, 1-1/2		

No. 00 The most common combinations for small keyways and bores.

Precision Set 1 – 3 Broaches & 5 Collared Bushings • 15 Keyway Combinations				
KEYWAY SIZES	BROACH STYLE	BUSHING DIAMETERS (HOLE SIZES)	ORDER NO.	PRICE EACH
1/16 3/32 1/8	A A A	1/4, 5/16, 3/8, 7/16, 1/2	2903-050	\$469.42

No. 10A Same as No. 10 set, but for sixteenth-sized bores.

Standard Set C-1A – 4 Broaches & 9 Collared Bushings • 18 Keyway Combinations				
KEYWAY SIZES	BROACH STYLE	BUSHING DIAMETERS (HOLE SIZES)	ORDER NO.	PRICE EACH
1/8 3/16	B B	9/16, 11/16, 13/16	2903-040	\$819.48
1/4 3/8	C C	15/16, 1-1/16, 1-3/16, 1-5/16, 1-7/16, 1-9/16		

No. 30A Same as No. 30 set, but for sixteenth-sized bores.

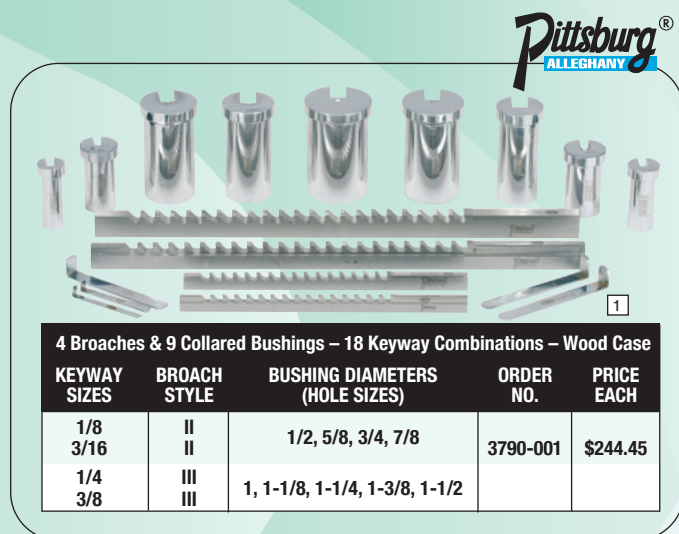
Standard Set C-2 – 3 Broaches & 9 Collared Bushings • 15 Keyway Combinations				
KEYWAY SIZES	BROACH STYLE	BUSHING DIAMETERS (HOLE SIZES)	ORDER NO.	PRICE EACH
1/8	B	9/16, 11/16, 13/16	2903-100	\$341.80
3/16 1/4	C C	15/16, 1-1/16, 1-3/16, 1-5/16, 1-7/16, 1-9/16		

No. 10-10A Combines 10 and 10A sets.
Features all 1/16" bore sizes for keyways 1/8" to 3/8".

Standard Set C-10 – 4 Broaches & 18 Collared Bushings • 36 Keyway Combinations				
KEYWAY SIZES	BROACH STYLE	BUSHING DIAMETERS (HOLE SIZES)	ORDER NO.	PRICE EACH
1/8 3/16	B B	1/2, 9/16, 5/8, 11/16, 3/4, 13/16, 7/8	2903-010	\$1052.34
1/4 3/8	C C	15/16, 1, 1-1/16, 1-1/8, 1-3/16, 1-1/4, 1-5/16, 1-3/8, 1-7/16, 1-1/2, 1-9/16		

No. 40A The most common combinations for small keyways and bores.

Standard Set 3-D – 4 Broaches & 8 Plain Bushings • 32 Keyway Combinations				
KEYWAY SIZES	BROACH STYLE	BUSHING DIAMETERS (HOLE SIZES)	ORDER NO.	PRICE EACH
5/16 3/8	D D	1-1/2, 1-5/8, 1-3/4, 1-7/8,	2903-060	\$1535.44
7/16 1/2	D D	2, 2-1/8, 2-1/4, 2-1/2		



No. 40 Same as No. 40A set, but for sixteenth-sized bores.

Standard Set 3-DA – 4 Broaches & 8 Plain Bushings • 32 Keyway Combinations				
KEYWAY SIZES	BROACH STYLE	BUSHING DIAMETERS (HOLE SIZES)	ORDER NO.	PRICE EACH
5/16 3/8	D D	1-7/16, 1-9/16, 1-11/16, 1-13/16,	2903-070	\$1535.44
7/16 1/2	D D	1-15/16, 2-3/16, 2-7/16, 2-15/16		

No. 40-1/2A The most common combinations for medium keyways and bores.

Heavy Duty Set 4-E – 2 Broaches & 6 Plain Bushings • 12 Keyway Combinations				
KEYWAY SIZES	BROACH STYLE	BUSHING DIAMETERS (HOLE SIZES)	ORDER NO.	PRICE EACH
5/8	E	2-3/8, 2-1/2, 2-5/8,	2903-080	\$1582.39
3/4	E	2-3/4, 2-7/8, 3		

No. 50 The most common combinations for medium & large keyways.

Heavy Duty Set 5 – 3 Broaches & 17 Plain Bushings • 29 Keyway Combinations				
KEYWAY SIZES	BROACH STYLE	BUSHING DIAMETERS (HOLE SIZES)	ORDER NO.	PRICE EACH
1/2	D	2, 2-1/16, 2-1/8, 2-3/16, 2-1/4, 2-5/16, 2-3/8, 2-7/16	2903-090	\$2947.63
5/8 3/4	E E	2-1/2, 2-9/16, 2-5/8, 2-11/16, 2-3/4, 2-13/16, 2-7/8, 2-15/16, 3		

No. 70 Our most popular metric broach set.

Metric Set #18 – 4 Broaches & 13 Collared Bushings • 26 Keyway Combinations				
KEYWAY SIZES	BROACH STYLE	BUSHING DIAMETERS (HOLE SIZES) (mm)	ORDER NO.	PRICE EACH
4mm 5mm	B1 B1	12, 14, 15, 16	2903-140	\$964.35
6mm 8mm	C C	18, 19, 20, 22, 24, 25, 26, 28, 30		

No. 80 The most common combinations for small keyways and bores.

Metric Set #24 – 3 Broaches & 12 Plain Bushings • 36 Keyway Combinations				
KEYWAY SIZES	BROACH STYLE	BUSHING DIAMETERS (HOLE SIZES) (mm)	ORDER NO.	PRICE EACH
10mm 12mm 14mm	D D D	32, 34, 35, 36, 38, 40, 42, 44, 45, 46, 48, 50	2903-160	\$1509.99

T-Slot Cutters

High Speed Steel, Cobalt, Carbide Tipped, Roughing

WARNING: This product contains Cobalt and/or Nickel and/or Lead a chemical known to the state of California to cause cancer or birth defects or other reproductive harm. For more information: www.pro65.ca.gov.
WARNING: Cutting tools may shatter. Always wear approved safety glasses and mask when regrinding.



High Speed Steel

1



Roughing

2

2

1

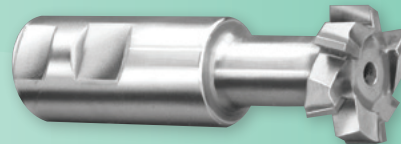
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																ROUGHING - COBALT	
BOLT SIZE	CUTTER DIAM.	FACE WIDTH	NECK DIAM.	SHANK DIAM.	OVERALL LENGTH	HSS ORDER NUMBER	PRICE EACH	HSS ORDER NUMBER	PRICE EACH	COBALT ORDER NUMBER	PRICE EACH	CARBIDE TIPPED ORDER NUMBER	PRICE EACH	COBALT ORDER NUMBER	PRICE EACH		
1/4	9/16	15/64	17/64	1/2	2-19/32	2741-016	\$ 107.24	2730-416	\$ 47.52	2730-616	\$ 78.85	2730-716	\$152.60	-	-		
5/16	21/32	17/64	21/64	1/2	2-11/16	2741-020	115.34	2730-420	52.27	2730-620	86.24	2730-720	159.00	-	-		
3/8	25/32	21/64	13/32	3/4	3-1/4	2741-024	170.09	2730-424	65.34	2730-624	110.88	2730-724	200.00	-	-		
1/2	31/32	25/64	17/32	3/4	3-7/16	2741-032	193.16	2730-432	74.84	2730-632	129.36	2730-732	217.90	2730-532	\$ 141.68		
5/8	1-1/4	31/64	21/32	1	3-15/16	2741-040	262.36	2730-440	101.57	2730-640	166.88	2730-740	288.10	2730-540	182.34		
3/4	1-15/32	5/8	25/32	1	4-7/16	2741-048	307.00	2730-448	108.90	2730-648	189.28	2730-748	323.10	2730-548	200.82		
1	1-27/32	53/64	1-1/32	1-1/4	4-13/16	2741-064	519.50	2730-464	189.09	2730-664	320.32	2730-764	425.10	2730-564	351.12		
1-1/4	2-7/32	1-3/32	1-9/32	1-1/4	5-3/8	2741-080	685.60	2730-480	237.11	2730-680	394.24	2730-780	577.30	2730-580	425.04		
1-1/2	2-21/32	1-11/32	1-17/32	1-1/4	5-29/32	2741-096	887.94	2730-496	302.94	2730-696	514.98	2730-796	673.10	2730-596	542.08		

Long Shank T-Slot Milling Cutters

Staggered Tooth – Weldon Shank – High Speed Steel – or M42 Cobalt

TOLERANCE OF CUTTING DIA. (IN)		TOLERANCE OF CUTTING WIDTH (IN)	
1	-.002 to -.007	-0., +.004	
1-1/4	-.003 to -.007		
1-1/2	-.003 to -.007		
2	-.004 to -.009		



2

1

1

CUTTING DIA. (IN.)	CUTTING WIDTH (IN.)	SHANK DIA. (IN.)	NO. OF TEETH	OVERALL LENGTH (IN.)	COBALT ORDER NO.	PRICE EACH	COBALT ORDER NO.	PRICE EACH	HIGH SPEED STEEL ORDER NO.	PRICE EACH
1	1/8	5/8	8	4-15/16	2735-002	\$ 144.96	2735-502	\$220.10	2735-602	\$ 170.50
1	3/16	5/8	8	4-15/16	2735-003	132.29	2735-503	220.10	2735-603	170.50
1	1/4	5/8	8	4-15/16	2735-004	132.29	2735-504	220.10	2735-604	170.50
1	5/16	5/8	8	4-15/16	2735-005	140.62	2735-505	220.10	2735-605	170.50
1	3/8	5/8	8	4-15/16	2735-006	140.62	2735-506	220.10	2735-606	170.50
1	1/2	5/8	8	4-15/16	2735-008	154.72	2735-508	220.10	2735-608	170.50
1	5/8	5/8	8	4-15/16	2735-010	154.72	2735-510	220.10	2735-610	170.50
1-1/4	1/8	3/4	8	5-1/8	2735-012	176.57	2735-512	275.40	2735-612	227.20
1-1/4	3/16	3/4	8	5-1/8	2735-013	158.52	2735-513	275.40	2735-613	227.20
1-1/4	1/4	3/4	8	5-1/8	2735-014	158.52	2735-514	275.40	2735-614	227.20
1-1/4	5/16	3/4	8	5-1/8	2735-015	164.65	2735-515	275.40	2735-615	227.20
1-1/4	3/8	3/4	8	5-1/8	2735-016	166.21	2735-516	275.40	2735-616	227.20
1-1/4	1/2	3/4	8	5-1/8	2735-018	184.84	2735-518	275.40	2735-618	227.20
1-1/4	5/8	3/4	8	5-1/8	2735-020	183.09	2735-520	275.40	2735-620	227.20
1-1/2	1/8	1	8	5-5/16	2735-022	205.91	2735-522	338.60	2735-622	263.60
1-1/2	3/16	1	8	5-5/16	2735-023	196.48	2735-523	338.60	2735-623	263.60
1-1/2	1/4	1	8	5-5/16	2735-024	209.10	2735-524	338.60	2735-624	263.60
1-1/2	5/16	1	8	5-5/16	2735-025	209.10	2735-525	338.60	2735-625	263.60
1-1/2	3/8	1	8	5-5/16	2735-026	233.11	2735-526	338.60	2735-626	263.60
1-1/2	1/2	1	8	5-5/16	2735-028	233.11	2735-528	338.60	2735-628	263.60
1-1/2	5/8	1	8	5-5/16	2735-030	233.11	2735-530	338.60	2735-630	263.60
2	3/16	1	10	5-11/16	2735-033	289.92	2735-533	525.10	2735-633	445.80
2	1/4	1	10	5-11/16	2735-034	251.95	2735-534	525.10	2735-634	445.80
2	5/16	1	10	5-11/16	2735-035	263.19	2735-535	525.10	2735-635	445.80
2	3/8	1	10	5-11/16	2735-036	265.67	2735-536	525.10	2735-636	445.80
2	1/2	1	10	5-11/16	2735-038	287.75	2735-538	525.10	2735-638	445.80
2	5/8	1	10	5-11/16	2735-040	287.75	2735-540	525.10	2735-640	445.80
2	3/4	1	10	5-11/16	2735-042	327.47	2735-542	525.10	2735-642	445.80
2-1/2	1/4	1	12	6-5/8	2735-044	348.20	-	-	-	-
2-1/2	5/16	1	12	6-5/8	2735-045	348.20	-	-	-	-
2-1/2	3/8	1	12	6-5/8	2735-046	348.20	-	-	-	-
2-1/2	1/2	1	12	6-5/8	2735-048	391.75	-	-	-	-
2-1/2	5/8	1	12	6-5/8	2735-050	391.75	-	-	-	-
2-1/2	3/4	1	12	6-5/8	2735-052	427.17	-	-	-	-
2-1/2	7/8	1	12	6-5/8	2735-054	437.62	-	-	-	-
2-1/2	1	1	12	6-5/8	2735-056	446.63	-	-	-	-

Woodruff Keyseat Cutters

Shank Type



Straight Tooth



Staggered Tooth

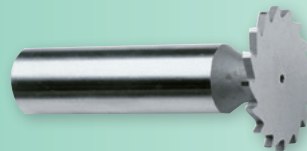
WARNING: This product contains Cobalt and/or Nickel and/or Lead a chemical known to the state of California to cause cancer or birth defects or other reproductive harm. For more information: www.prop65.ca.gov.
WARNING: Cutting tools may shatter. Always wear approved safety glasses and mask when regrinding.

STRAIGHT TOOTH										STAGGERED TOOTH													
										M42 COBALT												M42 COBALT	
	HEAD DIA.	HEAD WIDTH	SHK. DIA.	SHK. LG'TH.	ORDER NO.	PRICE EACH	ORDER NO.	PRICE EACH	ORDER NO.	PRICE EACH	ORDER NO.	PRICE EACH	ORDER NO.	PRICE EACH	ORDER NO.	PRICE EACH	ORDER NO.	PRICE EACH					
SIZE																							
202	1/4	1/16	1/2	2	2730-801	\$20.69	2740-401	\$33.72	-	-	-	-	2740-501	\$44.01	-	-	-	-					
202-1/2	5/16	1/16	1/2	2	2730-802	20.69	2740-402	33.72	-	-	2730-902†	\$28.73	2740-502	44.01	-	-	-	-					
302-1/2	5/16	3/32	1/2	2	2730-803	20.69	2740-403	33.72	2740-603	\$40.97	2730-903†	28.73	-	-	-	-	-	-					
203	3/8	1/16	1/2	2	2730-804	20.69	2740-404	33.72	-	-	-	-	2740-504	44.01	-	-	-	-					
303	3/8	3/32	1/2	2	2730-805	20.69	-	-	-	-	2730-905†	28.73	-	-	-	-	-	-					
403	3/8	1/8	1/2	2	2730-806	20.69	-	-	-	-	-	-	-	-	-	-	-	-					
204	1/2	1/16	1/2	2	2730-807	20.69	-	-	-	-	-	-	2740-507	44.01	-	-	-	-					
304	1/2	3/32	1/2	2	2730-808	20.69	-	-	-	-	-	-	-	-	-	-	-	-					
404	1/2	1/8	1/2	2	2730-810	20.69	-	-	-	-	-	-	-	-	-	-	-	-					
305	5/8	3/32	1/2	2	2730-809	20.69	2740-410	34.06	-	-	-	-	2740-510	44.31	-	-	-	-					
405	5/8	1/8	1/2	2	2730-811	20.69	2740-411	34.06	-	-	2730-911†	28.73	-	-	-	-	-	-					
505	5/8	5/32	1/2	2	2730-813	20.69	2740-412	34.06	-	-	-	-	2740-512	44.31	-	-	-	-					
605	5/8	3/16	1/2	2	2730-814	20.69	-	-	-	-	2730-914†	28.73	2740-513	44.31	-	-	-	-					
406	3/4	1/8	1/2	2	2730-812	20.69	2740-414	35.68	-	-	-	-	2740-514	45.73	-	-	-	-					
506	3/4	5/32	1/2	2	2730-815	21.96	2740-415	35.68	-	-	2730-915†	30.49	2740-515	45.73	-	-	-	-					
606	3/4	3/16	1/2	2	2730-818	21.96	-	-	-	-	-	-	-	-	-	-	-	-					
806	3/4	1/4	1/2	2	2730-816	21.96	-	-	-	-	-	-	2740-517	45.73	-	-	-	-					
507	7/8	5/32	1/2	2	2730-817	24.44	2740-418	38.94	-	-	-	-	2740-518	50.08	-	-	-	-					
607	7/8	3/16	1/2	2	2730-819	24.44	2740-419	38.94	-	-	-	-	2740-519	50.08	-	-	-	-					
707	7/8	7/32	1/2	2	2730-820	24.44	2740-420	39.63	-	-	2730-920†	36.60	2740-520	50.08	-	-	-	-					
807	7/8	1/4	1/2	2	2730-825	24.44	2740-421	39.63	-	-	-	-	2740-521	50.08	-	-	-	-					
608	1	3/16	1/2	2	2730-821	26.35	2740-422	42.63	-	-	-	-	-	-	-	-	-	-					
708	1	7/32	1/2	2	2730-822	26.35	2740-423	43.01	-	-	2730-922†	36.60	2740-523	56.38	-	-	-	-					
808	1	1/4	1/2	2	2730-826	26.35	2740-424	43.01	-	-	-	-	-	-	-	-	-	-					
1008	1	5/16	1/2	2	2730-834	26.96	2740-425	44.20	-	-	-	-	2740-525	57.19	-	-	-	-					
1208	1	3/8	1/2	2	2730-823	26.96	2740-426	44.20	-	-	-	-	-	-	-	-	-	-					
609	1-1/8	3/16	1/2	2	2730-824	29.48	2740-427	47.90	-	-	2730-924†	40.98	2740-527	64.87	-	-	-	-					
709	1-1/8	7/32	1/2	2	2730-827	29.48	2740-428	47.90	-	-	2730-927†	40.98	2740-528	64.87	-	-	-	-					
809	1-1/8	1/4	1/2	2	2730-828	29.48	2740-429	48.82	-	-	-	-	-	-	-	-	-	-					
1009	1-1/8	5/16	1/2	2	2730-835	31.38	2740-430	51.19	-	-	-	-	-	-	-	-	-	-					
610	1-1/4	3/16	1/2	2	2730-829	32.62	2740-431	53.47	-	-	2730-929†	45.30	2740-531	67.45	-	-	-	-					
710	1-1/4	7/32	1/2	2	2730-830	32.62	2740-432	53.47	-	-	2730-930†	45.30	2740-532	67.45	-	-	-	-					
810	1-1/4	1/4	1/2	2	2730-831	33.86	2740-433	55.24	-	-	-	-	2740-533	71.24	-	-	-	-					
1010	1-1/4	5/16	1/2	2	2730-836	35.14	-	-	-	-	-	-	2740-534	73.01	2740-734	\$84.81	-	-					
1210	1-1/4	3/8	1/2	2	2730-839	35.14	2740-435	57.47	-	-	-	-	2740-535	73.01	-	-	-	-					
811	1-3/8	1/4	1/2	2	2730-832	37.64	-	-	-	-	-	-	2740-536	79.32	-	-	-	-					
1011	1-3/8	5/16	1/2	2	2730-837	37.64	2740-437	61.92	-	-	2730-937†	52.27	2740-537	79.32	-	-	-	-					
1211	1-3/8	3/8	1/2	2	2730-840	38.92	2740-438	63.03	-	-	-	-	-	-	-	-	-	-					
812	1-1/2	1/4	1/2	2	2730-833	38.92	2740-439	64.09	-	-	-	-	2740-539	84.82	-	-	-	-					
1012	1-1/2	5/16	1/2	2	2730-838	38.92	-	-	-	-	-	-	-	-	-	-	-	-					
1212	1-1/2	3/8	1/2	2	2730-841	41.42	2740-441	68.53	-	-	-	-	2740-541	89.33	-	-	-	-					

† Limited Quantities

Narrow Width Keyseat Cutters

Straight Tooth – RHC – High Speed Steel



Look for
ALLEGIANCE
AMERICAN MADE

CUT DIA.	WIDTH	ORDER NO.	PRICE EACH
1/4	1/64	2742-020	\$88.91
1/4	1/32	2742-025	47.19
5/16	1/32	2742-055	47.53
3/8	1/32	2742-085	46.77
1/2	1/64	2742-110	89.48
1/2	.020	2742-115	80.61
5/8	.020	2742-150	81.37
5/8	1/32	2742-155	43.69
5/8	1/16	2742-165	43.69
5/8	5/64	2742-170	81.37
3/4	1/32	2742-190	45.79
3/4	3/64	2742-195	86.21
3/4	1/16	2742-200	45.79
3/4	5/64	2742-205	86.21
7/8	5/64	2742-245	96.32
7/8	3/32	2742-250	50.53
7/8	1/8	2742-260	50.53

CUT DIA.	WIDTH	ORDER NO.	PRICE EACH
1	3/64	2742-285	\$106.51
1	5/64	2742-295	106.51
1	3/32	2742-300	55.23
1	7/64	2742-305	106.51
1	1/8	2742-310	55.23
1	9/64	2742-315	106.51
1	5/32	2742-320	55.23
1-1/8	1/8	2742-370	65.73
1-1/4	3/64	2742-405	124.56
1-1/4	5/64	2742-415	124.56
1-1/4	3/32	2742-420	73.77
1-1/4	1/8	2742-430	73.77
1-3/8	1/8	2742-485	80.62
1-1/2	5/64	2742-535	145.33
1-1/2	3/32	2742-540	88.71
1-1/2	9/64	2742-555	145.33

Woodruff Keyseat Cutters

WARNING: This product contains Cobalt and/or Nickel and/or Lead a chemical known to the state of California to cause cancer or birth defects or other reproductive harm. For more information: www.prop65.ca.gov
WARNING: Cutting tools may shatter. Always wear approved safety glasses and mask when regrinding.



Complete Set - 10 pc. ³ Straight Tooth - High Speed Steel



Includes one each:
204, 305, 403, 404, 406, 505, 606, 608, 806, 808

Order No. 2730-845 Price Each: \$230.47



Arbor Type High Speed Steel



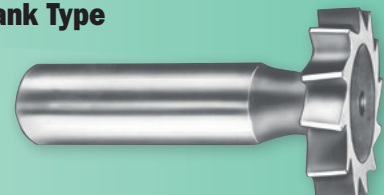
AMER. STD.	OLD STD.	DIAM.	FACE WIDTH	ARBOR HOLE	ORDER NO.	PRICE EA.
617	26	2-1/8	3/16	3/4	2830-005	\$53.46
1217	29	2-1/8	3/8	3/4	2830-020	70.20
1222	T	2-3/4	3/8	1	2830-035	86.29
1422	U	2-3/4	7/16	1	2830-040	90.72
1228	30	3-1/2	3/8	1	2830-050	117.44
1428	31	3-1/2	7/16	1	2830-055	126.90
1628	32	3-1/2	1/2	1	2830-060	129.60
1828	33	3-1/2	9/16	1	2830-065	145.80
2028	34	3-1/2	5/8	1	2830-070	145.80
2228	35	3-1/2	11/16	1	2830-075	150.66
2428	36	3-1/2	3/4	1	2830-080	150.66

Carbide Tipped Face Straight Tooth, Shank Type Standard Width Tolerance .0005



					STRAIGHT TOOTH	
U.S. STD.	OLD STD.	DIAM.	FACE WIDTH	OVERALL WIDTH	ORDER NO.	PRICE EACH
606	9	3/4	3/16	2-3/16	3046-050	132.41
806	91	3/4	1/4	2-1/4	3046-055	132.41
608	13	1	3/16	2-3/16	3046-080	179.91
1208	152	1	3/8	2-3/8	3046-100	179.91
810	21	1-1/4	1/4	2-1/4	3046-135	198.31
1010	D	1-1/4	5/16	2-5/16	3046-140	198.31
1210	E	1-1/4	3/8	2-3/8	3046-145	198.31
1011	23	1-3/8	5/16	2-5/16	3046-155	208.30
1211	F	1-3/8	3/8	2-3/8	3046-160	208.30

Solid Carbide Face Straight Tooth, Shank Type



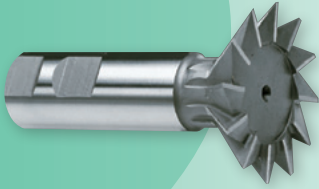
AMER. STD.	NOM. CUTTER DIAM.	FACE WIDTH	OVER-ALL LG'TH	NO. OF FLUTES	ORDER NO.	PRICE EACH
303	3/8	3/32	2-3/32	8	2969-005	\$43.50
403	3/8	1/8	2-1/8	8	2969-010	43.50
304	1/2	3/32	2-3/32	10	2969-015	50.00
404	1/2	1/8	2-1/8	10	2969-020	50.50
305	5/8	3/32	2-3/32	10	2969-025	51.10
405	5/8	1/8	2-1/8	10	2969-030	55.90
505	5/8	5/32	2-5/32	10	2969-035	54.55
605	5/8	3/16	2-3/16	10	2969-040	59.00
406	3/4	1/8	2-1/8	10	2969-045	69.80
506	3/4	5/32	2-5/32	10	2969-050	71.00
606	3/4	3/16	2-3/16	10	2969-055	74.90
806	3/4	1/4	2-1/4	10	2969-060	75.65
507	7/8	5/32	2-5/32	12	2969-065	84.25
607	7/8	3/16	2-3/16	12	2969-070	84.60
707	7/8	7/32	2-7/32	12	2969-075	88.30
807	7/8	1/4	2-1/4	12	2969-080	89.95
608	1	3/16	2-3/16	12	2969-085	93.35
708	1	7/32	2-7/32	12	2969-090	102.00
808	1	1/4	2-1/4	12	2969-095	POA
609	1-1/8	3/16	2-3/16	14	2969-100	126.65
709	1-1/8	7/32	2-7/32	14	2969-105	129.85
809	1-1/8	1/4	2-1/4	14	2969-110	130.75
610	1-1/4	3/16	2-3/16	14	2969-115	128.40
710	1-1/4	7/32	2-7/32	14	2969-120	132.00
810	1-1/4	1/4	2-1/4	14	2969-125	134.70
812	1-1/2	1/4	2-1/4	16	2969-130	160.00
1012	1-1/2	5/16	2-5/16	16	2969-135	164.90
1212	1-1/2	3/8	2-3/8	16	2969-140	170.05

Shank Type Cutters

2

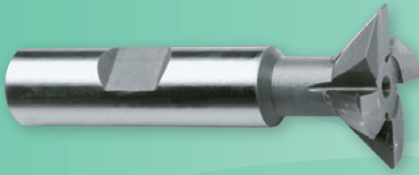
WARNING: This product contains Cobalt and/or Nickel and/or Lead a chemical known to the state of California to cause cancer or birth defects or other reproductive harm. For more information: www.prop65.ca.gov. **WARNING:** Cutting tools may shatter. Always wear approved safety glasses and mask when regrinding.

Dovetail Cutters High Speed Steel & Cobalt



Pittsburg® ALLEGIANCE											
			45° HSS			60° HSS			45° COBALT		
CUTTER DIAM.	SHANK DIAM.	OVERALL LENGTH	ORDER NUMBER	ORDER NUMBER	PRICE EACH	ORDER NUMBER	ORDER NUMBER	PRICE EACH	ORDER NUMBER	ORDER NUMBER	PRICE EACH
3/8	3/8	2-1/8	2730-224	2730-024	\$51.64	2740-024	2740-224	\$79.83	2741-424	2741-224	\$62.54
1/2	3/8	2-1/8	2730-232	2730-032	54.54	2740-032	2740-232	84.33	2741-432	2741-232	67.69
3/4	3/8	2-1/8	2730-248	2730-048	66.04	2740-048	2740-248	102.09	2741-448	—	90.83
1	1/2	2-1/2	—	—	—	—	—	—	—	2741-264	93.34
1-3/8	5/8	2-7/8	2730-288	2730-088	108.74	2740-088	2740-288	168.13	2741-488	—	143.29
1-7/8	7/8	3-1/4	2730-320	2730-120	211.41	2740-120	2740-320	326.75	2741-520	2741-320	312.21
2-1/4	1	3-3/4	2730-344	2730-144	251.99	2740-144	2740-344	389.37	2741-544	2741-344	320.99
2-1/2	1	3-3/4	2730-360	2730-160	138.59	2740-160	2740-360	230.19	2741-560	2741-360	440.28

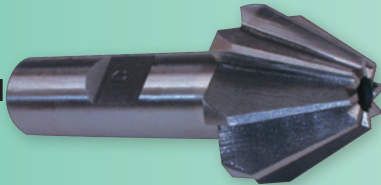
Carbide Tipped Dovetail Cutters



45° ANGLE										60° ANGLE		
CUTTER DIAM.	SHANK DIAM.	OVER'LL LENGTH	NECK DIAM.	NO. OF TEETH	CUTTER WIDTH	ORDER NO.	PRICE EACH	CUTTER WIDTH	ORDER NO.	PRICE EACH		
1/2	3/8	2-1/8	3/16	3	—	—	—	7/32	2837-110	\$134.48		
3/4	3/8	2-1/4	3/16	3	1/4	2837-020	\$ 88.87	1/4	2837-120	88.87		
1	1/2	2-1/2	3/8	4	5/16	2837-030	160.80	3/8	2837-130	98.95		
1-1/4	5/8	2-3/4	1/2	4	5/16	2837-040	109.26	1/2	2837-140	109.26		
1-1/2	3/4	3-1/4	1/2	4	1/2	2837-050	121.56	5/8	2837-150	121.56		
2	1	4-1/4	3/4	6	5/8	2837-060	232.62	3/4	2837-160	232.62		
2-1/2	1	4-3/8	1	6	3/4	2837-070	337.81	7/8	2837-170	337.81		
3	1-1/4	4-1/2	1	6	1	2837-080	88.87	1-1/8	2837-180	392.40		

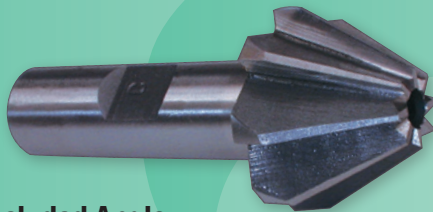
60° & 90° Face Angle Shank Type Cutters

End Cutting
Weldon Shank –
High Speed Steel
or M42 Cobalt



60° Included Angle

Pittsburg® ALLEGIANCE									
LARGE CUTTING DIA. (IN)	SMALL CUTTING DIA. (IN)	FACE WIDTH (IN)	SHANK DIA. (IN)	OVERALL LENGTH (IN)	COBALT ORDER NO.	PRICE EACH	HSS ORDER NO.	PRICE EACH	
3/4	5/16	17/32	3/8	2-3/32	2735-106	\$ 68.21	2735-306	\$ 55.72	
1	3/8	11/16	1/2	2-13/32	2735-108	86.65	2735-308	72.86	
1-1/4	1/2	25/32	5/8	2-21/32	2735-110	106.85	2735-310	89.51	
1-5/8	5/8	1-1/16	3/4	3-1/16	2735-113	183.18	2735-313	151.98	

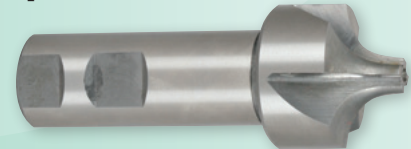


90° Included Angle

Pittsburg® ALLEGIANCE									
LARGE CUTTING DIA. (IN)	SMALL CUTTING DIA. (IN)	FACE WIDTH (IN)	SHANK DIA. (IN)	OVERALL LENGTH (IN)	COBALT ORDER NO.	PRICE EACH	HSS ORDER NO.	PRICE EACH	
3/4	5/16	3/8	3/8	1-15/16	2735-206	\$ 68.21	2735-406	\$ 55.72	
1	3/8	7/16	1/2	2-3/16	2735-208	86.65	2735-408	72.86	
1-1/4	1/2	17/32	5/8	2-13/32	2735-210	106.85	2735-410	89.51	
1-5/8	5/8	11/16	3/4	2-11/16	2735-213	183.18	2735-413	151.98	



Corner Rounding End Mills High Speed Steel



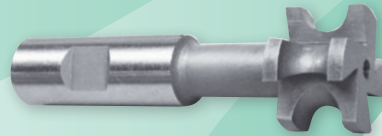
RADIUS	SHANK DIAM.	LARGEST DIAM.	SMALLEST DIAM.	OVERALL LENGTH	ORDER NO.	PRICE EACH
1/32	3/8	3/8	1/4	2-1/2	2729-021	\$55.68
1/16	3/8	7/16	1/4	2-1/2	2729-041	55.68
3/32	3/8	1/2	5/16	2-1/2	2729-061	56.36
1/8	1/2	5/8	5/16	3	2729-081	62.00
5/32	1/2	3/4	3/8	3	2729-101	66.61
3/16	3/4	7/8	3/8	3-1/8	2729-121	70.48
3/16	1/2	7/8	3/8	3	2729-122	70.48
7/32	1/2	7/8	3/8	3-1/4	2729-141	27.92
1/4	3/4	1	3/8	3-1/4	2729-161	75.76
1/4	1/2	1	3/8	3-1/8	2729-162	75.76
9/32	5/8	1	3/8	3	2729-181	41.15
5/16	7/8	1-1/8	3/8	3-1/2	2729-201	93.09
5/16	1/2	1-1/8	3/8	3-1/4	2729-202	92.58
5/16	3/4	1-1/8	3/8	3-1/4	2729-203	93.09
11/32	1/2	1-1/8	3/8	3-1/2	2729-221	35.30
3/8	7/8	1-1/4	3/8	3-3/4	2729-241	105.57
3/8	1/2	1-1/4	3/8	3-1/2	2729-242	105.57
3/8	3/4	1-1/4	3/8	3-1/2	2729-243	105.57
13/32	1/2	1-1/4	3/8	3-3/4	2729-261	47.19
7/16	1	1-3/8	3/8	4	2729-281	116.24
7/16	3/4	1-3/8	3/8	4	2729-283	116.24
15/32	1/2	1-3/8	3/8	4	2729-301	144.38
1/2	1	1-1/2	3/8	4-1/8	2729-321	144.38
1/2	3/4	1-1/2	3/8	3-7/8	2729-322	144.38
5/8	1	1-15/16	9/16	4-1/4	2729-401	172.95
5/8	3/4	1-15/16	9/16	4	2729-402	172.95
3/4	1	2-1/4	5/8	4-5/16	2729-481	204.83
3/4	3/4	2-1/4	5/8	4-1/8	2729-482	204.83
1	1	2-5/8	7/8	4-3/4	2729-641	326.03
1	3/4	2-5/8	7/8	4-1/2	2729-642	303.26

Shank Type Cutters

2

WARNING: This product contains Cobalt and/or Nickel and/or Lead a chemical known to the state of California to cause cancer or birth defects or other reproductive harm. For more information: www.prop65.ca.gov.
WARNING: Cutting tools may shatter. Always wear approved safety glasses and mask when regrounding.

Concave, Shank Type Cutter High Speed Steel



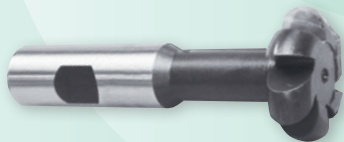
 Pittsburg [®] ALLEGIANCE							 ALLEGIANCE [®] AMERICAN MADE			
RADIUS	SHK. DIA.	OAL	CUTTER DIA.	NO. OF TEETH	ORDER NUMBER	PRICE EACH	CUTTER DIA.	NO. OF TEETH	ORDER NUMBER	PRICE EACH
1/32	1/2	3	3/4	6	2732-302	\$64.90	3/4	8	2732-502	\$107.60
1/16	1/2	3	3/4	6	2732-304	64.90	3/4	8	2732-504	107.60
3/32	1/2	3	3/4	6	2732-306	64.90	7/8	8	2732-506	115.00
1/8	3/4	3-1/2	1	6	2732-308	77.66	1-1/4	8	2732-508	125.70
5/32	3/4	3-1/2	1	6	2732-310	83.16	1-5/16	8	2732-510	142.00
3/16	3/4	3-1/2	1	6	2732-312	89.64	1-3/8	8	2732-512	160.60
1/4	3/4	4	1-1/4	6	2732-316	99.79	1-1/2	8	2732-516	171.40
5/16	3/4	4	1-1/4	6	2732-320	117.72	1-3/4	8	2732-520	214.00
3/8	3/4	4-3/16	1-1/2	6	2732-324	140.18	1-7/8	8	2732-524	257.00

Carbide Tipped



RADIUS	SHANK DIAM.	OVERALL LENGTH	CUTTER DIAM.	NUMBER OF TEETH	ORDER NUMBER	PRICE EACH
1/32	1/2	3	3/4	6	3045-802	\$196.10
1/16	1/2	3	3/4	6	3045-804	196.10
3/32	1/2	3	7/8	6	3045-806	234.90
1/8	3/4	3-1/2	1-1/4	6	3045-808	261.40
5/32	3/4	3-1/2	1-5/16	6	3045-810	286.00
3/16	3/4	3-1/2	1-3/8	6	3045-812	329.70
1/4	3/4	4	1-1/2	6	3045-816	375.10
5/16	3/4	4	1-3/4	6	3045-820	424.40
3/8	3/4	4	1-7/8	6	3045-824	473.60

Convex, Shank Type Cutter High Speed Steel & Carbide Tipped



														
												CARBIDE TIPPED		
RADIUS	SHK. DIA.	OAL	CUTTER DIA.	FLT. NO.	ORDER NUMBER	PRICE EACH	CUTTER DIA.	FLT. NO.	ORDER NUMBER	PRICE EACH	FLT. NO.	ORDER NUMBER	PRICE EACH	
1/32	1/2	3	3/4	6	2732-402	\$58.60	3/4	8	2732-602	\$107.60	6	3045-902	\$236.30	
1/16	1/2	3	3/4	6	2732-404	58.60	3/4	8	2732-604	107.60	6	3045-904	236.30	
3/32	1/2	3	7/8	6	2732-406	61.30	7/8	10	2732-606	115.00	6	3045-906	259.00	
1/8	3/4	3-1/2	1-1/4	6	2732-408	65.16	1-1/4	10	2732-608	118.10	6	3045-908	281.20	
5/32	3/4	3-1/2	1-5/16	6	2732-410	71.58	1-5/16	10	2732-610	118.10	6	3045-910	315.20	
3/16	3/4	3-1/2	1-3/8	6	2732-412	74.70	1-3/8	10	2732-612	138.70	6	3045-912	337.50	
1/4	3/4	4	1-1/2	6	2732-416	83.16	1-1/2	10	2732-616	145.80	6	3045-916	371.20	
5/16	3/4	4	1-5/8	6	2732-420	111.68	1-3/4	10	2732-620	214.00	10	3045-920	424.40	
3/8	3/4	4	1-3/4	6	2732-424	116.82	1-7/8	10	2732-624	257.00	10	3045-924	473.60	

Double Angle Shank Type Cutter Right Hand Cut, High Speed Steel & Carbide Tipped



						 CARBIDE TIPPED		
INCLUDED ANGLE	CUTTER DIAM.	SHANK DIAM.	OVERALL LENGTH	CUTTER THICKNESS	ORDER NUMBER	PRICE EACH	ORDER NUMBER	PRICE EACH
60°	3/4	3/8	2-3/8	3/16	2733-121	\$40.51	3045-606	\$164.00
60°	1	1/2	2-27/32	5/16	2733-161	64.85	3045-608	178.40
60°	1-3/8	5/8	3-7/32	7/16	2733-221	86.46	3045-611	195.20
60°	1-1/2	5/8	3-3/8	1/2	2733-241	119.99	3045-612	216.50
60°	1-7/8	3/4	3-25/32	5/8	2733-301	131.43	3045-615	352.20
60°	2-1/4	3/4	3-1/8	1/2	2733-361	192.59	—	—
60°	2-1/4	7/8	4-5/32	3/4	2733-362	195.86	3045-618	501.20
90°	3/4	3/8	2-7/16	1/4	2734-121	44.20	3045-636	164.00
90°	1	1/2	2-29/32	3/8	2734-161	70.74	3045-638	178.40
90°	1-3/8	5/8	3-9/32	1/2	2734-221	94.32	3045-641	195.20
90°	1-1/2	5/8	3-7/16	9/16	2734-241	130.90	3045-642	216.50
90°	1-7/8	3/4	3-25/32	5/8	2734-301	143.38	3045-645	352.20
90°	2-1/4	3/4	3-1/8	1/2	2734-361	210.10	—	—
90°	2-1/4	7/8	4-5/32	3/4	2734-362	213.66	3045-656	501.20

Single Angle Chamfering Cutters Right Hand Cut/ Weldon Shank High Speed Steel & Carbide Tipped



												
CARBIDE TIPPED												
CUTTER DIAM.	CUTTER WIDTH	SHANK DIAM.	OVERALL LENGTH	ANGLE	ORDER NUMBER	PRICE EACH	ORDER NUMBER	PRICE EACH	ORDER NUMBER	PRICE EACH		
1/2	1/8	3/8	2-1/8	45	2732-032	\$50.99	—	—	3045-708	\$146.80		
3/4	3/16	3/8	2-1/8	45	2732-048	59.81	—	—	3045-712	181.20		
1	5/16	1/2	2-1/2	45	2732-064	74.33	—	—	3045-716	212.10		
1-1/2	1/2	3/4	2-3/4	45	2732-096	95.93	—	—	3045-724	282.20		
1/2	7/32	3/8	2-1/8	60	2732-132	50.99	—	—	3045-758	146.80		
3/4	5/16	3/8	2-1/8	60	2732-148	59.81	2732-262	80.00	3045-762	181.20		
1	7/16	1/2	2-1/2	60	2732-164	74.33			—	—	3045-766	212.10
1-1/2	5/8	3/4	2-3/4	60	2732-196	95.93			—	—	3045-774	282.20

Two Flute, Single End, End Mills

Regular Length – R. H. Cut - R.H. Spiral - High Speed Steel

3

WARNING: This product contains Cobalt and/or Nickel and/or Lead a chemical known to the state of California to cause cancer or birth defects or other reproductive harm. For more information: www.prop65.ca.gov.
WARNING: Cutting tools may shatter. Always wear approved safety glasses and mask when regrinding.



Uncoated



TiN Coated

				UNCOATED		TiN COATED		UNCOATED			
SIZE				<i>Pittsburg</i> ALLEGIANCE		<i>Pittsburg</i> ALLEGIANCE		<i>ALLEGIANCE</i> AMERICAN MADE			
DIA.	SHANK DIA.	FLUTE LENGTH	OAL	ORDER NO.	PRICE EACH	ORDER NO.	PRICE EACH	LENGTH OF CUT	OAL	ORDER NO.	PRICE EACH
1/8	3/8	3/8	2-5/16	2612-081	\$ 9.72	2613-708	\$17.24	3/8	2-5/16	2593-081	\$ 14.36
9/64	3/8	3/8	2-5/16	2612-091	6.19	—	—	—	—	—	—
5/32	3/8	3/8	2-5/16	2612-101	9.72	2313-710	POA	3/8	2-5/16	2593-101	16.43
11/64	3/8	3/8	2-5/16	2612-111	6.19	—	—	—	—	—	—
3/16	3/8	3/8	2-5/16	2612-121	9.72	2613-712	17.24	7/16	2-3/8	2593-121	14.36
7/32	3/8	3/8	2-5/16	2612-141	9.72	2613-714	POA	1/2	2-7/16	2593-141	16.43
1/4	3/8	1/2	2-5/16	2612-161	9.72	2613-716	17.24	1/2	2-7/16	2593-161	14.36
17/64	3/8	1/2	2-5/16	2612-171	6.19	—	—	—	—	—	—
9/32	3/8	1/2	2-5/16	2612-181	9.72	2613-718	POA	9/16	2-1/2	2593-181	16.43
19/64	3/8	9/16	2-5/16	2612-191	6.19	—	—	—	—	—	—
5/16	3/8	9/16	2-5/16	2612-201	9.72	2613-720	17.24	9/16	2-1/2	2593-201	14.36
11/32	3/8	9/16	2-5/16	2612-221	9.72	2613-722	POA	—	—	2593-202	POA
23/64	3/8	9/16	2-5/16	2612-231	6.19	—	—	—	—	—	—
3/8	3/8	9/16	2-5/16	2612-241	9.72	2613-724	17.24	9/16	2-1/2	2593-241	14.36
13/32	3/8	13/16	2-1/2	2612-261	14.38	2613-726	POA	—	—	2593-242	POA
27/64	3/8	13/16	2-1/2	2612-271	8.36	—	—	—	—	—	—
7/16	3/8	13/16	2-1/2	2612-281	14.38	2613-728	23.00	13/16	2-11/16	2593-281	21.33
29/64	3/8	13/16	2-1/2	2612-291	9.52	—	—	—	—	2593-282	POA
15/32	3/8	13/16	2-1/2	2612-301	14.38	2613-729	POA	—	—	—	—
15/32	1/2	13/16	2-1/2	2612-302	15.82	—	—	—	—	2593-283	POA
1/2	3/8	13/16	2-1/2	2612-322	14.38	2613-731	POA	13/16	2-11/16	2593-321	21.33
1/2	1/2	1	3	2612-321	15.25	2613-732	24.95	1	3-1/4	2593-322	21.38
9/16	1/2	1-1/8	3-1/8	2612-361	17.78	2613-734	POA	1-1/8	3-3/8	2593-361	25.31
5/8	1/2	1-1/8	3-1/8	2612-401	19.92	2613-736	POA	1-1/8	3-3/8	2593-401	29.43
5/8	5/8	1-5/16	3-7/16	2612-402	20.19	2613-740	34.20	1-5/16	3-3/4	2593-402	28.80
11/16	1/2	1-5/16	3-5/16	2612-441	21.49	2613-742	POA	1-5/16	3-5/8	2593-441	31.46
11/16	5/8	1-5/16	3-7/16	2612-442	21.49	2613-743	POA	1-5/16	3-3/4	2593-442	31.46
23/32	1/2	1-5/16	3-5/16	2612-461	20.01	—	—	—	—	—	—
3/4	1/2	1-5/16	3-5/16	2612-481	22.95	2613-746	POA	1-5/16	3-5/8	2593-481	33.75
3/4	5/8	1-5/16	3-7/16	2612-482	22.95	2613-747	39.46	1-5/16	3-3/4	2593-482	33.75
3/4	3/4	1-5/16	3-9/16	2612-483	22.95	2613-748	39.46	1-5/16	3-7/8	2593-483	33.75
13/16	1/2	1-1/2	3-5/8	2612-520	27.01	2613-750	POA	—	—	2593-520	POA
13/16	5/8	1-1/2	3-5/8	2612-521	27.01	2613-751	POA	1-1/2	4	2593-521	42.21
13/16	3/4	1-1/2	3-3/4	2612-522	27.01	2613-752	POA	1-7/8	4-1/8	2593-522	42.21
7/8	1/2	1-1/2	3-1/2	2612-561	27.01	2313-753	POA	—	—	2593-560	POA
7/8	5/8	1-1/2	3-5/8	2612-562	27.01	2313-754	POA	1-1/2	4	2593-561	41.67
7/8	3/4	1-1/2	3-3/4	2612-563	27.01	2313-755	POA	1-1/2	4-1/8	2593-563	41.67
7/8	7/8	1-1/2	3-3/4	2612-564	28.31	2313-756	POA	1-1/2	4-1/8	2593-562	41.67

Two Flute, Single End, End Mills

Regular Length – R. H. Cut - R.H. Spiral - High Speed Steel

3

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WARNING: Cutting tools may shatter. Always wear approved safety glasses and mask when regrinding.



Uncoated



TiN Coated

				UNCOATED		TiN COATED		UNCOATED			
SIZE											
DIA.	SHANK DIA.	FLUTE LENGTH	OAL	ORDER NO.	PRICE EACH	ORDER NO.	PRICE EACH	LENGTH OF CUT	OAL	ORDER NO.	PRICE EACH
15/16	5/8	1-1/2	3-5/8	2612-601	\$32.09	2313-757	POA	1-1/2	4	2593-601	\$46.78
15/16	3/4	1-1/2	3-3/4	2612-602	32.09	2313-758	POA	1-1/2	4-1/8	2593-603	47.14
15/16	7/8	1-1/2	3-3/4	2612-603	32.09	2313-759	POA	1-1/2	4-1/8	2593-602	46.78
31/32	1/2	1-1/2	3-1/2	2612-621	29.13	-	-	-	-	-	-
1	1/2	1-1/2	3-1/2	2612-641	32.09	2313-760	POA	-	-	-	-
1	5/8	1-1/2	3-5/8	2612-642	32.09	2313-761	POA	1-1/2	4	2593-641	46.62
1	3/4	1-1/2	3-3/4	2612-643	32.09	2613-763	\$55.66	1-1/2	4-1/8	2593-642	46.62
1	7/8	1-1/2	3-3/4	2612-644	32.09	2313-762	POA	1-1/2	4-1/8	2593-643	49.68
1	1	1-5/8	4-1/8	2612-645	34.27	2613-764	60.73	1-5/8	4-1/2	2593-644	56.61
1-1/16	3/4	1-5/8	3-7/8	2612-680	46.02	2313-765	POA	-	-	-	-
1-1/8	3/4	1-5/8	3-7/8	2612-721	46.02	2313-766	POA	1-5/8	4-1/4	2593-720	85.50
1-1/8	7/8	1-5/8	3-7/8	2612-722	49.95	2313-767	POA	1-5/8	4-1/4	2593-721	76.50
1-1/8	1	1-5/8	4-1/8	2612-723	49.95	2313-768	POA	1-5/8	4-1/2	2593-722	76.50
1-3/16	3/4	1-5/8	3-7/8	2612-761	58.22	-	-	-	-	-	-
1-3/16	1	1-5/8	4-1/8	2612-762	38.66	-	-	-	-	-	-
1-1/4	3/4	1-5/8	3-7/8	2612-801	58.22	2313-769	POA	1-5/8	4-1/2	2593-800	93.60
1-1/4	7/8	1-5/8	3-7/8	2612-802	49.23	2313-770	POA	1-5/8	4-1/2	2593-801	79.65
1-1/4	1	1-5/8	4-1/8	2612-803	55.76	2313-771	POA	1-5/8	4-1/2	2593-802	86.40
1-1/4	1-1/4	1-5/8	4-1/8	2612-804	59.68	-	-	1-5/8	4-1/2	2593-803	86.40
1-5/16	3/4	1-5/8	3-7/8	2612-841	69.26	-	-	-	-	-	-
1-3/8	3/4	1-5/8	3-7/8	2612-881	69.26	2313-772	POA	1-5/8	4-1/4	2593-880	102.42
1-3/8	1	1-5/8	4-1/8	2612-882	66.21	2313-773	POA	1-5/8	4-1/2	2593-881	96.21
1-7/16	3/4	1-5/8	3-7/8	2612-921	69.41	-	-	-	-	-	-
1-7/16	1	1-5/8	4-1/8	2612-922	59.17	-	-	-	-	-	-
1-1/2	3/4	1-5/8	3-7/8	2612-961	69.41	2313-774	POA	1-5/8	4-1/4	2593-960	112.05
1-1/2	1	1-5/8	4-1/8	2612-962	72.60	2313-775	POA	1-5/8	4-1/2	2593-961	105.39
1-1/2	1-1/4	1-5/8	4-1/8	2612-963	72.60	2313-776	POA	1-5/8	4-1/2	2593-962	105.39
1-5/8	3/4	1-5/8	4-1/8	2613-041	80.06	-	-	-	-	-	-
1-5/8	1-1/4	1-5/8	4-1/8	2613-042	79.53	-	-	1-5/8	4-1/2	2594-041	113.14
1-3/4	3/4	1-5/8	3-7/8	2613-121	94.38	-	-	1-5/8	4-1/4	2594-120	95.30
1-3/4	1-1/4	1-5/8	4-1/8	2613-122	87.12	-	-	1-5/8	4-1/2	2594-121	125.96
1-7/8	3/4	1-5/8	4-1/8	2613-200	95.83	-	-	-	-	-	-
1-7/8	1-1/4	1-5/8	4-1/8	2613-201	93.92	-	-	1-5/8	4-1/2	2594-201	136.25
2	3/4	1-5/8	4-1/8	2613-281	107.81	-	-	1-5/8	4-1/4	2594-280	150.17
2	1-1/4	1-5/8	4-1/8	2613-282	103.09	-	-	1-5/8	4-1/2	2594-281	145.80
2	1-1/4	2-1/2	5	2613-283	105.98	-	-	-	-	-	-
2	2	4	7-3/4	2613-284	230.44	-	-	-	-	-	-
2-1/4	1-1/4	1-5/8	4-1/8	2613-441	261.80	-	-	-	-	-	-
2-1/2	1-1/4	2	4-1/2	2613-602	220.00	-	-	-	-	-	-

Two Flute, Single End, End Mills

High Speed Steel - R.H.C. - R.H.S.

3

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WARNING: Cutting tools may shatter. Always wear approved safety glasses and mask when grinding.

Metric Single End



Long, Extra Long & Long Flute



DIA. (mm.)	SHANK DIA.	FLUTE LENGTH	OAL	ORDER NO.	PRICE EACH	LENGTH OF CUT	OAL	ORDER NO.	PRICE EACH
3.0	3/8	3/8	2-5/16	2626-230	\$13.78	3/8	2-5/16	2620-230	\$14.20
3.5	3/8	—	—	—	—	7/16	2-3/8	2620-235	15.45
4.0	3/8	7/16	2-5/16	2626-240	13.78	7/16	2-3/8	2620-240	12.86
4.5	3/8	—	—	—	—	7/16	2-3/8	2620-245	15.37
5.0	3/8	1/2	2-5/16	2626-250	13.78	7/16	2-7/16	2620-250	15.20
5.5	3/8	—	—	—	—	1/2	2-7/16	2620-255	15.71
6.0	3/8	1/2	2-5/16	2626-260	13.78	1/2	2-7/16	2620-260	12.86
6.5	3/8	—	—	—	—	1/2	2-7/16	2620-265	15.28
7.0	3/8	9/16	2-5/16	2626-270	13.78	9/16	2-1/2	2620-270	15.85
7.5	3/8	—	—	—	—	9/16	2-1/2	2620-275	11.05
8.0	3/8	9/16	2-5/16	2626-280	13.78	9/16	2-1/2	2620-280	12.79
8.5	3/8	—	—	—	—	9/16	2-1/2	2620-285	15.66
9.0	3/8	9/16	2-5/16	2626-290	13.78	9/16	2-1/2	2620-290	12.27
9.5	3/8	—	—	—	—	3/4	2-1/2	2620-295	13.79
10.0	3/8	13/16	2-1/2	2626-300	16.70	3/4	2-1/2	2620-300	18.79
10.5	3/8	—	—	—	—	1	2-11/16	2620-305	23.20
11.0	3/8	13/16	2-1/2	2626-310	20.10	1	2-11/16	2620-310	18.12
11.5	3/8	—	—	—	—	1	2-11/16	2620-315	19.12
12.0	1/2	1	3	2626-321	21.14	1	3-1/4	2620-320	24.50
12.5	1/2	—	—	—	—	1-1/4	3-1/4	2620-325	28.27
13.0	1/2	1-1/8	3-1/8	2626-330	26.21	1-1/8	3-1/8	2620-330	30.10
13.5	1/2	—	—	—	—	1-1/8	3-1/8	2620-335	22.18
14.0	1/2	1-1/8	3-1/8	2626-340	26.21	1-1/8	3-1/8	2620-340	22.80
14.5	1/2	—	—	—	—	1-1/8	3-1/8	2620-345	21.66
15.0	1/2	1-1/8	3-1/8	2626-350	26.21	1-1/8	3-1/8	2620-350	19.50
16.0	5/8	1-3/8	3-3/4	2626-360	28.10	1-3/8	3-3/4	2620-360	26.41
17.0	5/8	—	—	—	—	1-5/8	3-3/4	2620-370	22.67
18.0	5/8	1-5/8	3-3/4	2626-380	31.27	1-5/8	3-3/4	2620-380	31.72
19.0	3/4	—	—	—	—	1-5/8	3-7/8	2620-390	21.24
20.0	5/8	1-1/2	3-3/4	2626-400	37.45	1-1/2	3-5/8	2620-400	44.39
21.0	5/8	—	—	—	—	1-7/8	4-1/8	2620-410	39.61
22.0	3/4	1-1/2	3-3/4	2626-420	39.98	—	—	—	—
22.0	7/8	—	—	—	—	1-7/8	4-1/8	2620-420	28.02
23.0	7/8	—	—	—	—	1-7/8	4-1/8	2620-430	51.10
24.0	3/4	1-1/2	3-3/4	2626-440	47.59	—	—	—	—
24.0	1	—	—	—	—	2	4-1/2	2620-440	41.72
25.0	3/4	2	4-1/8	2626-448	47.59	—	—	—	—
25.0	1	—	—	—	—	2	4-1/2	2620-450	55.37
30.0	1	2-1/8	4-1/2	2626-500	79.19	—	—	—	—
34.0	1	1-5/8	4-1/8	2626-540†	47.10	—	—	—	—

† Limited Quantities

DIA.	SHANK DIA.	FLUTE LENGTH	OAL	ORDER NO.	PRICE EACH	ORDER NO.	PRICE EACH	ORDER NO.	PRICE EACH
1/4	3/8	1	3-1/16	2614-161	\$20.90	—	—	—	—
1/4	3/8	1-1/4	3-1/8	—	—	2595-161	\$23.54	—	—
5/16	3/8	1-1/4	3	—	—	2595-201	23.54	—	—
5/16	3/8	1-1/4	3-5/16	2614-201	20.90	—	—	—	—
3/8	3/8	1	2-3/4	2614-241	18.14	—	—	—	—
3/8	3/8	1-1/2	3-1/4	2614-242	20.97	2595-241	25.89	—	—
1/2	1/2	1-1/2	3-1/2	2614-321	24.24	2595-320	30.95	—	—
1/2	1/2	2	4	2614-322	26.61	2595-321	36.73	—	—
5/8	1/2	2-3/8	4-1/2	2614-400†	33.26	—	—	—	—
5/8	5/8	1-5/8	3-3/4	2614-401	13.97	—	—	—	—
5/8	5/8	2	4-1/8	2614-402	31.05	2595-401	44.55	—	—
3/4	1/2	3-1/8	5-1/8	2614-480†	40.11	—	—	—	—
3/4	3/4	2-1/4	4-1/2	2614-483	37.50	2595-481	25.88	—	—
3/4	3/4	2-1/2	4-3/4	2614-484†	18.11	—	—	—	—
3/4	3/4	3	5-1/4	2614-485	26.38	—	—	—	—
7/8	7/8	2	4-1/4	2614-565†	38.16	—	—	—	—
7/8	7/8	2-1/2	4-3/4	2614-566	46.00	—	—	—	—
7/8	7/8	3	5-1/4	2614-568†	47.47	—	—	—	—
7/8	7/8	3-1/2	5-3/4	2614-569	34.74	—	—	—	—
1	1	2	4-1/2	2614-647†	25.27	—	—	—	—
1	1	2-1/2	5	2614-649	52.92	—	—	—	—
1	1	3	5-1/2	2614-650	61.69	2595-641	60.13	—	—
1-1/8	1	3	5-1/2	2614-727	82.44	2595-721	89.25	—	—
1-1/4	1	3	5-1/2	2614-804	96.36	2595-801	120.00	—	—
1-1/4	1-1/4	3	5-1/2	2614-806	96.36	2595-802	145.57	—	—
1-1/4	1-1/4	3-1/2	6	2614-807†	118.94	—	—	—	—
1-1/4	1-1/4	4-3/4	7-1/4	2614-809†	85.87	—	—	—	—
1-3/8	1	3	5-1/2	2614-882	97.89	—	—	—	—
1-1/2	1-1/4	2-1/4	4-3/4	2614-961†	123.85	—	—	—	—
1-1/2	1-1/4	3	5-1/2	2614-962	115.92	2595-961	148.00	—	—
1-5/8	1-1/4	2-1/4	4-3/4	2615-041†	81.32	—	—	—	—
1-5/8	1-1/4	3	5-1/2	2615-042	132.74	—	—	—	—
1-3/4	1-1/4	3	5-1/2	2615-122	145.15	2596-121	180.00	—	—
1-7/8	1-1/4	2-1/4	4-3/4	2615-201†	102.19	—	—	—	—
1-7/8	1-1/4	3	5-1/2	2615-202	165.22	2596-201	120.88	—	—
2	1-1/4	3	5-1/2	2615-282	174.38	2596-281	217.98	—	—

† Limited Quantities



Long Reach (Extension Type)

DIA.	SHANK DIA.	FLUTE LENGTH	LENGTH BELOW SHANK	OAL	ORDER NO.	PRICE EACH	ORDER NO.	PRICE EACH	
1/8	3/8	13/16	3/8	2-9/16	2618-081	\$18.18	—	—	—
3/16	3/8	1/2	1-1/8	2-7/8	2618-121	18.18	—	—	—
3/16	3/8	1/2	1-1/8	2-11/16	—	—	2597-121	\$22.84	—
1/4	3/8	5/8	1-1/2	3-1/16	2618-161	18.18	2597-161	23.57	—
5/16	3/8	3/4	1-3/4	3-5/16	2618-202	18.18	2597-201	26.29	—
3/8	3/8	3/4	1-3/4	3-5/16	2618-241	18.18	2597-241	26.41	—
1/2	1/2	1	2-1/4	4	2618-321	21.78	2597-321	26.47	—

† Limited Quantities

DIA.	SHANK DIA.	FLUTE LENGTH	LENGTH BELOW SHANK	OAL	ORDER NO.	PRICE EACH	ORDER NO.	PRICE EACH	
5/8	1/2	1-3/8	2-3/4	4-5/8	2618-401	\$32.04	—	—	—
5/8	5/8	1-3/8	2-3/4	4-5/8	2618-402	32.04	2597-401	\$35.14	—
3/4	1/2	1-5/8	3-3/8	5-3/8	2618-481	40.68	—	—	—
3/4	3/4	1-5/8	3-3/8	5-3/8	2618-482	40.68	2597-481	40.33	—
7/8	7/8	2	4	6	2618-561	52.74	—	—	—
1	1	2-1/2	5	7-1/4	2618-641	72.00	2597-641	70.24	—
1-1/4	1-1/4	3	5	7-1/4	2618-801	99.00	—	—	—

M42 8% Cobalt – Two Flute End Mills

Regular Length– Single End

3

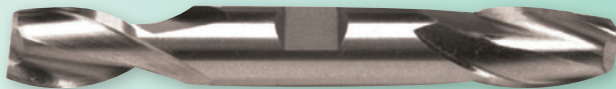
WARNING: This product contains Cobalt and/or Nickel and/or Lead a chemical known to the state of California to cause cancer or birth defects or other reproductive harm. For more information: www.prop65.ca.gov.
WARNING: Cutting tools may shatter. Always wear approved safety glasses and mask when regrinding.



				Pittsburg® ALLEGHANY		ALLEGIANCE® AMERICAN MADE			
DIA.	SHANK DIA.	FLUTE LG'TH	OAL	ORDER NO.	PRICE EACH	FLUTE LG'TH	OAL	ORDER NO.	PRICE EACH
1/8	3/8	3/8	2-5/16	2690-008	\$9.10	3/8	2-5/16	2604-008	\$26.10
5/32	3/8	7/16	2-5/16	2690-010	9.10	—	—	—	—
3/16	3/8	7/16	2-5/16	2690-012	9.10	7/16	2-3/8	2604-012	26.10
7/32	3/8	1/2	2-5/16	2690-014	9.10	—	—	—	—
1/4	3/8	1/2	2-5/16	2690-016	23.11	1/2	2-7/16	2604-016	26.10
9/32	3/8	9/16	2-5/16	2690-018	23.11	—	—	—	—
5/16	3/8	9/16	2-5/16	2690-020	23.11	9/16	2-1/2	2604-020	26.10
11/32	3/8	9/16	2-5/16	2690-022	23.11	—	—	—	—
3/8	3/8	9/16	2-5/16	2690-024	23.11	9/16	2-1/2	2604-024	26.10
13/32	3/8	13/16	2-1/2	2690-026	32.62	—	—	—	—
7/16	3/8	13/16	2-1/2	2690-028	32.62	13/16	2-11/16	2604-028	22.53
15/32	3/8	13/16	2-1/2	2690-030	14.29	—	—	—	—
1/2	3/8	13/16	2-1/2	2690-032	32.62	—	—	—	—
1/2	1/2	1	3	2690-033	32.62	1	3-1/4	2604-032	35.10
9/16	1/2	1-1/8	3-1/8	2690-036	44.60	—	—	—	—
5/8	1/2	1-1/8	3-1/8	2690-040	43.20	—	—	—	—
5/8	5/8	1-5/16	3-7/16	2690-041	43.20	1-5/16	3-3/4	2604-040	49.50
11/16	5/8	1-5/16	3-7/16	2690-044	54.00	—	—	—	—
3/4	1/2	1-5/16	3-5/16	2690-048	25.50	—	—	—	—
3/4	5/8	1-5/16	3-7/16	2690-049	25.50	1-5/16	3-7/16	2604-047	62.10
3/4	3/4	1-5/16	3-9/16	2690-050	25.50	1-5/16	3-7/8	2604-048	62.10
13/16	3/4	1-1/2	3-3/4	2690-052	63.50	—	—	—	—

				Pittsburg® ALLEGHANY		ALLEGIANCE® AMERICAN MADE			
DIA.	SHANK DIA.	FLUTE LG'TH	OAL	ORDER NO.	PRICE EACH	FLUTE LG'TH	OAL	ORDER NO.	PRICE EACH
7/8	1/2	1-1/2	3-5/8	2690-056	\$33.89	—	—	—	—
7/8	5/8	1-1/2	3-5/8	2690-057	74.09	—	—	—	—
7/8	3/4	1-1/2	3-3/4	2690-058	74.09	1-1/2	3-3/4	2604-058	\$80.10
7/8	7/8	1-1/2	3-3/4	2690-059	74.09	—	—	—	—
15/16	3/4	1-1/2	3-3/4	2690-060	81.00	—	—	—	—
1	1/2	1-1/2	3-5/8	2690-064	86.40	—	—	—	—
1	5/8	1-1/2	3-5/8	2690-065	86.40	—	—	—	—
1	3/4	1-1/2	3-3/4	2690-066	86.40	1-1/2	3-3/4	2604-063	99.00
1	1	1-5/8	4-1/8	2690-067	86.40	1-5/8	4-1/2	2604-064	99.00
1-1/8	3/4	1-5/8	3-7/8	2690-068	116.64	—	—	—	—
1-1/8	1	1-5/8	4-1/8	2690-069	116.64	—	—	—	—
1-1/4	3/4	1-5/8	3-7/8	2690-078	114.48	—	—	—	—
1-1/4	1	1-5/8	4-1/8	2690-079	114.48	—	—	—	—
1-1/4	1-1/4	1-5/8	4-1/8	2690-080	114.48	1-5/8	4-1/8	2604-080	125.10
1-3/8	1	1-5/8	4-1/8	2690-084	158.54	—	—	—	—
1-1/2	3/4	1-5/8	4-1/8	2690-094	171.18	—	—	—	—
1-1/2	1	1-5/8	4-1/8	2690-095	171.18	—	—	—	—
1-1/2	1-1/4	1-5/8	4-1/8	2690-096	171.18	1-5/8	4-1/8	2604-096	125.10
1-3/4	1-1/4	1-5/8	4-1/8	2690-112	205.20	—	—	—	—
2	1-1/4	1-5/8	4-1/8	2690-128	223.78	—	—	—	—

Double End



				Pittsburg® ALLEGHANY		ALLEGIANCE® AMERICAN MADE			
DIA.	SHANK DIA.	FLUTE LG'TH	OVER. LG'TH	ORDER NO.	PRICE EACH	FLUTE LG'TH	OVER. LG'TH	ORDER NO.	PRICE EACH
1/8	3/8	3/8	3-1/16	2700-008	\$ 30.13	3/8	3-1/16	2604-208	\$35.10
5/32	3/8	7/16	3-1/8	2700-010	31.85	7/16	3-1/8	2604-210	35.10
3/16	3/8	7/16	3-1/8	2700-012	31.85	7/16	3-1/4	2604-212	35.10
7/32	3/8	1/2	3-1/8	2700-014	31.85	1/2	3-1/4	2604-214	35.10
1/4	3/8	1/2	3-1/8	2700-016	31.85	1/2	3-3/8	2604-216	35.10
9/32	3/8	9/16	3-1/8	2700-018	32.46	9/16	3-3/8	2604-218	35.10
5/16	3/8	9/16	3-1/8	2700-020	31.85	9/16	3-1/2	2604-220	35.10
11/32	3/8	9/16	3-1/8	2700-022	34.98	—	—	—	—
3/8	3/8	9/16	3-1/8	2700-024	31.85	9/16	3-1/2	2604-224	35.10
13/32	1/2	13/16	3-3/4	2700-026	42.69	13/16	3-3/4	2604-226	44.10
7/16	1/2	13/16	3-3/4	2700-028	42.69	13/16	3-3/4	2604-228	44.10
1/2	1/2	13/16	3-3/4	2700-032	46.52	13/16	4-1/8	2604-232	52.20
9/16	5/8	—	—	—	—	1-1/8	4-1/2	2604-236	62.10
5/8	5/8	1-1/8	4-1/2	2700-040	74.27	1-1/8	5	2604-240	69.57
3/4	3/4	1-5/16	5	2700-048	98.28	1-5/16	5-5/8	2604-248	88.74
7/8	7/8	1-9/16	5-1/2	2700-056	119.95	1-9/16	5-1/2	2604-256	119.70
1	1	1-5/8	5-7/8	2700-064	140.62	1-5/8	5-7/8	2604-264	141.03

Ball End Single End



				Pittsburg® ALLEGHANY			
DIA.	SHANK DIA.	FLUTE LG'TH	OAL	ORDER NO.	PRICE EACH		
1/8	3/8	3/8	2-5/16	2690-208	\$27.00		
3/16	3/8	1/2	2-3/8	2690-212	27.00		
1/4	3/8	5/8	2-7/16	2690-216	27.00		
5/16	3/8	3/4	2-1/2	2690-220	30.15		
3/8	3/8	3/4	2-1/2	2690-224	30.15		
1/2	1/2	1	3	2690-232	37.80		
5/8	5/8	1-3/8	3-1/2	2690-240	54.00		
3/4	3/4	1-5/8	3-7/8	2690-248	63.00		
1	1	2-1/4	4-3/4	2690-264	106.20		
1-1/4	1-1/4	2-1/2	5	2690-280	141.29		
1-1/2	1-1/4	2-1/2	5	2690-296	182.78		

† Limited Quantities

Two Flute, Single End, End Mills High Speed Steel

Miniature End Mills - Two Flute - Single End - R.H.C. R.H.S.



3

Pittsburg [®] ALLEGHANY					
DIA.	SHANK DIA.	FLUTE LG'TH.	OAL	ORDER NO.	PRICE EACH
STUB LENGTH					
1/32	3/16	3/64	1	2610-002†	\$4.48
3/64	3/16	1/16	1	2610-003†	4.48
1/16	3/16	3/32	1	2610-004†	4.48
5/64	3/16	5/32	1	2610-005†	4.48
3/32	3/16	5/32	1	2610-006†	4.34
7/64	3/16	3/16	1-1/8	2610-007†	4.34
1/8	3/16	3/16	1-1/8	2610-008†	4.34
9/64	3/16	7/32	1-1/4	2610-009†	4.34
5/32	3/16	1/4	1-1/4	2610-010†	4.34
11/64	3/16	9/32	1-1/2	2610-011†	4.34
3/16	3/16	9/32	1-1/2	2610-012†	4.34
REGULAR LENGTH					
1/32	3/16	3/32	1-1/8	2610-022	5.39
3/64	3/16	5/32	1-1/8	2610-023	5.39
1/16	3/16	7/32	1-1/8	2610-024	5.39
5/64	3/16	1/4	1-1/8	2610-025	4.48
3/32	3/16	5/16	1-1/8	2610-026	4.34
7/64	3/16	11/32	1-5/16	2610-027	4.34
1/8	3/16	3/8	1-5/16	2610-028	4.34
9/64	3/16	13/32	1-7/16	2610-029	4.34
5/32	3/16	7/16	1-7/16	2610-030	4.34
11/64	3/16	15/32	1-11/16	2610-031	4.34
3/16	3/16	1/2	1-11/16	2610-032	4.34
LONG LENGTH					
1/32	3/16	3/32	1-11/16	2610-042†	4.48
1/8	3/16	3/8	1-11/16	2610-048†	4.48
5/32	3/16	7/16	1-5/8	2610-050†	4.48

† Limited Quantities

Left Hand - Two Flute - Single End - L.H.C. L.H.S.

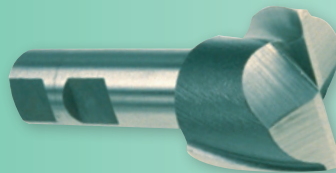


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Pittsburg [®] ALLEGHANY					
DIA.	SHANK DIA.	FLUTE LG'TH.	OAL	ORDER NO.	PRICE EACH
1/8	3/8	3/8	2-3/8	2620-008†	\$11.68
3/16	3/8	3/8	2-3/8	2620-012†	11.68
1/4	3/8	1/2	2-3/8	2620-016†	11.68
5/16	3/8	9/16	2-3/8	2620-020†	11.68
3/8	3/8	9/16	2-3/8	2620-024†	11.68
7/16	3/8	13/16	2-1/2	2620-028†	15.20
1/2	1/2	1	3	2620-033†	15.20
9/16	1/2	1-1/8	3-1/8	2620-036†	21.30
5/8	1/2	1-1/8	3-1/8	2620-040†	11.22
5/8	5/8	1-5/16	3-7/16	2620-041†	22.58
3/4	1/2	1-5/16	3-5/16	2620-048†	12.75
3/4	5/8	1-1/2	3-7/16	2620-049†	24.62
7/8	5/8	1-1/2	3-5/8	2620-056†	31.06
7/8	7/8	1-1/2	3-3/4	2620-057†	16.17
1	5/8	1-1/2	3-5/8	2620-064†	18.96
1	1	1-5/16	3-5/16	2620-065†	18.96
1-1/8	7/8	1-5/8	3-7/8	2620-072†	28.89
1-1/8	1	1-5/8	4-1/8	2620-073†	31.91
1-1/4	1	1-5/8	4-1/8	2620-080†	32.71
1-3/8	1	1-5/8	4-1/8	2620-088†	37.17
1-1/2	1	1-5/8	4-1/8	2620-096†	41.61
1-1/2	1-1/4	1-5/8	4-1/8	2620-097†	41.61
1-5/8	1-1/4	1-5/8	4-1/8	2620-104†	49.73
1-3/4	1-1/4	1-5/8	4-1/8	2620-112†	52.36
1-7/8	1-1/4	1-5/8	4-1/8	2620-120†	52.36
2	1-1/4	1-5/8	4-1/8	2620-128†	208.00

† Limited Quantities

Stub Flute Vertical Mill and Bridgeport



3

Pittsburg [®] ALLEGHANY					
DIA.	SHANK DIA.	FLUTE LG'TH.	OAL	ORDER NO.	PRICE EACH
1/2	1/2	3/4	2-1/8	2713-321†	\$8.58
7/8	1/2	5/8	2-5/8	2713-561†	10.83
1	1/2	3/4	2-3/4	2713-641†	12.63
1	5/8	3/4	2-7/8	2713-642†	12.93
1	3/4	3/4	3	2713-643†	12.93
1-1/8	1/2	3/4	2-3/4	2713-721†	19.44
1-1/8	5/8	3/4	2-7/8	2713-722†	19.44
1-1/8	3/4	3/4	3	2713-723†	19.44
1-1/4	1/2	3/4	2-3/4	2713-801†	20.49
1-1/4	3/4	3/4	3	2713-803†	20.49
1-3/8	5/8	3/4	2-7/8	2713-881†	21.18
1-3/8	3/4	3/4	3	2713-882†	21.18
1-1/2	3/4	3/4	3	2713-962†	22.98

† Limited Quantities

Miniature, Two Flute, End Mills

3/16" Shank – Double End – R.H.S. – R.H.C.

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WARNING: This product contains Cobalt and/or Nickel and/or Lead a chemical known to the state of California to cause cancer or birth defects or other reproductive harm. For more information: www.prop65.ca.gov. **WARNING:** Cutting tools may shatter. Always wear approved safety glasses and mask when regrinding.



High Speed Steel - Stub Length

Pittsburg [®] ALLEGHANY							
DIA.	SHANK DIA.	FLUTE LG'TH.	OAL	SQUARE END		BALL END	
				ORDER NO.	PRICE EACH	ORDER NO.	PRICE EACH
1/32	3/16	3/64	2	2610-082	\$18.20	2610-142	\$10.07
3/64	3/16	1/16	2	2610-083	15.98	2610-143	10.07
1/16	3/16	3/32	2	2610-084	15.98	2610-144	10.07
5/64	3/16	1/8	2	2610-085	15.98	2610-145	10.07
3/32	3/16	9/64	2	2610-086	15.72	2610-146	9.51
7/64	3/16	5/32	2	2610-087	15.72	2610-147	9.51
1/8	3/16	3/16	2	2610-088	15.72	2610-148	9.51
9/64	3/16	7/32	2	2610-089	15.72	2610-149	9.51
5/32	3/16	15/64	2	2610-090	15.72	2610-150	9.51
11/64	3/16	1/4	2	2610-091	15.72	2610-151	9.51
3/16	3/16	9/32	2	2610-092	15.72	2610-152	9.51

M42 8% Cobalt - Stub Length

Pittsburg [®] ALLEGHANY					
DIA.	SHANK DIA.	FLUTE LG'TH.	OAL	ORDER NO.	PRICE EACH
1/32	3/16	3/64	2	2701-142	\$27.00
3/64	3/16	1/16	2	2701-143	27.00
1/16	3/16	3/32	2	2701-144	27.00
5/64	3/16	1/8	2	2701-145	27.00
3/32	3/16	9/64	2	2701-146	27.00
7/64	3/16	5/32	2	2701-147	27.00
1/8	3/16	3/16	2	2701-148	27.00
9/64	3/16	7/32	2	2701-149	27.00
5/32	3/16	15/64	2	2701-150	27.00
11/64	3/16	1/4	2	2701-151	27.00
3/16	3/16	9/32	2	2701-152	27.00



High Speed Steel - Regular Length

Pittsburg [®] ALLEGHANY							
DIA.	SHANK DIA.	FLUTE LG'TH.	OAL	SQUARE END		BALL END	
				ORDER NO.	PRICE EACH	ORDER NO.	PRICE EACH
1/32	3/16	3/32	2-1/4	2610-102	\$19.61	2610-162	\$10.07
3/64	3/16	9/64	2-1/4	2610-103	19.61	2610-163	10.07
1/16	3/16	3/16	2-1/4	2610-104	18.30	2610-164	26.67
5/64	3/16	15/64	2-1/4	2610-105	18.30	2610-165	26.67
3/32	3/16	9/32	2-1/4	2610-106	17.54	2610-166	26.67
7/64	3/16	21/64	2-1/4	2610-107	17.54	2610-167	26.67
1/8	3/16	3/8	2-1/4	2610-108	17.54	2610-168	26.67
9/64	3/16	13/32	2-1/4	2610-109	17.54	2610-169	26.67
5/32	3/16	7/16	2-1/4	2610-110	17.54	2610-170	26.67
11/64	3/16	1/2	2-1/4	2610-111	17.54	2610-171	26.67
3/16	3/16	1/2	2-1/4	2610-112	17.54	2610-172	27.07

M42 8% Cobalt - Regular Length

Pittsburg [®] ALLEGHANY					
DIA.	LENGTH OF CUT	SHANK DIA.	OAL	ORDER NO.	PRICE EACH
1/32	3/32	3/16	2-1/4	2701-162	\$33.64
3/64	9/64	3/16	2-1/4	2701-163	33.64
1/16	3/16	3/16	2-1/4	2701-164	33.64
5/64	15/64	3/16	2-1/4	2701-165	33.64
3/32	9/32	3/16	2-1/4	2701-166	33.64
7/64	21/64	3/16	2-1/4	2701-167	33.64
1/8	3/8	3/16	2-1/4	2701-168	33.64
9/64	13/32	3/16	2-1/4	2701-169	33.64
5/32	7/16	3/16	2-1/4	2701-170	33.64
11/64	1/2	3/16	2-1/4	2701-171	33.64
3/16	1/2	3/16	2-1/4	2701-172	33.64



High Speed Steel - Long Length

Pittsburg [®] ALLEGHANY							
DIA.	SHANK DIA.	FLUTE LG'TH.	OAL	SQUARE END		BALL END	
				ORDER NO.	PRICE EACH	ORDER NO.	PRICE EACH
1/32	3/16	7/32	2-1/2	—	—	2610-182	\$12.41
1/16	3/16	7/32	2-1/2	2610-124	\$21.77	2610-184	35.58
5/64	3/16	1/4	2-1/2	2610-125	21.77	—	—
3/32	3/16	9/32	2-5/8	2610-126	21.77	2610-186	34.13
7/64	3/16	9/32	2-5/8	2610-127	21.77	—	—
1/8	3/16	3/4	3-1/8	2610-128	21.77	2610-188	34.13
9/64	3/16	3/4	3-1/8	2610-129	21.77	—	—
5/32	3/16	7/8	3-1/4	2610-130	21.77	2610-190	34.13
11/64	3/16	7/8	3-1/4	2610-131	21.77	—	—
3/16	3/16	1	3-3/8	2610-132	21.77	2610-192	34.13

M42 8% Cobalt - Long Length

Pittsburg [®] ALLEGHANY					
DIA.	SHANK DIA.	FLUTE LG'TH.	OAL	ORDER NO.	PRICE EACH
1/16	3/16	7/32	2-1/2	2701-184	\$14.05
5/64	3/16	1/4	2-1/2	2701-185	14.05
3/32	3/16	9/32	2-5/8	2701-186	14.05
7/64	3/16	9/32	2-5/8	2701-187	14.05
1/8	3/16	3/4	3-1/8	2701-188	14.05
9/64	3/16	3/4	3-1/8	2701-189	14.05
5/32	3/16	7/8	3-1/4	2701-190	14.05
11/64	3/16	7/8	3-1/4	2701-191	14.05
3/16	3/16	1	3-3/8	2701-192	14.05

Two Flute, Double End, End Mills

High Speed Steel – R.H.C. – R.H.S.

3

WARNING: This product contains Cobalt and/or Nickel and/or Lead a chemical known to the state of California to cause cancer or birth defects or other reproductive harm. For more information: www.pro65.ca.gov.
WARNING: Cutting tools may shatter. Always wear approved safety glasses and mask when regrinding.



Uncoated



TiN Coated

				UNCOATED		TiN COATED		UNCOATED			
SIZE											
DIA.	SHANK DIA.	FLUTE LENGTH	OAL	ORDER NO.	PRICE EACH	ORDER NO.	PRICE EACH	LENGTH OF CUT	OAL	ORDER NO.	PRICE EACH
1/8	3/8	3/8	3-1/16	2636-108	\$ 13.07	2636-408	\$ 30.13	3/8	3-1/16	2592-708	\$14.45
9/64	3/8	7/16	3-1/8	2636-109	13.33	—	—	—	—	—	—
5/32	3/8	7/16	3-1/8	2636-110	13.33	—	—	7/16	3-1/8	2592-710	14.45
11/64	3/8	7/16	3-1/8	2636-111	13.46	—	—	—	—	—	—
3/16	3/8	7/16	3-1/8	2636-112	12.80	2636-412	29.77	7/16	3-1/4	2592-712	14.45
13/64	3/8	1/2	3-1/8	2636-113	13.73	—	—	—	—	—	—
7/32	3/8	1/2	3-1/8	2636-114	13.33	—	—	1/2	3-1/4	2592-714	14.45
15/64	3/8	1/2	3-1/8	2636-115	13.73	—	—	—	—	—	—
1/4	3/8	1/2	3-1/8	2636-116	12.80	2636-416	29.77	1/2	3-3/8	2592-716	14.45
17/64	3/8	9/16	3-1/8	2636-117	13.73	—	—	—	—	—	—
9/32	3/8	9/16	3-1/8	2636-118	13.33	—	—	9/16	3-3/8	2592-718	14.45
19/64	3/8	9/16	3-1/8	2636-119	13.73	—	—	—	—	—	—
5/16	3/8	9/16	3-1/8	2636-120	12.80	2636-420	29.77	9/16	3-1/2	2592-720	14.45
21/64	3/8	9/16	3-1/8	2636-121	13.73	—	—	—	—	—	—
11/32	3/8	9/16	3-1/8	2636-122	13.33	—	—	9/16	3-1/2	2592-722	14.45
23/64	3/8	9/16	3-1/8	2636-123	13.73	—	—	—	—	—	—
3/8	3/8	9/16	3-1/8	2636-124	12.80	2636-424	29.77	9/16	3-1/2	2592-724	14.45
25/64	1/2	13/16	3-3/4	2636-125	20.20	—	—	13/16	4-1/8	2592-725†	21.79
13/32	1/2	13/16	3-3/4	2636-126	20.20	—	—	13/16	4-1/8	2592-726	21.79
27/64	1/2	13/16	3-3/4	2636-127	20.20	—	—	—	—	—	—
7/16	1/2	13/16	3-3/4	2636-128	18.88	2636-428	43.35	13/16	4-1/8	2592-728	20.88
29/64	1/2	13/16	3-3/4	2636-129	20.20	—	—	—	—	—	—
15/32	1/2	13/16	3-3/4	2636-130	20.20	—	—	13/16	4-1/8	2592-730	21.79
31/64	1/2	13/16	3-3/4	2636-131	20.20	—	—	—	—	—	—
1/2	1/2	13/16	3-3/4	2636-132	20.20	2636-432	45.15	13/16	4-1/8	2592-732	21.79
17/32	5/8	1-1/8	4-1/2	2636-134	26.66	—	—	—	—	—	—
9/16	5/8	1-1/8	4-1/2	2636-136	26.66	—	—	1-1/8	5	2592-736	28.84
19/32	5/8	1-1/8	4-1/2	2636-138	26.66	—	—	—	—	—	—
5/8	5/8	1-1/8	4-1/2	2636-140	26.66	2636-440	57.00	1-1/8	5	2592-740	28.84
21/32	3/4	1-5/16	5	2636-142	34.32	—	—	—	—	—	—
11/16	3/4	1-5/16	5	2636-144	33.00	—	—	1-5/16	5-5/8	2592-744	36.27
23/32	3/4	1-5/16	5	2636-146	34.98	—	—	—	—	—	—
3/4	3/4	1-5/16	5	2636-148	33.00	2636-448	69.31	1-5/16	5-5/8	2592-748	36.27
13/16	7/8	1-9/16	5-1/2	2636-152	41.98	—	—	1-9/16	6-1/8	2592-752	45.63
27/32	7/8	1-9/16	5-1/2	2636-154	43.51	—	—	—	—	—	—
7/8	7/8	1-9/16	5-1/2	2636-156	42.24	—	—	1-9/16	6-1/8	2592-756	45.63
29/32	1	1-5/8	5-7/8	2636-158	53.02	—	—	—	—	—	—
15/16	1	1-5/8	5-7/8	2636-160	51.48	—	—	1-5/8	6-3/8	2592-760	56.16
31/32	1	1-5/8	5-7/8	2636-162	53.02	—	—	—	—	—	—
1	1	1-5/8	5-7/8	2636-164	51.48	2636-464	101.42	1-5/8	6-3/8	2592-764	56.16

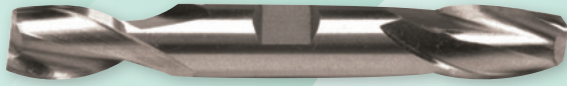
† Limited Quantities

Two Flute, Double End, End Mills High Speed Steel

3

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WARNING: Cutting tools may shatter. Always wear approved safety glasses and mask when regrinding.

Metric Double End - R.H.S. - R.H.C.



Pittsburg® ALLEGHANY					ALLEGIANCE® AMERICAN MADE				
MILL DIA. (mm.)	SHANK DIA.	FLUTE LENGTH	OAL	ORDER NO.	PRICE EACH	FLUTE LENGTH	OAL	ORDER NO.	PRICE EACH
3.0	3/8	3/8	3-1/16	2628-530	\$16.46	3/8	3-1/16	2636-830	\$17.80
3.5	3/8	—	—	—	—	7/16	3-1/4	2636-835	POA
4.0	3/8	7/16	3-1/8	2628-540	16.46	7/16	3-1/4	2636-840	17.09
4.5	3/8	—	—	—	—	7/16	3-1/4	2636-845	13.94
5.0	3/8	1/2	3-1/8	2628-550	16.46	7/16	3-1/4	2636-850	16.79
5.5	3/8	—	—	—	—	1/2	3-1/4	2636-855	14.76
6.0	3/8	1/2	3-1/8	2628-560	16.46	1/2	3-3/8	2636-860	18.00
6.5	3/8	—	—	—	—	1/2	3-3/8	2636-865	14.22
7.0	3/8	9/16	3-1/8	2628-570	16.46	9/16	3-3/8	2636-870	20.92
7.5	3/8	—	—	—	—	9/16	3-3/8	2636-875	14.22
8.0	3/8	9/16	3-1/2	2628-580	16.46	9/16	3-1/2	2636-880	21.43
8.5	3/8	—	—	—	—	9/16	3-1/2	2636-885	POA
9.0	3/8	—	—	—	—	9/16	3-1/2	2636-890	21.12
9.5	3/8	—	—	—	—	9/16	3-1/2	2636-895	POA
10.0	1/2	13/16	3-3/4	2628-600	25.44	13/16	4-1/8	2636-900	32.65
10.5	1/2	—	—	—	—	13/16	4-1/8	2636-905	18.43
11.0	1/2	—	—	—	—	13/16	4-1/8	2636-910	20.98
11.5	1/2	—	—	—	—	13/16	4-1/8	2636-915	22.45
12.0	1/2	13/16	3-3/4	2628-620	25.44	13/16	4-1/8	2636-920	31.10
13.0	5/8	—	—	—	—	1-1/8	5	2636-930	29.24
14.0	5/8	1-1/8	4-1/2	2628-640	33.60	1-1/8	5	2636-940	39.08
15.0	5/8	—	—	—	—	1-1/8	5	2636-950	27.67
16.0	3/4	1-5/16	5	2628-660	41.58	1-5/16	5-5/8	2636-960	48.88
18.0	3/4	1-5/16	5	2628-680	41.58	1-5/16	5-5/8	2636-980	49.67
20.0	7/8	1-9/16	5-1/2	2628-700	47.11	1-5/16	5-5/8	2636-991	43.43
22.0	1	1-5/8	5-7/8	2628-720	47.11	—	—	—	—
24.0	1	1-5/8	5-7/8	2628-740	64.86	—	—	—	—

Straight Flute - R.H.C.



Pittsburg® ALLEGHANY					ORDER NO.		PRICE EACH
DIA.	SHANK DIA.	FLUTE LENGTH	OAL				
1/8	3/8	3/8	3		2636-508†		\$6.80
3/16	3/8	7/16	3		2636-512†		6.80
1/4	3/8	1/2	3		2636-516†		6.80
5/16	3/8	9/16	3		2636-520†		6.80
7/16	1/2	13/16	3-3/4		2636-528†		9.68
1/2	1/2	13/16	3-3/4		2636-532†		10.03
5/8	5/8	1-1/8	3-7/16		2636-540†		14.31
3/4	3/4	1-5/16	4-1/2		2636-548†		18.87
7/8	7/8	1-9/16	5		2636-556†		24.96
1	5/8	1-5/8	5-1/2		2636-564†		32.76

Left Hand Spiral - L.H.C.



Pittsburg® ALLEGHANY					ORDER NO.		PRICE EACH
DIA.	SHANK DIA.	FLUTE LENGTH	OAL				
1/8	3/8	3/8	3-1/8		2636-708†		\$16.74
3/16	3/8	7/16	3-1/8		2636-712†		16.74
7/32	3/8	1/2	3-1/8		2636-714†		16.74
1/4	3/8	1/2	3-1/8		2636-716†		16.74
9/32	3/8	9/16	3-1/8		2636-718†		16.86
5/16	3/8	9/16	3-1/8		2636-720†		16.86
11/32	3/8	9/16	3-1/8		2636-722†		16.86
3/8	3/8	9/16	3-1/8		2636-724†		16.86
13/32	1/2	13/16	3-3/4		2636-726†		27.15
7/16	1/2	13/16	3-3/4		2636-728†		27.15
15/32	1/2	13/16	3-3/4		2636-730†		27.15
1/2	1/2	13/16	3-3/4		2636-732†		27.15
9/16	5/8	1-1/8	4-1/2		2636-736†		35.84
5/8	5/8	1-1/8	4-1/2		2636-740†		35.84
3/4	3/4	1-5/16	5		2636-748†		40.66
7/8	7/8	1-9/16	5-1/2		2636-756†		54.40
1	1	1-5/8	5-7/8		2636-764†		66.10



Master End Mill Dispenser

1



All steel cabinet with plastic dividers to help protect and separate end mills.

Top drawer holds single end fractional end mills in popular sizes 1/8" to 1" with 41 compartments.

2nd drawer holds double end fractional end mills 1/16" to 1" in popular sizes with 41 compartments.

Lower drawer is undivided for extra end mills, cutters, drills, reamers and miscellaneous tools.

Dimensions: 11" x 26-1/4" x 9-1/2".

Each cabinet is LOCKABLE with its own individual set of keys and is STACKABLE for larger inventories.

Shipping Weight: 31 lbs. each. Cube: 1.64

For 2-Flute End Mills
Order No. 1919-385
PRICE EACH – \$529.00

For 4-Flute End Mills
Order No. 1919-390
PRICE EACH – \$549.00

Two Flute – Fast Spiral End Mills for Aluminum

3

Two Flute - Single End

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Regular Length

				Pittsburg® ALLEGHANY		ALLEGIANCE® AMERICAN MADE	
DIA.	SHANK DIA.	FLUTE LENGTH	OAL	ORDER NO.	PRICE EACH	ORDER NO.	PRICE EACH
1/4	3/8	5/8	2-1/2	2621-161	\$19.41	3882-161	\$15.15
5/16	3/8	3/4	2-1/2	2621-201	19.41	3882-201	12.84
3/8	3/8	3/4	2-1/2	2621-241	19.41	3882-241	14.83
7/16	3/8	1	2-11/16	2621-281	23.69	3882-281	14.82
1/2	1/2	1-1/4	3-1/4	2621-321	26.33	3882-321	23.55
5/8	1/2	1-3/8	3-3/8	—	—	3882-401	41.18
5/8	5/8	1-5/8	3-3/4	2621-401	36.76	3882-402	20.00
3/4	3/4	1-5/8	3-7/8	2621-481	38.31	3882-482	33.51

				Pittsburg® ALLEGHANY		ALLEGIANCE® AMERICAN MADE	
DIA.	SHANK DIA.	FLUTE LENGTH	OAL	ORDER NO.	PRICE EACH	ORDER NO.	PRICE EACH
7/8	7/8	1-7/8	4-1/8	2621-561	\$55.46	3882-562	\$31.66
1	1	2	4-1/2	2621-641	63.96	3882-642	37.20
1-1/4	1-1/4	2	4-1/2	2621-801	98.10	3882-801	POA
1-1/2	1-1/4	2	4-1/2	2621-961	121.90	3882-961	POA
1-3/4	1-1/4	2	4-1/2	2622-121	161.29	3883-121	POA
2	1-1/4	2	4-1/2	2622-281	192.98	3883-281	POA

Long Length

				Pittsburg® ALLEGHANY		ALLEGIANCE® AMERICAN MADE	
DIA.	SHANK DIA.	FLUTE LENGTH	OAL	ORDER NO.	PRICE EACH	ORDER NO.	PRICE EACH
1/4	3/8	1-1/4	3-1/8	2623-161	\$22.50	3884-161	\$16.29
5/16	3/8	1-3/8	3-1/8	2623-201	22.50	3884-201	16.84
3/8	3/8	1-1/2	3-1/4	2623-241	22.50	3884-241	19.94
7/16	1/2	1-3/4	3-3/4	2623-281	30.15	3884-281	18.69
1/2	1/2	2	4	2623-321	30.66	3884-321	23.12
5/8	5/8	2-1/2	4-5/8	2623-401	41.18	3884-401	POA
3/4	3/4	3	5-1/4	2623-481	53.21	3884-481	51.18
7/8	7/8	3-1/2	5-3/4	2623-561	70.88	—	—
1	1	3	5-1/2	2623-641†	POA	—	—
1	1	4	6-1/2	2623-642	92.81	3884-561	58.95
1-1/4	1-1/4	3	5-1/2	2623-801†	71.30	—	—
1-1/4	1-1/4	4	6-1/2	2623-802	132.65	3884-801	POA
1-1/2	1-1/4	3	5-1/2	2623-961†	101.51	—	—
1-1/2	1-1/4	4	6-1/2	2623-962	168.18	3884-961	POA
1-3/4	1-1/4	4	6-1/2	2624-121	234.00	—	—
2	1-1/4	4	6-1/2	2624-281	271.15	—	—

† Limited Quantities

Extra Long

				Pittsburg® ALLEGHANY		ALLEGIANCE® AMERICAN MADE	
DIA.	SHANK DIA.	FLUTE LENGTH	OAL	ORDER NO.	PRICE EACH	ORDER NO.	PRICE EACH
1/4	3/8	1-3/4	3-1/2	2625-161	\$25.38	3885-161	POA
5/16	3/8	2	3-3/4	2625-201	26.10	3885-201	POA
3/8	3/8	2-1/2	4-1/4	2625-241	27.40	—	—
7/16	1/2	2-3/4	4-3/4	2625-281	36.56	3885-281	POA
1/2	1/2	3	5	2625-321	36.56	3885-321	\$26.84
5/8	5/8	4	6-1/8	2625-401	50.69	3885-401	30.02
3/4	3/4	4	6-1/4	2625-481	72.00	3885-481	43.79
7/8	7/8	5	7-1/4	2625-561	83.09	3885-561	56.30
1	1	6	8-1/2	2625-641	112.95	3885-641	65.94
1-1/4	1-1/4	6	8-1/2	2625-801	166.38	—	—
1-1/2	1-1/4	6	8-1/2	2625-961†	236.04	3885-961	POA
1-1/2	1-1/4	8	10-1/2	2625-962	262.26	—	—

† Limited Quantities

Ball End Mills for Aluminum

Two Flute, High Speed Steel



Regular Length

DIA.	SHANK DIA.	FLUTE LENGTH	OAL	ORDER NO.	PRICE EACH
1/4	3/8	5/8	2-1/2	3886-016	\$20.43
5/16	3/8	3/4	2-1/2	3886-020	22.00
3/8	3/8	3/4	2-1/2	3886-024	22.00
7/16	3/8	1	2-11/16	3886-028	22.42
1/2	1/2	1-1/4	3-1/4	3886-032	30.43
5/8	5/8	1-5/8	3-3/4	3886-040	42.00
3/4	3/4	3	5-1/4	3886-048	47.01
1	1	2	4-1/2	3886-064	70.57

Long Length

DIA.	SHANK DIA.	FLUTE LENGTH	OAL	ORDER NO.	PRICE EACH
1/4	3/8	1-1/4	3-1/8	3886-116	\$26.71
5/16	3/8	1-3/8	3-1/8	3886-120	26.71
3/8	3/8	1-1/2	3-1/4	3886-124	27.86
7/16	1/2	1-3/4	3-3/4	3886-128	31.71
1/2	1/2	2	4	3886-132	38.15
5/8	5/8	2-1/2	4-5/8	3886-140	52.15
3/4	3/4	3	5-1/4	3886-148	65.17
7/8	7/8	3-1/2	5-3/4	3886-156	61.59
1	1	4	6-1/2	3886-164	99.30
1-1/2	1-1/2	4	6-1/2	3886-196	148.77

Extra Long Length

DIA.	SHANK DIA.	FLUTE LENGTH	OAL	ORDER NO.	PRICE EACH
1/4	3/8	1-3/4	3-9/16	3886-216	\$29.44
5/16	3/8	2	3-3/4	3886-220	29.44
3/8	3/8	2-1/2	4-1/4	3886-224	31.28
7/16	1/2	2-3/4	4-3/4	3886-228	43.73
1/2	1/2	3	5	3886-232	43.73
5/8	5/8	4	6-1/8	3886-240	63.58
3/4	3/4	4	6-1/4	3886-248	74.00
1	1	6	8-1/2	3886-264	109.44

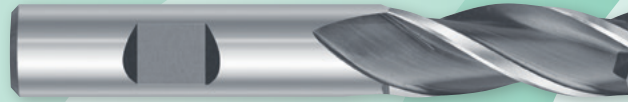
Three Flute End Mills

Regular Length, Center Cutting

R. H. Cut – R. H. Spiral
High Speed Steel

3

WARNING: This product contains Cobalt and/or Nickel and/or Lead a chemical known to the state of California to cause cancer or birth defects or other reproductive harm. For more information: www.prop65.ca.gov.
WARNING: Cutting tools may shatter. Always wear approved safety glasses and mask when regrinding.



				Pittsburg® ALLEGHANY		ALLEGIANCE® AMERICAN MADE	
DIA.	SHANK DIA.	FLUTE LENGTH	OAL	ORDER NO.	PRICE EACH	ORDER NO.	PRICE EACH
1/8	3/8	3/8	2-5/16	2640-081	\$13.31	—	—
5/32	3/8	1/2	2-3/8	2640-101†	7.40	—	—
3/16	3/8	1/2	2-3/8	2640-121	13.31	—	—
1/4	3/8	5/8	2-7/16	2640-161	13.31	—	—
9/32	3/4	3/8	2-1/2	2640-181†	7.40	—	—
5/16	3/8	3/4	2-1/2	2640-201	13.31	—	—
11/32	3/8	3/4	2-1/2	2640-221†	7.40	—	—
3/8	3/8	3/4	2-1/2	2640-241	15.78	3992-241	\$18.14
7/16	3/8	1	2-11/16	2640-281	17.35	3992-281	22.43
15/32	3/8	1	2-11/16	2640-301†	9.66	—	—
1/2	3/8	1	2-11/16	2640-321	17.35	3992-321	24.54
1/2	1/2	1-1/4	3-1/4	2640-322	17.75	3992-322	30.33
9/16	1/2	1-3/8	3-3/8	2640-361	25.49	3992-361	29.45
5/8	1/2	1-3/8	3-3/8	2640-401	25.49	3992-401	26.39
5/8	5/8	1-5/8	3-3/4	2640-402	25.49	3992-402	30.27
11/16	5/8	1-5/8	3-3/4	2640-442†	26.40	—	—
3/4	1/2	1-5/8	3-5/8	2640-481	30.41	3992-481	29.71

† Limited Quantities

				Pittsburg® ALLEGHANY		ALLEGIANCE® AMERICAN MADE	
DIA.	SHANK DIA.	FLUTE LENGTH	OAL	ORDER NO.	PRICE EACH	ORDER NO.	PRICE EACH
3/4	5/8	1-5/8	3-3/4	2640-482	\$30.41	3992-482	\$32.80
3/4	3/4	1-5/8	3-7/8	2640-483	30.41	3992-483	29.71
7/8	1/2	1-5/8	3-5/8	2640-561	20.22	3992-561	37.62
7/8	5/8	1-7/8	4	2640-562	36.32	3992-562	32.53
7/8	3/4	1-7/8	4-1/8	2640-563	36.32	3992-563	43.69
7/8	7/8	1-7/8	4-1/8	2640-564	36.32	—	—
15/16	5/8	1-7/8	4-1/8	2640-601†	24.28	—	—
15/16	7/8	1-7/8	4	2640-602†	24.28	—	—
1	5/8	1-7/8	4	2640-641	43.63	3992-641	36.72
1	3/4	1-7/8	4-1/8	2640-642	43.63	3992-642	72.81
1	7/8	1-7/8	4-1/8	2640-643	43.63	3992-643	45.28
1	1	2	4-1/2	2640-644	43.63	3992-644	42.47
1-1/8	1	2	4-1/2	2640-721	59.94	—	—
1-1/4	1-1/4	2	4-1/2	2640-802	74.84	—	—
1-1/2	1-1/4	2	4-1/2	2640-962	90.78	—	—
1-3/4	1-1/4	2	4-1/2	2641-121	97.16	—	—
2	1-1/4	2	4-1/2	2641-281	119.68	—	—

Long Length

R. H. Cut – R. H. Spiral– High Speed Steel



Pittsburg® ALLEGHANY					
DIA.	SHANK DIA.	FLUTE LENGTH	OAL	ORDER NO.	PRICE EACH
1/4	3/8	1-1/4	3-1/16	2642-161	\$17.13
5/16	3/8	1-3/8	3-1/8	2642-201	17.13
3/8	3/8	1-1/2	3-1/4	2642-241	17.51
7/16	1/2	1-3/4	3-3/4	2642-281	24.30
1/2	1/2	2	4	2642-321	24.51
5/8	5/8	2-1/2	4-5/8	2642-401	34.51
3/4	3/4	3	5-1/4	2642-481	42.47
7/8	7/8	3-1/2	5-3/4	2642-561	53.09
1	1	4	6-1/2	2642-642	70.35
1-1/4	1-1/4	3	6-1/2	2642-801†	54.91
1-1/4	1-1/4	4	6-1/2	2642-802	103.53
1-1/2	1-1/4	4	6-1/2	2642-961	132.46
1-3/4	1-1/4	4	6-1/2	2643-121	208.37
2	1-1/4	4	6-1/2	2643-281	229.20

Double End

R. H. Cut – R. H. Spiral – High Speed Steel



Pittsburg® ALLEGHANY					
DIA.	SHANK DIA.	FLUTE LENGTH	OAL	ORDER NO.	PRICE EACH
1/8	3/8	3/8	3-1/4	2645-008	\$19.16
5/32	3/8	7/16	3-1/4	2645-010†	12.30
3/16	3/8	1/2	3-1/4	2645-012	19.16
7/32	3/8	9/16	3-1/4	2645-014†	12.30
1/4	3/8	5/8	3-3/8	2645-016	19.16
9/32	3/8	11/16	3-3/8	2645-018	12.30
5/16	3/8	3/4	3-1/2	2645-020	19.16
3/8	3/8	3/4	3-1/2	2645-024	19.16
7/16	1/2	1	4-1/4	2645-028	28.98
15/32	1/2	1	4-1/4	2645-030†	28.98
1/2	1/2	1	4-1/4	2645-032	28.98
9/16	5/8	1-3/8	5	2645-036	40.81
5/8	5/8	1-3/8	5	2645-040	40.81
11/16	3/4	1-5/8	5-5/8	2645-044	50.40
3/4	3/4	1-5/8	5-5/8	2645-048	51.92
13/16	7/8	1-7/8	6-1/4	2645-052	66.00
7/8	7/8	1-7/8	6-1/4	2645-056	70.72
15/16	1	1-7/8	6-3/8	2645-060	86.00
1	1	1-7/8	6-1/2	2645-064	86.00

Multi-Flute, Single End, End Mills

Regular Length- R.H. Cut - R.H. Spiral - High Speed Steel

3

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WARNING: Cutting tools may shatter. Always wear approved safety glasses and mask when regrinding.



Non-Center Cut



Center Cut



TiN Coated

					NON-CENTER CUT				CENTER CUT				TIN COATED CENTER CUT	
SIZE					Pittsburg ALLEGHANY		ALLEGHANY AMERICAN MADE		Pittsburg ALLEGHANY		ALLEGHANY AMERICAN MADE		Pittsburg ALLEGHANY	
DIA.	SHANK DIA.	FLUTE LENGTH	OAL	NO OF FLUTES	ORDER NO.	PRICE EACH	ORDER NO.	PRICE EACH	ORDER NO.	PRICE EACH	ORDER NO.	PRICE EACH	ORDER NO.	PRICE EACH
1/8	3/8	3/8	2-5/16	4	2650-081†	\$ 9.37	2598-081	\$ 15.74	2667-108	\$ 12.44	2591-808	\$ 18.45	2667-648	\$ 19.76
5/32	3/8	3/8	2-3/8	4	2650-101†	9.99	2598-101	17.27	2667-110	11.50	-	-	-	-
11/64	3/8	1/2	2-3/8	4	2650-111†	9.85	-	-	-	-	-	-	-	-
3/16	3/8	1/2	2-3/8	4	-	-	2598-121	15.74	2667-112	12.44	2591-812	18.45	2667-652	19.76
13/64	3/8	1/2	2-3/8	4	2650-131†	4.26	-	-	-	-	-	-	-	-
7/32	3/8	1/2	2-3/8	4	2650-141†	9.99	2598-141	17.27	2667-114	12.44	2591-814	19.50	-	-
15/64	3/8	5/8	2-1/2	4	2650-151†	9.99	-	-	-	-	-	-	-	-
1/4	3/8	5/8	2-1/2	4	-	-	2598-161	15.74	2667-116	12.44	2591-816	18.45	2667-656	19.76
17/64	3/8	5/8	2-1/2	4	2650-171†	4.26	-	-	-	-	-	-	-	-
9/32	3/8	5/8	2-1/2	4	-	-	2598-181	16.11	2667-118	12.44	2591-818	19.55	-	-
5/16	3/8	3/4	2-1/2	4	-	-	2598-201	15.74	2667-120	12.44	2591-820	18.45	2667-660	19.76
21/64	3/8	3/4	2-1/2	4	2650-211†	9.85	-	-	-	-	-	-	-	-
11/32	3/8	3/4	2-1/2	4	2650-221†	9.99	2598-221	16.11	2667-122	6.73	2591-822	19.55	-	-
23/64	3/8	3/4	2-1/2	4	2650-231†	4.26	-	-	-	-	-	-	-	-
3/8	3/8	3/4	2-1/2	4	-	-	2598-241	15.74	2667-124	12.44	2591-824	18.45	2667-664	19.76
25/64	3/8	1	2-11/16	4	2650-251†	5.86	-	-	-	-	-	-	-	-
13/32	3/8	1	2-11/16	4	-	-	2598-261	22.23	2667-126	17.61	2591-826	27.65	-	-
27/64	3/8	1	2-11/16	4	2650-271†	13.17	-	-	-	-	-	-	-	-
7/16	3/8	1	2-11/16	4	2650-281†	12.54	2598-281	20.88	2667-128	17.84	2591-828	26.10	2667-668	25.47
29/64	3/8	1	2-11/16	4	2650-291†	12.54	-	-	-	-	-	-	-	-
15/32	3/8	1	2-11/16	4	2650-301†	12.54	2598-301	20.88	2667-130	17.84	2591-830	17.30	-	-
31/64	3/8	1	2-11/16	4	2650-311†	13.46	-	-	-	-	-	-	-	-
1/2	3/8	1	2-11/16	4	2650-321†	12.54	2598-321	20.61	2667-131	17.84	-	-	-	-
1/2	1-1/4	1/2	3-1/4	4	-	-	2598-322	20.61	2667-132	17.84	2591-832	26.10	2667-672	28.24
17/32	1/2	1-3/8	3-3/8	4	-	-	2598-341	26.91	-	-	2591-834	35.20	-	-
9/16	1/2	1-3/8	3-3/8	4	-	-	2598-361	26.91	2667-136	21.17	2591-836	35.20	-	-
19/32	1/2	1-3/8	3-3/8	4	2650-381†	7.61	-	-	-	-	-	-	-	-
39/64	1/2	1-3/8	3-3/8	4	2650-390†	9.43	-	-	-	-	-	-	-	-
5/8	1/2	1-3/8	3-3/8	4	2650-401†	17.69	2598-401	29.52	2667-139	24.67	2591-839	24.88	-	-
5/8	5/8	3-3/4	4	4	-	-	2598-402	33.03	2667-140	24.67	2591-840	35.20	2667-680	38.81
11/16	1/2	1-5/8	3-5/8	4	2650-441†	19.67	2598-441	31.59	2667-143	25.66	-	-	-	-
11/16	5/8	1-5/8	3-3/4	4	2650-442†	20.33	2598-442	34.07	2667-144	25.66	2591-844	37.08	2667-684	42.61
23/32	1/2	1-5/8	3-5/8	4	2650-461†	11.86	-	-	-	-	-	-	-	-
3/4	1/2	1-5/8	3-5/8	4	-	-	2598-481	33.39	2667-146	28.84	-	-	-	-
3/4	5/8	1-5/8	3-3/4	4	-	-	2598-482	35.33	2667-147	28.84	2591-847	29.77	-	-
3/4	3/4	1-5/8	3-7/8	4	-	-	2598-483	36.68	2667-148	28.84	2591-848	42.10	2667-688	44.99
13/16	5/8	1-7/8	4	6	-	-	2598-522	45.00	2667-151	23.34	-	-	-	-
13/16	3/4	1-7/8	4-1/8	4	-	-	2598-521	42.30	2667-152	23.34	2591-852	47.30	-	-
27/32	1/2	1-5/8	3-5/8	4	2650-541†	16.37	-	-	-	-	-	-	-	-
7/8	1/2	1-5/8	3-5/8	4	-	-	-	-	2667-153	39.10	-	-	-	-
7/8	5/8	1-7/8	4	6	2650-564†	27.72	2598-563	46.22	2667-154	23.58	2591-854	39.45	-	-
7/8	3/4	1-7/8	4-1/8	4	2650-565†	28.64	2598-561	46.22	2667-155	36.43	-	-	-	-
7/8	3/4	1-7/8	4-1/8	6	2650-566†	POA	-	-	-	-	-	-	-	-
7/8	7/8	1-7/8	4-1/8	4	-	-	2598-562	45.54	2667-156	36.43	2591-856	49.25	2667-696	61.07
29/32	1/2	1-7/8	3-7/8	4	2650-581†	34.41	-	-	-	-	-	-	-	-
15/16	1/2	1-7/8	3-7/8	6	2650-602†	30.33	-	-	-	-	-	-	-	-
15/16	5/8	1-7/8	4	6	-	-	2598-603	POA	2667-158	26.45	-	-	-	-

† Limited Quantities

Multi-Flute, Single End, End Mills (cont'd)

3

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WARNING: Cutting tools may shatter. Always wear approved safety glasses and mask when regrinding.

Regular Length – R.H. Cut - R.H. Spiral - High Speed Steel



Non-Center Cut



Center Cut



TiN Coated

					UNCOATED								TIN COATED	
					NON-CENTER CUT				CENTER CUT				CENTER CUT	
					Pittsburg® ALLEGHANY		ALLEGIANCE® AMERICAN MADE		Pittsburg® ALLEGHANY		ALLEGIANCE® AMERICAN MADE		Pittsburg® ALLEGHANY	
DIA.	SHANK DIA.	FLUTE LENGTH	OAL	NO OF FLUTES	ORDER NO.	PRICE EACH	ORDER NO.	PRICE EACH	ORDER NO.	PRICE EACH	ORDER NO.	PRICE EACH	ORDER NO.	PRICE EACH
15/16	3/4	1-7/8	4-1/8	4	2650-603†	\$32.72	2598-601	\$57.51	2667-159	\$40.23	-	-	-	-
15/16	7/8	1-7/8	4-1/8	4	2650-604†	32.72	2598-602	51.48	2667-160	40.23	2591-860	\$ 57.30	-	-
31/32	1/2	1-7/8	3-7/8	4	2650-621†	18.47	-	-	-	-	-	-	-	-
1	1/2	1-7/8	3-7/8	4	-	-	-	-	2667-161	28.31	-	-	-	-
1	5/8	1-7/8	4	6	-	-	2598-644	52.74	2667-162	40.23	2591-862	43.84	-	-
1	3/4	1-7/8	4-1/8	4	2650-643†	31.15	2598-640	51.75	2667-163	40.23	2591-863	62.10	2667-703	\$ 66.81
1	7/8	1-7/8	4-1/8	4	2650-645†	33.00	2598-642	51.75	2667-165	41.75	-	-	-	-
1	1	2	4-1/2	4	2650-646†	33.00	2598-643	54.86	2667-164	44.02	2591-864	62.10	2667-704	69.59
1-1/16	3/4	2	4-1/4	6	-	-	2598-680	POA	2667-168	65.26	-	-	-	-
1-1/8	3/4	2	4-1/4	6	-	-	2598-720	77.13	2667-170	60.95	2591-870	55.71	-	-
1-1/8	7/8	2	4-1/4	6	-	-	2598-721	72.62	2667-171	37.51	-	-	-	-
1-1/8	1	2	4-1/2	4	-	-	-	-	2667-172	37.51	2591-872	63.33	-	-
1-1/8	1	2	4-1/2	6	2650-724†	44.88	2598-722	74.88	2667-173	37.51	2591-873	63.41	-	-
1-3/16	3/4	2	4-1/4	6	-	-	-	-	2667-176	38.93	-	-	-	-
1-1/4	3/4	2	4-1/2	6	-	-	2598-800	79.20	2667-177	65.47	-	-	-	-
1-1/4	7/8	2	4-1/4	6	2650-802†	47.52	2598-802	79.20	2667-178	40.22	-	-	-	-
1-1/4	1	2	4-1/2	6	-	-	2598-803	81.76	2667-179	98.50	2591-879	98.50	-	-
1-1/4	1-1/4	2	4-1/2	4	-	-	-	-	2667-180	65.47	2591-880	96.30	-	-
1-1/4	1-1/4	2	4-1/2	6	2650-805†	52.80	2598-804	84.60	2667-181	65.47	2591-881	96.30	-	-
1-5/16	3/4	2	4-1/2	6	-	-	-	-	2667-184	42.10	-	-	-	-
1-3/8	3/4	2	4-1/4	6	-	-	-	-	2667-186	79.58	-	-	-	-
1-3/8	1	2	4-1/2	6	-	-	2598-881	99.35	2667-187	51.89	-	-	-	-
1-3/8	1-1/4	2	4-1/2	6	-	-	-	-	2667-188	51.89	-	-	-	-
1-7/16	3/4	2	4-1/2	6	-	-	-	-	2667-192	58.14	-	-	-	-
1-1/2	3/4	2	4-1/4	6	-	-	2598-960	109.17	2667-193	58.14	-	-	-	-
1-1/2	1	2	4-1/2	6	-	-	2598-962	104.40	2667-195	58.14	2591-895	123.30	-	-
1-1/2	1-1/4	2	4-1/2	4	-	-	2598-961	104.40	2667-196	58.14	2591-896	118.80	-	-
1-1/2	1-1/4	2	4-1/2	6	2650-965†	66.00	2598-963	104.40	2667-197	80.65	2591-897	118.80	-	-
1-5/8	3/4	2	4-1/2	6	-	-	-	-	2667-202	64.12	-	-	-	-
1-5/8	1-1/4	2	4-1/2	6	-	-	2599-041	130.50	2667-204	64.12	-	-	-	-
1-3/4	3/4	2	4-1/2	6	-	-	2599-120	137.00	2667-211	91.28	-	-	-	-
1-3/4	1-1/4	2	4-1/2	4	2651-122†	77.88	2599-122	130.50	2667-212	87.05	-	-	-	-
1-3/4	1-1/4	2	4-1/2	6	-	-	2599-121	130.50	2667-213	101.20	2591-912	155.00	-	-
1-7/8	3/4	2-1/2	4-1/2	6	-	-	-	-	2667-219	105.80	-	-	-	-
1-7/8	1-1/4	2	4-1/2	6	-	-	-	-	2667-220	116.04	-	-	-	-
1-7/8	1-1/4	2	4-1/2	8	2651-202†	84.04	2599-201	130.50	-	-	-	-	-	-
2	3/4	2	4-1/4	8	-	-	-	-	2667-227	126.50	-	-	-	-
2	1-1/4	2	4-1/2	4	-	-	-	-	2667-228	131.16	-	-	-	-
2	1-1/4	2	4-1/2	6	-	-	2599-282	149.31	2667-229	131.16	2591-928	166.50	-	-
2	1-1/4	2	4-1/2	8	2651-284†	95.04	2599-284	149.31	2667-230	136.55	-	-	-	-

† Limited Quantities

Metric, Multiple Flute, Single End, End Mills

Regular Length- R.H. Cut - R.H. Spiral - High Speed Steel



3

WARNING: This product contains Cobalt and/or Nickel and/or Lead a chemical known to the state of California to cause cancer or birth defects or other reproductive harm. For more information: www.prop65.ca.gov.
WARNING: Cutting tools may shatter. Always wear approved safety glasses and mask when regrinding.

Metric – Four Flute – R.H. Spiral– R.H. Cut – Regular Length



DIA. (mm.)	SHANK DIA.	FLUTE LENGTH	OAL	NON-CENTER CUT		CENTER CUT	
				ORDER NO.	PRICE EACH	ORDER NO.	PRICE EACH
3.0	3/8	3/8	2-5/16	—	—	2628-310	\$11.28
3.5	3/8	1/2	2-3/8	—	—	—	—
4.0	3/8	1/2	2-3/8	—	—	2628-312	11.28
4.5	3/8	1/2	2-3/8	—	—	—	—
5.0	3/8	5/8	2-7/16	—	—	2628-314	11.28
5.5	3/8	5/8	2-7/16	—	—	—	—
6.0	3/8	5/8	2-7/16	—	—	2628-316	6.47
6.5	3/8	5/8	2-7/16	—	—	—	—
7.0	3/8	3/4	2-1/2	—	—	2628-318	6.47
7.5	3/8	3/4	2-1/2	—	—	—	—
8.0	3/8	3/4	2-1/2	—	—	2628-320	11.28
8.5	3/8	3/4	2-1/2	—	—	—	—
9.0	3/8	3/4	2-1/2	2628-090†	\$13.54	2628-322	7.11
9.5	3/8	3/4	2-1/2	—	—	—	—
10.0	3/8	3/4	2-1/2	—	—	2628-324	8.17
10.5	3/8	1	2-11/16	—	—	—	—
11.0	3/8	1	2-11/16	2628-110†	18.13	2628-326	8.71
11.5	3/8	1	2-11/16	2628-115†	5.76	—	—
12.0	3/8	1	2-11/16	—	—	2628-328	15.44
12.0	1/2	1-1/4	3-1/4	—	—	—	—
12.5	1/2	1-1/4	3-1/4	2628-125†	20.82	—	—
13.0	1/2	1-1/4	3-1/4	2628-130†	21.14	2628-330	10.33
13.5	1/2	1-3/8	3-3/8	—	—	—	—
14.0	1/2	1-3/8	3-3/8	—	—	2628-332	12.58
14.5	1/2	1-3/8	3-3/8	—	—	—	—
15.0	1/2	1-3/8	3-3/8	—	—	2628-334	13.51
16.0	5/8	1-5/8	3-3/4	—	—	2628-336	13.99
17.0	5/8	1-5/8	3-3/4	—	—	—	—
18.0	5/8	1-5/8	3-3/4	—	—	2628-340	17.77
19.0	5/8	1-5/8	3-3/4	—	—	—	—
20.0	5/8	1-7/8	4	—	—	2628-344	23.18
21.0	5/8	1-7/8	4	—	—	—	—
22.0	3/4	1-7/8	4-1/8	—	—	2628-348	27.05
22.0	7/8	1-7/8	4-1/8	—	—	—	—
23.0	7/8	1-7/8	4-1/8	—	—	—	—
24.0	3/4	2	4-1/2	—	—	2628-352	45.06
24.0	1	2	4-1/2	—	—	—	—
25.0	1	2	4-1/2	—	—	—	—

† Limited Quantities

20 Piece TiN Coated End Mill Set

Contains:

2 Flute Single End
3/16, 1/4, 5/16, 3/8, 7/16, 1/2,
9/16, 5/8, 11/16 & 3/4

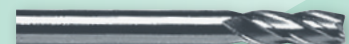
4 Flute, Center Cutting Single End End Mills
3/16, 1/4, 5/16, 3/8, 7/16, 1/2, 9/16,
5/8, 11/16 & 3/4

Order No. 2616-000

Price Each.....\$144.37



Miniature End Mills - Four Flute - Single End



DIA.	SHANK DIA.	FLUTE LENGTH	OAL	ORDER NO.	PRICE EACH
STUB LENGTH					
5/32	1/4	3/16	1-1/4	2645-310†	\$4.34
REGULAR LENGTH					
1/8	3/8	3/16	1-1/2	2645-408†	4.34
5/32	7/16	3/16	1-7/16	2645-410†	4.34
3/16	1/2	3/16	1-3/4	2645-412†	4.34
LONG LENGTH					
1/8	3/8	3/16	1-3/4	2645-428†	4.48

† Limited Quantities

Multiple Flute, Single End, End Mills

3

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Long Length



					NON-CENTER CUT				CENTER CUT			
					Pittsburg® ALLEGHANY		ALLEGIANCE® AMERICAN MADE		Pittsburg® ALLEGHANY		ALLEGIANCE® AMERICAN MADE	
DIA.	SHANK DIA.	FLUTE LENGTH	OAL	NO OF FLUTES	ORDER NO.	PRICE EACH	ORDER NO.	PRICE EACH	ORDER NO.	PRICE EACH	ORDER NO.	PRICE EACH
1/4	3/8	1-1/4	3-1/16	4	—	—	2600-161	\$20.25	2667-316	\$15.00	2592-116	\$20.25
5/16	3/8	1-3/8	3-1/8	4	2654-201†	\$12.41	2600-201	20.25	2667-320	15.00	2592-120	20.25
3/8	3/8	1-1/2	3-1/4	4	—	—	2600-241	20.25	2667-324	15.00	2592-124	20.25
7/16	1/2	1-3/4	3-1/4	4	—	—	2600-281	28.17	2667-328	10.00	2592-128	28.17
1/2	1/2	2	4	4	—	—	2600-321	28.17	2667-332	19.50	2592-132	28.17
5/8	5/8	2-1/2	4-5/8	4	—	—	2600-401	39.15	2667-340	24.68	2592-140	39.15
3/4	3/4	3	5-1/4	4	—	—	2600-481	45.45	2667-348	31.00	2592-148	45.45
7/8	3/4	3-1/2	5-3/4	4	2654-561†	35.24	—	—	—	—	—	—
7/8	7/8	3-1/2	5-3/4	4	—	—	2600-561	60.12	2667-356	40.50	2592-156	60.12
7/8	7/8	3-1/2	5-3/4	6	2654-563†	35.24	—	—	—	—	—	—
1	1	4	6-1/2	4	—	—	2600-641	78.12	2667-364	51.00	2592-164	78.12
1-1/8	1	4	6-1/2	6	—	—	2600-721	114.00	—	—	—	—
1-1/4	1-1/4	3	5-1/2	4	2652-802†	29.78	—	—	—	—	—	—
1-1/4	1	4	6-1/2	6	2654-802†	72.60	2600-802	134.70	—	—	—	—
1-1/4	1-1/4	4	6-1/2	4	—	—	2600-801	74.30	2667-380	67.81	2592-180	121.23
1-1/4	1-1/4	4	6-1/2	6	2654-803†	72.60	2600-803	121.23	—	—	—	—
1-1/2	1	3	5-1/2	6	2652-961†	36.49	—	—	—	—	—	—
1-1/2	1	4	6-1/2	6	—	—	2600-961	94.57	—	—	—	—
1-1/2	1-1/4	3	5-1/2	4	2652-962†	36.49	2645-962	—	—	—	—	—
1-1/2	1-1/4	4	6-1/2	6	2654-962†	89.10	—	—	2667-396	81.95	2592-196	118.61
1-1/2	1-1/4	4	6-1/2	4	2654-963†	89.10	2600-963	82.61	—	—	—	—
1-3/4	1-1/4	4	6-1/2	6	2655-122†	112.20	2601-121	195.85	2667-413	120.68	—	—
2	1-1/4	4	6-1/2	6	2655-282†	137.28	2601-281	179.00	2667-429	161.81	2592-228	183.49
2	1-1/4	4	6-1/2	8	2655-283†	137.28	—	—	—	—	—	—

† Limited Quantities

Extra Long Length



					NON-CENTER CUT				CENTER CUT			
					Pittsburg® ALLEGHANY		ALLEGIANCE® AMERICAN MADE		Pittsburg® ALLEGHANY		ALLEGIANCE® AMERICAN MADE	
DIA.	SHANK DIA.	FLUTE LENGTH	OAL	NO. OF FLUTES	ORDER NO.	PRICE EACH	ORDER NO.	PRICE EACH	ORDER NO.	PRICE EACH	ORDER NO.	PRICE EACH
1/4	3/8	1-3/4	3-9/16	4	—	—	2602-161	\$22.95	2667-516	\$16.70	2592-016	\$22.95
5/16	3/8	2	3-3/4	4	2657-201†	\$14.92	2602-201	24.21	2667-520	16.70	2592-020	24.21
3/8	3/8	2-1/2	4-1/4	4	—	—	2602-241	24.73	2667-524	18.00	2592-024	24.73
1/2	1/2	3	5	4	—	—	2602-321	31.73	2667-532	24.10	2592-032	31.73
5/8	5/8	4	6-1/8	4	—	—	2602-401	45.81	2667-540	31.50	2592-040	45.81
3/4	3/4	4	6-1/4	4	—	—	2602-481	53.82	2667-548	36.40	2592-048	53.82
7/8	7/8	5	7-1/4	4	2657-561†	42.90	2602-561	69.00	2667-556	47.00	2592-056	69.00
1	1	6	8-1/2	4	—	—	2602-641	93.78	2667-564	61.50	2592-064	93.78
1-1/4	1-1/4	6	8-1/2	4	—	—	—	—	2667-580	94.00	—	—
1-1/4	1-1/4	6	8-1/2	6	2657-802†	85.80	2602-801	141.26	—	—	2592-080	141.26
1-1/2	1-1/4	6	8-1/2	6	2657-962†	95.70	2602-961	POA	2667-596	94.00	2592-097	165.00
1-1/2	1-1/4	8	10-1/2	6	—	—	2602-962	151.56	—	—	—	—

† Limited Quantities

Four Flute, Double End, End Mills

High Speed Steel – R.H.S – R.H.C.

3

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WARNING: Cutting tools may shatter. Always wear approved safety glasses and mask when regrounding.



Non-Center Cut



Center Cut



TiN Coated

				UNCOATED								TIN COATED	
				NON-CENTER CUT				CENTER CUT				CENTER CUT	
SIZE				Pittsburg®		ALLEGIANCE®		Pittsburg®		ALLEGIANCE®		Pittsburg®	
MILL DIA.	SHANK DIA.	FLUTE LENGTH	OAL	ORDER NO.	PRICE EACH	ORDER NO.	PRICE EACH	ORDER NO.	PRICE EACH	ORDER NO.	PRICE EACH	ORDER NO.	PRICE EACH
1/8	3/8	3/8	3-1/16	—	—	2592-808	\$20.34	2667-808	\$15.95	3886-608	\$26.91	2670-708	\$30.13
5/32	3/8	7/16	3-1/8	2667-710	\$13.60	2592-810	21.15	2667-810	17.54	—	—	—	—
11/64	3/8	1/2	3-1/4	2667-711	5.46	—	—	—	—	—	—	—	—
3/16	3/8	1/2	3-1/4	—	—	2592-812	20.34	2667-812	15.95	3886-612	26.91	2670-712	30.13
7/32	3/8	9/16	3-1/4	2667-714	13.60	2592-814	21.15	2667-814	17.54	—	—	—	—
15/64	3/8	5/8	3-3/8	2667-715	13.60	—	—	—	—	—	—	—	—
1/4	3/8	5/8	3-3/8	—	—	2592-816	20.34	2667-816	15.95	3886-616	26.91	2670-716	30.13
17/64	3/8	11/16	3-3/8	2667-717	13.60	—	—	—	—	—	—	—	—
9/32	3/8	11/16	3-3/8	2667-718	13.60	2592-818	21.15	2667-818	17.54	—	—	—	—
5/16	3/8	3/4	3-1/2	—	—	2592-820	20.34	2667-820	15.95	3886-620	26.91	2670-720	30.13
21/64	3/8	3/4	3-1/2	2667-721	13.73	2592-821	22.23	—	—	—	—	—	—
11/32	3/8	3/4	3-1/2	2667-722	13.60	2592-822	21.15	2667-822	17.54	—	—	—	—
23/64	3/8	3/4	3-1/2	2667-723	13.60	—	—	—	—	—	—	—	—
3/8	3/8	3/4	3-1/2	—	—	2592-824	20.34	2667-824	15.95	3886-624	26.91	2670-724	30.13
25/64	3/8	1	4-1/8	—	—	—	—	—	—	—	—	—	—
13/32	1/2	1	4-1/8	—	—	2592-826	31.73	2667-826	23.12	—	—	—	—
27/64	1/2	1	4-1/8	2667-727	19.40	—	—	—	—	—	—	—	—
7/16	1/2	1	4-1/8	2667-728	19.40	2592-828	30.20	2667-828	24.06	3886-628	22.15	2670-728	44.07
29/64	1/2	1	4-1/8	2667-729	8.73	—	—	—	—	—	—	—	—
15/32	1/2	1	4-1/8	2667-730	20.20	2592-830	31.46	2667-830	24.24	—	—	—	—
31/64	1/2	1	4-1/8	2667-731	8.73	—	—	—	—	—	—	—	—
1/2	1/2	1	4-1/8	—	—	2592-832	30.60	2667-832	22.82	3886-632	40.46	2670-732	44.43
9/16	5/8	1-3/8	5	—	—	2592-836	42.29	2667-836	31.20	—	—	—	—
19/32	5/8	1-3/8	5	2667-738	12.32	—	—	—	—	—	—	—	—
5/8	5/8	1-3/8	5	—	—	2592-840	42.29	2667-840	30.74	3886-640	56.34	2670-740	56.46
21/32	3/4	1-5/8	5-5/8	2667-742	34.67	—	—	—	—	—	—	—	—
11/16	3/4	1-5/8	5-5/8	—	—	2592-844	53.42	2667-844	39.05	—	—	—	—
23/32	3/4	1-5/8	5-5/8	2667-746	35.35	—	—	—	—	—	—	—	—
3/4	3/4	1-5/8	5-5/8	—	—	2592-848	54.43	2667-848	40.15	3886-648	71.01	2670-748	71.11
25/32	7/8	1-7/8	6-1/8	2667-750	43.51	—	—	—	—	—	—	—	—
13/16	7/8	1-7/8	6-1/8	2667-752	42.90	2592-852	67.05	2667-852	50.62	—	—	—	—
27/32	7/8	1-7/8	6-1/8	2667-754	43.51	—	—	—	—	—	—	—	—
7/8	7/8	1-7/8	6-1/8	—	—	2592-856	67.01	2667-856	49.84	3886-656	90.81	—	—
29/32	1	1-7/8	6-3/8	2667-758	53.02	—	—	—	—	—	—	—	—
15/16	1	1-7/8	6-3/8	2667-760	45.54	2592-860	77.13	2667-860	54.65	—	—	—	—
31/32	1	1-7/8	6-3/8	2667-762	51.48	—	—	—	—	—	—	—	—
1	1	1-7/8	6-3/8	—	—	2592-864	81.68	2667-864	61.78	3886-664	110.52	2670-764	101.42

Limited Quantities

Metric



				NON-CENTER CUT		CENTER CUT	
				Pittsburg®		Pittsburg®	
MILL DIA. (mm.)	SHANK DIA.	FLUTE LENGTH	OAL	ORDER NO.	PRICE EACH	ORDER NO.	PRICE EACH
3	3/8	7/16	3-1/16	2629-030	\$16.46	2629-310	\$8.87
4	3/8	7/16	3-1/8	—	—	2629-312	16.46
5	3/8	1/2	3-1/4	2629-050	16.46	2629-314	13.54
6	3/8	5/8	3-1/4	—	—	2629-316	16.46
7	3/8	11/16	3-3/8	2629-070	16.46	2629-318	8.87
8	3/8	3/4	3-1/2	—	—	2629-320	9.85
10	1/2	1	4-1/8	—	—	2629-324	12.48
12	1/2	1	4-1/8	2629-120	25.44	2629-328	14.53
14	5/8	1-3/8	5	2629-140	33.60	2629-332	18.54
16	3/4	1-5/8	5-5/8	2629-160	46.20	2629-336	26.28
18	3/4	1-5/8	5-5/8	2629-180	46.20	2629-340	26.28
20	7/8	1-7/8	6-1/8	2629-200	54.00	2629-344	35.57
22	1	1-7/8	6-3/8	2629-220	54.00	2629-348	44.88
24	1	1-7/8	6-3/8	2629-240	57.37	2629-352	53.42

Miniature, Four Flute, End Mills

3/16" Shank – Double End – R.H.S. – R.H.C.

3

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High Speed Steel – Stub Length

Pittsburg [®] ALLEGHANY					
MILL DIA.	SHANK DIA.	FLUTE LENGTH	OAL	ORDER NO.	PRICE EACH
1/16	3/16	3/32	2	2645-144	\$14.45
5/64	3/16	1/8	2	2645-145	14.45
3/32	3/16	9/64	2	2645-146	14.45
7/64	3/16	9/64	2	2645-147	14.45
1/8	3/16	3/16	2	2645-148	14.45
9/64	3/16	7/32	2	2645-149	14.45
5/32	3/16	15/64	2	2645-150	14.45
11/64	3/16	9/32	2	2645-151	14.45
3/16	3/16	9/32	2	2645-152	14.45



M42 8% Cobalt – Center Cutting – Stub Length

Pittsburg [®] ALLEGHANY					
MILL DIA.	SHANK DIA.	FLUTE LENGTH	OAL	ORDER NO.	PRICE EACH
1/16	3/16	3/32	2	2711-244	\$21.60
5/64	3/16	1/8	2	2711-245	21.60
3/32	3/16	9/64	2	2711-246	21.60
7/64	3/16	9/64	2	2711-247	21.60
1/8	3/16	3/16	2	2711-248	21.60
9/64	3/16	7/32	2	2711-249	21.60
5/32	3/16	15/64	2	2711-250	21.60
11/64	3/16	9/32	2	2711-251	21.60
3/16	3/16	9/32	2	2711-252	21.60



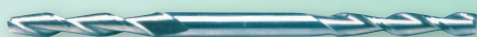
High Speed Steel – Regular Length

Pittsburg [®] ALLEGHANY					
MILL DIA.	SHANK DIA.	FLUTE LENGTH	OAL	ORDER NO.	PRICE EACH
1/16	3/16	3/16	2-1/4	2645-164	\$17.09
5/64	3/16	15/64	2-1/4	2645-165	17.09
3/32	3/16	5/16	2-1/4	2645-166	17.09
7/64	3/16	5/16	2-1/4	2645-167	17.09
1/8	3/16	3/8	2-1/4	2645-168	17.09
9/64	3/16	3/8	2-1/4	2645-169	17.09
5/32	3/16	7/16	2-1/4	2645-170	17.09
11/64	3/16	1/2	2-1/4	2645-171	17.09
3/16	3/16	1/2	2-1/4	2645-172	17.09



M42 8% Cobalt – Center Cutting – Regular Length

Pittsburg [®] ALLEGHANY					
MILL DIA.	SHANK DIA.	FLUTE LENGTH	OAL	ORDER NO.	PRICE EACH
1/16	3/16	3/16	2-1/4	2711-264	\$26.91
5/64	3/16	15/64	2-1/4	2711-265	26.91
3/32	3/16	5/16	2-1/4	2711-266	26.91
7/64	3/16	5/16	2-1/4	2711-267	26.91
1/8	3/16	3/8	2-1/4	2711-268	26.91
9/64	3/16	3/8	2-1/4	2711-269	26.91
5/32	3/16	7/16	2-1/4	2711-270	26.91
11/64	3/16	1/2	2-1/4	2711-271	26.91
3/16	3/16	1/2	2-1/4	2711-272	26.91



High Speed Steel – Long

Pittsburg [®] ALLEGHANY					
MILL DIA.	SHANK DIA.	FLUTE LENGTH	OAL	ORDER NO.	PRICE EACH
1/16	3/16	7/32	2-1/2	2645-184	\$22.08
5/64	3/16	1/4	2-1/2	2645-185	22.08
3/32	3/16	9/32	2-5/8	2645-186	22.08
7/64	3/16	9/32	2-5/8	2645-187	22.08
1/8	3/16	3/4	3-1/8	2645-188	22.08
9/64	3/16	3/4	3-1/8	2645-189	22.08
5/32	3/16	7/8	3-1/4	2645-190	22.08
11/64	3/16	7/8	3-1/4	2645-191	22.08
3/16	3/16	1	3-3/8	2645-192	22.08



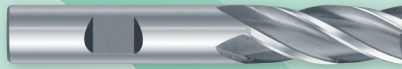
M42 8% Cobalt – Center Cutting – Long Length

Pittsburg [®] ALLEGHANY					
MILL DIA.	SHANK DIA.	FLUTE LENGTH	OAL	ORDER NO.	PRICE EACH
1/16	3/16	7/32	2-1/2	2711-284	\$14.05
5/64	3/16	1/4	2-1/2	2711-285	14.05
3/32	3/16	9/32	2-5/8	2711-286	14.05
7/64	3/16	9/32	2-5/8	2711-287	14.05
1/8	3/16	3/4	3-1/8	2711-288	14.05
9/64	3/16	3/4	3-1/8	2711-289	14.05
5/32	3/16	7/8	3-1/4	2711-290	14.05
11/64	3/16	7/8	3-1/4	2711-291	14.05
3/16	3/16	1	3-3/8	2711-292	14.05

M42 8% Cobalt, Multiple Flute, End Mills

WARNING: This product contains Cobalt and/or Nickel and/or Lead a chemical known to the state of California to cause cancer or birth defects or other reproductive harm. For more information: www.prop65.ca.gov. **WARNING:** Cutting tools may shatter. Always wear approved safety glasses and mask when grinding.

Single End - Regular Length



Double End - Reg. Length - 4 Flute



CENTER CUT								
Pittsburg					ALLEGIANCE			
MILL DIA.	SHANK DIA.	FLUTE LENGTH	OAL	NO. OF FLUTES	ORDER NO.	PRICE EACH	ORDER NO.	PRICE EACH
1/8	3/8	3/8	2-5/16	4	2691-081	\$19.44	2605-081	\$30.02
5/32	3/8	7/16	2-3/8	4	2691-101	19.44	-	-
3/16	3/8	1/2	2-3/8	4	2691-121	19.44	2605-121	30.02
7/32	3/8	5/8	2-7/16	4	2691-141	19.44	-	-
1/4	3/8	5/8	2-7/16	4	2691-161	19.44	2605-161	30.02
9/32	3/8	3/4	2-1/2	4	2691-181	19.44	-	-
5/16	3/8	3/4	2-1/2	4	2691-201	19.44	2605-201	30.02
11/32	3/8	3/4	2-1/2	4	2691-221	19.44	-	-
3/8	3/8	3/4	2-1/2	4	2691-241	19.44	2605-241	30.02
13/32	3/8	1	2-11/16	4	2691-261	29.03	-	-
7/16	3/8	1	2-11/16	4	2691-281	29.03	-	-
15/32	3/8	1	2-11/16	4	2691-301	29.03	-	-
1/2	3/8	1	2-11/16	4	2691-321	29.03	-	-
1/2	1/2	1-1/4	3-1/4	4	2691-322	30.42	2605-321	46.47
1/2	1/2	1-1/4	3-1/4	6	2691-323	30.42	-	-
9/16	1/2	1-3/8	3-3/8	4	2691-361	43.20	-	-
5/8	1/2	1-3/8	3-3/8	4	2691-401	43.20	-	-
5/8	5/8	1-5/8	3-3/4	4	2691-402	43.20	2605-402	67.28
5/8	5/8	1-5/8	3-3/4	6	2691-403	43.20	-	-
11/16	5/8	1-5/8	3-3/4	4	2691-442	59.40	-	-
3/4	1/2	1-5/8	3-5/8	4	2691-480	54.00	-	-
3/4	5/8	1-5/8	3-3/4	4	2691-481	54.00	-	-
3/4	3/4	1-5/8	3-7/8	4	2691-482	54.00	2605-482	81.77
3/4	3/4	1-5/8	3-7/8	6	2691-483	54.00	2605-483	44.41
13/16	3/4	1-7/8	4-1/8	4	2691-521	69.21	-	-
7/8	1/2	1-7/8	4	4	2691-558	35.46	-	-
7/8	5/8	1-7/8	4	4	2691-559	36.81	-	-
7/8	3/4	1-7/8	4-1/8	4	2691-560	69.21	-	-
7/8	7/8	1-7/8	4-1/8	4	2691-561	69.21	2605-561	108.68
15/16	3/4	1-7/8	4-1/8	4	2691-601	88.00	-	-
1	1/2	1-7/8	3-7/8	4	2691-639	46.31	-	-
1	5/8	1-7/8	4	4	2691-640	51.98	-	-
1	3/4	1-7/8	4-1/8	4	2691-641	82.80	-	-
1	1	2	4-1/2	4	2691-642	82.80	2605-642	129.38
1	1	2	4-1/2	6	2691-643	82.80	2605-643	129.38
1-1/8	3/4	2	4-1/2	6	2691-681	118.80	-	-
1-1/8	1	2	4-1/2	6	2691-682	118.80	-	-
1-1/8	1-1/4	2	4-1/2	4	2691-683	69.62	-	-
1-1/4	3/4	2	4-1/2	6	2691-798	118.80	-	-
1-1/4	1	2	4-1/2	6	2691-800	88.85	-	-
1-1/4	1-1/4	2	4-1/2	4	2691-801	118.80	2605-801	165.60
1-1/4	1-1/4	2	4-1/2	6	2691-802	118.80	2605-802	165.60
1-1/2	3/4	2	4-1/2	6	2691-958	140.40	-	-
1-1/2	1	2	4-1/2	6	2691-960	109.08	-	-
1-1/2	1-1/4	2	4-1/2	4	2691-961	140.40	2605-961	217.35
1-1/2	1-1/4	2	4-1/2	6	2691-962	140.40	2605-962	217.35
1-3/4	1-1/4	2	4-1/2	6	2692-121	211.50	-	-
2	1-1/4	2	4-1/2	6	2692-281	254.70	-	-
2	1-1/4	2	4-1/2	8	2692-282	180.92	-	-

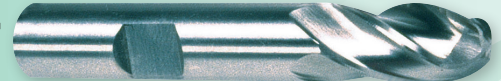
2" Diameter Heavy Duty Dual Drive Shanks available on request

Single End - Extra Long Length



CENTER CUT								
Pittsburg					ALLEGIANCE			
MILL DIA.	SHANK DIA.	FLUTE LENGTH	OAL	NO. OF FLUTES	ORDER NO.	PRICE EACH	ORDER NO.	PRICE EACH
1/4	3/8	1-3/4	3-9/16	4	2695-161	\$30.87	3990-516	\$32.07
5/16	3/8	2	3-3/4	4	2695-201	30.87	3990-520	32.07
3/8	3/8	2-1/2	4-1/4	4	2695-241	33.30	3990-524	32.07
1/2	1/2	3	5	4	2695-321	43.20	3990-532	55.80
5/8	5/8	4	6-1/8	4	2695-401	71.55	3990-540	87.75
3/4	3/4	4	6-1/4	4	2695-481	79.88	3990-548	65.48
3/4	3/4	4	6-1/4	6	2695-482	79.88	-	-
7/8	7/8	5	7-1/4	4	2695-561	115.00	-	-
1	1	6	8-1/2	4	2695-641	135.00	-	-
1	1	6	8-1/2	6	2695-642	113.26	-	-
1-1/4	1-1/4	6	8-1/2	4	2695-801	190.80	-	-
1-1/4	1-1/4	6	8-1/2	6	2695-802	139.88	-	-
1-1/2	1-1/4	8	10-1/2	6	2695-961	256.00	-	-

Single End - Ball End



CENTER CUT								
Pittsburg					ALLEGIANCE			
MILL DIA.	SHANK DIA.	FLUTE LENGTH	OAL	NO. OF FLUTES	ORDER NO.	PRICE EACH	ORDER NO.	PRICE EACH
1/8	3/8	3/8	2-5/16	4	2697-081	\$35.10	3891-081	\$37.26
3/16	3/8	1/2	2-3/8	4	2697-121	37.80	3891-121	38.30
1/4	3/8	5/8	2-7/16	4	2697-161	37.80	3891-161	38.30
5/16	3/8	3/4	2-1/2	4	2697-201	41.40	3891-201	40.37
3/8	3/8	3/4	2-1/2	4	2697-241	41.40	3891-241	42.95
7/16	3/8	1	2-9/16	4	2697-281	23.26	-	-
1/2	1/2	1-1/4	3-1/4	4	2697-321	50.40	-	-
5/8	5/8	1-5/8	3-3/4	4	2697-401	67.95	3891-401	86.94
3/4	3/4	1-5/8	3-7/8	4	2697-481	77.85	3891-481	101.43
1	1	2	4-1/2	4	2697-641	68.19	-	-
1-1/4	1-1/4	2	4-1/2	6	2697-802	144.00	3891-802	205.97
1-1/4	1-1/4	4	6-1/2	4	2697-803	153.96	-	-
1-1/2	1-1/4	4	4-1/2	4	2697-961	166.53	-	-
1-1/2	1-1/4	2	4-1/2	6	2697-962	181.80	-	-

Limited Quantities

Ball End – End Mills

R.H. Cut– R.H. Spiral–
High Speed Steel

Two Flute– Single End– Regular Length



MILL DIA.	SHANK DIA.	FLUTE LENGTH	OAL	ORDER NO.	PRICE EACH	LENGTH OF CUT	OAL	ORDER NO.	PRICE EACH
1/8	3/8	3/8	2-3/16	2616-081	\$15.48	3/8	2-3/16	2609-081	\$23.81
3/16	3/8	1/2	2-3/8	2616-121	15.48	1/2	2-3/8	2609-121	23.81
1/4	3/8	5/8	2-7/16	2616-161	15.48	5/8	2-7/16	2609-161	23.81
5/16	3/8	3/4	2-1/2	2616-201	17.46	3/4	2-1/2	2609-201	26.91
3/8	3/8	3/4	2-1/2	2616-241	17.46	3/4	2-1/2	2609-221	26.91
7/16	1/2	1	3	2616-281	22.92	1	3-1/4	2609-281	35.32
1/2	1/2	1-1/4	3-1/4	2616-321	22.92	1	3-1/4	2609-321	35.32
9/16	1/2	1-3/8	3-3/8	2616-361	29.60	1-1/8	3-3/8	2609-361	49.68
5/8	1/2	1-3/8	3-3/8	2616-401	34.16	1-1/8	3-3/8	2609-401	55.89
5/8	5/8	1-5/8	3-3/4	2616-402	34.16	1-3/8	3-3/4	2609-402	55.89
3/4	1/2	1-5/8	3-5/8	2616-481	40.23	1-5/16	3-5/8	2609-481	70.20
3/4	3/4	1-5/8	3-7/8	2616-483	40.23	1-5/8	3-7/8	2609-483	70.20
7/8	7/8	2	4-1/4	2616-562	51.61	—	—	—	—
1	3/4	2-1/4	4-9/16	2616-641	64.52	2-1/4	4-1/2	2609-641	56.74
1	1	2-1/4	4-3/4	2616-642	64.52	2-1/4	4-3/4	2609-642	103.68
1-1/8	1	2-1/4	4-3/4	2616-721	75.90	2-1/4	4-3/4	2609-721	145.13
1-1/4	1-1/4	2-1/2	5	2616-801	88.04	2-1/2	5	2609-801	147.38
1-3/8	1-1/4	2-1/2	5	2616-881	98.82	—	—	—	—
1-1/2	1-1/4	2-1/2	5	2616-961	107.78	2-1/2	5	2609-961	180.56

Limited Quantities

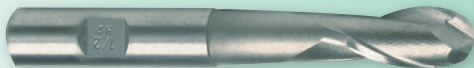
Multiple Flute– Single End Regular Long & Long Flute



MILL DIA.	SHANK DIA.	FLUTE LENGTH	OAL	NO. OF FLUTES	ORDER NO.	PRICE EACH	ORDER NO.	PRICE EACH	
1/4	3/8	5/8	2-1/2	4	—	—	3889-161	\$24.04	
1/4	3/8	3/4	2-9/16	4	2660-161	\$14.76	—	—	
1/4	3/8	1-1/4	3-1/16	4	2660-163	42.43	3889-163	24.42	
1/4	3/8	1-3/4	3-1/2	4	—	—	3889-165	21.90	
5/16	3/8	3/4	2-1/2	4	2660-204	32.09	3889-202	22.48	
5/16	3/8	1	2-3/4	4	2660-202	16.24	—	—	
5/16	3/8	1-3/8	3-1/8	4	—	—	3889-203	26.32	
5/16	3/8	1-1/2	3-1/4	4	2660-203	42.43	—	—	
3/8	3/8	3/4	2-1/2	4	2660-241	32.09	3889-241	25.45	
3/8	3/8	1-1/2	3-1/4	4	2660-244	44.23	3889-244	27.92	
3/8	3/8	2	3-3/4	4	2660-245	19.53	—	—	
3/8	3/8	2-1/2	4-1/4	4	—	—	3889-246	26.32	
1/2	1/2	1	3	4	2660-321	16.39	—	—	
1/2	1/2	1-1/4	3-1/4	4	2660-322	37.26	3889-323	32.74	
1/2	1/2	2	4	4	2660-324	58.50	3889-324	34.74	
1/2	1/2	2-1/2	4-1/2	4	2660-325	24.14	—	—	
5/8	5/8	1-1/4	3-3/8	4	2660-401	25.08	—	—	
5/8	5/8	1-5/8	3-3/4	4	2660-402	55.89	3889-402	41.73	
5/8	5/8	2-1/2	4-5/8	4	2660-403	77.92	3889-403	45.64	
5/8	5/8	3	5-1/8	4	2660-404	33.23	3889-404	57.10	
5/8	5/8	3-3/4	5-7/8	4	2660-406	92.43	—	—	
3/4	3/4	1-5/8	3-3/4	4	2660-481	65.21	3889-481	55.75	
3/4	3/4	2-1/4	4-1/2	4	—	—	3889-484	51.79	
3/4	3/4	3	5-1/4	4	2660-485	88.92	3889-485	53.79	
3/4	3/4	4	6-1/4	4	—	—	3889-487	62.74	
1	1	2	4-1/2	4	2660-641	107.64	3889-641	80.67	
1	1	3	5-1/2	4	—	—	3889-642	86.15	
1	1	4	6-1/2	4	2660-643	148.12	3889-643	92.44	
1	1	5	7-1/2	4	2660-644	71.03	—	—	
1	1	6	8-1/2	4	—	—	3889-645	100.33	
1-1/4	1-1/4	2	4-1/2	4	2660-801	128.34	—	—	
1-1/4	1-1/4	3	5-1/2	4	2660-802	97.00	—	—	
1-1/4	1-1/4	4	6-1/2	4	2660-803	176.44	—	—	
1-1/4	1-1/4	5	7-1/2	4	2660-806	115.44	—	—	
1-1/4	1-1/4	6	8-1/2	4	2660-807	197.73	—	—	
1-1/4	1-1/4	6	8-1/2	6	2660-808	197.73	—	—	
1-1/2	1-1/4	2	4-1/2	6	2660-961	175.95	—	—	
1-1/2	1-1/4	4	6-1/2	6	2660-964	241.72	—	—	
1-1/2	1-1/4	6	8-1/2	6	2660-966	266.76	—	—	

Limited Quantities

Two Flute– Long Reach



MILL DIA.	SHANK DIA.	LG'TH BELOW SHANK	CUT. EDGE LG'TH	OAL	ORDER NO.	PRICE EACH
1/8	3/8	13/16	3/8	2-3/8	2619-081	\$18.77
3/16	3/8	1-1/8	1/2	2-11/16	2619-121	18.77
1/4	3/8	1-1/2	5/8	3-1/16	2619-161	19.55
5/16	3/8	1-3/4	3/4	3-5/16	2619-201	23.12
3/8	3/8	1-3/4	3/4	3-5/16	2619-241	22.52
7/16	1/2	2-1/4	1	4	2619-281	32.50
1/2	1/2	2-1/4	1	4	2619-321	30.31
5/8	5/8	2-3/4	1-3/8	4-5/8	2619-401	41.31
3/4	3/4	3-3/8	1-5/8	5-3/8	2619-481	50.49
7/8	7/8	4	2	6	2619-561	61.27
1	1	5	2-1/2	7-1/4	2619-641	80.45
1-1/4	1-1/4	5	3	7-1/4	2619-801	87.15

Limited Quantities

Two Flute– Double End



MILL DIA.	SHANK DIA.	FLUTE LENGTH	OAL	ORDER NO.	PRICE EACH	LENGTH OF CUT	OAL	ORDER NO.	PRICE EACH
1/8	3/8	3/8	3-1/16	2636-308	\$34.16	3/8	3-1/16	3886-508	\$55.20
5/32	3/8	7/16	3-1/8	—	—	7/16	3-1/8	3886-510	35.40
3/16	3/8	7/16	3-1/8	2636-312	34.16	7/16	3-1/4	3886-512	55.20
7/32	3/8	1/2	3-1/8	—	—	1/2	3-1/4	3886-514	55.20
1/4	3/8	1/2	3-1/8	2636-316	34.16	1/2	3-3/8	3886-516	55.20
9/32	3/8	9/16	3-1/8	—	—	9/16	3-3/8	3886-518	55.20
5/16	3/8	9/16	3-1/8	2636-320	34.16	9/16	3-1/2	3886-520	55.20
11/32	3/8	9/16	3-1/8	—	—	9/16	3-1/2	3886-522	55.20
3/8	3/8	9/16	3-1/8	2636-324	34.16	9/16	3-1/2	3886-524	55.20
13/32	1/2	13/16	3-3/4	2636-326	19.87	—	—	—	—
7/16	1/2	13/16	3-3/4	2636-328	47.61	13/16	4-1/8	3886-528	78.20
1/2	1/2	13/16	3-3/4	2636-332	47.61	13/16	4-1/8	3886-532	78.20
5/8	5/8	1-1/8	4-1/2	2636-340	66.24	1-1/8	5	3886-540	102.35
3/4	3/4	1-5/16	5	2636-348	82.80	1-5/16	5-5/8	3886-548	132.25
7/8	7/8	1-9/16	5-1/2	2636-356	101.97	1-9/16	6-1/8	3886-556	161.00
1	1	1-5/8	5-7/8	2636-364	126.27	1-5/8	6-3/8	3886-564	194.35

Limited Quantities

Left Hand, Multiple Flute, End Mills

High Speed Steel

3

WARNING: This product contains Cobalt and/or Nickel and/or Lead a chemical known to the state of California to cause cancer or birth defects or other reproductive harm. For more information: www.prop65.ca.gov.
WARNING: Cutting tools may shatter. Always wear approved safety glasses and mask when regrinding.

Regular Length – L.H.S. – R.H.C.



MILL. DIA.	SHANK DIA.	FLUTE LENGTH	NO. OF FLUTES	OVER. L'GTH	ORDER NO.	PRICE EACH
5/16	3/8	3/4	4	2-1/2	2663-201	\$ 13.87
3/8	3/8	3/4	4	2-1/2	2663-241	13.87
5/8	5/8	1-5/8	4	3-3/4	2663-401	26.80
7/8	7/8	1-7/8	4	4-1/8	2663-561	13.69
1	1	2	4	4-1/2	2663-641	43.68
1-1/8	1	2	4	4-1/2	2663-741	21.56
1-1/4	1	2	4	4-1/2	2663-800	23.66
1-1/4	1	2	6	4-1/2	2663-801	23.66
1-1/4	1-1/4	2	4	4-1/2	2663-803	POA
1-1/4	1-1/4	2	6	4-1/2	2663-802	140.00
1-3/8	1	2	4	4-1/2	2663-880	25.34
1-3/8	1	2	6	4-1/2	2663-881	25.34
1-1/2	1	2	4	4-1/2	2663-960	28.56
1-1/2	1	2	6	4-1/2	2663-961	28.56
1-1/2	1-1/4	2	4	4-1/2	2663-963	28.56
1-1/2	1-1/4	2	6	4-1/2	2663-962	109.76
1-5/8	1-1/4	2	4	4-1/2	2664-040	31.08
1-5/8	1-1/4	2	6	4-1/2	2664-041	31.08
1-3/4	1-1/4	2	4	4-1/2	2664-120	34.90
1-3/4	1-1/4	2	6	4-1/2	2664-121	34.90
1-7/8	1-1/4	2	4	4-1/2	2664-200	240.80
1-7/8	1-1/4	2	8	4-1/2	2664-201	36.09
2	1-1/4	2	4	4-1/2	2664-280	40.46
2	1-1/4	2	8	4-1/2	2664-281	40.46

Limited Quantities

Regular Length – L.H.S. – L.H.C.



MILL. DIA.	SHANK DIA.	FLUTE LENGTH	NO. OF FLUTES	OVER. L'GTH	ORDER NO.	PRICE EACH
1/8	3/8	3/8	4	2-5/16	3500-081	\$13.87
3/16	3/8	1/2	4	2-3/8	3500-121	13.87
1/4	3/8	5/8	4	2-1/2	3500-161	13.87
5/16	3/8	3/4	4	2-1/2	3500-201	12.38
7/16	3/8	1	4	2-11/16	3500-281	18.04
9/16	1/2	1-3/8	4	3-3/8	3500-361	25.29
5/8	5/8	1-3/8	4	3-3/8	3500-401	9.17
5/8	5/8	1-3/8	4	3-3/8	3500-403	23.93
11/16	1/2	1-5/8	4	3-5/8	3500-441	11.41
11/16	5/8	1-5/8	4	3-3/4	3500-443	27.61
3/4	1/2	1-5/8	4	3-5/8	3500-481	12.95
3/4	5/8	1-5/8	4	3-3/4	3500-483	28.40
3/4	3/4	1-1/2	6	3-1/2	3500-486	12.95
7/8	1/2	1-5/8	4	3-5/8	3500-561	13.69
7/8	5/8	1-7/8	6	4	3500-563	32.30
7/8	7/8	1-7/8	4	4-1/8	3500-565	13.69
15/16	5/8	1-7/8	6	4	3500-601	14.70
15/16	7/8	1-7/8	4	4-1/8	3500-603	41.51
15/16	7/8	1-7/8	6	4-1/8	3500-604	14.70
1	1/2	1-7/8	4	3-7/8	3500-641	15.68
1	5/8	1-7/8	6	4	3500-643	15.68
1-1/8	7/8	2	6	4-1/4	3500-723	21.56
1-1/8	1	2	6	4-1/2	3500-725	21.56
1-1/4	1	2	6	4-1/2	3500-802	23.66
1-1/4	2	1-1/4	6	4-1/2	3500-804	156.80
1-3/8	2	1	6	4-1/2	3500-882	25.34
1-1/2	2	1	6	4-1/2	3500-962	28.56
1-1/2	2	1-1/4	6	4-1/2	3500-964	139.71
1-5/8	2	1-1/4	6	4-1/2	3501-043	31.08
1-3/4	2	1-1/4	6	4-1/2	3501-123	34.90
1-7/8	2	1-1/4	8	4-1/2	3501-203	36.09
2	2	1-1/4	4	4-1/2	3501-283	232.96
2	2	1-1/4	8	4-1/2	3501-285	40.46

Long Length – L.H.S. – R.H.C.

2



MILL. DIA.	SHANK DIA.	FLUTE LENGTH	NO. OF FLUTES	OVER. L'GTH	ORDER NO.	PRICE EACH
1/4	3/8	1-1/4	4	3-1/8	2665-161	\$ 5.04
5/16	3/8	1-3/8	4	3-1/8	2665-201	5.04
3/8	3/8	1-1/2	4	3-1/4	2665-241	5.04
7/16	3/8	1-3/4	4	3-3/4	2665-281	7.32
5/8	5/8	2-1/2	4	4-5/8	2665-401	9.70
3/4	3/4	3	4	5-1/4	2665-481	11.94
7/8	7/8	3-1/2	4	5-3/4	2665-561	14.84
1	1	4	4	6-1/2	2665-641	20.09
1-1/8	1	4	6	6-1/2	2665-721	27.65
1-1/4	1	4	4	6-1/2	2665-800	30.94
1-1/4	1	4	6	6-1/2	2665-801	30.94
1-1/4	1-1/4	4	6	6-1/2	2665-802	30.94
1-3/8	1	4	4	6-1/2	2665-880	36.58
1-3/8	1	4	6	6-1/2	2665-881	36.58
1-1/2	1	4	4	6-1/2	2665-960	37.73
1-1/2	1	4	6	6-1/2	2665-961	37.73
1-1/2	1-1/4	4	6	6-1/2	2665-962	37.73
1-3/4	1-1/4	4	4	6-1/2	2666-120	48.72
1-3/4	1-1/4	4	6	6-1/2	2666-121	48.72
1-7/8	1-1/4	4	8	6-1/2	2666-201	54.29
2	1-1/4	4	8	6-1/2	2666-281	59.82

Limited Quantities

Double End – L.H.S. – L.H.C.



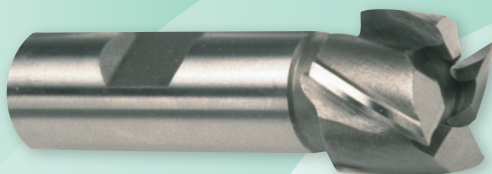
MILL. DIA.	SHANK DIA.	FLUTE LENGTH	OAL	ORDER NO.	PRICE EACH
1/8	3/8	3/8	3-1/4	2667-908	\$16.74
5/32	3/8	7/16	3-1/4	2667-910	16.74
3/16	3/8	1/2	3-1/4	2667-912	16.74
7/32	3/8	9/16	3-1/4	2667-914	16.74
1/4	3/8	5/8	3-3/8	2667-916	16.74
9/32	3/8	11/16	3-3/8	2667-918	16.74
5/16	3/8	3/4	3-3/8	2667-920	16.86
11/32	3/8	3/4	3-3/8	2667-922	16.86
3/8	3/8	3/4	3-3/8	2667-924	16.86
13/32	1/2	1	4-1/8	2667-926	27.15
7/16	1/2	1	4-1/8	2667-928	27.15
15/32	1/2	1	4-1/8	2667-930	27.15
1/2	1/2	1	4-1/8	2667-932	31.36
9/16	5/8	1-3/8	5	2667-936	35.84
5/8	5/8	1-3/8	5	2667-940	39.42
11/16	3/4	1-5/8	5-5/8	2667-944	18.87
3/4	3/4	1-5/8	5-5/8	2667-948	43.37
13/16	7/8	1-7/8	6-1/4	2667-952	21.06
7/8	7/8	1-7/8	6-1/4	2667-956	54.40
15/16	1	1-7/8	6-1/2	2667-960	29.19
1	1	1-7/8	6-1/2	2667-964	66.10

End Mills

Stub Flute – Single End – Vertical Mill and Bridgeport

3

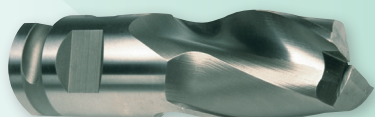
WARNING: This product contains Cobalt and/or Nickel and/or Lead a chemical known to the state of California to cause cancer or birth defects or other reproductive harm. For more information: www.prop65.ca.gov. **WARNING:** Cutting tools may shatter. Always wear approved safety glasses and mask when regrinding.



MILL DIA.	SHANK DIA.	FLUTE LENGTH	OAL	NO. OF FLUTES	ORDER NO.	PRICE EACH
3/4	5/8	1/2	2-5/8	4	2715-481	\$8.34
7/8	5/8	1/2	2-5/8	4	2715-561	10.38
1	3/4	1/2	2-3/4	4	2715-641	11.43
1	3/4	5/8	2-7/8	4	2715-642	11.43
1	3/4	3/4	3	4	2715-643	11.43
1-1/8	1/2	3/4	2-3/4	6	2715-721	17.55
1-1/8	5/8	3/4	2-7/8	6	2715-722	16.47
1-1/8	3/4	3/4	6	3	2715-723	16.47
1-1/4	1/2	3/4	2-3/4	6	2715-801	18.78
1-1/4	5/8	3/4	2-7/8	6	2715-802	17.82
1-3/8	5/8	3/4	2-7/8	6	2715-881	18.78

Sure-Lock Heavy Duty End Mills Combination Shanks – High Speed Steel

Two Flute



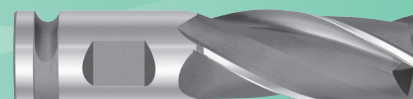
MILL DIA.	SHANK DIA.	FLUTE LENGTH	OAL	ORDER NO.	PRICE EACH
2	2	2	5-3/4	2671-281	\$179.10
2	2	3	6-3/4	2671-282	47.92
2	2	4	7-3/4	2671-283	57.05
2	2	6	9-3/4	2671-284	65.18
2-1/2	2	6	9-3/4	2671-602	102.08
2-1/2	2	4	7-3/4	2671-603	POA
2-1/2	2	6	9-3/4	2671-604	POA
2-1/2	2-1/2	6	10	2671-605	POA
2-1/2	2-1/2	8	11-3/4	2671-606	POA

Two Flute Ball



MILL DIA.	SHANK DIA.	FLUTE LENGTH	OAL	ORDER NO.	PRICE EACH
2	2	2	5-3/4	2681-279	POA
2	2	3	6-3/4	2681-280	POA
2	2	5	8-3/4	2681-281	POA

Three Flute



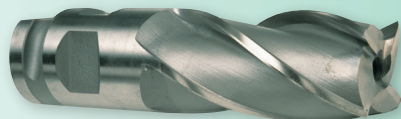
MILL DIA.	SHANK DIA.	FLUTE LENGTH	OAL	ORDER NO.	PRICE EACH
2	1-1/2	4	6-7/8	2681-257	POA
2	2	2	5-3/4	2681-258	POA
2	2	3	6-3/4	2681-259	POA
2	2	4	7-3/4	2681-260	POA
2	2	5	8-3/4	2681-261	POA
2	2	6	9-3/4	2681-262	POA
2	2	8	11-3/4	2681-263	POA
2	2	10	13-3/4	2681-264	POA
2-1/2	2	4	7-3/4	2681-265	POA
2-1/2	2	6	9-3/4	2681-266	POA
2-1/2	2	8	11-3/4	2681-267	POA
2-1/2	2-1/2	4	8	2681-268	POA
2-1/2	2-1/2	6	10	2681-269	POA
3	2-1/2	4	7-3/4	2681-270	POA

Six Flute



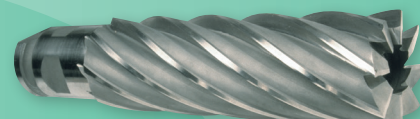
MILL DIA.	SHANK DIA.	FLUTE LENGTH	OAL	ORDER NO.	PRICE EACH
2	2	2	5-3/4	2675-281	\$43.15
2	2	2	6-3/4	2675-283	POA
2	2	4	7-3/4	2675-282	82.44
2	2	6	9-3/4	2675-284	POA
2	2	8	11-3/4	2675-285	POA
2	2	6	9-3/4	2675-286	POA
2	2	12	15-3/4	2675-287	POA
2-1/2	2	6	9-3/4	2675-288	POA
2-1/2	2	8	11-3/4	2675-289	POA
2-1/2	2-1/2	4	8	2675-290	POA
2-1/2	2-1/2	5	9	2675-291	POA
2-1/2	2-1/2	6	10	2675-292	POA
2-1/2	2-1/2	8	11-3/4	2675-293	POA
2-1/2	2-1/2	12	15-3/4	2675-294	POA
3	2-1/2	4	7-3/4	2675-295	POA
3	2-1/2	5	8-3/4	2675-296	POA
3	2-1/2	6	9-3/4	2675-297	POA
3	2-1/2	8	11-3/4	2675-298	POA
SIX FLUTE - BALL END					
2	2	4	7-3/4	2675-300	POA
2	2	6	9-3/4	2675-301	POA
2	2	8	11-3/4	2675-302	POA
2-1/2	2	6	9-3/4	2675-303	POA

Four Flute



MILL DIA.	SHANK DIA.	FLUTE LENGTH	OAL	ORDER NO.	PRICE EACH
1-1/2	1-1/2	2	5-3/4	2673-278	POA
2	1-1/2	4	6-7/8	2673-279	POA
2	2	2	5-3/4	2673-281	\$43.15
2	2	3	6-3/4	2673-280	POA
2	2	4	7-3/4	2673-282	79.73
2	2	6	9-3/4	2673-283	106.82
2-1/2	2	8	11-3/4	2673-603	107.50
2-1/2	2-1/2	4	8	2673-604	POA
2-1/2	2-1/2	5	9	2673-605	POA
2-1/2	2-1/2	6	10	2673-606	POA
2-1/2	2-1/2	8	11-3/4	2673-607	POA

Eight Flute



MILL DIA.	SHANK DIA.	FLUTE LENGTH	OAL	ORDER NO.	PRICE EACH
3	2-1/2	8	11-3/4	2677-923	\$160.98
3	2-1/2	10	13-3/4	2677-924	185.00

M42 8% Cobalt Roughing End Mills

Coarse Tooth – Non-Center Cutting

3

WARNING: This product contains Cobalt and/or Nickel and/or Lead a chemical known to the state of California to cause cancer or birth defects or other reproductive harm. For more information: www.prop65.ca.gov.
WARNING: Cutting tools may shatter. Always wear approved safety glasses and mask when regrounding.



Uncoated



TiN Coated

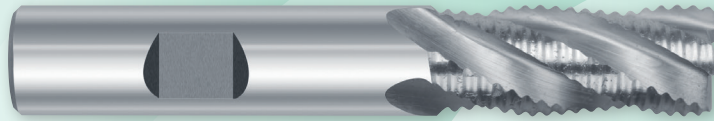
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SIZE										
MILL DIA.	SHANK DIA.	FLUTE LENGTH	OAL	NO. OF FLUTES	ORDER NO.	PRICE EACH	ORDER NO.	PRICE EACH	ORDER NO.	PRICE EACH
1/4	3/8	5/8	2-7/16	3	2701-200	\$ 30.21	—	—	—	—
5/16	3/8	3/4	2-1/2	3	2701-201	30.21	—	—	2702-420	\$51.65
3/8	3/8	3/4	2-1/2	4	2701-241	31.12	3880-241	\$46.01	2702-424	54.34
1/2	1/2	1-1/4	3-1/4	4	2701-321	42.50	3880-322	62.10	2702-432	70.38
1/2	1/2	2	4	4	2701-322	78.69	3880-323	132.48	2702-434	34.04
1/2	1/2	3	5	4	2701-323	35.31	—	—	—	—
5/8	5/8	1-5/8	3-3/4	4	2701-401	52.75	3880-401	76.59	2702-440	89.01
5/8	5/8	2-1/2	4-5/8	4	2701-402	163.04	—	—	2702-442	42.45
3/4	5/8	1-5/8	3-3/4	4	2701-481	61.25	—	—	2702-446	100.56
3/4	5/8	3	5-1/8	4	2701-482	182.08	—	—	—	—
3/4	3/4	1-5/8	3-7/8	4	2701-483	68.20	3880-483	99.15	2702-448	100.56
3/4	3/4	3	5-1/4	4	2701-485	182.08	3880-484	99.88	2702-450	45.72
7/8	3/4	1-5/8	4-1/4	4	2701-561	POA	—	—	—	—
7/8	3/4	1-3/4	3-7/8	5	—	—	3880-562	62.72	—	—
7/8	3/4	1-7/8	4-1/8	5	2701-562	68.69	—	—	2702-454	122.13
7/8	3/4	3-1/2	5-5/8	5	2701-563	230.90	3880-563	77.59	2702-455	69.31
7/8	7/8	1-7/8	4-1/8	5	2701-565	68.69	—	—	2702-456	49.41
7/8	7/8	3-1/2	5-5/8	4	2701-566	230.90	—	—	—	—
1	3/4	2	4-1/4	5	2701-642	93.93	—	—	2702-462	151.63
1	3/4	4	6-1/4	5	2701-643	247.65	—	—	—	—
1	1	2	4-1/2	5	2701-645	93.93	3880-645	136.62	2702-464	151.63
1	1	3	5-1/2	5	—	—	3880-646	331.20	—	—
1	1	4	6-1/2	5	2701-648	247.65	3880-647	92.84	2702-466	73.35
1-1/8	3/4	2	4-1/4	6	2701-721	99.62	—	—	2702-470	185.78
1-1/8	1	2	4-1/2	6	2701-722	99.62	3880-722	168.19	2702-472	185.78
1-1/4	3/4	2	4-1/4	6	2701-799	115.75	—	—	2702-478	208.14
1-1/4	3/4	4	6-1/4	6	2701-801	338.38	—	—	2702-479	126.88
1-1/4	1-1/4	2	4-1/2	6	2701-803	115.75	3880-803	104.44	2702-482	85.71
1-1/4	1-1/4	3	5-1/2	6	—	—	3880-804	390.00	—	—
1-1/4	1-1/4	4	6-1/2	6	2701-805	338.38	3880-805	135.79	2702-483	126.88
1-1/2	3/4	2	4-1/4	6	2701-961	149.49	—	—	2702-486	112.63
1-1/2	3/4	4	6-1/4	6	2701-962	437.18	—	—	2702-487	136.79
1-1/2	1-1/4	2	4-1/2	6	2701-963	149.49	3880-963	217.35	2702-492	243.74
1-1/2	1-1/4	4	6-1/2	6	2701-965	568.34	3880-965	192.95	2702-493	154.74
1-1/2	1-1/4	6	8-1/2	6	—	—	3880-966	POA	—	—
1-3/4	1-1/4	2	4-1/2	6	2702-121	173.89	—	—	—	—
1-3/4	1-1/4	4	6-1/2	6	2702-122	585.65	3881-222	POA	—	—
2	1-1/4	2	4-1/2	8	2702-279	203.23	3881-279	294.98	—	—
2	1-1/4	4	6-1/2	8	2702-280	943.82	3881-280	POA	—	—
2	2	2	5-3/4	8	2702-281	208.73	—	—	—	—
2	2	4	7-3/4	8	—	—	3881-282	1260.00	—	—
2	2	6	9-3/4	8	—	—	3881-284	1350.00	—	—

Limited Quantities

M42 8% Cobalt Roughing End Mills

WARNING: This product contains Cobalt and/or Nickel and/or Lead a chemical known to the state of California to cause cancer or birth defects or other reproductive harm. For more information: www.prop65.ca.gov.
WARNING: Cutting tools may shatter. Always wear approved safety glasses and mask when regrounding.

Fine Tooth – Non-Center Cutting



3

3

Rougher/Finisher – Center Cutting



Designed to machine materials such as titanium, magnesium and free machining stainless steel alloys. Gold finish. Cobalt, Right Hand, Center Cutting. 2

 									
DIA.	SHANK DIA.	FLUTE LENGTH	OAL	NO. OF FLUTES	ORDER NO.	PRICE EACH	ORDER NO.	PRICE EACH	
1/4	3/8	5/8	2-7/16	3	2702-516	\$32.51	3850-239	POA	
1/4	3/8	5/16	2-7/16	4	2702-517	POA	—	—	
1/4	3/8	5/8	2-7/16	4	2702-518	POA	—	—	
1/4	3/8	1-1/4	3-1/16	4	2702-519	POA	—	—	
5/16	3/8	3/4	2-1/2	3	2702-520	32.51	—	—	
5/16	3/8	3/4	2-1/2	4	2702-521	POA	—	—	
5/16	3/8	1-3/8	3-1/8	4	2702-522	POA	—	—	
3/8	3/8	7/16	2-1/2	4	2702-523	POA	—	—	
3/8	3/8	3/4	2-1/2	4	2702-524	34.39	3850-241	\$46.01	
3/8	3/8	1-1/2	3-1/4	4	2702-525	POA	—	—	
1/2	1/2	1-1/4	3-1/4	4	2702-532	45.31	3850-322	62.10	
1/2	1/2	2	4	4	2702-534	51.75	3850-323	82.80	
9/16	1/2	1-3/8	2-7/8	4	2702-535	POA	—	—	
5/8	5/8	3/4	2-7/8	4	2702-536	POA	—	—	
5/8	5/8	1-5/8	3-3/4	4	2702-540	59.28	3850-401	76.59	
5/8	5/8	2-1/2	4-5/8	4	2702-542	71.88	—	—	
3/4	5/8	1-5/8	3-3/4	4	2702-546	67.41	3850-403	POA	
3/4	3/4	1-5/8	3-3/4	4	2702-547	POA	—	—	
3/4	3/4	1-5/8	3-3/4	4	2702-548	70.00	3850-483	99.15	
3/4	3/4	3	5-1/4	4	2702-549	POA	—	—	
3/4	3/4	3	5-1/4	4	2702-550	81.60	—	—	
7/8	3/4	1-5/8	4-1/8	5	2702-551	POA	3850-561	POA	
7/8	3/4	1-3/4	4-1/8	5	—	—	3850-562	99.88	
7/8	3/4	1-5/8	4-1/8	5	2702-553	POA	—	—	
7/8	3/4	1-7/8	4-1/8	5	2702-554	76.42	—	—	
7/8	3/4	3-1/2	5-5/8	5	2702-555	106.95	—	—	
7/8	7/8	1-7/8	4-1/8	5	2702-556	76.42	3850-564	POA	
7/8	7/8	3-1/2	5-3/4	5	2702-557	POA	—	—	
1	3/4	2	4-1/4	5	2702-562	111.99	3850-565	POA	
1	3/4	2	4-1/2	5	2702-563	POA	—	—	
1	1	2	4-1/2	5	2702-564	111.99	3850-645	136.62	
1	1	3	5-1/2	5	—	—	3850-646	138.00	
1	1	4	6-1/2	5	2702-566	126.91	—	—	
1	1	4	6-1/2	6	2702-567	POA	—	—	
1-1/8	3/4	2	4-1/4	6	2702-570	125.50	—	—	
1-1/8	1	2	4-1/2	6	2702-572	109.13	—	—	
1-1/4	3/4	2	4-1/4	6	2702-578	81.38	3850-655	POA	
1-1/4	1	2	4-1/2	6	2702-580	POA	—	—	
1-1/4	1-1/4	2	4-1/2	6	2702-582	132.54	—	—	
1-1/4	1-1/4	3	5-1/2	6	2702-581	POA	3850-803	POA	
1-1/4	1-1/4	4	6-1/2	6	2702-583	147.41	—	—	
1-1/2	3/4	2	4-1/4	6	2702-586	101.08	—	—	
1-1/2	3/4	4	6-1/4	6	2702-587	146.90	—	—	
1-1/2	1-1/4	4	6-1/2	6	2702-588	POA	—	—	
1-1/2	1-1/4	2	4-1/2	6	2702-592	155.55	3850-963	217.35	
1-1/2	1-1/4	3	5-1/2	6	2702-589	POA	—	—	
1-1/2	1-1/4	4	6-1/2	6	2702-593	186.88	—	—	
1-1/2	1-1/4	6	8-1/2	6	—	—	3850-966	POA	
1-3/4	1-1/4	2	4-1/2	6	2702-590	POA	—	—	
2	1-1/4	2	4-1/2	8	2702-592	155.55	3851-224	POA	
2	1-1/4	3	5-1/2	8	2702-593	186.88	—	—	
2	1-1/4	4	6-1/2	8*	2702-594	POA	—	—	
2	2	2	5-3/4	8	2702-595	POA	—	—	
2	2	3	6-3/4	8	2702-596	POA	3851-232	POA	
2	2	4	7-3/4	8	2702-597	POA	3851-234	POA	

*USA - 6 Flute

									
DIA.	SHANK DIA.	FLUTE LENGTH	OAL	NO. OF FLUTES	ORDER NO.	PRICE EACH			
REGULAR FLUTE LENGTH									
1/2	1/2	1-1/4	3-1/4	4	3987-228	\$ 52.48			
5/8	5/8	1-5/8	3-3/4	4	3987-236	67.80			
3/4	3/4	1-5/8	3-7/8	4	3987-245	74.34			
3/4	3/4	1-5/8	3-7/8	6	3987-246	78.10			
7/8	7/8	1-7/8	4-1/8	4	3987-254	125.44			
1	1	2	4-1/2	4	3987-266	126.96			
1	1	2	4-1/2	6	3987-267	131.65			
1-1/4	1-1/4	2	4-1/2	6	3987-275	183.21			
1-1/2	1-1/4	2	4-1/2	6	3987-283	219.39			
2	1-1/4	2	4-1/2	6	3987-292	466.01			
2	2	2	5-3/4	6	3987-296	510.83			
MEDIUM FLUTE									
5/8	5/8	3	5-1/8	4	3987-437	\$ 116.96			
1	1	3	5-1/2	4	3987-467	183.28			
1	1	3	5-1/2	6	3987-468	187.43			
1-1/4	1-1/4	3	5-1/2	6	3987-476	235.36			
1-1/2	1-1/4	3	5-1/2	6	3987-484	271.35			
2	2	3	6-3/4	6	3987-497	540.64			
LONG FLUTE									
1/2	1/2	3	5	4	3987-630	\$ 71.31			
5/8	5/8	2-1/2	4-5/8	4	3987-638	102.95			
3/4	3/4	3	5-1/4	4	3987-647	121.40			
3/4	3/4	3	5-1/4	6	3987-648	132.64			
7/8	7/8	3-1/2	5-3/4	4	3987-656	171.69			
1	1	4	6-1/2	4	3987-668	221.06			
1	1	4	6-1/2	6	3987-669	226.50			
1-1/4	1-1/4	4	6-1/2	6	3987-677	300.43			
1-1/2	1-1/4	4	6-1/2	6	3987-685	331.03			
2	2	4	7-3/4	6	3987-698	566.28			
EXTRA LONG FLUTE									
1/2	1/2	3	5	4	3987-831	\$ 95.64			
5/8	5/8	4	6-1/8	4	3987-839	138.30			
3/4	3/4	4	6-1/4	4	3987-847	154.56			
3/4	3/4	4	6-1/4	6	3987-848	161.18			
1	1	6	8-1/2	4	3987-868	294.71			
1	1	6	8-1/2	6	3987-869	301.36			
1-1/4	1-1/4	6	8-1/2	6	3987-878	392.23			
1-1/2	1-1/4	6	8-1/2	6	3987-886	508.29			
2	2	6	9-3/4	6	3987-899	758.01			

Tapered End Mills

Three Flute – R.H. Cut – R.H. Spiral – High Speed Steel

1

WARNING: This product contains Cobalt and/or Nickel and/or Lead a chemical known to the state of California to cause cancer or birth defects or other reproductive harm. For more information: www.pro65.ca.gov. **WARNING:** Cutting tools may shatter. Always wear approved safety glasses and mask when regrinding.

TOOL NO.	DIA.	SHANK DIA.	FLUTE LENGTH	OAL	ORDER NO.	PRICE EACH
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1/2° TAPER PER SIDE



05-102	3/32	3/8	1/2	2-1/2	2726-001	\$16.45
05-103	3/32	3/8	3/4	2-1/2	2726-002	17.65
05-105	3/32	3/8	1-1/4	3-1/8	2726-004	20.05
05-201	1/8	3/8	1/4	2-1/2	2726-010	15.35
05-202	1/8	3/8	1/2	2-1/2	2726-011	16.60
05-203	1/8	3/8	3/4	2-1/2	2726-012	17.65
05-204	1/8	3/8	1	2-7/8	2726-013	19.70
05-205	1/8	3/8	1-1/4	3-1/8	2726-014	20.90
05-206	1/8	3/8	1-1/2	3-1/4	2726-015	22.95
05-303	3/16	3/8	3/4	2-1/2	2726-025	17.70
05-305	3/16	3/8	1-1/4	3-1/8	2726-027	21.60
05-313	3/16	3/8	3-1/4	5-1/2	2726-035	47.85
05-403	1/4	3/8	3/4	2-1/2	2726-041	17.90
05-405	1/4	3/8	1-1/4	3-1/8	2726-042	22.60
05-409	1/4	1/2	2-1/4	4-1/4	2726-043	31.70
05-413	1/4	1/2	3-1/4	5-1/2	2726-044	42.20
05-605	3/8	1/2	1-1/4	3-1/8	2726-050	29.25
05-609	3/8	1/2	2-1/4	4-1/4	2726-051	35.00
05-613	3/8	1/2	3-1/4	5-1/2	2726-052	46.85
05-805	1/2	1/2	1-1/4	3-1/8	2726-058	34.25
05-809	1/2	1/2	2-1/4	4-1/4	2726-059	41.25
05-813	1/2	1/2	3-1/4	5-1/2	2726-060	49.15
05-1013	5/8	5/8	3-1/4	5-1/2	2726-067	61.65
05-1017	5/8	5/8	4-1/4	6-1/2	2726-068	69.60
05-1213	3/4	3/4	3-1/4	5-3/4	2726-074	70.35

1° TAPER PER SIDE



1-102	3/32	3/8	1/2	2-1/2	2726-087	\$ 16.65
1-103	3/32	3/8	3/4	2-1/2	2726-088	17.85
1-105	3/32	3/8	1-1/4	3-1/8	2726-089	20.30
1-201	1/8	3/8	1/4	2-1/2	2726-095	16.00
1-202	1/8	3/8	1/2	2-1/2	2726-096	16.75
1-203	1/8	3/8	3/4	2-1/2	2726-097	17.90
1-204	1/8	3/8	1	2-7/8	2726-098	19.85
1-205	1/8	3/8	1-1/4	3-1/8	2726-099	21.00
1-206	1/8	3/8	1-1/2	3-1/4	2726-100	23.30
1-303	3/16	3/8	3/4	2-1/2	2726-108	18.10
1-305	3/16	3/8	1-1/4	3-1/8	2726-109	21.70
1-313	3/16	3/8	3-1/4	5-1/2	2726-111	49.45
1-403	1/4	3/8	3/4	2-1/2	2726-117	18.25
1-405	1/4	3/8	1-1/4	3-1/8	2726-118	22.75
1-409	1/4	1/2	2-1/4	4-1/4	2726-119	33.90
1-413	1/4	1/2	3-1/4	5-1/2	2726-120	46.00
1-605	3/8	1/2	1-1/4	3-1/8	2726-126	27.75
1-609	3/8	1/2	2-1/4	4-1/4	2726-127	37.75
1-613	3/8	1/2	3-1/4	5-1/2	2726-128	49.35
1-805	1/2	1/2	1-1/4	3-1/8	2726-134	34.85
1-809	1/2	1/2	2-1/4	4-1/4	2726-135	42.90
1-813	1/2	1/2	3-1/4	5-1/2	2726-136	52.30
1-1013	5/8	5/8	3-1/4	5-1/2	2726-143	63.65
1-1017	5/8	5/8	4-1/4	6-1/2	2726-144	72.65
1-1213	3/4	3/4	3-1/4	5-3/4	2726-160	75.95
1-1221	3/4	3/4	4-1/4	7-3/4	2726-161	133.95
1-1624	1	1	6	8-1/2	2726-167	172.75

1-1/2° TAPER PER SIDE



15-102	3/32	3/8	1/2	2-1/2	2726-173	\$16.80
15-103	3/32	3/8	3/4	2-1/2	2726-174	18.05
15-104	3/32	3/8	1	2-7/8	2726-175	19.90
15-105	3/32	3/8	1-1/4	3-1/8	2726-176	20.50
15-106	3/32	3/8	1-1/2	3-1/4	2726-177	21.80
15-154	7/64	3/8	1	2-7/8	2726-183	20.15
15-156	7/64	3/8	1-1/2	3-1/4	2726-185	22.15
15-202	1/8	3/8	1/2	2-1/2	2726-191	16.90
15-203	1/8	3/8	3/4	2-1/2	2726-192	18.10
15-204	1/8	3/8	1	2-7/8	2726-193	20.30
15-205	1/8	3/8	1-1/4	3-1/8	2726-194	21.45
15-206	1/8	3/8	1-1/2	3-1/4	2726-195	23.45
15-208	1/8	3/8	2	3-7/8	2726-196	29.80
15-254	5/32	3/8	1	2-7/8	2726-203	20.40
15-256	5/32	3/8	1-1/2	3-1/4	2726-205	23.45
15-303	3/16	3/8	3/4	3-1/2	2726-211	18.25
15-305	3/16	3/8	1-1/4	3-1/8	2726-212	21.85
15-310	3/16	1/2	2-1/2	4-1/2	2726-213	40.80
15-313	3/16	3/8	3-1/4	5-1/2	2726-214	50.25
15-403	1/4	3/8	3/4	2-1/2	2726-230	18.40
15-405	1/4	3/8	1-1/4	3-1/8	2726-231	22.90
15-409	1/4	1/2	2-1/4	4-1/4	2726-232	33.05
15-413	1/4	1/2	3-1/4	5-1/2	2726-233	48.20
15-605	3/8	1/2	1-1/4	3-1/8	2726-239	30.15

TOOL NO.	DIA.	SHANK DIA.	FLUTE LENGTH	OAL	ORDER NO.	PRICE EACH
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1-1/2° TAPER PER SIDE, con't.

15-609	3/8	1/2	2-1/4	4-1/4	2726-240	\$39.50
15-613	3/8	5/8	3-1/4	5-1/2	2726-241	50.25
15-805	1/2	1/2	1-1/4	3-1/8	2726-247	34.95
15-809	1/2	1/2	2-1/4	4-1/4	2726-248	44.15
15-813	1/2	5/8	3-1/4	5-1/2	2726-249	57.65
15-1624	1	1-1/4	6	8-1/2	2726-268	217.15

2° TAPER PER SIDE



2-102	3/32	3/8	1/2	2-1/2	2726-274	\$ 17.10
2-103	3/32	3/8	3/4	2-1/2	2726-275	18.20
2-202	1/8	3/8	1/2	2-1/2	2726-281	17.15
2-203	1/8	3/8	3/4	2-1/2	2726-282	18.25
2-204	1/8	3/8	1	2-7/8	2726-283	20.55
2-205	1/8	3/8	1-1/4	3-1/8	2726-284	22.70
2-206	1/8	3/8	1-1/2	3-1/4	2726-285	23.60
2-303	3/16	3/8	3/4	2-1/2	2726-293	18.40
2-305	3/16	3/8	1-1/4	3-1/8	2726-294	22.35
2-313	3/16	1/2	3-1/4	5-1/2	2726-296	51.80
2-403	1/4	3/8	3/4	2-1/2	2726-302	18.60
2-405	1/4	3/8	1-1/4	3-1/8	2726-303	23.10
2-409	1/4	1/2	2-1/4	4-1/4	2726-304	35.35
2-413	1/4	1/2	3-1/4	5-1/2	2726-305	52.60
2-605	3/8	1/2	1-1/4	3-1/8	2726-311	32.80
2-609	3/8	1/2	2-1/4	4-1/4	2726-312	41.10
2-613	3/8	5/8	3-1/4	5-1/2	2726-313	54.95
2-805	1/2	1/2	1-1/4	3-1/8	2726-319	35.35
2-809	1/2	1/2	2-1/4	4-1/4	2726-320	44.65
2-813	1/2	5/8	3-1/4	5-1/2	2726-321	65.60
2-1017	5/8	3/4	4-1/4	6-1/2	2726-330	80.20
2-1221	3/4	1	5-1/4	7-3/4	2726-338	154.35
2-1624	1	1-1/4	6	8-1/2	2726-344	252.50

3° TAPER PER SIDE



3-004	.062	3/8	1	2-7/8	2726-350	\$21.30
3-006	.070	3/8	1-1/2	3-1/4	2726-351	23.30
3-103	3/32	3/8	3/4	2-1/2	2726-357	18.35
3-104	3/32	3/8	1	2-7/8	2726-358	20.20
3-105	3/32	3/8	1-1/4	3-1/8	2726-359	20.90
3-106	3/32	3/8	1-1/2	3-1/4	2726-360	21.85
3-108	3/32	3/8	2	3-5/8	2726-361	25.25
3-110	3/32	1/2	2-1/2	4-1/2	2726-362	33.15
3-154	7/64	3/8	1	2-7/8	2726-368	20.20
3-156	7/64	3/8	1-1/2	3-1/4	2726-370	22.40
3-158	7/64	3/8	2	3-5/8	2726-371	25.40
3-203	1/8	3/8	3/4	2-1/2	2726-378	18.55
3-204	1/8	3/8	1	2-7/8	2726-379	20.75
3-205	1/8	3/8	1-1/4	3-1/8	2726-380	21.45
3-206	1/8	3/8	1-1/2	3-1/4	2726-381	22.40
3-208	1/8	3/8	2	3-5/8	2726-382	32.75
3-210	1/8	1/2	2-1/2	4-1/2	2726-383	37.30
3-254	5/32	3/8	1	2-7/8	2726-389	20.95
3-256	5/32	3/8	1-1/2	3-1/4	2726-391	22.70
3-303	3/16	3/8	3/4	2-1/2	2726-398	18.90
3-305	3/16	3/8	1-1/4	3-1/8	2726-399	22.90
3-310	3/16	1/2	2-1/2	4-1/2	2726-401	43.50
3-313	3/16	5/8	3-1/4	5-1/2	2726-402	57.45
3-403	1/4	3/8	3/4	2-1/2	2726-409	19.70
3-405	1/4	3/8	1-1/4	3-1/8	2726-410	23.30
3-409	1/4	1/2	2-1/4	4-1/4	2726-411	39.70
3-413	1/4	5/8	3-1/4	5-1/2	2726-412	66.55
3-605	3/8	1/2	1-1/4	3-1/8	2726-419	33.95
3-609	3/8	5/8	2-1/4	4-1/4	2726-420	42.90
3-613	3/8	3/4	3-1/4	5-1/2	2726-421	77.90
3-805	1/2	1/2	1-1/4	3-1/8	2726-430	36.45
3-809	1/2	5/8	2-1/4	4-1/4	2726-431	53.05
3-813	1/2	3-1/4	3/4	5-1/2	2726-432	86.90

4° TAPER PER SIDE

4-305	3/16	3/8	1-1/4	3-1/8	2726-477	\$27.70
4-613	3/8	3/4	3-1/4	5-1/2	2726-498	87.50

5° TAPER PER SIDE



5-004	.062	3/8	1	2-7/8	2726-513	\$21.85
5-006	.070	3/8	1-1/2	3-1/4	2726-514	24.85
5-102	3/32	3/8	1/2	2-1/2	2726-520	21.45
5-103	3/32	3/8	3/4	2-1/2	2726-521	18.55
5-104	3/32	3/8	1	2-7/8	2726-522	20.50
5-105	3/32	3/8	1-1/4	3-1/8	2726-523	21.60

TOOL NO.	DIA.	SHANK DIA.	FLUTE LENGTH	OAL	ORDER NO.	PRICE EACH
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5° TAPER PER SIDE, con't.

5-106	3/32	3/8</
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End Mills – Solid Carbide – Square End

Single End– Regular Length

Square End

Cutting Edge Tolerance: +.000, -.002

DIA.	SHANK DIA.	FLUTE LENGTH	OAL	UNCOATED				ALTiN COATED			
				2 FLT. ORDER NO.	PRICE EACH	4 FLT. ORDER NO.	PRICE EACH	2 FLT. ORDER NO.	PRICE EACH	4 FLT. ORDER NO.	PRICE EACH
1/32	1/8	3/32	1-1/2	2970-002	\$ 15.27	2970-402	\$ 15.27	2970-102	\$ 21.14	2970-502	\$ 21.14
3/64	1/8	1/8	1-1/2	2970-003	15.27	2970-403	15.27	2970-103	21.14	2970-503	21.14
1/16	1/8	3/16	1-1/2	2970-004	12.52	2970-404	12.52	2970-104	18.59	2970-504	18.59
5/64	1/8	3/16	1-1/2	2970-005	13.46	2970-405	13.46	2970-105	19.75	2970-505	19.75
3/32	3/8	1/8	1-1/2	2970-006	12.52	2970-406	12.52	2970-106	18.59	2970-506	18.59
7/64	3/8	1/8	1-1/2	2970-007	13.46	2970-407	13.46	2970-107	19.75	2970-507	19.75
1/8	1/8	1/2	1-1/2	2970-008	12.52	2970-408	12.52	2970-108	18.59	2970-508	18.59
9/64	3/16	9/16	2	2970-009	17.65	2970-409	17.65	2970-109	23.23	2970-509	23.23
5/32	3/16	9/16	2	2970-010	17.24	2970-410	17.24	2970-110	23.00	2970-510	23.00
11/64	3/16	5/8	2	2970-011	17.65	2970-411	17.65	2970-111	23.69	2970-511	23.69
3/16	3/16	5/8	2	2970-012	17.65	2970-412	17.65	2970-112	23.69	2970-512	23.69
13/64	1/4	5/8	2-1/2	2970-013	21.63	2970-413	21.63	2970-113	34.27	2970-513	34.27
7/32	1/4	5/8	2-1/2	2970-014	21.63	2970-414	21.63	2970-114	34.27	2970-514	34.27
15/64	1/4	3/4	2-1/2	2970-015	23.35	2970-415	23.35	2970-115	36.47	2970-515	36.47
1/4	1/4	3/4	2-1/2	2970-016	22.72	2970-416	22.72	2970-116	36.01	2970-516	36.01
17/64	5/16	3/4	2-1/2	2970-017	27.74	2970-417	27.74	2970-117	45.30	2970-517	45.30
9/32	5/16	3/4	2-1/2	2970-018	26.08	2970-418	26.08	2970-118	44.72	2970-518	44.72
19/64	5/16	13/16	2-1/2	2970-019	27.74	2970-419	27.74	2970-119	45.30	2970-519	45.30
5/16	5/16	13/16	2-1/2	2970-020	25.62	2970-420	25.62	2970-120	43.80	2970-520	36.50
21/64	3/8	7/8	2-1/2	2970-021	36.43	2970-421	36.43	2970-121	52.86	2970-521	52.86
11/32	3/8	7/8	2-1/2	2970-022	34.16	2970-422	34.16	2970-122	51.34	2970-522	51.34
23/64	3/8	7/8	2-1/2	2970-023	36.43	2970-423	36.43	2970-123	52.86	2970-523	52.86
3/8	3/8	7/8	2-1/2	2970-024	33.12	2970-424	33.12	2970-124	51.86	2970-524	51.86
25/64	7/16	7/8	2-1/2	2970-025	52.79	2970-425	52.79	2970-125	69.92	2970-525	69.92
13/32	7/16	7/8	2-1/2	2970-026	33.12	2970-426	33.12	2970-126	51.86	2970-526	51.86
27/64	7/16	7/8	2-1/2	2970-027	52.79	2970-427	52.79	2970-127	69.92	2970-527	69.92
7/16	7/16	7/8	2-1/2	2970-028	47.61	2970-428	47.61	2970-128	68.53	2970-528	68.53
29/64	7/16	1	3	2970-029	63.54	2970-429	63.54	2970-129	86.63	2970-529	86.63
15/32	1/2	1	3	2970-030	61.07	2970-430	61.07	2970-130	81.19	2970-530	81.19
31/64	1/2	1	3	2970-031	63.54	2970-431	63.54	2970-131	86.63	2970-531	86.63
1/2	1/2	1	3	2970-032	55.27	2970-432	55.27	2970-132	76.32	2970-532	76.32
9/16	9/16	1-1/4	3	2970-036	101.43	2970-436	101.43	2970-136	121.88	2970-536	121.88
5/8	5/8	1-1/4	3-1/2	2970-040	105.57	2970-440	105.57	2970-140	120.43	2970-540	120.43
11/16	3/4	1-1/2	4	2970-044	153.18	2970-444	153.18	2970-144	200.10	2970-544	200.10
3/4	3/4	1-1/2	4	2970-048	169.02	2970-448	169.02	2970-148	173.12	2970-548	108.70
13/16	7/8	1-1/2	4	2970-052	340.41	2970-452	340.41	–	–	–	–
7/8	7/8	1-1/2	4	2970-056	299.94	2970-456	299.94	2970-156	293.98	2970-556	293.98
15/16	1	1-1/2	4	2970-060	335.18	2970-460	335.18	–	–	–	–
1	1	1-1/2	4	2970-064	264.96	2970-464	304.70	2970-164	271.06	2970-564	298.16

Sizes over 1" POA

Uncoated



2 Flute Square End

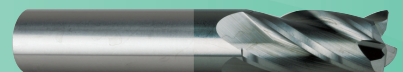


4 Flute Square End

ALTiN Coated



2 Flute Square End



4 Flute Square End

Single End– Extra Long– Square End

2

DIA.	SHANK DIA.	FLUTE LENGTH	OAL	UNCOATED			ALTiN COATED		
				2 FLT. ORDER NO.	4 FLT. ORDER NO.	PRICE EACH	2 FLT. ORDER NO.	4 FLT. ORDER NO.	PRICE EACH
1/8	1/8	1	3	6320-808	6320-908	\$ 34.98	6321-308	6321-408	\$ 50.28
3/16	3/16	1-1/8	3	6320-812	6320-912	40.26	6321-312	6321-412	57.86
1/4	1/4	1-1/2	4	6320-816	6320-916	49.50	6321-316	6321-416	70.43
5/16	5/16	1-5/8	4	6320-820	6320-920	63.23	6321-320	6321-420	90.79
3/8	3/8	1-3/4	4	6320-824	6320-924	92.10	6321-324	6321-424	119.52
3/8	3/8	1-3/4	6	6320-825	6320-925	POA	6321-325	6321-425	57.40
7/16	7/16	2	4	6320-828	6320-928	87.92	6321-328	6321-428	124.80
7/16	7/16	3	6	6320-829	6320-929	166.13	6321-329	6321-429	190.13
1/2	1/2	2	4	6320-832	6320-932	107.53	6321-332	6321-432	150.00
1/2	1/2	3	6	6320-833	6320-933	170.28	6321-333	6321-433	193.44
5/8	5/8	2-1/4	5	6320-840	6320-940	254.59	6321-340	6321-440	318.00
5/8	5/8	3	6	6320-841	6320-941	312.84	6321-341	6321-441	336.84
3/4	3/4	2-1/4	5	6320-848	6320-948	335.75	6321-348	6321-448	396.00
3/4	3/4	3	6	6320-849	6320-949	393.36	6321-349	6321-449	420.00
1	1	3	6	6320-866	6320-966	580.80	6321-366	6321-466	687.12

Uncoated or ALTiN Coated



Four Flutes



Two Flutes

WARNING: This product contains Cobalt and/or Nickel and/or Lead a chemical known to the state of California to cause cancer or birth defects or other reproductive harm. For more information: www.prop65.ca.gov.
WARNING: Cutting tools may shatter. Always wear approved safety glasses and mask when regrinding.

End Mills – Solid Carbide – Single End



WARNING: This product contains Cobalt and/or Nickel and/or Lead a chemical known to the state of California to cause cancer or birth defects or other reproductive harm. For more information: www.prop65.ca.gov. **WARNING:** Cutting tools may shatter. Always wear approved safety glasses and mask when regrinding.

Four Flute Corner Radius Endmills

Cutting Edge Tolerance: +.000 - .002



UNCOATED				.015 RADIUS		.020 RADIUS		.030 RADIUS		.045 RADIUS		.060 RADIUS	
DIA.	SHANK DIA.	FLUTE LENGTH	OAL	ORDER NO.	PRICE EACH	ORDER NO.	PRICE EACH	ORDER NO.	PRICE EACH	ORDER NO.	PRICE EACH	ORDER NO.	PRICE EACH
1/8	1/8	1/4	1-1/2	2970-800	\$8.90	2970-801	\$8.90	2970-802	POA	2970-803	POA	2970-804	POA
3/16	3/16	3/8	2	2970-805	12.85	2970-806	12.85	2970-807	POA	2970-808	POA	2970-809	POA
1/4	1/4	1/2	2	2970-810	15.15	2970-811	15.15	2970-812	\$15.15	2970-813	POA	2970-814	POA
5/16	5/16	1/2	2	2970-815	POA	2970-816	20.15	2970-817	POA	2970-818	POA	2970-819	\$20.15
3/8	3/8	5/8	2	2970-820	POA	2970-821	23.95	2970-822	POA	2970-823	POA	2970-824	POA
1/2	1/2	5/8	2-1/2	2970-825	POA	2970-826	39.55	2970-827	39.55	2970-828	POA	2970-829	POA
5/8	5/8	3/4	3	2970-830	POA	2970-831	POA	2970-832	POA	2970-833	POA	2970-834	POA
3/4	3/4	1	3	2970-835	POA	2970-836	POA	2970-837	95.65	2970-838	\$95.65	2970-839	POA



ALTiN COATED				.015 RADIUS		.020 RADIUS		.030 RADIUS		.045 RADIUS		.060 RADIUS	
DIA.	SHANK DIA.	FLUTE LENGTH	OAL	ORDER NO.	PRICE EACH	ORDER NO.	PRICE EACH	ORDER NO.	PRICE EACH	ORDER NO.	PRICE EACH	ORDER NO.	PRICE EACH
1/8	1/8	1/4	1-1/2	2970-850	POA	2970-851	POA	2970-852	POA	2970-853	POA	2970-854	POA
3/16	3/16	3/8	2	2970-855	\$15.30	2970-856	\$15.30	2970-857	POA	2970-858	POA	2970-859	POA
1/4	1/4	1/2	2	2970-860	20.10	2970-861	20.10	2970-862	\$20.10	2970-863	POA	2970-864	POA
5/16	5/16	1/2	2	2970-865	27.55	2970-866	27.55	2970-867	27.55	2970-868	POA	2970-869	\$27.55
3/8	3/8	5/8	2	2970-870	31.40	2970-871	31.40	2970-872	31.40	2970-873	POA	2970-874	31.40
1/2	1/2	5/8	2-1/2	2970-875	POA	2970-876	POA	2970-877	48.70	2970-878	POA	2970-879	48.70
5/8	5/8	3/4	3	2970-880	POA	2970-881	POA	2970-882	POA	2970-883	POA	2970-884	POA
3/4	3/4	1	3	2970-885	POA	2970-886	POA	2970-887	112.40	2970-888	\$112.40	2970-889	POA

Two Flute Drill Mills



Cutting Edge Tolerance: +.000 - .002, 90 Degree Angle. A true "multi-function" tool, allowing 90° spotting, 45° chamfering, full slotting, and peripheral milling in a wide variety of materials. NOT intended for drilling ferrous materials."

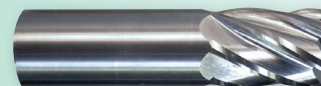
UNCOATED				ALTiN COATED			
DIA.	SHANK DIA.	FLUTE LENGTH	OAL	ORDER NO.	PRICE EACH	ORDER NO.	PRICE EACH
1/4	1/4	3/4	2-1/2	2963-116	\$54.00	2963-216	\$70.89
5/16	5/16	7/8	2-1/2	2963-120	68.37	2963-220	92.06
3/8	3/8	7/8	2-1/2	2963-124	84.84	2963-224	108.86
7/16	7/16	1	2-1/2	2963-128	115.92	2963-228	145.32
1/2	1/2	1	3	2963-132	140.78	2963-232	170.18

Metric End Mills



UNCOATED						ALTiN COATED			
DIA. (MM)	SHANK DIA. (MM)	FLUTE LENGTH (MM)	OAL (MM)	2 FLT. ORDER NO.	4 FLT. ORDER NO.	PRICE EACH	2 FLT. ORDER NO.	4 FLT. ORDER NO.	PRICE EACH
1.0	3.0	3.0	38.0	6322-010	6323-010	\$ 17.69	6327-000	6327-100	\$ 9.95
1.5	3.0	5.0	38.0	6322-015	6323-015	17.69	6327-001	6327-101	9.50
2.0	3.0	6.0	38.0	6322-021	6323-021	17.69	6327-002	6327-102	9.50
2.5	3.0	7.0	38.0	6322-025	6323-025	17.69	6327-003	6327-103	9.50
3.0	3.0	12.0	38.0	6322-030	6323-030	17.69	6327-004	6327-104	8.80
4.0	4.0	14.0	50.0	6322-040	6323-040	23.63	6327-006	6327-106	12.40
5.0	5.0	16.0	50.0	6322-050	6323-050	26.08	6327-008	6327-108	13.45
6.0	6.0	19.0	63.0	6322-060	6323-060	34.06	6327-010	6327-110	16.60
7.0	7.0	19.0	63.0	6322-070	6323-070	43.56	6327-012	6327-112	22.85
8.0	8.0	19.0	63.0	6322-080	6323-080	48.05	6327-014	6327-114	23.50
9.0	9.0	22.0	70.0	6322-090	6323-090	65.87	6327-016	6327-116	POA
10.0	10.0	22.0	70.0	6322-100	6323-100	65.87	6327-018	6327-118	POA
12.0	12.0	25.0	75.0	6322-120	6323-120	90.95	6327-022	6327-122	POA
14.0	14.0	30.0	88.0	6322-140	6323-140	123.55	6327-026	6327-126	68.65
16.0	16.0	32.0	88.0	6322-160	6323-160	142.43	6327-030	6327-130	80.00
18.0	18.0	36.0	100.0	6322-180	6323-180	201.24	6327-034	6327-134	100.60
20.0	20.0	38.0	100.0	6322-200	6323-200	242.75	6327-036	6327-136	114.00

Six Flute Endmills



30° Helix Finisher

Standard relief, for low-med carbon steels. Peripheral milling only.

UNCOATED				ALTiN COATED			
DIA.	SHANK DIA.	FLUTE LENGTH	OAL	ORDER NO.	PRICE EACH	ORDER NO.	PRICE EACH
3/16	3/16	5/8	2	6327-812	\$43.50	6327-912	\$14.80
1/4	1/4	3/4	2-1/2	6327-816	56.48	6327-916	19.00
5/16	5/16	7/8	2-1/2	6327-820	63.17	6327-920	27.10
3/8	3/8	1	2-1/2	6327-824	80.15	6327-924	36.40
7/16	7/16	1	2-1/2	6327-828	116.10	6327-928	40.30
1/2	1/2	1	3	6327-832	42.00	6327-932	50.20
5/8	5/8	1-1/4	3-1/2	6327-840	POA	6327-940	93.80
3/4	3/4	1-1/2	4	6327-848	POA	6327-948	134.20
7/8	7/8	1-1/2	4	6327-856	POA	6327-956	POA

Single End-Stub Length



UNCOATED			
DIAM.	SHANK DIA.	FLUTE LENGTH	OAL
3/64	1/8	3/32	1-1/2
1/16	1/8	1/8	1-1/2
3/32	1/8	3/16	1-1/2
1/8	1/8	1/4	1-1/2
5/32	3/16	5/16	1-1/2
3/16	3/16	3/8	2
1/4	1/4	1/2	2
5/16	5/16	1/2	2
3/8	3/8	5/8	2
7/16	7/16	5/8	2-1/2
1/2	1/2	5/8	2-1/2
2971-003	2971-203	\$ 14.40	
2971-004	2971-204	11.76	
2971-006	2971-206	10.74	
2971-008	2971-208	10.74	
2971-010	2971-210	15.60	
2971-012	2971-212	15.60	
2971-016	2971-216	21.60	
2971-020	2971-220	22.80	
2971-024	2971-224	31.20	
2971-028	2971-228	42.00	
2971-032	2971-232	51.60	

Roughers & End Mills – Solid Carbide



WARNING: This product contains Cobalt and/or Nickel and/or Lead a chemical known to the state of California to cause cancer or birth defects or other reproductive harm. For more information: www.prop65.ca.gov
WARNING: Cutting tools may shatter. Always wear approved safety glasses and mask when regrinding.

Fine Pitch Roughers

- Designed for maximum stock removal of titanium, inconel, waspaloy, and other advanced materials

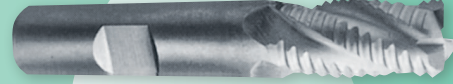


Cutting Edge Tolerance: +.000 - .002
Shank Tolerance: h6

DIA.	SHANK DIA.	FLUTE LENGTH	OAL	NO. OF FLUTES	UNCOATED		ALTiN COATED	
					ORDER NO.	PRICE EACH	ORDER NO.	PRICE EACH
1/4	1/4	3/4	2-1/2	3	6380-316	POA	6380-616	POA
5/16	5/16	3/4	2-1/2	3	6380-320	\$60.25	6380-620	POA
3/8	3/8	7/8	2-1/2	3	6380-324	POA	6380-624	POA
1/2	1/2	1	3	4	6380-332	POA	6380-632	POA
5/8	5/8	1-1/4	3-1/2	4	6380-340	POA	6380-640	POA
3/4	3/4	1-1/2	4	4	6380-348	POA	6380-648	POA
1	1	1-1/2	4	6	6380-364	POA	6380-664	POA

Medium Pitch Roughers

- Designed for maximum stock removal of mild, stainless, and hardened steels and alloys



Cutting Edge Tolerance: +.000 - .002
Shank Tolerance: h6

DIA.	SHANK DIA.	FLUTE LENGTH	OAL	NO. OF FLUTES	UNCOATED		ALTiN COATED	
					ORDER NO.	PRICE EACH	ORDER NO.	PRICE EACH
1/4	1/4	3/4	2-1/2	3	6380-116	\$56.10	6380-416	POA
5/16	5/16	13/16	2-1/2	3	6380-120	60.25	6380-420	\$70.80
3/8	3/8	1	2-1/2	3	6380-124	77.00	6380-424	88.35
1/2	1/2	1	3	4	6380-132	97.25	6380-432	111.95
5/8	5/8	1-1/2	3-1/2	4	6380-140	166.40	6380-440	POA
3/4	3/4	1-1/2	4	4	6380-148	POA	6380-448	POA
1	1	1-1/2	4	5	6380-164	262.89	6380-464	POA

Coarse Pitch Roughers

- Designed for maximum stock removal of aluminum, brass, bronze, and other lightweight alloys



Cutting Edge Tolerance: +.000 - .002
Shank Tolerance: h6

DIA.	SHANK DIA.	FLUTE LENGTH	OAL	NO. OF FLUTES	UNCOATED		ALTiN COATED	
					ORDER NO.	PRICE EACH	ORDER NO.	PRICE EACH
1/4	1/4	3/4	2-1/2	3	6380-216	\$41.30	6380-516	POA
5/16	5/16	3/4	2-1/2	3	6380-220	48.65	6380-520	POA
3/8	3/8	7/8	2-1/2	3	6380-224	77.00	6380-524	POA
1/2	1/2	1	3	3	6380-232	POA	6380-532	POA
5/8	5/8	1-1/4	3-1/2	3	6380-240	POA	6380-540	POA
3/4	3/4	1-1/2	4	3	6380-248	POA	6380-548	POA
1	1	1-1/2	4	3	6380-264	POA	6380-564	POA

Double End – Regular Length



DIA.	SHANK DIA.	FLUTE LENGTH	OAL	UNCOATED		
				2 FLT. ORDER NO.	4 FLT. ORDER NO.	PRICE EACH
1/32	1/8	3/32	2	2974-002	2974-202	POA
3/64	1/8	1/8	2	2974-003	2974-203	POA
1/16	1/8	3/16	1-1/2	2974-004	–	\$11.00
1/16	1/8	3/16	2	2974-005	2974-205	13.75
3/32	1/8	1/4	2	2974-006	2974-206	13.75
1/8	1/8	3/8	2	2974-008	2974-208	13.75
5/32	3/16	7/16	2	2974-010	–	15.95
5/32	3/16	7/16	2-1/2	2974-011	2974-211	19.95
3/16	3/16	1/2	2-1/2	2974-013	2974-212	22.20
7/32	1/4	9/16	2-1/2	2974-014	2974-214	22.20
7/32	1/4	9/16	3	2974-015	–	22.20
1/4	1/4	5/8	2-1/2	2974-016	2974-216	20.70
5/16	5/16	3/4	3-1/2	2974-021	2974-220	26.40
3/8	3/8	3/4	3-1/2	2974-025	2974-224	33.50
7/16	7/16	3/4	3	2974-028	–	41.25
7/16	7/16	7/8	4	2974-029	2974-229	POA
1/2	1/2	3/4	3	2974-032	–	49.00
1/2	1/2	1	4	2974-033	2974-233	54.40

Double End – Stub Length



DIA.	SHANK DIA.	FLUTE LENGTH	OAL	UNCOATED			ALTiN COATED		
				2 FLT. ORDER NO.	4 FLT. ORDER NO.	PRICE EACH	2 FLT. ORDER NO.	4 FLT. ORDER NO.	PRICE EACH
1/32	1/8	1/16	1-1/2	2974-402	2974-602	\$19.13	2975-402	2975-602	\$16.25
3/64	1/8	3/32	1-1/2	2974-403	2974-603	18.11	2975-403	2975-603	16.25
1/16	1/8	1/8	1-1/2	2974-404	2974-604	16.09	2975-404	2975-604	21.63
3/32	1/8	3/16	1-1/2	2974-406	2974-606	16.09	2975-406	2975-606	14.05
1/8	1/8	1/4	1-1/2	2974-408	2974-608	15.14	2975-408	2975-608	12.15
5/32	3/16	5/16	2	2974-410	2974-610	21.38	2975-410	2975-610	21.05
3/16	3/16	3/8	2	2974-412	2974-612	22.73	2975-412	2975-612	17.70
7/32	1/4	7/16	2	2974-414	2974-614	28.13	2975-414	2975-614	41.14
1/4	1/4	1/2	2	2974-416	2974-616	28.13	2975-416	2975-616	23.15
5/16	5/16	1/2	2	2974-420	2974-620	38.59	2975-420	2975-620	53.46
3/8	3/8	5/8	2	2974-424	2974-624	40.39	2975-424	2975-624	33.00
7/16	7/16	5/8	3	2974-428	2974-628	58.23	2975-428	2975-628	78.43
1/2	1/2	5/8	2-1/2	2974-432	2974-632	70.09	2975-432	2975-632	52.10
5/8	5/8	3/4	3	2974-440	2974-640	147.90	2975-440	2975-640	134.54
3/4	3/4	1	3	2974-448	2974-648	180.60	2975-448	2975-648	171.15

Double End – Large Shank With Flat



DIA.	SHANK DIA.	FLUTE LENGTH	OAL	UNCOATED		
				2 FLT. ORDER NO.	4 FLT. ORDER NO.	PRICE EACH
1/8	3/8	3/8	3	2973-408	2973-608	\$49.50
5/32	3/8	7/16	3	2973-410	2973-610	52.33
3/16	3/8	1/2	3	2973-412	2973-612	54.53
7/32	3/8	9/16	3-1/2	2973-414	2973-614	62.78
1/4	3/8	5/8	3-1/2	2973-416	2973-616	66.96
9/32	3/8	11/16	3-1/2	2973-418	2973-618	46.10
5/16	3/8	3/4	3-1/2	2973-420	2973-620	80.44
11/32	3/8	3/4	3-1/2	2973-422	2973-622	87.31
3/8	3/8	3/4	3-1/2	2973-424	2973-624	87.31
7/16	1/2	7/8	4	2973-428	2973-628	136.81
1/2	1/2	1	4	2973-432	2973-632	138.88

End Mills - Solid Carbide - High Performance

High Performance - Variable Helix Four Flute - Square End - ALTiN Coated



Eccentrically-ground, variable helix tools re-defining "High Performance" in an aggressive tool resistant to chattering and vibration in medium to high carbon steels, tool steels, superalloys and stainless steel.

NO FLAT ON SHANK				FLAT ON SHANK	
DIA.	SHANK DIA.	FLUTE LENGTH	OAL	ORDER NO.	PRICE EACH
1/8	1/8	3/8	1-1/2	2974-808	POA
3/16	3/16	7/16	2	2974-812	POA
1/4	1/4	5/8	2-1/2	2974-816	POA
5/16	5/16	13/16	2-1/2	2974-820	\$33.35
3/8	3/8	7/8	2-1/2	2974-824	41.35
7/16	7/16	1	2-3/4	2974-828	51.85
1/2	1/2	1	3	2974-832	63.75
9/16	9/16	1-1/8	3-1/2	2974-836	92.10
5/8	5/8	1-1/4	3-1/2	2974-840	120.05
3/4	3/4	1-1/2	4	2974-848	173.95
1	1	1-1/2	4	2974-864	POA

High Performance - Variable Helix Four Flute - Metric - Square End ALTiN Coated



DIA.	SHANK DIA.	FLUTE LENGTH	OAL	ORDER NO.	PRICE EACH
3	3	12	38	2975-203	POA
4	4	14	50	2975-204	POA
5	5	16	50	2975-205	POA
6	6	19	63	2975-206	POA
8	8	19	63	2975-208	POA
10	10	22	70	2975-210	\$43.95
12	12	25	75	2975-212	POA
14	25	14	88	2975-214	92.10
16	32	16	88	2975-216	POA
18	36	18	100	2975-218	POA
20	38	20	100	2975-220	POA
25	38	25	100	2975-225	POA

High Performance - Variable Helix Four Flute - Corner Radius - ALTiN Coated



Optional radiused corners insure additional corner edge toughness and/or part print conformity as these eccentrically-ground, variable helix tools eliminate chatter and vibration common in medium to high carbon steels, tool steels, superalloys and stainless steel.

DIA.	SHANK DIA.	FLUTE LENGTH	OAL	RADIUS	ORDER NO.	PRICE EACH
1/8	1/8	3/8	1-1/2	.015	2975-008	POA
3/16	3/16	7/16	2	.015	2975-012	POA
1/4	1/4	5/8	2-1/2	.020	2975-016	POA
5/16	5/16	13/16	2-1/2	.020	2975-020	POA
3/8	3/8	13/16	2-1/2	.020	2975-024	POA
7/16	7/16	1	2-3/4	.020	2975-028	POA
1/2	1-1/4	1	3	.030	2975-032	\$66.15
9/16	9/16	1-1/8	3-1/2	.030	2975-036	POA
5/8	5/8	1-1/4	3-1/2	.040	2975-040	POA
3/4	3/4	1-1/2	4	.040	2975-048	POA
1	1	1-3/4	4	.045	2975-064	POA

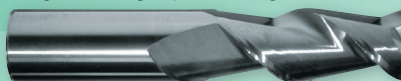
High Performance - Variable Helix - Four Flute - Metric - Corner Radius ALTiN-coated



DIA.	SHANK DIA.	FLUTE LENGTH	OAL	RADIUS	ORDER NO.	PRICE EACH
3	3	12	38	0.25	2975-303	POA
4	4	14	50	0.25	2975-304	POA
5	5	16	50	0.25	2975-305	POA
6	6	19	63	0.50	2975-306	POA
8	8	19	63	0.50	2975-308	POA
10	10	22	70	0.50	2975-310	POA
12	12	25	75	0.75	2975-312	POA
14	14	25	88	0.75	2975-314	POA
16	16	32	88	0.75	2975-316	POA
18	18	36	100	0.75	2975-318	POA
20	20	38	100	0.75	2975-320	POA
25	25	38	100	0.75	2975-325	POA

45° 2-Flute High Helix

• Designed for high speed milling of aluminum.



Cutting Edge Tolerance: +.000 - .002, Shank Tolerance: h6
High helixes combined with circular reliefs add up to improved material removal rates AND improved surface finishes via the upgraded stiffness, additional land contact area and quicker chip evacuation capabilities for non-ferrous materials.

UNCOATED					
MILL DIA.	SHANK DIA.	FLUTE LENGTH	OAL	ORDER NO.	PRICE EACH
1/4	1/4	1	2-1/2	6328-016	\$ 13.60
5/16	5/16	1	3	6328-020	15.75
3/8	3/8	1	2-1/2	6328-024	26.25
1/2	1/2	1-1/4	3	6328-032	41.85
5/8	5/8	1-5/8	3-1/2	6328-040	70.70
3/4	3/4	1-3/4	4	6328-048	90.90

2



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WARNING: Cutting tools may shatter. Always wear approved safety glasses and mask when regrinding.

Look for
ALLEGIANCE
AMERICANMADE

End Mills - Solid Carbide - High Performance

Six Flute 45° – Square End – Eccentric Relief ALTiN Coated – High Performance Finisher



Cutting Edge Tolerance: +.000 - .002

6 FL, high helix tools guarantee impressive performance in terms of removal rates, surface finishes and longevity in difficult-to-machine materials such as stainless steel, titanium and other superalloys. Stiffness combined with high rake angles and a proven ALTiN PVD coating equate to unmatched peripheral finish-milling in stainless steel.

For Milling Aluminum Alloys Two Flute – Square End



- Higher-helixed, twin-gullet fluting, cylindrical reliefs combine in a rugged 2 FL endmill for impressive performance gains in aluminum and other non-ferrous materials, including heavy slotting. Choose ZrN coating for higher performance expectations.

UNCOATED				ZrN COATED			
DIA.	SHANK DIA.	FLUTE LENGTH	OAL	ORDER NO.	PRICE EACH	ORDER NO.	PRICE EACH
1/8	1/8	1/2	1-1/2	2971-408	POA	2971-508	POA
5/32	5/32	9/16	2	2971-410	POA	2971-510	POA
3/16	3/16	3/4	2	2971-412	POA	2971-512	POA
1/4	1/4	3/4	2-1/2	2971-416	POA	2971-516	POA
1/4	1/4	1	2-1/2	2971-417	POA	2971-517	POA
5/16	5/16	3/4	2-1/2	2971-420	POA	2971-520	POA
5/16	5/16	1	3	2971-421	POA	2971-521	POA
3/8	3/8	7/8	2-1/2	2971-424	POA	2971-524	POA
3/8	3/8	1	2-1/2	2971-425	POA	2971-525	POA
7/16	7/16	1	2-1/2	2971-428	POA	2971-528	POA
1/2	1/2	1	3	2971-432	POA	2971-532	POA
1/2	1/2	1-1/4	3	2971-433	POA	2971-533	POA
9/16	9/16	1-1/4	3	2971-436	POA	2971-536	POA
5/8	5/8	1-1/4	3-1/2	2971-440	POA	2971-540	POA
5/8	5/8	1-5/8	3-1/2	2971-441	POA	2971-541	POA
3/4	3/4	1-1/2	4	2971-448	POA	2971-548	POA
3/4	3/4	1-3/4	4	2971-449	POA	2971-549	POA
1	1	1-1/2	4	2971-464	POA	2971-564	POA

For Milling Aluminum Alloys Corner Radius - Two Flute – Square End



- Higher-helixed, twin-gullet fluting, cylindrical reliefs combine in a rugged 2 FL endmill for impressive performance gains in aluminum and other non-ferrous materials, including heavy slotting. Choose ZrN coating for higher performance expectations.

					UNCOATED		ZrN COATED	
					ORDER	PRICE	ORDER	PRICE
					NO.	EACH	NO.	EACH
DIA.	SHANK DIA.	FLUTE LENGTH	OAL	RADIUS				
1/8	1/8	1/2	1-1/2	.015	2971-608	POA	2971-708	POA
5/32	5/32	9/16	2	.015	2971-610	POA	2971-710	POA
3/16	3/16	3/4	2	.015	2971-612	POA	2971-712	POA
1/4	1/4	3/4	2-1/2	.020	2971-616	POA	2971-716	POA
1/4	1/4	1	2-1/2	.020	2971-617	POA	2971-717	POA
5/16	5/16	3/4	2-1/2	.020	2971-620	POA	2971-720	POA
5/16	5/16	1	3	.020	2971-621	POA	2971-721	POA
3/8	3/8	7/8	2-1/2	.020	2971-624	POA	2971-724	POA
3/8	3/8	1	2-1/2	.020	2971-625	\$43.25	2971-725	POA
7/16	7/16	1	2-1/2	.030	2971-628	POA	2971-728	POA
1/2	1/2	1	3	.030	2971-632	POA	2971-732	POA
1/2	1/2	1-1/4	3	.030	2971-633	63.90	2971-733	POA
9/16	9/16	1-1/4	3	.030	2971-636	POA	2971-736	POA
5/8	5/8	1-1/4	3-1/2	.040	2971-640	115.85	2971-740	POA
5/8	5/8	1-5/8	3-1/2	.040	2971-641	POA	2971-741	POA
3/4	3/4	1-1/2	4	.040	2971-648	POA	2971-748	POA
3/4	3/4	1-3/4	4	.040	2971-649	POA	2971-749	POA
1	1	1-1/2	4	.040	2971-664	POA	2971-764	POA

ALTIN COATED					ALTIN CT. - CORNER RADIUS			
DIA.	SHANK DIA.	FLUTE LENGTH	OAL	ORDER NO.	PRICE EACH	RADIUS	ORDER NO.	PRICE EACH
3/16	3/16	5/8	2	2972-812	POA	—	—	—
1/4	1/4	3/4	2-1/2	2972-816	POA	.010	2972-916	POA
5/16	5/16	7/8	2-1/2	2972-820	POA	.012	2972-920	POA
3/8	3/8	1	2-1/2	2972-824	POA	.012	2972-924	POA
7/16	7/16	1	2-1/2	2972-828	POA	.015	2972-928	POA
1/2	1/2	1	3	2972-832	\$66.95	.015	2972-932	POA
9/16	9/16	1	3	2972-836	POA	.020	2972-936	POA
5/8	5/8	1-1/4	3-1/2	2972-840	POA	.020	2972-940	POA
3/4	3/4	1-1/2	4	2972-848	POA	.030	2972-948	POA
7/8	7/8	1-1/2	4	2972-856	POA	.030	2972-956	POA
1	1	1-1/2	4	2972-864	POA	.030	2972-964	POA

For Milling Aluminum Alloys Three Flute – Square End



- Utilizes helix-gullet-reliefs combinations targeting improved removal rates in a wide variety of aluminum and other non-ferrous materials. Optional ZrN coating yields impressive gains in RPM and removal rates.

UNCOATED				ZrN COATED			
DIA.	SHANK DIA.	FLUTE LENGTH	OAL	ORDER NO.	PRICE EACH	ORDER NO.	PRICE EACH
1/8	1/8	1/2	1-1/2	2972-408	POA	2972-508	POA
5/32	5/32	9/16	2	2972-410	POA	2972-510	POA
3/16	3/16	3/4	2	2972-412	POA	2972-512	POA
1/4	1/4	3/4	2-1/2	2972-416	POA	2972-516	\$28.05
1/4	1/4	1	2-1/2	2972-417	POA	2972-517	POA
5/16	5/16	3/4	2-1/2	2972-420	POA	2972-520	POA
5/16	5/16	1	3	2972-421	POA	2972-521	POA
3/8	3/8	7/8	2-1/2	2972-424	POA	2972-524	44.85
3/8	3/8	1	2-1/2	2972-425	POA	2972-525	POA
7/16	7/16	1	2-1/2	2972-428	POA	2972-528	POA
1/2	1/2	1	3	2972-432	POA	2972-532	POA
1/2	1/2	1-1/4	3	2972-433	POA	2972-533	POA
9/16	9/16	1-1/4	3	2972-436	POA	2972-536	POA
5/8	5/8	1-1/4	3-1/2	2972-440	POA	2972-540	POA
5/8	5/8	1-5/8	3-1/2	2972-441	POA	2972-541	POA
3/4	3/4	1-1/2	4	2972-448	POA	2972-548	POA
3/4	3/4	1-3/4	4	2972-449	POA	2972-549	POA
1	1	1-1/2	4	2972-464	POA	2972-564	POA

For Milling Aluminum Alloys Corner Radius - Three Flute - Square End



- Utilizes helix-gullet-reliefs combinations targeting improved removal rates in a wide variety of aluminum and other non-ferrous materials. Optional ZrN coating yields impressive gains in RPM and removal rates.

					UNCOATED		ZrN COATED	
DIA.	SHANK DIA.	FLUTE LENGTH	OAL	RADIUS	ORDER NO.	PRICE EACH	ORDER NO.	PRICE EACH
1/8	1/8	1/2	1-1/2	.015	2972-608	POA	2972-708	POA
5/32	5/32	9/16	2	.015	2972-610	POA	2972-710	POA
3/16	3/16	3/4	2	.015	2972-612	POA	2972-712	POA
1/4	1/4	3/4	2-1/2	.020	2972-616	POA	2972-716	POA
1/4	1/4	1	2-1/2	.020	2972-617	POA	2972-717	POA
5/16	5/16	3/4	2-1/2	.020	2972-620	POA	2972-720	POA
5/16	5/16	1	3	.020	2972-621	POA	2972-721	POA
3/8	3/8	7/8	2-1/2	.020	2972-624	POA	2972-724	POA
3/8	3/8	1	2-1/2	.020	2972-625	POA	2972-725	POA
7/16	7/16	1	2-1/2	.030	2972-628	POA	2972-728	POA
1/2	1/2	1	3	.030	2972-632	POA	2972-732	POA
1/2	1/2	1-1/4	3	.030	2972-633	POA	2972-733	POA
9/16	9/16	1-1/4	3	.030	2972-636	POA	2972-736	POA
5/8	5/8	1-1/4	3-1/2	.040	2972-640	POA	2972-740	POA
5/8	5/8	1-5/8	3-1/2	.040	2972-641	POA	2972-741	POA
3/4	3/4	1-1/2	4	.040	2972-648	POA	2972-748	POA
3/4	3/4	1-3/4	4	.040	2972-649	POA	2972-749	POA
1	1	1-1/2	4	.040	2972-664	POA	2972-764	POA

2

WARNING: This product contains Cobalt and/or Nickel and/or Lead a chemical known to the state of California to cause cancer or birth defects or other reproductive harm. For more information: www.prop65.ca.gov.
WARNING: Cutting tools may shatter. Always wear approved safety glasses and mask when regrinding.

Look for
ALLEGIANCE
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End Mills - Solid Carbide - Ball End

Single End- Regular Length- Ball End

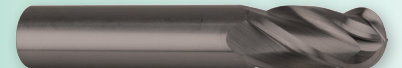
Tolerances: 1/16 to 1/4 Inclusive, +.000, -.002
9/32 to 1-1/2 Inclusive, +.000, -.003

DIA.	SHANK DIA.	FLUTE LENGTH	OAL	UNCOATED			ALTiN COATED		
				2 FLT. ORDER NO.	PRICE EACH	4 FLT. ORDER NO.	2 FLT. ORDER NO.	PRICE EACH	4 FLT. ORDER NO.
1/32	1/8	3/32	1-1/2	2970-202	\$ 22.56	2970-602	2970-302	\$ 12.55	2970-702
3/64	1/8	1/8	1-1/2	2970-203	22.56	2970-603	2970-303	12.55	2970-703
1/16	1/8	3/16	1-1/2	2970-204	17.26	2970-604	2970-304	11.75	2970-704
5/64	1/8	3/16	1-1/2	2970-205	18.57	2970-605	2970-305	11.75	2970-705
3/32	1/8	3/8	1-1/2	2970-206	17.26	2970-606	2970-306	11.75	2970-706
7/64	1/8	3/8	1-1/2	2970-207	18.57	2970-607	2970-307	11.75	2970-707
1/8	1/8	1/2	1-1/2	2970-208	17.26	2970-608	2970-308	10.60	2970-708
9/64	3/16	9/16	2	2970-209	26.19	2970-609	2970-309	16.55	2970-709
5/32	3/16	9/16	2	2970-210	23.81	2970-610	2970-310	16.55	2970-710
11/64	3/16	5/8	2	2970-211	26.19	2970-611	2970-311	16.55	2970-711
3/16	3/16	5/8	2	2970-212	24.63	2970-612	2970-312	14.95	2970-712
13/64	1/4	5/8	2-1/2	2970-213	33.33	2970-613	2970-313	22.35	2970-713
7/32	1/4	5/8	2-1/2	2970-214	31.06	2970-614	2970-314	22.35	2970-714
15/64	1/4	3/4	2-1/2	2970-215	35.19	2970-615	2970-315	22.35	2970-715
1/4	1/4	3/4	2-1/2	2970-216	31.30	2970-616	2970-316	19.30	2970-716
17/64	5/16	3/4	2-1/2	2970-217	37.10	2970-617	2970-317	31.20	2970-717
9/32	5/16	3/4	2-1/2	2970-218	33.93	2970-618	2970-318	31.20	2970-718
19/64	5/16	13/16	2-1/2	2970-219	41.88	2970-619	2970-319	31.20	2970-719
5/16	5/16	13/16	2-1/2	2970-220	35.24	2970-620	2970-320	27.90	2970-720
21/64	3/8	7/8	2-1/2	2970-221	41.02	2970-621	2970-321	33.80	2970-721
11/32	3/8	7/8	2-1/2	2970-222	41.92	2970-622	2970-322	33.80	2970-722
23/64	3/8	7/8	2-1/2	2970-223	42.37	2970-623	2970-323	33.80	2970-723
3/8	3/8	7/8	2-1/2	2970-224	38.92	2970-624	2970-324	31.85	2970-724
25/64	7/16	7/8	2-1/2	2970-225	63.23	2970-625	2970-325	POA	2970-725
13/32	7/16	7/8	2-1/2	2970-226	62.03	2970-626	2970-326	45.65	2970-726
27/64	7/16	7/8	2-1/2	2970-227	62.03	2970-627	2970-327	45.65	2970-727
7/16	7/16	7/8	2-1/2	2970-228	57.19	2970-628	2970-328	43.80	2970-728
29/64	7/16	1	3	2970-229	68.44	2970-629	2970-329	53.55	2970-729
15/32	1/2	1	3	2970-230	67.82	2970-630	2970-330	53.55	2970-730
31/64	1/2	1	3	2970-231	70.02	2970-631	2970-331	53.55	2970-731
1/2	1/2	1	3	2970-232	66.34	2970-632	2970-332	50.40	2970-732
9/16	9/16	1-1/4	3	2970-236	111.88	2970-636	2970-336	84.65	2970-736
5/8	5/8	1-1/4	3-1/2	2970-240	154.22	2970-640	2970-340	88.00	2970-740
11/16	3/4	1-1/2	4	2970-244	185.89	2970-644	2970-344	132.65	2970-744
3/4	3/4	1-1/2	4	2970-248	185.89	2970-648	2970-348	126.80	2970-748
13/16	7/8	1-1/2	4	2970-252	371.39	2970-652	-	-	-
7/8	7/8	1-1/2	4	2970-256	307.40	2970-656	2970-356	169.60	2970-756
15/16	1	1-1/2	4	2970-260	364.18	2970-660	-	-	-
1	1	1-1/2	4	2970-264	320.85	2970-664	2970-364	193.25	2970-764

ALTiN Coated



2 Flute Ball End



4 Flute Ball End

Sizes over 1" POA

Single End- Extra Long- Ball End

[2]

DIA.	SHANK DIA.	FLUTE LENGTH	OAL	UNCOATED			ALTiN COATED		
				2 FLT. ORDER NO.	4 FLT. ORDER NO.	PRICE EACH	2 FLT. ORDER NO.	4 FLT. ORDER NO.	PRICE EACH
1/8	1/8	1	3	6321-108	6321-208	\$ 40.08	6321-508	6321-608	\$ 54.11
3/16	3/16	1-1/8	3	6321-112	6321-212	46.12	6321-512	6321-612	62.26
1/4	1/4	1-1/2	4	6321-116	6321-216	56.72	6321-516	6321-616	75.90
5/16	5/16	1-5/8	4	6321-120	6321-220	72.45	6321-520	6321-620	97.71
3/8	3/8	1-1/8	3	6321-124	6321-224	101.31	6321-524	6321-624	123.31
3/8	3/8	1-3/4	4	6321-125	6321-225	POA	6321-525	6321-625	POA
7/16	7/16	2	4	6321-128	6321-228	128.58	6321-528	6321-628	132.92
7/16	7/16	2	4	6321-129	6321-229	POA	6321-529	6321-629	POA
1/2	1/2	2	4	6321-132	6321-232	155.79	6321-532	6321-632	165.45
1/2	1/2	3	4	6321-133	6321-233	187.31	6321-533	6321-633	213.35
5/8	5/8	2-1/4	5	6321-140	6321-240	322.05	6321-540	6321-640	326.00
5/8	5/8	3	5	6321-141	6321-241	329.67	6321-541	6321-641	394.72
3/4	3/4	2-1/4	5	6321-148	6321-248	428.84	6321-548	6321-648	425.88
3/4	3/4	3	5	6321-149	6321-249	414.67	6321-549	6321-649	481.27
1	1	3	5	6321-166	6321-266	585.64	6321-566	6321-666	684.07

ALTiN Coated



2 Flute Ball End

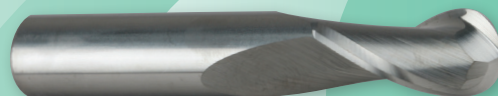
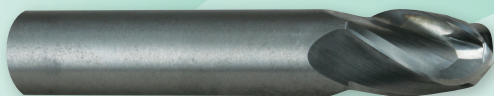


4 Flute Ball End

End Mills - Solid Carbide - Ball End

Single End - Metric End Mills - Ball End

Single End - Stub Length - Ball End



UNCOATED					ALTIM COATED		
DIA. (MM)	SHANK DIA. (MM)	2 FLT. ORDER NO.	4 FLT. ORDER NO.	PRICE EACH	2 FLT. ORDER NO.	4 FLT. ORDER NO.	PRICE EACH
1.0	3.0	6324-010	6325-010	\$ 14.74	6327-200	6327-300	POA
1.5	3.0	6324-015	6325-015	14.74	6327-201	6327-301	\$11.65
2.0	3.0	6324-021	6325-021	14.74	6327-202	6327-302	POA
2.5	3.0	6324-025	6325-025	14.74	6327-203	6327-303	POA
3.0	3.0	6324-030	6325-030	14.74	6327-204	6327-304	10.50
4.0	4.0	6324-040	6325-040	19.69	6327-206	6327-306	14.55
5.0	5.0	6324-050	6325-050	21.73	6327-208	6327-308	POA
6.0	6.0	6324-060	6325-060	28.38	6327-210	6327-310	19.15
7.0	7.0	6324-070	6325-070	36.30	6327-212	6327-312	27.20
8.0	8.0	6324-080	6325-080	40.04	6327-214	6327-314	27.85
9.0	9.0	6324-090	6325-090	54.89	6327-216	6327-316	POA
10.0	10.0	6324-100	6325-100	54.89	6327-218	6327-318	35.45
12.0	12.0	6324-120	6325-120	75.79	6327-222	6327-322	POA
14.0	14.0	6324-140	6325-140	102.96	6327-226	6327-326	POA
16.0	16.0	6324-160	6325-160	118.69	6327-230	6327-330	POA
18.0	18.0	6324-180	6325-180	167.70	6327-234	6327-334	POA
20.0	20.0	6324-200	6325-200	202.29	6327-236	6327-336	POA

UNCOATED						
DIA.	SHANK DIA.	FLUTE LENGTH	OAL	2 FLT. ORDER NO.	4 FLT. ORDER NO.	PRICE EACH
3/64	1/8	3/32	1-1/2	2971-103	2971-303	\$8.80
1/16	1/8	1/8	1-1/2	2971-104	2971-304	POA
3/32	1/8	3/16	1-1/2	2971-106	2971-306	8.15
1/8	1/8	1/4	1-1/2	2971-108	2971-308	7.75
5/32	5/16	3/16	2	2971-110	2971-310	10.80
3/16	3/16	3/8	2	2971-112	2971-312	10.50
1/4	1/4	1/2	2	2971-116	2971-316	12.70
5/16	5/16	1/2	2	2971-120	2971-320	17.90
3/8	3/8	5/8	2	2971-124	2971-324	21.55
7/16	7/16	5/8	2-1/2	2971-128	2971-328	29.90
1/2	1/2	5/8	2-1/2	2971-132	2971-332	33.50

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WARNING: Cutting tools may shatter. Always wear approved safety glasses and mask when regrinding.

Double End - Stub Length - Ball End



UNCOATED					ALTIM COATED			
DIA.	SHANK DIA.	FLUTE LENGTH	OAL	2 FLT. ORDER NO.	4 FLT. ORDER NO.	PRICE EACH	2 FLT. ORDER NO.	4 FLT. ORDER NO.
1/32	1/8	1/16	1-1/2	2974-502	2974-702	\$20.70	2975-502	2975-702
3/64	1/8	3/32	1-1/2	2974-503	2974-703	20.70	2975-503	2975-703
1/16	1/8	1/8	1-1/2	2974-504	2974-704	15.48	2975-504	2975-704
3/32	1/8	3/16	1-1/2	2974-506	2974-706	15.48	2975-506	2975-706
1/8	1/8	1/4	1-1/2	2974-508	2974-708	14.40	2975-508	2975-708
5/32	3/16	5/16	2	2974-510	2974-710	20.52	2975-510	2975-710
3/16	3/16	3/8	2	2974-512	2974-712	21.83	2975-512	2975-712
7/32	1/2	7/16	2	2974-514	2974-714	28.80	2975-514	2975-714
1/4	1/4	1/2	2	2974-516	2974-716	34.29	2975-516	2975-716
5/16	5/16	1/2	2	2974-520	2974-720	38.70	2975-520	2975-720
3/8	9/16	5/8	2	2974-524	2974-724	40.50	2975-524	2975-724
7/16	7/16	5/8	3	2974-528	2974-728	56.30	2975-528	2975-728
1/2	5/8	1/2	2-1/2	2974-532	2974-732	71.78	2975-532	2975-732
5/8	11/16	5/8	3	2974-540	2974-740	209.48	2975-540	2975-740
3/4	7/8	3/4	3	2974-548	2974-748	257.73	2975-548	2975-748

Double End - Regular Length - Ball End



UNCOATED					
DIA.	SHANK DIA.	FLUTE LENGTH	OAL	2 FLT. ORDER NO.	4 FLT. ORDER NO.
1/32	1/8	3/32	2	2974-102	2974-302
3/64	1/8	1/8	02	2974-103	2974-303
1/16	1/8	3/16	1-1/2	2974-104	-
1/16	1/8	3/16	2	2974-105	2974-304
3/32	1/8	1/4	2	2974-106	2974-306
1/8	1/8	3/8	2	2974-108	2974-308
5/32	3/16	7/16	2-1/2	2974-111	2974-311
3/16	3/16	1/2	2-1/2	2974-112	2974-313
7/32	1/4	9/16	2-1/2	2974-114	2974-314
1/4	1/4	5/8	2-1/2	2974-116	2974-316
5/16	5/16	3/4	3-1/2	2974-121	2974-321
3/8	3/8	3/4	3-1/2	2974-124	2974-325
7/16	7/16	7/8	4	2974-128	2974-328
1/2	1/2	1	4	2974-132	2974-332

Double End - Large Shank With Flat - Ball End



UNCOATED						
DIA.	SHANK DIA.	FLUTE LENGTH	OAL	2 FLT. ORDER NO.	4 FLT. ORDER NO.	PRICE EACH
1/8	3/8	3/8	3	2973-508	2973-708	POA
5/32	3/8	7/16	3	2973-510	2973-710	\$39.60
3/16	3/8	1/2	3	2973-512	2973-712	POA
7/32	3/8	9/16	3-1/2	2973-514	2973-714	39.60
1/4	3/8	5/8	3-1/2	2973-516	2973-716	39.60
9/32	3/8	11/16	3-1/2	2973-518	2973-718	56.40
5/16	3/8	3/4	3-1/2	2973-520	2973-720	POA
11/32	3/8	3/4	3-1/2	2973-522	2973-722	56.40
3/8	3/8	3/4	3-1/2	2973-524	2973-724	43.65
7/16	1/2	7/8	4	2973-528	2973-728	64.00
1/2	1/2	1	4	2973-532	2973-732	64.00

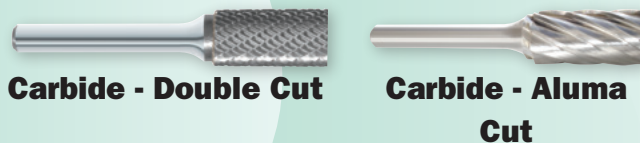
Burrs- High Speed Steel & Carbide



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WARNING: Cutting tools may shatter. Always wear approved safety glasses and mask when regrinding.

Cylindrical

HIGH SPEED				CARBIDE					
		SINGLE CUT		DOUBLE CUT		ALUMA CUT			
DIAM.	LENGTH	ORDER NO.	PRICE EACH	CARBIDE	ORDER NO.	PRICE EACH	CARBIDE	ORDER NO.	PRICE EACH
1/8"	1/2"	2976-010	\$ 5.25	SA-11	2978-063	\$ 12.26	-	-	-
1/8"	5/8"	-	-	SA-12	2978-065	10.70	-	-	-
3/16"	3/4"	2976-035	6.95	-	-	-	-	-	-
3/16"	5/8"	-	-	SA-14	2978-075	11.15	-	-	-
1/4"	5/8"	-	-	SA-1	2978-005	10.91	SA-1NF	2979-055	\$ 14.06
1/4"	1"	2976-090	6.95	SA-1A	2978-010	22.73	-	-	-
5/16"	3/4"	-	-	SA-2	2978-015	13.73	-	-	-
5/16"	1"	2976-140	8.90	SA-2A	2978-020	27.30	-	-	-
3/8"	3/4"	-	-	SA-3	2978-025	14.85	SA-3NF	2979-075	19.13
3/8"	1"	2976-190	8.95	SA-3A	2978-030	29.03	-	-	-
3/8"	1-1/2"	2976-215	10.65	SA-3B	2978-035	29.03	-	-	-
7/16"	1"	-	-	SA-4	2978-040	22.28	-	-	-
1/2"	1"	2976-290	11.10	SA-5	2978-045	23.40	SA-5NF	2979-095	30.04
5/8"	1"	2976-340	13.10	SA-6	2978-050	29.59	SA-6NF	2979-100	37.69
3/4"	3/4"	2976-395	13.25	SA-16	2978-085	35.23	-	-	-
3/4"	1"	2976-410	13.65	SA-7	2978-055	44.21	SA-7NF	2979-105	56.81
1"	1"	2976-465	23.75	SA-9	2978-060	63.79	-	-	-
6" EXTENDED SHANK SIZES									
1/4"	5/8"	-	-	SA-1L6	2979-905	22.73	-	-	-
3/8"	1"	-	-	SA-3L6	2979-910	29.03	-	-	-
1/2"	1"	-	-	SA-5L6	2979-915	37.58	-	-	-



Cylindrical End Cut

1

2

HIGH SPEED				CARBIDE - DOUBLE CUT		
DIAM. LENGTH		ORDER NO.	PRICE EACH	CARBIDE	ORDER NO.	PRICE EACH
1/8"	1/2"	2976-015	\$ 6.05	SB-11	2978-193	\$ 12.28
1/8"	5/8"	—	—	SB-12	2978-195	14.68
3/16"	3/4"	2976-040	8.00	—	—	—
3/16"	5/8"	—	—	SB-14	2978-205	12.73
1/4"	5/8"	—	—	SB-1	2978-135	11.83
1/4"	1"	2976-095	8.00	SB-1A	2978-140	26.00
5/16"	3/4"	—	—	SB-2	2978-145	15.20
5/16"	1"	2976-145	10.25	SB-2A	2978-150	32.31
3/8"	3/4"	—	—	SB-3	2978-155	16.31
3/8"	1"	2976-195	10.30	SB-3A	2978-160	30.73
3/8"	1-1/2"	2976-220	12.25	SB-3B	2978-165	38.33
7/16"	1"	—	—	SB-4	2978-170	24.08
1/2"	1"	2976-295	12.80	SB-5	2978-175	25.99
5/8"	1"	2976-345	15.10	SB-6	2978-180	32.40
3/4"	3/4"	2976-400	15.25	SB-16	2978-215	38.83
3/4"	1"	2976-415	15.70	SB-7	2978-185	47.25
1"	1"	2976-470	27.35	SB-9	2978-190	70.88

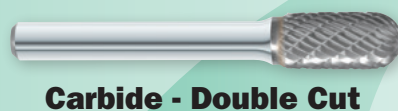


Cylindrical Ball Nose

1

2

HIGH SPEED				CARBIDE					
		SINGLE CUT		DOUBLE CUT			ALUMA CUT		
DIAM.	LENGTH	ORDER NO.	PRICE EACH	CARBIDE	ORDER NO.	PRICE EACH	CARBIDE	ORDER NO.	PRICE EACH
1/8"	1/2"	2976-020	\$5.45	—	—	—	—	—	—
1/8"	5/8"	—	—	SC-12	2978-285	\$12.73	—	—	—
3/16"	1/2"	2976-045	5.95	—	—	—	—	—	—
3/16"	5/8"	—	—	SC-14	2978-290	12.73	—	—	—
1/4"	5/8"	—	—	SC-1	2978-230	12.49	SC-1NF	2979-230	\$16.31
1/4"	1"	2976-100	6.55	SC-1A	2978-235	24.03	—	—	—
5/16"	3/4"	—	—	SC-2	2978-240	16.33	—	—	—
5/16"	1"	2976-150	7.90	SC-2A	2978-245	21.63	—	—	—
3/8"	3/4"	—	—	SC-3	2978-250	16.54	SC-3NF	2979-250	21.26
3/8"	1"	2976-200	8.90	SC-3A	2978-255	30.73	—	—	—
3/8"	1-1/2"	2976-225	9.65	SC-3B	2978-260	38.33	—	—	—
7/16"	1"	—	—	SC-4	2978-265	24.08	—	—	—
1/2"	1"	2976-300	9.90	SC-5	2978-270	25.99	SC-5NF	2979-270	33.43
5/8"	1"	2976-350	13.20	SC-6	2978-275	33.30	SC-6NF	2979-275	42.55
3/4"	1"	—	—	SC-7	2978-280	47.25	SC-7NF	2979-280	60.75
3/4"	1-1/4"	2976-430	14.30	—	—	—	—	—	—
1"	1"	—	—	SC-9	2978-282	82.70	—	—	—
6" EXTENDED SHANK SIZES									
1/4"	5/8"	—	—	SC-1L6	2979-920	27.11	—	—	—
3/8"	3/4"	—	—	SC-3L6	2979-925	30.71	—	—	—
1/2"	1"	—	—	SC-5L6	2979-930	40.16	—	—	—



Burrs- High Speed Steel & Carbide

Look for
ALLEGIANCE
AMERICAN MADE

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Ball Shape

		1				2			
		HIGH SPEED		CARBIDE		CARBIDE		ALUMA CUT	
		SINGLE CUT		DOUBLE CUT		DOUBLE CUT		ALUMA CUT	
DIAM.	LENGTH	ORDER NO.	PRICE EACH	CARBIDE	ORDER NO.	PRICE EACH	CARBIDE	ORDER NO.	PRICE EACH
1/8"	1/8"	2976-005	\$5.25	SD-12	2978-380	\$12.50	-	-	-
3/16"	3/16"	2976-025	5.50	SD-14	2978-385	12.50	-	-	-
1/4"	1/4"	2976-060	6.25	SD-1	2978-335	12.04	SD1-NF	2979-335	\$15.98
5/16"	5/16"	2976-125	6.75	SD-2	2978-340	13.05	-	-	-
3/8"	3/8"	2976-165	7.80	SD-3	2978-345	14.74	SD3-NF	2979-345	18.56
7/16"	7/16"	-	-	SD-4	2978-350	18.35	-	-	-
1/2"	1/2"	2976-265	10.50	SD-5	2978-355	18.90	SD5-NF	2979-355	24.30
5/8"	5/8"	2976-335	11.20	SD-6	2978-360	23.63	SD6-NF	2979-360	30.38
3/4"	3/4"	2976-405	14.25	SD-7	2978-365	32.18	SD7-NF	2979-365	41.29
1"	1"	2976-475	22.90	SD-9	2978-370	52.88	-	-	-
6" EXTENDED SHANK SIZES									
1/4"	1/4"	-	-	SD1-L6	2979-935	\$26.21	-	-	-
3/8"	3/8"	-	-	SD3-L6	2979-940	28.58	-	-	-
1/2"	1/2"	-	-	SD5-L6	2979-945	33.08	-	-	-



High Speed - Single Cut



Carbide - Double Cut Carbide - Aluma Cut



Extended Shank

Egg Shape

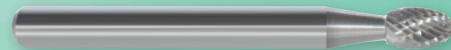
		1				2			
		HIGH SPEED		CARBIDE		CARBIDE		ALUMA CUT	
		SINGLE CUT		DOUBLE CUT		DOUBLE CUT		ALUMA CUT	
DIAM.	LENGTH	ORDER NO.	PRICE EACH	CARBIDE	ORDER NO.	PRICE EACH	CARBIDE	ORDER NO.	PRICE EACH
3/16"	5/16"	2976-030	\$ 5.85	SE-11	2978-445	\$ 14.85	-	-	-
1/4"	1/2"	2976-070	6.25	-	-	-	-	-	-
1/4"	3/8"	-	-	SE-1	2978-420	14.85	-	-	-
3/8"	5/8"	2976-175	8.05	SE-3	2978-425	18.34	SE-3NF	2979-425	\$22.73
1/2"	7/8"	2976-285	10.90	SE-5	2978-430	25.99	SE-5NF	2979-430	33.41
5/8"	1"	2976-360	12.35	SE-6	2978-435	36.79	SE-6NF	2979-435	47.38
3/4"	1"	2976-425	16.80	SE-7	2978-440	47.25	SE-7NF	2979-440	60.75
1"	1-3/8"	2976-480	26.95	-	-	-	-	-	-
6" EXTENDED SHANK SIZES									
1/4"	3/8"	-	-	SE-1L6	2979-950	28.91	-	-	-
3/8"	5/8"	-	-	SE-3L6	2979-955	32.51	-	-	-
1/2"	7/8"	-	-	SE-5L6	2979-960	40.16	-	-	-



High Speed - Single Cut



Carbide - Double Cut Carbide - Aluma Cut



Extended Shank

Round Tree Shape

		1				2			
		HIGH SPEED		CARBIDE		CARBIDE		ALUMA CUT	
		SINGLE CUT		DOUBLE CUT		DOUBLE CUT		ALUMA CUT	
DIAM.	LENGTH	ORDER NO.	PRICE EACH	CARBIDE	ORDER NO.	PRICE EACH	CARBIDE	ORDER NO.	PRICE EACH
1/4"	3/4"	2976-080	\$6.90	-	-	-	-	-	-
1/4"	5/8"	-	-	SF-1	2978-480	\$13.50	SF-1NF	2979-480	\$17.33
3/8"	3/4"	2976-180	8.60	SF-3	2978-485	16.99	SF-3NF	2979-485	21.94
7/16"	1"	-	-	SF-4	2978-487	22.18	-	-	-
1/2"	3/4"	-	-	SF-13	2978-505	23.85	-	-	-
1/2"	1"	-	-	SF-5	2978-490	21.68	SF-5NF	2979-490	31.05
1/2"	1-1/8"	2976-315	11.95	-	-	-	-	-	-
5/8"	1"	-	-	SF-6	2978-495	34.54	SF-6NF	2979-495	44.33
5/8"	1-1/8"	2976-370	13.30	-	-	-	-	-	-
3/4"	1"	-	-	SF-7	2978-500	45.56	SF-7NF	2979-500	43.20
3/4"	1-1/4"	2976-435	16.20	SF-14	2978-510	47.48	-	-	-
3/4"	1-1/2"	-	-	SF-15	2978-515	66.15	-	-	-
1-1/8"	2"	2976-485	38.80	-	-	-	-	-	-
6" EXTENDED SHANK SIZES									
1/4"	5/8"	-	-	SF-1L6	2979-965	27.68	-	-	-
3/8"	3/4"	-	-	SF-3L6	2979-970	31.16	-	-	-
1/2"	1"	-	-	SF-5L6	2979-975	38.25	-	-	-



High Speed - Single Cut



Carbide - Double Cut



Carbide - Aluma Cut

Burrs- High Speed Steel & Carbide



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WARNING: Cutting tools may shatter. Always wear approved safety glasses and mask when regrinding.

Pointed Tree Shape

		1		2	
		HIGH SPEED		CARBIDE - DOUBLE CUT	
DIAM.	LENGTH	ORDER NO.	PRICE EACH	CARBIDE ORDER NO.	PRICE EACH
1/4"	3/4"	2976-085	\$6.90	-	-
1/4"	5/8"	-	-	SG-1	2978-550 \$27.90
3/8"	3/4"	2976-185	8.60	SG-3	2978-555 16.99
1/2"	3/4"	2976-280	9.30	SG-13	2978-575 23.85
1/2"	1"	-	-	SG-5	2978-560 21.68
1/2"	1-1/8"	2976-320	12.45	-	-
5/8"	1"	2976-365	12.10	SG-6	2978-565 31.10
3/4"	1"	-	-	SG-7	2978-570 41.03
3/4"	1-1/2"	-	-	SG-15	2978-580 70.18
6" EXTENDED SHANK SIZES					
1/4"	5/8"	-	-	SG-1L6	2979-980 \$27.68
3/8"	3/4"	-	-	SG-3L6	2979-985 31.16
3/8"	3/4"	-	-	SG-5L6	2979-990 38.25



High Speed - Single Cut



Carbide - Double Cut



Extended Shank

Flame

		1		2	
		HIGH SPEED		CARBIDE - DOUBLE CUT	
DIAM.	LENGTH	ORDER NO.	PRICE EACH	CARBIDE ORDER NO.	PRICE EACH
1/4"	5/8"	-	-	SH-1	2978-618 \$14.85
5/16"	3/4"	-	-	SH-2	2978-620 16.55
1/2"	1-1/4"	-	-	SH-5	2978-625 33.98
5/8"	1-7/16"	2976-500	\$19.90	SH-6	2978-630 48.95
3/4"	1-5/8"	2976-440	26.95	SH-7	2978-635 70.88
6" EXTENDED SHANK SIZES					
5/16"	3/4"	-	-	SH-2L6	2980-000 \$30.71
1/2"	1-1/4"	-	-	SH-5L6	2980-005 48.60



High Speed - Single Cut



Carbide - Double Cut



Extended Shank

60° Included

		1		2	
		HIGH SPEED		CARBIDE - DOUBLE CUT	
DIAM.	LENGTH	ORDER NO.	PRICE EACH	CARBIDE ORDER NO.	PRICE EACH
1/4"	3/16"	2976-055	\$6.30	SJ-1	2978-650 \$12.38
5/16"	1/4"	-	-	SJ-2	2978-655 13.50
3/8"	5/16"	2976-160	7.45	SJ-3	2978-660 15.08
1/2"	7/16"	2976-260	10.70	SJ-5	2978-665 18.68
5/8"	1/2"	2976-330	12.50	SJ-6	2978-670 24.53
3/4"	5/8"	2976-380	14.95	SJ-7	2978-675 32.98
1"	7/8"	2976-460	23.00	SJ-9	2978-685 51.98



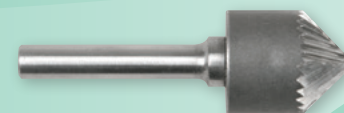
High Speed - Single Cut



Carbide - Double Cut

90° Included

		1		2	
		HIGH SPEED		CARBIDE - DOUBLE CUT	
DIAM.	LENGTH	ORDER NO.	PRICE EACH	CARBIDE ORDER NO.	PRICE EACH
1/4"	1/8"	2976-050	\$6.30	SK-1	2978-700 \$12.38
5/16"	5/32"	-	-	SK-2	2978-705 13.50
3/8"	3/16"	2976-155	7.45	SK-3	2978-710 15.08
1/2"	1/4"	2976-250	10.70	SK-5	2978-715 16.86
5/8"	5/16"	2976-325	12.50	SK-6	2978-720 24.53
3/4"	3/8"	2976-375	14.95	SK-7	2978-725 32.98
1"	1/2"	2976-455	23.00	SK-9	2978-735 51.98



High Speed - Single Cut



Carbide - Double Cut

Burrs- High Speed Steel & Carbide



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WARNING: Cutting tools may shatter. Always wear approved safety glasses and mask when regrinding.

14° Included Angle

CARBIDE							
DOUBLE CUT				ALUMA CUT			
DIAM.	LENGTH	CARBIDE	ORDER NO.	PRICE EACH	CARBIDE	ORDER NO.	PRICE EACH
1/4"	5/8"	SL-1	2978-750	\$13.61	-	-	-
5/16"	7/8"	SL-2	2978-755	17.23	-	-	-
3/8"	1-1/16"	SL-3	2978-760	20.59	SL-3NF	2979-760	\$26.45
1/2"	1-1/8"	SL-4	2978-765	26.23	SL-4NF	2979-765	33.75
5/8"	1-3/16"	SL-5	2978-767	46.03	-	-	-
5/8"	1-5/16"	SL-6	2978-770	46.03	SL-6NF	2979-770	59.30
3/4"	1-1/2"	SL-7	2978-775	66.15	SL-7NF	2979-775	85.05
6" EXTENDED SHANK SIZES							
1/4"	5/8"	SL-1L6	2980-010	27.79	-	-	-
3/8"	1-1/16"	SL-3L6	2980-015	34.76	-	-	-
1/2"	1-1/8"	SL-4L6	2980-020	40.39	-	-	-



Carbide - Double Cut

Carbide - Aluma Cut

Extended Shank

Inverted Cone

HIGH SPEED					CARBIDE - DOUBLE CUT		
DIA.	LG'TH.	INC. ANGLE	ORDER NO.	PRICE EACH	CARBIDE	ORDER NO.	PRICE EACH
1/4"	5/16"	10°	-	-	SN-1	2978-870	\$12.15
1/2"	1/2"	14°	2976-270	\$11.60	-	-	-
1/2"	1/2"	16°	-	-	SN-3	2978-880	19.50
1/2"	1/2"	28°	-	-	SN-4	2978-886	24.08
5/8"	3/4"	18°	-	-	SN-6	2978-888	34.53
3/4"	1/2"	30°	2976-385	12.90	-	-	-
3/4"	5/8"	30°	-	-	SN-7	2978-890	40.63



High Speed - Single Cut

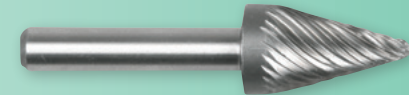


Carbide - Double Cut

Cone Shape

HIGH SPEED					CARBIDE - DOUBLE CUT		
DIA.	LG'TH.	INC. ANGLE	ORDER NO.	PRICE EACH	CARBIDE	ORDER NO.	PRICE EACH
1/4"	1/2"	22°	2976-065	\$6.60	SM-1	2978-800	\$13.16
1/4"	3/4"	14°	2976-075	7.60	SM-2	2978-805	14.18
1/4"	1"	10°	2976-105	8.60	SM-3	2978-810	15.08
1/4"	1-1/4"	8°	2976-110	9.90	SM-3A	2978-815	13.30
5/16"	1"	16°	2976-135	10.25	-	-	-
3/8"	5/8"	28°	2976-170	10.30	SM-4	2978-820	20.25
3/8"	1"	14°	2976-205*	12.75	-	-	-
1/2"	7/8"	28°	2976-305	11.45	SM-5	2978-825	25.99
5/8"	1"	31°	2976-355	13.50	SM-6	2978-830	40.40
3/4"	1"	34°	2976-420	16.00	SM-7	2978-835†	42.45

*Radius End † Limited Quantities



High Speed - Single Cut



Carbide - Double Cut

Aluma Burr Sets

Set A-2

12 Pc. Set - 1/4" Shank -
Dias. 1/4", 3/8", 1/2"

A-2 SET CONTAINS:	ORDER NO.	PRICE EACH
SA-1NF, SA-3NF, SA-5NF, SC-1NF, SC-3NF, SC-5NFSD-1NF, SD-3NF, SD-5NF, SF-1NF, SF-3NF, SF-5NF	2980-142	\$199.55

Set A-4

12 Pc. Set - 1/4" Shank - Dias. 1/4", 3/8", 1/2"

A-4 SET CONTAINS:	ORDER NO.	PRICE EACH
SA-1NF, SA-3NF, SA-5NF, SC-1NF, SC-3NF, SC-5NF, SF-1NF, SF-3NF, SF-5NF, SL-3NF, SL-4NF	2980-144	\$200.85

Set A-6

10 Pc. Set - 1/4" Shank - Dias. 3/8", 1/2"

A-6 SET CONTAINS:	ORDER NO.	PRICE EACH
SA-3NF, SA-5NF, SD-3NF, SD-5NF, SE-3NF, SE-5NF, SF-3NF, SF-5NF, SL-3NF, SL-5NF	2980-146	\$182.95



Set A-2



Set A-6

Carbide Burr Sets



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WARNING: Cutting tools may shatter. Always wear approved safety glasses and mask when regrinding.

12 Pc. Set - 1/4" Shank - Head Diam.: 1/4"



S-9 SET CONTAINS:	ORDER NO.	PRICE EACH
SA-1, SB-1, SC-1, SD-1, SE-1, SF-1, SG-1, SH-1, SJ-1, SK-1, SM-1, SN-1	2980-119	\$156.40

12 Pc. Set - 1/4" Shank - Head Diam.: 1/4"



S-10 SET CONTAINS:	ORDER NO.	PRICE EACH
SB-1, SC-1, SD-1, SE-1, SF-1, SG-1, SH-1, SJ-1, SK-1, SL-1, SM-1, SN-1	2980-120	\$156.80

12 Pc. Set - 1/4" Shank - Head Diam.: 3/16", 1/4"



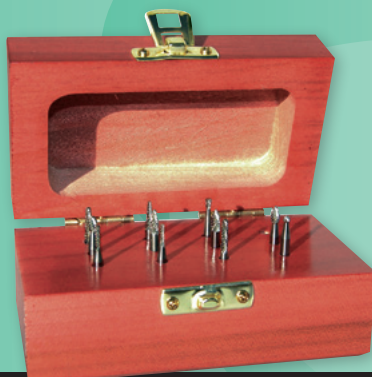
S-12 SET CONTAINS:	ORDER NO.	PRICE EACH
SA-1, SA-14, SC-1, SC-14, SD-1, SE-1, SF-1, SG-1, SJ-1, SL-1, SH-1, SN-1	2980-122	\$156.50

9 Pc. Set - 1/4" Shank - Head Diam.: 1/4", 3/8", 1/2"



S-16 SET CONTAINS:	ORDER NO.	PRICE EACH
SA-1, SA-3, SA-5, SC-1, SC-3, SC-5, SF-1, SF-3, SF-5	2980-126	\$155.55

8 Pc. Set - 1/4" Shank - Head Diam.: 1/2"



S-20 SET CONTAINS:	ORDER NO.	PRICE EACH
SA-5, SC-5, SD-5, SE-5, SG-5, SH-5, SK-5, SM-5	2980-130	\$168.70

8 Pc. Set - 1/4" Shank - Head Diam.: 1/2"



S-21 SET CONTAINS:	ORDER NO.	PRICE EACH
SB-5, SC-5, SD-5, SF-5, SG-5, SH-5, SJ-5, SK-5	2980-131	\$168.85

Miniature Carbide Burrs



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WARNING: Cutting tools may shatter. Always wear approved safety glasses and mask when grinding.

1/16" - 1/8" Head Diameter - 1/8" Shank Diameter

CUTTING HEAD	1/8"x9/16"	3/32"x7/16"	1/16"x7/16"	1/16"x1/4"	3/32"x7/16"	1/8"x9/16"	1/8"x9/16"	3/32"x7/16"	1/8"	3/32"	1/8"x1/4"	1/8"x1/4"	1/8"x1/2"	1/8"x3/8"
STYLE	SA-43	SA-42	SA-41	SB-41	SB-42	SB-43	SC-42	SC-41	SD-42	SD-41	SE-41	SH-41	SG-44	SG-43
1-1/2" OVERALL LENGTH														
ORDER NO.	2978-100	2978-095	2978-090	2978-220	2978-221	2978-222	2978-305	2978-300	2978-395	2978-390	2978-450	2978-640	2978-595	2978-590
PRICE EACH	\$5.85	\$5.85	\$5.85	\$4.40	\$4.40	\$7.39	\$6.19	\$6.19	\$6.19	\$6.19	\$6.19	\$6.19	\$8.74	\$6.19
2" OVERALL LENGTH														
ORDER NO.	2978-101	2978-096	2978-091	-	-	2978-223	2978-306	-	2978-396	-	2978-451	2978-641	2978-596	-
PRICE EACH	\$5.95	\$5.95	\$5.95	-	-	\$5.95	\$5.95	-	\$5.95	-	\$5.95	\$5.95	\$5.95	-
3" OVERALL LENGTH														
ORDER NO.	2978-102	2978-097	2978-092	-	-	2978-224	2978-307	-	2978-397	-	2978-452	2978-642	2978-597	-
PRICE EACH	\$6.55	\$6.55	\$6.55	-	-	\$6.55	\$6.55	-	\$6.55	-	\$6.55	\$6.55	\$6.55	-

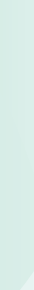
CUTTING HEAD	1/8"x1/4"	1/8"x1/2"	1/8"x1/4"	1/8"x5/8"	1/8"x7/16"	1/8"x11/32"	1/8"x1/2"	1/8"x3/8"	1/8"	1/8"	1/8"x3/16"	3/32"x1/8"
STYLE	SG-41	SF-42	SF-41	SM-43	SM-42	SM-41	SL-42	SL-41	SJ-42	SK-42	SN-42	SN-41
1-1/2" OVERALL LENGTH												
ORDER NO.	2978-585	2978-525	2978-520	2978-850	2978-845	2978-840	2978-785	2978-780	2978-690	2978-740	2978-905	2978-900
PRICE EACH	\$6.19	\$6.19	\$6.19	\$6.19	\$6.19	\$6.19	\$6.19	\$6.19	\$6.19	\$6.19	\$6.19	\$7.39
2" OVERALL LENGTH												
ORDER NO.	-	2978-526	-	-	2978-846	-	2978-786	-	-	-	-	-
PRICE EACH	-	\$5.95	-	-	\$5.95	-	\$5.95	-	-	-	-	-
3" OVERALL LENGTH												
ORDER NO.	-	2978-527	-	-	2978-847	-	2978-787	-	-	-	-	-
PRICE EACH	-	\$6.55	-	-	\$6.55	-	\$6.55	-	-	-	-	-

Miniature Carbide Burrs



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WARNING: Cutting tools may shatter. Always wear approved safety glasses and mask when regrinding.

5/32"- 3/16" Head Diameter - 1/8" Steel Shank Diameter - 1-1/2" OAL

CUTTING HEAD	3/16"x1/2"	5/32"x1/2"	3/16"x1/2"	5/32"x1/2"	5/32" Ball	3/16" Ball	3/16"x1/2"	3/16"x1/2"	3/16"x3/8"	3/16"x9/32"	3/16"x1/4"	3/16"x1/2"	3/16"x1/2"
STYLE	SA-53	SA-52	SC-53	SC-52	SD-52	SD-53	SG-53	SF-53	SH-53	SE-53	SN-53	SM-53	SL-53
													
ORDER NO. PRICE EACH	2978-115 \$12.21	2978-110 \$12.21	2978-320 \$8.30	2978-315 \$8.30	2978-403 \$8.30	2978-405 \$8.30	2978-605 \$12.21	2978-535 \$12.21	2978-645 \$12.21	2978-460 \$12.21	2978-915 \$12.21	2978-860 \$12.21	2978-790 \$12.21

1/4" Head Diameter - 1/8" Steel Shank Diameter - 2" OAL

CUTTING HEAD	1/2"	3/16"	1/4"	1/2"	1/2"	1/2"	1/2" - 22°	3/8"	1/2" - 10°
STYLE	SA-51	SB-51	SD-51	SC-51	SF-51	SG-51	SM-51	SE-51	SN-51
									
ORDER NO. PRICE EACH	2978-105 \$11.89	2978-225 \$10.01	2978-400 \$10.01	2978-310 \$10.01	2978-530 \$10.01	2978-600 \$10.01	2978-855 \$10.01	2978-455 \$10.01	2978-910 \$10.01

3/16" Head Diameter - 3/16" Shank Diameter - 2" OAL

CUTTING HEAD	5/8"	5/8"	3/16"	1/2"	1/2"	7/16" - 14°	9/32"	1/4" - 10°	90°	60°
STYLE	SA-81	SC-81	SD-81	SF-81	SG-81	SL-81	SE-81	SN-81	SK-81	SJ-81
										
ORDER NO. PRICE EACH	2978-130 \$8.55	2978-330 \$8.55	2978-415 \$8.55	2978-545 \$8.55	2978-615 \$8.55	2978-795 \$8.55	2978-470 \$8.55	2978-925 \$8.55	2978-745 \$8.55	2978-695 \$8.55

Miniature Burr Sets



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WARNING: Cutting tools may shatter. Always wear approved safety glasses and mask when regrinding.

12 Pc. Set - 1/8" Shank - Head Diam.: 1/8", 3/32"



M-1 SET CONTAINS:	ORDER NO.	PRICE EACH
SA-42, SA-43, SC-42, SD-42, SE-41, SF-41, SF-42, SG-41, SM-43, SN-41, SN-42, SL-41	2980-101	\$74.15

9 Pc. Set - 1/8" Shank - Head Diam.: 1/4"



M-7 SET CONTAINS:	ORDER NO.	PRICE EACH
SA-51, SB-51, SC-51, SD-51, SE-51, SF-51, SG-51, SM-51, SN-51	2980-107	\$130.16

12 Pc. Set - 1/8" Shank - Head Diam.: 1/8", 3/32", 1/16"



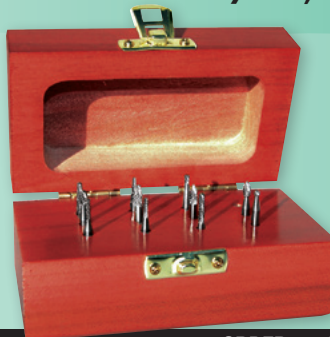
M-2 SET CONTAINS:	ORDER NO.	PRICE EACH
SA-41, SA-42, SC-41, SC-42, SD-42, SE-41, SF-41, SF-42, SH-41, SL-41, SL-42, SN-42	2980-102	\$74.30

12 Pc. Set - 1/8" Shank - Head Diam.: 5/32", 1/4"



M-8 SET CONTAINS:	ORDER NO.	PRICE EACH
SA-51, SA-52, SB-51, SC-51, SC-52, SD-51, SD-52, SE-51, SF-51, SG-51, SM-51, SN-51	2980-108	\$111.05

11 Pc. Set - 1/8" Shank - Head Diam.: 1/8", 3/32", 1/16"



M-3 SET CONTAINS:	ORDER NO.	PRICE EACH
SA-41, SB-41, SC-41, SD-41, SE-41, SF-41, SG-41, SH-41, SL-41, SM-41, SN-41	2980-103	\$71.60

Threading Toolholders & Bars

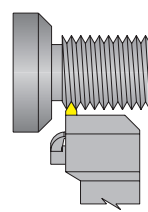
On Edge Threading

WARNING: This product contains Cobalt and/or Nickel and/or Lead a chemical known to the state of California to cause cancer or birth defects or other reproductive harm. For more information: www.pro65.ca.gov.
WARNING: Cutting tools may shatter. Always wear approved safety glasses and mask when regrinding.

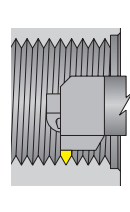
DORIAN
TOOL

4

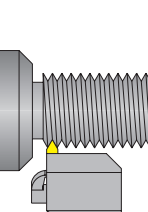
MTVO-A - On Edge Threading Toolholder

	Inch Description		Order No.		Shank Size	TNMA Gage Insert	Price Each
	R.H.	L.H.	R.H.	L.H.			
	MTVOR/L08-3B-A	8058-126	-	-	0.500	322	\$103.75
	MTVOR/L16-3D-A	8058-138	-	-	1.000		119.13
	MTVOR/L12-4B-A	8058-142	-	-	0.750		114.50
	MTVOR/L16-4D-A	8058-146	8058-147		1.000	432	124.54
	MTVOR/L20-4D-A	8058-150	8058-151		1.250		139.75
	MTVOR/L16-5D-A	8058-158	8058-159		1.000	543	129.96
	MTVOR/L20-5D-A	8058-162	8058-163		1.250		139.75

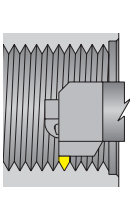
MTHO-A - On Edge Threading Bar

	Inch Description		Order No.		Bar Size	Min. Bore	TNMA Gage Insert	Price Each
	R.H.	L.H.	R.H.	L.H.				
	S16T-MTHOR/L-3-A	8058-346	-	-	1.000	1.388	322	\$339.46
	S20U-MTHOR/L-4-A	8058-354	8058-355		1.250	1.812		415.15
	S24U-MTHOR/L-4-A	8058-358	8058-359		1.500	2.250	432	422.14
	S32V-MTHOR/L-4-A	8058-362	8058-363		2.000	3.000		505.59
	S32V-MTHOR/L-5-A	8058-366	8058-367		2.000	3.500	543	505.59
	S40V-MTHOR/L-5-A	8058-370	8058-371		2.500	3.750		624.38
	S40V-MTHOR/L-66-A	8058-378	-	-	2.500	4.000	663	624.38

STVO - On Edge Threading Toolholder

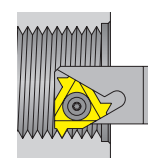
	Inch Description		Order No.		Shank Size	TNMC Gage Insert	Price Each
	R.H.	L.H.	R.H.	L.H.			
	STVOR/L08-3A	8058-070	-	-	0.500		\$ 92.04
	STVOR/L10-3B	8058-074	8058-075		0.625	322	96.61
	STVOR/L12-3B	8058-078	8058-079		0.750		101.82
	STVOR/L16-3D	8058-082	8058-083		1.000		113.32
	STVOR/L12-4B	8058-086	8058-087		0.750		106.43
	STVOR/L16-4D	8058-090	8058-091		1.000	432	113.32
	STVOR/L20-4D	8058-094	8058-095		1.250		130.57
	STVOR/L16-5D	8058-102	8058-103		1.000	543	123.63
	STVOR/L20-5D	8058-106	-	-	1.250		130.57

MTHO-C - On Edge Threading Bar

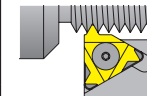
	Inch Description		Order No.		Bar Size	Min. Bore	TNMC Gage Insert	Price Each
	R.H.	L.H.	R.H.	L.H.				
	S16T-MTHOR/L-3-C	8058-300	-	-	1.000	1.388	322	\$ 339.46
	S20U-MTHOR/L-3-C	8058-304	-	-	1.250	1.656		415.15
	S20U-MTHOR/L-4-C	8058-308	8058-309		1.250	1.812		415.15
	S24U-MTHOR/L-4-C	8058-312	8058-313		1.500	2.250	432	422.14
	S32V-MTHOR/L-4-C	8058-316	8058-317		2.000	3.000		505.59
	S32V-MTHOR/L-5-C	8058-320	8058-321		2.000	3.500	543	505.59
	S40V-MTHOR/L-5-C	8058-324	-	-	2.500	3.750		624.38

Laydown Threading

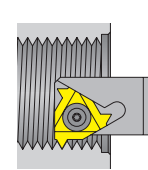
SN - Small Shank Laydown Threading Bar

	Inch Description		Order No.		Bar Size	Min. Bore	Gage Insert	Price Each
	R.H.	L.H.	R.H.	L.H.				
	SNR037-40-11	8058-600	-	-	0.375	0.500	11-A60	\$130.04
	SNR050-55-11	8058-604	-	-	0.500	0.600		130.04
	SNR062-60-16	8058-608	-	-	0.625	0.750		131.98
	SNR075-70-16	8058-612	-	-	0.750	0.950	16-G60	143.63
	SNR100-80-16	8058-616	-	-	1.000	1.150		186.33

SE - Laydown Qualified Threading Toolholder

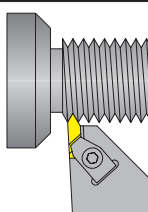
	Inch Description		Order No.		Shank Size	Gage Insert	Price Each
	R.H.	L.H.	R.H.	L.H.			
	SER075-5-16Q	8058-492	-	-	0.750		\$114.69
	SER100-6-16Q	8058-496	-	-	1.000	16-G60	123.51

SN - Laydown Threading Bar

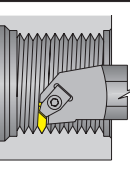
	Inch Description		Order No.		Bar Size	Min. Bore	Gage Insert	Price Each
	R.H.	L.H.	R.H.	L.H.				
	SNR/L075-07-16	8058-636	-	-	0.750	0.950		\$151.39
	SNR/L100-08-16	8058-640	-	-	1.000	1.150		190.21
	SNR/L150-12-16	8058-648	-	-	1.500	1.700	16-G60	279.48
	SNR/L200-14-16	8058-656	-	-	2.200	2.000		395.93
	SNR/L125-10-22	8058-664	-	-	1.250	1.500		232.90
	SNR/L150-12-22	8058-668	-	-	1.500	1.800	22-N60	279.48
	SNR/L200-14-22	8058-676	-	-	2.000	2.300		395.93

DorNotch Threading

NS - DorNotch Threading Toolholder

	Inch Description		Order No.		Shank Size	Gage Insert	Price Each
	R.H.	L.H.	R.H.	L.H.			
	NSR/L12-2B	8058-782	8058-783		0.750	NG-2R*	\$113.53
	NSR/L16-2C	8058-786	-	-	1.000	NG-2L**	115.21
	NSR/L12-3B	8058-794	8058-795		0.750		113.53
	NSR/L16-3D	8058-802	8058-803		1.000	NG-3R*	120.45
	NSR/L20-3D	8058-806	8058-807		1.250	NG-3L**	137.61
	NSR/L16-4D	8058-814	8058-815		1.000	NG-4R*	120.45
	NSR/L20-4D	8058-822	8058-823		1.250	NG-4L**	137.61

S-NE - DorNotch Threading Bar

	Inch Description		Order No.		Bar Size	Min. Bore	Gage Insert	Price Each
	R.H.	L.H.	R.H.	L.H.				
	S10S-NER/L-2	8058-970	8058-971		0.625	1.000	NG-2R*, NG-2L**	\$208.84
	S16T-NER/L-3	8058-978	8058-979		1.000	1.375		318.21
	S20U-NER/L-3	8058-982	8058-983		1.250	1.750	NG-3R*, NG-3L**	337.42
	S24U-NER/L-3	8058-986	8058-987		1.500	2.000		405.63

**For Left Hand Tool,
*For Right Hand Tool

**For Left Hand Tool,
*For Right Hand Tool

Threading Inserts

WARNING: This product contains Cobalt and/or Nickel and/or Lead a chemical known to the state of California to cause cancer or birth defects or other reproductive harm. For more information: www.prop65.ca.gov.
WARNING: Cutting tools may shatter. Always wear approved safety glasses and mask when grinding.



Choose From Three Threading Styles:

- 1. OnEdge** Threading for Multi-Purpose Applications.
- 2. Laydown** Threading for Small Diameter Holes, Clearance Restrictions and Precision Threading Applications.
- 3. DorNotch** Threading when Maximum Rigidity and precision Threading is Required.

4

Non-Ferrous Material	Ferrous Material
Dorian Insert Grade	
DVK10	DVP656
For all Non-Ferrous Material; 300 series stainless steel, Ductile Cast Iron, Aluminum and High Temper Alloy.	For all Ferrous Material; Alloy Steels, Carbon Steels and 400 Series Stainless Steel

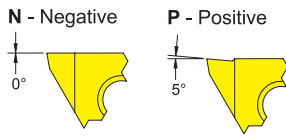
On Edge Style

Insert Identification

External



N - Negative **P - Positive**



Internal



A - With hole



C - Countersink on both



On Edge Threading Inserts

Insert Description	Non-Ferrous DVK10	Ferrous DVP656	Price Each
NV "V" Thread Negative Rake			
TNMA	Order No.		
TNMA-32NV	8072-529	8072-528	\$ 17.74
TNMA-43NV	8072-536	8072-535	23.73
TNMA-54NV	8072-557	8072-556	37.30
TNMC	Order No.		
TNMC-32NV	8072-004	8072-003	17.74
TNMC-43NV	8072-008	8072-010	23.73
TNMC-54NV	8072-032	8072-031	37.30
NV "V" Thread Positive Rake			
TPMA	Order No.		
TPMA-32NV	8073-394	8073-393	20.01
TPMA-43NV	8073-401	8073-400	25.99
TPMC	Order No.		
TPMC-32NV	8073-056	8073-055	20.01
TPMC-43NV	8073-063	8073-062	25.99

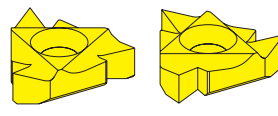
Laydown Style

Insert Identification

External



E - External **I - Internal**



Internal



Partial Profile:
A = 16-48 N = 5-7
AG = 8-48 Q = 4.5-4
G = 8-14

Full Profile:
Metric: Pitch in mm
Inches: Thread per inch

Laydown Threading Insert

Insert Description	Non-Ferrous DVK10	Ferrous DVP656	Price Each
Ext. 60° Partial Profile Thread			
External	Order No.		
11ER-A60	8074-001	8074-000	\$ 28.04
11EL-A60	8074-005	8074-004	28.04
16ER-AG60	8074-025	8074-024	28.04
16EL-AG60	8074-029	8074-028	28.04
22ER-N60	8074-033	8074-032	33.29
22EL-N60	8074-037	8074-036	33.29
Internal Shown			
11IR-A60	8074-057	8074-056	28.04
11IL-A60	8074-061	8074-060	28.04
16IR-AG60	8074-081	8074-080	28.04
16IL-AG60	8074-085	8074-084	28.04
22IR-N60	8074-089	8074-088	33.29
22IL-N60	8074-093	8074-092	33.29

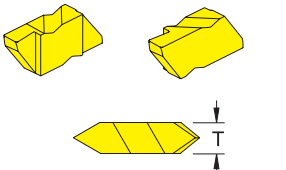
DorNotch Style

Insert Identification

External



LH - Left Hand **RH - Right Hand**



Internal



Insert No. **T**

1	.100
2	.150
3	.195
4	.255
5	.380
6	.383
8	.438

DorNotch Threading Inserts

Insert Description	Non-Ferrous DVK10	Ferrous DVP656	Price Each
NT-60°-"V" Thread			
Neutral	Order No.		
NT-2R	8082-901	8082-900	\$ 19.97
NT-2L	8082-905	8082-904	19.97
NT-3R	8082-909	8082-908	25.27
NT-3L	8082-913	8082-912	25.27

Inserts are sold in standard packs of 5. Pricing is each.

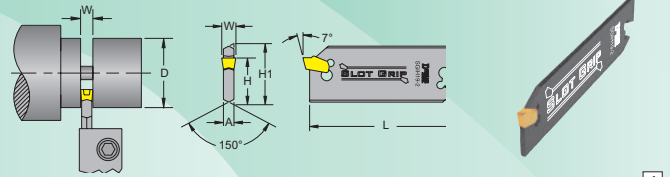
Cut-off Toolholder & Inserts

WARNING: This product contains Cobalt and/or Nickel and/or Lead a chemical known to the state of California to cause cancer or birth defects or other reproductive harm. For more information: www.pro65.ca.gov.
WARNING: Cutting tools may shatter. Always wear approved safety glasses and mask when grinding.

DORIAN
TOOL

Slot Grip Positive Stop Blades -

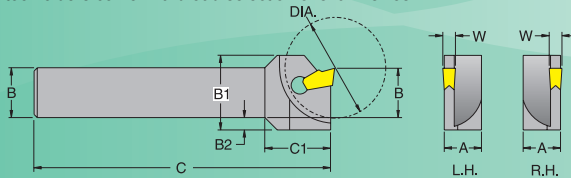
Improved blade design featuring a "Positive Stop". Inserts are securely held in Slot Grip Blades by a tapered locking system featuring a "Positive Stop" that prevents insert drift and the blade pocket from spreading once the insert is firmly in place. The inserts' cutting edge location repeats accurately and, as a result, prevents insert splitting under heavy feed and shock loads. The blade and insert geometry permits free chip flow, minimizing insert breakage due to chip build-up. Clearance angle ranges from 4° to 7°.



Description	Order No.	Insert Used	W in mm	D Max in mm	A in mm	L in mm	H in mm	H 1 in mm	Price Each
SGIH19-2	8062-950	SGT(N/R/L)-2	.087	2	1.57	39.9	.063	1.57	\$ 99.96
SGIH26-2	8062-951	SGT(N/R/L)-2	.087	2	2.00	50.8	.063	1.57	119.06
SGIH26-3	8062-952	SGT(N/R/L)-3	.122	3	3.00	76.2	.094	2.39	119.06
SGIH26-4	8062-953	SGT(N/R/L)-4	.161	4	3.15	80.0	.125	3.18	119.06
SGIH32-3	8062-956	SGT(N/R/L)-3	.122	3	3.94	100.0	.094	2.39	137.71
SGIH32-4	8062-957	SGT(N/R/L)-4	.161	4	3.94	100.0	.125	3.18	137.71
SGIH32-5	8062-958	SGT(N/R/L)-5	.201	5	4.71	119.6	.156	3.96	137.71
SGIH32-6	8062-959	SGT(N/R/L)-6	.252	6	4.72	119.9	.203	5.16	137.71

Cut-Off Toolholder - The square shank design of the Cut-Off toolholder ensures a precise center line of the insert with respect to the center of the working part, when the toolholder is mounted directly on the CNC turret. Inserts are securely held in Slot Grip blades by a tapered locking system. No additional clamping devices are required. Slot Grip Cut-Off toolholders come in a broad selection of shank sizes.

Neutral Cut-Off Toolholder - The two piece clamp style of this tool provides a precise and rigid blade locking and easy mounting of the tool into CNC turrets. Simple block design accommodates Slot Grip and competitive blade systems. Slot Grip Cut-Off toolholders come in a broad selection of shank sizes.



Description	Order No R.H.	B	Max Dia	W	Insert Used	Price Each
SGTHR/L-9,5-2	8063-000	0.375	1.109	.087 & 0.93	SGTN/R/L-2,4	\$ 100.68
SGTHR/L-12,7-2	8063-002	0.500	1.172	.087 & 0.93		108.99
SGTHR/L-19-2	8063-006	0.750	1.266	.087 & 0.93	SGTN/R/L-3	140.92
SGTHR/L-12,7-3	8063-010	0.500	1.266	.120		108.99
SGTHR/L-16-3	8063-012	0.625	1.266	.120		117.30
SGTHR/L-19-3	8063-014	0.750	1.406	.120		140.92
SGTHR/L-25,4-3	8063-016	1.000	2.062	.120		176.89
SGTHR/L-25,4-5	8063-026	1.000	3.000	.187 & .200	SGTN/R/L-4,8-5	176.89

Description	Order No. Neutral	Shank Size	Blade Used	Price Each
SGTBN12,7-2	8062-970	0.500	SGIH19-2	\$ 244.86
SGTBN19-5	8062-973	0.750	SGIH26-2 THRU SGIH26-6	258.01
SGTBN19-6	8062-974	0.750	SGIH32-3	258.01
SGTBN25,4-6	8062-975	1.000	THRU	265.84
SGTBN31,8-6	8062-976	1.250	SGIH32-9	273.04

Cut-Off & Grooving Inserts

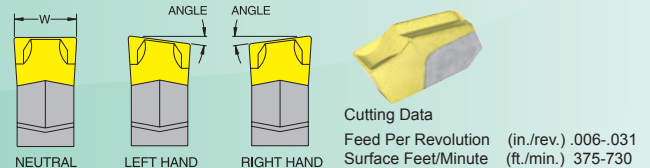
Designed for use with standard cut-off inserts and standard cut-off blade holders. The insert's cutting edge location repeats accurately and as a result prevents insert splitting under heavy feed and shock loads. The blade and insert geometry permits free chip flow, minimizing insert breakage due to chip build-up.

Chipbreaker Geometry

- Reduced machining force
- Controlled, coiled chip flow
- Higher material removal rate

Application

- Quickly inserted into adjustable blades
- For cut-off and grooving
- Fair for interrupted cuts



		Dimensions				Insert Grade				
Desc.	ANSI	Insert Size mm	Lead Angle	Width Inch	.05 mm	DC656 Order No.	Price Each	DK25 Order No.	Price Each	DASK25B Order No.
SGTN Neutral	SGTN-2	2.0	0°	0.087	2.0	8082-222	\$15.66	8082-220	\$11.99	8082-223
	SGTN-2.4	2.4	0°	0.094	2.4	8082-306	15.66	8082-304	11.99	8082-307
	SGTN-3	3.0	0°	0.122	3.0	8082-226	15.66	8082-224	11.99	8082-227
	SGTN-4	4.0	0°	0.161	4.0	8082-230	16.70	8082-228	13.58	8082-231
	SGTN-4.8	4.8	0°	0.189	4.8	8082-318	16.30	8082-316	14.19	8082-319
SGTR Right Hand	SGTR-2-8	2.0	8°	0.087	2.0	8082-250	15.85	8082-248	13.05	8082-251
	SGTR-2.4-8	2.4	8°	0.094	2.4	8082-310	15.85	8082-308	13.05	8082-311
	SGTR-3-8	3.0	8°	0.122	3.0	8082-254	15.85	8082-252	13.05	8082-255
	SGTR-4-8	4.0	8°	0.161	4.0	8082-258	17.50	8082-256	14.83	8082-259
	SGTR-4.8-8	4.8	8°	0.189	4.8	8082-322	17.75	8082-320	15.48	8082-323

Insert Grade	Coating	ISO	Material to Machine
DC656	CVD	P15-P35	Free Cutting Steel
	COATED	M20-M35	Low Carbon Steel
	CVD TiN/		Alloy Carbon Steel
	TiC-TiN		Alloy Steel under 48 HRC 400 Series Stainless Steel
DK25	Uncoated	K25	Aluminum
DASK25B	PVD	P10-P25	Free Cutting Steel
	COATED	M15-35	High Temper Alloys
	PVD	K05-K20	Stainless Steel Austenitic
	TiN+TiAlN +TiN	S10-S25	Cast Iron Copper/Brass

Inserts are sold in standard packs of 5. Pricing is each.

American Value Inserts

Economically priced inserts that will run on steels, cast irons, and non-ferrous materials. VM= Value Medium Machining

GRADE	ISO CLASS	INDUSTRY CLASS	DESCRIPTION	COATING
C2VAL Roughing to Semi-Finishing	K10-K25 N05-N15 S10-S20	C2	C2VAL is an uncoated, unalloyed grade with good abrasive wear resistance. Designed for medium to rough turning of cast iron, non-ferrous materials, and high temperature alloys.	
C5CVAL Roughing to Semi-Finishing	P20-P35	C5 C6	C5CVAL has a multi-layered Tin/TiC/TiCN/TiN coating over an alloyed, cobalt-rich substrate. Offers a good balance of wear resistance and toughness. For general purpose to heavy roughing of carbon and alloy steels at medium speeds and feeds. Can withstand light interruptions.	

American Standard Inserts

A broad line of ANSI and ISO standard inserts. Molded-to-size reliability or precision ground. GM= Medium Machining

AN2020 Roughing to Semi-Finishing	P15-P30 M15-M30	C6	AN2020 is based on a hard, cobalt-enriched substrate and has a multi-layered gold coating to provide excellent thermal wear, and mechanical shock resistance. Perfect general purpose grade for medium speeds and feeds in interrupted to semi-finishing cuts on carbon and alloy steels.	
AN2025 Roughing to Semi-Finishing	P15-P35 M15-M35	C5	AN2025 has a tough, cobalt-enriched substrate with a multi-layer TiCN/ Al ₂ O ₃ / TiN coating to enhance edge strength. This is the preferred grade for high speed machining of stainless steel and most steels. Performs well in roughing to semi-finishing.	

American Performance Inserts

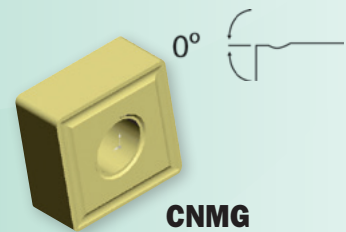
High-Performance inserts for modern CNC machines featuring state-of-the-art grade and geometry design.

AN3025 Roughing to Semi-Finishing	P10-P35 M10-M35 K10-K25 S10-S30	C2 C5 C6	Offered only in American Performance™ inserts, AN3025 has a tough substrate with a cobalt enriched layer under a CVD coating of TiCN, Al ₂ O ₃ , and TiN. Provides high wear resistance, and is an excellent general purpose grade for steels and cast irons.	
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Negative Turning Inserts

CNMG

	STD. PACK	AMERICAN VALUE C2VAL		AMERICAN STANDARD C5CVAL		AMERICAN STANDARD AN2020		I.C.	THICK.	RADIUS	HOLE
		ORDER NO.	PRICE EACH	ORDER NO.	PRICE EACH	ORDER NO.	PRICE EACH				
CNMG-322-GM	10	—	—	—	—	2958-059	\$3.85	3/8	1/8	1/32	0.150
CNMG-432-VM	10	2959-150	POA	2959-151	POA	—	—	1/2	3/16	1/32	0.203
CNMG-432-GM	10	—	—	—	—	2957-072	POA	1/2	3/16	1/32	0.203
CNMG-433-VM	10	2959-152	\$5.15	2959-153	\$6.11	—	—	1/2	3/16	3/64	0.203
CNMG-433-GM	10	—	—	—	—	2958-082	7.37	1/2	3/16	3/64	0.203
CNMG-543-VM	10	—	—	2959-154	11.07	—	—	5/8	1/4	3/64	0.250
CNMG-543-GM	10	—	—	—	—	2957-104	13.29	5/8	1/4	3/64	0.250
CNMG-643-VM	5	—	—	2959-155	13.54	—	—	3/4	1/4	3/64	0.312
CNMG-643-GM	5	—	—	—	—	2957-123	POA	3/4	1/4	3/64	0.312



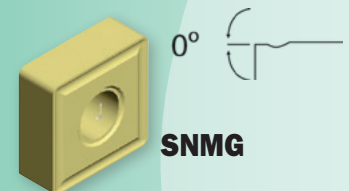
DNMG

	STD. PACK	AMERICAN STANDARD AN2020		I.C.	THICK.	RADIUS	HOLE
		ORDER NO.	PRICE EACH				
DNMG-332-GM	10	2958-189	\$7.87	3/8	3/16	1/32	0.150
DNMG-432-GM	10	2957-221	POA	1/2	3/16	1/32	0.203



SNMG

	STD. PACK	AMERICAN VALUE C2VAL		AMERICAN STANDARD C5CVAL		AMERICAN STANDARD AN2020		I.C.	THICK.	RADIUS	HOLE
		ORDER NO.	PRICE EACH	ORDER NO.	PRICE EACH	ORDER NO.	PRICE EACH				
SNMG-322-GM	10	—	—	—	—	2957-363	POA	3/8	1/8	1/32	0.150
SNMG-432-VM	10	2959-156	POA	2959-157	\$5.94	—	—	1/2	3/16	1/32	0.203
SNMG-432-GM	10	—	—	—	—	2957-370	POA	1/2	3/16	1/32	0.203
SNMG-543-VM	10	—	—	2959-158	9.71	—	—	5/8	1/4	3/64	0.250
SNMG-543-GM	10	—	—	—	—	2957-394	\$11.68	5/8	1/4	3/64	0.250
SNMG-643-VM	5	—	—	2959-159	12.58	—	—	3/4	1/4	3/64	0.312
SNMG-643-GM	5	—	—	—	—	2958-430	15.11	3/4	1/4	3/64	0.312



Carbide Inserts



Sold In Standard Pack
Quantity Only 3

WARNING: This product contains Cobalt and/or Nickel and/or Lead a chemical known to the state of California to cause cancer or birth defects or other reproductive harm. For more information: www.prodds.ca.gov.
WARNING: Cutting tools may shatter. Always wear approved safety glasses and mask when regrinding.

Negative Turning Inserts

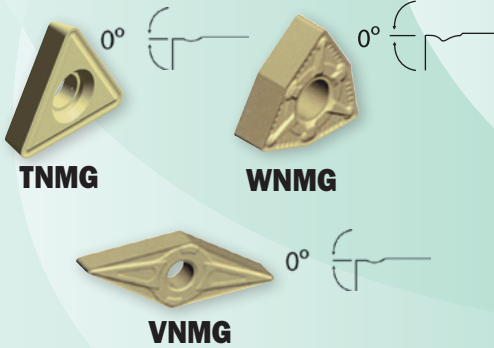
WNMG

AMERICAN PERFORMANCE AN3025							
	STD. PACK	ORDER NO.	PRICE EACH	I.C.	THICK.	RADIUS	HOLE
WNMG-331-P3	10	2957-976	POA	3/8	3/16	1/64	0.150
WNMG-332-P3	10	2957-981	POA	3/8	3/16	1/32	0.150
WNMG-431-P3	10	2957-985	11.16	1/2	3/16	1/64	0.203
WNMG-432-P3	10	2957-989	11.16	1/2	3/16	1/32	0.203
WNMG-433-P3	10	2957-992	11.16	1/2	3/16	3/64	0.203
WNMG-434-P3	10	2957-995	11.16	1/2	3/16	1/16	0.203

VNMG

AMERICAN STANDARD AN2020							
	STD. PACK	ORDER NO.	PRICE EACH	I.C.	THICK.	RADIUS	HOLE
VNMG-331-GM	10	2959-081	\$10.99	3/8	3/16	1/64	0.150
VNMG-332-GM	10	2959-090	10.99	3/8	3/16	1/32	0.150
VNMG-431-GM	10	2959-096	POA	1/2	3/16	1/64	0.203
VNMG-432-GM	10	2959-102	14.36	1/2	3/16	1/32	0.203
VNMG-433-GM	10	2959-108	14.36	1/2	3/16	1/64	0.203

TNMG

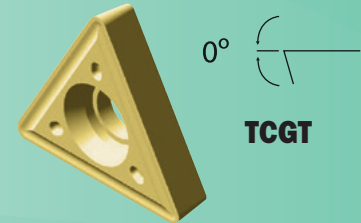


AMERICAN VALUE C2VAL				AMERICAN STANDARD AN2020							
	STD. PACK	ORDER NO.	PRICE EACH		STD. PACK	ORDER NO.	PRICE EACH	I.C.	THICK.	RADIUS	HOLE
TNMG-321-VM	10	2959-160	\$8.42			2959-161	\$8.42	3/8	1/8	1/64	0.150
TNMG-321-GM	10	—	—			2957-576	\$10.33	3/8	1/8	1/64	0.150
TNMG-322-VM	10	2959-162	8.42			2959-163	8.42	3/8	1/8	1/32	0.150
TNMG-322-GM	10	—	—			2957-585	10.33	3/8	1/8	1/32	0.150
TNMG-332-VM	10	2959-164	10.33			2959-165	10.33	3/8	1/8	3/64	0.150
TNMG-332-GM	10	—	—			2957-602	POA	3/8	1/8	3/64	0.150
TNMG-431-VM	10	2959-166	14.62			2959-167	14.62	1/2	3/16	1/64	0.203
TNMG-431-GM	10	—	—			2957-612	8.96	1/2	3/16	1/64	0.203
TNMG-432-VM	10	2959-168	14.62			2959-169	14.62	1/2	3/16	1/32	0.203
TNMG-432-GM	10	—	—			2957-622	17.03	1/2	3/16	1/32	0.203
TNMG-433-VM	10	2959-170	14.62			2959-171	14.62	1/2	3/16	3/64	0.203
TNMG-433-GM	10	—	—			2958-774	17.03	1/2	3/16	3/64	0.203
TNMG-543-VM	10	—	—			2959-172	26.32	5/8	1/4	3/64	0.250
TNMG-543-GM	10	—	—			2957-666	33.12	5/8	1/4	3/64	0.250
TNMG-544-VM	10	—	—			2959-173	26.32	5/8	1/4	1/16	0.250

Positive Turning Inserts

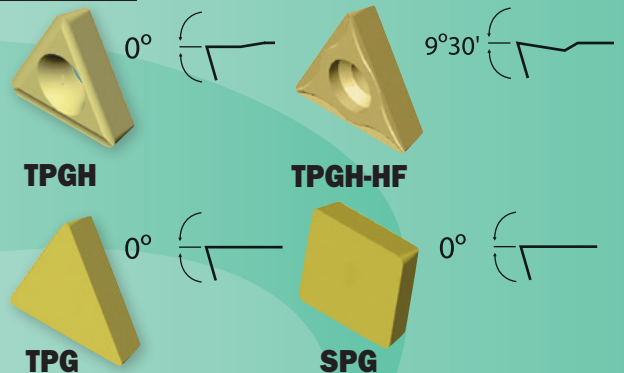
TCGT

AMERICAN VALUE C2VAL				AMERICAN STANDARD AN2020							
	STD. PACK	ORDER NO.	PRICE EACH		STD. PACK	ORDER NO.	PRICE EACH	I.C.	THICK.	RADIUS	HOLE
TCGT-221-VM	10	2959-188	\$ 6.49			2959-189	\$7.24	1/4	1/8	1/64	0.123
TCGT-222-VM	10	2959-190	6.49			2959-191	7.24	1/4	1/8	1/32	0.123
TCGT-321-VM	10	2959-192	7.45			2959-193	8.50	3/8	1/8	1/64	0.177
TCGT-322-VM	10	2959-194	7.45			2959-195	POA	3/8	1/8	1/32	0.177
TCGT-431-VM	10	2959-202	8.89			2959-203	11.49	1/2	3/16	1/64	0.218
TCGT-432-VM	10	2959-204	POA			2959-205	POA	1/2	3/16	1/32	0.218



TPGH

AMERICAN VALUE C5CVAL				AMERICAN STANDARD AN2020							
	STD. PACK	ORDER NO.	PRICE EACH		STD. PACK	ORDER NO.	PRICE EACH	I.C.	THICK.	RADIUS	HOLE
TPGH-21.51	10	—	—			2957-855	\$8.69	1/4	3/32	1/64	0.123
TPGH-21.52	10	—	—			2957-860	8.69	3/32	3/32	1/32	0.123
TPGH-321-HF	10	2959-175	POA			2957-865	POA	3/8	1/8	1/64	0.177
AN2025											
TPGH-322-HF	10	2959-177	\$8.50			2957-870	12.75	3/8	1/8	1/32	0.177



TPG

AMERICAN STANDARD AN2020							
	STD. PACK	ORDER NO.	PRICE EACH	I.C.	THICK.	RADIUS	HOLE
TPG-222	10	2958-897	\$8.69	1/4	1/8	1/32	—
TPG-321	10	2957-768	7.75	3/8	1/8	1/64	—
TPG-322	10	2957-778	7.75	3/8	1/8	1/32	—
TPG-323	10	2958-907	7.75	3/8	1/8	3/64	—
TPG-432	10	2957-796	POA	1/2	3/16	1/32	—
TPG-433	10	2958-920†	13.79	1/2	3/16	3/64	—
TPG-434	10	2957-807	13.79	1/2	3/16	1/16	—

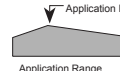
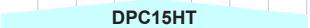
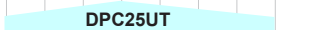
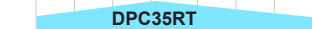
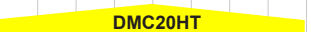
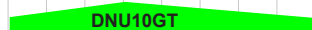
SPG

AMERICAN STANDARD AN2020							
	STD. PACK	ORDER NO.	PRICE EACH	I.C.	THICK.	RADIUS	HOLE
SPG-321	10	2958-493	\$9.69	3/8	1/8	1/64	—
SPG-322	10	2958-496	9.69	3/8	1/8	1/32	—
SPG-323	10	2958-499	9.69	3/8	1/8	3/64	—
SPG-433	10	2958-521	15.51	1/2	3/16	3/64	—

Insert Grade Chart

WARNING: This product contains Cobalt and/or Nickel and/or Lead a chemical known to the state of California to cause cancer or birth defects or other reproductive harm. For more information: www.pro65.ca.gov.
WARNING: Cutting tools may shatter. Always wear approved safety glasses and mask when regrounding.



Material	Grade	Turning application												Application Peak		Uncoated	PVD Coated	CVD Coated
		Finishing				Universal				Roughing								
		Hard Wear Resistant				Hard & Tough Impact & Wear Resistant				Tough Impact Resistant								
		01	05	10	15	20	25	30	35	40	45	50	ANSI Grade		ISO Grade			
		High Cutting Speed				Medium Cutting Speed				Low Cutting Speed								
P Carbon Steel/Alloy Steel	DPC15HT													C6-C7	P10-P25 M10-M25			●
	DPC25UT													C5-C6	P15-P35 M15-M35			●
	DPC35RT													C5	P25-P45 M25-M45			●
M Stainless Steel	DMC20HT													C6-C7	P20 M20			●
	DMC30UT													C5-C6	P35 M35			●
N Alum. Non Ferrous Mtrl.	DNU10GT													C2-C3	K15 P10 M15 N15 S15		●	
	DNX10UT													C2-C4	M10 K10-N10 S10			●
K Cast Iron Ferrous Metal & Material	DKC05HT													C3-C4	K05 P05 M05			●
	DKC10UT													C2-C3	K10 P10 M10			●
	DKC15RT													C1-C2	K15 P15 M15			●
S High Temp Super Alloy Multi Material	DSP10HT													C3-C4	M10 K10-N10 S10			●
	DUP15VT													C3-C8	P10 M10 K10 N10 S10		●	
	DSP20HT													C2-C3	M20 K20 N20 S20		●	
	DUP25GT													C3-C7	P15 M15 K15 N25 S25		●	
	DSP15HT													C3-C7	P20 M25 K30 N30 S30		●	

Insert Grades

- 1 If inserts wear, reduce Spindle Speed RPM (n) increase Feed (fn) or change to a harder insert grade.
- 2 If inserts chip, increase Spindle Speed (n), decrease Feed (fn), or change to tougher insert grade.

- 3 For smooth surface and hard material, use hard and wear resistant insert with smaller nose radius (not for interrupted cuts).
- 4 For forgings, castings and interrupted cuts, use tough and impact resistant insert with larger nose radius.

DPC15HT

For high speed turning of Alloy Steels, up to 980 SFM
 Most wear resistant steel grade
 Second choice for finishing operation on Duplex, 316 and 316L Stainless
 P15 (P10-P25) Fine Grain Substrate (1600 Vickers)
 CVD Al₂O₃/TiN/TiCN/Al₂O₃/Nano-TiCN/MT-TiCN/TiN
 Not for interrupted cuts

DPC25UT

Universal Turning Grade for Alloy Steels, and easily machinable Stainless Steels (316, 316L)
 Medium Cutting Speeds at 400-820 SFM
 For light interrupted and continuous cuts
 P25 (P15-P35) Substrate (1550 Vickers)
 CVD Al₂O₃/TiN/TiCN/Alpha-Al₂O₃/Nano-TiCN/MT-TiCN/TiN Nanolock Technology

DPC35RT

For heavily interrupted cuts, forgings, castings and uneven surfaces
 Tough and impact resistant substrate
 Slow cutting speeds at 160-490 SFM
 P40 (P25-P40) Substrate (1450 Vickers)
 For Steels and Stainless Steels
 CVD TiN/Al₂O₃/TiCN Nanolock Technology

DMC20HT

High Performance Machining of austenitic stainless steels at higher SFM
 M20 (M10-M25) Substrate
 High cutting speeds 525-720 SFM
 Nanolock black MT-CVD Al₂O₃/TiCN/TiN

DMC30UT

Tougher alternative to DMC20UT grade for stainless steels
 For medium cutting speeds 390-560 SFM
 M30 (M25-M40) Substrate (1475 Vickers)
 CVD TiN/TiCN/TiN Coating

DNU10GT

Uncoated, high wear resistant grade for machining aluminum, non-ferrous metals and plastics
 K10 (K05-K15) Substrate

DNX10UT

Coated version of DNU10GT
 High wear resistant grade for machining aluminum, non-ferrous metals and plastics
 Micropulse Plasma TiAlN coating, ideal for finish machining of stainless steels and high temp alloys

DKC05HT

Hard high wear and abrasive resistant substrate with a CVD Multi Layer of Alumina, Titanium Carbonitride Coating, (Al₂O₃/TiCN/Al₂O₃/TiCN). High Cutting Speed, for Finishing Turning Application, and Medium to Roughing Application when Turning smooth surface. For cutting Cast Iron, Hardened Steel, and all non Ferrous Material. High SFM (Vc) Brittle! Not for interrupted Cut.

DKC10UT

Highest wear resistant substrate for Nodular, Ductile and Gray Cast Irons and Hardened Steels
 K10 (K05-K15) Substrate (1700 Vickers). For high cutting speeds, 1000 SFM and above.
 CVD Al₂O₃/TiC/TiCN/TiN Coating. For uninterrupted cuts.

DKC15RT

Tougher alternative to DKC10UT, for cast irons
 Optimal grade for Nodular Cast Iron (GG) and Gray Cast Iron (GGG)
 Up to 1300 SFM on Gray Cast Irons (GG)
 K15 (K10-K20) Substrate (1600 Vickers)
 CVD Al₂O₃/TiC/TiCN/TiN Coating
 Suitable for interrupted cuts in cast irons

DSP10HT

Titanium and Titanium Alloys Grade (non alloyed Ti, alpha-alloys, alpha-beta alloys, beta-alloys)
 S10 Substrate (1700 Vickers) with CVD TiB₂/TiN coating
 For cutting speeds of 100-230 SFM

DSP15HT

Hardest grade for High Temp Alloys
 Medium to rough machining of high temp alloys and finish machining of stainless steels
 With SER chip-breaker, also suitable for interrupted machining of high temp alloys
 With SEF & SEM chip-breakers, also use on aluminum, non-ferrous metals and plastics
 Submicron K30 Substrate with 3 micron PVD Super-Nitride AlTiN Coating

DSP20HT

Most wear resistant grade for high temp alloys
 For high temp alloys such as Inconel 718, Inconel 625, Nimonic, Udimet, Hastelloy, Waspalloy
 Submicron S20 Substrate (1700 Vickers) with PVD AlTiN coating
 For cutting speeds of 100-200 SFM

DUP15VT

Very hard and wear resistant grade for high temp alloys, aluminum, non-ferrous and ferrous materials
 S15 Substrate with PVD AlCrN Coating
 Not for interrupted cuts

DUP25GT

Universal grade for high temp alloys, aluminum, non-ferrous and ferrous materials
 S25 Substrate with PVD TiAlN/WC/C Coating
 Not for interrupted cuts

Chip Breaker Types

4

WARNING: This product contains Cobalt and/or Nickel and/or Lead a chemical known to the state of California to cause cancer or birth defects or other reproductive harm. For more information: www.prodds.ca.gov.
WARNING: Cutting tools may shatter. Always wear approved safety glasses and mask when regrinding.



UEU High Performance Chip Breaker

The precision ground periphery and pressed chip breaker of the insert, creates a sharp and precise cutting edge, best for small to medium depth of cut, close working tolerances and high surface finish for general turning and boring application.

Steel Chip Breakers

PEF Finishing

The sharp cutting edge (light honed) and the small Chip Beaker, will machine small Depth of Cut at low Feed Rate, with precise machining repeatability, good surface finish, and breaking the chips in short length.

UEM Precision Finishing to Light Roughing

Medium pressed Chip Breaker, positive rake angle and small honed cutting edge, to control the length of chips in small Depth of Cut and free flow over the cutting edge.

Light Roughing to Precision Turning and Boring Application. Low cutting pressure for turning and boring thin wall tubing and deep hole boring.

PEM Light Roughing to Finishing

The medium honed cutting edge and the medium Chip Beaker, will allow to machine with a wide range of cutting depths, Feed Rates and a good chip control.

PER Roughing

Large Chip Breaker, positive rake angle and large honed cutting edge for better Chip control and evacuation in large Depth of Cut and high material removal.

Stainless Steel Chip Breakers

MEF Finishing

Small pressed Chip Breaker with positive rake angle and small Honed Cutting Edge, for chip control in a small depth of cut. For Finishing Turning Application.

MEH High Performance

Stainless steel chip breaker, engineered specifically for turning and boring all types of stainless steel and operation, with a variable depth of cut (ap) and feed rate (fn).

MEM Medium

Medium pressed Chip Breaker, positive rake angle and medium Honed Cutting Edge, for chip control and free evacuation in medium Depth of Cut and feed.

MER Roughing

Large pressed Chip Breaker, positive rake angle and heavy Honed Cutting Edge, for better chip control in large Depth of Cut and high feed rate.

NFU High Performance Chip Breaker

The High Positive, large and polished Chip Breaker allows large depth of cut, high rate of material removal and free chip evacuation with little cutting pressure.

The precise ground periphery of the insert and the sharp cutting edge, makes the best for small depth of cut, close working tolerances and high surface finish.

UEX High performance Chip Breaker

The High Positive and large Chip Breaker allows large material removal and free Chip Evacuation in multi Depth of Cut. The precise ground periphery of the insert and the sharp cutting edge, makes the best insert for turning and boring thin wall tubing and deep boring applications.

High Temp Alloy Chip Breakers

SEF Finishing

The precision ground periphery of the Insert with a small pressed positive and polished Chip Breaker and a small Honed Cutting Edge, controls and evacuates the chip precisely and freely in small Depth (ap) of Cut and Feed Rate.

SEH High Performance

Super Alloy chip breaker, scientific engineered and developed for turning and boring all types of Super Alloys materials and operation, from Roughing to Finishing with variable Depth of Cut (ap) and feed rate (fn).

SEM Finishing to Light Roughing

The precision ground periphery of the Insert with a Medium pressed positive and polished Chip Breaker and a small Honed Cutting Edge, controls and evacuates the chip precisely and freely in small to Medium Depth (ap) of Cut and Feed Rate.

SER Roughing

Large pressed positive Chip Breaker, with positive rake angle and Medium Honed Cutting Edge, for precise chips control and free evacuation at larger Depth (ap) of Cut and Feed Rate.

Cast Iron Chip Breakers

KEF Finishing

Small pressed Chip Breaker with positive rake angle and small Honed Cutting Edge, to control the length of chips in small depth of cut.

KEU Medium

Ground surface, no Chip Breaker, negative rake angle, and medium Honed Cutting Edge, medium Depth of Cut and feed rate

KEM Medium

Ground Surface, no Chip Breaker, Negative Rake Angle, and Medium Honed Cutting Edge, medium depth of cut and feed rate.

KER Roughing

Large pressed Chip breaker geometry, positive rake angle and large Honed Cutting Edge, for large Depth of Cut and feed rate.

Turning Inserts

7° POSITIVE PRECISION GROUND INSERTS FOR ALLOY & STAINLESS STEEL APPLICATION

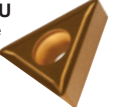
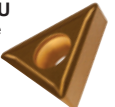
Description	ANSI	Grade DPC25UT	Price Each	Grade DPC35RT	Price Each	Grade DMC30UT	Price Each
CCGT-UEXL 80° Diamond Universal	CCGT-21.51 UEXL	8070-676	\$24.16	8070-677	\$24.16	8070-678	\$24.16
	CCGT-21.52 UEXL	8070-682	24.16	8070-683	24.16	8070-684	24.16
	CCGT-32.51 UEXL	8070-688	27.89	8070-689	27.89	8070-690	27.89
	CCGT-32.52 UEXL	8070-694	27.89	-	-	8070-696	27.89
	CCGT-432 UEXL	8070-700	38.90	8070-701	38.90	-	-
	CCGT-433 UEXL	8070-706	38.90	8070-707	38.90	8070-708	38.90
CCGT-UEXR 80° Diamond Universal	CCGT-21.51 UEXR	8070-679	24.16	-	-	8070-681	24.16
	CCGT-21.52 UEXR	8070-685	24.16	8070-686	24.16	8070-687	24.16
	CCGT-31.51 UEXR	8070-691	27.89	8070-692	27.89	8070-693	27.89
	CCGT-31.52 UEXR	8070-697	27.89	8070-698	27.89	8070-699	27.89
	CCGT-432 UEXR	8070-703	38.90	8070-704	38.90	8070-705	38.90
	CCGT-433 UEXR	8070-709	38.90	8070-710	38.90	-	-
DCGT-UEXL 55° Diamond Medium	DCGT-21.51 UEXL	8070-712	24.31	8070-713	24.31	8070-714	24.31
	DCGT-32.51 UEXL	8070-718	31.18	8070-719	31.18	8070-720	31.18
	DCGT-32.52 UEXL	8070-725	31.18	8070-726	31.18	8070-727	31.18
DCGT-UEXR 55° Diamond Roughing	DCGT-21.51 UEXR	8070-715	24.31	8070-716	24.31	8070-717	24.31
	DCGT-32.51 UEXR	8070-721	31.18	8070-722	31.18	8070-723	31.18
	DCGT-32.52 UEXR	8070-729	31.18	8070-730	31.18	8070-731	31.18
RCMX-UEX 55° Diamond Roughing	RCMX-1003MO-UEX			8071-957	22.28		
	RCMX-1204MO-UEX	8071-958	22.28	8071-959	22.28		
	RCMX-1606MO-UEX	8071-962	30.56	8071-963	30.56		
	RCMX-2006MO-UEX	8071-967	39.90	8071-968	39.90		
	RCMX-2507MO-UEX	8071-972	73.54	8071-973	73.54		
	RCMX-3209MO-UEX	8071-976	117.46	8071-977	117.46		
TCGT-UEXL 60° Triangle Universal	TCGT-21.51 UEXL	8070-732	27.03	8070-733	27.03	8070-734	27.03
	TCGT-32.51 UEXL	8070-738	34.17	8070-739	34.17	8070-740	34.17
	TCGT-32.52 UEXL	8070-744	34.17	8070-745	34.17	8070-746	34.17
TCGT-UEXR 60° Triangle Finishing/Medium	TCGT-21.51 UEXR	8070-735	27.03				
	TCGT-32.51 UEXR	8070-741	34.17	8070-742	34.17	8070-743	34.17
	TCGT-32.52 UEXR	8070-747	34.17	8070-748	34.17	8070-749	34.17

7° POSITIVE PRECISION PRESSED INSERTS FOR STAINLESS STEEL APPLICATION

Description	ANSI	Grade DMC20HT	Price Each	Grade DMC30UT	Price Each
CCMT-MEM 80° Diamond Finishing/Medium	CCMT-32.51-MEM			8070-750	\$10.63
	CCMT-32.52-MEM			8070-751	10.63
	CCMT-431-MEM			8070-752	18.03
CCMT-MEH 80° Diamond High Performance	CCMT-32.51-MEH	8070-786	\$9.98		
	CCMT-32.52-MEH	8070-787	9.98		
DCMT-MEM 55° Diamond Finishing / Medium	DCMT-32.51-MEM			8070-760	12.95
	DCMT-32.52-MEM			8070-761	12.95
DCMT-MEH 55° Diamond High Performance	DCMT-32.51-MEH	8070-788	12.19		
	DCMT-32.52-MEH	8070-789	12.19		
SCMT-MEM Square / Medium	SCMT-432-MEM			8070-772	17.03
TCMT-MEM 60° Triangle Medium	TCMT-21.51-MEM			8070-776	11.24
	TCMT-21.52-MEM			8070-777	11.24
	TCMT-32.51-MEM			8070-778	14.99
	TCMT-32.52-MEM			8070-779	14.99
VCMT-MEM 35° Diamond Medium	VCMT-331-MEM			8070-783	17.70
	VCMT-332-MEM			8070-784	17.70
	VCMT-333-MEM			8070-785	17.70

Inserts are sold in standard packs of 5. Pricing is each.

POSITIVE PRECISION GROUND INSERTS FOR MULTI MATERIAL APPLICATION

Description	ANSI	Grade DUP15VT	Price Each	Grade DUP25GT	Price Each	Grade DUP35RT	Price Each
CCGT-UEU 80° Diamond Universal 	CCGT-21.50.2-UEU	8079-451	\$14.78				
	CCGT-21.50.5-UEU			8079-453	\$15.52	8079-454	\$13.70
	CCGT-21.51-UEU	8079-456	15.66	8079-458	16.45	8079-459	14.52
	CCGT-32.50.5-UEU			8079-463	18.76	8079-464	16.72
	CCGT-32.51-UEU	8079-466	18.99	8079-468	19.87	8079-469	17.72
	CCGT-431-UEU	8079-476	23.60	8079-478	24.67	8079-479	22.12
	CCGT-432-UEU	8079-481	23.60	8079-483	24.67	8079-484	22.12
CPGT-UEU 80° Diamond Universal 	CPGT-1.81.20.5-UEU	8079-486	15.62	8079-488	16.41	8079-489	14.46
	CPGT-1.81.21-UEU	8079-491	15.62	8079-493	16.41	8079-494	14.46
	CPGT-32.51-UEU	8079-511	19.42	8079-513	20.32	8079-514	18.17
DCGT-UEU 55° Diamond Universal 	DCGT-21.50.2-UEU	8079-531	15.10				
	DCGT-21.50.5-UEU			8079-533	15.84	8079-534	14.01
	DCGT-21.51-UEU	8079-536	15.99	8079-538	16.79	8079-539	14.84
	DCGT-32.50.2-UEU	8079-541	19.80				
	DCGT-32.50.5-UEU			8079-543	19.50	8079-544	17.46
	DCGT-32.51-UEU	8079-546	19.80	8079-548	20.67	8079-549	18.50
	DCGT-431-UEU	8079-556	23.82	8079-558	24.88	8079-559	22.33
	DCGT-432-UEU	8079-561	23.82	8079-563	24.88	8079-564	22.33
TCGT-UEU 60° Triangle Universal 	TCGT-21.50.2-UEU	8079-586	15.89	8079-588	16.67	8079-589	14.73
	TCGT-21.50.5-UEU			8079-593	10.65	8079-594	10.65
	TCGT-21.51-UEU	8079-596	15.89	8079-598	16.67	8079-599	14.73
	TCGT-32.50.5-UEU			8079-608	19.29	8079-609	17.26
	TCGT-32.51-UEU	8079-611	19.58	8079-613	20.45	8079-614	18.29
	TCGT-32.52-UEU	8079-616	19.58	8079-618	20.45	8079-619	18.29
TPGT-UEU 60° Triangle Universal 	TPGT-21.50.2-UEU			8079-623	16.10	8079-624	14.28
	TPGT-21.50.5-UEU			8079-628	16.10	8079-629	14.28
	TPGT-21.51-UEU	8079-631	16.27	8079-633	17.07	8079-634	15.13
	TPGT-32.50.5-UEU			8079-643	13.93	8079-644	13.93
	TPGT-32.51-UEU	8079-646	19.94	8079-648	20.85	8079-649	18.70
	TPGT-32.52-UEU	8079-651	19.94	8079-653	20.85	8079-654	18.70
VBGT-UEU 35° Diamond Universal 	VBGT-221-UEU	8079-661	21.60	8079-663	22.39	8079-664	19.38
	VBGT-331-UEU	8079-671	29.59	8079-673	30.02	8079-674	25.99
	VBGT-332-UEU	8079-676	29.59	8079-678	30.02	8079-679	25.99
VCGT-UEU 35° Diamond Universal 	VCGT-220.2-UEU	8079-681	20.40				
	VCGT-220.5-UEU			8079-683	21.13	8079-684	18.30
	VCGT-221-UEU	8079-686	21.61	8079-688	22.40	8079-689	19.39
	VCGT-331-UEU	8079-701	29.46	8079-703	29.91	8079-704	25.80
	VCGT-332-UEU	8079-706	29.46	8079-708	29.91	8079-709	25.86
WCGT-UEU 80° Trigon Universal 	WCGT-1.51.50.2-UEU	8079-711	18.65	8079-713	19.43	8079-714	17.50
	WCGT-1.51.50.5-UEU	8079-716	18.65	8079-718	19.43	8079-719	17.50
	WCGT-21.51-UEU	8079-726	17.19	8079-728	17.98	8079-729	16.04
	WCGT-32.51-UEU	8079-736	19.42	8079-738	20.32	8079-739	18.17
	WCGT-32.52-UEU	8079-741	19.42	8079-743	20.32	8079-744	18.17

POSITIVE PRESSED INSERTS FOR STEEL MATERIAL APPLICATION

Description	ANSI	Grade DPC15HT	Price Each	Grade DPC25UT	Price Each	Grade DPC35RT	Price Each
CCMT-PEF Finishing 	CCMT-21.51-PEF	8071-877	\$9.55	8071-878	\$9.21		
	CCMT-21.52-PEF	8071-879	9.55	8071-880	9.21		
	CCMT-32.51-PEF	8071-883	11.03	8071-884	10.63		
	CCMT-32.52-PEF	8071-885	11.03	8071-886	10.63		
	CCMT-431-PEF	8071-889	18.81	8071-890	18.03		
CCMT-PEM 80° Diamond Medium 	CCMT-21.50.5-PEM	8071-875	9.55	8071-876	9.21		
	CCMT-21.51-PEM	8071-933	9.55	8071-934	9.21		
	CCMT-21.52-PEM	8071-881	9.55	8071-882	9.21		
	CCMT-32.51-PEM	8071-935	11.03	8071-936	10.63		
	CCMT-32.52-PEM	8071-887	11.03	8071-888	10.63		
	CCMT-431-PEM	8071-937	18.81	8071-938	18.03		
DCMT-PEF 55° Diamond Finishing 	DCMT-432-PEM	8071-891	18.81	8071-892	18.03		
	DCMT-21.51-PEF	8071-893	10.28	8071-894	9.87		
	DCMT-32.51-PEF	8071-897	13.49	8071-898	12.95		
DCMT-PEM 55° Diamond Medium 	DCMT-21.51-PEM	8071-895	10.28	8071-896	9.87		
	DCMT-32.51-PEM	8071-899	13.49	8071-900	12.95		
	DCMT-32.52-PEM	8071-901	13.49	8071-902	12.95		
SCMT-PEF Square Finishing 	SCMT-32.51-PEF	8071-903	12.88	8071-904	12.39		
SCMT-PEM Square Medium 	SCMT-32.52-PEM	8071-905	12.88	8071-906	12.39		
	SCMT-432-PEM	8071-907	17.70	8071-908	17.03		
	SCMT-433-PEM	8071-939	17.70	8071-940	17.03		
TCMT-PEF 60° Triangle Finishing 	TCMT-21.50.5-PEF	8071-909	11.73	8071-910	11.24		
	TCMT-21.51-PEF	8071-911	11.73	8071-912	11.24		
TCMT-PEM 60° Triangle Medium 	TCMT-21.51-PEM	8071-941	11.73	8071-942	11.24		
	TCMT-21.52-PEM	8071-913	11.73	8071-914	11.24		
	TCMT-32.51-PEM	8071-915	15.60	8071-916	14.99		
	TCMT-32.52-PEM	8071-917	15.60	8071-918	14.99		
TPMR-PEU 60° Triangle Medium 	TPMR-221-PEU	8071-945	10.84	8071-946	10.49	8071-947	10.49
	TPMR-222-PEU	8071-948	10.84	8071-949	10.49	8071-950	10.49
	TPMR-321-PEU	8071-951	14.18	8071-952	13.60	8071-953	13.60
	TPMR-322-PEU	8071-954	14.18	8071-955	13.60	8071-956	13.60
VBMT-PEF 35° Diamond Finishing 	VBMT-331-PEF	8071-919	23.36	8071-920	22.47		
	VBMT-332-PEF	8071-921	23.36	8071-922	22.47		
	VBMT-333-PEF	8071-923	23.36	8071-924	22.47		
VCMT-PEF 35° Diamond Finishing 	VCMT-221-PEF	8071-925	15.60	8071-926	14.99		
	VCMT331-PEF	8071-927	18.39	8071-928	17.70		
	VCMT332-PEF	8071-931	18.39	8071-932	17.70		
VCMT-PEM 35° Diamond Medium 	VCMT-331-PEM	8071-943	18.39	8071-944	17.70		
	VCMT-332-PEM	8071-929	18.39	8071-930	17.70		

Inserts are sold in standard packs of 5. Pricing is each.

Turning Inserts

POSITIVE PRESSED INSERTS FOR SUPER ALLOYS

WARNING: This product contains Cobalt and/or Nickel and/or Lead a chemical known to the state of California to cause cancer or birth defects or other reproductive harm. For more information: www.prop65.ca.gov.
WARNING: Cutting tools may shatter. Always wear approved safety glasses and mask when regrinding.

Description	ANSI	Grade	Price	Grade	Price
		DSP10HT	Each	DSP20HT	Each
CCMT-SEH 80° Diamond Universal	CCMT-32.51-SEH	8069-725	\$9.98	8069-722	\$9.97
DCMT-SEH 55° Diamond Universal	DCMT-32.51-SEH	8069-728	12.19	8069-729	12.19
RCMT-SEH Round Roughing	RCMT-1606-MO-SEH	8069-732	24.22		
	RCMT-2006-MO-SEH	8069-734	38.37		

POSITIVE PRECISION GROUND INSERTS FOR ALUMINUM APPLICATION

Description	ANSI	Grade	Price	Grade	Price
		DNU10GT	Each	DNX10UT	Each
CCGT-NFU 80° Diamond Universal	CCGT-21.50.5-NFU	8080-020	\$20.48	8080-021	\$25.17
	CCGT-21.51-NFU	8080-024	20.48	8080-025	25.17
	CCGT-32.50.5-NFU	8080-028	21.68	8080-029	26.58
	CCGT-32.51-NFU	8080-032	21.68	8080-033	26.58
	CCGT-32.52-NFU	8080-036	21.68	8080-037	26.58
	CCGT-431-NFU	8080-040	25.82	8080-041	31.70
	CCGT-432-NFU	8080-044	25.82	8080-045	31.70
DCGT-NFU 55° Diamond Universal	DCGT-21.50.5-NFU	8080-048	19.71	8080-049	24.52
	DCGT-21.51-NFU	8080-052	19.71	8080-053	24.52
	DCGT-32.50.5-NFU	8080-056	22.14	8080-057	27.24
	DCGT-32.51-NFU	8080-060	22.14	8080-061	27.24
	DCGT-32.52-NFU	8080-064	22.14	8080-065	27.24
RCMT-NFU Round Universal	RCMT-0602MO-NFU	8070-798	8.94		
RCGT-NFU Round Universal	RCGT-0602MO-NFU	8080-068	13.42	8080-069	16.90
	RCGT-0803MO-NFU	8080-072	14.61	8080-073	18.32
	RCGT-1003MO-NFU	8080-076	18.32	8080-077	22.87
SCGT-NFU Square Universal	SCGT-432-NFU	8080-084	23.54	8080-085	28.76
TCGT-NFU 60° Triangle Universal	TCGT-21.51-NFU	8080-089	20.07	8080-090	24.63
	TCGT-32.51-NFU	8080-093	21.68	8080-094	26.58
VCGT-NFU 35° Triangle Universal	VCGT-220.5-NFU	8080-098	27.78	8080-099	33.79
	VCGT-221-NFU	8080-103	27.78	8080-104	33.79
	VCGT-330.5-NFU	8080-107	30.83	8080-108	37.59
	VCGT-331-NFU	8080-111	30.83	8080-112	37.59
	VCGT-332-NFU	8080-115	30.83	8080-116	37.59
	VCGT-333-NFU	8080-119	30.83	8080-120	37.59
	VCGT-448-NFU	8080-123	42.92	8080-124	52.96
VPGT-NFU 35° Triangle Universal	VPGT-444-NFU	8080-135	42.92	-	-
WCGT-NFU 80° Trigon Universal	WCGT-32.50.5-NFU	-	-	8080-141	31.70
	WCGT-32.51-NFU	8080-144	25.38	8080-145	31.70
	WCGT-32.52-NFU	8080-148	25.38	8080-149	31.70
	WCGT-431-NFU	-	-	8080-153	37.81
	WCGT-432-NFU	8080-156	28.98	8080-157	37.81

Inserts are sold in standard packs of 5. Pricing is each.

NEGATIVE PRESSED INSERTS FOR STEEL & STAINLESS STEEL APPLICATION



4

Description	ANSI	Grade	Price	Grade	Price	Grade	Price
		DPC15HT	Each	DPC25UT	Each	DPC35RT	Each
CNMG-PEF 80° Diamond Finishing	CNMG-431-PEF	8069-250	\$14.99	8069-251	\$14.41		
	CNMG-432-PEF	8069252	14.99	8069-253	14.41		
CNMG-PEM 80° Diamond Medium	CNMG-322-PEM	8069-491	14.99	8069-276	14.79	8069-277	\$14.79
	CNMG-432-PEM	8069-408	14.99	8069-278	14.41	8069-279	14.41
	CNMG-433-PEM	8069-280	14.99	8069-281	14.41	8069-282	14.41
	CNMG-542-PEM	8069-283	24.90	8069-284	23.94	8069-285	23.94
	CNMG-543-PEM	8069-286	24.90	8069-287	23.94	8069-288	23.94
	CNMG-544-PEM	8069-492	24.90	8069-289	23.94	8069-290	23.94
	CNMG-643-PEM	8069-409	31.17	8069-291	29.93	8069-292	29.93
CNMG-PER 80° Diamond Roughing	CNMG-644-PEM	8069-410	31.17	8069-293	29.93	8069-294	29.93
	CNMG-432-PER	8069-351	14.99	8069-352	14.41	8069-353	14.41
	CNMG-433-PER	8069-354	14.99	8069-355	14.41	8069-356	14.41
	CNMG-542-PER	8069-357	24.90	8069-358	23.94	8069-359	23.94
	CNMG-543-PER	8069-360	24.90	8069-361	23.94	8069-362	23.94
	CNMG-544-PER	8069-363	24.90	8069-364	23.94	8069-365	23.94
	CNMG-643-PER	8069-366	31.17	8069-367	29.93	8069-368	29.93
DNMG-PEF 55° Diamond Finishing	CNMG-644-PER	8069-369	31.17	8069-370	29.93	8069-371	29.93
	CNMG-646-PER	8069-372	31.17	8069-373	29.93	8069-374	29.93
	DNMG-331-PEF	8069-254	14.99	8069-255	14.41		
	DNMG-332-PEF	8069-256	14.99	8069-257	14.41		
	DNMG-431-PEF	8069-258	18.84	8069-259	18.11		
	DNMG-432-PEF	8069-260	18.84	8069-261	18.11		
	DNMG-441-PEF	8069-262	21.03	8069-263	21.03		
DNMG-PEM 55° Diamond Medium	DNMG-442-PEF	8069-264	21.03	8069-265	20.24		
	DNMG-332-PEM	8069-295	14.41	8069-296	14.41	8069-297	14.41
	DNMG-432-PEM	8069-298	18.84	8069-299	18.11	8069-300	18.11
	DNMG-433-PEM	8069-301	18.84	8069-302	18.11	8069-303	18.11
	DNMG-442-PEM	8069-304	21.03	8069-305	20.24	8069-306	20.24
	DNMG-443-PEM	8069-307	21.03	8069-308	20.24	8069-309	20.24
	DNMG-444-PEM	8069-310	21.03	8069-311	20.24	8069-312	20.24
DNMG-PER 55° Diamond Roughing	DNMG-432-PER	8069-375	18.84	8069-376	18.11	8069-377	18.11
	DNMG-433-PER	8069-378	18.84	8069-379	18.11	8069-380	18.11
	DNMG-442-PER	8069-381	21.03	8069-382	20.24	8069-383	20.24
	DNMG-443-PER	8069-384	21.03	8069-385	20.24	8069-386	20.24
	DNMG-444-PER	8069-387	21.03	8069-388	20.24	8069-389	20.24
	SNMG-432-PEM	8069-313	14.54	8069-314	13.99	8069-315	13.99
	SNMG-433-PEM	8069-316	14.54	8069-317	13.99	8069-318	13.99
SNMG-PEM Square Medium	SNMG-542-PEM	8069-319	25.16	8069-320	24.30	8069-321	24.30
	SNMG-643-PEM	8069-322	33.48	8069-323	32.21	8069-324	32.21
	SNMG-432-PER	8069-390	14.54	8069-391	13.99	8069-392	13.99
	SNMG-433-PER	8069-393	14.54	8069-394	13.99	8069-395	13.99
	SNMG-643-PER	8069-396	33.48	8069-397	32.21	8069-398	32.21
	SNMG-644-PER	8069-399	33.48	8069-400	32.21	8069-401	32.21
TNMG-PEF 60° Triangle Finishing	TNMG-331-PEF	8069-268	14.25	8069-269	13.70		
	TNMG-332-PEF	8069-270	14.25	8069-271	13.70		
TNMG-PEM 60° Triangle Medium	TNMG-332-PEM	8069-325	14.25	8069-326	13.70	8069-327	13.70
	TNMG-333-PEM	8069-328	14.25	8069-329	13.70	8069-330	13.70
	TNMG-432-PEM	8069-331	17.23	8069-332	16.58	8069-333	16.58
	TNMG-433-PEM	8069-334	17.23	8069-335	16.58		
VNMG-PEF 35° Diamond Finishing	VNMG-331-PEF	8069-272	20.02	8069-273	19.28		
	VNMG-332-PEF	8069-274	20.02	8069-275	19.28		
VNMG-PEM 35° Diamond Finishing	VNMG-332-PEM	8069-336	20.02	8069-337	19.28	8069-338	19.28
	VNMG-333-PEM	8069-339	20.02	8069-340	19.28	8069-341	19.28
WNMG-PEM 80° Trigon Medium	WNMG-332-PEM	8069-342	13.50	8069-343	13.50	8069-344	13.50
	WNMG-432-PEM	8069-345	15.95	8069-346	15.35	8069-347	15.35
WNMG-PER 80° Trigon Roughing	WNMG-433-PEM	8069-348	15.95	8069-349	15.35	8069-350	15.35
	WNMG-432-PER	8069-402	15.95	8069-403	15.35	8069-404	15.35
	WNMG-433-PER	8069-405	15.95	8069-406	15.35	8069-407	15.35

NEGATIVE PRESSED INSERTS FOR SUPER ALLOYS MATERIAL APPLICATION

Description	ANSI	Grade DSP10HT	Price Each	Grade DSP15HT	Price Each	Grade DSP20HT	Price Each
CNCG-SEF 80° Diamond Finishing	CNCG-431-SEF			8067-058	\$19.92		
	CNCG-432-SEF			8067-059	19.92		
	CNCG-433-SEF			8067-060	19.92		
CNM/GG-SEM 80° Diamond Medium	CNCG-431-SEM			8067-061	19.92		
	CNCG-432-SEM			8067-065	19.92		
	CNCG-433-SEM			8067-066	19.92		
	CNMG-431-SEM			8067-067	14.41		
	CNMG-432-SEM			8067-068	14.41		
CNCG-SER 80° Diamond Roughing	CNCG-432-SER			8067-069	23.56		
	CNCG-433-SER			8067-070	23.56		
CNMG-SEH 80° Diamond Roughing	CNMG-432-SEH	8069-726	\$15.00			8069-727	\$15.00
DNCG-SEF 55° Diamond Finishing	DNCG-431-SEF			8067-071	24.30		
	DNCG-432-SEF			8067-072	24.30		
	DNCG-433-SEF			8067-073	24.30		
	DNCG-441-SEF			8067-074	26.07		
	DNCG-442-SEF			8067-082	26.07		
	DNCG-443-SEF			8067-083	26.07		
	DNMG-431-SEM			8067-084	18.11		
DNMG-SEM 55° Diamond Medium	DNMG-432-SEM			8067-085	18.11		
	DNMG-433-SEM			8067-086	18.11		
	DNMG-441-SEM			8067-087	20.24		
	DNMG-442-SEM			8067-088	20.24		
	DNMG-443-SEM			8067-089	20.24		
DNMG-SEH 55° Diamond Roughing	DNMG-442-SEH	8069-730	21.06			8069-731	21.06
VNMG-SEF 35° Diamond Finishing	VNMG-331-SEF			8067-095	17.79		
	VNMG-332-SEF			8067-096	17.79		
WNGG-SEF 80° Trigon Finishing	WNGG-431-SEF			8067-097	23.30		
	WNGG-432-SEF			8067-098	23.30		
	WNGG-433-SEF			8067-099	23.30		
WNMG-SEM 80° Trigon Medium	WNGG-431-SEM			8067-100	23.30		
	WNGG-432-SEM			8067-101	23.30		
	WNMG-431-SEM			8067-102	15.35		
	WNMG-432-SEM			8067-103	15.35		
	WNMG-433-SEM			8067-104	15.35		
WNMG-SEH 80° Trigon Medium	WNMG-432-SEH	8069-736	15.98			8069-737	15.98

NEGATIVE PRESSED INSERTS FOR STEEL MATERIAL APPLICATION

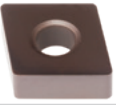
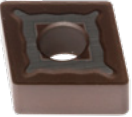
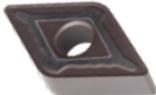
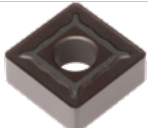
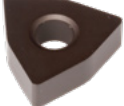
Description	ANSI	Grade DPC15HT	Price Each	Grade DPC25UT	Price Each	Grade DPC35RT	Price Each
CNMG-UEM 80° Diamond Universal	CNMG-431-UEM	8069-826	\$14.99	8069-828	\$14.41		
	CNMG-432-UEM	8069-832	14.99	8069-833	14.41	8069-834	\$14.41
DNMG-UEM 55° Diamond Universal	DNMG-331-UEM	8069-835	14.99	8069-836	14.41	8069-837	14.41
	DNMG-332-UEM	8069-840	14.99	8069-841	14.41		
	DNMG-432-UEM			8069-844	18.11		
	DNMG-441-UEM	8069-845	21.03	8069-846	20.24	8069-847	20.24
	DNMG-442-UEM	8069-848	21.03	8069-849	20.24	8069-850	20.24
SNMG-UEM Square Universal	SNMG-321-UEM	8069-851	10.55	8069-852	10.12		
TNMG-UEM 60° Triangle Universal	TNMG-331-UEM	8069-853	14.25	8069-854	13.70	8069-855	13.70
	TNMG-332-UEM	8069-856	14.25	8069-857	13.70	8069-858	13.70
VNMG-UEM 35° Diamond Universal	VNMG-332-UEM	8069-859	18.54	8069-860	17.79		
WNMG-UEM 80° Trigon Universal	WNMG-331-UEM	8069-861	14.04	8069-862	13.50	8069-863	13.50
	WNMG-332-UEM	8069-864	14.04	8069-865	13.50	-	-
	WNMG-431-UEM	8069-867	15.95	8069-868	15.35	8069-869	15.35
	WNMG-432-UEM	8069-870	15.95	8069-871	15.35	8069-872	15.35
	WNMG-433-UEM			8069-873	15.35		

NEGATIVE INSERTS FOR STAINLESS STEEL APPLICATION

Description	ANSI	Grade DMC20HT	Price Each	Grade DMC30UT	Price Each
CNMG-MEF 80° Diamond Finishing	CNMG-321-MEF			8069-964	\$14.79
	CNMG-431-MEF			8069-965	14.41
	CNMG-432-MEF			8069-966	14.41
	CNMG-433-MEF			8069-967	14.41
CNMG-MEM 80° Diamond Medium	CNMG-432-MEM			8069-968	14.41
	CNMG-433-MEM			8069-969	14.41
CNMG-MEH 80° Diamond High Performance	CNMG-432-MEH	8070-020	\$15.00		
	CNMG-433-MEH	8070-021	15.00		
	CNMG-543-MEH	8070-022	24.90		
	CNMG-544-MEH	8070-023	24.90		
	CNMG-643-MEH	8070-024	31.21		
CNMG-MER 80° Diamond Roughing	CNMG-644-MEH	8070-028	31.21		
	CNMG-433-MER			8069-970	14.41
	CNMG-543-MER			8069-971	23.94
	CNMG-643-MER			8069-972	29.93
DNMG-MEF 55° Diamond Finishing	DNMG-331-MEF			8069-973	14.41
	DNMG-441-MEF			8069-974	20.24
	DNMG-442-MEF			8069-975	20.24
DNMG-MEM 55° Diamond Medium	DNMG-332-MEM			8069-976	14.41
	DNMG-432-MEM			8069-977	18.11
	DNMG-442-MEM			8069-978	20.24
	DNMG-443-MEM			8069-979	20.24
DNMG-MEH 55° Diamond High Performance	DNMG-442-MEH	8070-037	21.06		
	DNMG-443-MEH	8070-038	21.06		
DNMG-MER 55° Diamond Medium	DNMG-442-MER			8069-980	20.24
	DNMG-443-MER			8069-981	20.24
SNMG-MEH Square High Performance	SNMG-543-MEH	8070-041	25.20		
	SNMG-544-MEH	8070-044	25.20		
	SNMG-644-MEH	8070-053	33.55		
SNMG-MER Square Roughing	SNMG-432-MER			8069-983	13.99
	SNMG-433-MER			8069-984	13.99
SNMG-MEF Square Finishing	SNMG-643-MER			8069-985	32.21
	SNMG-321-MEF			8069-982	10.12
TNMG-MEM 60° Triangle Medium	TNMG-332-MEM			8069-986	13.70
	TNMG-432-MEM			8069-987	16.58
	TNMG-433-MEM			8069-988	16.58
WNMG-MEF 80° Trigon Finishing	WNMG-331-MEF			8069-989	13.50
	WNMG-431-MEF			8069-990	15.35
	WNMG-432-MEF			8069-991	15.35
WNMG-MEH 80° Trigon High Performance	WNMG-432-MEH	8070-056	15.98		
	WNMG-332-MEM			8069-992	13.50
WNMG-MEM 80° Trigon Medium	WNMG-432-MEM			8069-993	15.35
	WNMG-433-MEM			8069-994	15.35
	WNMG-434-MEM			8069-995	15.35
	WNMG-432-MER			8069-996	15.35
WNMG-MER 80° Trigon Roughing	WNMG-433-MER			8069-997	15.35

Inserts are sold in standard packs of 5. Pricing is each.

NEGATIVE PRESSED INSERTS FOR CAST IRON APPLICATION

Description	ANSI	DKC10UT	Price Ea.	DKC15RT	Price Ea.
CNMA-KEU 80° Diamond General Purpose 	CNMA-432-KEU	8069-874	18.22	8069-875	\$18.22
	CNMA-433-KEU	8069-876	18.22	8069-877	18.22
	CNMA-644-KEU			8069-878	34.42
CNMG-KER 80° Diamond Roughing 	CNMG-432-KER	8069-904	14.41	8069-905	14.41
	CNMG-433-KER	8069-906	14.41	8069-907	14.41
	CNMG-434-KER	8069-908	14.41	8069-909	14.41
	CNMG-543-KER	8069-910	23.94	8069-911	23.94
	CNMG-544-KER	8069-912	23.94	8069-913	23.94
DNMG-KEF 55° Diamond Finishing 	DNMG-331-KEF	8067-054	14.41		
	DNMG-332-KEF	8067-056	14.41		
DNMA-KEU 55° Diamond General Purpose 	DNMA-442-KEU			8069-880	18.11
DNMG-KER 55° Diamond Roughing 	DNMG-432-KER	8069-914	18.11	8069-915	18.11
	DNMG-433-KER	8069-916	18.11	8069-917	18.11
	DNMG-442-KER	8069-918	20.24	8069-919	20.24
	DNMG-443-KER	8069-920	20.24	8069-921	20.24
SNMA-KEU Square General Purpose 	SNMA-432-KEU	8069-882	13.99	8069-883	13.99
	SNMA-433-KEU	8069-884	13.99	8069-885	13.99
	SNMA-434-KEU	8069-886	13.99	-	-
	SNMA-664-KEU			8069-888	29.13
SNMG-KER Square Roughing 	SNMG-432-KER	8069-922	13.99	8069-923	13.99
	SNMG-433-KER	8069-924	13.99	8069-925	13.99
	SNMG-643-KER			8069-926	32.21
	SNMG-644-KER	8069-927	32.21	8069-928	32.21
TNMA-KEU Triangle General Purpose 	TNMA-332-KEU	8069-890	13.70	8069-891	13.70
	TNMA-333-KEU	8069-892	13.70	8069-893	13.70
	TNMA-434-KEU	8069-894	16.58	8069-895	16.58
WNMA-KEU 80° Trigon General Purpose 	WNMA-432-KEU	8069-896	15.35	8069-897	15.35
	WNMA-433-KEU	8069-898	15.35	8069-899	15.35
WNMA-KER 80° Trigon Roughing 	WNMG-432-KER	8069-929	15.35	8069-930	15.35
	WNMG-433-KER			8069-931	15.35

Inserts are sold in standard packs of 5. Pricing is each.

Multi-Lock Toolholders

WARNING: This product contains Cobalt and/or Nickel and/or Lead a chemical known to the state of California to cause cancer or birth defects or other reproductive harm. For more information: www.prop65.ca.gov.
WARNING: Cutting tools may shatter. Always wear approved safety glasses and mask when regrinding.



MCKN R/L Toolholder

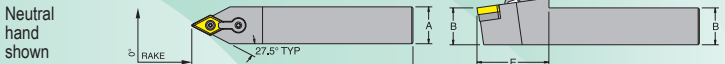
Style K- 15° End Cutting Edge Angle for negative 80° diamond CNM_ inserts



Description	Order No. Right	Order No. Left	A & B	C	E	F	U	Insert Style	Price Each
MCKNR/L12-4B	8050-066	-	0.75	4.50	1.250	1.000	123	432	\$ 109.33
MCKNR/L16-4C	8050-070	-	1.00	5.00	1.250	1.250	123		121.16
MCKNR/L16-4D	8050-074	8050-075	1.00	6.00	1.250	1.250	123		121.16
MCKNR/L20-4D	8050-078	8050-079	1.25	6.00	1.250	1.500	123		133.08
MCKNR/L20-5D	8050-086	8050-087	1.25	6.00	1.375	1.500	151	543	159.71
MCKNR/L24-6E	8050-102	8050-103	1.50	7.00	1.500	2.000	184	643	224.58

MDPN N Toolholder

Style P- 27.5° Side Cutting Edge Angle for negative 55° diamond DNM_ inserts



Description	Order Number	A & B	C	E	Insert Style	Price Each
MDPNN12-4B	8050-370	0.75	4.50	1.75	432	\$ 141.24
MDPNN16-4D	8050-372	1.00	6.00	1.75		144.62
MDPNN20-4D	8050-374	1.25	6.00	1.75		160.15
MDPNN16-5D	8050-376	1.00	6.00	2.00	543	173.54

MCLN R/L Toolholder

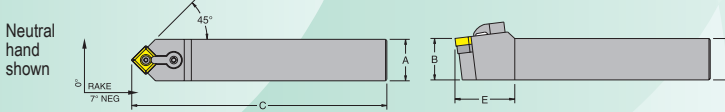
Style L - Negative 5° End or Side Cutting Edge Angle for negative 80° diamond CNM_ inserts



Description	Order No. Right	Order No. Left	A & B	C	E	F	Insert Style	Price Each
MCLNR/L10-4B	8050-116	8050-117	0.625	4.50	1.250	1.000	432	\$ 84.08
MCLNR/L12-4B	8050-116	8050-121	0.750	4.50	1.250	1.250		91.11
MCLNR/L16-4C	8050-124	8050-125	1.000	5.00	1.250	1.250		96.93
MCLNR/L16-4D	8050-128	8050-129	1.000	6.00	1.250	1.250		96.93
MCLNR/L20-4D	8050-132	8050-133	1.250	6.00	1.250	1.500	543	106.47
MCLNR/L24-4D	8050-136	8050-137	1.500	6.00	1.250	2.000		152.83
MCLNR/L24-4E	8050-140	8050-141	1.500	7.00	1.250	2.000		172.75
MCLNR/L16-5D	8050-152	8050-153	1.000	6.00	1.375	1.250		116.32
MCLNR/L20-5D	8050-156	8050-157	1.250	6.00	1.375	1.500	643	127.77
MCLNR/L16-6D	8050-168	8050-169	1.000	6.00	1.500	1.500		132.18
MCLNR/L20-6D	8050-172	8050-173	1.250	6.00	1.500	1.500		139.38
MCLNR/L20-6E	8050-174	8050-175	1.250	7.00	1.500	1.500		188.76
MCLNR/L24-6D	8050-176	8050-177	1.500	6.00	1.500	2.000		215.94
MCLNR/L24-6E	8050-180	8050-181	1.500	7.00	1.500	2.000		224.58

MSDN N Toolholder

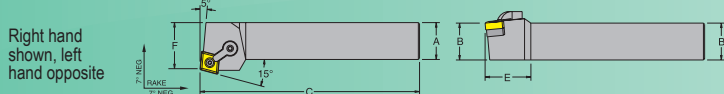
Style D - 45° Side Cutting Edge Angle for negative square SNM_ inserts



Description	Order Number	A & B	C	E	Insert Style	Price Each
MSDNN08-3A	8050-392	0.500	4.00	1.000	322	\$ 75.41
MSDNN08-3B	8050-394	0.500	4.50	1.000		75.41
MSDNN10-3B	8050-396	0.625	4.50	1.000		81.88
MSDNN12-3B	8050-398	0.750	4.50	1.000		91.11
MSDNN12-4B	8050-400	0.750	4.50	1.375	432	91.11
MSDNN16-4D	8050-402	1.000	6.00	1.375		96.93
MSDNN16-5D	8050-406	1.000	6.00	1.625	543	116.32
MSDNN20-5D	8050-408	1.250	6.00	1.625		139.38
MSDNN16-6D	8050-414	1.000	6.00	1.750	643	132.18
MSDNN20-6D	8050-416	1.250	6.00	1.750		139.38
MSDNN24-6E	8050-418	1.500	7.00	1.750		172.75

MCRN R/L Toolholder

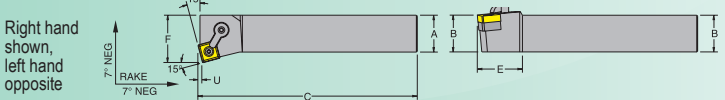
Style R- 15° Side Cutting Edge Angle for negative 80° diamond CNM_ inserts



Description	Order No. Right	Order No. Left	A & B	C	E	F	Insert Style	Price Each
MCRNR/L12-4B	8050-220	-	0.75	4.50	1.250	0.750	432	\$ 106.24
MCRNR/L16-4D	8050-228	8050-229	1.00	6.0	1.250	1.250		100.22
MCRNR/L20-4D	8050-232	8050-233	1.25	6.0	1.250	1.500		106.62
MCRNR/L16-5D	8050-244	8050-245	1.25	6.00	1.375	1.500	543	140.55
MCRNR/L16-6D	8050-256	8050-257	1.25	6.00	1.500	1.500	643	153.32
MCRNR/L20-6D	8050-260	8050-261	1.50	7.00	1.500	2.000		224.58

MSKN R/L Toolholder

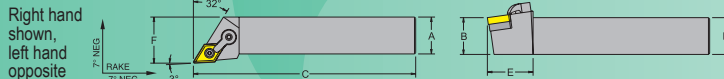
Style K- 15° End Cutting Edge Angle for negative square SNM_ inserts



Description	Order No. Right	Order No. Left	A & B	C	E	F	U	Insert Style	Price Each
MSKNR/L12-4B	8050-448	-	0.750	4.50	1.250	1.000	0.122	432	\$ 91.11
MSKNR/L16-4D	8050-456	8050-457	1.000	6.00	1.000	1.250	0.122		96.93
MSKNR/L16-5D	8050-460	8050-461	1.000	6.00	1.375	1.250	0.151	543	116.32
MSKNR/L20-6D	8050-472	8050-473	1.250	6.00	1.500	1.500	0.183	643	139.38

MDJN R/L Toolholder

Style J- 3° Side Cutting Edge Angle for negative 55° diamond DNM_ inserts



Description	Order No. Right	Order No. Left	A & B	C	E	F	Insert Style	Price Each
MDJNR/L16-3C	8050-314	8050-315	1.000	5.00	1.250	1.250	332	\$ 144.62
MDJNR/L12-4B	8050-324	8050-325	0.750	4.50	1.250	1.000	432	141.24
MDJNR/L16-4C	8050-328	8050-329	1.000	5.00	1.250	1.250		144.62
MCRNR/L20-6D	8050-332	8050-333	1.000	6.00	1.250	1.250		144.62
MDJNR/L20-4D	8050-336	8050-337	1.250	6.00	1.250	1.500		160.15
MDJNR/L24-4D	8050-340	8050-341	1.500	6.00	1.250	2.000		203.79
MDJNR/L24-4E	8050-344	8050-345	1.500	7.00	1.250	2.000		224.17
MDJNR/L16-5D	8050-352	8050-353	1.000	5.00	1.750	1.250	543	173.54
MDJNR/L20-5D	8050-356	8050-357	1.250	6.00	1.750	1.500		192.17
MDJNR/L24-5E	8050-364	8050-365	1.500	7.00	1.750	2.000		224.49

MSRN R/L Toolholder

Style R- 15° Side Cutting Edge Angle for negative square SNM_ inserts



Description	Order No. Right	Order No. Left	A & B	C	E	F	Insert Style	Price Each
MSRNR/L12-4B	8050-506	8050-507	0.750	4.50	1.250	0.880	432	\$ 91.11
MSRNR/L16-4D	8050-514	8050-515	1.000	6.00	1.250	1.130		96.93
MSRNR/L20-4D	8050-518	8050-519	1.250	6.00	1.250	1.380		106.47
MSRNR/L16-5D	8050-530	8050-531	1.000	6.00	1.375	1.103	543	116.32
MSRNR/L20-5D	8050-534	8050-535	1.250	6.00	1.375	1.353		127.77
MSRNR/L16-6D	8050-542	8050-543	1.000	6.00	1.500	1.071	643	132.18
MSRNR/L20-6D	8050-546	8050-547	1.250	6.00	1.500	1.315		139.38
MSRNR/L24-6E	8050-550	8050-551	1.500	7.00	1.500	1.821		224.58

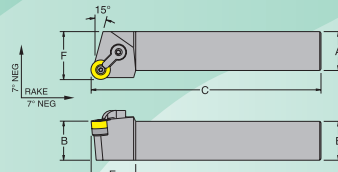
Multi-Lock Toolholders

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MRGN R/L Toolholder

Style G- 0° Side Cutting Edge Angle for negative round RNM_ inserts

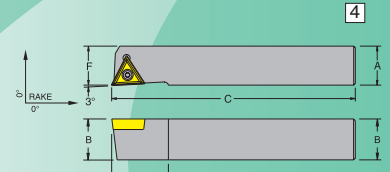


Right hand shown, left hand opposite

Description	Order No. Right	Order No. Left	A & B	C	E	F	Insert Style	Price Each
MRGNR/L12-4B	8051-198	8051-199	0.750	4.50	1.250	1.000	43	\$ 118.44
MRGNR/L16-4C	8051-202	-	1.000	5.00	1.250	1.250		126.00
MRGNR/L16-4D	8051-206	8051-207	1.000	6.00	1.250	1.250		126.00
MRGNR/L20-4D	8051-210	8051-211	1.250	6.00	1.250	1.500		138.40
MRGNR/L20-6D	8051-230	8051-231	1.250	6.00	1.375	1.500	64	181.20
MRGNR/L24-6E	8051-234	8051-235	1.500	7.00	1.375	2.000		270.96

STNC R/L Toolholder

Style N - 3° Side Cutting Edge Angle for 7° positive triangle TC_T inserts

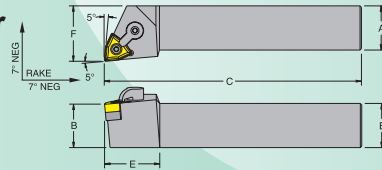


Right hand shown, left hand opposite

Description	Order No. Right Hand	Order No. Left	A & B	C	E	F	Insert Style	Price Each
STNCR/L08-2J	8051-736		0.500	3.500	0.625	0.500	21.51	\$62.10
STNCR/L10-2A	8051-738		0.625	4.000	0.625	0.625		64.05
STNCR/L12-3B	8051-740		0.750	4.500	1.125	0.750	32.52	71.83
STNCR/L64-3D	8051-742		0.750	6.000	1.125	0.750		77.63

MWLN R/L Toolholder

Style L- Negative 5° End or Side Cutting Edge Angle for negative 80° trigon WNM_ inserts

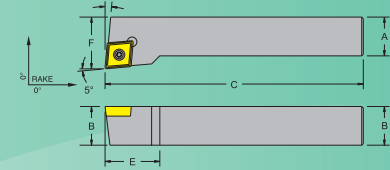


Right hand shown, left hand opposite

Description	Order No. Right	Order No. Left	A & B	C	E	F	Insert Style	Price Each
MWLN R/L12-3B	8051-262	8051-263	0.75	4.50	1.00	1.00	332	\$ 95.26
MWLN R/L16-3C	8051-264	8051-265	1.00	5.00	1.00	1.25		103.53
MWLN R/L12-4B	8051-266	8051-267	1.75	4.50	1.25	1.00	432	95.26
MWLN R/L16-4D	8051-270	8051-271	1.00	6.00	1.25	1.25		103.53
MWLN R/L20-4D	8051-274	8051-275	1.25	6.00	1.25	1.50		113.73

SCLC R/L Toolholder

Style L- Negative 5° End or Side Cutting Edge Angle for 7° positive 80° diamond CC_T inserts

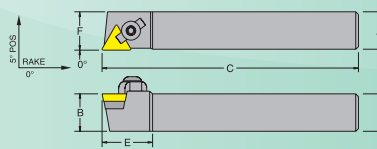


Right hand shown, left hand opposite

Description	Order No. Right	Order No. Left	A & B	C	E	F	Insert Style	Price Each
SCLCR/L06-2J	8051-800	8051-801	0.375	3.500	0.500	0.500	21.51	\$ 77.49
SCLCR/L08-3A	8051-804	8051-805	0.500	4.000	0.688	0.625	32.52	79.25
SCLCR/L10-3B	8051-808	8051-809	0.625	4.500	0.688	0.750		82.94
SCLCR/L12-3B	8051-812	8051-813	0.750	4.500	0.688	1.000		94.32

CTAP R/L Toolholder

Style A- 0° Side Cutting Edge Angle for 11° positive triangle TPG inserts

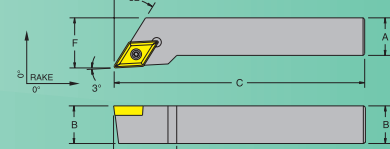


Right hand shown, left hand opposite

Description	Order No. Right	Order No. Left	A & B	C	E	F	Insert Style	Price Each
CTAPR/L08-2J	8051-386	8051-387	0.500	3.50	0.875	0.515	221	\$ 71.83
CTAPR/L12-3B	8051-398	8051-399	0.750	4.50	1.250	0.765	322	91.11
CTAPR/L16-3D	8051-402	8051-403	1.000	6.00	1.250	1.015		96.93
CTAPR/L16-4D	8051-410	8051-411	1.000	6.00	1.250	1.015	432	96.93

SDJC R/L Toolholder

Style J- Negative 3° Side Cutting Edge Angle for 7° positive 55° diamond DC_T inserts

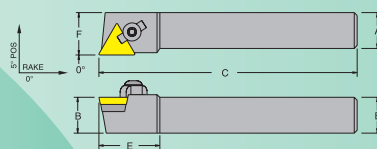


Right hand shown, left hand opposite

Description	Order No. Right	Order No. Left	A & B	C	E	F	Insert Style	Price Each
SDJCR/L06-2J	8051-872	8051-873	0.375	3.500	0.688	0.500	21.51	\$94.83
SDJCR/L08-3A	8051-880	8051-881	0.500	4.000	1.000	0.625	32.52	94.83
SDJCR/L12-3B	8051-888	8051-889	0.750	4.500	1.000	1.000		123.00

CTGP R/L Toolholder

Style G- 0° Side Cutting Edge Angle for 11° positive triangle TPG inserts

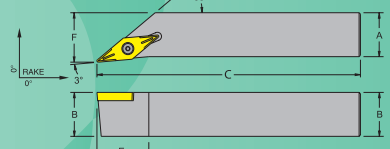


Right hand shown, left hand opposite

Description	Order No. Right	Order No. Left	A & B	C	E	F	Insert Style	Price Each
CTGPR/L10-3B	8051-492	8051-493	0.625	4.50	1.000	0.875	322	\$ 80.06
CTGPR/L12-3B	8051-496	8051-497	0.750	4.50	1.000	1.000		91.11

SVJB R/L Toolholder

Style J - Negative 3° Side Cutting Edge Angle for 5° positive 35° diamond VB_T inserts



Right hand shown, left hand opposite

Description	Order No. Right	Order No. Left	A & B	C	E	F	Insert Style	Price Each
SVJBR/L12-3B	8052-006	8052-007	0.750	4.500	1.250	1.000	322	\$138.91
SVJBR/L16-3D	8052-014	8052-015	1.000	6.000	10250	1.250		141.12

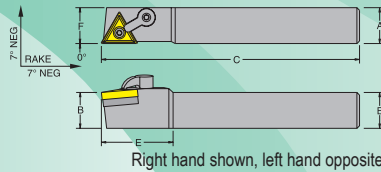
Multi-Lock Toolholders

4



MTAN R/L Toolholder

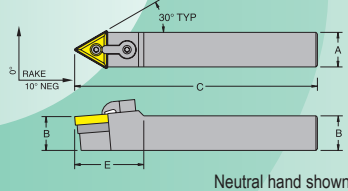
Style A- 0° Side Cutting Edge Angle for negative triangle TNM_ inserts



Description	Order No. Right	Order No. Left	A & B	C	E	F	Insert Style	Price Each
MTANR/L08-2A	8050-606	8050-607	0.500	4.00	0.875	0.500	221	\$75.41
MTANR/L10-3B	8050-614	8050-615	0.625	4.50	1.000	0.625	322	81.88
MTANR/L12-3B	8050-618	8050-619	0.750	4.50	1.000	0.750		91.11

MTEN N Toolholder

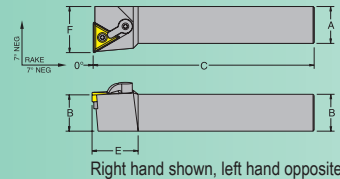
Style E- 30° Side Cutting Edge Angle for negative triangle TNM_ inserts



Description	Order No.	A	B	C	E	Insert Style	Price Each
MTENN08-2A	8050-690	0.500	0.500	4.00	1.000	221	\$75.41
MTENN10-3B	8050-692	0.625	0.625	4.00	1.125	322	81.88
MTENN12-3B	8050-694	0.750	0.750	4.50	1.125		91.11
MTENN12-4B	8050-698	0.750	0.750	4.50	1.500		91.11
MTENN16-4D	8050-700	1.000	1.000	6.00	1.500	432	96.93
MTENN85-4D	8050-702	1.000	1.250	6.00	1.500		106.47
MTENN20-5D	8050-706	1.250	1.250	6.00	1.625	543	127.77

MTFN R/L Toolholder

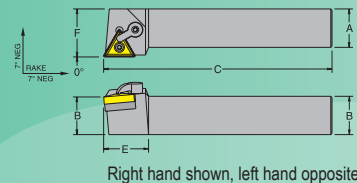
Style F- 0° End Cutting Edge Angle for negative triangle TNM_ inserts



Description	Order No. Right	Order No. Left	A & B	C	E	F	Insert Style	Price Each
MTFNR/L12-3B	8050-738	8050-739	0.750	4.50	1.000	1.000	322	\$91.11
MTFNR/L16-4D	8050-754	8050-755	1.000	6.00	1.250	1.250	432	96.93
MTFNR/L16-5D	8050-774	-	1.000	6.00	1.375	1.250	543	116.32
MTFNR/L20-5D	8050-778	8050-779	1.250	6.00	1.375	1.500		127.77
MTFNR/L24-6E	8050-792	8050-793	1.500	7.00	1.500	2.000	663	224.58

MTGN R/L Toolholder

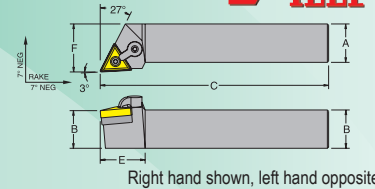
Style G- 0° Side Cutting Edge Angle for negative triangle TNM_ inserts



Description	Order No. Right	Order No. Left	A & B	C	E	F	Insert Style	Price Each
MTGNR/L08-2A	8050-802	8050-803	0.500	4.00	0.875	0.625	221	\$75.41
MTGNR/L10-3B	8050-810	8050-811	0.625	4.50	1.000	0.875	322	80.06
MTGNR/L12-3B	8050-814	8050-815	0.750	4.50	1.000	1.000		91.11
MTGNR/L16-4D	8050-830	8050-831	1.000	6.00	1.375	1.250	432	96.93
MTGNR/L20-4D	8050-834	8050-835	1.250	6.00	1.375	1.500		106.47
MTGNR/L20-5D	8050-858	8050-859	1.250	6.00	1.500	1.500	543	127.77
MTGNR/L24-6E	8050-872	8050-873	1.500	7.00	1.750	2.000	663	224.49

MTJN R/L Toolholder

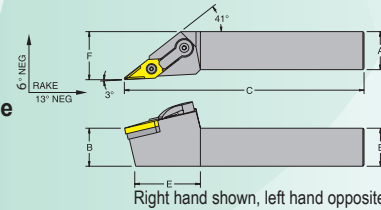
Style J- 3° Side Cutting Edge Angle for negative triangle TNM_ inserts



Description	Order No. Right	Order No. Left	A & B	C	E	F	Insert Style	Price Each
MTJNR/L08-2A	8050-882	8050-883	0.500	4.00	0.875	0.625	221	\$75.41
MTJNR/L10-3B	8050-890	8050-891	0.625	4.50	1.000	0.875	322	84.08
MTJNR/L12-3B	8050-894	8050-895	0.750	4.50	1.000	1.000	332	91.11
MTJNR/L16-3D	8050-898	8050-899	1.000	6.00	1.000	1.250		96.93
MTJNR/L16-4D	8050-902	8050-903	1.000	6.00	1.250	1.250	432	96.93
MTJNR/L20-4D	8050-906	8050-907	1.250	6.00	1.250	1.500		106.47
MTJNR/L20-5D	8050-918	8050-919	1.250	6.00	1.500	1.500	543	127.77
MTJNR/L24-5E	8050-922	8050-923	1.500	7.00	1.500	2.000		172.75
MTJNR/L24-6E	8050-934	8050-935	1.500	7.00	1.625	2.000	663	299.00

MVJN R/L Toolholder

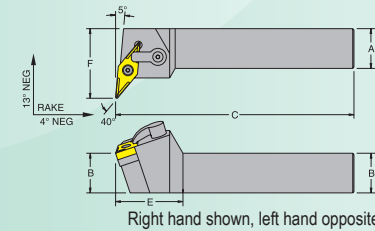
Style J- Negative 3° Side Cutting Edge Angle for negative 35° diamond VNM_ inserts



Description	Order No. Right	Order No. Left	A & B	C	E	F	Insert Style	Price Each
MVJNR/L12-3B	8051-062	8051-063	0.75	4.50	1.750	1.00		\$149.00
MVJNR/L16-3C	8051-066	8051-067	1.00	1.00	1.750	1.25	332	158.77
MVJNR/L16-3D	8051-070	8051-071	1.00	1.00	1.750	1.25		158.77
MVJNR/L20-3D	8051-074	8051-075	1.25	1.25	1.750	1.50		176.07
MVJNR/L16-4D	8051-090	8051-091	1.00	6.00	2.125	1.25		165.68
MVJNR/L20-4D	8051-094	8051-095	1.25	6.00	2.125	1.50	432	176.07
MVJNR/L24-4E	8051-098	8051-099	1.50	7.00	2.125	2.00		216.06

MVLN R/L Toolholder

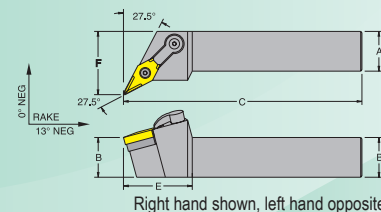
Style L- Negative 5° End Cutting Edge Angle for negative 35° diamond VNM_ inserts



Description	Order No. Right	Order No. Left	A & B	C	E	F	Insert Style	Price Each
MVLNR/L16-4C	8051-108	-	1.00	5.00	1.50	1.75		\$165.68
MVLNR/L16-4D	8051-112	8051-113	1.00	6.00	1.50	1.75	432	165.68
MVLNR/L20-4D	8051-116	8051-117	1.25	6.00	1.50	2.00		176.07

MVTN R/L Toolholder

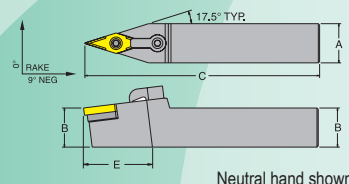
Style N- Negative 27.5° End Cutting Edge Angle for negative 35° diamond VNM_ inserts



Description	Order No. Right	Order No. Left	A & B	C	E	F	Insert Style	Price Each
MVTNR/L16-3D	8051-142	8051-143	1.00	6.00	1.625	1.25	332	\$158.77
MVTNR/L20-3D	8051-146	8051-147	1.25	6.00	1.625	1.50		176.07

MVVN N Toolholder

Style V- 17.5° Side Cutting Edge Angle for negative 35° diamond VNM_ inserts



Description	Order No.	A	B	C	E	Insert Style	Price Each
MVVNN12-3B	8051-160	0.75	0.75	4.50	1.75	332	\$149.00
MVVNN16-3D	8051-164	1.00	1.00	6.00	1.75		158.77
MVVNN16-4D	8051-168	1.00	1.00	6.00	2.25	432	158.77

WARNING: This product contains Cobalt and/or Nickel and/or Lead a chemical known to the state of California to cause cancer or birth defects or other reproductive harm. For more information: www.pro65.ca.gov.
WARNING: Cutting tools may shatter. Always wear approved safety glasses and mask when regrinding.

Boring Bars



S-MCLN R/L Boring Bar

Style L - Negative 5° Side & End Cutting Edge Angle
for negative
80° diamond
CNM_ inserts

Right hand shown,
left hand opposite

Description	Order No. Right	Order No. Left	Min. Bore B	C	D	F	K°	CNM Gage Insert	Price Each
S12S-MCLNR/L-4	8055-006	8055-007	1.000	10.0	0.75	0.500	14°	432	\$259.82
S16T-MCLNR/L-4	8055-010	8055-011	1.280	12.0	1.00	0.640	14°		326.28
S20U-MCLNR/L-4	8055-014	8055-015	1.530	14.0	1.25	0.765	14°		348.44
S24U-MCLNR/L-4	8055-018	8055-019	0.780	14.0	1.50	0.890	11°		382.67
S28U-MCLNR/L-4	8055-022	8055-023	2.030	14.0	1.75	1.015	11°	432	422.97
S32V-MCLNR/L-4	8055-024	8055-025	2.562	16.0	2.00	1.261	11°		450.43
S24U-MCLNR/L-5	8055-026	8055-027	2.374	14.0	1.50	1.187	11°		382.67
S32V-MCLNR/L-5	8055-030	8055-031	2.562	16.0	2.00	1.281	11°	543	450.43
S40V-MCLNR/L-5	8055-034	8055-035	3.062	16.0	2.50	1.531	11°		588.85
S32V-MCLNR/L-6	8055-042	8055-043	2.562	16.0	2.00	1.281	11°	643	450.43
S40V-MCLNR/L-6	8055-050	8055-051	3.062	16.0	2.50	1.531	11°		588.85

S-MDUN R/L Boring Bar

Style U - Negative 3° End Cutting Edge Angle
for negative
55° diamond
DNM_ inserts

Right hand shown,
left hand opposite

Description	Order No. Right	Order No. Left	Min. Bore B	C	D	F	K°	DNM Gage Insert	Price Each
S16T-MDUNR/L-3	8055-066	8055-067	1.300	12.0	1.00	0.750	14°	332	\$326.28
S20U-MDUNR/L-4	8055-070	8055-071	2.00	14.0	1.25	1.000	14°		395.50
S24U-MDUNR/L-4	8055-074	8055-075	2.25	14.0	1.50	1.125	11°	432	435.06
S28U-MDUNR/L-4	8055-078	8055-079	2.50	14.0	1.75	1.250	11°		477.35
S32V-MDUNR/L-4	8055-082	8055-083	3.00	16.0	2.00	1.375	11°		511.57
S40V-MDUNR/L-5	8055-098	8055-099	3.50	16.0	2.50	1.750	11°	543	648.17

S-MSKN R/L Boring Bar

Style K - 15° End Cutting Edge Angle
for negative square
SNM_ inserts

Right hand shown,
left hand opposite

Description	Order No. Right	Order No. Left	Min. Bore B	C	D	F	K°	SNM Gage Insert	Price Each
S20U-MSKNR/L-4	8055-100	8055-101	1.47	14.0	1.25	0.765	14°	432	\$348.44
S24U-MSKNR/L-4	8055-102	8055-103	1.76	14.0	1.50	0.890	10°	432	382.67
S28U-MSKNR/L-4	8055-104	-	2.01	14.0	1.75	1.015	10°		422.97
S32V-MSKNR/L-6	8055-106	8055-107	2.40	16.0	2.00	1.281	12°	643	450.43

S-MTFN R/L Boring Bar

Style F - 0° End Cutting Edge Angle for
negative triangle
TNM_ inserts

Right hand shown,
left hand opposite

Description	Order No. Right	Order No. Left	Min. Bore B	C	D	F	K°	TNM Gage Insert	Price Each
S12S-MTFNR/L-3	8055-150	-	1.000	10.0	0.75	0.500	14°	322	\$259.82
S16T-MTFNR/L-3	8055-154	8055-155	1.280	12.0	1.00	0.640	14°		326.28
S20U-MTFNR/L-3	8055-158	8055-159	1.530	14.0	1.25	0.765	14°	322	348.44
S24U-MTFNR/L-3	8055-162	-	1.780	14.0	1.50	0.890	11°	332	382.67
S20U-MTFNR/L-4	8055-170	8055-171	1.530	14.0	1.25	0.765	14°		348.44
S24U-MTFNR/L-4	8055-174	8055-175	2.060	14.0	1.50	0.890	11°	432	382.67
S32V-MTFNR/L-4	8055-182	8055-183	2.562	16.0	2.00	1.281	11°		450.43
S40V-MTFNR/L-4	8055-190	8055-191	3.062	16.0	2.50	1.531	11°		588.85

S-MTUN R/L Boring Bar

Style U - Negative 3° End Cutting Edge Angle
for negative
triangle
TNM_ inserts

Right hand shown,
left hand opposite

Description	Order No. Right	Order No. Left	Min. Bore B	C	D	F	K°	DNM Gage Insert	Price Each
S12S-MTUNR/L-3	8055-204	8055-205	1.000	10.0	0.75	0.500	14°	332	\$259.82
S16T-MTUNR/L-3	8055-208	8055-209	1.280	12.0	1.00	0.640	14°		326.28
S20U-MTUNR/L-3	8055-212	8055-213	1.530	14.0	1.25	0.766	14°	322	348.44
S24U-MTUNR/L-3	8055-216	8055-217	2.060	14.0	1.50	0.890	11°	332	382.67
S20U-MTUNR/L-4	8055-220	8055-221	1.530	14.0	1.25	0.765	14°		348.44
S24U-MTUNR/L-4	8055-224	8055-225	2.060	14.0	1.50	0.890	11°	432	382.67
S32V-MTUNR/L-4	8055-228	8055-229	2.562	16.0	2.00	1.281	11°		450.43

S-MVUN R/L Boring Bar

Style U - Negative 3° Side Cutting Edge Angle
for negative
35° diamond
VNM_ inserts

Right hand shown,
left hand opposite

Description	Order No. Right	Order No. Left	Min. Bore B	C	D	F	K°	VNM Gage Insert	Price Each
S16T-MVUNR/L-3	8055-266	8055-267	2.00	12.0	1.00	1.000	14°		\$374.80
S20U-MVUNR/L-3	8055-270	8055-271	2.25	14.0	1.25	1.125	14°	332	415.40
S24U-MVUNR/L-3	8055-274	8055-275	2.50	14.0	1.50	1.250	11°		454.89
S32V-MVUNR/L-4	8055-282	8055-283	3.25	16.0	2.00	1.625	11°	432	511.57

S-MVXN R/L Boring Bar

Style X - Negative 5° Back Boring Cutting Edge Angle
for negative
35° diamond
VNM_ inserts

Right hand shown,
left hand opposite

Description	Order No. Right	Order No. Left	Min. Bore B	C	D	F	K°	VNM Gage Insert	Price Each
S24U-MVXNR/L-3	8055-300	8055-301	2.25	14.0	1.50	1.1250	11°	332	\$454.89
S32V-MVXNR/L-4	8055-308	-	3.00	16.0	2.00	1.500	11°	432	511.57

S-MWLN R/L Boring Bar

Style L - Negative 5° End & Side
Cutting Edge
Angle for
negative trigon
WNM_ inserts

Right hand shown,
left hand opposite

Description	Order No. Right	Order No. Left	Min. Bore B	C	D	F	K°	WNM Gage Insert	Price Each
S12S-MWLN/L-3	8055-318	8055-319	1.00	10.0	0.75	0.500	14°	332	\$259.82
S16T-MWLN/L-3	8055-320	8055-321	1.28	12.0	1.00	0.640	14°		326.28
S16T-MWLN/L-4	8055-322	8055-323	1.28	12.0	1.00	0.640	14°	432	326.28
S20U-MWLN/L-4	8055-326	8055-327	1.53	14.0	1.25	0.765	14°		348.44
S24U-MWLN/L-4	8055-330	8055-331	1.78	14.0	1.50	0.890	11°	432	382.67

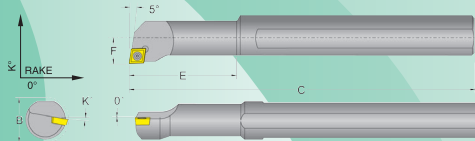
WARNING: This product contains Cobalt and/or Nickel and/or Lead a chemical known to the state of California to cause cancer or birth defects or other reproductive harm. For more information: www.prop65.ca.gov
WARNING: Cutting tools may shatter. Always wear approved safety glasses and mask when grinding.

Boring Bars

S-SCLC R/L Boring Bar

Style L - Negative 5° End & Side Cutting Edge Angle for 7° positive 80° diamond CC_T inserts

Right hand shown, left hand opposite

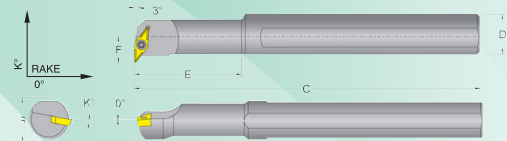


Description	Order No. Right	Order No. Left	Min. Bore B	C	D	E	F	K°	CC_T Gage Insert	Price Each
S06M-SCLCR/L-2	8055-470	8055-471	0.477	6.00	0.375	0.625	.250	15°	21.51	\$144.69
S08M-SCLCR/L-2	8055-474	8055-475	0.602	6.00	0.500	0.750	.312	13°		136.50
S10R-SCLCR/L-2	8055-478	8055-479	0.812	8.00	0.625	1.250	.406	10°		161.49
S08M-SCLCR/L-3	8055-482	8055-483	0.625	6.00	0.500	1.250	.312	13°	32.52	136.50
S10R-SCLCR/L-3	8055-486	8055-487	0.797	6.00	0.625	1.250	.406	10°	35.52	161.49
S12S-SCLCR/L-3	8055-490	8055-491	0.954	10.00	0.750	1.875	.500	8°		194.19
S16T-SCLCR/L-3	8055-494	8055-495	1.250	12.00	1.000	2.500	.625	7°		305.69
S16T-SCLCR/L-4	8055-498	8055-499	1.280	12.0	1.000	2.500	.640	7°	432	305.69
S20U-SCLCR/L-4	8055-502	8055-503	1.530	14.0	1.250	2.500	.765	5°		330.68
S24U-SCLCR/L-4	8055-506	8055-507	1.780	14.0	1.500	2.500	.890	5°		361.43

S-SVUC R/L Boring Bar

Style U - Negative 3° End Cutting Edge Angle for 7° positive 35° diamond VC_T inserts

Right hand shown, left hand opposite

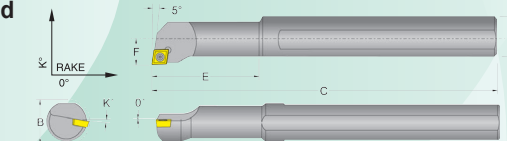


Description	Order No. Right	Order No. Left	Min. Bore B	C	D	E	F	K°	DC_T Gage Insert	Price Each
S12S-SVUCR/L-2	8055-800	8055-801	1.125	10.0	0.75	1.250	0.625	6°	221	\$ 254.50
S16T-SVUCR/L-2	8055-804	-	1.300	12.0	1.00	1.500	0.750	6°		351.56
S16T-SVUCR/L-3	8055-808	8055-809	1.625	12.0	1.00	1.500	0.750	6°		351.56
S20U-SVUCR/L-3	8055-812	8055-813	1.625	14.0	1.25	2.000	1.000	6°	332	379.02

S-SCLP R/L Boring Bar

Style L - Negative 5° End & Side Cutting Edge Angle for 11° positive 80° diamond CP_T inserts

Right hand shown, left hand opposite



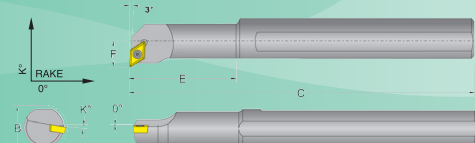
Description	Order No. Right	Order No. Left	Min. Bore B	C	D	E	F	K°	DC_T Gage Insert	Price Each
S06M-SCLPR/L-2	8055-761	-	0.48	6.0	0.375	0.625	0.250	6°	21.51	\$ 136.50
S08R-SCLPR/L-2	8055-763	8055-764	0.60	8.0	0.500	0.750	0.312	3°		136.50
S10S-SCLPR/L-3	8055-767	8055-768	0.77	10.0	0.625	1.250	0.406	2°		161.49
S12S-SCLPR/L-3	8055-769	8055-770	0.93	10.0	0.750	1.250	0.500	2°	32.52	194.19
S16T-SCLPR/L-3	8055-771	8055-772	1.20	12.0	1.000	1.875	0.640	0°		305.69

- **Small Hole Capacity** - to a minimum of .500
- **High Tech** - Insert pocket has been scientifically designed to eliminate vibration and maximize the depth of cut
- **Rigidity** - Bar made of heat treated, precision ground alloy steel
- **Insert Locking** - The insert is securely held with the Torx screw to reduce tool slipping
- **Better Finish** - The clearance angle of the insert, in relation to the cutting edge, gives the best micro finish
- **Fast Material Removal** - The positive insert with advanced chip breaker design for heavier cuts

S-SDUC R/L Boring Bar

Style U - Negative 3° End Cutting Edge Angle for 7° positive 55° diamond DC_T inserts

Right hand shown, left hand opposite

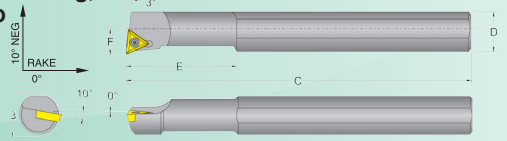


Description	Order No. Right	Order No. Left	Min. Bore B	C	D	E	F	K°	DC_T Gage Insert	Price Each
S06M-SDUCR/L-2	8055-560	8055-561	0.625	6.00	0.375	0.625	.375	11°	21.51	\$147.83
S08M-SDUCR/L-2	8055-564	8055-565	0.780	6.00	0.500	0.750	.437	11°		147.83
S10R-SDUCR/L-2	8055-568	8055-569	0.840	8.00	0.625	1.250	.500	5°		198.03
S12S-SDUCR/L-3	8055-572	8055-573	1.125	10.00	0.750	1.250	.562	6°	32.52	236.49
S16T-SDUCR/L-3	8055-576	8055-577	1.500	12.00	1.000	1.250	.750	4°		334.51
S20U-SDUCR/L-3	8055-580	8055-581	1.750	14.00	1.125	1.875	.875	4°		361.43

STCMB Boring Bar

From Roughing to Finishing, Square Shoulders to Through Bores for 7° positive triangle TCMT Inserts

Right hand shown

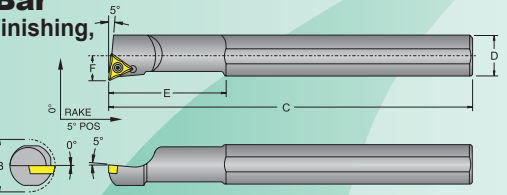


Description	Order No. Right Hand	Min. Bore B	C	D	E	F	TC_T Gage Insert	Price Each
STCMB06-2	8055-738	0.500	5.00	0.500	1.25	.208	21.51	\$136.50
STCMB08-2	8055-740	0.590	6.00	0.500	1.50	.287		136.50
STCMB10-2	8055-742	0.750	8.00	0.625	2.25	.350		161.49
STCMB12-3	8055-744	0.845	10.0	0.750	2.50	.422	32.52	194.19
STCMB16-3	8055-746	1.115	12.0	1.000	3.00	.555		305.69
STCMB20-4	8055-748	1.370	12.0	1.250	3.50	.682	432	330.68

TPBN Boring Bar

From Roughing to Finishing, Square Shoulders to Through Bores For 11° positive triangle TPGH or TPGB Inserts

Right hand shown

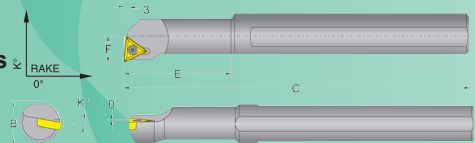


Description	Order No. Right Hand	Min. Bore B	C	D	E	F	TC_T Gage Insert	Price Each
TPBN06-2	8055-658	0.450	5.00	0.500	1.25	.208	21.51	\$ 91.85
TPBN08-2	8055-660	0.590	6.00	0.500	1.50	.287		94.26
TPBN10-2	8055-662	0.682	8.00	0.625	2.25	.350		96.09
TPBN12-3	8055-664	0.845	10.0	0.750	2.50	.422	322	101.08
TPBN16-3	8055-666	1.115	12.0	1.000	3.00	.555		172.80
TPBN20-3	8055-668	1.370	12.0	1.250	3.50	.682		197.21
TPBN20-4	8055-670	1.370	12.0	1.250	3.50	.682	432	197.21

S-STUC R/L Boring Bar

Style U - Negative 3° End Cutting Edge Angle for 7° positive triangle TC_T inserts

Right hand shown, left hand opposite



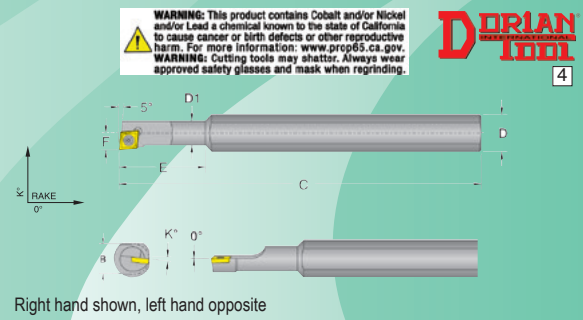
Description	Order No. Right Hand	Min. Bore B	C	D	E	F	K°	TC_T Gage Insert	Price Each
S06M-STUCR-2	8055-628	0.477	6.00	0.375	0.625	.250	15°	21.51	\$ 136.50
S08M-STUCR-2	8055-629	0.602	6.00	0.500	0.750	.312	13°		136.50
S10R-STUCR-2	8055-630	0.797	8.00	0.625	1.250	.406	10°		161.49
S12S-STUCR-3	8055-631	0.954	10.00	0.750	1.875	.500	8°	32.52	194.19
S16T-STUCR-3	8055-632	1.280	12.00	1.000	2.500	.640	7°		305.69

Miniature Boring Bars

MINI S-SCLC R/L Boring Bar

Style L - Negative 5° End & Side Cutting Edge Angle for 7° positive 80° diamond CC_T inserts

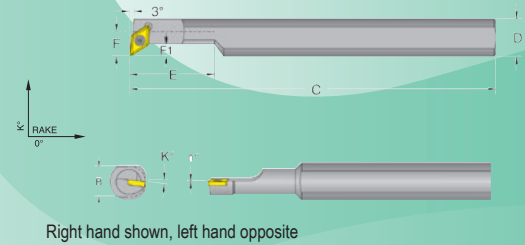
Description	Order No. Right	Order No. Left	Min. Bore B	C	D	D1	E	F	K°	CC_T Gage Insert	Price Each
S06H-SCLCR/L-2	8055-450	8055-451	.394	4.0	.375	.315	1.25	.236	-11°	21.51	\$ 90.11
S08K-SCLCR/L-2	8055-454	8055-455	.550	5.0	.500	.390	1.50	.275	-9°		90.11
S10M-SCLCR/L-2	8055-458	8055-459	.708	6.0	.625	.472	2.00	.354	-7°		106.58



MINI S-SDUC R/L Boring Bar

Style U - Negative 3° End Cutting Edge Angle for 7° positive 55° diamond DC_T inserts

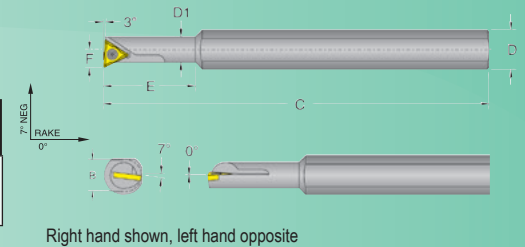
Description	Order No. Right Hand	Min. Bore B	C	D	E	F	F1	K°	DC_T Gage Insert	Price Each
S06H-SDUCR/L-2	8055-540	.492	4.0	.375	0.875	.324	.197	-11°		\$ 97.57
S08K-SDUCR/L-2	8055-544	.610	5.0	.500	1.125	.383	.197	-9°	21.51	97.57
S10M-SDUCR/L-2	8055-548	.768	6.0	.625	1.500	.433	.197	-7°		130.71



MINI S-STUC R Boring Bar

Style U - Negative 3° End Cutting Edge Angle for 7° positive triangle TC_T inserts

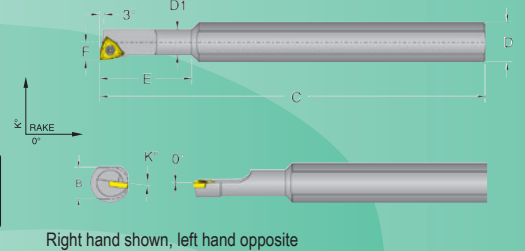
Description	Order No. Right Hand	Min. Bore B	C	D	D1	E	F	TC_T Gage Insert	Price Each
S06H-STUCR-1.2-2	8055-724	.286	4.0	.375	.265	1.125	.143		\$ 90.11
S08H-STUCR-1.2-3	8055-726	.313	4.0	.500	.300	1.125	.157	52.50	90.11
S08H-STUCR-1.2-4	8055-728	.374	4.0	.625	.358	1.125	.189		90.11



MINI S-SWUC R Boring Bar

Style U - Negative 3° End Cutting Edge Angle for 7° positive 80° trigon WC_T inserts

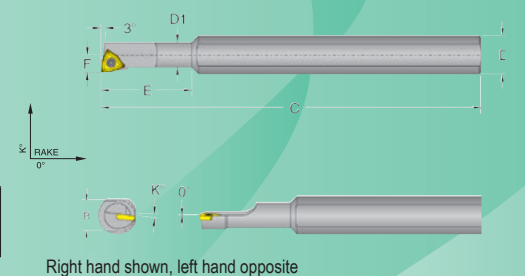
Description	Order No. Right Hand	Min. Bore B	C	D	D1	E	F	K°	WC_T Gage Insert	Price Each
S08H-SWUCR-1.2-2	8055-900	0.228	4.0	.50	.197	0.750	.144	-11°		\$ 90.11
S08H-SWUCR-1.2-3	8055-902	0.308	4.0	.50	.236	1.000	.154	-11°		90.11
S08H-SWUCR-1.2-4	8055-904	0.374	4.0	.50	.300	1.125	.189	-11°	1.210	90.11



MINI S-SWUC R Boring Bar

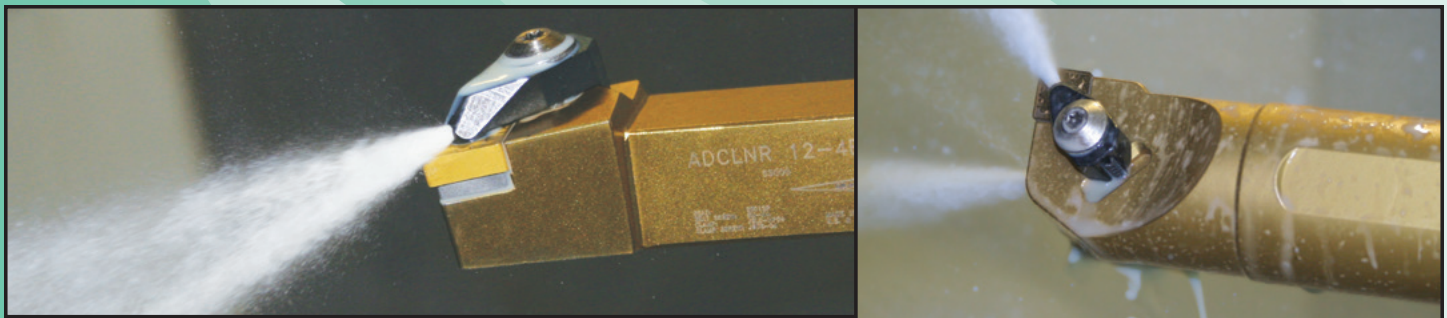
Style U - Negative 3° End Cutting Edge Angle for 7° positive 80° trigon WC_T inserts

Description	Order No. Right Hand	Min. Bore B	C	D	D1	E	F	K°	WC_T Gage Insert	Price Each
S06H-SWUCR-2	8055-906	.394	4.0	.375	.315	1.25	.236	-11°		\$ 90.11
S08K-SWUCR-2	8055-907	.550	5.0	.500	.390	1.50	.275	-9°	21.51	90.11
S10M-SWUCR-2	8055-908	.708	6.0	.625	.472	2.00	.354	-7°		106.58



Boring Bars

WARNING: This product contains Cobalt and/or Nickel and/or Lead a chemical known to the state of California to cause cancer or birth defects or other reproductive harm. For more information: www.p665.ca.gov.
WARNING: Cutting tools may shatter. Always wear approved safety glasses and mask when regrinding.



Jet-Stream™ Thru Coolant Turning & Boring Tools

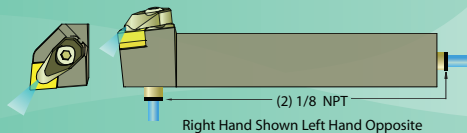
Dorian Tool's Jet-Stream™ Thru Coolant Cutting Tools use a patented thru-coolant locking clamp which is precisely aimed to direct high pressure, high velocity coolant exactly onto the cutting edge of the carbide insert, from a short distance of 1/4".

This controlled Jet-Stream coolant, directed onto the insert/chip interface (right under the chip and over the insert cutting edge) will dissipate the generated heat very effectively as well as lubricate the cutting edge of

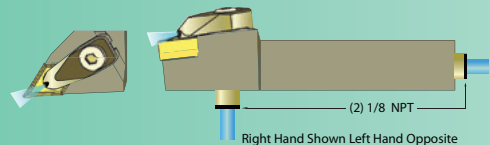
the insert, causing the chips to hydroplane over the insert surface in stead of adhering to it. As a result, the insert will operate at a constant low temperature, with a clean and undamaged cutting edge, changing the way metal is cut.

Higher speeds and feeds can be achieved, with a better surface finish, tolerance control and machining performance. The insert life is extended up to 200%.

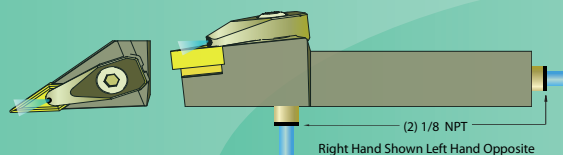
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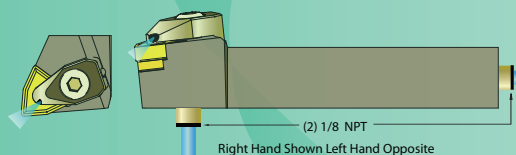
Description	Order No.		Size	CNM Gage Insert	Price Each
	R.H.	L.H.			
ADCLNR/L-12-4B	8053-000	8053-001	0.75	432	\$ 193.51
ADCLNR/L-16-4D	8053-002	8053-003	1.00	432	223.37
ADCLNR/L-20-4D	8053-004	8053-005	1.25	432	237.39



ADDJN Description	Order No.		Shank Size	DNM Gage Insert	Price Each
	R.H.	L.H.			
ADDJNR/L-12-4B	8053-018	8053-019	0.75	432	\$ 223.25
ADDJNR/L-16-4D	8053-020	8053-021	1.00	432	239.31
ADDJNR/L-20-4D	8053-022	8053-023	1.25	432	254.34



ADVJN Description	Order No.		Shank Size	VNM Gage Insert	Price Each
	R.H.	L.H.			
ADVJNR/L-12-3B	8053-081	8053-082	0.75	332	\$ 223.25
ADVJNR/L-16-3D	8053-083	8053-084	1.00	332	239.31
ADVJNR/L-20-3D	8053-085	8053-086	1.25	332	254.34



ADWLN Description	Order No.		Shank Size	WNM Gage Insert	Price Each
	R.H.	L.H.			
ADWLNR/L-12-4B	8053-095	8053-096	0.75	432	\$ 193.51
ADWLNR/L-16-4D	8053-099	8053-100	1.00	432	223.37
ADWLNR/L-20-4D	8053-101	8053-102	1.25	432	237.39



AS-ADCLN Description	Order No.		Bar Dia.	Min. Bore	CNM Gage Insert	Price Each
	R.H.	L.H.				
AS-12R-ADCLNR/L-3	8053-120	8053-121	0.75	1.000	322	\$ 357.05
AS-16R-ADCLNR/L-4	8053-122	8053-123	1.00	1.280	432	439.43
AS-20S-ADCLNR/L-4	8053-124	8053-125	1.25	1.530	432	494.36
AS-24S-ADCLNR/L-4	8053-126	8053-127	1.50	1.780	432	521.83
AS-32T-ADCLNR/L-4	8053-128	-	2.00	2.562	432	659.15



AS-ADDUN Description	Order No.		Bar Dia.	Min. Bore	DNM Gage Insert	Price Each
	R.H.	L.H.				
AS-16R-ADDUNR/L-3	8053-137	8053-138	1.00	1.300	332	\$ 439.43
AS-20S-ADDUNR/L-4	8053-139	8053-140	1.25	2.000	432	494.36
AS-24S-ADDUNR/L-4	8053-141	8053-142	1.50	2.250	432	521.83



AS-ADVUN Description	Order No.		Bar Dia.	Min. Bore	VNM Gage Insert	Price Each
	R.H.	L.H.				
AS-20S-ADVUNR/L-3	8053-189	8053-190	1.25	2.250	332	\$ 566.19
AS-24S-ADVUNR/L-3	8053-191	8053-192	1.50	2.500	332	576.76



AS-ADWLN Description	Order No.		Bar Dia.	Min. Bore	WNM Gage Insert	Price Each
	R.H.	L.H.				
AS-12R-ADWLNR/L-3	8053-198	8053-199	0.75	1.000	332	\$ 357.05
AS-16R-ADWLNR/L-4	8053-200	8053-201	1.00	1.280	432	439.43
AS-20S-ADWLNR/L-4	8053-202	8053-203	1.25	1.530	432	494.36
AS-24S-ADWLNR/L-4	8053-204	8053-205	1.50	1.780	432	521.83
AS-32T-ADWLNR/L-4	8053-206	8053-207	2.00	2.000	432	659.15

Milling Inserts

New Coatings

Using the latest and most advanced technology for the coating to give the insert the optimum performance in any milling application and materials.

DASK25B/DNP10HM

C2 Substrate with PVD TiN-TiAlN-TiN multi-layer coating. For general purpose milling of non-ferrous metals such as aluminum, copper, brass, and bronze, high temp alloys, 300-series stainless steels and cast iron with medium to high SFM.

DHP440F/DMP35UM

C5 Substrate with PVD TiAlN coating. For general purpose milling of carbon steels, alloy steels and tool steels in annealed state with medium to high SFM.

DASP35B/DUP30M/DPP30UM

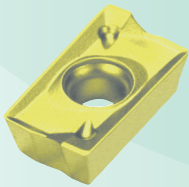
C5 Substrate with PVD TiN-TiAlN-TiN multi-layer coating. For general purpose milling of carbon steels, alloy steels and tool steels in annealed state with medium to high SFM.

DUP25GT

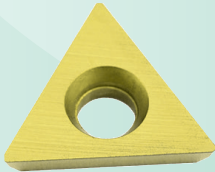
C2 Substrate with PVD TiN-TiAlN coating. For general purpose milling of carbon steels, alloy steels and tool steels in annealed state with medium to high SFM.

Insert Type

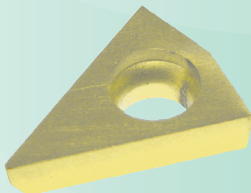
APKT



TDEX 60°



TDEX 45°



Description	Grade	Application	Cutting Condition	Order No.	Price Each
APKT-1003-PDSR	DPC25UM	Ferrous	General Purpose	8094-758	\$15.67
APKT-1003-PDSR	DMC35UM	Stainless Steel	General Purpose	8094-754	15.67
APKT-1003-PDSR	DKC10UM	Cast Iron	General Purpose	8094-753	17.26
APKT-1604-PDSR	DPC25UM	Ferrous	General Purpose	8094-768	18.61
APKT-1604-PDSR	DMC35RM	Stainless Steel	General Purpose	8094-764	18.61
APKT-1604-PDSR	DKC10UM	Cast Iron	General Purpose	8094-763	18.61
TDEX-110204-XDEN	DNP10HM	Non-Ferrous	General Purpose (60°)	8095-427	19.98
TDEX-110204-XDEN	DPP30UM	Ferrous	General Purpose (60°)	8095-421	17.61
TDEX-110204-XDEN	DMP35UM	Ferrous	Heavy Roughing (60°)	8095-423	19.16
TDEX-110208-XDEN	DNP10HM	Non-Ferrous	General Purpose (60°)	8095-437	19.98
TDEX-110208-XDEN	DPP30UM	Ferrous	General Purpose (60°)	8095-431	17.61
TDEX-110208-XDEN	DMP35UM	Ferrous	Heavy Roughing (60°)	8095-433	19.16
TDEX-160304-XDEN	DNP10HM	Non-Ferrous	General Purpose (60°)	8095-451	22.21
TDEX-160304-XDEN	DPP30UM	Ferrous	General Purpose (60°)	8095-447	19.80
TDEX-160304-XDEN	DMP35UM	Ferrous	Heavy Roughing (60°)	8095-449	21.93
TDEX-160308-XDEN	DNP10HM	Non-Ferrous	General Purpose (60°)	8095-457	22.21
TDEX-160308-XDEN	DPP30UM	Ferrous	General Purpose (60°)	8095-453	19.80
TDEX-160308-XDEN	DMP35UM	Ferrous	Heavy Roughing (60°)	8095-455	21.93
TDEX-220404-XDEN	DNP10HM	Non-Ferrous	General Purpose (60°)	8095-469	29.79
TDEX-220404-XDEN	DPP30UM	Ferrous	General Purpose (60°)	8095-461	29.52
TDEX-220404-XDEN	DMP35UM	Ferrous	Heavy Roughing (60°)	8095-463	31.12
TDEX-220408-XDEN	DNP10HM	Non-Ferrous	General Purpose (60°)	8095-479	29.79
TDEX-220408-XDEN	DPP30UM	Ferrous	General Purpose (60°)	8095-471	29.52
TDEX-220408-XDEN	DMP35UM	Ferrous	Heavy Roughing (60°)	8095-473	31.12
TDEX-090202-XDEN	DNP10HM	Non-Ferrous	General Purpose (45°)	8095-498	20.37
TDEX-090202-XDEN	DPP30UM	Ferrous	General Purpose (45°)	8095-491	21.19
TDEX-090202-XDEN	DMP35UM	Ferrous	Heavy Roughing (45°)	8095-493	21.19
TDEX-090204-XDEN	DNP10HM	Non-Ferrous	General Purpose (45°)	8095-508	20.37
TDEX-090204-XDEN	DPP30UM	Ferrous	General Purpose (45°)	8095-501	21.19
TDEX-090204-XDEN	DMP35UM	Ferrous	Heavy Roughing (45°)	8095-503	21.63
TDEX-17T304-XDEN	DNP10HM	Non-Ferrous	General Purpose (45°)	8095-518	22.44

Inserts are sold in standard packs of 5. Pricing is each.

WARNING: This product contains Cobalt and/or Nickel and/or Lead a chemical known to the state of California to cause cancer or birth defects or other reproductive harm. For more information: www.pro65.ca.gov
WARNING: Cutting tools may shatter. Always wear approved safety glasses and mask when regrinding.

DORIAN
TOOL

8

Milling Inserts

New Coatings

Using the latest and most advanced technology for the coating to give the insert the optimum performance in any milling application and materials.

DASK25B/DNP10HM

C2 Substrate with PVD TiN-TiAlN-TiN multi-layer coating. For general purpose milling of non-ferrous metals such as aluminum, copper, brass, and bronze, high temp alloys, 300-series stainless steels and cast iron with medium to high SFM.

DHP440F/DMP35UM

C5 Substrate with PVD TiAlN coating. For general purpose milling of carbon steels, alloy steels and tool steels in annealed state with medium to high SFM.

DASP35B/DUP30M/DPP30UM

C5 Substrate with PVD TiN-TiAlN-TiN multi-layer coating. For general purpose milling of carbon steels, alloy steels and tool steels in annealed state with medium to high SFM.

DUP25GT

C2 Substrate with PVD TiN-TiAlN coating. For general purpose milling of carbon steels, alloy steels and tool steels in annealed state with medium to high SFM.

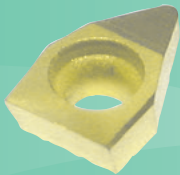
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DORIAN
TOOL

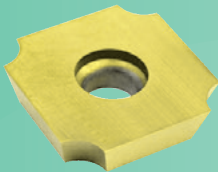
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Insert Type

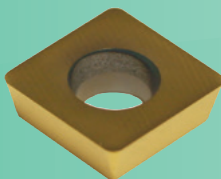
TEHW



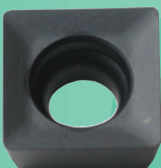
SDGX



SDHW



SPMT



Description	Grade	Application	Cutting Condition	Order No.	Price Each
TEHW-0602-AEEN-	DASK25B	Non-Ferrous	General Purpose	8095-593	\$30.25
TEHW-0602-AEEN-	DASP35B	Ferrous	General Purpose	8095-595	28.98
TEHW-0602-AEEN-	DHP440F	Ferrous	Heavy Roughing	8095-596	31.00
SDGX-09C01-E-	DUP25GT	Non-Ferrous	General Purpose	8095-299	42.36
SDGX-09C03-E-	DUP25GT	Non-Ferrous	General Purpose	8095-307	43.44
SDGX-09C04-E-	DUP25GT	Non-Ferrous	General Purpose	8095-311	43.44
SDGX-19C05-E-	DUP25GT	Non-Ferrous	General Purpose	8095-250	58.23
SDGX-19C06-E-	DUP25GT	Non-Ferrous	General Purpose	8095-254	58.23
SDGX-19C07-E-	DUP25GT	Non-Ferrous	General Purpose	8095-258	58.23
SDGX-19C08-E-	DUP25GT	Non-Ferrous	General Purpose	8095-262	62.56
SDGX-19C09-E-	DUP25GT	Non-Ferrous	General Purpose	8095-266	62.56
SDGX-19C10-E-	DUP25GT	Non-Ferrous	General Purpose	8095-270	62.56
SDGX-19C11-E-	DUP25GT	Non-Ferrous	General Purpose	8095-274	65.38
SDGX-19C12-E-	DUP25GT	Non-Ferrous	General Purpose	8095-278	65.38
SDGX-19C13-E-	DUP25GT	Non-Ferrous	General Purpose	8095-282	69.96
SDGX-19C14-E-	DUP25GT	Non-Ferrous	General Purpose	8095-286	69.96
SDGX-19C15-E-	DUP25GT	Non-Ferrous	General Purpose	8095-290	64.09
SDGX-19C16-E-	DUP25GT	Non-Ferrous	General Purpose	8095-294	64.09
SDHW-090308-EN	DASK25B	Non-Ferrous	General Purpose	8094-998	22.09

*Inserts are sold in standard packs of 5. Pricing is each.
SDGX inserts are sold in standard packs of 2.*

Milling Cutting Tools

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DORIAN
TOOL

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45° DOVETAIL CUTTER Cutting Rake - 11° for 11° positive TDEX inserts.		Description	C	D	Shank Size	F	H	Insert Qty.	TDEX Gage Insert	Order No.	Price Each
		D45X-050-TD09-037	2.39	0.500	0.375	.247	.125	1		8065-233	\$ 134.14
		D45X-075-TD09-037	2.39	0.750	0.375	.247	.214	2	090202	8065-234	181.28
		D45X-100-TD09-050	2.39	1.000	0.500	.250	.244	3		8065-235	232.03
		D45X-137-TD17-062	2.94	1.375	0.625	.375	.320	2	17T304	8065-236	257.41
		D45X-187-TD17-075	2.94	1.875	0.750	.468	.444	3		8065-237	300.92
		D45X-225-TD25-100	3.50	2.250	1.000	.700	.696	2	250404	8065-238	380.66
		D45X-250-TD25-100	3.50	2.500	1.000	.700	.700	3		8065-239	420.53

60° DOVETAIL CUTTER Cutting Rake - 15° for 15° positive triangle TDEX inserts.		Description	C	D	Shank Size	F	H	Insert Qty.	TDEX Gage Insert	Order No.	Price Each
		D60X-050-TD11-037	2.390	0.500	0.375	.325	.142	1		8065-244	\$ 134.14
		D60X-075-TD11-037	2.390	0.750	0.375	.325	.282	2	110204	8065-245	181.28
		D60X-100-TD11-050	2.390	1.000	0.500	.325	.375	3		8065-246	232.03
		D60X-137-TD16-062	2.862	1.375	0.625	.510	.550	3	160308	8065-247	257.41
		D60X-187-TD16-075	3.000	1.875	0.750	.510	.550	3		8065-248	300.92
		D60X-225-TD22-100	3.500	2.250	1.000	.700	.750	3	220408	8065-249	380.66
		D60X-250-TD22-100	3.500	2.500	1.000	.700	.750	3		8065-250	420.53

DOUBLE 45° CHAMFER MILL Cutting Rake - 15° for 15° positive square SD__ inserts		Description	C	D	D1	Shank Size	F	H	Insert Qty.	SDHW Gage Insert	Order No.	Price Each
		C45-112-SD09-075	3.375	0.625	1.125	0.750	0.230	0.750	2		8065-414	\$ 143.37
		C45-125-SD09-075	3.375	0.772	1.250	0.750	0.230	0.750	2		8065-416	148.33
		C45-150-SD09-100	3.500	1.040	1.500	1.000	0.230	1.000	3	090308	8065-418	163.15
		C45XL-112-SD09-075	7.75	0.625	1.125	0.750	0.230	0.750	2		8065-420	228.41
		C45XL-150-SD09-100	7.75	1.040	1.500	1.000	0.230	1.000	3		8065-421	280.13
		Cutting Rake - 15° for 15° positive square SPHX inserts							Insert Qty.	SPMT Gage Insert	Order No.	Price Each
		C45-062-SP06-062	3.000	0.325	0.625	0.625	0.159	0.750	1		8065-410	128.55
		C45-075-SP06-062	3.000	0.448	0.750	0.625	0.159	0.750	2	060304	8065-411	135.96

T-SLOT CUTTER Cutting Rake - 20° for positive SDHW, SPHX, & TEHW inserts		Description	C	D	Shank Size	F	H	N	Insert Qty. R/L	Gage Insert	Order No.	Price Each
		SLOT-097-SP06-075	3.438	0.969	0.750	0.390	1.100	0.531	4	SPMT-060304	8065-184	243.89
		SLOT-147-SD09-100	4.438	1.469	1.000	0.624	1.757	0.781	4	SDHW-090308	8065-186	309.81
		SLOT-184-SD09-125	4.813	1.844	1.250	0.827	2.108	1.031	5	SDHW-090308	8065-187	342.76

15° DOVETAIL CUTTER Cutting Rake - 15° for 15° positive TDEX inserts.		Description	C	D	Shank Size	F	H	Insert Qty.	TDEX Gage Insert	Order No.	Price Each
		D15X-050-TD11-037	2.42	0.500	0.375	.359	0.42	1		8065-225	\$ 134.14
		D15X-100-TD11-050	2.42	1.000	0.500	.359	0.42	3	110204	8065-226	232.03
		D15X-187-TD16-075	3.20	1.875	0.750	.550	0.75	3	160308	8065-227	300.92
		D15X-250-TD22-100	3.75	2.500	1.000	.750	1.00	3	220408	8065-228	420.53

CONVEX RADIUS CUTTER Cutting Rake - 15° for 15° positive square convex radius SDGX inserts		Description	C	D	D1	Shank Size	H	R-Range Min.	R-Range Max.	Insert Qty.	SDGX Insert	Order No.	Price Each
		QV-100-S608-100	3.625	1.000	0.754	1.000	1.125	.0781	.1250	1		8065-120	187.85
		QV-100-S616-075	3.500	1.000	0.510	0.750	1.000	.2031	.2500	1	19C_	8065-130	204.33
		QV-100-S616-100	3.625	1.000	0.510	1.000	1.125	.2031	.2500	1		8065-132	187.85

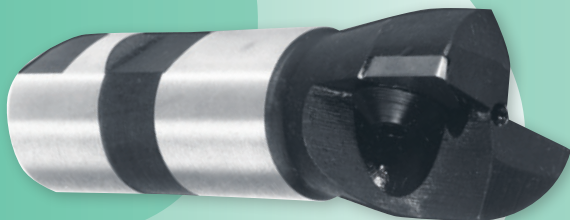
Indexable End Mills & Countersinks

All tools supplied without inserts

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Positive Rake, 90°, Right Hand Cut



Indexable End Mill Sets

DIA.	SHANK	NO. OF INSERTS	INSERT STYLE	ORDER NO.	PRICE EACH
1	R-8	2	TPG-22	2874-010	\$ 65.56
1-1/4	R-8	2	TPG-32	2874-020	68.10
1-1/2	R-8	3	TPG-32	2874-030	81.97
1-3/4	R-8	3	TPG-32	2874-040	90.17
2	R-8	3	TPG-32	2874-050	101.66
2-1/2	R-8	4	TPG-32	2874-060	109.87
3	R-8	5	TPG-32	2874-070	141.95
3/4	3/4	2	TPG-21	2874-120	43.49
1	3/4	2	TPG-22	2874-130	49.15
1-1/4	3/4	2	TPG-22	2874-140	65.56
1-1/2	3/4	3	TPG-32	2874-150	65.56
2	3/4	3	TPG-32	2874-170	90.17
1	1	2	TPG-32	2874-180	36.92
1-1/4	1	2	TPG-32	2874-190	44.23
2	30 STD	3	TPG-32	2874-080	97.64
2-1/2	40 STD	4	TPG-32	2874-100	96.82

Tools furnished without inserts

SHANK	SIZES IN SET	ORDER NO.	PRICE EACH
1	1-1/4, 1-1/2, & 2	2874-515	\$147.69
R-8	1-1/4, 1-1/2, & 2	2874-525	249.35
R-8	2, 2-1/2, & 3	2874-535	328.12
40 STD	2, 2-1/2, & 3	2874-545	286.52

Spare Parts for Indexable End Mills

DIA.	LOCKING SCREW ITEM NO.	PRICE EACH	HEX WRENCH ITEM NO.	PRICE EACH
1/2	2870-475	\$11.11	2870-495	\$0.50
3/4, 7/8, & 1	2870-480	7.39		
1-1/2	2870-485	7.30		
OTHER SIZES	2870-490	7.60	2870-500	1.62

Only one spare part per End Mill



Indexable Countersink & Chamfering Tool

- Positive Rake For Smooth Cutting – Without Chatter
- Carbide Indexable – No Tool Resharpening Needed
- C-6 Carbide Insert & Torx® Wrench Included w/Each Tool
- Uses Standard Triangle And Square Inserts

MADE IN USA



Single Tool

CUTTER BODY			COMPLETE TOOL		
MIN.	MAX.	SHANK SIZE	USE INSERT NO.	ORDER NO.	PRICE EACH
60° POINT ANGLE					
1/4	3/4	1/2	2861-701/711	2861-416	\$144.72
1/2	1-3/4	1/2		2861-432	212.14
1-1/4	2-1/2	3/4		2861-480	277.92
82° POINT ANGLE					
1/4	3/4	1/2	2861-702/712	2861-516	\$144.72
1/2	1-3/4	1/2		2861-532	212.14
1-1/4	2-1/2	3/4		2861-580	277.92
90° POINT ANGLE					
1/4	3/4	1/2	2861-702/712	2861-616	\$144.72
1/2	1-3/4	1/2		2861-632	212.14
1-1/4	2-1/2	3/4		2861-680	277.92



SETS

3-PIECE SET

Contains 1 Piece Each:
1/4, 1/2 and 1-1/4 (Min.)
Inserts Included with Each Set
Supplied in Wood Block
Order No. 2861-720 – 60° SET
Order No. 2861-721 – 82° SET
Order No. 2861-722 – 90° SET
SET PRICE –\$643.98

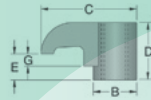
Carbide Inserts

INSERT STYLE	RAD.	I.C.	THICK-NESS	C-5 & C-6		TIN COATED	
				ORDER NO.	PRICE EACH	ORDER NO.	PRICE EACH
Triangle	1/64	3/8	1/8	2861-701	\$8.90	2861-711	\$10.85
Square	3/18	1/2	1/8	2861-702	16.82	2861-712	20.20

Replacement Parts

DESCRIPTION	ORDER NUMBER	PRICE EACH
Flat Head Cap Screw	2861-715	\$2.61

Finger Clamps



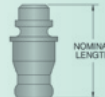
Desc.	Order No.	Price	B	C	D	E	G	Thread
CL-5	8090-680	\$11.19	.280	.52	.350	.102	—	10-32
CL-6	8090-681	\$11.19	.310	.58	.440	.187	.094	10-32
CL-7	8090-682	\$11.19	.310	.64	.310	.082	—	10-32
CL-9	8090-683	\$12.11	.430	.75	.660	.344	.125	5/16-24
CL-12	8090-684	\$12.11	.430	.88	.660	.344	.125	5/16-24
CL-19	8090-685	\$10.73	.310	.55	.310	.062	—	10-32
CL-20	8090-686	\$12.11	.375	.73	.380	.125	—	1/4-28
CL-24	8090-687	\$16.23	.491	1.0	.785	.453	.136	3/8-24
CL-30	8090-688	\$16.23	.430	1.0	.660	.344	.125	5/16-24

Pos. Lock Pins



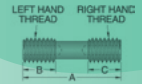
Desc.	Order No.	Price	Insert I.C.	Nominal Length	Hex Wrench Size
PL-46	8090-495	\$9.76	.500	.672	3/32
PL-68	8090-497	\$17.89	.750	.859	9/64

Neg. Lock Pins



Desc.	Order No.	Price	Insert I.C.	Nominal Length	Thread	Hex Wrench Size
Inch						
NL-23	8090-472	\$8.34	.250	.328	8-32	1/16
NL-33	8090-473	\$8.34	.375	.344	10-32	5/64
NL-33L	8090-474	\$8.34	.375	.406	10-32	5/64
NL-34	8090-475	\$8.34	.375	.453	10-32	5/64
NL-34L	8090-476	\$8.34	.375	.516	10-32	5/64
NL-43	8090-477	\$9.56	.500	.420	10-32	5/64
NL-44	8090-478	\$9.56	.500	.516	1/4-28	3/32
NL-46	8090-479	\$9.56	.500	.672	1/4-28	3/32
NL-46L	8090-480	\$9.56	.500	.730	1/4-28	3/32
NL-56	8090-481	\$9.97	.625	.703	5/16-24	1/8
NL-58	8090-483	\$9.97	.625	.859	5/16-24	1/8
NL-58L	8090-484	\$12.48	.625	.890	5/16-24	1/8
NL-66	8090-485	\$11.02	.750	.703	3/8-24	9/64
NL-66L	8090-486	\$11.02	.750	.828	3/8-24	9/64
NL-68	8090-487	\$11.02	.750	.859	3/8-24	9/64
NL-68L	8090-488	\$11.02	.750	.953	3/8-24	9/64
NL-810	8090-490	\$14.64	1.00	1.17	7/16-20	5/32
Metric						
S535	8091-320	\$8.20	09	5	-	2.5
S635	8091-321	\$8.20	12	6	-	3.0
S840	8091-322	\$9.04	16	8	-	3.0
S990	8091-323	\$9.85	19	10.5	-	3.0
P0502	8091-324	\$17.78	16	16	-	-
P0602	8091-325	\$17.78	08	15	-	-

Finger Clamp Screws



Desc.	Order No.	Price	A	B	C	Thread Size	Hex Wrench Size
XNS-26	8090-900	\$4.76	0.750	.31	.31	8-32	5/64
XNS-35	8090-901	\$3.58	0.625	.22	.22	10-32	3/32
XNS-36	8090-902	\$3.58	0.750	.25	.25	10-32	3/32
XNS-37	8090-903	\$3.58	0.840	.31	.31	10-32	3/32
XNS-38	8090-904	\$3.58	1.000	.37	.37	10-32	3/32
XNS-46	8090-905	\$3.79	0.750	.31	.31	1/4-28	1/8
XNS-47	8090-906	\$3.79	0.875	.28	.28	1/4-28	1/8
XNS-48	8090-907	\$3.79	1.000	.37	.37	1/4-28	1/8
XNS-58	8090-910	\$4.00	1.000	.50	.28	5/16-24	5/32
XNS-59	8090-911	\$4.00	1.125	.47	.41	5/16-24	5/32
XNS-510	8090-908	\$4.00	1.250	.50	.50	5/16-24	5/32
XNS-610	8090-912	\$8.14	1.250	.50	.50	3/8-24	3/16

Seat Screws



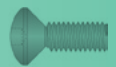
Desc.	Order No.	Price	I.C.	Thread	Hex Wrench Size
Inch					
S-34	8091-295	\$2.61	.375	10-32	5/64
S-46	8091-296	\$2.61	.500	1/4-28	3/32
S-58	8091-297	\$4.10	.625	5/16-24	1/8
S-68	8091-298	\$3.58	.750	3/8-24	9/64
Metric					
V83006	8091-327	\$6.74	16	M3	2.5
B0509	8091-328	\$6.74	11-16	M5	3.5
B0609	8091-329	\$6.74	12	M6	4.0

Bridge Clamps



Desc.	Order No.	Price	L	D	H
HC-7	8090-915	\$8.28	.469	.313	.172
HC-9	8090-917	\$9.09	.625	.375	.203
HC-12	8090-919	\$12.00	.812	.500	.266

Wedge Clamp Screws



Desc.	Order No.	Price	Length	Thread	Hex Wrench Size
V6016	8091-336	\$21.84	23	M5	2.5
V8008N	8091-337	\$21.84	23	M6	3.0

Spare Parts are sold in standard packs of 10. Pricing is each.

Spare Parts

WARNING: This product contains Cobalt and/or Nickel and/or Lead a chemical known to the state of California to cause cancer or birth defects or other reproductive harm. For more information: www.prep65.ca.gov.
WARNING: Cutting tools may shatter. Always wear approved safety glasses and mask when regrinding.

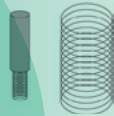
DORIAN
TOOL

The First Choice
TECHNOLOGY

8



Clamp Pin & Spring



Desc.	Order No.	Price
Profiling Clamp Pin		
SC510	8091-330	\$10.68
Spring		
M428	8091-331	5.77

Clamps



Desc.	Order No.	Price
Wedge Lock Clamps		
C6016N	8091-332	\$36.08
C8008N	8091-333	36.08
Profiling Clamps		
SKN16R	8091-334	20.15
SKN16L	8091-335	20.15

Turning Insert Torx Screw



Desc.	Order No.	Price	I.C.	Torx Key
TS-3.5-7M1	8090-971	\$5.96	.315	T-8
TS-35.6-9M1	8090-973	5.17	.394	T-15
TS-4.7-10M1	8090-982	4.23	.375	T-15
TS-1032-4M1	8090-956	4.19	.500	T-20
TS-5.8-10M1	8090-986	5.50	.750	T-20

Bridge Clamp Screws



Desc.	Order No.	Price	Length	Thread	Hex Wrench Size
SHC-7	8090-920	\$2.41	.375	8-32	3/32
CS-94	8090-921	2.76	.580	10-32	1/8
CS-96	8090-923	2.58	.840	10-32	1/8
CS-126	8090-925	3.36	.860	1/4-28	5/32

Torx Keys



Desc.	Order No.	Price
T-6	8092-001	\$13.49
T-7	8092-002	13.49
T-8	8092-003	13.49
T-10	8092-005	13.49

Desc.	Order No.	Price
T-15	8092-006	\$13.49
T-20	8092-007	13.49
T-25	8092-008	20.71

Bridge Clamp Screw Clip



Desc.	Order No.	Price	Length
CLP-9	8090-928	\$2.50	.312
CLP-12	8090-930	2.83	.422

Lever Locks



Desc.	Order No.	Price
LV01	8091-338	\$14.45
LV02	8091-339	14.45
LV05	8091-340	15.64
LV06	8091-341	27.66
LV09	8091-342	28.56

Lever Screws



Desc.	Order No.	Price	Lever	Hex Wrench Size
V0601	8091-344	\$13.36	LV01	3.0
V0802	8091-345	13.36	LV02	3.0
V0805	8091-346	13.36	LV05	3.0
V1006	8091-347	14.18	LV06	4.0
V1209	8091-348	16.85	LV09	4.0

Triangle Chipbreakers



Desc.	Order No.	Price	I.C.	Effective Width W
T2AC	8090-446	\$15.42	.250	.060
T3AC	8090-452	16.85	.375	.060
T3AE	8090-453	16.85	.375	.090
T3AG	8090-454	16.85	.375	.125
T4AC	8090-459	21.72	.500	.060
T4AE	8090-460	21.72	.500	.090
T4AG	8090-461	21.72	.500	.125
T5AG	8090-466	27.98	.625	.140
T5AJ	8090-467	27.98	.625	.180

Square Chipbreakers

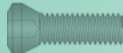
Desc.	Order No.	Price	I.C.	Effective Width W
S3BC	8090-440	\$16.03	.375	.060
S4BE	8090-442	19.44	.500	.060
S6BG	8090-444	21.54	.750	.125

Pos. Square Shim Seats



Desc.	Order No.	Price	A	T	R
SM-40	8090-373	\$20.00	.500	.1250	.0156
SM-36	8090-374	23.15	.750	.1250	.0469

Boring Insert Torx Screw



Desc.	Order No.	Price	I.C.	Torx Key
TS-18.35-3M1	8091-305	\$7.59	.188	T-6
TS-4.7-8M1	8090-976	3.77	.375	T-15
TS-4.7-10M1	8090-982	4.23	.375	T-15
TS-44-3-M	8090-937	3.77	.375	T-10
TS-44-4-M	8090-939	3.77	.375	T-10
TS-1032-4M1	8090-956	4.19	.500	T-20
TS-83-4M1	8090-950	4.19	.500	T-20
TS-5.8-10M1	8090-986	5.50	.750	T-20

Pos. Seat Screw



Hex Desc.	Order No.	Price	I.C.	Wrench Size
TS-4	8090-931	\$3.24	.375 or .500	T-10
TS-6	8090-944	3.44	.500 or .750	T-20

Spare Parts are sold in standard packs of 10. Pricing is each.

Spare Parts

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8

Profiling Shim Seats



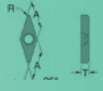
Desc.	Order No.	Price	A	T	R
CKN16R	8091-353	\$21.65	14,5	4,76	1,0
CKN16L	8091-354	21.65	14,5	4,76	1,0

Pos. Triangle Shim Seats



Desc.	Order No.	Price	A	T	R
Inch					
SM-41	8090-367	\$18.71	.332	.1250	.0156
SM-37	8090-366	21.02	.452	.1250	.0312
SM-99	8090-371	30.75	.540	.1875	.0469
Metric					
S6016P	8091-355	\$14.45	8,4	3,18	0,8

Neg. 35° Diamond Shim Seats



Desc.	Order No.	Price	A	T	R
IVSN-322	8090-065	\$22.12	.375	.1250	.0312
IVSN-324	8090-066	30.69	.375	.1250	.0625
IVSN-433	8090-068	27.93	.500	.1875	.0469

Neg. Square Shim Seats



Desc.	Order No.	Price	A	T	R
Inch					
ISSN-322	8090-050	\$ 16.47	.375	.1250	.0312
ISSN-323	8090-051	16.47	.375	.1250	.0469
ISSN-333	8090-054	22.04	.375	.1875	.0469
ISSN-423	8090-056	25.89	.500	.1250	.0469
ISSN-433	8090-059	23.44	.500	.1875	.0469
ISSN-533	8090-060	24.75	.625	.1875	.0469
ISSN-633	8090-062	34.28	.750	.1875	.0469
ISSN-846	8090-064	59.06	1.00	.2500	.0937
Metric					
S9012N	8091-361	14.74	11,4	3,18	0,8

Pos. Round Shim Seats



Desc.	Order No.	Price	A	T
RS-43P	8090-375	\$ 21.02	.500	.1875
RS-63P	8090-377	37.43	.750	.1875
RS-83P	8090-378	58.91	1.00	.1875

Neg. Round Shim Seats



Desc.	Order No.	Price	A	T
IRSN-32	8090-030	\$ 19.94	.375	.1250
IRSN-43	8090-031	24.89	.500	.1875
IRSN-53	8090-032	30.00	.625	.1875
IRSN-63	8090-033	40.98	.750	.1875
IRSN-84	8090-034	62.09	1.00	.2500

Neg. 80° Diamond Shim Seats



Desc.	Order No.	Price	A	T	R
Inch					
ICSN-322	8090-003	\$20.96	.375	.1250	.0312
ICSN-332	8090-007	22.74	.375	.1875	.0312
ICSN-422	8090-004	25.33	.500	.1250	.0312
ICSN-423	8090-005	25.33	.500	.1250	.0469
ICSN-433	8090-008	25.54	.500	.1875	.0469
ICSN-533	8090-010	25.54	.625	.1875	.0469
ICSN-633	8090-012	34.34	.750	.1875	.0469
Metric					
S8009N	8091-356	\$14.74	8,5	3,18	0,8
S8012N	8091-357	14.74	11,4	3,18	1,2
S8016N	8091-358	28.64	14,6	4,76	1,4
S8019N	8091-359	36.38	18,0	4,76	1,6

Neg. 80° Trigon Shim Seats



Desc.	Order No.	Price	A	T	R
Inch					
IWSN-322	8090-070	\$ 20.11	.375	.1250	.0312
IWSN-433	8090-072	37.34	.500	.1875	.0469
IWSN-533	8090-073	37.34	.625	.1875	.0469

Neg. Triangle Shim Seats



Desc.	Order No.	Price	A	T	R
Inch					
ITSN-322	8090-084	\$ 17.17	.375	.1250	.0312
ITSN-323	8090-085	20.96	.375	.1250	.0469
ITSN-324	8090-086	20.96	.375	.1250	.0625
ITSN-332	8090-087	19.12	.375	.1875	.0312
ITSN-333	8090-088	19.79	.375	.1875	.0469
ITSN-334	8090-089	20.17	.375	.1875	.0625
ITSN-423	8090-090	29.27	.500	.1250	.0469
ITSN-433	8090-093	25.54	.500	.1875	.0469
ITSN-434	8090-094	27.78	.500	.1875	.0625
ITSN-533	8090-098	31.04	.625	.1875	.0469
ITSN-534	8090-099	36.06	.625	.1875	.0625
ITSN-633	8090-105	42.94	.750	.1875	.0469
ITSN-636	8090-106	42.94	.750	.1875	.0937

Neg. 55° Diamond Shim Seats



Desc.	Order No.	Price	A	T	R
IDSN-322	8090-016	\$20.49	.375	.1250	.0312
IDSN-423	8090-018	29.62	.500	.1250	.0469
IDSN-433	8090-021	24.46	.500	.1875	.0469
IDSN-533	8090-024	31.04	.625	.1875	.0469
IDSN-534	8090-025	31.04	.625	.1875	.0625

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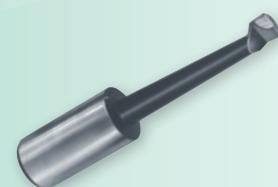
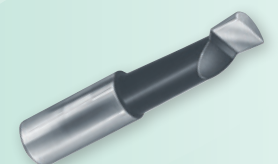
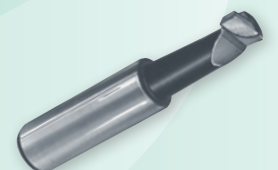
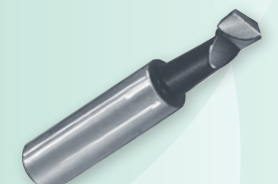


Boring Bars

Carbide Tipped Boring Bars ⁴ Grade C2 and C6



SHANK DIA.	LG'TH	BORE DEPTH	MINIMUM BORE	TOOL NO.	GRADE C-2 ORDER NO.	GRADE C-6 ORDER NO.	PRICE EACH	C-2 SET	C-6 SET
3/8	2	3/4	5/16	A5S	3047-006	3047-106	\$ 3.50	9 Pcs. Set 3047-180 Price Each \$ 141.24	9 Pcs. Set 3047-190 Price Each \$ 141.24
	2-3/8	1-1/8	5/16	A5M	3047-005	3047-105	5.20		
	2-3/4	1-1/2	5/16	A5L	3047-004	3047-104	5.40		
	2-3/16	15/16	3/8	A3S	3047-003	3047-103	5.20		
	2-21/32	1-13/32	3/8	A3M	3047-002	3047-102	5.40		
	3-1/8	1-7/8	3/8	A3L	3047-001	3047-101	13.85		
	2-3/8	1-1/8	7/16	A7S	3047-009	3047-109	5.50		
	2-15/16	1-7/8	7/16	A7M	3047-008	3047-108	6.70		
	3-1/2	2-1/4	7/16	A7L	3047-007	3047-107	7.50		
1/2	2-1/4	3/4	5/16	B5S	3047-012	3047-112	5.20	9 Pcs. Set 3047-181 Price Each \$ 180.84	9 Pcs. Set 3047-191 Price Each \$ 180.84
	2-5/8	1-1/8	5/16	B5M	3047-011	3047-111	5.50		
	3	1-1/2	5/16	B5L	3047-010	3047-110	6.00		
	2-5/8	1-1/8	7/16	B7S	3047-015	3047-115	6.00		
	3-3/16	1-11/16	7/16	B7M	3047-014	3047-114	6.90		
	3-3/4	2-1/4	7/16	B7L	3047-013	3047-113	8.10		
	3	1-1/2	9/16	B9S	3047-018	3047-118	5.70		
	3-3/4	2-1/4	9/16	B9M	3047-017	3047-117	7.10		
	4-1/2	3	9/16	B9L	3047-016	3047-116	8.20		
5/8	2-1/4	3/4	5/16	C5S	3047-024	3047-124	7.70	12 Pcs. Set 3047-182 Price Each \$ 341.88	12 Pcs. Set 3047-192 Price Each \$ 341.88
	2-5/8	1-1/8	5/16	C5M	3047-023	3047-123	8.20		
	3	1-1/2	5/16	C5L	3047-022	3047-122	9.20		
	2-5/8	1-1/8	7/16	C7S	3047-027	3047-127	8.20		
	3-3/16	1-11/16	7/16	C7M	3047-026	3047-126	9.70		
	3-3/4	2-1/4	7/16	C7L	3047-025	3047-125	11.10		
	3	1-1/2	9/16	C9S	3047-030	3047-130	8.90		
	3-3/4	2-1/4	9/16	C9M	3047-029	3047-129	11.40		
	4-1/2	3	9/16	C9L	3047-028	3047-128	13.00		
	3-3/8	1-7/8	11/16	C11S	3047-033	3047-133	11.50		
	4-5/16	2-13/16	11/16	C11M	3047-032	3047-132	13.00		
	5-1/4	3-3/4	11/16	C11L	3047-031	3047-131	14.60		
3/4	3-1/8	1-1/8	7/16	D7S	3047-039	3047-139	8.40	12 Pcs. Set 3047-183 Price Each \$ 401.28	12 Pcs. Set 3047-193 Price Each \$ 401.28
	3-11/16	1-11/16	7/16	D7M	3047-038	3047-138	9.20		
	4-1/4	2-1/4	7/16	D7L	3047-037	3047-137	10.50		
	3-1/2	1-1/2	9/16	D9S	3047-042	3047-142	9.70		
	4-1/4	2-1/4	9/16	D9M	3047-041	3047-141	11.40		
	5	3	9/16	D9L	3047-040	3047-140	13.00		
	3-7/8	1-7/8	11/16	D11S	3047-045	3047-145	10.00		
	4-13/16	2-13/16	11/16	D11M	3047-044	3047-144	12.00		
	5-3/4	3-3/4	11/16	D11L	3047-043	3047-143	15.40		
	4-1/4	2-1/4	13/16	D13S	3047-048	3047-148	11.50		
	5-3/8	3-3/8	13/16	D13M	3047-047	3047-147	13.80		
	6-1/2	4-1/2	13/16	D13L	3047-046	3047-146	17.70		
1	5	3	9/16	E9L	3047-051	3047-151	17.60	5 Pcs. Set 3047-185 Price Each \$ 330.00	5 Pcs. Set 3047-195 Price Each \$ 330.00
	5-3/4	3-3/4	11/16	E11L	3047-053	3047-153	20.70		
	6-1/2	4-1/2	7/8	E14L	3047-055	3047-155	22.50		
	6-1/2	4-1/2	1-1/16	E18L	3047-060	3047-160	26.90		
	7-3/4	5-3/4	1-1/8	E20L	3047-062	3047-162	33.30		
	8-1/4	6-1/4	1-1/2	E24L	3047-066	3047-166	36.30		
	9-1/2	7-1/2	1-5/8	E26L	3047-068	3047-168	38.40		



Carbide Tipped Boring Bar Sets - Grade C2 & C6

- C2 - Cast Iron
- C6 - General Purpose/Steel
- Sets include short, medium, and long length bars for each minimum bore diameter

SHANK DIA.	PCS. IN SET	C-2 ITEM NO.	C-6 ITEM NO.	PRICE EACH
3/8"	9	3047-301	3047-401	\$ 22.80
1/2"	9	3047-302	3047-402	26.30
5/8"	12	3047-303	3047-403	39.70
3/4"	12	3047-304	3047-404	45.00
1"	7	3047-305	3047-405	86.30



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Boring Bars

High Speed Steel Cobalt Boring Bars



SHANK DIA.	LG'TH	BORE DEPTH	MINIMUM BORE	TOOL NO.	ORDER NO.	PRICE EACH	SETS
3/8	1-13/16	9/16	3/16	CO A3S	3048-002	\$21.33	8 Pc. Set 3048-101 \$196.63
	2-3/16	15/16	3/16	CO A3L	3048-001	22.59	
	2	3/4	1/4	CO A4S	3048-004	23.33	
	2-1/2	1-1/4	1/4	CO A4L	3048-003	24.44	
	2-3/16	15/16	5/16	CO A5S	3048-006	24.76	
	2-13/16	1-9/16	5/16	CO A5L	3048-005	26.00	
	2-3/8	1-1/8	3/8	CO A6S	3048-008	26.58	
	3-1/8	1-7/8	3/8	CO A6L	3048-007	27.85	
1/2	2-1/8	3/4	1/4	CO B4S	3048-010	27.15	10 Pc. Set 3048-102 \$303.88
	2-5/8	1-1/4	1/4	CO B4L	3048-009	27.85	
	2-5/16	15/16	5/16	CO B5S	3048-012	28.29	
	2-1a5/16	1-9/16	5/16	CO B5L	3048-011	29.56	
	2-1/2	1-1/8	3/8	CO B6S	3048-014	30.01	
	3-1/4	1-7/8	3/8	CO B6L	3048-013	31.15	
	2-11/16	1-5/16	7/16	CO B7S	3048-016	31.15	
	3-9/16	2-3/16	7/16	CO B7L	3048-015	31.96	
5/8	2-7/8	1-1/2	1/2	CO B8S	3048-018	33.53	10 Pc. Set 3048-103 \$445.25
	3-7/8	2-1/2	1/2	CO B8L	3048-017	34.28	
	2-5/8	1-1/8	3/8	CO C6S	3048-020	35.51	
	3-3/8	1-7/8	3/8	CO C6L	3048-019	36.30	
	2-13/16	1-5/16	7/16	CO C7S	3048-022	38.20	
	3-11/16	2-13/16	7/16	CO C7L	3048-021	41.36	
	3	1-1/2	1/2	CO C8S	3048-024	42.45	
	4	2-1/2	1/2	CO C8L	3048-023	45.35	
3/4	3-3/16	1-11/16	9/16	CO C9S	3048-026	48.43	14 Pc. Set 3048-104 \$708.50
	4-5/16	2-13/16	9/16	CO C9L	3048-025	50.58	
	3-3/8	1-7/8	5/8	CO C10S	3048-028	53.06	
	4-5/8	3-1/8	5/8	CO C10L	3048-027	55.18	
	2-7/8	1-1/8	3/8	CO D6S	3048-034	41.61	
	3-5/8	1-7/8	3/8	CO D6L	3048-033	43.10	
	3-1/16	1-5/16	7/16	CO D7S	3048-036	44.20	
	3-15/16	2-3/16	7/16	CO D7L	3048-035	46.24	
3/4	3-1/4	1-1/2	1/2	CO D8S	3048-038	47.60	14 Pc. Set 3048-104 \$708.50
	4-1/4	2-1/2	1/2	CO D8L	3048-037	48.85	
	3-7/16	1-11/16	9/16	CO D9S	3048-040	49.79	
	4-9/16	2-13/16	9/16	CO D9L	3048-039	51.69	
	3-5/8	1-7/8	5/8	CO D10S	3048-042	52.78	
	4-7/8	3-1/8	5/8	CO D10L	3048-041	54.40	
	3-13/16	2-1/16	11/16	CO D11S	3048-044	55.61	
	5-3/16	3-7/16	11/16	CO D11L	3048-043	57.95	
3/4	4	2-1/4	3/4	CO D12S	3048-046	58.88	14 Pc. Set 3048-104 \$708.50
	5-1/2	3-3/4	3/4	CO D12L	3048-045	60.54	

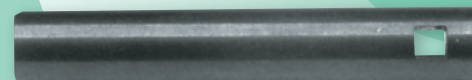
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1

Boring Bars & Sets Hardened Boring

Prices do not include tool bits

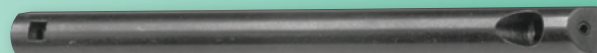
Single End 45° & 90°



DIA.	OAL	BIT SIZE	45° ORDER NO.	90° ORDER NO.	PRICE EACH
1/4	2-1/2	5/32 RD	3053-016	3054-016	\$2.60
5/16	2-1/2	3/16 RD	3053-020	3054-020	2.60
3/8	3	3/16 RD	3053-024	3054-024	2.90
1/2	3	3/16 SQ	3053-032	3054-032	3.00
9/16	4-1/2	3/16 SQ	3053-036	3054-036	3.35
5/8	5	1/4 SQ	3053-040	3054-040	21.68
3/4	6	1/4 SQ	3053-048	3054-048	5.05
1	6	5/16 SQ	3053-064	3054-064	9.70
1	6	3/8 SQ	3053-065	3054-065	31.40
1-1/8	7	7/16 SQ	3053-072	3054-072	13.50
1-1/4	8	1/2 SQ	3053-080	3054-080	17.55
1-1/2	9	1/2 SQ	3053-096	3054-096	22.95

Double End

One End 45° One End 90°



DIA.	OAL	BIT SIZE	ORDER NO.	PRICE EACH
1/4	5	5/32 RD	3055-016	\$ 6.05
5/16	5	3/16 RD	3055-020	6.50
3/8	6	3/16 RD	3055-024	7.05
1/2	6	3/16 SQ	3055-032	7.95
9/16	9	3/16 SQ	3055-036	10.35
5/8	10	1/4 SQ	3055-040	10.70
3/4	12	1/4 SQ	3055-048	11.80
1	12	5/16 SQ	3055-064	15.15
1	12	3/8 SQ	3055-065	17.10
1-1/8	14	7/16 SQ	3055-072	20.20
1-1/4	16	1/2 SQ	3055-080	23.10
1-1/2	18	1/2 SQ	3055-096	36.75

Double End Boring Bar Sets

One End 45°
One End 90°



4 PC Set	1/4 - 1/2" Includes 1 each: 1/4, 5/16, 3/8 & 1/2" in Plastic Pouch	3056-001 Price...\$23.45
5 PC Set	1/4 - 3/4" Includes 1 each: 1/4, 3/8, 1/2, & 3/4" in Wood Block	3056-002 Price...\$149.50
5 PC Set	3/8 - 1" Includes 1 each: 3/8, 1/2, 5/8, 3/4 & 1" in Wood Block	3056-003 Price...\$43.00

Single Point Tool Bits - Carbide Tipped



3

WARNING: This product contains Cobalt and/or Nickel and/or Lead a chemical known to the state of California to cause cancer or birth defects or other reproductive harm. For more information: www.pro65.ca.gov.
WARNING: Cutting tools may shatter. Always wear approved safety glasses and mask when regrinding.

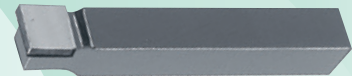
Styles AL & AR Straight Turning



SHANK SIZE			TOOL NO.	GRD. C2 ORDER NO.	PRICE EACH	GRD. C6 ORDER NO.	PRICE EACH	TOOL NO.	GRD. C2 ORDER NO.	PRICE EACH	GRD. C6 ORDER NO.	PRICE EACH
1/4	1/4	2	AL-4	3060-104	\$5.40	3070-104	\$5.40	AR-4	3060-204	\$5.40	3070-204	\$5.40
5/16	5/16	2-1/4	AL-5	3060-105	5.72	3070-105	5.72	AR-5	3060-205	5.72	3070-205	5.72
3/8	3/8	2-1/2	AL-6	3060-106	5.72	3070-106	5.72	AR-6	3060-206	5.72	3070-206	5.72
7/16	7/16	3	AL-7	3060-107	5.85	3070-107	5.85	AR-7	3060-207	5.85	3070-207	5.85
1/2	1/2	3-1/2	AL-8	3060-108	6.33	3070-108	6.33	AR-8	3060-208	6.33	3070-208	6.33
5/8	5/8	4	AL-10	3060-110	9.04	3070-110	9.04	AR-10	3060-210	9.04	3070-210	9.04
3/4	3/4	4-1/2	AL-12	3060-112	11.57	3070-112	11.57	AR-12	3060-212	11.57	3070-212	11.57
1	1	6	AL-16	3060-116	20.48	3070-116	20.48	AR-16	3060-216	20.48	3070-216	20.48
1-1/4	1-1/4	7	AL-20	3060-120†	23.00	3070-120†	23.00	AR-20	3060-220†	23.00	3070-220†	23.00
1-1/2	1-1/2	7	AL-24	3060-124†	25.35	3070-124†	25.35	AR-24	3060-224†	25.35	3070-224†	25.35
1/2	1	6	AL-44	3060-144†	3.10	3070-144†	3.10	AR-44	-	-	-	-
5/8	1	6	AL-54	-	-	-	-	AR-54	-	-	3070-254†	3.80
5/8	1-1/4	6	AL-55	3060-155†	4.55	-	-	AR-55	-	-	-	-
3/4	1	6	AL-64	-	-	3070-164†	5.10	AR-64	3060-264†	5.10	-	-
3/4	1-1/2	7	AL-66	3060-166†	8.75	-	-	AR-66	3060-266†	8.75	3070-266†	8.75
1	1-1/4	7	AL-85	3060-185†	10.20	3070-185†	10.20	AR-85	3060-285†	10.20	3070-285†	10.20
1	1-1/2	7	AL-86	3060-186†	13.85	3070-186†	13.85	AR-86	3060-286†	13.85	3070-286†	13.85

† Limited Quantities

Style C

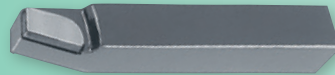


Broadnose

TOOL NO.	SHANK SIZE			GRD. C2 ORDER NO.	PRICE EACH	GRD. C6 ORDER NO.	PRICE EACH
C-4	1/4	1/4	2	3060-504	\$ 5.29	3070-504	\$ 5.29
C-5	5/16	5/16	2-1/4	3060-505	5.59	3070-505	5.59
C-6	3/8	3/8	2-1/2	3060-506	5.72	3070-506	5.72
C-7	7/16	7/16	3	3060-507	5.98	3070-507	5.98
C-8	1/2	1/2	3-1/2	3060-508	7.22	3070-508	7.22
C-10	5/8	5/8	4	3060-510	10.01	3070-510	10.01
C-12	3/4	3/4	4-1/2	3060-512	14.17	3070-512	14.17
C-16	1	1	6	3060-516	23.40	3070-516	23.40
C-66	3/4	1-1/2	7	3060-566†	9.90	-	-
C-86	1	1-1/2	7	3060-586†	14.85	-	-

† Limited Quantities

Styles BL & BR Lead Angle Turning



SHANK SIZE			TOOL NO.	GRD. C2 ORDER NO.	PRICE EACH	GRD. C6 ORDER NO.	PRICE EACH	TOOL NO.	GRD. C2 ORDER NO.	PRICE EACH	GRD. C6 ORDER NO.	PRICE EACH
1/4	1/4	2	BL-4	3060-304	\$ 5.40	3070-304	\$ 5.40	BR-4	3060-404	\$ 5.40	3070-404	\$ 5.40
5/16	5/16	2-1/4	BL-5	3060-305	5.72	3070-305	5.72	BR-5	3060-405	5.72	3070-405	5.72
3/8	3/8	2-1/2	BL-6	3060-306	5.72	3070-306	5.72	BR-6	3060-406	5.72	3070-406	5.72
7/16	7/16	3	BL-7	3060-307	5.85	3070-307	5.85	BR-7	3060-407	5.85	3070-407	5.85
1/2	1/2	3-1/2	BL-8	3060-308	6.33	3070-308	6.33	BR-8	3060-408	6.33	3070-408	6.33
5/8	5/8	4	BL-10	3060-310	9.04	3070-310	9.04	BR-10	3060-410	9.04	3070-410	9.04
3/4	3/4	4-1/2	BL-12	3060-312	11.57	3070-312	11.57	BR-12	3060-412	11.57	3070-412	11.57
1	1	6	BL-16	3060-316	20.48	3070-316	20.48	BR-16	3060-416	20.48	3070-416	20.48
1-1/4	1-1/4	7	BL-20	3060-320†	23.00	3070-320†	23.00	BR-20	3060-420†	23.00	3070-420†	23.00
1-1/2	1-1/2	7	BL-24	-	-	3070-324†	15.15	BR-24	3060-424†	15.15	3070-424†	15.15
1/2	1	6	BL-44	-	-	3070-344†	3.10	BR-44	3060-444†	3.10	3070-444†	3.10
5/8	1	6	BL-54	3060-354†	3.80	3070-354†	3.80	BR-54	3060-454†	3.80	3070-454†	3.80
5/8	1-1/4	6	BL-55	3060-355†	4.55	3070-355†	4.55	BR-55	-	-	-	-
3/4	1	6	BL-64	3060-364†	5.10	3070-364†	5.10	BR-64	3060-464†	5.10	3070-464†	5.10
3/4	1-1/2	7	BL-66	3060-366†	8.75	3070-366†	8.75	BR-66	3060-466†	8.75	3070-466†	8.75
1	1-1/4	7	BL-85	3060-385†	10.20	3070-385†	10.20	BR-85	3060-485†	10.20	-	-
1	1-1/2	7	BL-86	-	-	-	-	BR-86	3060-486†	13.85	3070-486†	13.85

† Limited Quantities

Style D



Roundnose

TOOL NO.	SHANK SIZE			GRD. C2 ORDER NO.	GRD. C6 ORDER NO.	PRICE EACH
D-4	1/4	1/4	2	3060-604	3070-604	\$5.82
D-5	5/16	5/16	2-1/4	3060-605	3070-605	6.15
D-6	3/8	3/8	2-1/2	3060-606	3070-606	6.15
D-7	7/16	7/16	3	3060-607	3070-607	6.37
D-8	1/2	1/2	3-1/2	3060-608	3070-608	7.44
D-10	5/8	5/8	4	3060-610	3070-610	10.21
D-12	3/4	3/4	4-1/2	3060-612	3070-612	13.66
D-16	1	1	6	3060-616	3070-616	21.46

Style E



Threading

Styles FL & FR Offset End Cutting



SHANK SIZE			TOOL NO.	GRD. C2 ORDER NO.	PRICE EACH	GRD. C6 ORDER NO.	PRICE EACH	TOOL NO.	GRD. C2 ORDER NO.	PRICE EACH	GRD. C6 ORDER NO.	PRICE EACH
1/2	1/2	3-1/2	FL-8	3060-808	\$ 13.59	3070-808	\$ 13.59	FR-8	3060-908	\$ 13.59	3070-908	\$ 13.59
5/8	5/8	4	FL-10	3060-810	15.38	3070-810	15.38	FR-10	3060-910	15.38	3070-910	15.38
3/4	3/4	4-1/2	FL-12	3060-812	17.88	3070-812	17.88	FR-12	3060-912	17.88	3070-912	17.88
1	1	6	FL-16	3060-816	27.66	3070-816	27.66	FR-16	3060-916	27.66	3070-916	27.66
1-1/4	1-1/4	7	FL-20	3060-820†	10.90	3070-820†	10.90	FR-20	3060-920†	10.90	3070-920†	10.90
1-1/2	1-1/2	7	FL-24	3060-824†	15.80	3070-824†	15.80	FR-24	-	-	3070-924†	15.80
1/2	1	6	FL-44	-	-	-	-	FR-44	3060-944†	3.10	-	-
5/8	1-1/4	6	FL-55	3060-855†	3.80	3070-855†	3.80	FR-55	3060-955†	3.80	3070-955†	3.80
3/4	1	6	FL-64	3060-864†	5.10	3070-864†	5.10	FR-64	3060-964†	5.10	3070-964†	5.10
1	1-1/4	7	FL-85	-	-	3070-885†	10.20	FR-85	3060-985†	10.20	3070-985†	10.20
1	1-1/2	7	FL-86	3060-886†	13.85	3070-886†	13.85	FR-86	3060-986†	13.85	3070-986†	13.85

† Limited Quantities

TOOL NO.	SHANK SIZE			GRD. C2 ORDER NO.	GRD. C6 ORDER NO.	PRICE EACH
E-4	1/4	1/4	2	3060-704	3070-704	\$6.01
E-5	5/16	5/16	2-1/4	3060-705	3070-705	6.29
E-6	3/8	3/8	2-1/2	3060-706	3070-706	6.29
E-7	7/16	7/16	3	3060-707	3070-707	6.44
E-8	1/2	1/2	3-1/2	3060-708	3070-708	7.94
E-10	5/8	5/8	4	3060-710	3070-710	9.78
E-12	3/4	3/4	4-1/2	3060-712	3070-712	13.66
E-16	1	1	6	3060-716	3070-716	23.17

Single Point Tool Bits - Carbide Tipped

WARNING: This product contains Cobalt and/or Nickel and/or Lead a chemical known to the state of California to cause cancer or birth defects or other reproductive harm. For more information: www.prop65.ca.gov.
WARNING: Cutting tools may shatter. Always wear approved safety glasses and mask when regrinding.

Styles GL & GR Offset Side Cutting



SHANK SIZE	TOOL NO.	GRD. C2 ORDER NO.	PRICE EACH	GRD. C6 ORDER NO.	PRICE EACH	TOOL NO.	GRD. C2 ORDER NO.	PRICE EACH	GRD. C6 ORDER NO.	PRICE EACH
1/2 1/2 3-1/2	GL-8	3061-008	\$ 13.59	3071-008	\$ 13.59	GR-8	3061-108	\$ 13.59	3071-108	\$ 13.59
5/8 5/8 4	GL-10	3061-010	15.38	3071-010	15.38	GR-10	3061-110	15.38	3071-110	15.38
3/4 3/4 4-1/2	GL-12	3061-012	17.88	3071-012	17.88	GR-12	3061-112	17.88	3071-112	17.88
1 1 6	GL-16	3061-016	27.66	3071-016	27.66	GR-16	3061-116	27.66	3071-116	27.66
1-1/4 1-1/4 7	GL-20	3061-020†	10.90	3071-020†	10.90	GR-20	-	-	3071-120†	10.90
1-1/2 1-1/2 7	GL-24	-	-	3071-024†	15.80	GR-24	-	-	-	-
1/2 1 6	GL-44	3061-044†	3.10	3071-044†	POA	GR-44	-	-	3071-144†	3.10
5/8 1-1/4 6	GL-55	3061-055†	3.80	3071-055†	3.80	GR-55	3061-155†	3.80	3071-155†	3.80
3/4 1 6	GL-64	3061-064†	5.10	3071-064†	POA	GR-64	3061-164†	5.10	3071-164†	5.10
1 1-1/4 7	GL-85	3061-085†	10.20	-	-	GR-85	3061-185†	10.20	3071-185†	10.20
1 1-1/2 7	GL-86	3061-086†	13.85	3071-086†	13.85	GR-86	3061-186†	13.85	3071-186†	13.85

† Limited Quantities

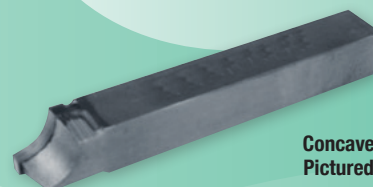
Style TSA Square Shoulder Boring



TOOL NO.	SHANK SIZE	GRD. C2 ORDER NO.	PRICE EACH	GRD. C6 ORDER NO.	PRICE EACH
TSA-5	5/16 5/16 1-1/2	3061-205	\$7.50	3071-205	\$8.71
TSA-6	3/8 3/8 1-3/4	3061-206	8.71	3071-206	8.71
TSA-8	1/2 1/2 2-1/2	3061-208	9.62	3071-208	9.62
TSA-10	5/8 5/8 3	3061-210	12.19	3071-210	12.19
TSA-12	3/4 3/4 3-1/2	3061-212	13.44	3071-212	13.44

Radius Tool Bits

Concave or Convex – Carbide Tipped



Concave Pictured

Good shock resistance, good wear resistance. Choose Grade C2 or C6 for general purpose machining with a wide range of applications, designed for cutting all types of steel including high tensile strength and heat resisting alloys. Radius Accurate within $\pm .002$ ".

RADIUS (IN)	SHANK SQ. (IN)	CARBIDE TIP HT. (IN)	CARBIDE LENGTH (IN)	GRADE C2		PRICE EACH	GRADE C6		PRICE EACH
				CONCAVE ORDER BOX	CONVEX ORDER NO.		CONCAVE ORDER NO.	CONVEX ORDER NO.	
1/32	1/4	1/16	1/4	3080-001	3080-201	3080-201	3080-101	3080-301	\$39.75
1/16	1/4	1/16	1/4	3080-002	3080-202	36.40	3080-102	3080-302	39.75
3/32	1/4	1/16	1/4	3080-003	3080-203	36.40	3080-103	3080-303	39.75
1/8	1/4	1/16	1/4	3080-004	3080-204	36.40	3080-104	3080-304	39.75
5/32	3/8	3/32	3/8	3080-005	3080-205	39.70	3080-105	3080-305	43.00
3/16	3/8	3/32	3/8	3080-006	3080-206	39.70	3080-106	3080-306	43.00
7/32	3/8	3/32	3/8	3080-007	3080-207	39.70	3080-107	3080-307	43.00
1/4	3/8	3/32	3/8	3080-008	3080-208	39.70	3080-108	3080-308	43.00
9/32	1/2	1/8	1/2	3080-009	3080-209	45.10	3080-109	3080-309	48.45
5/16	1/2	1/8	1/2	3080-010	3080-210	45.10	3080-110	3080-310	48.45
11/32	1/2	1/8	1/2	3080-011	3080-211	45.10	3080-111	3080-311	48.45
3/8	1/2	1/8	1/2	3080-012	3080-212	45.10	3080-112	3080-312	48.45
13/32	3/4	1/8	3/4	3080-013	3080-213	51.50	3080-113	3080-313	54.85
7/16	3/4	1/8	3/4	3080-014	3080-214	51.50	3080-114	3080-314	54.85
15/32	3/4	1/8	3/4	3080-015	3080-215	51.50	3080-115	3080-315	54.85
1/2	3/4	1/8	3/4	3080-016	3080-216	51.50	3080-116	3080-316	54.85
Set of 4, consists of 1 each: 1/16, 1/8, 1/4 & 3/8				3080-017	3080-217	157.55	3080-117	3080-317	170.90
Set of 8, consists of 1 each: 1/16–1/2 in 16th increments				3080-018	3080-218	345.30	3080-118	3080-318	372.00
Set of 16, consists of 1 each: 1/32–1/2 in 1/32nd increments				3080-019	3080-219	690.60	3080-119	3080-319	743.95

Round M2 Tool Bits



DIMENSIONS	ORDER NO.	PRICE EA.
5/16 x 4	3251-070	\$1.25
3/8 x 4	3251-090	1.64
7/16 x 4	3251-110	2.06
1/2 x 4	3251-130	2.53
9/16 x 4	3251-150	3.66
9/16 x 6	3251-160	5.50
3/4 x 6	3251-200	8.60
1" x 4	3251-220	11.30
1" x 6	3251-225	15.90
1" x 8	3251-230	POA

Tool Bits

Square Tool Bits

SIZE	M2 HSS		5% Co		8% - 10% Co		T15 COBALT	
	ORDER NO.	PRICE EACH	ORDER NO.	PRICE EACH	ORDER NO.	PRICE EACH	ORDER NO.	PRICE EACH
1/8 x 2-1/2	3252-010	\$ 4.16	3252-440	\$ 6.32	3252-270	\$ 8.58	3252-710	\$ 6.56
3/16 x 2-1/2	3252-020	3.53	3252-450	4.98	3252-280	6.55	3252-720	6.56
1/4 x 2-1/2	3252-030	3.65	3252-460	5.62	3252-290	8.07	3252-730	7.25
1/4 x 6	3252-034	8.43	3252-470	13.23	-	-	-	-
1/4 x 8	3252-036	11.20	3252-475	17.58	-	-	-	-
5/16 x 2-1/2	3252-040	4.18	3252-480	6.55	3252-300	10.30	3252-740	8.52
5/16 x 6	3252-060	10.11	3252-482	15.87	-	-	-	-
5/16 x 8	3252-065	10.88	3252-484	12.33	-	-	-	-
3/8 x 3	3252-070	5.55	3252-490	8.89	3252-310	12.87	-	-
3/8 x 6	3252-090	11.20	3252-492	17.58	-	-	-	-
3/8 x 8	3252-095	15.70	3252-494	24.64	-	-	-	-
7/16 x 3-1/2	3252-100	8.10	3252-500	13.87	3252-320	17.26	3252-800	17.26
7/16 x 6	3252-105	14.38	-	-	-	-	-	-
1/2 x 4	3252-110	13.00	3252-510	21.97	3252-330	24.34	3252-810	21.69
1/2 x 6	3252-120	18.94	3252-520	29.99	-	-	-	-
1/2 x 8	3252-125	26.00	3252-530	40.83	-	-	-	-
5/8 x 4-1/2	3252-150	19.24	3252-540	33.80	3252-340	39.78	3252-850	33.87
5/8 x 6	3252-160	22.03	3252-545	28.31	-	-	-	-
5/8 x 8	3252-180	38.48	-	-	-	-	-	-
3/4 x 5	3252-190	30.38	3252-550	53.30	3252-360	59.67	3252-890	53.59
3/4 x 8	3252-195	35.00	-	-	-	-	-	-
7/8 x 6	3252-200	49.90	3252-560	85.67	3252-370	95.36	-	-
1 x 7	3252-205	72.99	3252-570	127.40	3252-380	98.24	-	-
1-1/4 x 7	3252-208	145.30	-	-	-	-	-	-
1-1/4 x 9	3252-210	110.16	3252-590	188.69	3252-390	245.69	-	-

Rectangular Tool Bits - Closeout

SIZE	M2 HSS		5% Co		8% - 10% Co		T15 COBALT	
	ORDER NO.	PRICE EACH	ORDER NO.	PRICE EACH	ORDER NO.	PRICE EACH	ORDER NO.	PRICE EACH
3/32 x 3/8 x 5	3250-005	\$0.95	-	-	-	-	-	-
3/32 x 1/2 x 4-1/2	3250-010	1.05	-	-	3250-420	\$2.45	3251-302	\$9.13
3/32 x 5/8 x 5	3250-012	1.30	-	-	3250-425	2.55	-	-
3/32 x 3/4 x 6	3250-015	1.55	-	-	3250-430	2.65	-	-
3/32 x 7/8 x 6	3250-020	2.10	-	-	3250-435	2.75	-	-
3/32 x 1 x 6	3250-025	2.25	3250-720	\$70.25	3250-440	3.00	-	-
1/8 x 5/8 x 5	3250-030	13.55	-	-	-	-	3251-305	10.37
1/8 x 3/4 x 5	-	-	-	-	3250-455	3.20	3251-307	12.95
1/8 x 3/4 x 6	-	-	3250-730	70.25	3250-457	3.50	3251-308	12.95
1/8 x 7/8 x 6	3250-045	25.19	-	-	-	-	-	-
1/8 x 7/8 x 6-1/2	-	-	-	-	3250-465	4.80	-	-
1/8 x 1 x 6-1/2	-	-	-	-	3250-467	5.20	-	-
3/16 x 3/4 x 6	3250-055	25.41	-	-	3250-470	4.45	-	-
7/32 x 7/8 x 6	-	-	3250-743	4.50	-	-	-	-
1/4 x 3/8 x 2-1/2	-	-	3250-745	2.90	3250-485	4.92	3251-315	8.65
1/4 x 1/2 x 3	-	-	-	-	-	-	-	-
1/4 x 1-1/4 x 7	3250-120	12.45	-	-	3250-520	20.00	3251-345	42.95
5/16 x 1/2 x 3	-	-	-	-	-	-	3251-352	11.70
5/16 x 5/8 x 3	-	-	-	-	3250-535	10.75	3251-355	12.33
5/16 x 3/4 x 5	-	-	-	-	3250-540	11.88	3251-360	23.01
5/16 x 1 x 6	-	-	3250-785	16.00	-	-	3251-365	32.03
3/8 x 1/2 x 3	-	-	-	-	-	-	3251-368	11.98
3/8 x 5/8 x 4-1/2	3250-177	6.85	-	-	-	-	-	-
3/8 x 5/8 x 5	3250-180	6.85	3250-810	18.10	-	-	3251-395	20.16
3/8 x 3/4 x 4	-	-	-	-	-	-	3251-405	20.45
3/8 x 3/4 x 6	-	-	-	-	-	-	3251-415	25.56
3/8 x 1-1/4 x 6	-	-	3250-840	19.00	-	-	-	-
3/8 x 1-3/4 x 6	3250-205	18.00	-	-	3250-590	29.50	3251-423	63.13
1/2 x 5/8 x 6	3250-215	10.50	3250-855	15.30	-	-	-	-
1/2 x 1 x 6	-	-	-	-	3250-610	26.60	-	-
1/2 x 1 x 8	-	-	-	-	3250-620	31.50	-	-
1/2 x 1-1/4 x 6	3250-250	19.95	-	-	3250-625	29.00	-	-
1/2 x 1-3/4 x 6	-	-	3250-897	32.50	3250-635	40.15	-	-
5/8 x 1 x 6	-	-	-	-	3250-650	33.75	-	-
5/8 x 1-1/4 x 6	3250-285	20.60	-	-	-	-	-	-
5/8 x 1-1/4 x 8	3250-295	29.60	-	-	-	-	-	-
5/8 x 1-1/4 x 9	3250-297	34.65	-	-	-	-	-	-
3/4 x 1 x 6	-	-	-	-	3250-670	32.00	3251-475	73.51
7/8 x 1-1/8 x 6	-	-	-	-	-	-	3251-494	86.72
7/8 x 1-1/8 x 7	-	-	3250-915	90.00	3250-685	58.00	3251-495	101.17
1 x 2 x 7	3250-360	70.25	-	-	-	-	3251-515	217.24
1-1/4 x 1-1/2 x 7	-	-	3250-920	99.00	-	-	-	-

Rectangular Tool Bits

SIZE	M2 HSS		5% Co		8% - 10% Co		T15 COBALT	
	ORDER NO.	PRICE EACH	ORDER NO.	PRICE EACH	ORDER NO.	PRICE EACH	ORDER NO.	PRICE EACH
1/4 x 3/8 x 3	3250-080	\$ 5.90	3250-746	\$ 9.46	3250-490	\$ 10.11	3251-320	\$11.07
1/4 x 1/2 x 4	3250-095	7.24	3250-750	10.80	3250-495	15.05	3251-325	15.51
1/4 x 1/2 x 6	3250-100	11.34	-	-	-	-	-	-
1/4 x 3/4 x 5	3250-105	11.57	3250-760	16.64	3250-505	20.93	3251-330	23.64
1/4 x 1 x 6	3250-110	18.23	3250-764	23.00	3250-510	30.34	-	-
5/16 x 7/16 x 3	3250-130	7.16	3250-770	10.94	3250-525	9.25	3251-350*	10.24
3/8 x 1/2 x 4	3250-165	9.09	3250-795	13.95	3250-550	18.14	3251-370	20.42
3/8 x 1/2 x 6	3250-170	10.91	-	-	-	-	3251-375*	18.42
3/8 x 5/8 x 4	3250-175	11.25	3250-805	15.08	3250-560	23.89	3251-385*	17.93
3/8 x 5/8 x 6	3250-185	13.50	-	-	3250-570*	17.35	3251-400*	26.88
3/8 x 3/4 x 5	3250-193	13.12	3250-825	19.71	3250-577	33.66	-	-
3/8 x 1 x 6	3250-200	26.60	3250-835	33.54	3250-585	44.88	-	-
1/2 x 5/8 x 4-1/2	3250-210	14.76	3250-850	22.86	3250-595	27.61	-	-
1/2 x 3/4 x 5	3250-225	20.21	3250-865	30.78	3250-602	41.18	-	-
1/2 x 1 x 7	3250-240	32.40	3250-880	47.78	3250-615	69.00	-	-
1/2 x 1-1/4 x 7	3250-255	38.70	3250-892	65.69	3250-627	67.63	-	-
1/2 x 1-1/2 x 7	3250-260	56.15	3250-895	74.93	3250-630	96.55	3251-447*	78.93
5/8 x 3/4 x 5	3250-265	22.50	3250-900	35.10	3250-640	59.70	3251-450*	50.44
5/8 x 7/8 x 6	3250-270	31.50	3250-905	48.33	3250-645	70.85	3251-455	70.46
5/8 x 1 x 7	3250-280	38.70	-	-	3250-655	73.06	-	-
5/8 x 1-1/4 x 7	3250-290	46.80	-	-	3250-660	87.48	3251-465	116.32
5/8 x 1-1/2 x 7	3250-300	66.61	-	-	3250-665	121.19	3251-470	136.89
3/4 x 1 x 7	3250-310	40.73	-	-	3250-675	89.51	-	-
3/4 x 1-1/4 x 7	3250-320	58.50	-	-	3250-680	127.06	3251-485*	136.94
3/4 x 1-1/2 x 7	3250-325	64.35	-	-	3250-682	136.94	-	-
7/8 x 1-1/4 x 7	3250-340	72.00	-	-	3250-690	117.00	3251-500*	159.79
1 x 1-1/4 x 6	3250-345	72.00	-	-	3250-695	114.61	3251-505	148.89
1 x 1-1/4 x 7	3250-350	67.01	-	-	3250-700	133.73	3251-507*	135.78
1 x 1-1/2 x 7	3250-355	84.00	-	-	-	-	3251-510*	162.93

*Limited Quantities

Cut-Off Blades

SIZE	M2 HSS		5% Co		HSS HOLLOW GROUND	
	ORDER NO.	PRICE EACH	ORDER NO.	PRICE EACH	ORDER NO.	PRICE EACH
1/16 x 1/2 x 4-1/2	-	-	-	-	3256-020	\$ 13.08
1/16 x 11/16 x 5	-	-	-	-	3256-030	17.28
1/16 x 13/16 x 6	-	-	-	-	3256-040	24.40
5/64 x 1/2 x 4-1/2	3253-050*	\$ 4.05	-	-	3256-050	13.08
3/32 x 1/2 x 4-1/2	3253-060	17.02	3258-060	\$ 10.75	3256-060	13.08
3/32 x 5/8 x 4-1/2	3253-085*	5.05	-	-	-	-
3/32 x 5/8 x 5	3253-090	19.27	3258-090	12.61	-	-
3/32 x 11/16 x 5	-	-	-	-	3256-100	17.28
3/32 x 13/16 x 5	3253-110*	5.75	3258-110*	7.60	-	-
3/32 x 13/16 x 6	-	-	-	-	3256-120	24.40
3/32 x 1 x 6	-	-	3258-125*	11.50	-	-
3/32 x 1 x 6-1/2	3253-130*	26.07	-	-	3256-130*	29.09
1/8 x 1/2 x 4-1/2	-	-	-	-	3256-140	13.08
1/8 x 11/16 x 5	-	-	-	-	3256-150	17.28
1/8 x 3/4 x 5	3253-170	10.40	3258-170	14.06	-	-
1/8 x 7/8 x 6	3253-190	28.92	3258-190	16.80	-	-
1/8 x 1 x 6-1/2	3253-210*	30.83	-	-	3256-210	29.09
5/32 x 11/16 x 5	-	-	-	-	3256-220	18.49
5/32 x 13/16 x 6	3253-230*	30.95	3258-230*	9.35	3256-230	26.73
3/16 x 11/16 x 5	-	-	-	-	3256-240	19.38
3/16 x 13/16 x 5	-	-	-	-	3256-250*	26.73
3/16 x 13/16 x 6	3253-250*	8.50	3258-250*	9.50	-	-
3/16 x 1 x 6-1/2	3253-260	32.20	3258-260	25.99	3256-260	29.09
3/16 x 1-1/8 x 7	3253-267	37.26	3258-265	37.44	-	-
7/32 x 13/16 x 6	3253-270*	9.40	3258-270*	9.50	-	-
1/4 x 13/16 x 6	3253-280*	42.85	3258-280*	9.50	3256-280	27.75
1/4 x 1 x 6-1/2	3253-300*	14.05	-	-	3256-300	38.16
1/4 x 1-1/4 x 10	3253-325*	45.83	-	-	-	-
5/16 x 1 x 6-1/2	3253-340*	17.50	-	-	-	-

*Limited Quantities

TOOLHOLDING



BORING HEADS



DRILL CHUCKS & ARBORS



ARBOR SPACERS & SHIMS



TAPPING HEADS



TOOLHOLDER CARTS,
COLLET RACKS



GLOBALLY SOURCED
TOOLS PROVIDING A
BALANCE OF QUALITY & PRICE



COLLIS
TOOL CORPORATION
THE TOOL HOLDER PEOPLE

HOLDERS, ADAPTORS
& COLLETS



CENTERS, TOOL POSTS,
TOOLHOLDERS,
& KNURLING TOOLS



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Tapping Heads

SFT II SynchroFlex II Series,

The Only Rigid Tap Driver Guaranteed To Double Tap Life
For Synchronous Tapping On CNC Machines

FEATURES

- SynchroFlex's patented precisely machined flexure compensates axially and radially for the unavoidable minute discrepancies between the machine's RPM, feed and traverse and the exact thread pitch and hole location.
- Any deviation at all from the correct feed rate for the thread pitch or the precise hole location results in added wear on the tap.
- SynchroFlex allows the tap to reproduce itself exactly for maximum life and better thread quality.
- All SFT II come standard with high pressure coolant through the spindle.

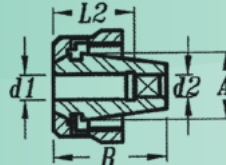


MODEL	CAPACITY (STEEL)	SHANK	COLLETS	WEIGHT (Kg.)	D	D1	d	L	ORDER NO.	PRICE EACH
SFT II 10	M2-M5 #2-#10 20mm 16mm	25mm 1"	ER11	0.4	23.5	23.5	19	52	3158-515	\$644.00
									3158-512	644.00
									3158-514	644.00
									3158-513	644.00
SFT II 50	M4.5-M12 #8-1/2" 20mm	25mm 1"	ER20	0.5	34.6	36.3	34	69	3158-522*	595.00
									3158-517*	595.00
									3158-519*	640.00
SFT II 75	M8-M20 1/4"-3/4"	25mm 1"	ER25	1.0	44.0	45.6	42	88	3158-536*	710.00
									3158-533*	710.00
SFT II 100	M16-M30 5/8"-1"	25mm 1"	ER40	2.0	62.0	63.6	63	117	3158-549*	1392.00
									3158-546*	1392.00

*Includes seal nut for use with sealing discs. All dimensions are shown in mm. 25.4mm + 1".

Square Drive ER Collets

(one collet required for each tap size)



SERIES	TAP SIZES	ORDER NO. RANGE	PRICE EACH
#11	#0-#10	3158-700 to 3158-702	\$158.00
#20	#8-3/8", 1/16" Pipe	3158-719 to 3158-727	129.00
#25	5/16"-3/4", 1/4" Pipe	3158-729 to 3158-744	139.00
#40	9/16"-1", 1/4", 3/8" 1/2" Pipes	3158-806 to 3158-817	171.00

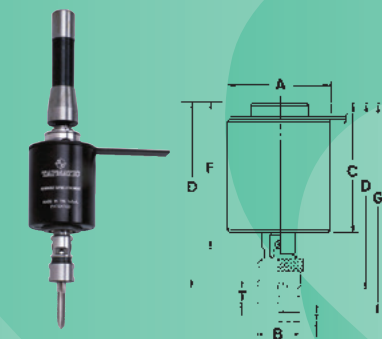
SPD Series, Short Positive Drive, Reversing Tapping Attachments

For N/C Machines With Bore Cycles, Automated Drill Units (and high production manual applications).

FEATURES

- Positive Drive and Reverse: The full power of the machine is transmitted to the tap in both drive and reverse to eliminate slippage.
- Short Stroke Self-Feed: This provides the minimum amount of axial float necessary to compensate or lead error on most automated equipment and still allows the tap to act as its own lead screw.
- Re-entry Cushion: Cushioned drive eliminates cross threading.
- 1 X 1 Reverse Ratio: Permits the bore cycle of most N/C machines to be used for tapping. This eliminates the undesirable necessity of reversing the motors, spindles and gear trains of expensive numerically controlled equipment.
- Top Stop Arm Location: The top stop arm location of the "SPD" reduces the required length of a torque bar to its absolute minimum and eliminates interference with other tools being used in a set-up.
- Collet Chuck Spindle Nose: Jacobs RUBBER-FLEX® collets and back jaws adapt to all tap sizes, both metric and inch, within the attachment's rated capacity.
- Standard Right Hand Tapping: Units modified for left-hand tapping are available on special order at no extra cost.
- Optional Quick Change Spindle Nose: Accepts Tapmatic Collet Chuck Adapters, Positive Drive and Torque Release Tap Adapters for complete versatility.
- Optional ERICKSON® Spindle Nose: Available for Models SPD5 and SPD7. Accepts J & K type collets.

SPD3 (#0-1/4")			SPD5 (#6-1/2")		SPD7 (#10-3/4-16")		SPD9A (1/2-1-1/8")	
MOUNT TYPE	ORDER NO.	PRICE EACH	ORDER NO.	PRICE EACH	ORDER NO.	PRICE EACH	ORDER NO.	PRICE EACH
#3JT	-	-	-	-	3158-234	\$1374.00	-	-
#4JT	-	-	-	-	-	-	3158-244	\$2137.00
#6JT	3158-202	\$758.00	3158-218	\$994.00	-	-	-	-
#33JT	3158-204	758.00	3158-220	994.00	-	-	-	-
5/16-24	3158-208	773.00	-	-	-	-	-	-
3/8-24	3158-210	773.00	3158-224	1029.00	-	-	-	-
1/2-20	3158-212	773.00	3158-226	1029.00	3158-236	1374.00	-	-
5/8-16	3158-214	773.00	3158-228	1029.00	3158-238	1374.00	-	-
3/4-16	3158-216	773.00	3158-230	1029.00	3158-240	1374.00	3158-246	2137.00
7/8-20	-	-	3158-232	1029.00	3158-242	1374.00	-	-
1-1/2-18	-	-	-	-	-	-	3158-248	2137.00



Complete information and instructions are packaged with each unit.

*** Capacity must be reduced a minimum of 25% for roll form taps.

* Increase CID & F dimension by .200 for SPD3, .391 for SPD5 and .525 for SPD7.

MODEL	CAPACITY IN STEEL	WEIGHT	REC. MAX SPEED	COLLETS (order separately)		A	B	T SELF-FEED	JACOBS TAPER MTS.	THREADED MTS.	C	D	F
				STANDARD	OPTIONAL								
SPD3	M1.4-M6 #0-1/4"	.45 Kg. 1 lb.	2000 RPM	21600 (#0-#8)	21500 (.040-.098)	52mm 2.062	19mm .750	3mm .125	#6, #33		79mm 3.125	115mm 4.540	96mm 3.812
				21700 (#10-1/4")						5/16-24 %24	65mm 2.575	101mm 4.000	83mm 3.275
										1/2-20, 3/4-16 %16	73mm 2.910	110mm 4.350	92mm 3.625
SPD5	M3-M12 #6-1/2"	1.36 Kg. 3 lbs.	1500 RPM	22100 (#0-1/2")	22000 (.194-.318)	69mm 2.718	27mm 1.070	5mm .187	#6, #33		98mm 3.885	139mm 5.485	114mm 4.520
				22200 (#3/4-1/2")	22300 (.090-.180)					3/4-24, 1/2-20 %16, %16 %16-20	92mm 3.625	132mm 5.230	108mm 4.255
SPD7	M5-M18 #10-3/4"-16 NP 1/2"-1/4"	2.04 Kg. 4 lbs. 8 ozs.	1200 RPM	24100 (#10-3/4")	24300 (.110-.280)	76mm 3.000	36mm 1.450	7mm .250	#3		107mm 4.250	170mm 6.710	137mm 5.420
				24500 (1/2"-3/4")	24000 (.318-.480)					1/2-20, 3/4-16 %16, %16 %16-20	95mm 3.765	158mm 6.225	125mm 4.940
SPD9A	M10-M28 #1/2"-1 1/8" NP 3/4"	5.00 Kg. 11 lbs.	600 RPM	26100 (1/2"-3/4")		103mm 4.090	57mm 2.250	10mm .400	#4		143mm 5.650	240mm 9.550	200mm 7.875
				26200 (3/4"-1 1/8")						1/2-18 %16	115mm 4.550	215mm 8.450	170mm 6.700

Tapping Heads

TAPMATIC®

Rx New Rx Series, Self Reversing Tap Attachments, For Manually Operated Drilling and Milling (Replaces R Series and X Series Tapping Attachments)

14

PERFORMANCE ADVANTAGES

- New Durable, Rugged Design For Higher Production On Manual Applications
- Accurate Depth Control • Heavy Duty Ball Clutch

FEATURES

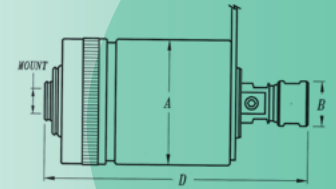
Self-Feed: Permits the tap to act as its own lead screw, allowing even inexperienced operators to produce gage perfect threads. Thread depth repeatability can be maintained accurately.

Pre-Selective Torque Drive: Completely adjustable for material and tap size, to prevent tap breakage.

1.75 x 1 Reverse Ratio: Permits the tap to retract from the tapped hole 75% faster than it entered which greatly increases production.

Re-Entry Cushion: A cushioned drive eliminates cross threading. It is possible to re-enter the same tapped hole as many times as necessary and still maintain a gage perfect thread.

Collet Chuck Spindle Nose: Jacobs RUBBER-FLEX collets and adjustable back jaws adapt to all tap sizes, both metric and inch, within an attachment's rated capacity.



	Rx 30 (#0-1/4)		Rx 50 (#6-1/2)		Rx 70 (#10-3/4)	
MOUNT TYPE	ORDER NO.	PRICE EACH	ORDER NO.	PRICE EACH	ORDER NO.	PRICE EACH
#33 JT	3158-144	\$770.00	3158-158	\$1029.00	-	-
#6 JT	3158-142	770.00	3158-156	1029.00	-	-
#3 JT	-	-	-	-	3158-168	\$1374.00
5/16"-24	3158-148	770.00	-	-	-	-
3/8"-24	3158-150	770.00	-	-	-	-
1/2"-20	3158-152	770.00	3158-162	1029.00	-	-
5/8"-16	3158-154	770.00	3158-164	1029.00	3158-172	1399.00
3/4"-16	-	-	3158-166	1029.00	3158-174	1399.00
7/8"-20	-	-	-	-	3158-176	1399.00

MODEL	CAPACITY	COLLET SERIES	MAX SPEED	WEIGHT	A	B	D	SELF-FEED
Rx30	#0-1/4" M1.4-M6 Roll Form #10 Max	#21000	2000 RPM	1.5 lb. .7 Kg.	2.125 53mm	0.75 19mm	4.58 116mm	0.13 3mm
Rx50	#6-1/2" M3-M12 Roll Form #3/8 Max NP 1/16", 1/8"	#22000	1500 RPM	4.0 lb. 1.8 Kg.	3 76mm	1.07 27mm	6.2 157mm	0.16 .4mm
Rx70	#10-3/4"-16 M5-M18 Roll Form 9/16" Max	#24000	1200 RPM	6.7 lb. 3.0 Kg.	3.5 88mm	1.45 36mm	7.14 182mm	0.16 4mm

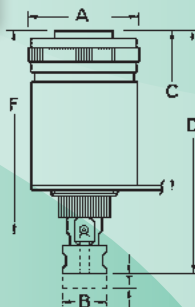
TC/DC For Manually Operated Drilling & Milling Machines

14

*Tapping Attachment with Torque and Depth Control Designed for Shallow Hole Drilling on Manually Operated Milling & Drilling

FEATURES

- Has the standard features of the X Series, plus depth control that eliminates the possibility of bottoming in your work piece and breaking taps.
- Self-Feed: Permits the tap to act as its own lead screw and consistently produce gage perfect threads.



Complete information and instructions are packaged with each unit.

	30 TC/DC (#0-1/4")		50 TC/DC (3/8-1/2")		70 TC/DC (#10-5/8")	
MOUNT TYPE	ORDER NO.	PRICE EACH	ORDER NO.	PRICE EACH	ORDER NO.	PRICE EACH
#3JT	-	-	-	-	3158-334	\$1343.00
#4JT	-	-	-	-	-	-
#6JT	3158-302	\$703.00	3158-320	\$1010.00	-	-
#33JT	3158-304	703.00	3158-322	1010.00	-	-
5/16-24	3158-310	703.00	-	-	-	-
3/8-24	3158-312	703.00	3158-326	1010.00	-	-
1/2-20	3158-314	703.00	3158-328	1010.00	3158-336	1343.00
5/8-16	3158-316	703.00	3158-330	1010.00	3158-338	1343.00
3/4-16	3158-318	703.00	3158-332	1010.00	3158-340	1343.00
7/8-20	-	-	-	-	3158-342	1343.00

*** Capacity must be reduced a minimum of 25% for roll form taps.

***		CAPACITY		REC. MAX		COLLETS		E		JACOBS		THREADED		C		D		F	
MODEL	IN STEEL	WEIGHT	SPEED	STANDARD	OPTIONAL	A	B	SELF-FEED	TAPER MTS.	MTS.	MTS.	MTS.	MTS.	MTS.	MTS.	MTS.	MTS.	MTS.	MTS.
30 TC/DC	M1.4-M6 #0-1/4"	.45 Kg. 1 lb.	2000 RPM	21600 (#0-#8)	21500 (.040-.098)	48mm 1.875	19mm .750	6mm .250	#6, #33	1/20, 1/16 1/16	81mm 3.220	109mm 4.300	92mm 3.650						
				21700 (#10-1/4")						5/16-24 1/16	72mm 2.850	99mm 3.900	82mm 3.250						
50 TC/DC	M3-M12 #6-1/2"	1.36 Kg. 3 lbs.	1500 RPM	22100 (#0-1/2")	22000 (.194-.318)	70mm 2.750	27mm 1.070	9mm .375	#6, #33	1/16, 1/8 1/8	109mm 4.300	148mm 5.830	122mm 4.812						
				22200 (1/4"-1/2")	22300 (.090-.180)					1/8, 1/4 1/4	104mm 4.100	142mm 5.625	118mm 4.650						
70 TC/DC	M5-M16 #10-1/2" NP 1/8"	2.04 Kg. 4 lbs. 8 ozs.	1200 RPM	24100 (#10-1/2")	24300 (.110-.280)	76mm 3.000	36mm 1.450	9mm .375	#3	1/20, 1/16 1/16, 1/8	119mm 4.685	168mm 6.650	137mm 5.400						
				24000 (5/16"-3/8")	24500 (.393-.590)														

Rubber Flex Collets

5



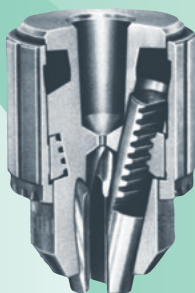
MFG. NO.	COLLET DESCRIPTION	ORDER NO.	PRICE	MFG. NO.	COLLET DESCRIPTION	ORDER NO.	PRICE	MFG. NO.	COLLET DESCRIPTION	ORDER NO.	PRICE
21400	.198-.255	3158-914	\$31.50	22000	.194-.318	3158-920	\$84.00	24000	5/16"-5/8" Standard	3158-940	\$97.00
21500	.040-.098	3158-915	84.00	22100	#0-1/4" Standard	3158-921	84.00	24100	#10-1/2" Standard	3158-941	97.00
21600	#0-#8 Standard	3158-916	84.00	22200	#1/4" -1/2" Standard	3158-922	84.00	24300	.110-.280	3158-943	97.00
21700	#10-1/4" Standard	3158-917	84.00	22300	.090-.180	3158-923	84.00	24500	.393-.590	3158-945	97.00
								26100	1/2"-3/4"	3158-961	146.00
								26200	7/8"-1-1/8"	3158-962	146.00

Jacobs® Super Chucks

10



The ball bearing super chuck is especially designed for EXTRA HEAVY DUTY drilling applications on production machines, jig borers, milling machines, lathes and radials. The ideal choice for those jobs that require close tolerance drilling.



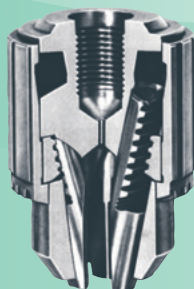
MODEL NO.	CAPACITY INCHES	CHUCK MOUNT	KEY NO.	ORDER NO.	PRICE EACH
8-1/2N	0-1/4	2JT	K30	3147-517	\$282.73
11N	0-3/8	2JT	K32	3147-522	315.07
14N	0-1/2	3JT	K3	3147-528	440.47
16N	1/8-5/8	3JT	K4	3147-532	505.59
18N	1/8-3/4	4JT	K4	3147-536	760.41
20N	3/8-1	5JT	K5	3147-540	1023.96

Jacobs® Plain Chucks

10



This fine chuck is offered for both medium duty portable, bench or floor type power tools in a wide range of capabilities for either threaded or taper mounted spindles.



MODEL NO.	CAPACITY INCHES	MOUNT	KEY NO.	ORDER NO.	PRICE EACH
TAPER MOUNT					
0	0-5/32	0JT	K0	3148-005	\$207.56
1A	0-1/4	1JT	K1	3148-015	153.36
2A	0-3/8	2JT	K2	3148-065	211.51
33	5/64-1/2	33JT	K32	3148-095	276.28
33KD	5/64-1/2	33JT	K32	3148-100	261.84
3A	1/8-5/8	3JT	K3	3148-160	343.90
34-02	0-1/2	2JT	K3	3148-143	215.98
34-06	0-1/2	6JT	K3	3148-145	286.81
34-33	0-1/2	33JT	K3	3148-146	244.14
34-33C	0-1/2	33JT	K3	3148-147	225.59
36	.18-80	3JT	K4	3148-170	434.00
36KD	.18-80	3JT	K4	3148-190	415.88
THREAD MOUNT					
1B3/8	0-1/4	3/8-24	K7	3148-010	\$155.69
7BA3/8	0-1/4	3/8-24	K7	3148-035	173.82
41BA3/8	0-3/8	3/8-24	K30	3148-193	87.02
41BA1/2	0-3/8	1/2-20	K30	3148-197	242.64
2BA3/8	0-3/8	3/8-24	K2	3148-075	206.87
32BA1/2	0-3/8	1/2-20	K32	3148-090	229.51
33BA3/8	5/64-1/2	3/8-24	K32	3148-105	222.48
33BA1/2	5/64-1/2	1/2-20	K32	3148-115	213.24
33BA5/8	5/64-1/2	5/8-16	K3	3148-120	222.20
3B5/8	5/64-1/2	5/8-16	K3	3148-165	348.50
3BA-1/2	1/8-5/8	5/8-16	K3	3148-158	287.27
36B	.18-80	5/8-16	K4	3148-175	519.24
36B	.18-80	3/4-16	K4	3148-176	484.95

CUSHMAN
CHUCKS
SINCE 1862
Coming Soon!

Jacobs® Keyless Chucks

10

FEATURES:

- Each chuck precision tested and furnished with an individualized certification number identifying its specific performance characteristics.
- Self-tightening feature automatically increases gripping force proportional to prevent tool shank slippage.
- All components exposed to wear are completely hardened to maintain accuracy and extended chuck life.
- Jacobs taper mount permits use on a wide range of high accuracy drill presses, jig borers, milling machines and production drilling equipment.



Jacobs® Industrial Keyless Chucks are high precision devices specially designed for high accuracy applications on either conventional or CNC equipment. Tightened and released by hand, they permit more rapid tooling changes to increase machining productivity. A self-tightening feature produces significantly higher gripping force to resist tool shank slippage. Precision manufactured and tested to the most exacting quality standards, Jacobs® Industrial Keyless Chucks can be counted on for extremely high reliability and durability under the most demanding machining conditions.

CAPACITY RANGE							
MODEL JKP	MIN. INCHES	MM	MAX. INCHES	MM	MOUNT JACOBS	ORDER NO.	PRICE EACH
80-J2S	0	0	0.315	8	J2S	3148-600	\$400.20
100-J2	0	0	0.394	10	J2	3148-601	427.81
100-J33	0	0	0.394	10	J33	3148-602	427.81
130-J2	0.039	1	0.512	13	J2	3148-603	457.31
130-J33	0.039	1	0.512	13	J33	3148-604	503.54
130-J6	0.039	1	0.512	13	J6	3148-605	457.31
160-J6	0.118	3	0.630	16	J6	3148-606	528.74

HIGH TORQUE/HIGH PRECISION MODEL

- For use on CNC machining centers in drilling, boring, counterboring and milling operations requiring heavy penetration.
- Furnished with milled wrench flats and spanner wrench to allow the application of supplementary gripping torque. Light tightening increases gripping torque up to 3 times high than hand tightening.
- Resists tool loosening on high speed machines with right hand rotation and instant spindle top.



10

CAPACITY RANGE							
MODEL JKT	MIN. INCHES	MM	MAX. INCHES	MM	MOUNT JACOBS	ORDER NO.	PRICE EACH
130-J2	0.039	0	0.512	13	J2	3148-611	\$531.08
130-J33	0.039	0	0.512	13	J33	3148-612	531.08
130-J6	0.039	1	0.512	13	J6	3148-613	531.08
160-J6	0.118	3	0.630	16	J6	3148-614	698.85

Micro Drill Chuck Adapter

FEATURES:

- 1/2" precision ground straight shank .750 travel
- Infinitely variable spring pressure
- Automatic return at release
- Free turning knurled hand grip
- 0 Jacobs male taper

DESCRIPTION	ORDER NO.	PRICE EACH
Micro Drill Adapter Only	3142-470	\$ 39.90



High Torque/High Precision Keyless Chucks With Integrated Shank

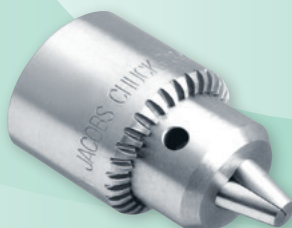


- High precision keyless drill chuck - arbor is integrated into the internal socket of the drill chuck.
- Self-tightening feature automatically increases gripping force proportional to increased torque to prevent tool shank slippage. For right hand rotation applications only.
- 100% individually controlled to ensure not to exceed a maximum total integrated run-out of 0.04 mm.

MODEL/ PART NO.	CAPACITY RANGE					DIMENSIONS								ORDER NO.	PRICE EACH
	MINIMUM		MAXIMUM			CLOSED LGTH.		OPEN LGTH.		SLEEVE DIA.					
	IN	MM	IN	MM	MOUNT	IN.	MM.	IN.	MM.	IN.	MM.				
JK 100-MT2	0.000	0	0.394	10.0	MT2	3.23	82	2.87	73	1.69	43	3148-561	\$522.72		
JK 130-MT2	0.039	1	0.512	13.0	MT2	3.62	92	3.15	80	1.89	48	3148-562	584.47		
JK 130-MT3	0.039	1	0.512	13.0	MT3	3.62	92	3.15	80	1.89	48	3148-563	533.98		
JK 130-MT4	0.039	1	0.512	13.0	MT4	3.54	90	3.23	82	1.89	48	3148-564	565.38		
JK 130-R8	0.039	1	0.512	13.0	R8	3.54	90	3.23	82	1.89	48	3148-565	584.75		
JK 160-MT3	0.118	3	0.630	16.0	MT3	3.78	96	3.35	85	2.13	54	3148-568	605.44		
JK 160-MT4	0.118	3	0.630	16.0	MT4	3.78	96	3.35	85	2.13	54	3148-569	633.87		
JK 160-R8	0.118	3	0.630	16.0	R8	3.78	96	3.35	85	2.13	54	3148-570	645.23		

Stainless Steel Chucks

- For special applications on either portable air-operated, or stationary machine tools.
- Resistant to chemical corrosion and reduces potential for hazardous sparking.



Drain Chuck

- Specifically designed for use with flexible coil spring tools. Allows coil spring to pass through chuck. Chuck may be hand tightened to secure coil spring at desired length transmitting tool rotation to shaft.
- Ideal for soil pipe and sewer cleaning tools.



MODEL/ PART NO.	CAPACITY RANGE				MOUNT STYLE	KEY NO.	ORDER NO.	PRICE EACH
	MINIMUM IN	MINIMUM MM	MAXIMUM IN	MAXIMUM MM				
OM-6624	0(1)	0	0.156	4	0-JT(2)	KOM	3147-560	\$381.40
OBM-6625	0(1)	0	0.156	4	5/16-24	KOM	3147-565	374.75
1M-6626	0(1)	0	0.250	6	1-JT(2)	K1M	3147-580	347.87
1BM-6627	0(1)	0	0.250	6	5/16-24	K1M	3147-570	380.27
1MM-6628	0(1)	0	0.250	6	3/8-24	K1M	3147-575	371.12

MODEL/ PART NO.	CAPACITY RANGE				MOUNT THREAD	KEY NO.	ORDER NO.	PRICE EACH
	MINIMUM IN	MINIMUM MM	MAXIMUM IN	MAXIMUM MM				
DC4595	0.25	6.4	0.500	13	13/16-20	-	3148-199	\$202.42

Adapt-A-Drive® Chucks

- Converts any cordless screwdriver to a multi-purpose mini-drill for bit sizes up to 1/4".
- Easy conversion- integral hex mount locks the Adapt-A-Drive® chuck into the screwdriver bit socket.
- Ideal for starting screw holes when using in hard-to-reach spaces.



Professional Duty Chucks

- Industrial quality for the tradesman.
- Through-hardened jaws provide hard, durable gripping surfaces.
- One-piece sleeve eliminates crack between driving teeth often found in other designs.
- Each chuck is inspected for 100% performance and precision.
- Fluted sleeve finish.



MODEL/ PART NO.	CAPACITY RANGE				MOUNT THREAD	KEY NO.	ORDER NO.	PRICE EACH
	MINIMUM IN	MINIMUM MM	MAXIMUM IN	MAXIMUM MM				
30248	0.028	0.7	0.250	6.5	3/8-24	KG1	3148-200	\$40.90

MODEL/ PART NO.	CAPACITY RANGE				MOUNT THREAD	KEY NO.	ORDER NO.	PRICE EACH
	MINIMUM IN	MINIMUM MM	MAXIMUM IN	MAXIMUM MM				
30246	0.063	1.6	0.375	10	3/8-24	KK	3148-182	\$74.38
31052	0.063	1.6	0.500	13	1/2-20	KK	3148-183	95.49

Chucks, Chuck Keys

Jacobs® 10

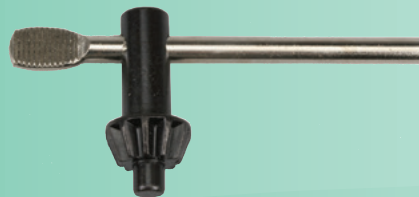
Multi-Craft® Chucks

The Multi-Craft® Drill Chuck is mounted as original equipment on more drills than any other chuck by both domestic and import drill manufacturers. It features through-hardened jaws and a design found only in competitors' industrial-grade chucks. Each chuck is backed by the Jacobs® Warranty. Ideal for corded or cordless reversible or nonreversible power drills.

MODEL/ PART NO.	CAPACITY RANGE		MOUNT THREAD	KEY NO.	PRICE EACH	
	MINIMUM IN	MAXIMUM MM				
3148-186	0.028	0.7	0.250 6.5	3/8-24	KG1	\$33.02
3148-196	0.062	1.5	0.375 10.0	3/8-24	KG1	39.35
3148-184	0.078	2.0	0.500 13.0	3/8-24	KK	47.22
3148-185	0.078	2.0	0.500 13.0	1/2-20	KK	47.22



Coming Soon!



Chuck Keys

FOR JACOBS			FOR ROHM		FOR LFA		Jacobs®		Pittsburg®	
JACOBS	ROHM	LFA	CHUCK NOS.	CHUCK NOS.	CHUCK NOS.	PILOT SIZE	ORDER NO.	PRICE EACH	ORDER NO.	PRICE EACH
K0		0	0B			1/8	3148-324	\$ 12.01	3148-301	\$ 3.77
K1	S7	1	1A, 1B, 1BS, MC1	R0-0, R1-1	81-1A, 81-B1-	5/32	3148-317	8.48	3148-302	6.75
KG	S14	TB1	DC1G61, DC1G61AD, DC4G61, DC4G61AD, H1G61, H4561, MC2, MC11G41, MC1G60, MC1G61, MC1G75, U4G41, U4G60, U4G61		4200-B1, 412-B1 420-B1	1/4	3148-331	6.64	3148-314	2.01
KGA		T80				1/4	3148-326	5.35	3148-316	2.01
K2	S17	#2	2A, 2B, MC5	R2-38, R2-38TH	82-2A, 82-2B	1/4	3148-318	11.98	3148-303	6.75
K7	S18	T4	7, 7-1A, 7B	R6-12, R6-12TH, R6-38TH, R7-38TH		7/32	3148-321	10.16	3148-306	5.50
K32	S9	T5	11N, 32, 32B, 33, 33B, 33BA, 33F, 33KD, 3326, 3326A, MC-10, MC33	R2-2, R2-12, R2-33, R9-12, R9-12TH, R9-38, R9-38TH	82A-5A, 42BA-5A, 8282A-5B, 42-BA-5B, 82AS-5A	1/4	3148-319	12.27	3148-308	5.50
K3	S10	T6	3, 3A, 3AE, 3B, 3KD, 3PD, 6AE, 6A-2A, 6A-33, 6B, 14N, 34, 34B, 34KD, 34PD, 55B, 56B, 58B, 75A, 634, 634B	R3-2, R3-6, R3-6DP/TH, R3-12, R3-33, R3-58, R4-3, R4-58, R11-3	43-6A, 42-6B, 84-6A, 45-6A, 44-6B, 84-6B, 45-5B, 83S-6A, 84S-6A	5/16	3148-320	14.24	3148-304	8.50
K3C		T6C	633C, 633D			5/16	3148-327	4.49	3148-305	8.50
K30	S8	#13	30, 30-1A, 30B, 31B, 31BA, 8-1/2N, MC4	R7-1, R7-12, R7-38, R8-12, R8-38, R8-38TH	81B-13A, 81B-13B, 42-13B, 81BS-13A	15/64	3148-323	11.64	3148-307	12.75
KK	S19	TB13	DC8K33, DC8K61,		42-813,	9/32	3148-329	9.72	3148-315	2.47
K4	S13	#9	16N, 18BN, 36, 36B, 37KD, 37PD, 59B	R5-3, R-5, 3DP/TH, R5-4, R6-5	85-9A, 85B-9A, 85S-9A, 85BS-9A	3/8	3148-322	21.48	3148-309	11.50
K5		#26	20N			7/16	3148-328	46.32	3148-310	22.50

Hand-Tite® Keyless Drill Chucks

- Keyless Operation – Permits fast bit changes without lost key delays.
- Superior Gripping Force – Provides high mechanical advantage to convert hand tightening torque into superior bit gripping force.
- Versatility – Models available to fit all 10mm (3/8") and 13mm (1/2") variable speed corded and cordless portable drills.
- Precision Operation – Meet or exceed stringent DIN run-out and dimensional specifications.
- Ergonomic Design – Material and surface finish combinations result in increased comfort and performance.
- Rugged Construction – Constructed of high performance materials to maximize durability and performance.



MODEL/ PART NO.	CAPACITY RANGE				MOUNT THREAD	PRICE EACH
	MINIMUM		MAXIMUM			
	IN	MM	IN	MM		
10mm Capacity (3/8") Metal Sleeve, Exposed Jaws, Black Finish						
3148-198	0.040	1.0	0.375	10	3/8-24	\$55.30
13mm Capacity (1/2") Hard Nose, Black Finish						
3148-188	0.062	2.0	0.500	13	1/2-20	85.10
3148-187	0.062	2.0	0.500	13	3/8-24	85.10

Drill Chuck Arbors

Morse Taper To Jacobs Taper



		Pittsburg ALLSOUTH		USA MADE	
MORSE TAPER	JACOBS TAPER	ORDER NO.	PRICE EACH	ORDER NO.	PRICE EACH
0	0	3142-400	\$3.20	—	—
1	1	3142-411	9.68	3148-685	\$21.32
1	2	3142-412	9.68	3148-686	51.59
1	3	3142-413	10.56	—	—
1	6	3142-416	10.56	3148-687	26.74
1	33	3142-419	10.56	—	—
2	0	3142-420	9.68	—	—
2	1	3142-421	9.68	3148-689	49.12
2	2	3142-422	9.68	3148-690	39.79
2	3	3142-423	9.68	3148-691	39.00
2	4	3142-424	12.60	3148-692	50.27
2	5	3142-425	12.60	—	—
2	6	3142-426	12.60	3148-693	53.46
2	33	3142-429	9.68	3148-694	39.79
3	1	3142-431	12.93	3148-695	25.64
3	2	3142-432	12.93	3148-696	55.59
3	3	3142-433	12.93	3148-697	52.77
3	4	3142-434	14.23	3148-698	61.83
3	5	3142-435	14.23	3148-699	73.88
3	6	3142-436	14.23	3148-700	55.59
3	33	3142-439	12.93	3148-701	53.82
4	2	3142-442	20.31	3148-702	97.52
4	3	3142-443	20.31	3148-703	83.04
4	4	3142-444	20.31	3148-704	85.68
4	5	3142-445	20.31	3148-705	119.88
4	6	3142-446	20.31	3148-706	87.23
4	33	3142-449	20.31	3148-707	87.73
5	2	3142-452	36.98	—	—
5	3	3142-453	36.98	3148-708	178.06
5	4	3142-454	36.98	3148-709	176.10
5	5	3142-455	36.98	3148-710	173.85
5	6	3142-456	36.98	—	—
5	33	3142-459	36.98	—	—

Straight Shank To Jacobs Taper



		Pittsburg ALLSOUTH		USA MADE	
SA. SHANK	JACOBS TAPER	ORDER NO.	PRICE EACH	ORDER NO.	PRICE EACH
1/2	0	3142-300	\$9.35	3148-715	\$40.50
1/2	1	3142-301	9.35	3148-716	40.64
1/2	2	3142-302	9.35	3148-717	40.64
1/2	3	3142-303	9.35	3148-718	40.64
1/2	4	3142-304	12.60	—	—
1/2	6	3142-306	9.35	3148-719	52.66
1/2	33	3142-309	9.35	3148-720	40.64
5/8	1	3142-321	9.68	3148-721	23.06
5/8	2	3142-322	9.68	3148-722	50.00
5/8	3	3142-323	10.56	3148-723	69.09
5/8	4	3142-324	12.60	—	—
5/8	6	3142-326	12.60	3148-724	53.83
5/8	33	3142-329	10.56	3148-725	45.98
3/4	2	3142-342	14.46	3148-726	69.09
3/4	3	3142-343	14.46	3148-727	63.12
3/4	4	3142-344	16.18	—	—
3/4	6	3142-346	15.44	3148-728	74.14
3/4	33	3142-349	15.44	3148-729	75.06
1	2	3142-362	16.18	—	—
1	3	3142-363	16.18	3148-730	75.17
1	4	3142-364	16.18	—	—
1	6	3142-366	16.18	3148-731	86.01
1	33	3142-369	16.18	—	—
1-1/2	3	3142-383	25.84	—	—
1-1/2	4	3142-384	25.84	—	—
1-3/4	3	3142-393	9.20	—	—
1-3/4	4	3142-394	13.15	—	—

R8 To Jacobs Taper



		Pittsburg ALLSOUTH		USA MADE	
FROM R8 TAPER	TO JACOBS TAPER	ORDER NO.	PRICE EACH	ORDER NO.	PRICE EACH
R8	1	3142-200	\$48.78	—	—
R8	2	3142-202	48.78	3148-745	\$214.46
R8	3	3142-204	48.78	3148-746	214.46
R8	4	3142-206	48.78	—	—
R8	6	3142-208	48.78	3148-747	214.46
R8	33	3142-210	48.78	3148-748	214.46

Threaded Arbors



		Pittsburg ALLSOUTH		USA MADE	
SIZE		ORDER NO.	PRICE EACH	ORDER NO.	PRICE EACH
1/2 x 3/8-24		3142-160	\$48.16	—	—
1/2 x 1/2-20		3142-161	48.16	—	—
1MT x 3/8-24		3142-165	40.73	—	—
1MT x 1/2-20		3142-166	42.87	—	—
2MT x 3/8-24		3142-170	42.87	3148-735	\$144.29
2MT x 1/2-20		3142-172	42.87	3148-736	144.29
2MT x 5/8-16		3142-174	42.87	3148-737	144.76

Assorted Toolholders

Drill Sleeves



SIZE	M.T. HOLE	M.T. O.D.	SOFT WITH HARDENED TANG		HARDENED AND GROUND	
			ORDER NO.	PRICE EACH	ORDER NO.	PRICE EACH
1 to 2	1	2	3147-012	\$ 20.25	3147-312	\$ 32.98
1 to 3	1	3	3147-013	31.75	3147-313	43.30
1 to 4	1	4	3147-014	49.13	3147-314	69.75
1 to 5	1	5	3147-015	61.88	3147-315	106.33
2 to 3	2	3	3147-023	22.93	3147-323	44.08
2 to 4	2	4	3147-024	42.50	3147-324	75.05
2 to 5	2	5	3147-025	85.75	3147-325	106.33
3 to 4	3	4	3147-034	35.78	3147-334	75.10
3 to 5	3	5	3147-035	61.88	3147-335	106.25
4 to 5	4	5	3147-045	81.58	3147-345	106.25
4 to 6	4	6	3147-046	155.45	3147-346	303.98
5 to 6	5	6	3147-056	168.53	3147-356	329.75

Screw Machine Sockets



SIZE	M.T. HOLE	O.D.	OVERALL LENGTH	ORDER EACH	PRICE EACH
1	1	1	3-1/2	3147-201	\$ 15.69
2	1	1-1/4	3-1/2	3147-202	19.24
3	1	1-1/2	3-1/2	3147-203	17.99
4	2	1	4	3147-204	17.99
5	2	1-1/4	4	3147-205	19.72
6	2	1-1/2	4	3147-206	20.94
7	2	1-3/4	4	3147-207	22.89
8	2	2	4	3147-208	24.04
9	3	1-1/4	4-3/4	3147-209	24.04
10	3	1-1/2	4-3/4	3147-210	25.94
11	3	1-3/4	4-3/4	3147-211	28.35
12	3	2	4-3/4	3147-212	30.90
13	4	1-1/2	6	3147-213	30.90
14	4	1-3/4	6	3147-214	33.65
15	4	2	6	3147-215	35.81
16	5	2-1/4	7-3/8	3147-216	62.57
17	5	2-1/2	7-3/8	3147-217	62.57

3 Piece Slotting Saw Arbor Set



- For saw blades .001" to 3/16" thickness.
- Heat treated shanks.
- For hole sizes 1/4", 3/8" & 12".
- 1/2" Shanks.

Order No. 3142-021 Price Each\$49.03

Extension Sockets



SIZE	SIZE HOLE	SHANK	ORDER NO.	PRICE EACH
1 to 1	1	1	3147-111	\$29.25
1 to 2	1	2	3147-112	29.25
1 to 3	1	3	3147-113	35.63
1 to 4	1	4	3147-114	42.65
2 to 1	2	1	3147-121	34.05
2 to 2	2	2	3147-122	34.13
2 to 3	2	3	3147-123	34.13
2 to 4	2	4	3147-124	48.98
2 to 5	2	5	3147-125	62.03
3 to 2	3	2	3147-132	42.42
3 to 3	3	3	3147-133	42.42
3 to 4	3	4	3147-134	42.42
3 to 5	3	5	3147-135	66.32
4 to 2	4	2	3147-142	64.95
4 to 3	4	3	3147-143	64.95
4 to 4	4	4	3147-144	64.95
4 to 5	4	5	3147-145	81.09
4 to 6	4	6	3147-146	184.94
5 to 3	5	3	3147-153	144.89
5 to 4	5	4	3147-154	144.89
5 to 5	5	5	3147-155	151.74
5 to 6	5	6	3147-156	184.94

Drill Drifts



SIZE	DESCRIPTION	ORDER NO.	PRICE EACH
1	Fitting #1 Sockets & Sleeves	3147-221	\$5.13
2	Fitting #2 Sockets & Sleeves	3147-222	6.20
3	Fitting #3 Sockets & Sleeves	3147-223	6.85
4	Fitting #4 & #5 Sockets & Sleeves	3147-224	10.60

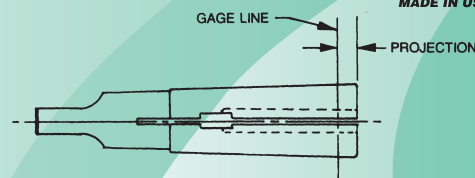
Vari-Saw Holder



- Spring loaded mechanism accepts saw blades with hole diameters from 1/2" to 1".
- Blades are firmly secured in position with hex head screw.
- Offers flexibility in sawing operation.

R8 Shank Order No. 3142-022 Price Each\$28.28
1/2" Shank Order No. 3142-020 Price Each\$25.36

Split Sleeve Drill & Reamer Drivers



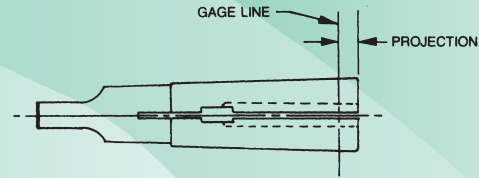
DRILL SIZE	#0 M.T.	PRICE EACH	#1 M.T.	PRICE EACH	#2 M.T.	PRICE EACH
53	4870-115	\$49.00	-	-	-	-
1/16	-	-	4871-117	\$35.00	-	-
1.60MM	-	-	4871-117	35.00	-	-
52	-	-	4871-119	35.00	-	-
1.70MM	-	-	4871-121	35.00	-	-
51	-	-	4871-121	35.00	-	-
1.85MM	-	-	4871-123	35.00	-	-
49	-	-	4871-123	35.00	-	-
48	-	-	-	-	4872-209	\$37.00
1.95MM	-	-	-	-	4872-209	37.00
5/64	-	-	4871-125	35.00	-	-
47	-	-	4871-126	35.00	-	-
2.00MM	-	-	4871-126	35.00	-	-
2.05MM	-	-	4871-127	35.00	-	-
46	-	-	4871-127	35.00	-	-
44	4870-130	49.00	4871-130	35.00	-	-
2.20MM	4870-130	49.00	4871-130	35.00	-	-
2.25MM	4870-131	49.00	4871-131	35.00	-	-
43	4870-131	49.00	4871-131	35.00	-	-
42	-	-	4871-134	13.80	4872-219	37.00
3/32	-	-	4871-134	13.80	4872-219	37.00
40	-	-	4871-136	35.00	-	-
2.50MM	-	-	4871-136	35.00	-	-
38	-	-	4871-138	35.00	4872-223	37.00
2.60MM	-	-	4871-138	35.00	4872-223	37.00
2.70MM	-	-	-	-	4872-226	37.00
36	-	-	-	-	4872-226	37.00
7/64	-	-	4871-142	13.80	4872-227	37.00
2.85MM	-	-	4871-145	35.00	-	-
33	-	-	4871-145	35.00	-	-
32	4870-146	49.00	4871-146	35.00	-	-
2.95MM	4870-146	49.00	4871-146	35.00	-	-
3.00MM	4870-292	49.00	-	-	-	-
31	4870-147	49.00	4871-147	35.00	-	-
3.05MM	4870-147	49.00	4871-147	35.00	-	-
1/8	4870-149	49.00	4871-149	35.00	4872-234	37.00
3.20MM	4870-149	49.00	4871-149	35.00	4872-234	37.00
3.25MM	-	-	4871-150	35.00	4872-235	37.00
30	-	-	4871-150	35.00	4872-235	37.00
3.30MM	-	-	4871-151	35.00	-	-
3.40MM	-	-	4871-152	35.00	-	-
29	-	-	4871-153	35.00	4872-238	37.00
28	-	-	4871-156	35.00	4872-241	37.00
9/64	-	-	4871-156	35.00	4872-241	37.00
27	-	-	-	-	4872-242	37.00
3.70MM	-	-	4871-439	35.00	-	-
26	-	-	4871-158	35.00	4872-243	37.00
3.75MM	-	-	4871-158	35.00	4872-243	37.00
25	-	-	4871-159	35.00	-	-
3.80MM	-	-	4871-159	35.00	-	-
24	-	-	4871-160	35.00	4872-245	37.00
23	-	-	4871-161	35.00	-A	-
5/32	4870-162	\$49.00	4871-162	35.00	4872-247	37.00
22	-	-	4871-163	35.00	4872-248	37.00
4.00MM	-	-	4871-163	35.00	4872-248	37.00
21	-	-	4871-164	35.00	4872-249	37.00
20	-	-	4871-165	35.00	-	-
4.10MM	-	-	4871-165	35.00	-	-
4.20MM	4870-166	49.00	4871-166	35.00	-	-
19	4870-166	49.00	4871-166	35.00	-	-
4.30MM	-	-	4871-167	35.00	-	-
18	-	-	4871-167	35.00	-	-
11/64	4870-168	49.00	4871-168	35.00	4872-253	37.00
17	-	-	-	-	4872-254	37.00
4.40MM	-	-	-	-	4872-254	37.00

DRILL SIZE	#0 M.T.	PRICE EACH	#1 M.T.	PRICE EACH	#2 M.T.	PRICE EACH
16	4870-170	\$49.00	4871-170	\$35.00	4872-255	\$37.00
4.50MM	4870-170	49.00	4871-170	35.00	4872-255	37.00
15	-	-	-	-	4872-256	37.00
14	4870-172	49.00	-	-	-	-
13	-	-	-	-	4872-258	37.00
4.70MM	-	-	-	-	4872-258	37.00
4.75MM	4870-174	49.00	4871-174	35.00	4872-259	37.00
3/16	4870-174	49.00	4871-174	35.00	4872-259	37.00
4.80MM	4870-175	49.00	4871-175	35.00	-	-
12	4870-175	49.00	4871-175	35.00	-	-
11	-	-	4871-176	35.00	-	-
4.90MM	-	-	4871-177	35.00	-	-
10	-	-	4871-177	35.00	-	-
9	-	-	4871-178	35.00	4872-263	37.00
5.00MM	-	-	4871-178	35.00	4872-263	37.00
8	-	-	4871-179	35.00	4872-264	37.00
5.10MM	-	-	4871-180	35.00	4872-265	37.00
7	-	-	4871-180	35.00	4872-265	37.00
13/64	-	-	4871-181	35.00	4872-266	37.00
6	-	-	4871-182	35.00	4872-267	37.00
5.20MM	-	-	4871-182	35.00	4872-267	37.00
5	-	-	4871-183	35.00	4872-268	37.00
5.30MM	4870-184	49.00	4871-184	35.00	4872-269	37.00
4	4870-184	49.00	4871-184	35.00	4872-269	37.00
5.40MM	-	-	4871-185	35.00	4872-270	37.00
3	-	-	4871-185	35.00	4872-270	37.00
5.50MM	-	-	4871-457	35.00	-	-
7/32	-	-	4871-186	35.00	4872-271	37.00
5.60MM	-	-	4871-187	35.00	4872-271	37.00
2	-	-	4871-187	35.00	4872-271	37.00
1	-	-	4871-189	35.00	4872-274	37.00
5.80MM	-	-	4871-189	35.00	4872-274	37.00
A	-	-	4871-191	35.00	4872-276	37.00
15/64	-	-	4871-191	35.00	4872-276	37.00
6.00MM	-	-	4871-462	35.00	4872-662	37.00
B	-	-	4871-192	35.00	4872-277	37.00
6.10MM	-	-	-	-	4872-278	37.00
C	-	-	4871-194	35.00	4872-279	37.00
D	-	-	4871-195	35.00	4872-280	37.00
6.25MM	-	-	4871-195	35.00	4872-280	37.00
1/4	4870-196	49.00	4871-196	35.00	4872-281	37.00
6.50MM	-	-	4871-467	35.00	-	-
F	-	-	4871-198	35.00	4872-283	37.00
6.60MM	-	-	4871-468	35.00	-	-
G	4871-199	35.00	4871-284	37.00	-	-
6.70MM	4871-469	35.00	4871-669	23.00	-	-
17/64	4871-200	35.00	4871-200	35.00	4872-285	37.00
6.75MM	4871-200	35.00	4871-200	35.00	4872-285	37.00
H	4871-200	35.00	4871-200	35.00	4872-285	37.00
6.80MM	4871-470	35.00	-	-	-	-
6.90MM	4871-202	35.00	4871-202	35.00	4872-287	37.00
I	4871-202	35.00	4871-202	35.00	4872-287	37.00
7.00MM	-	-	-	-	4872-672	37.00
J	4871-203	35.00	4871-203	35.00	4872-288	37.00
7.10MM	4871-473	35.00	-	-	4872-673	37.00
K	4871-205	35.00	4871-205	35.00	4872-290	37.00
9/32	4871-205	35.00	4871-205	35.00	4872-290	37.00
7.20MM	4871-474	35.00	-	-	-	-
L	4871-207	35.00	4871-205	35.00	4872-292	37.00
M	4871-209	35.00	4871-209	35.00	-	-
7.50MM	4871-209	35.00	4871-209	35.00	-	-
19/64	4871-210	35.00	4871-210	35.00	4872-295	37.00
N	-	-	-	-	4872-296	37.00
7.90MM	-	-	-	-	4872-681	37.00
5/16	4871-213	35.00	4871-213	35.00	4872-298	37.00

(Continued)

Split Sleeve Drill & Reamer Drivers

6



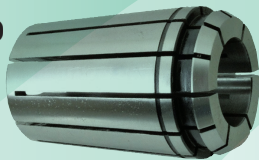
DRILL SIZE	#1 M.T.	PRICE EACH	#2 M.T.	PRICE EACH	#3 M.T.	PRICE EACH
8.00MM	4871-482	\$35.00	4872-682	\$37.00	-	-
O	4871-214	35.00	4872-299	37.00	-	-
8.10MM	-	-	4872-683	37.00	-	-
8.20MM	4871-215	35.00	4872-300	37.00	-	-
P	4871-215	35.00	4872-300	37.00	-	-
8.30MM	-	-	4872-685	37.00	-	-
21/64	4871-216	35.00	4872-301	37.00	-	-
Q	4871-217	35.00	4872-302	37.00	-	-
8.50MM	4871-487	35.00	4872-687	37.00	-	-
8.60MM	4871-218	35.00	4872-303	37.00	-	-
R	4871-218	35.00	4872-303	37.00	-	-
8.70MM	4871-489	35.00	4872-689	37.00	-	-
11/32	4871-219	35.00	4872-304	37.00	-	-
8.80MM	4871-490	35.00	-	-	-	-
S	4871-220	35.00	4872-305	37.00	-	-
9.00MM	4871-221	35.00	4872-306	37.00	-	-
23/64	4871-223	35.00	4872-308	37.00	-	-
9.20MM	-	-	4872-694	37.00	-	-
U	4871-224	35.00	4872-309	37.00	-	-
9.50MM	-	-	4872-697	37.00	-	-
3/8	4871-225	35.00	4872-310	37.00	-	-
V	-	-	4872-311	37.00	4873-000	\$52.00
9.70MM	-	-	4872-699	37.00	-	-
9.8MM	-	-	4872-312	37.00	-	-
W	-	-	4872-312	37.00	-	-
9.90MM	-	-	4872-313	37.00	4873-002	25.50
25/64	-	-	4872-313	37.00	4873-002†	25.50
10.00MM	-	-	4872-702	37.00	4873-104	52.00
X	-	-	4872-314	37.00	-	-
10.10MM	-	-	4872-314	37.00	-	-
10.20MM	-	-	4872-704	37.00	-	-
Y	-	-	4872-315	37.00	-	-
10.30MM	-	-	4872-316	37.00	4873-005	52.00
13/32	-	-	4872-316	37.00	4873-005	52.00
Z	-	-	4872-317	37.00	-	-
10.50MM	-	-	4872-317	37.00	-	-
10.70MM	-	-	4872-318	37.00	4873-007	52.00
27/64	-	-	4872-318	37.00	4873-007	52.00
11.00MM	4872-712	37.00	-	-	-	-
11.10MM	4872-319	37.00	4873-008	52.00	-	-
7/16	4872-319	37.00	4873-008	52.00	-	-
11.20MM	4872-714	37.00	-	-	-	-
11.50MM	4872-320	37.00	4873-009	52.00	-	-
29/64	4872-320	37.00	4873-009	52.00	-	-
11.90MM	4872-321	37.00	4873-010	52.00	-	-
15/32	4872-321	37.00	4873-010	52.00	-	-

DRILL SIZE	#2 M.T.	PRICE EACH	#3 M.T.	PRICE EACH	#4 M.T.	PRICE EACH
12.00MM	4872-722	\$37.00	4873-124	\$52.00	-	-
12.20MM	4872-724	37.00	-	-	-	-
12.30MM	4872-322	37.00	4873-011	52.00	-	-
31/64	4872-322	37.00	4873-011	52.00	-	-
12.50MM	4872-727	37.00	-	-	-	-
12.70MM	4872-323	37.00	4873-012	52.00	-	-
1/2	4872-323	37.00	4873-012	52.00	-	-
13.00MM	4872-732	37.00	-	-	-	-
33/64	4872-324	37.00	4873-013	25.50	-	-
13.10MM	4872-324	37.00	4873-013	25.50	-	-
17/32	4872-325	37.00	4873-014	52.00	-	-
13.50MM	4872-325	37.00	4873-014	52.00	-	-
13.80MM	4872-740	37.00	-	-	-	-
35/64	4872-326	37.00	4873-015	52.00	-	-
13.90MM	4872-326	37.00	4873-015	52.00	-	-
14.00MM	4872-742	37.00	4873-144	52.00	-	-
14.20MM	4872-744	37.00	-	-	-	-
9/16	4872-327	37.00	4873-016	52.00	-	-
14.50MM	4872-747	37.00	-	-	-	-
37/64	-	-	4873-017	52.00	-	-
14.70MM	-	-	4873-017	52.00	-	-
15.00MM	-	-	4873-154	52.00	-	-
19/32	-	-	4873-018	52.00	-	-
15.10MM	-	-	4873-018	52.00	-	-
39/64	-	-	4873-019	52.00	4874-002	\$85.00
15.50MM	-	-	4873-019	52.00	4874-002	85.00
5/8	-	-	4873-020	52.00	4874-003	85.00
41/64	-	-	4873-021	52.00	-	-
21/32	-	-	4873-022	52.00	4874-005	85.00
17.00MM	-	-	4873-174	52.00	-	-
43/64	-	-	4873-023	52.00	-	-
11/16	-	-	4873-024	52.00	4874-007	85.00
45/64	-	-	4873-025	52.00	-	-
18.00MM	-	-	4873-184	52.00	-	-
18.25MM	-	-	4873-026	52.00	-	-
23/32	-	-	4873-026	52.00	-	-
18.50MM	-	-	4873-189	52.00	-	-
47/64	-	-	4873-027	52.00	-	-
3/4	-	-	4873-028	52.00	4874-011	85.00
25/32	-	-	-	-	4874-013	85.00
13/16	-	-	-	-	4874-015	85.00
7/8	-	-	-	-	4874-019	85.00
15/16	-	-	-	-	4874-023	85.00
1	-	-	-	-	4874-027	76.00

Toolholder Systems



Precision Grip Single Angle Collets



SERIES 100

[6]

SIZE	ORDER NO.	PRICE EACH
3/32	4874-200	\$58.00
1/8	4874-202	58.00
5/32	4874-204	58.00
3/16	4874-206	58.00
7/32	4874-208	58.00
1/4	4874-210	51.00
9/32	4874-212	51.00
5/16	4874-214	51.00
11/32	4874-216	51.00
3/8	4874-218	45.00
13/32	4874-220	45.00
7/16	4874-222	45.00
15/32	4874-224	45.00
1/2	4874-226	45.00
17/32	4874-228	45.00
9/16	4874-230	45.00
19/32	4874-232	45.00
5/8	4874-234	45.00
21/32	4874-236	45.00
11/16	4874-238	45.00
23/32	4874-240	45.00
3/4	4874-242	45.00
25/32	4874-244	45.00
13/16	4874-246	45.00
27/32	4874-248	45.00
7/8	4874-250	45.00
29/32	4874-252	45.00
15/16	4874-254	45.00
31/32	4874-256	45.00
1	4874-258	45.00

SERIES 150

[6]

SIZE	ORDER NO.	PRICE EACH
1/2	4874-300	\$64.00
17/32	4874-302	64.00
9/16	4874-304	64.00
19/32	4874-306	64.00
5/8	4874-308	64.00
21/32	4874-310	64.00
11/16	4874-312	64.00
23/32	4874-314	64.00
3/4	4874-316	64.00
25/32	4874-318	64.00
13/16	4874-320	64.00
27/32	4874-322	64.00
7/8	4874-324	64.00
29/32	4874-326	64.00
15/16	4874-328	64.00
31/32	4874-330	64.00
1	4874-332	64.00
1-1/32	4874-334	64.00
1-1/16	4874-336	64.00
1-3/32	4874-338	64.00
1-1/8	4874-340	64.00
1-5/32	4874-342	64.00
1-3/16	4874-344	64.00
1-1/4	4874-348	64.00
1-9/32	4874-350	64.00
1-5/16	4874-352	64.00
1-11/32	4874-354	64.00
1-3/8	4874-356	64.00
1-13/32	4874-358	64.00
1-7/16	4874-360	64.00
1-15/32	4874-362	64.00
1-1/2	4874-364	64.00

Split Sleeve Tap Drivers



[6]

OUTSIDE M.T.	TAP SIZE	ORDER NO.	PRICE EACH
1	0-6	4871-300	\$37.00
1	8	4871-301	37.00
1	10	4871-302	37.00
1	12	4871-303	37.00
1	1/4	4871-320	37.00
1	5/16	4871-321	37.00
1	3/8	4871-322	37.00
2	1/4	4872-420	39.00
2	5/16	4872-421	39.00
2	3/8	4872-422	39.00
2	7/16	4872-424	39.00
2	1/2	4872-425	39.00
2	9/16	4872-426	43.00
2	5/8	4872-427	43.00
2	11/16	4872-428	43.00
3	1/2	4873-420	52.00
3	9/16	4873-421	52.00
3	5/8	4873-422	52.00
3	11/16	4873-423	52.00
3	3/4	4873-424	52.00
3	7/8	4873-425	52.00
4	3/4	4874-420	78.00
4	7/8	4874-421	78.00
4	1	4874-422	78.00
4	1-1/8	4874-423	78.00
4	1-1/4	4874-424	78.00
5	1-1/8	4875-100	140.00
5	1-1/4	4875-101	140.00
5	1-3/8	4875-102	140.00
5	1-1/2	4875-103	140.00
5	1-3/4	4875-104	140.00

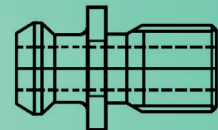
Split Sleeve Tap Drivers - Pipe Sizes

[6]

OUTSIDE M.T.	TAP SIZE	ORDER NO.	PRICE EACH
2	1/16 SS	4872-450	\$43.00
2	1/8 LS	4872-451	43.00
3	1/4	4873-450	52.00
4	3/8	4874-450	78.00
4	1/2	4874-451	78.00
4	3/4	4874-452	78.00
5	3/4	4875-110	140.00
5	1	4875-111	140.00
5	1-1/4	4875-112	140.00
5	1-1/2	4875-113	140.00

Heavy Duty: P.O.A.

Retention Knobs

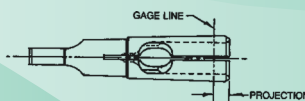


[6]

KNOB PT. NO.	V FLANGE TAPER	THREAD SIZE	PRICE EACH
4867-751	#40	5/8-11	\$64.00
4867-752	#45	3/4-10	49.00
4867-753	#50	1-8	49.00

Heavy Duty: P.O.A.

Collis Center Drill Drivers



[6]

NOMINAL CENTER DRILL SIZE	CTR. DRILL BODY DIAM.	#1 MORSE TAPER COLLIS NUMBER	PRICE EACH	#2 MORSE TAPER ORDER NUMBER	PRICE EACH	#3 MORSE TAPER ORDER NUMBER	PRICE EACH
1-11	1/8	4871-149	\$35.00	-	-	-	-
2-12	3/16	4871-502	45.00	4872-502	\$46.00	-	-
3-13	1/4	4871-503	45.00	4872-503	46.00	-	-
4-14	5/16	4871-504	45.00	4872-504	46.00	4873-503	\$52.00
5-15	7/16	-	-	4872-505	46.00	-	-
6-16	1/2	-	-	4872-506	46.00	-	-
7-17	5/8	-	-	-	-	4873-501	52.00
8-18	3/4	-	-	-	-	4873-502	52.00



TOOL SCOOT

Keep your tools organized!
Protect them from damage!

- Quality and mobility at an affordable price.
- Durable nylon inserts on both shelves help protect tool holders.
- Lower shelf angled for quick, easy tool access from either side.
- Solid, interlocking side panel construction for maximum strength and stability.
- Two end storage trays with universal mounting holes for tool lock.
- Heavy duty 5" x 1-1/4" casters load rated at 1000 lbs.
- All steel painted with our durable Ecolo-Clad in red & black.

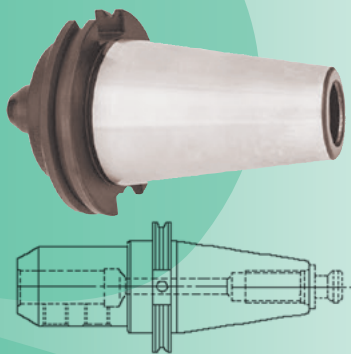
Tool Holders, Cutting Tools and Plastic Rack Not Included



MODEL NO.	TOOL STYLE	TOOL CAPACITY	WEIGHT	ORDER NO.	PRICE EACH
13940	BT, CAT "V" Flange, NMTB	48	75 lbs.	1919-285	\$469.95
13950	BT, CAT "V" Flange	36	75 lbs.	1919-295	469.95

Toolholder Systems

Caterpillar V-Flange End Mill Holder



2

BORE	GAGE LENGTH	ORDER NO.	PRICE EACH
NO. 40 TAPER			
3/8	2-1/2	4867-690	\$161.00
3/8	4-1/2	4867-780	199.00
1/2	2-5/8	4867-691	179.00
1/2	4-5/8	4867-781	199.00
5/8	3-3/4	4867-692	179.00
3/4	3-3/4	4867-693	189.00
3/4	5-3/4	4867-783	217.00
7/8	4	4867-694	189.00
1	4	4867-695	189.00
1	6	4867-785	217.00
1-1/4	4-1/4	4867-696	217.00
1-1/4	6-1/4	4867-786	232.00
1-1/2	4-5/8	4867-697	217.00
NO. 50 TAPER			
3/8	2-1/2	4867-840	230.00
3/8	4-1/2	4867-850	255.00
3/8	6-1/2	4867-860	255.00
1/2	2-5/8	4867-841	230.00
1/2	4-5/8	4867-851	255.00
1/2	6-5/8	4867-861	268.00
5/8	3-3/4	4867-842	230.00
5/8	5-3/4	4867-852	268.00
5/8	7-3/4	4867-862	320.00
3/4	3-3/4	4867-843	230.00
3/4	5-3/4	4867-853	268.00
3/4	7-3/4	4867-863	286.00
7/8	3-3/4	4867-844	230.00
7/8	5-3/4	4867-854	246.00
1	4	4867-845	246.00
1	6	4867-855	268.00
1	8	4867-865	286.00
1-1/4	4	4867-846	246.00
1-1/4	8	4867-866	286.00
1-1/2	4	4867-847	255.00
1-1/2	6	4867-857	339.00
1-1/2	8	4867-867	316.00
2	5-5/8	4867-848	375.00
2	7-5/8	4867-858	394.00

CAT 40 ER Collet Chucks Bison - Made In Poland



TAPER	RPM	ER COLLET	PROJ.	HEAD DIA.	CLAMPING RANGE	ORDER NO.	PRICE EA.
CAT 40	15,000	16	2.5	1.10	0.125 - 0.438	3176-312	\$187.00
CAT 40	15,000	16	4	1.10	0.125 - 0.438	3176-314	182.00
CAT 40	15,000	20	2.5	1.38	0.125 - 0.500	3176-322	187.00
CAT 40	15,000	20	4	1.38	0.125 - 0.500	3176-324	192.00
CAT 40	15,000	25	2.5	1.65	0.125 - 0.625	3176-327	195.00
CAT 40	15,000	25	4	1.65	0.125 - 0.625	3176-329	201.00
CAT 40	15,000	32	2.5	1.97	0.125 - 0.750	3176-332	205.00
CAT 40	15,000	32	4	1.97	0.125 - 0.750	3176-334	188.00
CAT 40	15,000	40	2.5	2.40	0.125 - 1.000	3176-342	230.00
CAT 40	15,000	40	4	2.40	0.125 - 1.000	3176-344	230.00

CAT 40 Keyless Drill Chucks

Bison - Made in Poland



CAT 40 & CAT 50 End Mill Holders

Coolant Through Capable
Bison - Made in Poland



TAPER	JACOBS	RPM	ORDER NO.	PRICE EACH
CAT 40	1-13 1/32-1/2	25,000	3176-488	\$302.00
CAT 40	3-16 1/8-5/8	25,000	3176-490	324.00

CAT 40 Drill Chuck Adapters

Bison - Made in Poland



TAPER	JACOBS	RPM	ORDER NO.	PRICE EACH
CAT 40	J2	8000	3176-462	\$93.00
CAT 40	J3	8000	3176-463	94.00
CAT 40	J4	8000	3176-464	95.00
CAT 40	J5	8000	3176-465	103.00
CAT 40	J6	8000	3176-466	94.00
CAT 40	J33	8000	3176-469	94.00

TAPER	RPM	HOLE	PROJ.	HEAD DIA.	ORDER NO.	PRICE EA.
CAT 40	25,000	1/8	2-1/2	0.750	3175-022	\$139.00
CAT 40	25,000	3/16	2-1/2	0.750	3175-032	134.00
CAT 40	25,000	1/4	2-1/2	0.827	3175-042	114.00
CAT 40	15,000	1/4	4	0.827	3175-644	124.00
CAT 40	25,000	3/8	2-1/2	1.000	3175-062	123.00
CAT 40	25,000	1/2	2-5/8	1.250	3175-082	111.00
CAT 40	15,000	1/2	5	1.250	3175-685	109.00
CAT 40	25,000	5/8	3-3/4	1.500	3175-103	129.00
CAT 40	25,000	3/4	3-3/4	1.750	3175-122	118.00
CAT 40	25,000	1	4	2.250	3175-164	160.00
CAT 40	25,000	1-1/4	4-1/4	2.500	3175-204	132.00
CAT 50	15,000	3/8	2-1/2	1.000	3175-962	145.00
CAT 50	15,000	1	4	2.250	3176-064	185.00
CAT 50	15,000	2	5-5/8	3.750	3176-185	219.00

Pittsburg[®] CAT 40 V-Flange End Mill Holders



• Suitable for CNC RPM 12,000

2

Pittsburg[®] CAT40 ER Collet Chucks

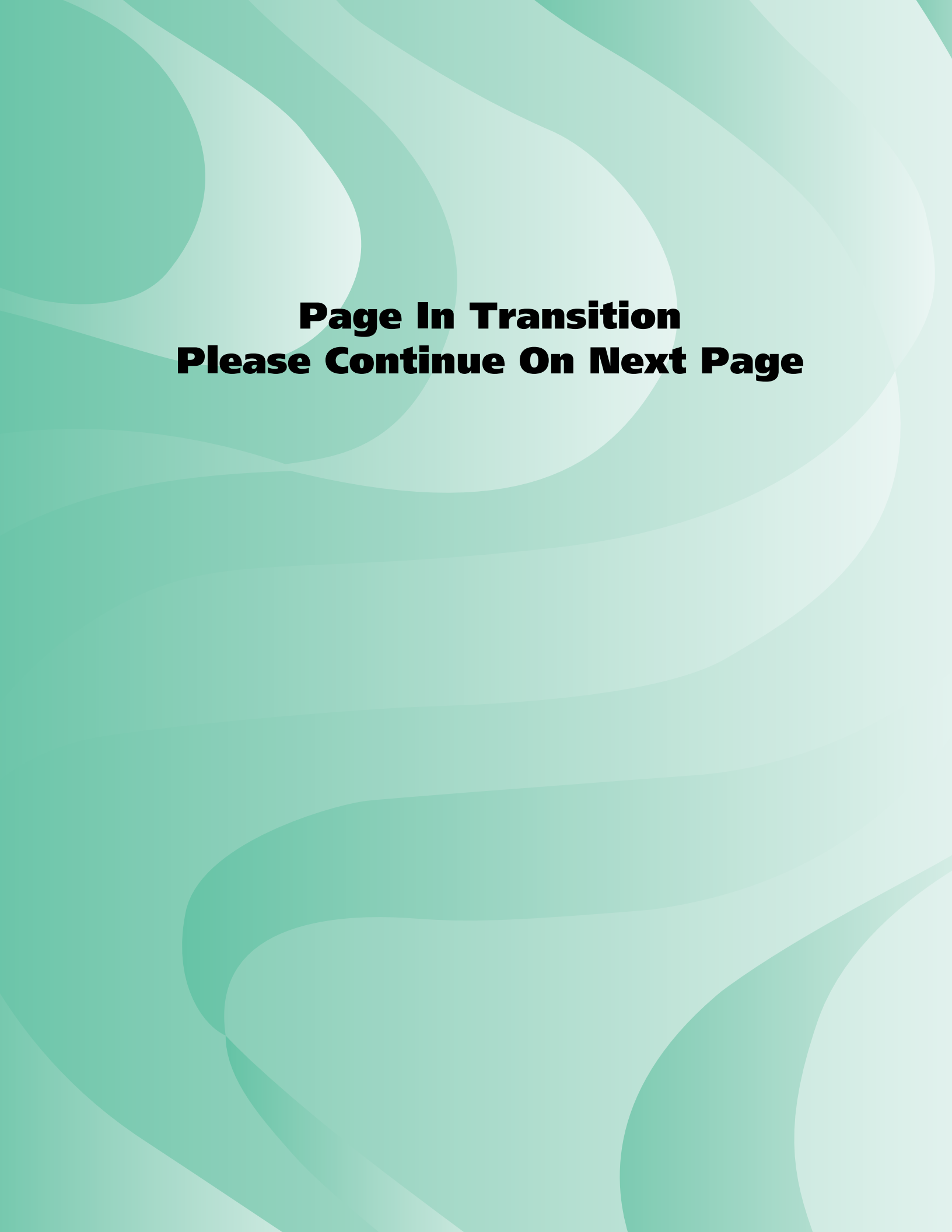


• Suitable for CNC RPM 12,000

2

TAPER	COLLET	PROJ. (IN.)	ORDER NO.	PRICE EACH
CAT40	ER16	2.48	3142-700	\$56.00
CAT40	ER16	3.94	3142-710	56.00
CAT40	ER32	2.76	3142-780	61.00
CAT40	ER32	3.94	3142-785	67.00

TAPER	HOLE DIA.	PROJ. (IN.)	HEAD DIA. (IN.)	ORDER NO.	PRICE EACH
CAT40	3/16	2-1/2	.75	3140-806	\$53.80
CAT40	1/4	2-1/2	.798	3140-808	53.80
CAT40	5/16	2-1/2	.887	3140-810	53.80
CAT40	3/8	2-1/2	1.26	3140-812	53.80
CAT40	1/2	2-5/8	1.75	3140-816	53.80
CAT40	5/8	3-3/4	1.75	3140-820	53.80
CAT40	3/4	3-3/4	1.75	3140-824	53.80
CAT40	1	4	2.48	3140-832	54.40
CAT40	1-1/4	4-1/8	2.75	3140-840	58.80



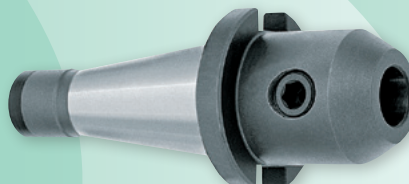
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End Mill Holders

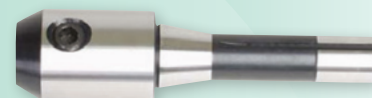
Morse Taper Shank Tang and Draw Bar Styles



30-40-50 National Standard Taper Draw Bar Styles



R8 Shank



TAPER (THREADS FOR DRAW BAR)	ARBOR HOLE	TANG ORDER NO.	PRICE EACH	DRAW BAR ORDER NO.	PRICE EACH
2MTS (3/8-16)	3/16	3140-021	\$ 73.85	3140-141	\$ 73.85
	3/8	3140-022	19.70	3140-142	73.85
	1/2	3140-023*	73.85	-	-
	5/8	3140-024*	83.50	3140-144*	83.50
3MTS (3/8-16)	3/16	3140-044	74.70	3140-164	74.70
	1/4	3140-045	22.50	-	-
	3/8	3140-046	74.70	-	-
	1/2	3140-047	74.70	-	-
	5/8	3140-048*	76.55	3140-168*	76.55
	3/4	3140-049*	76.55	-	-
4MTS (1/2-13)	3/8	3140-070	82.80	3140-190	82.80
	1/2	3140-071	82.80	3140-191	82.80
	5/8	3140-072	92.10	3140-192	92.10
	3/4	3140-073	92.10	3140-193	92.10
	7/8	3140-074*	110.20	3140-194*	110.20
	1	3140-075*	114.75	3140-195*	114.75
	1-1/4	-	-	3140-196*	22.50
5 MTS (5/8-11)	3/8	3140-096	114.75	3140-216	114.75
	1/2	3140-097	114.75	3140-217	114.75
	5/8	3140-098	123.85	3140-218	123.85
	3/4	3140-099	131.00	3140-219	131.00
	7/8	3140-100	148.00	3140-220	148.00
	1	3140-101	140.00	3140-221	140.00
	1-1/4	3140-102*	155.00	-	-
	1-1/2	3140-103*	169.00	-	-
	2	3140-104*	190.00	3140-224*	190.00

* FOR SINGLE-END END MILLS ONLY. DRAW BAR - LIMITED QUANTITIES

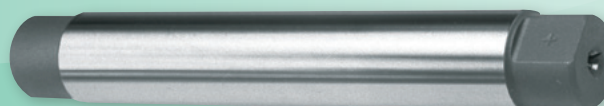
TAPER (THREADS FOR DRAW BAR)	ARBOR HOLE OR BORE	ORDER NO.	PRICE EACH
30 NST (1/2-13)	3/16	3140-541	\$38.30
	3/8	3140-542	38.30
	1/2	3140-543	38.30
	5/8	3140-544	38.30
	3/4	3140-545	38.30
	7/8	3140-546 *	47.80
	1	3140-547 *	47.80
40 NST (5/8-11)	3/16	3140-568	43.90
	3/8	3140-569	43.90
	1/2	3140-570	43.90
	5/8	3140-571	43.90
	3/4	3140-572	43.90
	7/8	3140-573	47.80
	1	3140-574 *	47.80
	1-1/4	3140-575 *	56.30
50 NST (1-8)	1-1/2	3140-576 *	59.10
	3/16	3140-596 †	64.70
	3/8	3140-597	64.70
	1/2	3140-598	64.70
	5/8	3140-599	64.70
	3/4	3140-600	64.70
	7/8	3140-601	70.30
	1	3140-602	90.00
	1-1/4	3140-603 *	104.10
	1-1/2	3140-604 *	105.80
	2	3140-605 *	112.50

† LIMITED QUANTITIES
* FOR SINGLE-END END MILLS ONLY

ARBOR HOLE OR BORE	ORDER NO.	PRICE EACH
3/16	3140-712	\$66.43
3/8	3140-724	66.43
1/2	3140-732	67.34
5/8	3140-740	70.98
3/4	3140-748*	76.44
7/8	3140-756*	83.72
1	3140-764*	83.72
1-1/4	3140-780*	110.57
1-1/2	3140-796*	126.49

* FOR SINGLE-END END MILLS ONLY

Lathe Mandrels



DIAM.	OVERALL LENGTH	ORDER NO.	PRICE EACH
1/8	2-1/2	3146-008	\$7.09
5/32	3	3146-010	7.74
13/64	3-3/4	3146-013	4.55
7/32	3-3/4	3146-014	8.45
15/64	3-3/4	3146-015	4.55
11/32	4-1/4	3146-022	9.04
23/64	4-1/4	3146-023	5.00
13/32	4-1/2	3146-026	9.75
15/32	5	3146-030	11.05
31/64	5	3146-031	12.16
1/2	5	3146-032	11.05
33/64	5-1/4	3146-033	12.16
35/64	5-1/4	3146-035	13.73
9/16	5-1/4	3146-036	12.48
37/64	5-1/2	3146-037	13.73
19/32	5-1/2	3146-038	12.48
41/64	5-3/4	3146-041	7.00
21/32	5-3/4	3146-042	12.94
11/16	5-3/4	3146-044	12.94

DIAM.	OVERALL LENGTH	ORDER NO.	PRICE EACH
45/64	6	3146-045	\$14.24
23/32	6	3146-046	12.94
47/64	6	3146-047	14.24
49/64	6-1/4	3146-049	14.23
25/32	6-1/4	3146-050	16.25
13/16	6-1/4	3146-052	16.25
53/64	6-1/2	3146-053	17.88
27/32	6-1/2	3146-054	16.25
29/32	6-3/4	3146-058	17.88
15/16	6-3/4	3146-060	17.88
31/32	7	3146-062	17.88
1-1/32	7-1/4	3146-066	22.43
1-1/16	7-1/4	3146-068	22.43
1-3/16	7-3/4	3146-076	25.94
1-7/32	8	3146-078	28.53
1-1/4	8	3146-080	25.94
1-15/16	8-1/4	3146-084	31.85
1-3/8	8-1/2	3146-088	31.85
1-7/16	8-3/4	3146-092	37.05
1-15/32	9	3146-094	40.76
1-9/16	9-1/4	3146-100	41.93

DIAM.	OVERALL LENGTH	ORDER NO.	PRICE EACH
1-5/8	9-1/2	3146-104	\$41.93
1-11/16	9-3/4	3146-108	47.45
1-3/4	10	3146-112	47.45
1-13/16	10-1/4	3146-116	54.28
1-27/32	10-1/2	3146-118	30.60
1-7/8	10-1/2	3146-120	54.28
1-15/16	10-1/2	3146-124	59.15
2	11	3146-128	59.15
2-3/32	11-1/2	3146-134	37.60
2-1/8	11-1/2	3146-136	64.68
2-5/32	12	3146-138	41.30
2-1/4	12	3146-144	72.48
2-3/8	12	3146-152	77.68
2-7/16	12	3146-156	49.85
2-15/32	12-1/2	3146-158	49.85
2-1/2	12-1/2	3146-160	87.10
2-9/16	12-1/2	3146-164	64.30
2-5/8	12-1/2	3146-168	101.40
2-3/4	13	3146-176	110.50
2-7/8	13	3146-184	115.70

Stub Arbors



ARBOR DIAM.	SHANK DIAM.	LG'TH OF SHOULDER TO NUT	RH ORDER NO.	PRICE EACH
1/2	1	3/4	3141-101†	\$ 40.50
5/8	1	3/4	3141-103†	53.20
3/4	1	1	3141-105†	109.88
7/8	1	3/4	3141-107†	63.00

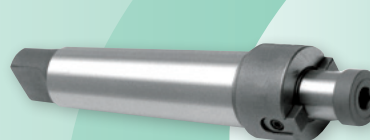
† Limited Quantities

Type "C" Shell End Mill Arbor



TAPER (THREADS FOR DRAW BAR)	SHELL END MILL ARBOR HOLE	DIAM. RANGE FOR SHELL END MILL	ORDER NO.	PRICE EACH
30 (1/2-13)	1/2	1-1/4" to 1-1/2"	3141-381	\$ 94.64
	3/4	1-3/4" to 2"	3141-382	94.64
	1	2-1/4" to 2-3/4"	3141-383	94.64
	1-1/4	3" to 3-1/2"	3141-384	94.64
40 (5/8-11)	1/2	1-1/4" to 1-1/2"	3141-405	128.70
	3/4	1-3/4" to 2"	3141-406	128.70
	1	2-1/4" to 2-3/4"	3141-407	128.70
	1-1/4	3" to 3-1/2"	3141-408	128.70
	1-1/2	4" to 5"	3141-409	128.70
50 (1"-8)	2	5-1/2" to 6"	3141-410	128.70
	1/2	1-1/4" to 1-1/2"	3141-430	193.70
	3/4	1-3/4" to 2"	3141-431	193.70
	1	2-1/4" to 2-3/4"	3141-432	193.70
	1-1/4	3" to 3-1/2"	3141-433	193.70
	1-1/2	4" to 5"	3141-434	193.70
	2	5-1/2" to 6"	3141-435	193.70

Morse Taper Shell End Mill Arbors



Tang Style

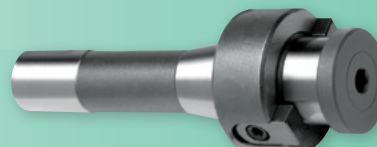


Draw Bar Style

TAPER (THREADS FOR DRAW BAR)	SHELL END MILL ARBOR HOLE	DIAM. RANGE FOR SHELL END MILL	TANG STYLE ORDER NO.	DRAW BAR STYLE ORDER NO.	PRICE EACH
3 MTS (3/8-16)	1/2	1-1/4" to 1-1/2"	3141-010	3141-060†	\$ 30.40
	3/4	1-3/4" to 2"	3141-011	3141-061†	30.40
	1	2-1/4" to 2-3/4"	3141-012	3141-062†	37.50
	1-1/4	3" to 3-1/2"	3141-013	3141-063†	37.50
4 MTS (1/2-13)	1/2	1-1/4" to 1-1/2"	3141-021	3141-071	76.32
	3/4	1-3/4" to 2"	-	3141-072	89.04
	1	2-1/4" to 2-3/4"	-	3141-073	94.43
	1-1/4	3" to 3-1/2"	3141-024	3141-074	104.16
	1-1/2	4" to 5"	3141-025	3141-075	110.25
5 MTS (5/8-11)	2	5-1/2" to 6"	3141-026	-	63.60
	1-1/4	3" to 3-1/2"	-	3141-096	124.99
6 MTS	1-1/2	4" to 5"	-	3141-097	137.34
	1	2-1/4" to 2-3/4"	3141-052	-	184.10
	1-1/4	3" to 3-1/2"	3141-053	-	198.80
	1-1/2	4" to 5"	3141-054	-	233.17

† Limited Quantities

R8 Shank Shell End Mill Arbor



SHELL END MILL ARBOR HOLE	DIAM. RANGE FOR SHELL END MILL	ORDER NO.	PRICE EACH
1/2	1-1/4" to 1-1/2"	3141-532	\$36.00
3/4	1-3/4" to 2"	3141-548	99.65
1	2-1/4" to 2-3/4"	3141-564	106.93
1-1/4	3" to 3-1/2"	3141-580	106.93
1-1/2	4" to 5"	3141-596	143.33

Arbor Screws



THREAD SIZE	DIAM. FOR BORE IN SHELL END MILL	ORDER NO.	PRICE EACH
1/4-28	1/2	3141-716	\$ 5.70
3/8-24	3/4	3141-724	6.60
1/2-20	1	3141-732	9.40
5/8-18	1-1/4	3141-740	12.50
3/4-16	1-1/2	3141-748	16.40
1-14	2	3141-764	22.80

Milling Machine Arbors



Style A



TAPER (THREADS FOR DRAW BAR)	ARBOR NO.	ARBOR DIAM.	LG'TH OF SHOULDER TO NUT	DIAM. OF RUNNING BUSHINGS	BUSHINGS FURNISHED	ORDER NO.	PRICE EACH
30 NST (1/2-13)	30-7/8-A10-2	7/8	10	1-5/8	1	3144-005	\$245.70
	31-A10-2	1	10	1-5/8	1	3144-010	266.50
	31-1/4-A10-2	1-1/4	10	1-7/8	1	3144-015	297.70
	31-1/4-A10-3	1-1/4	10	1-7/8	1	3144-020	297.70
40 NST (5/8-11)	40-7/8-A10	7/8	10	NONE	NONE	3144-025	266.50
	40-7/8-A16-3	7/8	16	1-7/8	1	3144-030	388.70
	41-A8	1	8	NONE	NONE	3144-035	271.70
	41-A10	1	10	NONE	NONE	3144-040	284.70
	41-A12	1	12	NONE	NONE	3144-045	336.70
	41-A16-3	1	16	1-7/8	1	3144-050	409.50
	41-1/4-A8	1-1/4	8	NONE	NONE	3144-055	297.70
	41-1/4-A10	1-1/4	10	NONE	NONE	3144-060	331.50
	41-1/4-A12	1-1/4	12	NONE	NONE	3144-065	357.50
	41-1/4-A16-3	1-1/4	16	1-7/8	1	3144-070	414.70
50 NST (1-8)	50-7/8-A10	7/8	10	NONE	NONE	3144-075	334.10
	50-7/8-A18-4	7/8	18	2-1/8	1	3144-080	492.70
	51-A8	1	8	NONE	NONE	3144-085	278.20
	51-A12	1	12	NONE	NONE	3144-090	371.80
	51-18-4	1	18	2-1/8	1	3144-095	491.40
	51-1/4-A8	1-1/4	8	NONE	NONE	3144-100	302.90
	51-1/4-A12	1-1/4	12	NONE	NONE	3144-105	426.40
	51-1/4-A18-4	1-1/4	18	2-1/8	1	3144-110	518.70

Style B



TAPER (THREADS FOR DRAW BAR)	ARBOR NO.	ARBOR DIAM.	LG'TH OF SHOULDER TO NUT	DIAM. OF RUNNING BUSHINGS	BUSHINGS FURNISHED	ORDER NO.	PRICE EACH
30 NST (1/2-13)	31 B2	1	2	NONE	NONE	3144-205	\$ 188.50
40 NST (5/8-11)	40-7/8-B14-3	7/8	14	1-7/8	1	3144-210	292.50
	40-7/8-B16-3	7/8	16	1-7/8	1	3144-215	357.50
	41 B-3	1	3	NONE	NONE	3144-220†	178.10
	41 B14-3	1	14	1-7/8	1	3144-225	409.50
	41 B20-3	1	20	1-7/8	1	3144-230	474.50
	41-1/4-B-3	1-1/4	3	NONE	NONE	3144-235†	188.50
	41-1/4-B14-3	1-1/4	14	1-7/8	1	3144-240	414.70
	41-1/4-B20-3	1-1/4	20	1-7/8	1	3144-245	505.70
50 NST (1-8)	41-1/2-B20-4	1-1/2	20	2-1/8	1	3144-250	585.00
	51B-3-1/2	1	3-1/2	NONE	NONE	3144-255†	218.40
	51B15-4	1	15	2-1/8	1	3144-260	396.50
	51B18-4	1	18	2-1/8	2	3144-265	444.60
	51B24-4	1	24	2-1/8	2	3144-270	518.70
	51-1/4-B15-4	1-1/4	15	2-1/8	1	3144-280	451.10
	51-1/4-B18-4	1-1/4	18	2-1/8	2	3144-285	474.50
	51-1/4-B24-4	1-1/4	24	2-1/8	2	3144-290	551.20
	51-1/4-B30-4	1-1/4	30	2-1/8	2	3144-295	692.90
	51-1/2-B3-1/2	1-1/2	3-1/2	NONE	NONE	3144-300†	250.90
	51-1/2-B18-4	1-1/2	18	2-1/8	2	3144-305	787.80
	51-1/2-B24-5	1-1/2	24	2-3/4	2	3144-310	611.00
	51-1/2-B30-5	1-1/2	30	2-3/4	2	3144-315	744.90
	52-B24-5	2	24	2-3/4	2	3144-325	744.90
	52-B30-5	2	30	2-3/4	2	3144-330	843.70
	52-B36-5	2	36	2-3/4	2	3144-335	936.00
	52-1/2-B36-6	2-1/2	36	3-3/8	2	3144-340	1430.00

† Limited Quantities

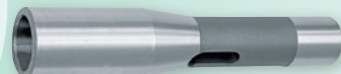
Slitting Saw & Milling Machine Arbor



ARBOR SHANK	ARBOR DIAM.	LENGTH OF SHOULDER TO NUT	ORDER NO.	PRICE EACH
R8	1	2	3142-010	\$154.70
R8	1-1/4	2	3142-012	168.36

Milling Machine Adaptors

R8 to Morse Taper



FROM R8 (MALE)	TO MORSE (FEMALE)	ORDER NO.	PRICE EACH
R8	2	3142-150	\$11.20
R8	3	3142-152	12.60

NST to R8



FROM NST (MALE)	TO R8 (FEMALE)	ORDER NO.	PRICE EACH
40	R8	3142-130	\$194.74
50	R8	3142-132	232.96

NST Adaptors



OUTSIDE TAPER (MALE)	INSIDE TAPER (FEMALE)	ORDER NO.	PRICE EACH
40	30	3142-100	\$156.09
50	30	3142-102	168.64
50	40	3142-104	168.64

Draw Bar Type



FROM NST (MALE) TAPER	TO MORSE (FEMALE) TAPER	DRAW BAR THREADS	ORDER NO.	PRICE EACH
40	2	5/8-11	3142-060	\$102.70
40	3	5/8-11	3142-062	102.70
40	4	5/8-11	3142-064	102.70
40	5	5/8-11	3142-066	128.06
50	2	1-8	3142-068	143.00
50	3	1-8	3142-070	143.00
50	4	1-8	3142-072	143.00
50	5	1-8	3142-074	187.20

NST to MT Open End Type



FROM NST (MALE) TAPER	TO MORSE (FEMALE) TAPER	ORDER NO.	PRICE EACH
40	2	3142-030†	\$102.70
40	3	3142-032†	102.70
40	4	3142-034†	102.70
50	3	3142-036†	143.00
50	4	3142-038†	143.00
50	5	3142-040†	187.20

† Limited Quantities

Arbors, Arbor Bushings & Nuts

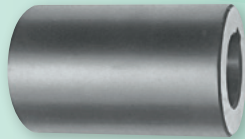
Arbor Solid Spacers - With Keyways

Spacers are hardened and have parallel and perpendicular surfaces precisely ground – accuracy .0002" – to ensure precise operation of cutters on milling machine arbors. Import.



WIDTH OF SPACER	7/8" HOLE-1-3/8" O.D.		1" HOLE-1-1/2" O.D.		1-1/4" HOLE-1-3/4" O.D.		1-1/2" HOLE-2-1/8" O.D.		2" HOLE-2-3/4" O.D.	
	ORDER NO.	PRICE EACH	ORDER NO.	PRICE EACH	ORDER NO.	PRICE EACH	ORDER NO.	PRICE EACH	ORDER NO.	PRICE EACH
1/16	3144-370	\$ 5.14	3144-387	\$ 5.72	3144-404	\$ 6.72	3144-421	\$ 8.52	3144-438	\$ 10.40
3/32	3144-371	5.14	3144-388	5.72	3144-405	6.72	3144-422	8.52	3144-439	10.40
1/8	3144-372	5.14	3144-389	5.72	3144-406	6.72	3144-423	8.52	3144-440	10.40
3/16	3144-373	5.14	3144-390	5.72	3144-407	6.72	3144-424	8.52	3144-441	10.40
1/4	3144-374	5.46	3144-391	6.33	3144-408	7.15	3144-425	9.50	3144-442	11.38
5/16	3144-375	5.92	3144-392	7.10	3144-409	7.87	3144-426	10.54	3144-443	13.00
3/8	3144-376	5.92	3144-393	7.10	3144-410	7.87	3144-427	8.22	3144-444	13.91
7/16	3144-377	7.22	3144-394	8.26	3144-411	8.91	3144-428	12.01	3144-445	15.93
1/2	3144-378	7.61	3144-395	8.26	3144-412	9.93	3144-429	12.88	3144-446	16.90
5/8	3144-379	8.26	3144-396	9.10	3144-413	10.82	3144-430	14.50	3144-447	19.76
3/4	3144-380	9.10	3144-397	10.60	3144-414	12.01	3144-431	15.60	3144-448	21.84
7/8	3144-381	10.14	3144-398	12.39	3144-415	12.88	3144-432	16.45	3144-449	23.92
1	3144-382	10.14	3144-399	12.39	3144-416	13.92	3144-433	18.59	3144-450	23.40
1-1/4	3144-383	11.96	3144-400	14.91	3144-417	15.60	3144-434	20.80	3144-451	25.94
1-1/2	3144-384	12.87	3144-401	17.37	3144-418	17.75	3144-435	22.95	3144-452	31.85
2	3144-385	16.77	3144-402	23.14	3144-419	20.80	3144-436	27.11	3144-453	35.36
3	3144-386	23.73	3144-403	26.53	3144-420	28.17	3144-437	34.19	3144-454	46.74
Width of Key	1/8		1/4		5/16		3/8		1/2	

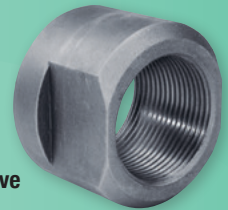
Arbor Running Bushing With Keyways



Bushings are hardened and have parallel and perpendicular surfaces precisely ground – accuracy .0002" – to ensure maximum holding power, rigid setup and accurate machining operations. Bushings have standard keyways which allow fixed mounting on arbor and preventing rotation.

BUSHING NO.	O.D.	HOLE DIA.	LG'TH	ORDER NO.	PRICE EACH
2 - 7/8	1-5/8	7/8	2-5/8	3144-500	\$28.93
2 - 1	1-5/8	1	2-5/8	3144-501	28.93
2 - 1-1/4	1-7/8	1-1/4	2-5/8	3144-502	28.93
3 - 7/8	1-7/8	7/8	3-1/8	3144-503	37.70
3 - 1	1-7/8	1	3-1/8	3144-504	37.70
3 - 1-1/4	1-7/8	1-1/4	3-1/8	3144-505	37.70
4 - 7/8	2-1/8	7/8	3-3/4	3144-506	56.55
4 - 1	2-1/8	1	3-3/4	3144-507	56.55
4 - 1-1/4	2-1/8	1-1/4	3-3/4	3144-508	56.55
4 - 1-1/2	2-1/8	1-1/2	3-3/4	3144-509	56.55
5 - 7/8	2-3/4	7/8	4-1/4	3144-510	71.50
5 - 1	2-3/4	1	4-1/4	3144-511	71.50
5 - 1-1/4	2-3/4	1-1/4	4-1/4	3144-512	71.50
5 - 1-1/2	2-3/4	1-1/2	4-1/4	3144-513	71.50
5 - 2	2-3/4	2	4-1/4	3144-514	71.50

Nuts For Milling Machine Arbors



Arbor nuts are hardened and have a ground thread and shoulder

SIZE	FOR ARBOR DIA.	RH ORDER NO.	PRICE EACH
7/8 - 14	7/8	3144-530	\$35.36
1 - 14	1	3144-532	42.32
1-1/4 - 12	1-1/4	3144-534	48.35
1-1/2 - 12	1-1/2	3144-536	86.68
2 - 12	2	3144-538	110.32
2-1/2 - 12	2-1/2	3144-540	176.80

Arbor Spacers and Shims 2

• Shims DO NOT have a keyway, spacers DO have a keyway

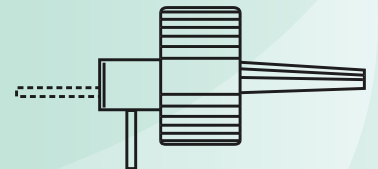
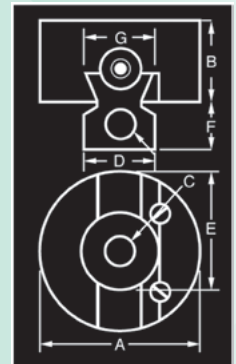
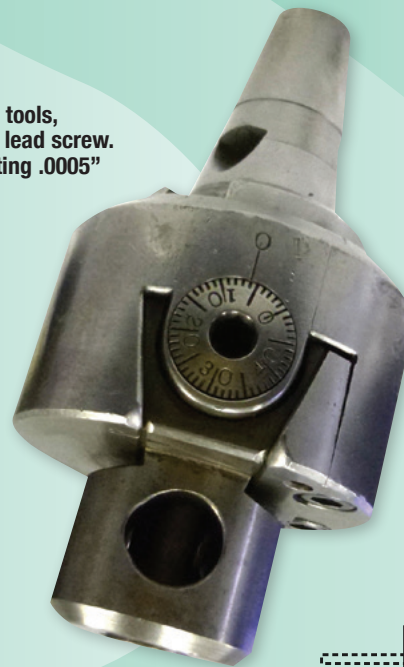
- Assortments contain one each of the 19 different thicknesses
- SIZES: .001, .0015, .002, .003, .004, .005, .006, .007, .008, .010, .012, .015, .020, .025, .031, .047, .062, .093, .125
- Used for fast, accurate spacing of milling cutters, gang cutters, saws, slitting blades, and grinding tools
- Special sizes, materials, and bulk quantities available on request
- Made of high quality Steel Shim • Finish can be #2 bright or matte • Keyways conform to American standards
- Packaged in airtight poly bags • 10 pieces per bag (except assortments)

SPACERS (WITH KEYWAY) ASSORTMENT	(3/8 ID x 5/8 OD)		(1/2 ID x 3/4 OD)		(5/8 ID x 1 OD)		(3/4 ID x 1-1/8 OD)		(1 ID x 1-1/2 OD)	
	ORDER	PRICE	ORDER	PRICE	ORDER	PRICE	ORDER	PRICE	ORDER	PRICE
	NUMBER	EACH	NUMBER	EACH	NUMBER	EACH	NUMBER	EACH	NUMBER	EACH
19 pcs.	3234-120	\$ 22.05	3234-140	\$ 28.79	3234-160	\$ 34.53	3234-180	\$ 31.18	3234-220	\$ 33.10
SHIMS (WITHOUT KEYWAY) ASSORTMENT	(3/8 ID x 5/8 OD)		(1/2 ID x 3/4 OD)		(5/8 ID x 1 OD)		(3/4 ID x 1-1/8 OD)		(1 ID x 1-1/2 OD)	
	ORDER	PRICE	ORDER	PRICE	ORDER	PRICE	ORDER	PRICE	ORDER	PRICE
	NUMBER	EACH	NUMBER	EACH	NUMBER	EACH	NUMBER	EACH	NUMBER	EACH
19 pcs.	3235-120	\$ 13.67	3235-140	\$ 13.67	3235-160	\$ 16.76	3235-180	\$ 19.53	3235-220	\$ 23.66

40 Series

Flynn's 40 Series designs offer a wide range of sizes and provisions for holding tools, perpendicular or parallel. All boring heads are standard with 20 TPI micrometer lead screw. .001" per graduation of screw dial. A 40 TPI is available at an extra cost permitting .0005" per graduation of the screw dial.

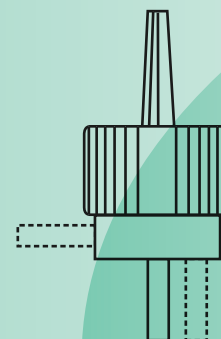
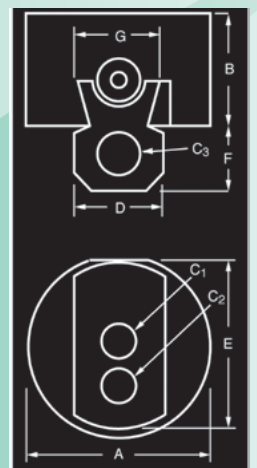
Dimensions and Specifications	No. 43	No. 43B	No. 45	No. 47	No. 48
A-Body Diameter	2-3/4"	2-3/4"	4"	4-1/2"	5"
B-Body Length	2"	2"	2-1/8"	2-5/8"	2-5/8"
C-Bar-Tool Capacity	1/2"	5/8"	3/4"	1"	1-1/4"
D-Tool Block	1-1/2"	1-1/2"	2"	2-1/2"	2-3/4"
E-Extension Length	1-7/8"	1-7/8"	2-3/4"	3"	3-3/8"
F-Extension Width	1-1/8"	1-1/8"	1-1/2"	1-3/4"	2"
G-Extends Past Body	1-1/4"	1-1/4"	1-7/8"	2-1/4"	2-1/2"
Bar Offset	5/8"	5/8"	1"	1"	1-1/4"
Bar or Tool Grip	1-1/2"	1-1/2"	2"	2-1/2"	2-3/4"
Dovetail Depth	7/8"	7/8"	1"	1-1/4"	1-1/4"
Net Weight	3 lbs.	3 lbs.	8 lbs.	12 lbs	15 lbs
Shank Series	175	175	175	250	250
Order No.	3157-015	3157-020	3157-025	3157-030	3157-035
Price Each Without Shank	\$475.00	\$475.00	\$500.00	\$700.00	\$900.00



60 Series

The 60 Series features a long and stockier tool block for better securing the tool, particularly horizontal position (Number 63,65 and 67). The horizontal hole is broached for holding either round or square tools. The two vertical mount holes are made possible by the logger tool block, one is centered in the block and the second is offset, greatly increasing the amount of overall offset that can be obtained. A vernier on the body facilitates adjustment of the micrometer offset screw, making possible extremely close visual offset adjustment. 20TPI micrometer lead screw is standard. 40TPI micrometer lead screw is available at extra cost.

Dimensions and Specifications	No. 63	No. 65	No. 67	No. 67B	No. 68
A-Body Diameter	2-3/4"	4"	5"	5"	8"
B-Body Length	2"	2-1/2"	3-1/8"	3-1/8"	3-1/8"
C1-Bar-Tool Capacity	1/2"	3/4"	1"	1-1/4"	2"
C1-Bar-Tool Capacity	5/8"	3/4"	1"	1-1/4"	2"
C3-Bar-Tool Capacity	1/2sq"	3/4sq"	1sq"	1-1/4"	2"
D-Tool Block	1-1/2"	2"	2-1/2"	2-1/2"	3"
E-Tool Block	2-5/8"	3-3/4"	4-13/16"	4-13/16"	7-1/2"
F-Tool Block	1-1/8"	1-1/2"	1-3/4"	2-1/8"	2-3/4"
G-Tool Block	1-1/4"	1-7/8"	2-1/4"	2-1/2"	3"
Bar Offset	5/8"	7/8"	1-5/16"	1-3/8"	1-3/4"
Bar Offset	1/2 back from Center	Eachway	Eachway	Eachway	2-5/8 Back from Center
Bar Grip C-1,C-2	1-1/2"	2"	2-1/2"	2-1/2"	3-5/16"
Bar Grip C-3	2-5/8"	3-3/4"	4-13/16"	4-13/16"	-
Dovetail Depth	7/8"	1"	1-1/4"	1-1/4"	1-1/4"
Net Weight	3-3/4 lbs.	9-1/2 lbs.	19 lbs.	20 lbs.	52 lbs.
Shank Series	175	250	250	250	250
Order No.	3157-045	3157-050	3157-055	3157-060	3157-065
Price Each Without Shank	\$525.00	\$750.00	\$1200.00	\$1250.00	\$3350.00

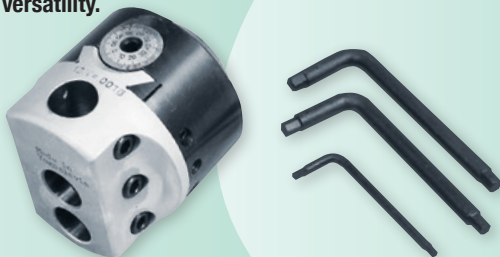


Boring Heads



Boring Heads

- Wide bearing surface assures maximum rigidity even when the bar is in an offset position.
- Features direct reading dial.
- Threaded back will accept a variety of shanks.
- Two vertical and one horizontal holes.
- Provides great versatility.



ACTUAL SIZE	OVERALL LGTH.	BORING BAR HOLE SIZE	CENTER DIST. BETWEEN HOLES	CROSS HOLE DIA.	OFFSET	THREAD BACK	ORDER NO.	PRICE EACH
2"	2-13/32"	1/2"	5/8"	1/2"	5/8"	7/8-20	3157-405	\$101.35
3"	3-5/32"	3/4"	15/16"	3/4"	1"	1-1/2 -18	3157-410	141.25
4"	3-3/4"	1"	1-1/4"	1"	1-5/8"	-	3157-415	217.00

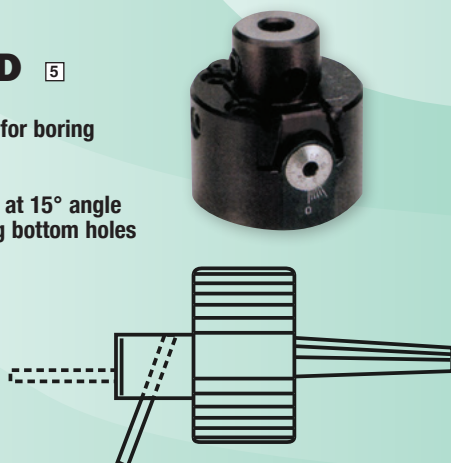
Boring Head Shanks

FOR 2" HEAD	ORDER NO.	PRICE EACH	FOR 3" & 4" HEAD	ORDER NO.	PRICE EACH
2MTS Draw Bar	3157-490	\$23.50	3MTS Tang	3157-430	\$29.50
2MT Tang	3157-495	23.50	4MTS Tang	3157-435	29.50
3MT Tang	3157-500	23.50	5MTS Tang	3157-440	29.50
4MT Tang	3157-505	23.50	1" Straight	3157-445	24.95
1/2" Straight	3157-510	11.95	1-1/4" Straight	3157-450	24.95
1" Straight	3157-515	11.95	1-1/2" Straight	3157-455	24.95
R8 Bridgeport	3157-520	25.00	R8 Bridgeport	3157-460	29.50

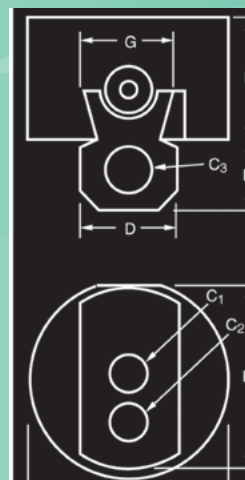
Flynn Number 25-ED

With two-way tool holder for boring small and large holes.

Square cross hole (1/2) is at 15° angle to slide to facilitate boring bottom holes and for fly cutting.



Dimensions and Specifications	No.25-ED
A-Body Diameter	2-3/4"
B-Body Length	2"
C-Bar-Tool Capacity	1/2"
D-Tool Block	1-1/2"
E-Extension Length	1-7/8"
F-Extension Width	1-1/8"
G-Extends Past Body	1-1/4"
Bar Offset	5/8"
Bar or Tool Grip	1-1/2"
Dovetail Depth	7/8"
Net Weight	3 lbs.
Shank Series	175
Order No.	3157-010
Price Each Without Shank	\$475.00



Arbors for Flynn Boring Heads



Shank Series 175 1-7/16-12			Shank Series 250 2-12		
Order No.	Price Each		Order No.	Price Each	
Morse Taper					
2MT	3157-170	\$250.00	-	-	
3MT	3157-175	250.00	-	-	
4MT	3157-180	250.00	3157-275	\$250.00	
5MT	3157-185	250.00	3157-280	250.00	
6MT	-	-	3157-285	600.00	
7MT	-	-	3157-290	700.00	
Bridgeport Taper					
R-8	3157-235	160.00	-	-	

Shank Series 175 1-7/16-12		
Order No.	Price Each	
Straight Shank		
3/4 x 4	3157-245	\$250.00
1 x 4	3157-250	250.00
1-1/4 x 4	3157-255	250.00
1-1/2 x 4	3157-260	250.00
2 x 6	3157-265	250.00

Shank Series 175 1-7/16-12			Shank Series 250 2-12		
Order No.	Price Each		Order No.	Price Each	
Standard Taper					
40 5/8-11	3157-220	\$450.00	3157-315	\$450.00	
50 1-8	3157-225	500.00	3157-320	500.00	
Moore	3157-230	100.00	-	-	

Flynn Boring Head Sets

Set includes R8 Shank, 5 Tools & Case

BORING HEAD NUMBER	HEAD DIA.	BORING BAR HOLE SIZE	SHANK SIZE	ORDER NO.	PRICE EACH
25ED-Set	2-3/4	1/2	R-8	3157-080	\$475.00
43-Set	2-3/4	1/2	R-8	3157-085	475.00
63-Set	2-3/4	1/2-5/8	R-8	3157-090	575.00
43B-Set	2-3/4	5/8	R-8	3157-095	475.00
63B-Set	2-3/4	3/4	R-8	3157-100	575.00



Fly Cutters & Toolholders

Fly Cutter Sets



3

SHANK SIZE	HEAD DIA.	TOOL BIT SIZE	ORDER NO.	PRICE EACH
1/2	3/4	3/16	3143-301	\$20.70
	1-1/8	1/4		
	1-1/2	5/16		
3/4	1-1/2	5/16	3143-302	35.20
	2	5/16		
	2-1/2	5/16		

R8 Shank Fly Tool Cutter



- Counterbalanced to get smoother finishes
- Made of Hardened Steel
- Quality Import

3

TOOL BIT SIZE	HEAD DIA.	ORDER NO.	PRICE EACH
3/8	2-1/2"	3143-300	\$32.90

5 Piece Fly Cutter Set



3

- (4) tools with 3/16", 1/4", 5/16" & 3/8" tool bit capacity have 1/2" shanks
- (1) tool with 1/2" tool bit capacity has 5/8" shank
- Attractive wooden stand included.

Order No. 3143-303 Price Each...\$49.25

Carbide Tool Holders For Carbide Tipped Square Tool Bits



3

TOOL BIT SIZE	ORDER NUMBER			PRICE EACH
	STRAIGHT	RIGHT HAND	LEFT HAND	
1/4	3143-015	3143-001	3143-008	\$44.99
5/16	3143-016	3143-002	3143-009	51.14
3/8	3143-017	3143-003	3143-010	59.31
7/16	3143-018	3143-004	3143-011	69.30
1/2	3143-019	3143-005	3143-012	85.89
5/8	3143-020	3143-006	3143-013	151.33
3/4	3143-021	3143-007	3143-014	213.07

Turning Tool Holders

2

TOOL BIT SIZE	ORDER NUMBER			PRICE EACH
	STRAIGHT SHANK	RIGHT HAND	LEFT HAND	
3/16	3143-102	3143-120	3143-111	\$29.10
1/4	3143-103	3143-121	3143-112	31.06
5/16	3143-104	3143-122	3143-113	34.61
3/8	3143-105	3143-123	3143-114	38.93
7/16	3143-106	3143-124	3143-115	46.40
1/2	3143-107	3143-125	3143-116	59.77
5/8	3143-108	3143-126	3143-117	102.25
3/4	3143-109	3143-127	3143-118	133.71



Right Hand



Left Hand



Straight Shank

Cut Off Tool Holders

2

TOOL BIT SIZE	ORDER NUMBER			PRICE EACH
	STRAIGHT SHANK	RIGHT HAND	LEFT HAND	
3/32 x 1/2	3143-217	3143-201	3143-209	\$9.50
3/32 x 5/8	3143-218	3143-202	3143-210	10.70
1/8 x 3/4	3143-219	3143-203	3143-211	12.85
1/8 x 7/8	3143-220	3143-204	3143-212	17.95
3/16 x 1	3143-221	3143-205	3143-213	25.65
3/16 x 1-1/8	3143-222	3143-206	3143-214	34.90
1/4 x 1-1/4	3143-223	3143-207	3143-215	41.85
1/4 x 1-3/8	3143-224	-	-	52.45



Straight Shank



Left Hand



Right Hand

Machine Accessories

Drawbars for Mills

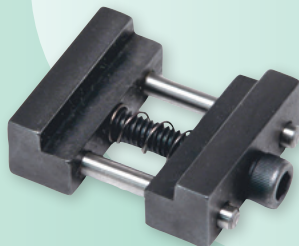
- Made of cold rolled steel.
- Black oxide plated.
- Made in U.S.A.



FITS MILLING MACHINE	ORDER NUMBER	PRICE EACH
1J Step Pulley	3143-420	\$32.60
2J Step Pulley	3143-421	36.40
Lagun Vari Speed	3143-424	58.60
Wells Index Vari Speed	3143-425	49.90

Easy Vise Stop

- Made from hardened steel with Black Oxide coating.
- Stop is 1" wide by 1-7/16" long.
- Made in U.S.A.



ORDER NO.	PRICE EACH
3143-407	\$10.50

Vise Speed Handle

For 6" Kurt Style Milling Machine Vises

- Made in U.S.A.

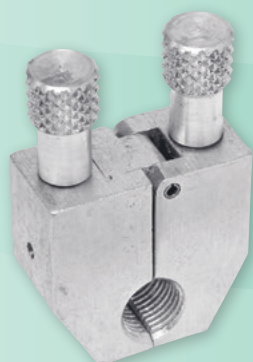


DESCRIPTION	ORDER NUMBER	PRICE EACH
Fits 6" Vise (3/4" Hex)	3143-412	\$27.80

Quill Stop

For All Milling Machines

- Quickly Sets Quill Depth.
- 1/2 - 20 threads for Mills.
- Made in U.S.A.



ORDER NO.	PRICE EACH
3143-417	\$12.30

Universal 5C Collet Stop



ORDER NO.	PRICE EACH
3143-401	\$28.87

Spider Handle for Mills

- Sturdy construction features a solid aluminum center with protective plating, and 3 heavy duty solid steel spokes and knobs.
- Black Oxide Plated.
- Made in U.S.A.



ORDER NO.	PRICE EACH
3143-415	\$27.80

Quill Feed Handle -

For all Bridgeport type Milling Machines

- All steel construction with heavy duty spring action.
- All parts Black Oxide Plated.
- Made in U.S.A.



ORDER NO.	PRICE EACH
3143-416	\$25.40

Adjustable Mill Stop

- 1/2" hole for T Slot mounting
- Rod 3/8" Diameter x 9-1/2".
- Base 2" x 4-1/2".
- Steel, Black Oxide Plated".



ORDER NO.	PRICE EACH
3143-408	\$25.10

5C Precision Chucks

Includes 2 sets of hardened steel jaws (internal & external) for increased clamping range.

- Made in U.S.A.



CHUCK DIAM.	T. I. R. REPEATABILITY	DESCRIPTION	ORDER NO.	PRICE EACH
3"	.003	3 Jaw - Self Centering	3143-440	\$250.00
3"	.005	4 Jaw - Independent	3143-442	200.00
4"	.003	3 Jaw -Self Centering	3143-444	250.00

Expanding Arbors

A handy accessory for Lathe Collets



DESCRIPTION	ORDER NUMBER	PRICE EACH
8 pc. Set - 1/4" to 1-1/4" in Wooden Stand	3143-438	\$69.40
3 pc. Set - 1-1/2" to 2" in Wooden Stand	3143-433	73.90

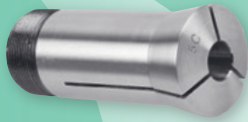
5C Adjustable Collet Stop

- Steel with Black Oxide plating.
- Quality Import



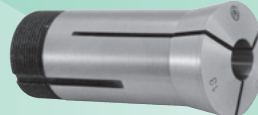
ORDER NO.	PRICE EACH
3143-402	\$9.63

Collets



5C Round Collets

SIZE	ORDER NO.	PRICE EACH	SIZE	ORDER NO.	PRICE EACH
1/16	3155-104	\$11.66	39/64	3155-139	\$11.66
5/64	3155-105	11.66	5/8	3155-140	11.66
3/32	3155-106	11.66	41/64	3155-141	11.66
7/64	3155-107	11.66	21/32	3155-142	11.66
1/8	3155-108	11.66	43/64	3155-143	11.66
9/64	3155-109	11.66	11/16	3155-144	11.66
5/32	3155-110	11.66	45/64	3155-145	11.66
11/64	3155-111	11.66	23/32	3155-146	11.66
3/16	3155-112	11.66	47/64	3155-147	11.66
13/64	3155-113	11.66	3/4	3155-148	11.66
7/32	3155-114	11.66	49/64	3155-149	11.66
15/64	3155-115	11.66	25/32	3155-150	11.66
1/4	3155-116	11.66	51/64	3155-151	11.66
17/64	3155-117	11.66	13/16	3155-152	11.66
9/32	3155-118	11.66	53/64	3155-153	11.66
19/64	3155-119	11.66	27/32	3155-154	11.66
5/16	3155-120	11.66	55/64	3155-155	11.66
21/64	3155-121	11.66	7/8	3155-156	11.66
11/32	3155-122	11.66	57/64	3155-157	11.66
23/64	3155-123	11.66	29/32	3155-158	11.66
3/8	3155-124	11.66	59/64	3155-159	11.66
25/64	3155-125	11.66	15/16	3155-160	11.66
13/32	3155-126	11.66	61/64	3155-161	11.66
27/64	3155-127	11.66	31/32	3155-162	11.66
7/16	3155-128	11.66	63/64	3155-163	11.66
29/64	3155-129	11.66	1	3155-164	11.66
15/32	3155-130	11.66	1-1/64	3155-165	11.66
31/64	3155-131	11.66	1-1/32	3155-166	11.66
1/2	3155-132	11.66	1-3/64	3155-167	11.66
33/64	3155-133	11.66	1-1/16	3155-168	11.66
17/32	3155-134	11.66	1-5/64	3155-169	11.66
35/64	3155-135	11.66	1-3/32	3155-170	11.66
9/16	3155-136	11.66	1-7/64	3155-171	11.66
37/64	3155-137	11.66	1-1/8	3155-172	11.66
19/32	3155-138	11.66	-	-	-



5C Round Collets

- Max runout of 0.02mm (0.0007")
- Max clamping range of Nominal Diameter – 0.2mm

SIZE	ORDER NO.	PRICE EACH	SIZE	ORDER NO.	PRICE EACH
1/16	3156-404	\$33.00	39/64	3156-439	\$33.00
5/64	3156-405	33.00	5/8	3156-440	33.00
3/32	3156-406	33.00	41/64	3156-441	33.00
7/64	3156-407	33.00	21/32	3156-442	33.00
1/8	3156-408	33.00	43/64	3156-443	33.00
9/64	3156-409	33.00	11/16	3156-444	33.00
5/32	3156-410	29.00	45/64	3156-445	33.00
11/64	3156-411	33.00	23/32	3156-446	33.00
3/16	3156-412	33.00	47/64	3156-447	33.00
13/64	3156-413	33.00	3/4	3156-448	33.00
7/32	3156-414	33.00	49/64	3156-449	33.00
15/64	3156-415	33.00	25/32	3156-450	29.00
1/4	3156-416	33.00	51/64	3156-451	33.00
17/64	3156-417	33.00	13/16	3156-452	33.00
9/32	3156-418	33.00	53/64	3156-453	33.00
19/64	3156-419	33.00	27/32	3156-454	33.00
5/16	3156-420	29.00	55/64	3156-455	33.00
21/64	3156-421	33.00	7/8	3156-456	33.00
11/32	3156-422	33.00	57/64	3156-457	33.00
23/64	3156-423	33.00	29/32	3156-458	33.00
3/8	3156-424	33.00	59/64	3156-459	33.00
25/64	3156-425	33.00	15/16	3156-460	29.00
13/32	3156-426	33.00	61/64	3156-461	33.00
27/64	3156-427	33.00	31/32	3156-462	33.00
7/16	3156-428	33.00	63/64	3156-463	33.00
29/64	3156-429	33.00	1	3156-464	33.00
15/32	3156-430	29.00	1-1/64	3156-465	33.00
31/64	3156-431	33.00	1-1/32	3156-466	33.00
1/2	3156-432	33.00	1-3/64	3156-467	33.00
33/64	3156-433	33.00	1-1/16	3156-468	33.00
17/32	3156-434	33.00	-	-	-
35/64	3156-435	33.00	-	-	-
9/16	3156-436	33.00	-	-	-
37/64	3156-437	33.00	1-1/8	3156-472	33.00
19/32	3156-438	33.00	-	-	-



5C Sets Without stands



SIZE	ORDER NO.	PRICE EACH
5C 1/16 - 1-1/8 by 16ths	3156-005	\$211.84
5C 1/16 - 1-1/8 by 32nds	3156-010	233.60
5C 1/16 - 1-1/8 by 64ths	3156-015	460.60



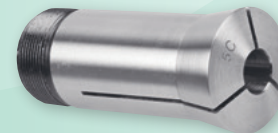
5C Set Without stand



SIZE	ORDER NO.	PRICE EACH
5C 1/16 - 1-1/8 by 16ths	3156-482	\$561.00



Metric 5C Collets



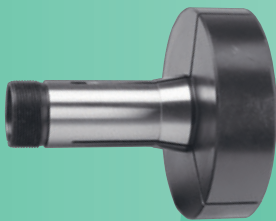
SIZE	ORDER NO.	PRICE EA.
3.0mm	3156-506	\$13.46
4.0mm	3156-508	13.46
5.0mm	3156-510	13.46
6.0mm	3156-512	13.46
7.0mm	3156-514	13.46
8.0mm	3156-516	13.46
9.0mm	3156-518	13.46
10.0mm	3156-520	13.46
11.0mm	3156-522	13.46
12.0mm	3156-524	13.46
13.0mm	3156-526	13.46
14.0mm	3156-528	13.46
15.0mm	3156-530	13.46
16.0mm	3156-532	13.46
17.0mm	3156-534	13.46
18.0mm	3156-536	13.46
19.0mm	3156-538	13.46
20.0mm	3156-540	13.46
21.0mm	3156-542	13.46
22.0mm	3156-544	13.46
23.0mm	3156-546	13.46
24.0mm	3156-548	13.46
25.0mm	3156-550	13.46

Metric 5C Set Without stand

SIZE	ORDER NO.	PRICE EACH
5C 3-25mm x 1mm	3156-582	\$ 167.90

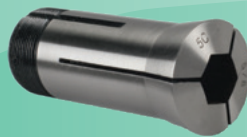


5C Step Collets



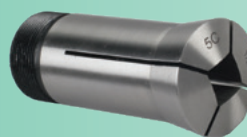
SIZE	ITEM NO.	PRICE EACH
5C Step Collet 2" Head	3156-302	\$57.89
5C Step Collet 3" Head	3156-303	70.32
5C Step Collet 4" Head	3156-304	106.49
5C Step Collet 5" Head	3156-305	122.44
5C Step Collet 6" Head	3156-306	171.97

5C Hex Collets



SIZE	ITEM NO.	PRICE EACH
1/8	3155-208	\$38.80
3/16	3155-212	38.80
1/4	3155-216	38.80
5/16	3155-220	38.80
3/8	3155-224	38.80
7/16	3155-228	38.80
1/2	3155-232	38.80
9/16	3155-236	38.80
5/8	3155-240	38.80
11/16	3155-244	38.80
3/4	3155-248	38.80
13/16	3155-252	38.80
7/8	3155-256	38.80
15/16	3155-260†	38.80

5C Square Collets



SIZE	ITEM NO.	PRICE EACH
1/8	3155-308	\$38.80
3/16	3155-312	38.80
1/4	3155-316	38.80
5/16	3155-320	38.80
3/8	3155-324	38.80
7/16	3155-328	38.80
1/2	3155-332	38.80
9/16	3155-336	38.80
5/8	3155-340	38.80
11/16	3155-344	38.80
3/4	3155-348	38.80
13/16	3155-352†	21.10

† Limited Quantities

† Limited Quantities

Collets

2



R8 Round Collets



SIZE	ORDER NO.	PRICE EACH	SIZE	ORDER NO.	PRICE EACH
1/16	3155-404	\$10.92	1/2	3155-432	\$10.92
3/32	3155-406	10.92	17/32	3155-434	10.92
1/8	3155-408	10.92	9/16	3155-436	10.92
5/32	3155-410	10.92	19/32	3155-438	10.92
3/16	3155-412	10.92	5/8	3155-440	10.92
7/32	3155-414	10.92	21/32	3155-442	10.92
1/4	3155-416	10.92	11/16	3155-444	10.92
9/32	3155-418	10.92	23/32	3155-446	10.92
5/16	3155-420	10.92	3/4	3155-448	10.92
11/32	3155-422	10.92	25/32	3155-450	10.92
3/8	3155-424	10.92	13/16	3155-452	10.92
13/32	3155-426	10.92	27/32	3155-454	10.92
7/16	3155-428	10.92	7/8	3155-456	10.92
15/32	3155-430	10.92	1	3155-458	11.75



R8 Round Collets



- Max runout of 0.02mm (0.0007")
- Max clamping range of Nominal Diameter – 0.2mm

SIZE	ORDER NO.	PRICE EACH	SIZE	ORDER NO.	PRICE EACH
3/32	3156-606	\$36.00	1/2	3156-632	\$36.00
1/8	3156-608	36.00	17/32	3156-634	36.00
5/32	3156-610	36.00	9/16	3156-636	36.00
3/16	3156-612	36.00	19/32	3156-638	36.00
7/32	3156-614	36.00	5/8	3156-640	36.00
1/4	3156-616	36.00	21/32	3156-642	36.00
9/32	3156-618	36.00	11/16	3156-644	36.00
5/16	3156-620	36.00	23/32	3156-646	36.00
11/32	3156-622	36.00	3/4	3156-648	36.00
3/8	3156-624	36.00	25/32	3156-650	36.00
13/32	3156-626	36.00	7/8	3156-656	36.00
7/16	3156-628	36.00	1	3156-664	36.00
15/32	3156-630	36.00	-	-	-



Metric R8 Collets



SIZE	ORDER NO.	PRICE EACH
3mm	3156-706	\$ 27.12
4mm	3156-708	27.12
5mm	3156-710	27.12
6mm	3156-712	27.12
7mm	3156-714	27.12
8mm	3156-716	27.12
9mm	3156-718	27.12
10mm	3156-720	27.12
11mm	3156-722	27.12
12mm	3156-724	27.12
13mm	3156-726	27.12
14mm	3156-728	27.12
15mm	3156-730	27.12
16mm	3156-732	27.12
17mm	3156-734	27.12
18mm	3156-736	27.12
19mm	3156-738	27.12
20mm	3156-740	27.12



R8 Sets Without stands

SIZE	ORDER NO.	PRICE EACH
R8 1/8 - 7/8 by 8ths	3156-120	\$ 65.00
R8 1/8 - 7/8 by 16ths	3156-125	130.00
R8 1/8 - 7/8 by 32nds	3156-130	225.00

R8 Set Without stand



SIZE	ORDER NO.	PRICE EACH
R8 3/32 - 7/8 by 32nds*	3156-676	\$828.00

*Excludes 13/16 and 27/32



Metric R8 Set Without stand

SIZE	ORDER NO.	PRICE EACH
R8 3mm - 20mm x 1mm	3156-762	\$115.20



5C Universal Collet Stop

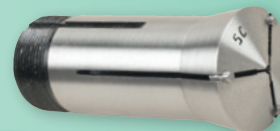


- Converts Standard 1" capacity Lathe Collets into Solid Stop or Spring Ejector Stop Collets without alteration of the Standard Collet.
- Fits directly into Collet. • Shiny Black Finish.

Order No. 3143-401 Price Each: \$28.87



5C Emergency Collet



Order No. 3156-201
Price Each: \$10.60



5C Brass Emergency Collet



Order No. 3156-202
Price Each: \$69.87



Collet Racks

- Angled for visibility and easier selection of stored collets
- Tough, solvent free, epoxy finish: Ecolo-Clad for long-lasting protection
- Mounted on bench top • Heavy gauge steel



Order No. 1919-545 Price Each: \$52.00

Holds up to 30 pieces 5C Collets.
Dimensions: Top 9"W x 12" D. Wt. 3 lbs.

Order No. 1919-550 Price Each: \$52.00

Holds up to 16 pieces R8 Collets.
Dimensions: Top 5 1/4"W x 9" D. Wt. 2 lbs.



5C Adjustable Collet Stop



- Fully threaded.
- For Chucking Parts to a depth of 3" from face of collet.
- Shiny Black Finish.

Order No. 3143-402 Price Each: \$9.63



3C Collets

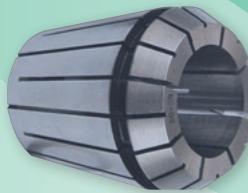


SIZE	ORDER NO.	PRICE EA.
1/16	3154-904	\$54.00
9/64	3154-909	54.00
-	-	-
17/64	3154-917	54.00
9/32	3154-918	54.00
19/64	3154-919	54.00

SIZE	ORDER NO.	PRICE EA.
21/64	3154-921	\$54.00
-	-	-
23/64	3154-923	54.00
-	-	-
31/64	3154-931	54.00

ER Collets & Chucks

- Unique 8 degree taper design provides highest gripping power
- 16 Jaws give powerful gripping and parallel clamping
- True double angle for extreme concentricity



SIZES	NOMINAL SIZE (IN.)	COLLET RANGE (IN.) MIN-MAX	COLLET RANGE (MM.) MIN - MAX	ER11		ER16		ER 20		ER25		ER32		ER40	
				ORDER NO.	PRICE EACH	ORDER NO.	PRICE EACH	ORDER NO.	PRICE EACH	ORDER NO.	PRICE EACH	ORDER NO.	PRICE EACH	ORDER NO.	PRICE EACH
1/32"	1/32	0.020 - 0.040	0.5 - 1.0	3156-801	\$18.00	3156-811	\$20.00	-	-	-	-	-	-	-	-
1/16"	3/64, 1/16, 5/64	0.040 - 0.080	1.0 - 2.0	3156-802	18.00	3156-812	20.00	3156-832	\$20.00	3156-852	\$20.00	-	-	-	-
3/32"	3/32, 7/64	0.080 - 0.120	2.0 - 3.0	3156-803	18.00	3156-813	20.00	3156-833	20.00	3156-853	20.00	3156-883	\$22.00	-	-
1/8"	1/8, 9/64, 5/32	0.120 - 0.160	3.0 - 4.0	3156-804	18.00	3156-814	20.00	3156-834	20.00	3156-854	20.00	3156-884	22.00	\$24.00	
3/16	11/64, 3/16	0.160 - 0.200	4.0 - 5.0	3156-806	18.00	3156-816	20.00	3156-836	20.00	3156-856	20.00	3156-886	22.00	3156-916	24.00
7/32	13/64, 7/32, 15/64	0.200 - 0.236	5.0 - 6.0	3156-807	18.00	3156-817	20.00	3156-837	20.00	3156-857	20.00	3156-887	22.00	3156-917	24.00
1/4	1/4, 17/64	0.236 - 0.275	6.0 - 7.0	3156-808	18.00	3156-818	20.00	3156-838	20.00	3156-858	20.00	3156-888	22.00	3156-918	24.00
5/16	9/32, 19/64, 5/16	0.275 - 0.315	7.0 - 8.0	-	-	3156-820	20.00	3156-840	20.00	3156-860	20.00	3156-890	22.00	3156-920	24.00
11/32	21/64, 11/32	0.315 - 0.354	8.0 - 9.0	-	-	3156-821	20.00	3156-841	20.00	3156-861	20.00	3156-891	22.00	3156-921	24.00
3/8	23/64, 3/8, 25/64	0.354 - 0.393	9.0 - 10.0	-	-	3156-822	20.00	3156-842	20.00	3156-862	20.00	3156-892	22.00	3156-922	24.00
13/32	13/32, 27/64	0.393 - 0.433	10.0 - 11.0	-	-	-	-	3156-843	20.00	3156-863	20.00	3156-893	22.00	3156-923	24.00
7/16	7/16, 29/64, 15/32	0.433 - 0.472	11.0 - 12.0	-	-	-	-	3156-844	20.00	3156-864	20.00	3156-894	22.00	3156-924	24.00
1/2	31/64, 1/2	0.472 - 0.511	12.0 - 13.0	-	-	-	-	3156-846	20.00	3156-866	20.00	3156-896	22.00	3156-926	24.00
17/32	33/64, 17/32, 35/64	0.511 - 0.551	13.0 - 14.0	-	-	-	-	-	-	3156-867	20.00	3156-897	22.00	3156-927	24.00
9/16	9/16, 37/64	0.551 - 0.590	14.0 - 15.0	-	-	-	-	-	-	3156-868	20.00	3156-898	22.00	3156-928	24.00
5/8	19/32, 39/64, 5/8	0.590 - 0.629	15.0 - 16.0	-	-	-	-	-	-	3156-870	10.85	3156-900	22.00	3156-930	24.00
21/32	41/64, 21/32	0.629 - 0.669	16.0 - 17.0	-	-	-	-	-	-	-	-	3156-901	22.00	3156-931	24.00
11/16	43/64, 11/16, 45/64	0.669 - 0.708	17.0 - 18.0	-	-	-	-	-	-	-	-	3156-902	22.00	3156-932	24.00
3/4	23/32, 47/64, 3/4	0.708 - 0.748	18.0 - 19.0	-	-	-	-	-	-	-	-	3156-904	22.00	3156-934	24.00
25/32	49/64, 25/32	0.748 - 0.787	19.0 - 20.0	-	-	-	-	-	-	-	-	3156-905	11.10	3156-935	24.00
13/16	51/64, 13/16	0.787 - 0.826	20.0 - 21.0	-	-	-	-	-	-	-	-	-	-	3156-936	24.00
27/32	53/64, 27/32	0.826 - 0.866	21.0 - 22.0	-	-	-	-	-	-	-	-	-	-	3156-937	24.00
7/8	7/8, 57/64, 55/64	0.866 - 0.905	22.0 - 23.0	-	-	-	-	-	-	-	-	-	-	3156-938	24.00
15/16	29/32, 59/64, 15/16	0.905 - 0.944	23.0 - 24.0	-	-	-	-	-	-	-	-	-	-	3156-940	24.00
31/32	61/64, 31/32	0.944 - 0.984	24.0 - 25.0	-	-	-	-	-	-	-	-	-	-	3156-941	24.00
1	63/64, 1, 1-1/64	0.984 - 1.020	25.0 - 26.0	-	-	-	-	-	-	-	-	-	-	3156-942	24.00

Sets

- Wooden stand included



	NO. OF SERIES	COLLETS	SIZES	COLLET RANGE MIN-MAX (IN.)	COLLET RANGE MIN-MAX (MM.)	ORDER NO.	PRICE EACH
ER11	7	1/32 to 1/4	0.020 - 0.275	0.5 to 7	3156-963	\$127.25	
ER16	10	1/32 to 3/8	0.020 - 0.393	0.5 to 10	3156-966	91.95	
ER20	12	1/16 to 1/2	0.039 - 0.511	1.0 to 13	3156-969	111.15	
ER25	15	1/16 to 5/8	0.039 - 0.629	1.0 to 16.0	3156-972	146.45	
ER32	18	3/32 to 3/4	0.078 - 0.787	2.0 to 20.0	3156-975	180.40	
ER40	23	1/8 to 1	0.118 - 1.023	3.0 to 26.0	3156-978	255.75	

Morse Taper Shank



SHANK	TYPE	CAPACITY	DRAWBAR END	ORDER NO.	PRICE EACH
MT2	ER-20	.04-.511	3/8-16	3142-650	\$78.00
MT2	ER-25	.04-.629	3/8-16	3142-655	67.00
MT3	ER-32	.08-.787	1/2-13	3142-660	77.00
MT3	ER-40	.12 - 1.02	1/2-13	3142-665	85.00
MT4	ER-40	.12 - 1.02	5/8-11	3142-670	87.00

Straight Shank



SHANK	TYPE	CAPACITY	DRAWBAR END	ORDER NO.	PRICE EACH
5/8 x 2-1/2	ER-11	.02-.275	3/8-16	3142-540	\$64.00
3/4 x 2-1/2	ER-11	.02-.275	3/8-16	3142-545	64.00
3/4 x 4	ER-11	.02-.275	3/8-16	3142-550	64.00
3/4 x 2-1/2	ER-16	.02-.393	3/8-16	3142-555	70.00
3/4 x 4	ER-16	.02-.393	3/8-16	3142-560	72.00
3/4 x 6	ER-16	.02-.393	3/8-16	3142-565	75.00
3/4 x 2-1/2	ER-20	.04-.511	3/8-16	3142-570	66.00
3/4 x 4	ER-20	.04-.511	3/8-16	3142-575	72.00
3/4 x 6	ER-20	.04-.511	3/8-16	3142-580	75.00
3/4 x 2	ER-25	.04-.629	3/8-16	3142-585	72.00
3/4 x 4	ER-25	.04-.629	3/8-16	3142-590	87.00
1 x 2	ER-32	.08-.787	1/2-13	3142-595	66.00
1-1/4 x 6	ER-32	.08-.787	5/8-11	3142-600	89.00
1 x 2-3/8	ER-40	.12 - 1.02	1/2-13	3142-605	95.00
1-1/4 - 2-3/8	ER-40	.12 - 1.02	5/8-11	3142-610	95.00

NST Shank



SHANK	TYPE	CAPACITY	DRAWBAR END	ORDER NO.	PRICE EACH
30	ER-32	.08-.787	1/2-13	3142-510	\$70.00
30	ER-40	.12 - 1.02	1/2-13	3142-520	86.00
40	ER-40	.12 - 1.02	5/8-11	3142-522	88.00

R8 Shank



SHANK	TYPE	CAPACITY	DRAWBAR END	ORDER NO.	PRICE EACH
R8	ER-32	.08-.787	7/16-20	3142-530	\$70.00
R8	ER-40	.12 - 1.02	7-16-20	3142-532	74.00

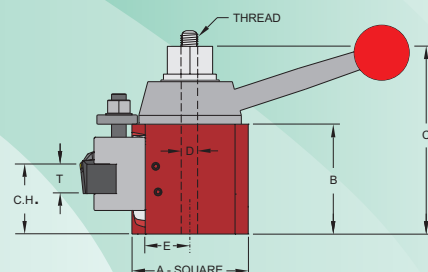
Tool Posts

2

DORIAN TOOL

SUPER Quick Change Tool Post with Triple Action Wedge Style Locking System

- Rigidity • Repeatability • Quality • Zero Backlash
- Triple Action Wedge Style Locking System
- Precise Repeatability within .0001
- 15° Locking Handle Position Adjustment
- Industry-Standard Interchangeable Holders
- Thousands of pounds of locking force with a finger tip



SUPER Quick Change Tool Post

Description	SDN25AXA	SDN30BXA	SDN35CXA	SDN40CA	SDN50DA	SDN60EA
Order Number	8001-000	8001-002	8001-004	8001-006	8001-008	8001-010
Price Each	\$ 671.81	\$ 840.49	\$ 1149.67	\$ 1445.38	\$ 2069.87	\$ 3194.70
Lathe Swing Over Bed	≤12	13-15	14-17	16-20	17-32	≥25
A	2.625	3.000	3.500	4.000	5.000	6.000
B	2.500	2.750	3.250	3.750	4.625	5.000
C	4.240	4.710	5.650	6.335	7.435	8.060
D	0.500	0.625	0.750	0.875	1.000	1.125
E	0.880	1.115	1.199	1.530	1.900	2.207
T-Tool Capacity*	1/2-3/4	5/8-1.0	3/4-1.0	1.0-1 1/4	1 1/4-1 1/2	1 1/2
Optimum C.H.**	1.250	1.312	1.625	1.937	2.562	3.000
C.H. MIN.	0.875	1.062	1.250	1.562	2.000	2.500
C.H. MAX.	1.875	1.937	2.250	2.562	3.575	3.500
Thread	1/2-20	5/8-18	3/4-16	7/8-14	1.0-14	1 1/8-12

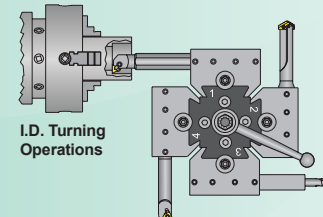
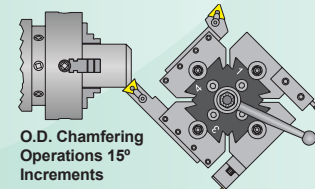
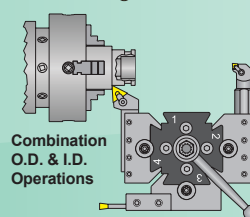
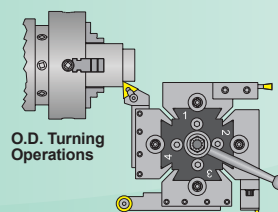
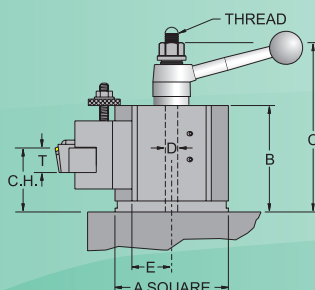
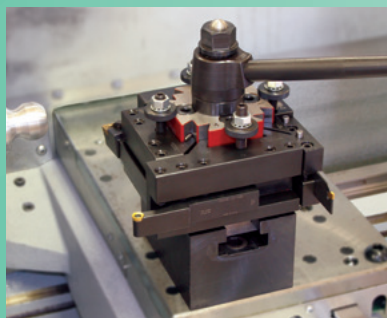
** Optimum center height is calculated with the smaller tool size of the tool capacity. If the higher size tool is to be used, add 1/8" to the optimum center height.

Quadra Indexing Quick Change Tool Post

The Multi-Patented Tool Post with The Most Advanced Indexing and Locking Technology

24 Super Precise Positioning Ball Bearings & 2 Pre-Loaded Indexing Pins

- Strong • Rigid • Precise!



Description	QITP25N		QITP30N		QITP35N		QITP40N		QITP50N		QITP60N	
Order Number	8000-000		8000-002		8000-004		8000-006		8000-008		8000-010	
Price Each	\$ 1827.73		\$ 2054.49		\$ 2473.60		\$ 3223.20		\$ 4294.48		\$ 6115.33	
Size	in	mm	in	mm	in	mm	in	mm	in	mm	in	mm
Lathe Swing Over Bed	≤12"	≤300,0	13-15"	320,0	14-17"	400,0	16-20"	450,0	17-32"	500,0	≥25-XHD	XHD
A	2.500	63.5	3.000	76.2	3.500	88.9	4.000	101.60	5.000	127.0	6.000	152.4
B	2.570	65.3	3.205	81.4	3.460	87.9	4.070	103.4	5.230	132.8	5.615	142.6
C	5.210	132.3	5.720	145.3	6.415	162.9	7.525	191.1	9.135	232.0	9.855	250.3
D	0.500	12.7	0.500	12.7	0.625	16.0	0.750	19.0	1.000	25.40	1.125	28.6
E	0.880	22.4	1.115	28.3	1.245	31.6	1.530	38.9	1.897	48.2	2.207	56.1
T-Tool Capacity	1/2-3/4	12-20	5/8-1.0	16-25	3/4-1.0	20-25	1.0-1 1/4	25-32	1 1/4 - 1 1/2	32-40	1 1/2	40.0
Optimum C.H.*	1.422	36.1	1.747	44.4	1.835	46.6	2.202	55.9	2.995	76.1	3.440	87.4
C.H. MIN.	0.995	25.3	1.213	30.8	1.445	36.7	1.757	44.6	2.245	57.0	2.750	69.9
C.H. MAX.	1.849	50.0	2.282	58.0	2.225	56.5	2.646	67.2	3.744	95.1	4.129	104.9
Thread	1/2-20	M12x1,75	1/2-20	M12x1,75	5/8-18	M16x2,0	3/4-16	M18x2,5	1.0-14	M24x3,0	1 1/8-12	M27x3,0

*Optimum center height is calculated with the smaller tool size of the tool capacity.

Tool Post & Toolholder Standard Sets

2



Super Quick Change Standard Sets

(1) Tool Post
(4) Holders

Tooling Not Included

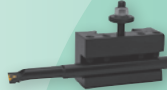
NEW



D1



D2



D4-CNC



D7-71C



Description	SDN25AXA-SS	SDN30BXA-SS	SDN35CXA-SS	SDN40CA-SS	SDN50DA-SS	SDN60EA-SS
Lathe Swing	Up to 12"	13" to 15"	14" to 17"	16" to 20"	17" to 32"	≥ 25"
Order Number	8001-020	8001-021	8001-022	8001-023	8001-024	8001-025
Price Each	\$ 1526.78	\$ 1829.00	\$ 2278.01	\$ 2056.54	\$ 4040.55	\$ 5994.23
5 Piece Standard Set Includes						
(1) Tool Post	SDN25AXA	SDN30BXA	SDN35CXA	SDN40CA	SDN50DA	SDN60EA
(4) Holders	(1) D25AXA-1 (1) D25AXA-2 (1) D25AXA-4-CNC (1) D25AXA-7-71C	(1) D30BXA-1 (1) D30BXA-2 (1) D30BXA-4-CNC (1) D30BXA-7-71C	(1) D35CXA-1 (1) D35CXA-2 (1) D35CXA-4-CNC (1) D35CXA-7-71C	(1) D40CA-1 (1) D40CA-2 (1) D40CA-4-CNC (1) D40CA-7-71C	(1) D50DA-1 (1) D50DA-2 (1) D50DA-4-CNC (1) D50DA-7-71C	(1) D60EA-1 (1) D60EA-2 (1) D60EA-4-CNC (1) D60EA-7-71C

Quadra Indexing Standard Sets

(1) Tool Post
(4) Holders

Tooling Not Included

NEW



QITP-1



QITP-2



QITP-4-CNC



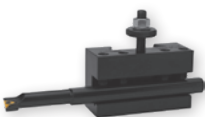
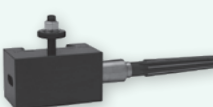
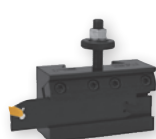
QITP-7-71C



Description	QITP25N-SS	QITP30N-SS	QITP35N-SS	QITP40N-SS	QITP50N-SS	QITP60N-SS
Lathe Swing	Up to 12"	13" to 15"	14" to 17"	16" to 20"	17" to 32"	≥ 25"
Order Number	8000-020	8000-021	8000-022	8000-023	8000-024	8000-025
Price Each	\$ 2960.73	\$ 3343.52	\$ 4020.46	\$ 4988.72	\$ 6778.51	\$ 9654.98
5 Piece Standard Set Includes						
(1) Tool Post	QITP25N	QITP30N	QITP35N	QITP40N	QITP50N	QITP60N
(4) Holders	(1) QITP25N-1 (1) QITP25N-2 (1) QITP25N-4-CNC (1) QITP25N-7-71C	(1) QITP30N-1 (1) QITP30N-2 (1) QITP30N-4-CNC (1) QITP30N-7-71C	(1) QITP35N-1 (1) QITP35N-2 (1) QITP35N-4-CNC (1) QITP35N-7-71C	(1) QITP40N-1 (1) QITP40N-2 (1) QITP40N-4-CNC (1) QITP40N-7-71C	(1) QITP50N-1 (1) QITP50N-2 (1) QITP50N-4-CNC (1) QITP50N-7-71C	(1) QITP60N-1 (1) QITP60N-2 (1) QITP60N-4-CNC (1) QITP60N-7-71C

SUPER Quick Change Toolholders



Use With SDN Tool Post	SDN25AXA	SDN30BXA	SDN35CXA	SDN40CA	SDN50DA	SDN60EA
Turning & Facing 	D25AXA-1 Tool Capacity 1/2"	D30BXA-1 Tool Capacity 5/8"	D35CXA-1 Tool Capacity 3/4"	D40CA-1 Tool Capacity 1"	D50DA-1 Tool Capacity 1 1/4"	D60EA-1 Tool Capacity 1 1/2"
	8001-100	8001-250	8001-400	8001-550	8001-700	8001-850
Price Each	\$ 125.24	\$ 142.19	\$ 177.16	\$ 220.01	\$ 353.63	\$ 548.56
Turning, Facing and Boring 	D25AXA-2 Tool Capacity 1/2"	D30BXA-2 Tool Capacity 5/8"	D35CXA-2 Tool Capacity 3/4"	D40CA-2 Tool Capacity 1"	D50DA-2 Tool Capacity 1 1/4"	D60EA-2 Tool Capacity 1 1/2"
	8001-104	8001-254	8001-404	8001-554	8001-704	8001-854
Price Each	\$ 131.18	\$ 156.81	\$ 185.75	\$ 234.28	\$ 378.66	\$ 568.16
Heavy Duty Boring 	D25AXA-4-750-DUAL Tool Capacity 3/4"	D30BXA-4-1000-DUAL Tool Capacity 1"	D35CXA-1000-DUAL Tool Capacity 1"	D40CA-4-1250-DUAL Tool Capacity 1 1/4"	D50DA-4-1550-DUAL Tool Capacity 1 1/2"	D60EA-4-2000-DUAL Tool Capacity 2"
	8001-111	8001-261	8001-411	8001-559	8001-709	8001-859
Price Each	\$ 264.84	\$ 309.11	\$ 355.30	\$ 426.34	\$ 669.93	\$ 1039.39
Extra Heavy Duty Boring 	D25AXA-41-1000-DUAL Tool Capacity 1"	D30BXA-41-1250-DUAL Tool Capacity 1 1/4"	D35CXA-41-1250-DUAL Tool Capacity 1 1/4"	D40CA-41-1500-DUAL Tool Capacity 1 1/2"	D50DA-41-2000-DUAL Tool Capacity 2"	D60EA-41-2500-DUAL Tool Capacity 2 1/2"
	8001-113	8001-263	8001-413	8001-563	8001-713	8001-863
Price Each	\$ 277.77	\$ 322.98	\$ 387.57	\$ 436.02	\$ 730.85	\$ 1129.96
Morse Taper 	—	—	D35CXA-5-4 Tool Capacity Morse Taper 4	D40CA-5-4 Tool Capacity Morse Taper 4	D50DA-5-5 Tool Capacity Morse Taper 5	D60EA-5-5 Tool Capacity Morse Taper 5
	—	—	8001-424	8001-572	8001-722	8001-872
Price Each	—	—	\$ 342.86	\$ 357.75	\$ 538.77	\$ 755.83
Extra HD Cut-Off Blade Toolholder 	D25AXA-7-71C Blade Size 19-2	D30BXA-7-71C Blade Size 19-2	D35CXA-7-71C Blade Size 26-2 to 26-6	D40CA-7-71C Blade Size 26-2 to 26-6	D50DA-7-71C Blade Size 32-3 to 32-9	D60EA-7-71C Blade Size 32-3 to 32-9
	8001-126	8001-276	8001-428	8001-576	8001-726	8001-876
Price Each	\$ 333.70	\$ 380.42	\$ 410.14	\$ 471.46	\$ 568.44	\$ 643.40
ID & OD Threading 	D25AXA-881-OE On Edge for OD Laydown for ID	D30BXA-881-OE On Edge for OD Laydown for ID	D35CXA-881-OE On Edge for OD Laydown for ID	D40CA-881-OE On Edge for OD Laydown for ID		
	8001-132	8001-282	8001-434	8001-582		
Price Each	\$ 360.46	\$ 397.44	\$ 426.34	\$ 476.74		
Dovetail Drill Chuck Holder 	D25AXA-35 Tool Capacity 0-12"	D30BXA-35 Tool Capacity 0-12"	D35CXA-35 Tool Capacity 0-12"	D40CA-35 Tool Capacity 0-12"		
	8001-140	8001-290	8001-442	8001-590		
Price Each	\$ 491.91	\$ 507.54	\$ 598.62	\$ 637.68		
5C Collet Holder 	D25AXA-36 5C Collet	D30BXA-36 5C Collet	D35CXA-36 5C Collet	D40CA-36 5C Collet		
	8001-142	8001-292	8001-444	8001-592		
Price Each	\$ 340.77	\$ 355.40	\$ 401.38	\$ 453.66		

Tooling not included

Quadra Indexing Quick Change Toolholders



Use With Quadra Tool Post	QITP25N	QITP30N	QITP35N	QITP40N	QITP50N	QITP60N
Turning & Facing 	QITP25N-1	QITP30N-1	QITP35N-1	QITP40N-1	QITP50N-1	QITP60N-1
Tool Capacity 3/4"	Tool Capacity 3/4"	Tool Capacity 3/4"	Tool Capacity 1"	Tool Capacity 1 1/4"	Tool Capacity 1 1/2"	Tool Capacity 1 1/2"
Order Number	8000-100	8000-250	8000-400	8000-550	8000-700	8000-850
Price Each	\$ 178.90	\$ 224.43	\$ 277.42	\$ 308.61	\$ 509.39	\$ 715.24
Turning, Facing and Boring 	QITP25N-2	QITP30N-2	QITP35N-2	QITP40N-2	QITP50N-2	QITP60N-2
Tool Capacity 3/4"	Tool Capacity 3/4"	Tool Capacity 3/4"	Tool Capacity 1"	Tool Capacity 1 1/4"	Tool Capacity 1 1/2"	Tool Capacity 1 1/2"
Order Number	8000-104	8000-254	8000-404	8000-554	8000-704	8000-854
Price Each	\$ 190.81	\$ 236.89	\$ 308.61	\$ 342.87	\$ 548.56	\$ 767.35
Heavy Duty Boring 	QITP25N-4-750-DUAL	QITP30N-4-1000-DUAL	QITP35N-4-1000-DUAL	QITP40N-4-1250-DUAL	QITP50N-4-1500-DUAL	QITP60N-4-2000-DUAL
Tool Capacity 3/4"	Tool Capacity 1"	Tool Capacity 1"	Tool Capacity 1 1/4"	Tool Capacity 1 1/2"	Tool Capacity 2"	Tool Capacity 2"
Order Number	8000-111	8000-261	8000-411	8000-561	8000-711	8000-861
Price Each	\$ 348.19	\$ 390.84	\$ 468.97	\$ 568.44	\$ 844.89	\$ 1235.66
Extra Heavy Duty Boring 	—	—	QITP35N-41-1250-DUAL	QITP40N-41-CNC	QITP50N-41-CNC	QITP60N-41-CNC
			Tool Capacity 1 1/4"	Tool Capacity 1 1/2"	Tool Capacity 2"	Tool Capacity 2 1/2"
Order Number	—	—	8000-413	8000-563	8000-713	8000-863
Price Each	—	—	\$ 532.93	\$ POA	\$ 911.87	\$ 1336.47
Morse Taper 	—	—	QITP35N-5-4	QITP40N-5-4	QITP50N-5-5	QITP60N-5-5
			Tool Capacity Morse Taper 4	Tool Capacity Morse Taper 4	Tool Capacity Morse Taper 5	Tool Capacity Morse Taper 5
Order Number	—	—	8000-424	8000-572	8000-722	8000-872
Price Each	—	—	\$ 368.95	\$ 452.18	\$ 642.87	\$ 896.67
Extra HD Cut-Off Blade Toolholder 	QITP25N-7-71C	QITP30N-7-71C	QITP35N-7-71C	QITP40N-7-71C	QITP50N-7-71C	QITP60N-7-71C
Blade Size 19-2	Blade Size 19-2	Blade Size 26-2 to 26-6	Blade Size 26-2 to 26-6	Blade Size 32-3 to 32-9	Blade Size 32-3 to 32-9	Blade Size 32-3 to 32-9
Order Number	8000-126	8000-276	8000-428	8000-576	8000-726	8000-876
Price Each	\$ 398.32	\$ 436.89	\$ 491.87	\$ 545.63	\$ 581.20	\$ 814.90
ID & OD Threading Toolholder Laydown Threading Bar Sold Separately 	QITP25N-881-OE	QITP30N-881-OE	QITP35N-881-OE	QITP40N-881-OE		
On Edge for OD Laydown for ID	On Edge for OD Laydown for ID	On Edge for OD Laydown for ID	On Edge for OD Laydown for ID	On Edge for OD Laydown for ID		
Order Number	8000-132	8000-282	8000-434	8000-582		
Price Each	\$ 422.50	\$ 453.48	\$ 499.98	\$ 573.60		
5C Collet Holder 	QITP25N-36	QITP30N-36	QITP35N-36	QITP40N-36		
5C Collet	5C Collet	5C Collet	5C Collet	5C Collet		
Order Number	8000-142	8000-292	8000-444	8000-592		
Price Each	\$ 385.73	\$ 411.44	\$ 474.27	\$ 565.71		

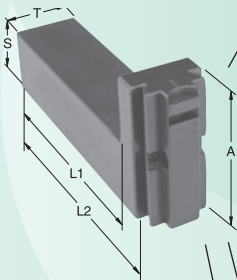
Tools not included

CNC Modular Knurling Tools

CNC Modular Knurling Tool Shank

The CNC Modular Knurling Tool includes **three standard shank sizes** and **seven standard knurling heads** to create any knurling tool combination.

- Specifically designed for the CNC Lathe.
- Precision square shank with preset center height.
- Right or Left hand applications.
- One shank fits all heads.
- One head fits all shanks.



1 - Small Diamond Cutting Knurling Tool- Cutting Range 5/16" to 1-1/2" Best for up to 1"

End feed range:
.004 to .012

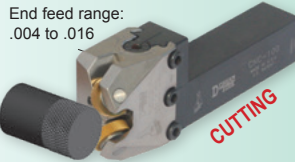


Description	Order No.	Price Each	Shank Size	Tool Length	Knurl Wheel Style
CNC-75-1-SW2	8020-410	\$ 1333.13	3/4	5 3/4	SW2S
CNC-100-1-SW2	8020-420	1456.55	1	5 3/4	SW2S
CNC-125-1-SW2	8020-430	1548.58	1 1/4	6 1/4	SW2S

Supplied with set of straight knurl wheels, 30 TPI

2 - HD Diamond Cutting Knurling Tool-Cutting Range 1.0" to 5" Best for up to 3"

End feed range:
.004 to .016

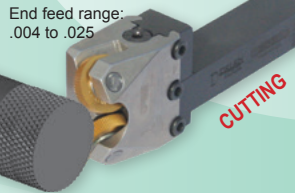


Description	Order No.	Price Each	Shank Size	Tool Length	Knurl Wheel Style	Knurl Pin Set	Price Each
CNC-75-2-R	8020-510	\$ 1566.53	3/4	5 3/4	RS	KPS-25-87-C 8028-925	\$ 66.30
CNC-100-2-R	8020-520	1660.79	1	5 3/4	RS		
CNC-125-2-R	8020-530	1772.99	1 1/4	6 1/4	RS		

Supplied with set of straight knurl wheels, 25 TPI

3 - Extra HD Diamond Cutting Knurling Tool-Cutting range 2.0" & up Best for over 2-1/2"

End feed range:
.004 to .025



Description	Order No.	Price Each	Shank Size	Tool Length	Knurl Wheel Style	Knurl Pin Set	Price Each
CNC-75-3-M	8020-610	\$ 1602.13	3/4	5 7/8	MS	KPS-31-100-C 8028-945	\$ 69.23
CNC-100-3-M	8020-620	1680.04	1	5 7/8	MS		
CNC-125-3-M	8020-630	1777.44	1 1/4	6 3/8	MS		

Supplied with set of straight knurl wheels, 25 TPI

4 - Double Wheel Forming Knurling Tool

In/End Feed Range:
.004 to .012

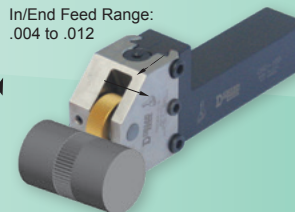


Description	Order No.	Price Each	Shank Size	Tool Length	Knurl Wheel Style	Knurl Pin Set	Price Each
CNC-75-4-M	8020-646	\$ 1548.58	3/4	6	M	KPS-31-125-C 8028-950	\$ 73.16
CNC-100-4-M	8020-648	1548.58	1	6	M		
CNC-125-4-M	8020-650	1548.58	1 1/4	6 1/2	M		

Supplied with set of diagonal knurl wheels, 25 TPI

5 - Single Wheel Forming Knurling Tool- Straight Bump Best for Narrow Knurling

In/End Feed Range:
.004 to .012



Description	Order No.	Price Each	Shank Size	Tool Length	Knurl Wheel Style	Knurl Pin Set	Price Each
CNC-75-5-O	8020-710	\$ 1315.16	3/4	5 3/4	O	KPS-31-125-C 8028-950	\$ 73.16
CNC-100-5-O	8020-720	1369.02	1	5 3/4	O		
CNC-125-5-O	8020-730	1440.83	1 1/4	6 1/4	O		

Supplied with set of straight knurl wheels, 25 TPI

6 - Shoulder Forming Knurling Tool-Diameter range: 5/16" & up

In/End Feed Range:
.004 to .012

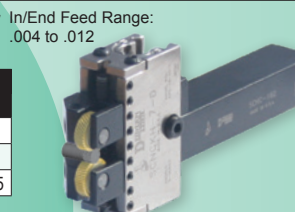


Description	Order No.	Price Each	Shank Size	Tool Length	Knurl Wheel Style	Knurl Pin Set	Price Each
CNC-75-6-SW4	8020-780	\$ 1393.16	3/4	5 3/4	SW4	SW4.0P-2S 8029-085	\$ 113.39
CNC-100-6-SW4	8020-790	1460.90	1	5 3/4	SW4		
CNC-125-6-SW4	8020-800	1603.93	1 1/4	6 1/4	SW4		

Supplied with set of straight knurl wheels, 25 TPI

7 - Straddle Forming Knurling Tool -Diameter range: up to 1"

In/End Feed Range:
.004 to .012



Description	Order No.	Price Each	Shank Size	Tool Length	Knurl Wheel Style	Knurl Pin Set	Price Each
CNC-75-7-R	8020-910	\$1560.42	3/4	6	R	KPS-25-62-C 8028-915	\$ 56.95
CNC-100-7-R	8020-920	1641.94	1	6	R		
CNC-125-7-R	8020-930	1746.73	1 1/4	6 1/2	R		

Supplied with set of diagonal knurl wheels, 30 TPI

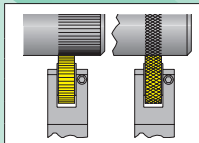
CNC Modular Knurling Tool Shank						
Desc.	S	T	L1	L2	A	
CNC-75	21010	.75	1.0	3.5	3.875	2.0
CNC-100	21020	1.0	1.0	3.5	3.875	2.0
CNC-125	21030	1.25	1.0	4.0	4.375	2.25

Supplied with Lock Screw and Adjustment Screw.

CNC Knurling Tools



SWFKT

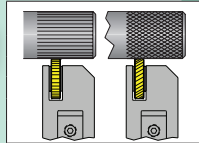


SWFKT - Single Wheel Fixed Knurling Tool

Description	Order No.	Price Each	Knurl Wheel Style	Desc.	Knurl Pin Set Order No.	Shank Size	Price Each
SWFKT-50-D	8021-730	\$ 161.58	D*	KPS-18-50	8028-805	1/2	\$ 23.81
SWFKT-75-M	8021-740	206.48	M**	KPS-31-75	8028-840	3/4	26.48
SWFKT-100-O	8021-750	228.92	O**	KPS-31-100	8028-845	1	26.48

* Supplied with 1 Straight Knurl Wheel 30 TPI. ** Supplied with 1 Straight Knurl Wheel 25 TPI.

SCKN



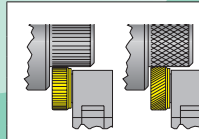
SCKN - Self-Centering Knurling Tool for C.N.C. Lathe

Description	Order No.	Price Each	Knurl Wheel Style	Desc.	Knurl Pin Set Order No.	Shank Size	Price Each
SCKN-50-D	8022-111	\$ 437.65	D*	KPS-18-50	8028-805	1/2	\$ 23.81
SCKN-75-M	8022-121	527.41	M**	KPS-31-75	8028-840	3/4	26.48
SCKN-100-M	8022-131	594.74	M**	KPS-31-75	8028-840	1	26.48

* Supplied with 1 set of 30 TPI Diagonal Knurl Wheels for Diamond Pattern.

** Supplied with 1 set of 25 TPI Diagonal Knurl Wheels for Diamond Pattern.

SSCK



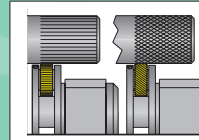
SSCK - Shoulder Self-Centering Knurling Tool for C.N.C. Lathe

Description	Order No.	Price Each	Knurl Wheel Style	Desc.	Knurl Pin Set Order No.	Shank Size	Price Each
SSCK-50-DW-2	8022-220	639.62	SW2*	SW2.0P-2S	8029-055	1/2	\$ 96.71
SSCK-75-DW-SW4	8022-240	774.29	SW4**	SW4.0P-2S	8029-085	3/4	113.39
SSCK-100-DW-SW4	8022-250	774.29	SW4**	SW4.0P-2S	8029-085	1	113.39

* Supplied with 1 set of 30 TPI Diagonal Knurl Wheels for Diamond Pattern.

** Supplied with 1 set of 25 TPI Diagonal Knurl Wheels for Diamond Pattern.

3SHKT



3SHKT - Three Swivel Head Knurling Tool

Description	Order No.	Price Each	Knurl Wheel Style	Desc.	Knurl Pin Set Order No.	Shank Size	Price Each
3SHKT-50-D	8021-510	\$ 605.56	D*	KPS-18-50	8028-805	1/2	\$ 23.81
3SHKT-75-M	8021-530	687.05	M**	KPS-31-100	8028-845	3/4	26.48
3SHKT-100-M	8021-540	768.59	M**	KPS-31-100	8028-845	1	26.48

* Supplied (2) 20 TPI, (2) 30 TPI & (2) 40 TPI Diagonal Knurl Wheels for Diamond Pattern.

** Supplied (2) 16 TPI, (2) 25 TPI & (2) 35 TPI Diagonal Knurl Wheels for Diamond Pattern.

Knurl Wheel Series	Specifications				Circular Knurl Pitch					
	Description	Pattern	Grade	Edge Prep	14	16	20	25	30	Price Each
SW2 	SW2S-XX-C	Straight	Cobalt	Full Faced	-		8027-404	8027-406	8027-408	\$ 80.65
	SW2R-XX-CB	Right Hand		Beveled			8027-479	8027-481	8027-483	80.65
	SW2L-XX-CB	Left Hand		Beveled			8027-529	8027-531	8027-533	80.65
SW4 	SW4S-XX-CB	Straight	Cobalt	Beveled	8028-029	-	8028-033	8028-035	8028-037	102.59
	SW4R-XX-CB	Right Hand		Beveled	8028-083	8028-085	8028-087	8028-089	8028-091	102.59
	SW4L-XX-CB	Left Hand		Beveled	8028-137	8028-139	8028-141	8028-143	8028-145	102.59
D 	DS-XX-CB	Straight	Cobalt	Beveled	-		8025-031	-	8025-035	48.20
	DDR-XX-CB	Right Hand		Beveled			-		8025-089	48.20
	DDL-XX-CB	Left Hand		Beveled			-		8025-143	48.20
M 	MS-XX-C	Straight	Cobalt	Full Faced	-		8025-310	8025-312	8025-314	79.96
	MDR-XX-CB	Right Hand		Beveled			8025-409	8025-411	8025-413	79.96
	MDL-XX-CB	Left Hand		Beveled			8025-475	8025-477	8025-479	79.96
R 	RS-XX-C	Straight	Cobalt	Full Faced	-		8026-510	8026-512	8026-514	56.59
O 	OS-XX-HSB	Straight	High Speed	Beveled	8025-641	-	8025-645	8025-647	-	57.50
	ODR-XX-HSB	Right Hand		Beveled	-	-	8025-777	8025-779		71.84
	ODL-XX-HSB	Left Hand		Beveled	-	-	8025-909	8025-911		71.84
	OF-XX-HS	Female Diamond		Full Faced	-		8026-074	8026-076		82.45

Live Centers

Economy Live Centers – High Speed Steel



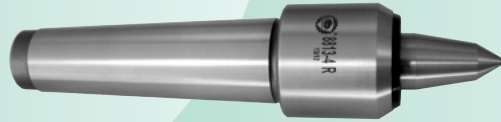
MT NO.	ACCURACY	ORDER NO.	PRICE EACH
1	0004"	3145-021	\$ 24.45
2	0004"	3145-022	27.20
3	0004"	3145-023	34.05
4	0004"	3145-024	48.30
5	0004"	3145-025	71.85
6	0004"	3145-026	137.90



Bison Revolving Live Centers – Made in Poland



Extended Point Live Center - 60° Point, Small Body Dia.



Morse Taper	Max. Wt. (Lbs.)	RPM	Runout	A (in.)	B (in.)	D (in.)	G (in.)	K (in.)	J (in.)	Order No.	Price Each
2MT	374	7,000	0.0003	2.87	1.26	0.59	0.7	1.14	0.39	3145-112	\$202.00
3MT	748	7,000	0.0003	2.91	1.34	0.59	0.94	1.18	0.43	3145-113	231.00
4MT	1540	6,300	0.0003	3.48	1.65	0.79	1.23	1.50	0.51	3145-114	324.00
5MT	3080	4,300	0.0004	4.69	2.28	1.18	1.75	1.93	0.55	3145-115	457.00
6MT	6600	3,000	0.0008	6.46	3.15	1.65	2.49	2.76	0.71	3145-116	780.00

Super Precision Live Center - 60° Point

Morse Taper	Max. Wt. (Lbs.)	RPM	Runout	A (in.)	B (in.)	C (in.)	D (in.)	L (in.)	Order No.	Price Each
1MT	220	5,000	0.0002	0.59	1.95	0.67	1.5	4.06	3145-221	\$181.00
2MT	396	5,000	0.0001	0.71	2.2	0.85	1.57	4.74	3145-222	147.00
3MT	990	4,000	0.0001	0.98	2.95	1.08	2.20	6.14	3145-223	234.00
4MT	2200	3,000	0.0001	1.26	3.35	1.32	2.52	7.36	3145-224	246.00
5MT	4180	2,500	0.0002	1.57	4.25	1.73	3.35	9.33	3145-225	447.00
6MT	8140	2,000	0.0002	2.46	5.96	2.52	4.12	13.13	3145-226	805.00



NC Quad Bearing Precision Live Center - High Speed NC Extended Revolving Centers with 60° Point

Morse Taper	Max. Wt. (Lbs.)	RPM	Runout	A (in.)	B (in.)	C (in.)	D (in.)	E (in.)	L (in.)	Order No.	Price Each
4MT	2200	7,000	0.0002	1.10	4.67	1.93	2.76	0.55	8.70	3145-234	\$392.00
5MT	4400	6,000	0.0002	1.57	5.93	2.66	3.74	0.63	11.02	3145-235	647.00



Adjustable Live Center - Radial Compensation Revolving Centers with 60° Point

Morse Taper	Max. Wt. (Lbs.)	RPM	Runout	A (in.)	B (in.)	C (in.)	D (in.)	L (in.)	Order No.	Price Each
2MT	220	8,000	0.0002	0.94	2.87	1.04	1.73	5.41	3145-242	\$278.00
3MT	440	6,000	0.0001	1.10	3.35	1.28	1.89	6.54	3145-243	303.00
4MT	880	4,500	0.0001	1.50	3.72	1.741	2.36	7.74	3145-244	392.00
5MT	1,430	4,000	0.0001	1.97	4.59	2.19	2.95	9.69	3145-245	480.00
6MT	3,080	3,000	0.0001	2.38	5.31	2.46	3.54	12.48	3145-246	772.00



Dead Centers

Economy Dead Centers – High Speed Steel, Carbide Tipped



MT NO.	OVERALL LENGTH	HIGH SPEED		CARBIDE TIPPED	
		ORDER NO.	PRICE EACH	ORDER NO.	PRICE EACH
0	-	3145-010	\$9.02	3145-000	\$13.65
1	3-3/16	3145-011	9.02	3145-001	13.65
2	3-15/16	3145-012	11.83	3145-002	17.29
3	4-15/16	3145-013	15.93	3145-003	28.57
4	6-5/16	3145-014	25.12	3145-004	41.59
5	7-7/8	3145-015	52.78	3145-005	69.16
6	11	3145-016	98.28	3145-006	126.49

Bison Dead Centers – Made in Poland



Carbide Tipped Dead Center - Full Point



MT Taper	L (in.)	D (in.)	E (in.)	Order No.	Price Each.
1	3.15	0.48	0.28	3145-321	\$45.00
2	3.94	0.71	0.28	3145-322	43.00
3	4.92	0.95	0.43	3145-323	68.00
4	6.30	1.24	0.55	3145-324	97.00
5	7.87	1.76	0.71	3145-325	130.00
6	10.63	2.51	0.71	3145-326	199.00

Half Dead Center - Ball Bearing Steel



MT Taper	L (in.)	D (in.)	S (in.)	Order No.	Price Each
1	3.15	0.48	0.30	3145-301	\$28.00
2	3.94	0.71	0.43	3145-302	31.00
3	4.92	0.95	0.59	3145-303	39.00
4	6.30	1.24	0.82	3145-304	61.00
5	7.87	1.76	1.15	3145-305	106.00
6	10.63	2.51	1.68	3145-306	226.00

Dead Center - Full Point - Ball Bearing Steel



MT Taper	L (in.)	D (in.)	Order No.	Price Each
1	3.15	0.48	3145-331	\$21.00
2	3.94	0.71	3145-332	25.00
3	4.92	0.95	3145-333	33.00
4	6.30	1.24	3145-334	52.00
5	7.87	1.76	3145-335	94.00
6	10.63	2.51	3145-336	227.00

Carbide Tipped Half Dead Center



MT Taper	L (in.)	D (in.)	E (in.)	S (in.)	Order No.	Price Each
1	3.15	0.48	0.28	0.41	3145-311	\$51.00
2	3.94	0.71	0.28	0.51	3145-312	55.00
3	4.92	0.95	0.43	0.72	3145-313	84.00
4	6.30	1.24	0.55	0.93	3145-314	98.00
5	7.87	1.76	0.71	1.26	3145-315	152.00
6	10.63	2.51	0.71	1.64	3145-316	249.00

ABRASIVES



Brushes	298-303
Cartridge Rolls	336-337
Cut-Off Wheels	324-325
Depressed Center Wheels	326-327
Diamond Tools & Wheels	319-323
Flap Discs	328-329, 339
Flap Wheels	333
Grinding Wheels	304-316
Honing Tools	298
Mounted Points	317-318, 341
Non-Woven	338-341
PSA Discs	331
Quick Change Discs	329, 332
Resin Fibre Discs	330
Shop Rolls & Sheets	334-335

- Use on valve guides, cam bearing bores, main bearing bores, lifter bores, pneumatic cylinders, engine cylinders, brake cylinders, drums and rotors, hydraulic guides, pumps, and compressors.

- The Flex-Hone® Tool is resilient, flexible honing tool with soft cutting action. It's unique construction allows the abrasive globules or "stones" to float, assuring the tool will be self-centering, self-aligning to the bore and self-compensating for wear.

- The Flex-Hone® Tool removes peaks and other imperfections in cylinder walls, creating a desirable plateaued finish. The result is reduction in localized heat and friction and improved performance.

Standard Duty Flex-Hones®

- 4mm – 3/16" are 6" OAL
- 5mm – 3" are 8" OAL
- 3-1/4" – 4-5/8" are 13-1/2"



Heavy Duty Flex-Hones®

- 3" – 4-1/2" are 13-1/2" OAL
- 5" – 8" are 17-1/2" OAL



Silicon Carbide

FLEX-HONE MODEL NO.	BORE SIZE	120 GRIT		180 GRIT		240 GRIT		320 GRIT	
		ORDER NO.	PRICE EACH	ORDER NO.	PRICE EACH	ORDER NO.	PRICE EACH	ORDER NO.	PRICE EACH
BC-4MM	(0.157)	—	—	5690-151	\$27.00	5690-152	\$28.60	5690-153	\$40.50
BC-4.5MM	(0.177)	—	—	5690-171	26.60	5690-172	28.20	5690-173	39.90
BC-3/16"	(4.75MM)	—	—	5690-181	26.90	5690-182	27.70	5690-183	39.30
BC-5MM	(0.197)	5690-190	\$25.30	5690-191	25.30	5690-192	26.80	5690-193	38.00
BC-5.5MM	(0.217)	5690-210	25.70	5690-211	25.70	5690-212	27.30	5690-213	38.60
BC-6.4MM	(0.25)	5690-250	17.60	5690-251	17.60	5690-252	18.70	5690-253	26.50
BC-7MM	(0.276)	5690-270	17.80	5690-271	17.80	5690-272	18.90	5690-273	26.60
BC-8MM	(0.315)	5690-310	18.70	5690-311	18.70	5690-312	19.80	5690-313	28.00
BC-9MM	(0.354)	5690-350	19.40	5690-351	19.40	5690-352	20.60	5690-353	29.10
BC-9.5MM	(0.375)	5690-370	21.50	5690-371	21.50	5690-372	22.80	5690-373	32.20
BC-10MM	(0.394)	5690-390	21.70	5690-391	21.70	5690-392	22.90	5690-393	32.50
BC-11MM	(0.433)	5690-430	22.20	5690-431	22.20	5690-432	23.50	5690-433	33.20
BC-12MM	(0.472)	5690-470	22.60	5690-471	22.60	5690-472	24.00	5690-473	33.90
BC-1/2"	(12.7MM)	5690-500	23.10	5690-501	23.10	5690-502	24.40	5690-503	34.50
BC-14MM	(0.552)	5690-550	23.20	5690-551	23.20	5690-552	24.50	5690-553	34.80
BC-5/8"	(16MM)	5690-620	24.50	5690-621	24.50	5690-622	25.90	5690-623	36.70
BC-18MM	(0.709)	5690-700	25.20	5690-701	25.20	5690-702	26.60	5690-703	37.70
BC-3/4"	(19MM)	5690-750	25.80	5690-751	25.80	5690-752	27.30	5690-753	38.70
BC-20MM	(0.787)	5690-780	25.90	5690-781	25.90	5690-782	27.40	5690-783	38.80
BC-7/8"	(22MM)	5690-870	26.00	5690-871	26.00	5690-872	27.60	5690-873	39.10
BC-15/16"	(23.8MM)	5690-930	26.90	5690-931	26.90	5690-932	28.60	5690-933	40.40
BC-1"	(25.4MM)	5691-000	27.80	5691-001	27.80	5691-002	29.50	5691-003	41.70
BC-1-1/8"	(29MM)	5691-120	29.20	5691-121	29.20	5691-122	31.00	5691-123	43.90
BC-1-1/4"	(31.8MM)	5691-250	31.50	5691-251	31.50	5691-252	33.40	5691-253	47.30
BC1-3/8"	(35MM)	5691-370	32.40	5691-371	32.40	5691-372	34.40	5691-373	48.60
BC-1-1/2"	(38MM)	5691-500	34.80	5691-501	34.80	5691-502	36.80	5691-503	52.10
BC-1-5/8"	(41MM)	5691-620	34.80	5691-621	34.80	5691-622	36.90	5691-623	52.20
BC-1-3/4"	(45MM)	5691-750	36.30	5691-751	36.30	5691-752	38.50	5691-753	54.50
BC-1-7/8"	(48MM)	5691-870	37.00	5691-871	37.00	5691-872	39.30	5691-873	55.50
BC-2"	(51MM)	5692-000	37.70	5692-001	37.70	5692-002	40.00	5692-003	56.60
BC-2-1/8"	(54MM)	5692-120	39.30	5692-121	39.30	5692-122	41.60	5692-123	58.90
BC-2-1/4"	(57MM)	5692-250	40.80	5692-251	40.80	5692-252	43.30	5692-253	61.20
BC-2-3/8"	(60MM)	5692-370	42.40	5692-371	42.40	5692-372	44.90	5692-373	63.60
BC-2-1/2"	(64MM)	5692-500	44.00	5692-501	44.00	5692-502	46.60	5692-503	65.90
BC-2-5/8"	(67MM)	5692-620	46.30	5692-621	46.30	5692-622	49.00	5692-623	69.40
BC-2-3/4"	(70MM)	5692-750	48.50	5692-751	48.50	5692-752	51.40	5692-753	72.80
BC-2-7/8"	(73MM)	5692-870	52.50	5692-871	52.50	5692-872	55.60	5692-873	78.70
BC-3"	(76MM)	5693-000	56.30	5693-001	56.30	5693-002	59.70	5693-003	84.50
GB-3-1/4"	(83MM)	5693-100	64.80	5693-101	64.80	5693-102	68.70	5693-103	97.20
GB-3-1/2"	(89MM)	5693-120	69.00	5693-121	69.00	5693-122	73.20	5693-123	103.60
GB-3-3/4"	(95MM)	5693-140	74.30	5693-141	74.30	5693-142	78.80	5693-143	111.50
GB-4-1/8"	(105MM)	5693-160	79.10	5693-161	79.10	5693-162	83.80	5693-163	118.70
GB-4-5/8"	(118MM)	5693-180	88.10	5693-181	88.10	5693-182	93.40	5693-183	132.20

FLEX-HONE MODEL NO.	BORE SIZE	120 GRIT		180 GRIT		240 GRIT		320 GRIT	
		ORDER NO.	PRICE EACH	ORDER NO.	PRICE EACH	ORDER NO.	PRICE EACH	ORDER NO.	PRICE EACH
GBD-3"	(76MM)	5693-300	\$93.90	5693-301	\$ 93.90	5693-302	\$ 99.60	5693-303	\$140.90
GBD-3-1/4"	(83MM)	5693-320	97.00	5693-321	97.00	5693-322	102.80	5693-323	145.30
GBD-3-1/2"	(89MM)	5693-340	99.80	5693-341	99.80	5693-342	105.80	5693-343	149.70
GBD-3-3/4"	(95MM)	5693-360	107.00	5693-361	107.00	5693-362	113.40	5693-363	160.50
GBD-4"	(101MM)	5693-380	114.20	5693-381	114.20	5693-382	121.10	5693-383	171.30
GBD-4-1/4"	(108MM)	5693-400	122.00	5693-401	122.00	5693-402	129.40	5693-403	182.20
GBD-4-1/2"	(114MM)	5693-420	129.90	5693-421	129.90	5693-422	137.70	5693-423	194.90
GBD-5"	(127MM)	5693-440	147.90	5693-441	147.90	5693-442	156.70	5693-443	239.20
GBD-5-1/2"	(140MM)	5693-460	162.20	5693-461	162.20	5693-462	171.90	5693-463	262.40
GBD-6"	(152MM)	5693-480	175.70	5693-481	175.70	5693-482	186.20	5693-483	284.30
GBD-6-1/2"	(165MM)	5693-500	189.40	5693-501	189.40	5693-502	200.80	5693-503	306.40
GBD-7"	(178MM)	5693-520	206.50	5693-521	206.50	5693-522	218.90	5693-523	334.00
GBD-7-1/2"	(190MM)	5693-540	227.10	5693-541	227.10	5693-542	240.70	5693-543	367.30
GBD-8"	(203MM)	5693-560	248.20	5693-561	248.20	5693-562	263.10	5693-563	401.60

Trulock Crimped Wire Wheel Brushes



DIA.	WIRE SIZE	ARBOR HOLE	TRIM LENGTH	FACE WIDTH	MAX SAFE FREE SPEED (RPM)	STD. PKG.	ITEM NO.	PRICE EACH
Narrow Face								
4	.008	1/2-3/8†	7/8	1/2	6,000	2	6500-104	\$50.72
4	.0095	1/2-3/8†	7/8	1/2	6,000	2	6500-124	24.35
6	.008	5/8-1/2†	1-7/16	3/4	6,000	10	6501-045	41.72
6	.014	5/8-1/2†	1-7/16	3/4	6,000	10	6501-075	30.41
8	.0118	5/8-1/2†	2-1/16	3/4	6,000	2	6501-165	47.91
8	.014	5/8-1/2†	2-1/16	1/2	6,000	2	6501-175	42.37
10	.0118	3/4	2-1/2	3/4	4,000	2	6501-248	63.09
10	.014	3/4	2-1/2	3/4	4,000	2	6501-258	60.59
Medium Face								
6	.0118	2††	1-1/8	1	6,000	1	6506-070	58.46
6	.014	2††	1-1/8	1	6,000	1	6506-080	59.03
8	.0118	2††	1-3/8	1	4,000	1	6506-110	88.78
8	.014	2††	1-3/8	1	4,000	1	6506-120	88.31
10	.0118	2*	2	1-1/8	3,600	1	6506-150	145.89
10	.014	2**	2	1-1/8	3,600	1	6506-160	143.40
Wide Face								
6	.0118	2††	1-1/8	1-1/8	6,000	1	6503-060	89.38
8	.0118	2††	1-3/8	1-3/8	4,000	1	6503-140	137.85
10	.0118	2††	1-7/8	1-5/8	4,000	1	6503-190	241.80

† Features plastic snap-out arbor hole adapter

†† Other arbor holes available using metal adapter. Please specify.

* 1/2 x 1/4 Double keyway and uses metal adapter.

Dualife Knot Type Wire Wheel Brushes



Standard Twist

DIA.	WIRE SIZE	ARBOR HOLE	TRIM LENGTH	FACE WIDTH	MAX SAFE FREE SPEED (RPM)	STD. PKG.	ITEM NO.	PRICE EACH
4	.014	1/2-3/8†	7/8	1/2	20,000	10	6508-044	\$32.15
4	.020	1/2-3/8†	7/8	1/2	20,000	10	6508-064	31.75
6	.016	5/8-1/2†	1-3/8	1/2	9,000	10	6508-095	49.23
8	.016	5/8-1/2†	1-5/8	5/8	6,000	2	6508-145	74.07
8	.023	5/8-1/2†	1-5/8	5/8	6,000	2	6508-155	71.95
10	.016	1-1/4*	1-3/4	3/4	4,500	2	6508-189	105.04
12	.014	1-1/4*	2-3/4	3/4	3,600	1	6508-209	136.29
12	.020	1-1/4*	2-1/4	5/8	5,000	2	6509-719	174.58
15	.016	1-1/4*	4-1/4	7/8	3,600	2	6508-249	175.63

† Features plastic snap-out arbor hole adapter

* 5/16 x 5/32 Double Keyway

Other diameters, arbor hole, or wire sizes available on request.

Orbitor Bench Grinder Brushes



Features plastic snap-out arbor hole adapter.

Other arbor hole available on request

DIA.	WIRE SIZE	ARBOR HOLE	TRIM LENGTH	FACE WIDTH	MAX SAFE FREE SPEED (RPM)	STD. PKG.	ITEM NO.	PRICE EACH
Narrow Face								
6	.014	5/8-1/2	1-1/16	5/8	6,000	1	6502-325	\$34.58
7	.014	5/8-1/2	1-9/16	3/4	6,000	1	6502-335	42.55
Medium Face								
6	.014	5/8-1/2	1-1/8	7/8	6,000	1	6506-645	42.97
7	.014	5/8-1/2	1-5/8	7/8	6,000	1	6506-655	50.07

Copper Center Wire Wheels

Wire Fill



DIA.	WIRE SIZE	ARBOR HOLE	TRIM LENGTH	FACE WIDTH	MAX SAFE FREE SPEED (RPM)	STD. PKG.	ITEM NO.	PRICE EACH
2	.006	1/2	1/2	3/8	20,000	10	6515-433	\$11.81
2	.014	1/2-3/8	1/2	3/8	20,000	10	6515-473	8.71
3	.006	5/8	15/16	1/2	20,000	10	6515-637	17.11
3	.014	1/2	1	1/2	20,000	10	6515-553	11.88
3	.014	1/2-3/8	1	1/2	20,000	10	6515-573	10.41

Metal Adapters For Wire Wheel Brushes

(Used in pairs)

ADAPTER ARBOR SIZE	STD. PKG.	ORDER SIZE	PRICE EACH
1/2	1 Pr.	6503-809	\$7.56
5/8	1 Pr.	6503-810	5.04
3/4	1 Pr.	6503-811	5.04
7/8	1 Pr.	6503-824	7.56
1	1 Pr.	6503-812	5.04
1 1/4	1 Pr.	6503-813	10.08
1-1/2	1 Pr.	6503-814	9.14



Standard Twist Stainless Steel

DIA.	WIRE SIZE	ARBOR HOLE	TRIM LENGTH	FACE WIDTH	MAX SAFE FREE SPEED (RPM)	STD. PKG.	ITEM NO.	PRICE EACH
4	.020	1/2-3/8	7/8	1/2	20,000	10	6508-314	\$65.62
6	.016	5/8-1/2	1-3/8	1/2	9,000	2	6508-345	119.85
8	.016	5/8-1/2	1-5/8	5/8	6,000	2	6508-395	177.87

Standard Twist-Wide Face (Double Sections)

DIA.	WIRE SIZE	ARBOR HOLE	TRIM LENGTH	FACE WIDTH	MAX SAFE FREE SPEED (RPM)	STD. PKG.	ITEM NO.	PRICE EACH
6	.016	2	1-3/8	7/8	9,000	5	6509-180	\$111.63
8	.016	2	1-5/8	1	6,000	1	6509-430	162.41
10	.016	2	1-3/4	1-1/4	4,500	1	6509-480	216.79
12	.014	2	2-3/4	1-1/4	3,600	1	6509-530	278.77

Other arbor holes available using metal adapter

Cup Brushes



Knot Type - Single Row



Knot Type - Double Row



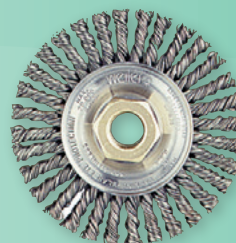
Crimped Wire

DIA.	WIRE SIZE	ARBOR HOLE	TRIM LENGTH	MAX SAFE FREE SPEED (RPM)	STD. PKG.	ITEM NO.	PRICE EACH
Knot Type – Single Row							
4	.014	5/8-11	1-1/4	9,000	1	6512-306	\$51.36
4	.023	5/8-11	1-1/4	9,000	1	6512-316	46.60
4	.035	5/8-11	1-1/4	9,000	1	6512-326	46.74
6	.014	5/8-11	1-1/2	6,600	1	6512-356	99.94
6	.023	5/8-11	1-1/2	6,600	1	6512-376	93.70
6	.035	5/8-11	1-1/2	6,600	1	6512-396	92.03
Knot Type – Double Row – Heavy Duty							
6	.023	5/8-11	1-3/8	6,600	1	6512-556	130.53
Crimped Wire Medium & Light Duty Applications							
4	.014	5/8-11	1-3/8	9,000	1	6514-026	42.52
4	.020	5/8-11	1-3/8	9,000	1	6514-036	39.90
6	.014	5/8-11	1-1/4	6,600	1	6514-066	72.42
6	.020	5/8-11	1-1/4	6,600	1	6514-076	65.14
Knot Type – Single Row – Heavy Duty – Stainless Steel							
4	.014	5/8-11	1-1/4	9,000	1	6512-406	114.84
4	.023	5/8-11	1-1/4	9,000	1	6512-416	110.03
4	.014	5/8-11	1-3/8	6,600	1	6512-456	223.11
6	.023	5/8-11	1-3/8	6,600	1	6512-476	193.33

Mighty-Mite Brushes for Small Angle Grinders

Knot Type Wire Wheel- Stringer Bead Twist

DIA.	WIRE SIZE	ARBOR HOLE	TRIM LENGTH	FACE WIDTH	MAX SAFE FREE SPEED (RPM)	STD. PKG.	ITEM NO.	PRICE EACH
4	.020	5/8-11	7/8	3/16	20,000	5	6513-131	\$23.76
4	.020	M 10 x 1.25	7/8	3/16	20,000	5	6513-125	26.14
4	Stainless .020	M 10 x 1.25	7/8	3/16	20,000	5	6513-132	47.52
4	Stainless .020	5/8-11	7/8	3/16	20,000	5	6513-138	44.38



Knot Type - Wire Wheel Cable Twist



Crimped Wire Cup Brush



DIA.	WIRE SIZE	ARBOR HOLE	TRIM LENGTH	FACE WIDTH	MAX SAFE FREE SPEED (RPM)	STD. PKG.	ITEM NO.	PRICE EACH
4	.020	5/8-11	7/8	1/4	20,000	5	6513-266	\$34.80

DIA.	WIRE SIZE	ARBOR HOLE	TRIM LENGTH	MAX SAFE FREE SPEED (RPM)	STD. PKG.	ITEM NO.	PRICE EACH
3	.014	M10 x 1.25	7/8	14,000	1	6513-240	\$29.28
3	.014	5/8-11	7/8	14,000	1	6513-245	29.10

Knot Type - Cup Brush Single Row



DIA.	WIRE SIZE	ARBOR HOLE	TRIM LENGTH	MAX SAFE FREE SPEED (RPM)	STD. PKG.	ITEM NO.	PRICE EACH
2-3/4	.020	M10 x 1.25	7/8	14,000	1	6513-281	\$30.91
2-3/4	.020	1/2-13	7/8	14,000	1	6513-285	30.91
2-3/4	.020	5/8-11	7/8	14,000	1	6513-286	30.91

Nylox Filament Brushes

Nylox Wheels Crimped Filament



Crimped Filament Disc Silicon Carbide – Composite Hub



DIA.	ARBOR HOLE	FILAMENT DIAM. AND GRIT SIZE	TRIM LENGTH	FACE WIDTH	THICKNESS THROUGH ARBOR	MAX SAFE FREE SPEED (RPM)	STD. PKG.	ITEM NO.	PRICE EACH
6	2	.002/320	1-1/4	1	1-1/16	5,000	2	6583-010	\$90.45
6	2	.035/180	1-1/4	1	1-1/16	5,000	2	6583-030	90.45
6	2	.040/120	1-1/4	1	1-1/16	5,000	2	6583-040	90.45
6	2	.040/80	1-1/4	1	1-1/16	5,000	2	6583-050*	90.45
8	2	.002/320	2-1/4	1	3/4	5,000	2	6583-110	125.22
8	2	.035/180	2-1/4	1	3/4	5,000	2	6583-130	125.22
8	2	.040/120	2-1/4	1	3/4	5,000	2	6583-140*	125.22
10	2	.040/80	2-1/4	1	3/4	5,000	2	6583-150	125.22
10	2	.035/180	3	1	1-1/16	4,500	2	6583-330	167.43
10	2	.040/120	3	1	1-1/16	4,500	2	6583-340	167.43
10	2	.040/80	3	1	1-1/16	4,500	2	6583-350	167.43

Other arbor holes available using metal adapter. Please specify.

*Minimum order quantities: 6" .040/80 (38); 8" .040/120 (50)

DIAMETER INCHES	FILAMENT DIA./GRIT	ARBOR HOLE	TRIM LENGTH	MAX. RPM	ITEM NO.	PRICE EACH
4"	.035/180	7/8"	1-1/2"	2,500	6585-814	\$154.49
4"	.040/120	7/8"	1-1/2"	2,500	6585-816	154.49
4"	.040/80	7/8"	1-1/2"	2,500	6585-818*	154.49
6"	.035/180	7/8"	1-1/2"	2,000	6585-850	230.99
6"	.040/120	7/8"	1-1/2"	2,000	6585-852	230.99
6"	.040/80	7/8"	1-1/2"	2,000	6585-854	230.99
8"	.035/180	7/8"	1-1/2"	2,000	6585-908	361.96

*Minimum order quantity: (48)

Nylox Cup Brushes



Rectangular Filament Disc (.045 x .090) Silicon Carbide– Composite Hub

DIAMETER INCHES	ARBOR HOLE	GRIT SIZE	TRIM LENGTH	MAX. RPM	ITEM NO.	PRICE EACH
4"	7/8"	120	1-1/2"	2,500	6585-824*	\$169.92
4"	7/8"	80	1-1/2"	2,500	6585-826	169.92
6"	7/8"	120	1-1/2"	2,000	6585-860*	233.86
6"	7/8"	80	1-1/2"	2,000	6585-862	233.86
8"	7/8"	120	1-1/2"	2,000	6585-920	372.43
8"	7/8"	80	1-1/2"	2,000	6585-922*	372.43

*Min. order quantities: 4" 120G (48); 6" 120G (30); 8" 80G (30)

DIA.	ARBOR HOLE	FILAMENT DIAM. AND GRIT SIZE	TRIM LENGTH	THICKNESS THROUGH ARBOR	MAX SAFE FREE SPEED (RPM)	STD. PKG.	ITEM NO.	PRICE EACH
2-3/4	1/4 Stem	.022/320	1-1/4	1-1/16	6,000	1	6514-401	\$50.04
2-3/4	1/4 Stem	.035/180	1-1/4	1-1/16	6,000	1	6514-403	49.75
2-3/4	1/4 Stem	.040/120	1-1/4	1-1/16	6,000	1	6514-404	49.75
3-1/2	5/8-11	.035/180	1-1/2	3/4	12,000	1	6514-413	69.24
3-1/2	5/8-11	.040/120	1-1/2	3/4	8,000	1	6514-414	69.24
5	5/8-11	.040/120	1-1/4	3/4	8,000	1	6514-576	112.99
6	5/8-11	.040/120	1-1/4	1-1/16	6,500	1	6514-516	121.95
6	5/8-11	.040/80	1-1/4	1-1/16	6,000	1	6514-506	121.95

Nylox Tube Brushes



DIA.	FILAMENT DIAM. AND GRIT SIZE	BRUSH LENGTH	STEM DIA.	OVERALL LENGTH	STD. PKG.	ITEM NO.	PRICE EACH
1/4	.002/320	1-1/2	1/8	4	10	6521-126	\$12.52
3/8	.035/180	1-1/2	1/8	4	10	6521-128	12.71
1/2	.040/120	2	5/32	5	10	6521-130*	11.09
5/8	.002/320	2	7/32	5	10	6521-132	11.68
3/4	.035/180	2-1/2	7/32	5-1/2	10	6521-134	11.82
7/8	.040/120	2-1/2	1/4	5-1/2	10	6521-136	12.57
1	.040/120	2-1/2	1/4	5-1/2	10	6521-138	11.96
1-1/8	.002/320	2-1/2	1/4	5-1/2	10	6521-302	7.60
1-1/4	.035/180	2-1/2	1/4	5-1/2	10	6521-306	12.78
1-1/2	.040/120	2-1/2	1/4	5-1/2	10	6521-309	13.31

*Minimum order quantity: (40)

Nylon Disc Brush Drive Arbors

Mounts Weiler disc brushes to any type of milling machine or CNC machine



DESCRIPTION	ITEM NO.	PRICE EACH
For 4" diameter disc brushes with 1-1/4" diameter bolt circle	6507-700	\$299.52
For 6" diameter disc brushes with 3" diameter bolt circle	6507-701	366.12
For 8" diameter disc brushes with 3" diameter bolt circle	6507-702	397.06
Standard 3/4" diameter shaft, 2" long. Standard 7/8" diameter shouldered spindle.		

Power and Hand Tube Brushes



Single Stem, Single Spiral "STS" Type - Eye Handle

DIA.	WIRE SIZE	BRUSH LENGTH	STEM DIAM.	OVERALL LENGTH	STD. PKG.	ITEM NO.	PRICE EACH
3/16	.003	1-1/2	3/32	7	10	6521-090	\$7.12
3/16	.005	1-1/2	3/32	7	10	6521-091	7.12
1/4	.003	1-1/2	3/32	7	10	6521-092	8.00
1/4	.005	1-1/2	3/32	7	10	6521-093	6.91
3/8	.004	2	1/8	8	10	6521-094	7.19
3/8	.006	2	1/8	8	10	6521-095	5.97
1/2	.004	2	1/8	8	10	6521-096	7.58
1/2	.006	2	1/8	8	10	6521-097	5.97

Single Stem, Round "SM" Type - Stainless Steel Stem



Steel Wire							
1/4	.004	1	1/8	3-1/2	10	6521-072	\$6.29
3/8	.004	1	1/8	3-1/2	10	6521-073	6.39
3/8	.008	1	3/16	3-1/2	10	6521-264	5.78
1/2	.005	1	3/16	3-1/2	10	6521-074	5.84
5/8	.005	1	3/16	3-1/2	10	6521-075	6.07
5/8	.008	1	3/16	3-1/2	10	6521-265	6.93
3/4	.006	1	7/32	3-1/2	10	6521-076	7.31
3/4	.008	1	7/32	3-1/2	10	6521-266*	7.18
7/8	.006	1	7/32	3-1/2	10	6521-077	7.56
1	.005	1	1/4	3-1/2	10	6521-078	7.85
1-1/8	.008	1	1/4	3-1/2	10	6521-079	7.89
1-1/4	.008	1	1/4	3-1/2	10	6521-080	7.85
Stainless Steel Wire							
1/4	.004	1	1/8	3-1/2	10	6521-081	7.60
3/8	.008	1	1/8	3-1/2	10	6521-240	6.33
1/2	.005	1	3/16	3-1/2	10	6521-083	7.76
5/8	.005	1	3/16	3-1/2	10	6521-084	7.76
3/4	.006	1	7/32	3-1/2	10	6521-085	8.17
7/8	.006	1	7/32	3-1/2	10	6521-086	8.24
1	.008	1	1/4	3-1/2	10	6521-087	9.40

*Minimum order quantity: (40)

Single Stem, Double Spiral "DS" Type



Single Stem, Double Spiral "DS" Type							
1/2	.006	2	5/32	5	10	6521-107	\$15.06
5/8	.008	2	7/32	5	10	6521-109	15.32
3/4	.0104	2-1/2	1/4	5-1/2	10	6521-111	15.57
7/8	.0104	2-1/2	1/4	5-1/2	10	6521-113	16.14
1	.0104	2-1/2	1/4	5-1/2	10	6521-115	15.87
1-1/4	.0104	2-1/2	1/4	5-1/2	10	6521-167	16.57

End Brushes



Solid End



Knot Type



Crimped Wire Cup

							STAINLESS	
DIA.	WIRE SIZE	TRIM LENGTH	MAX SAFE FREE SPEED (RPM)	STD. PKG.	ITEM NO.	PRICE EACH	ITEM NO.	PRICE EACH
Solid End								
1/2	.006	7/8	25,000	10	6510-001	\$11.93	6510-013	\$15.37
1/2	.0104	7/8	25,000	10	6510-002	11.10	6510-014	14.18
1/2	.014	7/8	25,000	10	6510-003	10.52	6510-015	13.54
1/2	.020	7/8	25,000	10	6510-004	10.19	6510-016	13.42
3/4	.006	7/8	22,000	10	6510-005	18.40	6510-017	22.27
3/4	.0104	7/8	22,000	10	6510-006	13.98	6510-018	20.03
3/4	.014	7/8	22,000	10	6510-007	13.82	6510-019	19.84
3/4	.020	7/8	22,000	10	6510-008	13.33	6510-020	19.26
1	.006	7/8	22,000	10	6510-009	21.98	6510-021	30.96
1	.0104	7/8	22,000	10	6510-010	16.30	6510-022	28.52
1	.014	7/8	22,000	10	6510-011	16.30	6510-023	28.36
1	.020	7/8	22,000	10	6510-012	14.34	6510-024	27.02
Knot Type								
3/4	.020	7/8	20,000	10	6510-026	21.06	6510-030	36.90
1-1/8	.014	7/8	20,000	10	6510-027	23.23	6510-031	47.71
1-1/8	.020	7/8	20,000	10	6510-028	22.87	6510-032	42.74
Crimped Wire Cup Brushes								
1-3/4"	.006	3/4"	13,000	10	6514-300	18.14	-	-
1-3/4"	.0118	3/4"	13,000	10	6514-301	16.01	6514-304	35.28
2-3/4"	.0118	7/8"	6,000	1	6514-302	24.52	-	-

Conflex Narrow Face Crimped Wire Wheel



							STAINLESS	
DIA.	WIRE SIZE	TRIM LENGTH	MAX SAFE FREE SPEED (RPM)	STD. PKG.	ITEM NO.	PRICE EACH	ITEM NO.	PRICE EACH
2	.006	1/2	20,000	10	6517-609	\$22.43	-	-
2	.0118	1/2	20,000	10	6517-610	20.01	-	-
2 1/2	.006	3/4	20,000	10	6517-612	25.70	6517-611	\$32.92
2 1/2	.014	3/4	20,000	10	6517-614	17.06	-	-
3	.008	1	20,000	10	6517-615	26.09	-	-
3	.0118	1	20,000	10	6517-616	19.82	-	-
3	.014	1	20,000	10	6517-617	18.49	6517-618	45.60

Hand Wire Scratch Brushes

Curved Handle



FILL MATERIAL	NUMBER OF ROWS	BLOCK SIZE	BRUSH PART	TRIM LENGTH	STD. PKG.	ITEM NO.	PRICE EACH
.012 STEEL	3 x 19	13 x 1/2 x 1	6	1	12	6525-150	\$2.82
.012 SS	3 x 19	13 x 1/2 x 1	6	1	12	6525-154	4.49
.012 STEEL†	3 x 19	14 x 7/8	5-1/2	1-3/16	12	6544-055	6.21
.012 SS	4 x 18	14 x 1-1/8	6	1	12	6525-202	6.34
.012 STEEL†	4 x 19	14 x 1-1/8	6	1-3/16	12	6544-058	8.98

† With Scraper

Block Type



FILL MATERIAL	NUMBER OF ROWS	BLOCK SIZE	TRIM LENGTH	STD. PKG.	ITEM NO.	PRICE EACH
.012 STEEL	6 x 19	7-1/4 x 2-1/4	1-5/8	12	6544-067	\$8.28

Scraper Type



FILL MATERIAL	NUMBER OF ROWS	BLOCK SIZE	BRUSH PART	TRIM LENGTH	STD. PKG.	ITEM NO.	PRICE EACH
.012 STEEL	4 x 11	11 x 1-1/2	5	1-5/8	12	6525-211	\$4.97

Shoe Handle



FILL MATERIAL	NUMBER OF ROWS	BLOCK SIZE	BRUSH PART	TRIM LENGTH	STD. PKG.	ITEM NO.	PRICE EACH
.012 STEEL	4 x 16	10 x 1	5	1	12	6525-100	\$3.07
.012 SS	4 x 16	10 x 1	5	1	12	6525-104	5.23
.012 STEEL†	4 x 16	10 x 1-1/8	5	1-3/16	12	6544-065	7.89

† With Scraper

Small



HANDLE	FILL MATERIAL	NUMBER OF ROWS	BLOCK SIZE	BRUSH PART	TRIM LENGTH	STD. PKG.	ITEM NO.	PRICE EACH
Plastic	.006 SS	3 x 7	7-1/2 x 1/2	1-3/8	1/2	36	6544-075	\$3.27
Wood	.006 SS	3 x 7	7-1/2 x 1/2	1-3/8	1/2	36	6544-167	3.03
Wood	.006 Brass	3 x 7	7-1/2 x 1/2	1-3/8	1/2	36	6544-189	4.15

Chip and Oil Brushes

Natural White Bristle Wood Handle



WIDTH	THICKNESS	BRISTLE LENGTH	STD. PKG.	ITEM NO.	PRICE EACH
1/2	5/16	1-3/4	30	6540-065	\$0.35
1	5/16	1-3/4	30	6540-066	0.37
1-1/2	5/16	1-3/4	30	6540-067	0.48
2	5/16	1-3/4	20	6540-068	0.57
2-1/2	3/8	1-3/4	20	6540-069	0.76
3	3/8	1-3/4	10	6540-070	1.00
4	5/8	2	10	6540-071	1.96

Counter Dusters



FILL MATERIAL	BRUSH LENGTH	TRIM LENGTH	STD. PKG.	ITEM NO.	PRICE EACH
Black Tampico	8	2-1/2	12	6525-251	\$9.72
Black Synthetic	8	2-1/2	12	6525-252	7.74
Black Horsehair	8	2-1/8	12	6544-003	15.84
Grey Tampico	8	2-1/2	12	6544-004	9.34



Black Horsehair

Parts Cleaning Brush



FILL MATERIAL	DIA.	BRISTLE LENGTH	STD. PKG.	ITEM NO.	PRICE EACH
Nylon	1	2-1/2	12	6525-221	\$4.36
Tampico	1	2-3/4	12	6525-222	4.53

Tin Handle Acid Brushes

WIDTH	TRIM LENGTH	OVERALL LENGTH	STD. PKG.	ITEM NO.	PRICE EACH
3/8	3/4	5-3/4	144	6544-089	\$0.31
1/2	3/4	5-3/4	144	6544-090	0.41

Floor Brushes



Fine Sweeping



Medium Sweeping



Coarse Sweeping

DESCRIPTION	TRIM LENGTH	STD. PKG.	ITEM NO.	PRICE EACH
Fine Sweeping				
18 Block Black Tampico	2-7/8	1	6525-231	\$ 17.53
24 Block Black Synthetic	2-7/8	1	6525-232	25.04
Medium Sweeping				
18 Block Synthetic	3	1	6525-234	16.07
24 Block Synthetic	3	1	6525-235	22.40

DESCRIPTION	TRIM LENGTH	STD. PKG.	ITEM NO.	PRICE EACH
Coarse Sweeping				
18 Block Synthetic	3-1/4	1	6525-238	\$ 15.88
24 Block Synthetic	3-1/4	1	6525-239	23.34
Garage Sweeping				
18 Block Palmyra	4	1	6525-241	14.30
24 Block Palmyra	4	1	6525-242	20.04

Handles

Threaded End -
60" Overall Length
15/16" Diameter

Order No. 6544-018

Price Each\$7.49

Surface Grinding Wheels

Vitrified Bonded for Rich Stock Removal and Excellent Rigidity for Precision Grinding

WA – White Aluminum Oxide

Friable grain for light grinding of all steels, particularly tool & die steels.

AZ – Premium Blue Aluminum Oxide

Suitable for HSS grinding on materials 55RC and above. Exceptionally cool, fast cutting.

CG – Green Silicon Carbide

General purpose grinding on tungsten carbide and non-ferrous metals.

AS3 – Synthetic Ceramic Blend

Features a blend of synthetic ceramic grain with PA and WA grains for optimum fracturing. Provides a continuous, sharp cutting action.

32A – Premium Aluminum Oxide

Outstanding firm holding wheels with free cutting grain, ideal for medium to heavy stock removal. Excellent versatility and performance on a wide range of materials.



**Buy
Ctn Qty
Deduct
20%**

RA – Ruby Aluminum Oxide

For fast stock removal on tool steels below 55RC and for high chromium steels. This grain is harder than the PA and AZ.

6 x 1/2 x 1-1/4 – No Recess

GRIT/ HARDNESS	MAX RPM	CTN QTY	WHITE ALUMINUM OXIDE (TYPE WA)		PREMIUM BLUE ALUMINUM OXIDE (TYPE AZ)		SILICON CARBIDE (TYPE CG)	
			ORDER NO.	PRICE EACH	ORDER NO.	PRICE EACH	ORDER NO.	PRICE EACH
60K	4456	10	–	–	3323-024	\$20.75	–	–

7 x 1/4 x 1-1/4 – No Recess

GRIT/ HARDNESS	MAX RPM	CTN QTY	WHITE ALUMINUM OXIDE (TYPE WA)		PREMIUM BLUE ALUMINUM OXIDE (TYPE AZ)		SILICON CARBIDE (TYPE CG)		SYNTHETIC CERAMIC GRAIN (TYPE AS3)	
			ORDER NO.	PRICE EACH	ORDER NO.	PRICE EACH	ORDER NO.	PRICE EACH	ORDER NO.	PRICE EACH
46I	3760	10	3320-102	\$18.20	3323-102	\$18.40	–	–	–	–
60I	3760	10	3320-120	18.20	3323-120	18.40	3275-120	\$21.90	–	–
60J	3760	10	3320-122	18.20	3323-122	18.40	–	–	–	–
60K	3760	10	3320-124	18.20	3323-124	18.40	–	–	–	–
80I	3760	10	–	–	–	–	3275-130	21.90	–	–
80J	3760	10	3320-130	18.20	3323-130	18.40	–	–	–	–
80K	3760	10	3320-132	18.20	3323-132	18.40	–	–	3326-134	\$33.15
100I	3760	10	–	–	–	–	3275-140	21.90	–	–
100K	3760	10	3320-148	18.20	3323-148	18.40	–	–	–	–
120K	3760	10	3320-162	18.20	–	–	–	–	–	–
150K	3760	10	3320-186	18.20	3323-186	18.40	–	–	–	–

† Limited Quantities

7 x 1/2 x 1-1/4 – No Recess

GRIT/ HARDNESS	MAX RPM	CTN QTY	WHITE ALUMINUM OXIDE (TYPE WA)		PREMIUM BLUE ALUMINUM OXIDE (TYPE AZ)		PREMIUM GRAY ALUMINUM OXIDE (TYPE 32A)		SILICON CARBIDE (TYPE CG)		SYNTHETIC CERAMIC GRAIN (TYPE AS3)	
			ORDER NO.	PRICE EACH	ORDER NO.	PRICE EACH	ORDER NO.	PRICE EACH	ORDER NO.	PRICE EACH	ORDER NO.	PRICE EACH
46G	3760	10	3320-300†	\$19.69	–	–	–	–	–	–	–	–
46H	3760	10	3320-302	21.65	3323-302	\$23.30	3330-302	\$27.55	–	–	3326-202	\$45.10
46I	3760	10	3320-304	21.65	3323-304	23.30	3330-304	27.55	–	–	–	–
46J	3760	10	3320-306	21.65	3323-306	23.30	3330-306	27.55	–	–	3326-204	45.10
46K	3760	10	3320-308	21.65	3323-308	23.30	3330-308	27.55	–	–	–	–
60H	3760	10	3320-320	21.65	3323-320†	22.78	–	–	–	–	–	–
60I	3760	10	3320-322	21.65	3323-322	23.30	3330-322	27.55	3275-320	\$29.85	–	–
60J	3760	10	3320-324	21.65	3323-324	23.30	–	–	–	–	–	–
60K	3760	10	3320-326	21.65	3323-326	23.30	–	–	–	–	3326-224	45.10
80H	3760	10	–	–	3323-342	23.30	–	–	–	–	–	–
80I	3760	10	–	–	–	–	–	–	3275-330	29.85	–	–
80K	3760	10	3320-346	21.65	3323-346	23.30	–	–	–	–	–	–
100I	3760	10	–	–	–	–	–	–	3275-340	29.85	–	–
100K	3760	10	3320-360	21.65	3323-360	23.30	–	–	–	–	–	–
120K	3760	10	3320-374	21.65	–	–	–	–	–	–	–	–
150K	3760	10	3320-386	21.65	3323-386	23.30	–	–	–	–	–	–

† Limited Quantities

Surface Grinding Wheels



2

**Buy
Ctn Qty
Deduct
20%**

Ruby Red Aluminum Oxide 7 x 1/2 x 1-1/4 – No Recess

GRIT/ HARDNESS	MAX RPM	TYPE RA		
		CTN QTY	ORDER NO.	PRICE EACH
46H	3760	10	3280-102	\$29.25
46J/K	3760	10	3280-108	29.25
60J/K	3760	10	3280-120	29.25

7 x 1/2 x 1-1/4 – Porous Bond – No Recess

GRIT/ HARDNESS	MAX RPM	CTN QTY	PREMIUM BLUE ALUMINUM OXIDE (TYPE AZ)	
			ORDER NO.	PRICE EACH
46H12	3760	10	3323-402	\$25.60

7 x 3/4 x 1-1/4 – Recessed One Side 3 x 1/4"

GRIT/ HARDNESS	MAX RPM	CTN QTY	WHITE ALUMINUM OXIDE (TYPE WA)		PREMIUM BLUE ALUMINUM OXIDE (TYPE AZ)		SILICON CARBIDE (TYPE CG)		SYNTHETIC CERAMIC GRAIN (TYPE AS3)	
			ORDER NO.	PRICE EACH	ORDER NO.	PRICE EACH	ORDER NO.	PRICE EACH	ORDER NO.	PRICE EACH
46H	3760	10	3320-500	\$29.50	3323-500	\$32.15	—	—	—	—
46I	3760	10	—	—	3323-502	32.15	—	—	—	—
46J	3760	10	3320-504	29.50	3323-504	32.15	—	—	—	—
46K	3760	10	3320-506†	13.40	—	—	—	—	—	—
60H	3760	10	3320-518	29.50	3323-518†	11.05	—	—	—	—
60I	3760	10	—	—	—	—	3275-520	\$36.95	—	—
60J	3760	10	3320-522	29.50	3323-522	32.15	—	—	—	—
60K	3760	10	3320-524†	13.45	—	—	—	—	—	—
80I	3760	10	—	—	—	—	3275-530	38.40	—	—
100I	3760	10	—	—	—	—	3275-540†	18.55	—	—

† Limited Quantities

7 x 1 x 1-1/4 – Recessed One Side 3 x 1/2"

GRIT/ HARDNESS	MAX RPM	CTN QTY	WHITE ALUMINUM OXIDE (TYPE WA)		PREMIUM BLUE ALUMINUM OXIDE (TYPE AZ)		SILICON CARBIDE (TYPE CG)		SYNTHETIC CERAMIC GRAIN (TYPE AS3)	
			ORDER NO.	PRICE EACH	ORDER NO.	PRICE EACH	ORDER NO.	PRICE EACH	ORDER NO.	PRICE EACH
46H	3760	10	3320-700	\$34.60	3323-700	\$37.05	—	—	—	—
46I	3760	10	3320-702	34.60	3323-702	37.05	—	—	—	—
46J	3760	10	3320-704	34.60	3323-704	37.05	—	—	—	—
46K	3760	10	—	—	3323-706	37.05	—	—	—	—
60I	3760	10	3320-720	34.60	—	—	3275-720	\$45.00	—	—
60J	3760	10	3320-722	34.60	3323-722	37.05	—	—	—	—
60K	3760	10	—	—	3323-724	37.05	—	—	—	—
80I	3760	10	—	—	—	—	3275-730	45.00	—	—
100I	3760	10	—	—	—	—	3275-740	45.00	—	—

† Limited Quantities

8 x 1/4 x 1-1/4 – No Recess

GRIT/ HARDNESS	MAX RPM	CTN QTY	WHITE ALUMINUM OXIDE (TYPE WA)		PREMIUM BLUE ALUMINUM OXIDE (TYPE AZ)		SILICON CARBIDE (TYPE CG)		SYNTHETIC CERAMIC GRAIN (TYPE AS3)	
			ORDER NO.	PRICE EACH	ORDER NO.	PRICE EACH	ORDER NO.	PRICE EACH	ORDER NO.	PRICE EACH
60K	3600	10	3320-874	\$24.50	—	—	—	—	—	—
80I	3600	10	—	—	—	—	3275-830	\$30.65	—	—
80J	3600	10	3320-884	24.50	—	—	—	—	—	—

† Limited Quantities

Surface Grinding Wheels



2

**Buy
Ctn Qty
Deduct
20%**

8 x 1/2 x 1-1/4 – No Recess

GRIT/ HARDNESS	MAX RPM	CTN QTY	WHITE ALUMINUM OXIDE (TYPE WA)		PREMIUM BLUE ALUMINUM OXIDE (TYPE AZ)		SILICON CARBIDE (TYPE CG)		GREY ALUMINUM OXIDESYNTHETIC CERAMIC (TYPE 32A)		GRAIN (TYPE AS3)	
			ORDER NO.	PRICE EACH	ORDER NO.	PRICE EACH	ORDER NO.	PRICE EACH	ORDER NO.	PRICE EACH	ORDER NO.	PRICE EACH
46H	3600	10	3320-900	\$29.80	3323-900	\$30.90	—	—	—	—	—	—
46I	3600	10	3320-902	29.80	3323-902	30.90	—	—	3330-902	\$34.10	—	—
46J	3600	10	3320-904	29.80	3323-904	30.90	—	—	3330-904	34.10	—	—
46K	3600	10	3320-906	29.80	3323-906	30.90	—	—	—	—	3326-406	\$62.20
60H	3600	10	—	—	3323-918	30.90	—	—	—	—	—	—
60I	3600	10	3320-920	29.80	3323-920	30.90	3275-920	\$39.80	—	—	—	—
60J	3600	10	3320-922	29.80	3323-922	30.90	—	—	—	—	3326-424	62.20
60K	3600	10	3320-924	29.80	3323-924	30.90	—	—	—	—	—	—
80I	3600	10	—	—	—	—	3275-930	39.80	—	—	—	—
80K	3600	10	3320-936	29.80	3323-936	30.90	—	—	—	—	—	—
100I	3600	10	—	—	—	—	3275-940	39.80	—	—	—	—

8 x 1/2 x 1-1/4 – Porous Bond - No Recess

RUBY ALUMINUM OXIDE (TYPE RA)				
GRIT/ HARDNESS	MAX RPM	CTN QTY	ORDER NO.	PRICE EACH
46H12	3600	10	3277-133	\$45.40
60H12	3600	10	3277-138	45.40

8 x 3/4 x 1-1/4 – Recessed One Side 3 x 1/4”

GRIT/ HARDNESS	MAX RPM	CTN QTY	WHITE ALUMINUM OXIDE (TYPE WA)		PREMIUM BLUE ALUMINUM OXIDE (TYPE AZ)		SILICON CARBIDE (TYPE CG)		SYNTHETIC CERAMIC GRAIN (TYPE AS3)	
			ORDER NO.	PRICE EACH	ORDER NO.	PRICE EACH	ORDER NO.	PRICE EACH	ORDER NO.	PRICE EACH
46H	3600	10	3321-000	\$40.10	3324-000	\$40.15	—	—	—	—
46J	3600	10	3321-004	40.10	3324-004	40.15	—	—	—	—
46K	3600	10	3321-006†	10.80	—	—	—	—	—	—
60I	3600	10	3321-020	40.10	—	—	3276-020	\$48.30	—	—
60J	3600	10	3321-022	40.10	3324-022	40.15	—	—	—	—
60K	3600	10	3321-024	40.10	—	—	—	—	—	—

† Limited Quantities

8 x 1 x 1-1/4 – Recessed One Side 3 x 1/2”

GRIT/ HARDNESS	MAX RPM	CTN QTY	WHITE ALUMINUM OXIDE (TYPE WA)		PREMIUM BLUE ALUMINUM OXIDE (TYPE AZ)		SILICON CARBIDE (TYPE CG)		SYNTHETIC CERAMIC GRAIN (TYPE AS3)	
			ORDER NO.	PRICE EACH	ORDER NO.	PRICE EACH	ORDER NO.	PRICE EACH	ORDER NO.	PRICE EACH
46H	3600	10	—	—	3324-100	\$44.80	—	—	—	—
46J	3600	10	3321-104	\$46.45	3324-104	44.80	—	—	—	—
46K	3600	10	3321-106	46.45	—	—	—	—	—	—
60I	3600	10	3321-120	46.45	—	—	3276-120	\$54.80	—	—
60J	3600	10	3321-122	46.45	3324-122	44.80	—	—	—	—
60K	3600	10	3321-124	46.45	—	—	—	—	—	—
100I	3600	10	—	—	—	—	3276-140	54.80	—	—

† Limited Quantities

Surface Grinding Wheels



CGW
CAMEL GRINDING WHEELS

2

**Buy
Ctn Qty
Deduct
20%**

10 x 3/4 x 3 – No Recess

GRIT/ HARDNESS	MAX RPM	CTN QTY	PREMIUM BLUE ALUMINUM OXIDE (TYPE AZ)		SILICON CARBIDE (TYPE CG)		SYNTHETIC CERAMIC GRAIN (TYPE AS3)	
			ORDER NO.	PRICE EACH	ORDER NO.	PRICE EACH	ORDER NO.	PRICE EACH
46I	2674	5	3324-302†	\$58.69	—	—	—	—
60H	2674	5	3324-318	60.00	—	—	—	—
60K	2674	5	—	—	—	—	—	—

† Limited Quantities

10 x 1 x 3 – No Recess

GRIT/ HARDNESS	MAX RPM	CTN QTY	WHITE ALUMINUM OXIDE (TYPE WA)		PREMIUM BLUE ALUMINUM OXIDE (TYPE AZ)		SILICON CARBIDE (TYPE CG)		SYNTHETIC CERAMIC GRAIN (TYPE AS3)	
			ORDER NO.	PRICE EACH	ORDER NO.	PRICE EACH	ORDER NO.	PRICE EACH	ORDER NO.	PRICE EACH
46H	2674	5	3321-500†	\$63.80	—	—	—	—	—	—
46I	2674	5	3321-502†	17.35	3324-502	\$71.35	—	—	—	—
46J	2674	5	3321-504	70.05	3324-504	71.35	—	—	—	—
46K	2674	5	3321-506†	25.25	3324-506	71.35	—	—	3326-706	\$156.40
60H	2674	5	—	—	3324-518†	28.60	—	—	—	—
60I	2674	5	3321-520†	25.25	—	—	—	—	—	—
60J	2674	5	3321-522	70.05	3324-522	71.35	—	—	—	—
60K	2674	5	—	—	3324-524	71.35	—	—	—	—

† Limited Quantities

12 x 3/4 x 3 – No Recess

GRIT/ HARDNESS	MAX RPM	CTN QTY	WHITE ALUMINUM OXIDE (TYPE WA)		PREMIUM BLUE ALUMINUM OXIDE (TYPE AZ)		SILICON CARBIDE (TYPE CG)		SYNTHETIC CERAMIC GRAIN (TYPE AS3)	
			ORDER NO.	PRICE EACH	ORDER NO.	PRICE EACH	ORDER NO.	PRICE EACH	ORDER NO.	PRICE EACH
46K	2228	4	3321-606†	\$27.20	—	—	—	—	—	—

† Limited Quantities

12 x 1 x 3 – No Recess

GRIT/ HARDNESS	MAX RPM	CTN QTY	WHITE ALUMINUM OXIDE (TYPE WA)		PREMIUM BLUE ALUMINUM OXIDE (TYPE AZ)		SILICON CARBIDE (TYPE CG)		SYNTHETIC CERAMIC GRAIN (TYPE AS3)	
			ORDER NO.	PRICE EACH	ORDER NO.	PRICE EACH	ORDER NO.	PRICE EACH	ORDER NO.	PRICE EACH
46H	2228	2	3321-700	\$101.45	3324-700	\$98.45	—	—	3326-902	\$218.25
46J	2228	2	3321-704	101.45	3324-704	98.45	—	—	3326-904	218.25
46K	2228	2	—	—	3324-706	98.45	—	—	—	—
60I	2228	2	—	—	—	—	—	—	3326-922	218.25
60K	2228	2	—	—	3324-724	98.45	—	—	—	—

† Limited Quantities

Surface Grinding Wheels



CGW
CAMEL GRINDING WHEELS

**Buy
Ctn Qty
Deduct
20%**

*Except 12 x 2 x 5

12 x 1 x 5 – No Recess

GRIT/ HARDNESS	MAX RPM	CTN QTY	WHITE ALUMINUM OXIDE (TYPE WA)		PREMIUM BLUE ALUMINUM OXIDE (TYPE AZ)		SILICON CARBIDE (TYPE CG)		SYNTHETIC CERAMIC GRAIN (TYPE AS3)	
			ORDER NO.	PRICE EACH	ORDER NO.	PRICE EACH	ORDER NO.	PRICE EACH	ORDER NO.	PRICE EACH
46H	2228	2	3321-800	\$101.45	3324-800	\$98.45	—	—	3326-932	\$209.11
46I	2228	2	3321-802†	32.85	—	—	—	—	—	—
46J	2228	2	3321-804	101.45	3324-804	98.45	—	—	—	—
46K	2228	2	3321-806†	31.80	3324-806	98.45	—	—	—	—
60J	2228	2	3321-822	101.45	3324-822	98.45	—	—	—	—
60K	2228	2	—	—	3324-824	98.45	—	—	—	—

† Limited Quantities

12 x 1-1/2 x 3 – Recessed One Side 7-1/2 x 1/2"

GRIT/ HARDNESS	MAX RPM	CTN QTY	WHITE ALUMINUM OXIDE (TYPE WA)		PREMIUM BLUE ALUMINUM OXIDE (TYPE AZ)		SILICON CARBIDE (TYPE CG)		SYNTHETIC CERAMIC GRAIN (TYPE AS3)	
			ORDER NO.	PRICE EACH	ORDER NO.	PRICE EACH	ORDER NO.	PRICE EACH	ORDER NO.	PRICE EACH
46H	2228	2	3321-900	\$144.40	—	—	—	—	—	—
46I	2228	2	3321-902	144.40	—	—	—	—	—	—
46J	2228	2	3321-904	144.40	—	—	—	—	—	—
60I	2228	2	3321-920	144.40	—	—	—	—	—	—

12 x 1-1/2 x 5 – Recessed One Side 7-1/2 x 1/2"

GRIT/ HARDNESS	MAX RPM	CTN QTY	WHITE ALUMINUM OXIDE (TYPE WA)		PREMIUM BLUE ALUMINUM OXIDE (TYPE AZ)		SILICON CARBIDE (TYPE CG)		SYNTHETIC CERAMIC GRAIN (TYPE AS3)	
			ORDER NO.	PRICE EACH	ORDER NO.	PRICE EACH	ORDER NO.	PRICE EACH	ORDER NO.	PRICE EACH
46H	2228	2	3322-000	\$144.40	3325-000	\$144.30	—	—	—	—
46I	2228	2	3322-002	144.40	—	—	—	—	—	—
46J	2228	2	3322-004	144.40	3325-004	144.30	—	—	—	—
46K	2228	2	—	—	3325-006	144.30	—	—	—	—
60I	2228	2	3322-020	144.40	—	—	—	—	—	—
60J	2228	2	3322-022	144.40	3325-022	144.30	—	—	—	—

12 x 2 x 5 – Recessed Two Sides 7-1/2 x 1/2"

GRIT/ HARDNESS	MAX RPM	CTN QTY	WHITE ALUMINUM OXIDE (TYPE WA)		PREMIUM BLUE ALUMINUM OXIDE (TYPE AZ)		SILICON CARBIDE (TYPE CG)		SYNTHETIC CERAMIC GRAIN (TYPE AS3)	
			ORDER NO.	PRICE EACH	ORDER NO.	PRICE EACH	ORDER NO.	PRICE EACH	ORDER NO.	PRICE EACH
46H	2228	1	—	—	3325-100	\$153.65	—	—	—	—
46I	2228	1	3322-102	\$153.90	3325-102	153.65	—	—	—	—
46J	2228	1	3322-104	153.90	—	—	—	—	—	—
60H	2228	1	3322-118	153.90	3325-118	153.65	—	—	—	—

* Carton Qty. deduction not applicable

Surface Grinding Wheels



CGW
CAMEL GRINDING WHEELS

2

**Buy
Ctn Qty
Deduct
20%**

*Except 12 x 2 x 5

14 x 1 x 5 – No Recess

GRIT/ HARDNESS	MAX RPM	CTN QTY	WHITE ALUMINUM OXIDE (TYPE WA)		PREMIUM BLUE ALUMINUM OXIDE (TYPE AZ)		GREY ALUMINUM OXIDE (TYPE 32A)		SYNTHETIC CERAMIC GRAIN (TYPE AS3)	
			ORDER NO.	PRICE EACH	ORDER NO.	PRICE EACH	ORDER NO.	PRICE EACH	ORDER NO.	PRICE EACH
46H	1910	2	–	–	3325-200	\$159.85	3332-200	\$174.20	–	–
46I	1910	2	3322-202	\$142.25	3325-202	159.85	3332-202	174.20	–	–
46J	1910	2	–	–	3325-204	159.85	–	–	3326-954	\$270.20
60I	1910	2	3322-220	142.25	3325-220	159.85	–	–	–	–
60K	1910	2	3322-224	142.25	3325-224	159.85	–	–	–	–

14 x 1-1/2 x 5 – No Recess

GRIT/ HARDNESS	MAX RPM	CTN QTY	WHITE ALUMINUM OXIDE (TYPE WA)		PREMIUM BLUE ALUMINUM OXIDE (TYPE AZ)		GRAY ALUMINUM OXIDE (TYPE 32A)	
			ORDER NO.	PRICE EACH	ORDER NO.	PRICE EACH	ORDER NO.	PRICE EACH
46H	1910	2	3322-250	\$190.75	3325-250	\$214.35	3332-250	\$229.25
46I	1910	2	3322-252	190.75	–	–	3332-254	229.25
46J	1910	2	3322-254	190.75	3325-254	214.35	–	–
46K	1910	2	–	–	3325-256	214.35	–	–
60H	1910	2	–	–	3325-268	214.35	–	–
60J	1910	2	–	–	3325-272	214.35	–	–

14 x 1-1/2 x 5 – Recessed One Side 8 x 1/2"

GRIT/ HARDNESS	MAX RPM	CTN QTY	WHITE ALUMINUM OXIDE (TYPE WA)		PREMIUM BLUE ALUMINUM OXIDE (TYPE AZ)		SYNTHETIC CERAMIC GRAIN (TYPE AS3)	
			ORDER NO.	PRICE EACH	ORDER NO.	PRICE EACH	ORDER NO.	PRICE EACH
46H	1910	2	3322-300	\$190.75	3325-300	\$214.35	3326-961	\$412.65
46I	1910	2	3322-302	190.75	3325-302	214.35	–	–
46J	1910	2	3322-304	190.75	3325-304	214.35	–	–
60I	1910	2	3322-320	190.75	3325-320	214.35	–	–
60J	1910	2	–	–	3325-322	214.35	–	–

14 x 2 x 5 – Recessed One Side 8 x 1"

			WHITE ALUMINUM OXIDE (TYPE WA)		PREMIUM BLUE ALUMINUM OXIDE (TYPE AZ)		SILICON CARBIDE (TYPE CG)		SYNTHETIC CERAMIC GRAIN (TYPE AS3)		
GRIT/ HARDNESS	MAX RPM	CTN QTY	ORDER NO.	PRICE EACH	ORDER NO.	PRICE EACH	ORDER NO.	PRICE EACH	CTN QTY	ORDER NO.	PRICE EACH
46H	1910	1	3322-400	\$207.55	3325-400	\$230.80	—	—	—	—	—
46I	1910	1	3322-402	207.55	3325-402	230.80	—	—	—	—	—
46J	1910	1	3322-404	207.55	3325-404	230.80	—	—	—	—	—
60I	1910	1	3322-420	207.55	—	—	—	—	—	—	—
60J	1910	1	—	—	3325-422	230.80	—	—	—	—	—
60K	1910	1	—	—	3325-424	230.80	—	—	—	—	—

*Carton Qty. deduction not applicable

Tool & Cutter Grinding Wheels

Vitrified Bonded Assortment of the Standard Shapes Most Commonly Used in Tool and Cutter Applications.



2

**Buy
Ctn Qty
Deduct
20%**

WA – White Aluminum Oxide

Friable grain for light grinding of all steels, particularly tool & die steels.

CG – Green Silicon Carbide

Used for non-ferrous metals such as cemented carbides.

AS3 – Synthetic Ceramic Blend

Features a blend of synthetic ceramic grain with PA and WA grains for optimum fracturing. Provides a continuous, sharp cutting action.

4/3 x 1-1/2 x 1-1/4 – Flaring Cup Wheel

GRIT/ HARDNESS	MAX RPM	CTN QTY	WHITE ALUMINUM OXIDE (TYPE WA)		SILICON CARBIDE (TYPE CG)		SYNTHETIC CERAMIC GRAIN (TYPE AS3)		
			ORDER NO.	PRICE EACH	ORDER NO.	PRICE EACH	CTN QTY	ORDER NO.	PRICE EACH
46I	6685	10	—	—	—	—	3	3103-820	\$55.20
46J	6685	10	3102-733	\$26.35	—	—	—	—	—
46K	6685	10	3102-734	26.35	—	—	—	—	—
60J	6685	10	3102-743	26.35	—	—	—	—	—
60K	6685	10	3102-744	26.35	—	—	3	3103-830	55.20
80K	6685	10	3102-750	26.35	—	—	—	—	—

† Limited Quantities



5/3-3/4 x 1-3/4 x 1-1/4 – Flaring Cup Wheel

GRIT/ HARDNESS	MAX RPM	CTN QTY	WHITE ALUMINUM OXIDE (TYPE WA)		SILICON CARBIDE (TYPE CG)		SYNTHETIC CERAMIC GRAIN (TYPE AS3)		
			ORDER NO.	PRICE EACH	ORDER NO.	PRICE EACH	CTN QTY	ORDER NO.	PRICE EACH
46H	5348	10	3102-802	\$39.35	—	—	—	—	—
46I	5348	10	3102-805	39.35	—	—	3	3103-880	\$73.20
46J	5348	10	3102-803	39.35	—	—	—	—	—
46K	5348	10	3102-804	39.35	—	—	—	—	—
60I	5348	10	3102-815	39.35	3103-120†	\$13.00	—	—	—
60J	5348	10	3102-813	39.35	—	—	3	3103-890	73.20
60K	5348	10	3102-814	39.35	—	—	—	—	—
80K	5348	10	3102-820	39.35	—	—	—	—	—



5 x 1-1/2 x 1-1/4 – Straight Cup Wheel

GRIT/ HARDNESS	MAX RPM	CTN QTY	WHITE ALUMINUM OXIDE (TYPE WA)		SILICON CARBIDE (TYPE CG)		SYNTHETIC CERAMIC GRAIN (TYPE AS3)		
			ORDER NO.	PRICE EACH	ORDER NO.	PRICE EACH	CTN QTY	ORDER NO.	PRICE EACH
46J	5348	10	3102-853	\$36.20	—	—	—	—	—
46K	5348	10	3102-854	36.20	—	—	—	—	—
60I	5348	10	—	—	3103-220†	\$11.85	—	—	—
60J	5348	10	3102-863	36.20	—	—	—	—	—
80K	5348	10	3102-870	36.20	—	—	—	—	—

† Limited Quantities



Tool & Cutter Grinding Wheels



**Buy
Ctn Qty
Deduct
20%**

Vitrified Bonded Assortment of the Standard Shapes Most Commonly Used in Tool and Cutter Applications.

WA – White Aluminum Oxide

Friable grain for light grinding of all steels, particularly tool & die steels.

CG – Green Silicon Carbide

Used for non-ferrous metals such as cemented carbides.

AS3 – Synthetic Ceramic Blend

Features a blend of synthetic ceramic grain with PA and WA grains for optimum fracturing. Provides a continuous, sharp cutting action.

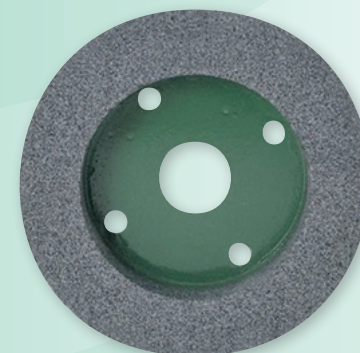
6 x 1/2 x 1-1/4 – Dish Wheel

GRIT/ HARDNESS	MAX RPM	CTN QTY	WHITE ALUMINUM OXIDE (TYPE WA)		SILICON CARBIDE (TYPE CG)		SYNTHETIC CERAMIC GRAIN (TYPE AS3)		
			ORDER NO.	PRICE EACH	ORDER NO.	PRICE EACH	CTN QTY	ORDER NO.	PRICE EACH
46K	4456	10	3102-914	\$25.35	–	–	–	–	–
60J	4456	10	3102-923	25.35	–	–	–	–	–
60K	4456	10	3102-924	25.35	–	–	–	–	–



6 x 1 x 4 – Plate Mounted Wheels

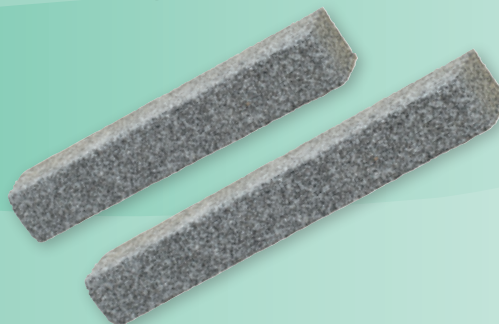
GRIT/ HARDNESS	MAX RPM	CTN QTY	WHITE ALUMINUM OXIDE (TYPE WA)		SILICON CARBIDE (TYPE CG)		SYNTHETIC CERAMIC GRAIN (TYPE AS3)		
			ORDER NO.	PRICE EACH	ORDER NO.	PRICE EACH	CTN QTY	ORDER NO.	PRICE EACH
46K	3450	10	3103-960	\$63.80	–	–	–	–	–
60I	3450	10	–	–	3103-920	\$68.70	–	–	–
80I	3450	10	–	–	3103-930	68.70	–	–	–
100I	3450	10	–	–	3103-940	68.70	–	–	–
120I	3450	10	–	–	3103-950	68.70	–	–	–



Vitrified Bond Silicon Carbide Dressing Sticks

For cleaning, dressing and reshaping vitrified bond grinding wheels.

SIZE	GRADE	ORDER NO.	PRICE EACH
6 x 1 x 1	24S	3132-998	\$3.17
8 x 1 x 1	24S	3132-999	4.23



Bench and Pedestal Wheels



2

Vitrified Bonded Straight Wheels Used for Off-hand Tool Sharpening and General Purpose Bench Grinding Applications.

A – Dark Aluminum Oxide

The most common of all grains. This grain is used for heavy duty general purpose work.

CG – Green Silicon Carbide

Used for non-ferrous metals such as cemented carbides.



6 x 1/2 x 1 (H*)

GRIT/ HARDNESS	MAX RPM	DARK ALUMINUM OXIDE (TYPE A)		SILICON CARBIDE (TYPE CG)	
		ORDER NO.	PRICE EACH	ORDER NO.	PRICE EACH
24Q	4456	3102-001†	\$3.30	—	—
36Q	4456	3102-002†	3.70	—	—
46M	4456	3102-003	18.85	—	—
60I	4456	—	—	3102-402	\$17.15
60M	4456	3102-004	18.85	—	—
80I	4456	—	—	3102-404	17.15
100I	4456	—	—	3102-406	17.15

† Limited Quantities

6 x 3/4 x 1 (H*)

GRIT/ HARDNESS	MAX RPM	DARK ALUMINUM OXIDE (TYPE A)		SILICON CARBIDE (TYPE CG)	
		ORDER NO.	PRICE EACH	ORDER NO.	PRICE EACH
24Q	4456	3102-021†	\$8.15	—	—
36Q	4456	3102-022	16.25	—	—
46M	4456	3102-023	16.25	—	—
60I	4456	—	—	3102-422	\$20.30
60M	4456	3102-024	16.25	—	—
80I	4456	—	—	3102-424	20.30
80M	4456	3102-025	16.25	—	—
100I	4456	—	—	3102-426	20.30

6 x 1 x 1 (H*)

GRIT/ HARDNESS	MAX RPM	DARK ALUMINUM OXIDE (TYPE A)		SILICON CARBIDE (TYPE CG)	
		ORDER NO.	PRICE EACH	ORDER NO.	PRICE EACH
24Q	4456	3102-041	\$18.70	—	—
36Q	4456	3102-042	18.70	—	—
46M	4456	3102-043	18.70	—	—
60I	4456	—	—	3102-442	\$22.40
60M	4456	3102-044	18.70	—	—
80I	4456	—	—	3102-444	22.40
80M	4456	3102-045	18.70	—	—
100I	4456	—	—	3102-446	22.40

7 x 3/4 x 1 (H*)

GRIT/ HARDNESS	MAX RPM	DARK ALUMINUM OXIDE (TYPE A)		SILICON CARBIDE (TYPE CG)	
		ORDER NO.	PRICE EACH	ORDER NO.	PRICE EACH
24Q	3760	3102-061†	\$6.20	—	—
36Q	3760	3102-062†	5.70	—	—
60I	3760	—	—	3102-462	\$23.10
60M	3760	3102-064†	13.85	—	—
80I	3760	—	—	3102-464	23.10
100I	3760	—	—	3102-466	23.10

† Limited Quantities

7 x 1 x 1 (H*)

GRIT/ HARDNESS	MAX RPM	DARK ALUMINUM OXIDE (TYPE A)		SILICON CARBIDE (TYPE CG)	
		ORDER NO.	PRICE EACH	ORDER NO.	PRICE EACH
24Q	3760	3102-081	\$22.15	—	—
36Q	3760	3102-082	22.15	—	—
46M	3760	3102-083	22.15	—	—
60I	3760	—	—	3102-482	\$27.30
60M	3760	3102-084	22.15	—	—
80I	3760	—	—	3102-484	27.30
80M	3760	3102-085	22.15	—	—
100I	3760	—	—	3102-486	27.30

8 x 1 x 1-1/4 (H*)

GRIT/ HARDNESS	MAX RPM	DARK ALUMINUM OXIDE (TYPE A)		SILICON CARBIDE (TYPE CG)	
		ORDER NO.	PRICE EACH	ORDER NO.	PRICE EACH
24Q	3760	3102-105	\$28.25	—	—
36Q	3760	3102-106	28.25	—	—
46M	3760	3102-107	28.25	—	—
60I	3760	—	—	3102-522	\$33.60
60M	3760	3102-108	28.25	—	—
80I	3760	—	—	3102-524	33.60
80M	3760	3102-109	28.25	—	—
100I	3760	—	—	3102-526	33.60

H*: 1" Hole, Installed Telescopic Bushings for 3/4", 5/8", and 1/2" arbors

H2: 1-1/4" Hole, Installed Telescopic Bushings for 1" and 3/4" arbors

H3: 1-1/2" Hole, Installed Telescopic Bushings for 1-1/4" and 1" arbors

H4: 1-1/4" Hole, Installed Telescopic Bushings for 1", 3/4", 5/8", and 1/2" arbors

Bench and Pedestal Wheels

Vitrified Bonded Straight Wheels
Used for Off-hand Tool Sharpening and
General Purpose Bench Grinding Applications



2

10 x 1 x 1-1/4" (H²)

GRIT/ HARDNESS	MAX RPM	DARK ALUMINUM OXIDE (TYPE A)		SILICON CARBIDE (TYPE CG)	
		ORDER NO.	PRICE EACH	ORDER NO.	PRICE EACH
24Q	2483	3102-141	\$55.50	—	—
360	2483	3102-142	55.50	—	—
46M	2483	3102-143	55.50	—	—
60I	2483	—	—	3102-542	\$68.75
60M	2483	3102-144	55.50	—	—
80I	2483	—	—	3102-544	68.75
80M	2483	3102-145	55.50	—	—
100I	2483	—	—	3102-546	68.75

10 x 1-1/2 x 1-1/4" (H²)

GRIT/ HARDNESS	MAX RPM	DARK ALUMINUM OXIDE (TYPE A)		SILICON CARBIDE (TYPE CG)	
		ORDER NO.	PRICE EACH	ORDER NO.	PRICE EACH
24Q	2483	3102-161	\$71.35	—	—
360	2483	3102-162	71.35	—	—
46M	2483	3102-163	71.35	—	—
60I	2483	—	—	3102-562	\$79.70
60M	2483	3102-164	71.35	—	—
80I	2483	—	—	3102-564	79.70
80M	2483	3102-165†	71.35	—	—
100I	2483	—	—	3102-566	37.80

† Limited Quantities

12 x 1 x 1-1/4" (H²)

GRIT/ HARDNESS	MAX RPM	DARK ALUMINUM OXIDE (TYPE WA)		SILICON CARBIDE (TYPE CG)	
		ORDER NO.	PRICE EACH	ORDER NO.	PRICE EACH
24Q	2220	3102-181	\$87.20	—	—
46M	2220	3102-183	87.20	—	—
60I	2220	—	—	3102-582	\$98.50
60M	2220	3102-184	87.20	—	—

12 x 1-1/2 x 1-1/4" (H²)

GRIT/ HARDNESS	MAX RPM	DARK ALUMINUM OXIDE (TYPE WA)		SILICON CARBIDE (TYPE CG)	
		ORDER NO.	PRICE EACH	ORDER NO.	PRICE EACH
360	2220	3102-206	\$109.25	—	—
46M	2220	3102-207	109.25	—	—
60I	2220	—	—	3102-602	\$125.65
60M	2220	3102-208	109.25	—	—
80I	2220	—	—	3102-604	125.65

12 x 2 x 1-1/2" (H³)

GRIT/ HARDNESS	MAX RPM	DARK ALUMINUM OXIDE (TYPE WA)		SILICON CARBIDE (TYPE CG)	
		ORDER NO.	PRICE EACH	ORDER NO.	PRICE EACH
24Q	2220	3102-221	\$118.05	—	—
360	2220	3102-222	118.05	—	—
46M	2220	3102-223	118.05	—	—
60I	2220	—	—	3102-622	\$141.35
60M	2220	3102-224	118.05	—	—
80I	2220	—	—	3102-624	141.35
80M	2220	3102-225	118.05	—	—
100I	2220	—	—	3102-626	141.35

14 x 2 x 1-1/4" To 1-1/2" (H³)

GRIT/ HARDNESS	MAX RPM	DARK ALUMINUM OXIDE (TYPE WA)		SILICON CARBIDE (TYPE CG)	
		ORDER NO.	PRICE EACH	ORDER NO.	PRICE EACH
24Q	1910	3102-271	\$177.75	—	—
360	1910	3102-272	177.75	—	—
46M	1910	3102-273	177.75	—	—
60I	1910	—	—	3102-642	\$226.80
60M	1910	3102-274	177.75	—	—
80I	1910	—	—	3102-644	226.80

16 x 2 x 1-1/2" (H³)

GRIT/ HARDNESS	MAX RPM	DARK ALUMINUM OXIDE (TYPE WA)		SILICON CARBIDE (TYPE CG)	
		ORDER NO.	PRICE EACH	ORDER NO.	PRICE EACH
24Q	1550	3102-301	\$294.20	—	—
360	1550	3102-302	305.65	—	—

18 x 3 x 1-1/2" (H³)

GRIT/ HARDNESS	MAX RPM	DARK ALUMINUM OXIDE (TYPE WA)		SILICON CARBIDE (TYPE CG)	
		ORDER NO.	PRICE EACH	ORDER NO.	PRICE EACH
360	1485	3102-322	\$485.95	—	—
54M	1485	3102-324	485.95	—	—

H*: 1" Hole, Installed Telescopic Bushings for 3/4", 5/8", and 1/2" arbors

H²: 1-1/4" Hole, Installed Telescopic Bushings for 1" and 3/4" arbors

H³: 1-1/2" Hole, Installed Telescopic Bushings for 1-1/4" and 1" arbors

H⁴: 1-1/4" Hole, Installed Telescopic Bushings for 1", 3/4", 5/8", and 1/2" arbors

Mattison-Thompson Type

Large 20 Inch Diameter Surface Grinding Wheels For Horizontal Spindle, Rotary and Reciprocating Tables.

83A – Friable Full Premium Aluminum Oxide

Friable grain for fast stock removal.

The free cutting open structure is ideal for all tool steels.

V-18 – Normal structures. V-18P – Induced open porosity.

73C – Silicon Carbide

For non-ferrous metals, gray iron.

91A – Semi-Friable, Mixed Aluminum Oxide

Provides a continuous, sharp cutting action. A mixture of WA and A abrasives.

Recommended for general purpose work and light stock removal.

AS3 – Synthetic Ceramic Blend

Features a blend of synthetic ceramic grain with PA and WA grains for optimum fracturing.



1

**Buy
Ctn Qty
(Where shown)
Deduct
10%**



20 x 1 x 8

GRAIN	GRIT/ BOND	MAX RPM	ORDER NO.	PRICE EACH
83A	46H8 V-18	1241	3280-402*	\$204.35
83A	60J8 V-18	1241	3280-404*	204.35

*CARTON QTY.= 3

20 x 2 x 10

GRAIN	GRIT/ BOND	MAX RPM	ORDER NO.	PRICE EACH
83A	36J8 V-18	1241	3280-450*	\$304.05
83A	46H8 V-18	1241	3280-452*	304.05
83A	60J8 V-18	1241	3280-454*	304.05
83A	46G+ V-18P	1241	3280-456*	304.05

*CARTON QTY.= 2

20 x 1-1/2 x 8

Recessed 1/S 11-1/2 x 1/2"

GRAIN	GRIT/ BOND	MAX RPM	ORDER NO.	PRICE EACH
83A	46H8 V-18	1241	3280-422*	\$271.05

20 x 3 x 8

Recessed 2/S 11-1/2 x 1/2"

GRAIN	GRIT/ BOND	MAX RPM	ORDER NO.	PRICE EACH
83A	46H8 V-18	1241	3280-462*	\$465.90
83A	36J/K V-18P	1241	3280-464*	465.90
83A	46D V-18P	1241	3280-465*	465.90
83A	46G+ V-18P	1241	3280-468*	465.90
91A	46I8 V-18	1241	3280-460*	455.20
73C	46I8 V-X	1241	3280-606*	620.25

*CARTON QTY.= 2

20 x 2 x 8

Recessed 2/S 11-1/2 x 1/2"

GRAIN	GRIT/ BOND	MAX RPM	ORDER NO.	PRICE EACH
83A	46H8 V-18	1241	3280-442*	\$343.35
83A	60J8 V-18	1241	3280-446*	343.35
83A	46G+ V-18P	1241	3280-449*	343.35
91A	46I8 V-18	1241	3280-440*	329.95

*CARTON QTY.= 2

20 x 3 x 10

Recessed 1/S 12-1/2 x 5/8" O/S 12-1/2 x 1"

GRAIN	GRIT/ BOND	MAX RPM	ORDER NO.	PRICE EACH
83A	46H8 V-18	1241	3280-472*	\$423.15
83A	60J8 V-18	1241	3280-473*	423.15
83A	36J/K V-18P	1241	3280-474*	423.15
83A	46G+ V-18P	1241	3280-478*	423.15
91A	46I8 V-18	1241	3280-470*	423.15
73C	46I8 V-X	1241	3280-608*	561.95
AS3	46H V-CER	1241	3280-664*	829.70

*CARTON QTY.= 2

20 x 4 x 8

Recessed 2/S 11-1/2 x 1/2"

GRAIN	GRIT/ BOND	MAX RPM	ORDER NO.	PRICE EACH
83A	46H8 V-18	1241	3280-482	\$549.10

20 x 4 x 10

Recessed 1/S 12-1/2 x 7/8", O/S 12-1/2 x 1-1/4"

GRAIN	GRIT/ BOND	MAX RPM	ORDER NO.	PRICE EACH
83A	46H8 V-18	1241	3280-492	\$495.40
83A	46G+ V-18P	1241	3280-498	495.40
91A	46I8 V-18	1241	3280-490	461.95

20 x 6 x 10

Recessed 1/S 12-1/2 x 1" O/S 12-1/2 x 2"

GRAIN	GRIT/ BOND	MAX RPM	ORDER NO.	PRICE EACH
83A	46H8 V-18	1241	3280-502	\$640.95
83A	36J/K V-18P	1241	3280-504	640.95
83A	46G+ V-18P	1241	3280-508	622.30
91A	46I8 V-18	1241	3280-500	610.45
AS3	46H V-CER	1241	3280-674	1185.25

20 x 6 x 12

Recessed 2/S 14-1/4 x 1"

GRAIN	GRIT/ BOND	MAX RPM	ORDER NO.	PRICE EACH
83A	46H8 V-18	1241	3280-512	\$654.95
83A	46G+ V-18P	1241	3280-518	635.90

Centerless & Cylindrical Wheels

12" Through 24" Diameter

Centerless & Cylindrical Wheels each have accurate toleranced inside linings to protect spindles. Manufactured with varying hardness to assure consistent grindability throughout.

94A – Aluminum Oxide

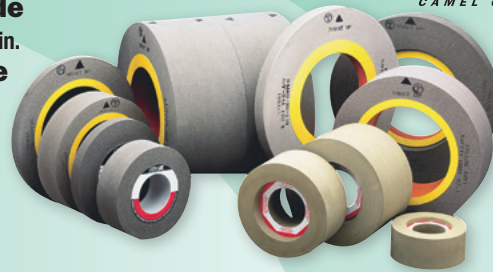
Very durable self-dressing grain.

72C – Silicon Carbide

For non-ferrous metals.

PA – Pink Aluminum Oxide

Excellent for pre-hardened carbon steels.



Buy Ctn Qty
(Where shown)
Deduct 10%

14 x 1 x 5 – No Recess

GRAIN	GRIT	MAX RPM	ORDER NO.	PRICE EACH
94A	54-K	1910	3327-012*	\$92.65
94A	80-M	1910	3327-020*	92.65

*CARTON QTY.= 2

14 x 1-1/4 x 5 – No Recess

GRAIN	GRIT	MAX RPM	ORDER NO.	PRICE EACH
94A	54-K	1910	3327-032*	\$115.95

*CARTON QTY.= 2

14 x 1-1/2 x 5 –

Rec 1/S 8 X 1/2"

GRAIN	GRIT	MAX RPM	ORDER NO.	PRICE EACH
94A	54-K	1910	3327-052*	\$141.60
94A	80-M	1910	3327-060*	141.60

*CARTON QTY.= 2

14 x 2 x 5 – Rec 1/S 8 X 1"

GRAIN	GRIT	MAX RPM	ORDER NO.	PRICE EACH
94A	54-K	1910	3327-072	\$160.35
94A	60-L	1910	3327-076	160.35
94A	80-M	1910	3327-080	160.35

16 x 1 x 5 – No Recess

GRAIN	GRIT	MAX RPM	ORDER NO.	PRICE EACH
94A	60-L	1671	3327-096	\$116.20
94A	80-M	1671	3327-100	116.20

16 x 1-1/2 x 5 – No Recess

GRAIN	GRIT	MAX RPM	ORDER NO.	PRICE EACH
94A	60-L	1671	3327-116	\$143.90
94A	80-M	1671	3327-120	143.90

16 x 2 x 5 – No Recess

GRAIN	GRIT	MAX RPM	ORDER NO.	PRICE EACH
94A	60-L	1671	3327-156	\$182.35
94A	80-M	1671	3327-160	182.35

16 x 1-1/2 x 8 – No Recess

GRAIN	GRIT	MAX RPM	ORDER NO.	PRICE EACH
94A	54-K	1671	3327-212	\$138.35
94A	80-M	1671	3327-220	138.35

16 x 2 x 8 – No Recess

GRAIN	GRIT	MAX RPM	ORDER NO.	PRICE EACH
94A	60-L5	1671	3327-236	\$167.10

16 x 4 x 10 – No Recess

GRAIN	GRIT	MAX RPM	ORDER NO.	PRICE EACH
94A	60-L	1671	3327-256	\$290.00
94A	80-L	1671	3327-260	290.00

20 x 1 x 12 – No Recess

GRAIN	GRIT	MAX RPM	ORDER NO.	PRICE EACH
94A	60-M	1623	3327-280*	\$166.95
94A	80-O	1623	3327-304*	166.95

*CARTON QTY.= 3

20 x 2 x 12 – No Recess

GRAIN	GRIT	MAX RPM	ORDER NO.	PRICE EACH
94A	60-K	1623	3327-316*	\$261.70
94A	60-L	1623	3327-318*	261.70
94A	60-M	1623	3327-320*	261.70
94A	80-P	1623	3327-336*	261.70

HARD SIDE

94A	80-N/120-S	1623	3327-330*	282.85
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*CARTON QTY.= 2

20 x 2-1/2 x 12 – No Recess

GRAIN	GRIT	MAX RPM	ORDER NO.	PRICE EACH
HARD SIDE				
94A	80-N/120-S	1623	3327-360*	\$342.90

*CARTON QTY.= 2

20 x 3 x 12 – No Recess

GRAIN	GRIT	MAX RPM	ORDER NO.	PRICE EACH
94A	60-K	1623	3327-376*	\$356.65

*CARTON QTY.= 2

20 x 4 x 12 – No Recess

GRAIN	GRIT	MAX RPM	ORDER NO.	PRICE EACH
94A	60-K	1623	3327-436	\$395.10
94A	60-L	1623	3327-438	395.10
94A	80-M	1623	3327-448	395.10
94A	80-P	1623	3327-458	395.10

HARD SIDE

94A	80-N/120-S	1623	3327-452	427.00
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20 x 6 x 12 – No Recess

GRAIN	GRIT	MAX RPM	ORDER NO.	PRICE EACH
72C	60-L	1623	3327-470	\$733.15
94A	60-K	1623	3327-476	541.55
94A	60-L	1623	3327-478	541.55
94A	60-M	1623	3327-480	541.55
94A	80-J	1623	3327-484	541.55
94A	80-M	1623	3327-488	541.55

HARD SIDE

94A	80-N/120-S	1623	3327-492	602.90
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20 x 8 x 12 – No Recess

GRAIN	GRIT	MAX RPM	ORDER NO.	PRICE EACH
94A	54-J	1623	3327-512	689.20
94A	60-K	1623	3327-516	689.20
94A	60-L	1623	3327-518	689.20
94A	60-M	1623	3327-520	689.20
94A	80-J	1623	3327-524	689.20
94A	80-L	1623	3327-526	689.20
94A	80-M	1623	3327-528	689.20
94A	80-O	1623	3327-536	689.20

HARD SIDE

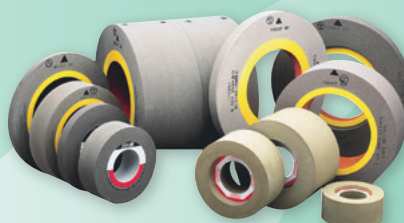
94A	80-N/120-S	1623	3327-532	764.25
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Centerless & Cylindrical Wheels



1

**Buy
Ctn Qty
(Where
shown)
Deduct
10%**



24 x 2 x 12 - No Recess

GRAIN	GRIT	MAX RPM	ORDER NO.	PRICE EACH
94A	60-K	1353	3327-656*	\$432.75
HARD SIDE				
94A	80-N/120-S	1353	3327-672*	480.75

*CARTON QTY.= 2

24 x 4 x 12 - No Recess

GRAIN	GRIT	MAX RPM	ORDER NO.	PRICE EACH
94A	60-K	1353	3327-816	\$625.05
94A	60-L	1353	3327-818	625.05
94A	80-M	1353	3327-830	625.05
HARD SIDE				
94A	80-N/120-S	1353	3327-834	694.35

24 x 8 x 12 - No Recess

GRAIN	GRIT	MAX RPM	ORDER NO.	PRICE EACH
72C	60-L6	1353	3327-900	\$1343.40
94A	60-K5	1353	3327-916	1072.20
94A	60-L5	1353	3327-918	1072.20
94A	60-M6	1353	3327-920	1072.20
94A	80-J5	1353	3327-924	1072.20
94A	80-L5	1353	3327-928	1072.20

24 x 2-1/2 x 12 - No Recess

GRAIN	GRIT	MAX RPM	ORDER NO.	PRICE EACH
HARD SIDE				
94A	80-N/120-S	1353	3327-712*	\$536.95

*CARTON QTY.= 2

24 x 6 x 12 - No Recess

GRAIN	GRIT	MAX RPM	ORDER NO.	PRICE EACH
94A	60-K	1353	3327-866	\$846.25
94A	60-L	1353	3327-868	846.25
94A	80-J	1353	3327-874	846.25
HARD SIDE				
94A	80-N/120-S	1353	3327-884	932.25

24 x 10 x 12 - No Recess

GRAIN	GRIT	MAX RPM	ORDER NO.	PRICE EACH
94A	60-K5	1353	3327-956	\$1415.15

24 x 3 x 12 - No Recess

GRAIN	GRIT	MAX RPM	ORDER NO.	PRICE EACH
94A	60-K	1353	3327-736	\$476.40

24 x 20 x 12 - No Recess

GRAIN	GRIT	MAX RPM	ORDER NO.	PRICE EACH
94A	60-K5	1353	3327-986	\$2940.75
94A	60-M6	1353	3327-990	2940.75

Feed/Regulating Wheels 1

Aluminum Oxide - Rubber Bonded For All Centerless Grinding Machines

Isostatic process assures perfect gripping with standard A-80-R2-RX grade

	MAX RPM	ORDER NO.	PRICE EACH
9 x 4 x 4 R 2/S 5-1/2 x 5/8"	1020	3329-140	183.40
12 x 1 x 5	800	3329-410	96.75
12 x 2 x 5	800	3329-420	167.70
12 x 2-1/2 x 5	800	3329-425	230.20
12 x 4 x 5 R 2/S 7-1/2 x 1-1/2"	800	3329-442	333.90

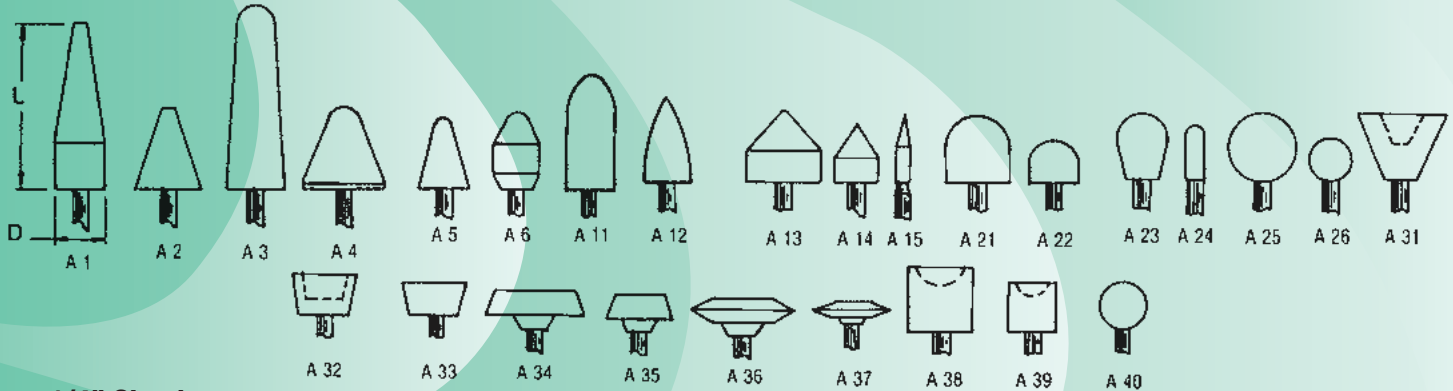
	MAX RPM	ORDER NO.	PRICE EACH
12 x 6 x 5 R 1/S 7-1/2 x 1-1/2" O/S 7-1/2 x 1-1/2"	800	3329-462	\$510.75
12 x 6 x 5 R 2/S 7-1/2 x 1-1/2"	800	3329-464	510.75
12 x 8 x 5 R 1/S 7-1/2 x 1-1/2"	800	3329-480	648.20
12 x 8 x 5 R 1/S 7-1/2 x 1-1/2" O/S 7-1/2 x 2-1/2"	800	3329-482	648.20

	MAX RPM	ORDER NO.	PRICE EACH
14 x 8 x 5 R 1/S 8 x 1-1/2" O/S 8 x 2-1/2"	650	3329-684	\$866.30
14 x 20 x 6 R 2/S 8-1/2 x 1-1/2"	650	3329-804	2142.10

Mounted Points

Group "A" Special Shapes

3



1/4" Shank

SHAPE NO.	SIZE DIAM.	LGTH.	ORDER NO.	PRICE EACH
A1	3/4"	2-1/2"	3133-001	\$3.80
A2	1"	1-1/4"	3133-002	2.30
A3	1"	2-3/4"	3133-003	4.10
A4	1-1/4"	1-1/4"	3133-004	2.60
A5	3/4"	1-1/8"	3133-005	2.20
A6	3/4"	1-1/8"	3133-006	2.20
A11	7/8"	2"	3133-011	2.80
A12	11/16"	1-1/4"	3133-012	2.20
A13	1-1/8"	1-1/8"	3133-013	2.60

SHAPE NO.	SIZE DIAM.	LGTH.	ORDER NO.	PRICE EACH
A14	11/16"	7/8"	3133-014	\$1.65
A15	1/4"	1-1/16"	3133-015	2.10
A21	1"	1"	3133-021	1.80
A22	3/4"	5/8"	3133-022	1.60
A23	3/4"	1"	3133-023	1.65
A24	1/4"	3/4"	3133-024	1.50
A25	1"	1"	3133-025	1.80
A26	5/8"	5/8"	3133-026	1.60
A31	1-3/8"	1"	3133-031	2.20

SHAPE NO.	SIZE DIAM.	LGTH.	ORDER NO.	PRICE EACH
A32	1"	5/8"	3133-032	\$1.65
A33	1"	1/2"	3133-033	1.60
A34	1-1/2"	3/8"	3133-034	1.90
A35	1"	3/8"	3133-035	1.60
A36	1-5/8"	3/8"	3133-036	2.20
A37	1-1/4"	1/4"	3133-037	1.65
A38	1"	1"	3133-038	1.50
A39	3/4"	3/4"	3133-039	1.25
A40	3/4"	3/4"	3133-040	1.60

Group "W" Plain Shapes



1/8" X 1-1/2" Shank

SHAPE NO.	SIZE DIAM.	LGTH.	ORDER NO.	PRICE EACH
W141	3/32	5/32	3133-141	\$1.10
W142	3/32	1/4	3133-142	1.10
W143	1/8	1/8	3133-143	1.10
W144	1/8	1/4	3133-144	1.10
W145	1/8	3/8	3133-145	1.20
W146	1/8	1/2	3133-146	1.20
W149	5/32	1/4	3133-149	1.10
W150	3/16	1/16	3133-150†	0.70
W151	3/16	1/8	3133-151	1.10
W152	3/16	1/4	3133-152	1.10
W153	3/16	3/8	3133-153	1.20
W154	3/16	1/2	3133-154	1.20
W155	13/64	1/4	3133-155†	0.70
W157	1/4	1/16	3133-157	1.10
W158	1/4	1/8	3133-158	1.10
W159	1/4	3/16	3133-159	1.10
W160	1/4	1/4	3133-160	1.10
W161	1/4	5/16	3133-161	1.20
W162	1/4	3/8	3133-162	1.20
W163	1/4	1/2	3133-163	1.20
W164	1/4	3/4	3133-164	1.25
W165	5/16	1/16	3133-165	1.10
W166	5/16	1/8	3133-166	1.10
W167	5/16	1/4	3133-167	1.10
W168	5/16	5/16	3133-168	1.20
W169	5/16	3/8	3133-169	1.20
W170	5/16	1/2	3133-170	1.20
W171	5/16	3/4	3133-171	1.25
W172	3/8	1/16	3133-172	1.10
W173	3/8	1/8	3133-173	1.10
W174	3/8	1/4	3133-174	1.10

SHAPE NO.	SIZE DIAM.	LGTH.	ORDER NO.	PRICE EACH
W175	3/8	3/8	3133-175	\$1.20
W176	3/8	1/2	3133-176	1.20
W177	3/8	3/4	3133-177	1.25
W178	3/8	1	3133-178	1.35
W179	3/8	1-1/4	3133-179†	1.10
W181	1/2	1/16	3133-181	1.10
W182	1/2	1/8	3133-182	1.10
W183	1/2	1/4	3133-183	1.10
W184	1/2	3/8	3133-184	1.20
W185	1/2	1/2	3133-185	1.20
W186	1/2	3/4	3133-186	1.25
W187	1/2	1	3133-187	1.35
W190	5/8	1/16	3133-190	1.20
W191	5/8	1/8	3133-191	1.20
W192	5/8	1/4	3133-192	1.20
W193	5/8	3/8	3133-193	1.25
W194	5/8	1/2	3133-194	1.25
W195	5/8	3/4	3133-195	1.35
W199	3/4	1/16	3133-199	1.20
W200	3/4	1/8	3133-200	1.20
W201	3/4	1/4	3133-201	1.20
W202	3/4	3/8	3133-202	1.25
W203	3/4	1/2	3133-203	1.25
W204	3/4	3/4	3133-204	1.35
W210	7/8	1/16	3133-210	1.25
W211	7/8	1/8	3133-211	1.25
W212	7/8	1/4	3133-212	1.25
W213	7/8	3/8	3133-213	1.35
W214	15/16	1/4	3133-214	1.25
W215	1	1/8	3133-215	1.25
W216	1	1/4	3133-216	1.25

1/4" X 1-1/2" Shank

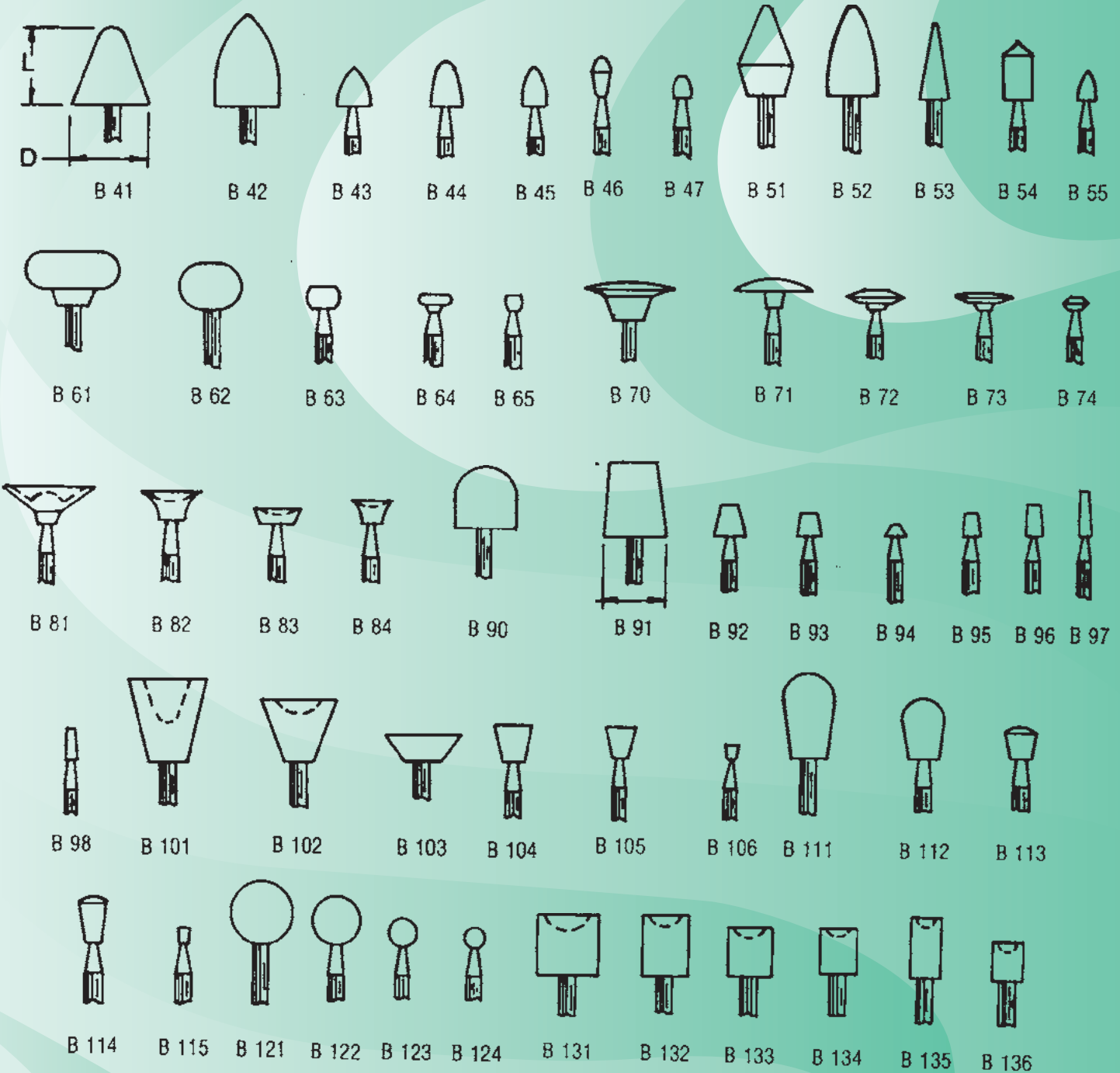
SHAPE NO.	SIZE DIAM.	LGTH.	ORDER NO.	PRICE EACH
W178	3/8	1	3133-378	\$1.35
W187	1/2	1	3133-387	1.35
W188	1/2	1-1/2	3133-188	2.05
W189	1/2	2	3133-189	2.60
W194	5/8	1/2	3133-394	1.25
W195	5/8	3/4	3133-395	1.35
W196	5/8	1	3133-196	1.50
W197	5/8	2	3133-197	2.70
W198	5/8	2-1/2	3133-198	3.35
W204	3/4	3/4	3133-404	1.35
W205	3/4	1	3133-205	1.50
W206	3/4	1-1/4	3133-206	1.80
W207	3/4	1-1/2	3133-207	2.15
W208	3/4	2	3133-208	2.70
W209	3/4	2-1/2	3133-209	3.35
W213	7/8	3/8	3133-413	1.35
W217	1	3/8	3133-217	1.35
W218	1	1/2	3133-218	1.35
W219	1	3/4	3133-219	1.50
W220	1	1	3133-220	1.60
W221	1	1-1/2	3133-221	2.25
W222	1	2	3133-222	2.80
W223	1	2-1/2	3133-223	3.45
W224	1	3	3133-224	2.55
W225	1-1/4	1/4	3133-225	1.50
W226	1-1/4	3/8	3133-226	1.60
W227	1-1/4	1/2	3133-227	1.60
W228	1-1/4	3/4	3133-228	1.70
W229	1-1/4	1	3133-229	1.95
W230	1-1/4	1-1/4	3133-230	2.25
W231	1-1/4	1-1/2	3133-231	2.70
W232	1-1/4	2	3133-232	3.35
W235	1-1/2	1/4	3133-235	1.60
W236	1-1/2	1/2	3133-236	1.70
W237	1-1/2	1	3133-237	2.05
W238	1-1/2	1-1/2	3133-238	2.80
W239	1-1/2	2	3133-239	3.45
W242	2	1	3133-242	2.60
W243	2	1-1/2	3133-243	3.45
W244	2	2	3133-244	4.30
W245	2	2-1/2	3133-245† POA	

† Limited Quantities

Mounted Points

3

Group "B" Special Shapes



1/8' Shank

SHAPE NO.	SIZE DIAM.	LGTH.	ORDER NO.	PRICE EACH	SHAPE NO.	SIZE DIAM.	LGTH.	ORDER NO.	PRICE EACH	SHAPE NO.	SIZE DIAM.	LGTH.	ORDER NO.	PRICE EACH	SHAPE NO.	SIZE DIAM.	LGTH.	ORDER NO.	PRICE EACH
B41	5/8"	5/8"	3133-041	\$1.60	B63	1/4"	3/16"	3133-063	\$1.25	B92	1/4"	1/4"	3133-092	\$1.25	B112	3/8"	1/2"	3133-112	\$1.40
B42	1/2"	3/4"	3133-042	1.50	B64	1/4"	1/16"	3133-064	1.25	B93	3/16"	3/16"	3133-093	1.25	B113	1/4"	1/4"	3133-113	1.25
B43	1/4"	5/16"	3133-043	1.40	B65	1/8"	1/8"	3133-065	1.25	B94	11/64"	3/32"	3133-094	1.25	B114	7/32"	3/8"	3133-114	1.40
B44	7/32"	5/8"	3133-044	1.40	B70	3/4"	1/8"	3133-070	1.40	B95	1/8"	3/16"	3133-095	1.25	B115	3/32"	1/8"	3133-115	1.25
B45	3/16"	5/16"	3133-045	1.40	B71	5/8"	3/32"	3133-071	1.40	B96	1/8"	1/4"	3133-096	1.25	B121	1/2"	1/2"	3133-121	1.40
B46	1/8"	5/16"	3133-046	1.40	B72	1/2"	1/8"	3133-072	1.25	B97	1/8"	3/8"	3133-097	1.40	B122	3/8"	3/8"	3133-122	1.40
B47	1/8"	5/32"	3133-047	1.25	B73	1/2"	1/8"	3133-073	1.25	B98	3/32"	1/4"	3133-098	1.25	B123	3/16"	3/16"	3133-123	1.25
B51	7/16"	3/4"	3133-051	1.50	B74	7/32"	3/32"	3133-074	1.25	B101	5/8"	11/16"	3133-101	1.60	B124	1/8"	1/8"	3133-124	1.25
B52	3/8"	3/4"	3133-052	1.50	B81	3/4"	3/16"	3133-081	1.40	B102	5/8"	1/2"	3133-102	1.50	B131	1/2"	1/2"	3133-131	1.10
B53	1/4"	5/8"	3133-053	1.50	B82	1/2"	1/4"	3133-082	1.25	B103	5/8"	3/16"	3133-103	1.40	B132	3/8"	1/2"	3133-132	1.10
B54	1/4"	1/2"	3133-054	1.40	B83	3/8"	3/16"	3133-083	1.25	B104	5/16"	3/8"	3133-104	1.40	B133	3/8"	3/8"	3133-133	1.10
B55	1/8"	1/4"	3133-055	1.25	B84	5/16"	3/16"	3133-084	1.25	B105	1/4"	1/4"	3133-105	1.25	B134	5/16"	3/8"	3133-134	1.10
B61	3/4"	5/16"	3133-061	1.50	B90	1/2"	1/2"	3133-090	1.40	B106	1/8"	7/64"	3133-106	1.25	B135	1/4"	1/2"	3133-135	1.10
B62	3/8"	1"	3133-062	1.40	B91	1/2"	5/8"	3133-091	1.50	B111	7/16"	11/16"	3133-111	1.50	B136	1/4"	5/16"	3133-136	1.10

Diamond Tools

2

For Surface Grinders – 6 Inch Overall Length



Preferred Grade—Made in USA

For machine or hand dressing of all wheels. Designed for longer tool life.

Economy Grade

For general purpose dressing and truing of soft wheels.

RECOMMENDED DIAMOND SIZE					
WHEEL FACE	CARAT WT.	WHEEL FACE	CARAT WT.	WHEEL FACE	CARAT WT.
1/4	1/4	2	1-1/2		
1/2	1/3	3	1-3/4		
3/4	1/2	3-1/2	2		
1	3/4	4	2-1/2		
1-1/4	1	6	3		
1-1/2	1-1/4	8 and up	3-1/2		

ECONOMY				PREFERRED – USA	
SHANK SIZE	CARAT SIZE	ORDER NO.	PRICE	ORDER NO.	PRICE
3/8	1/4	3131-311	\$ 7.65	3131-341	\$18.50
3/8	1/3	3131-312	10.58	3131-342	22.00
3/8	1/2	3131-313	14.48	3131-343	27.10
3/8	3/4	3131-314	21.53	3131-344	39.00
3/8	1	3131-315	28.65	—	—
3/8	1-1/2	3131-316	42.98	—	—
3/8	2	3131-317	57.00	—	—
3/8	3	3131-318	80.85	—	—
7/16	1/4	3131-321	7.65	3131-361	18.50
7/16	1/3	3131-322	10.58	3131-362	22.00
7/16	1/2	3131-323	14.48	3131-363	27.10
7/16	3/4	3131-324	21.53	3131-364	39.00
7/16	1	3131-325	28.65	—	—
7/16	1-1/2	3131-326	42.98	—	—
7/16	2	3131-327	57.00	—	—
7/16	3	3131-328	80.85	—	—
1/2	1/4	3131-331	7.65	—	—
1/2	1/3	3131-332	10.58	—	—
1/2	1/2	3131-333	14.48	—	—
1/2	3/4	3131-334	21.53	—	—
1/2	1	3131-335	28.65	—	—
1/2	1-1/2	3131-336	42.98	—	—
1/2	2	3131-337	57.00	—	—
1/2	3	3131-338	80.85	—	—

Coned Radius Dressers



A precision shaped tool used for intricate form & radius dressing.

3/8 x 2-1/2 SHANK				7/16 x 2-1/2 SHANK	
CARAT SIZE	INCLUDED ANGLE	ORDER NO.	PRICE	ORDER NO.	PRICE
1/4	60 DEG	3131-461	\$44.00	3131-481	\$44.00
1/4	75 DEG	3131-462	40.00	3131-482	40.00
1/4	90 DEG	3131-463	33.75	3131-483	33.75
1/3	60 DEG	3131-464	70.00	3131-484	70.00
1/3	75 DEG	3131-465	62.00	3131-485	62.00
1/3	90 DEG	3131-466	42.65	3131-486	42.65
1/2	60 DEG	3131-467	94.00	3131-487	94.00
1/2	75 DEG	3131-468	82.00	3131-488	82.00
1/2	90 DEG	3131-469	64.00	3131-489	64.00

Hand Diamond Dressers



7/16" Shank Size - 8" Overall Length

Dressers fitted with plastic handles. Ideal for dressing wheels for Surface Grinders, Universal Grinders, etc.

CARAT SIZE	ORDER NO.	PRICE
1/4	3131-451	\$11.92
1/3	3131-452	15.12
1/2	3131-453	19.04
3/4	3131-454	32.16
1	3131-455	45.60

Economy - Super Value 1/4 Carat - Single Point



SHANK SIZE	ORDER NO.	PRICE
3/8 x 2	3131-040	\$11.00
3/8 x 3	3131-045	11.00
7/16 x 2	3131-080	11.00
7/16 x 3	3131-085	11.00

Convex & Concave Radii Forming Tools MR and FR Series

Designed to form convex and concave radii on small diameter grinding wheels. 3/8" x 2" Shanks.



MR Series Convex Radii

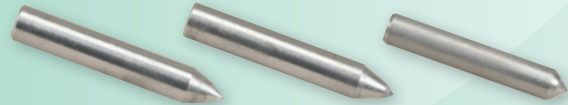
TOOL NO.	RADIUS	ORDER NO.	PRICE
MR-2	.020-.125	3131-582	\$12.45
MR-4	.125-.250	3131-584	14.00
MR-6	.250 up	3131-586	17.20

FR Series Concave Radii

TOOL NO.	RADIUS	ORDER NO.	PRICE
FR-10	.010	3131-550	\$10.00
FR-15	.015	3131-555	10.00
FR-20	.020	3131-560	10.00
FR-32	.032	3131-565	11.30
FR-62	.062	3131-570	12.90
FR-125	.125	3131-575	12.90

Phonopoint Diamond Dressing Tools

Small cone pointed tools used for precision form dressing.



SHANK SIZE	60 DEG		75 DEG		90 DEG	
	ORDER NO.	PRICE	ORDER NO.	PRICE	ORDER NO.	PRICE
1/8 x 1"	3131-536	\$6.20	3131-541	\$5.60	3131-546	\$5.10
3/16 x 1"	3131-537	6.60	3131-542	6.00	3131-547	5.40
1/4 x 1-1/2"	3131-539	7.00	3131-544	6.30	3131-549	5.50

Thread Grinding Diamond Tools



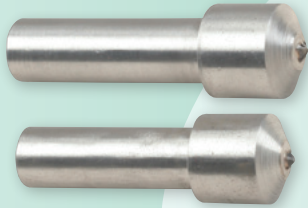
For use on Jones & Lamson, Ex-Cell-O & similar thread grinding equipment.

		60 DEG		90 DEG	
SIZE	MACHINE	ORDER NO.	PRICE	ORDER NO.	PRICE
1/4 x 1	J & L	3131-605	\$9.80	3131-607	\$9.80
3/8 x 1-5/8	EX-CELL-O	3131-615	9.80	—	—

Diamond Tools

2

Machine-Use Single Point Diamond Dressers Preferred Grade Diamond



LARGE NORTON Shank: 7/16 x 1-1/2 Head: 5/8" x 5/8"			CINCINNATI Shank: 7/16 x 2 Head: 5/8" x 5/8"		
CARAT SIZE	ORDER NO.	PRICE	ORDER NO.	PRICE	
1/4	3131-391	\$18.60	3131-381	\$18.60	
1/3	3131-392	22.40	3131-382	22.40	
1/2	3131-393	30.00	3131-383	30.00	
3/4	3131-394	44.00	3131-384	44.00	
1	3131-395	60.00	3131-385	60.00	
1-1/2	3131-396	95.10	3131-386	95.10	

Natural & Lapped Chisels

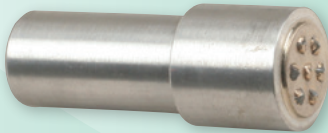


For use on radius dressers to form radii, steps, or contours. Tools shown are 1/4 Carat.

NATURAL CHISEL EDGE 60° LAPPED CHISEL				
SHANK SIZE	ORDER NO.	PRICE	ORDER NO.	PRICE
3/8 x 2-1/2"	3131-520	\$30.10	3131-500	\$47.30
7/16 x 2-1/2"	3131-530	30.10	3131-510	47.30

Multi Point Cluster Dressing Tools

5/8" Diameter Head,
7 Diamonds



For straight face and side dressing finishes.

CARAT SIZE	3/8 SHK ORDER NO.	7/16 SHK ORDER NO.	1/2 SHK ORDER NO.	PRICE
1	3131-400	3131-415	3131-430	\$26.00
2	3131-405	3131-420	3131-435	34.00
3	3131-410	3131-425	3131-440	42.00

Diamond Hones

Features:

- Resin Bond. 100% Concentration.
- Diamond Length: 1"
- 3/8" width square
- Overall Length: 4"



DOUBLE END

GRIT	ORDER NO.	PRICE
100/180	3131-640	\$39.00
150/220	3131-641	39.00
180/320	3131-642	39.00
220/400	3131-643	39.00

SINGLE END

GRIT	ORDER NO.	PRICE
100	3131-644	\$27.00
150	3131-645	27.00
220	3131-646	27.00
320	3131-647	27.00
400	3131-648	27.00
600	3131-649	27.00



Diamond Wheel Dressers



SIZE	ORDER NO.	PRICE EACH
0	3131-670	\$7.40
1	3131-671	8.35
2	3131-672	13.05



Cutters For Diamond Wheel Dressers



SIZE	ORDER NO.	PRICE EACH
0	3131-675	\$1.55
1	3131-676	2.35
2	3131-677	4.65

T-Handle Diamond Dressers



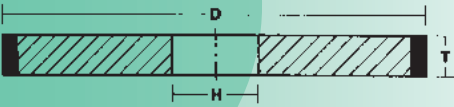
Used for hand truing and dressing. A broad, flat surface of diamonds in a matrix. 3/8" x 6" Shank. 1/2" W x 1-1/2" L head. 6-1/2" OAL.

GRADE	ORDER NO.	PRICE
Medium	3131-592	\$88.00

Diamond Wheels

2

Straight Diamond Wheels – Type D1A1 Resin Bond, With Diamonds in Periphery 1/8" Diamond Depth, 150 Grit

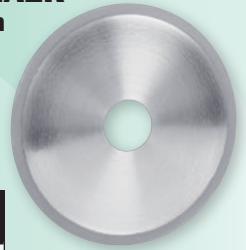
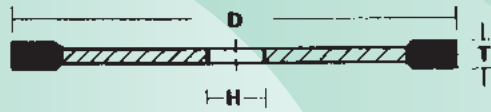


75 Concentration – Economical Grinding
100 Concentration – For Surface Grinding. Longer life.

75 CONCENTRATION				100 CONCENTRATION			
D DIAM.	T THICKNESS	H HOLE DIAM.	150 GRIT ORDER NO.	PRICE	150 GRIT ORDER NO.	PRICE	
4	1/8	1-1/4	—	—	3130-128	\$78.25	
4	1/4	1-1/4	—	—	3130-148	110.00	
5	1/8	1-1/4	—	—	3130-228	85.35	
5	1/4	1-1/4	—	—	3130-248	125.00	
6	1/8	1-1/4	3130-323	\$86.25	3130-328	106.50	
6	1/4	1-1/4	3130-343	111.10	3130-348	135.50	
6	3/8	1-1/4	3130-363	150.50	3130-368	170.00	
6	1/2	1-1/4	3130-383	158.25	3130-388	210.00	
7	1/8	1-1/4	—	—	3130-428	138.00	
7	1/4	1-1/4	3130-443	133.35	3130-448	170.00	
7	3/8	1-1/4	—	—	3130-468	191.50	
7	1/2	1-1/4	—	—	3130-488	232.00	
8	1/4	1-1/4	—	—	3130-548	208.00	
8	1/2	1-1/4	—	—	3130-588	252.00	

Other Grits, Diamond Depths and Arbor Hole Diameters available.

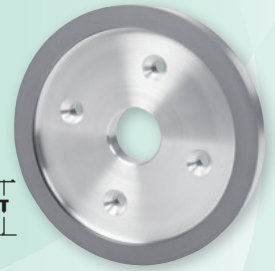
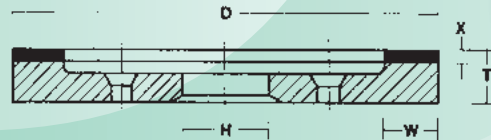
Diamond Cut-Off Wheels – Type D1A1R Resin Bond, 100% Concentration, 1/4" Depth



For cutting-off on Carbide.

D DIAM.	T THICKNESS	H HOLE DIAM.	GRIT	ORDER NO.	PRICE
6	.035	1-1/4	150	3130-910	\$84.45
6	.045	1-1/4	150	3130-915	103.10

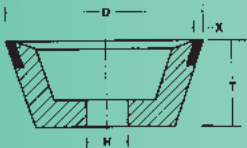
Diamond Face Wheels – Type D6A2C Resin Bond, Plate Mounted, 150 Grit



For Carbide Tool Grinders. Bolt holes countersunk for maximum safety.

D DIAM.	T THICKNESS	H HOLE DIAM.	W RIM WIDTH	X DIAMOND DEPTH	CONCEN.	ORDER NO.	PRICE
6	3/4	1-1/4	1/2	1/8	75%	3130-953	\$161.00
6	3/4	1-1/4	1/2	1/8	100%	3130-958	184.00
6	3/4	1-1/4	3/4	1/16	75%	3130-963	97.80
6	3/4	1-1/4	3/4	1/16	100%	3130-968	183.00
6	1	1-1/4	3/4	1/16	75%	3130-983	131.00

Diamond Flaring Cup Wheels – Type D11V9 Resin Bond Diamond in the periphery and on the face. Grind with face only.



For use with Tool & Cutter Grinders.

D DIAM.	T THICKNESS	H HOLE DIAM.	X DIAMOND DEPTH	CONCEN.	100 GRIT ORDER NO.	150 GRIT ORDER NO.	PRICE
3-3/4	1-1/2	1-1/4	1/8	75%	3129-121	3129-123	\$99.60
3-3/4	1-1/2	1-1/4	1/8	100%	3129-126	3129-128	112.00
5	1-3/4	1-1/4	1/8	75%	3129-221	3129-223	114.70
5	1-3/4	1-1/4	1/8	100%	3129-226	3129-228	126.25

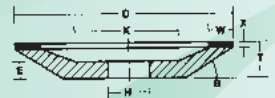
Diamond Dish Wheels – Type D12A2

Resin Bond. Diamond on the face (rim).
100% Concentration, 150 Grit

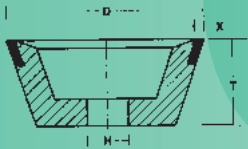
T THICKNESS	H HOLE DIAM.	B DISH ANGLE	E BACK THICKNESS	K INSIDE FLAT	X DIAMOND DEPTH
1"	1-1/4	30	1/2	2-5/8	1/8

Used for sharpening Cutting Tools.

D DIAMETER	W RIM WIDTH	ORDER NO.	PRICE
6	3/16	3129-358	\$129.00
6	1/4	3129-368	142.00
6	3/8	3129-378	189.00



Diamond Flaring Cup Wheels – Type D11A2 Resin Bond. Diamond on the face (rim). 100% Concentration, 150 Grit



For use with Tool & Cutter Grinders.

D DIAM.	T THICKNESS	H HOLE DIAM.	W RIM WIDTH	X DIAMOND DEPTH	ORDER NO.	PRICE
3	7/8	1-1/4	3/8	1/8	3129-308	\$105.40
4	1-1/4	1-1/4	1/2	1/8	3129-318	129.00
5	1-3/4	1-1/4	3/8	1/8	3129-328	150.50

5 Inch Diamond Facewheels– 5" x 1/4" x 3" Resin Bond, Steel Core, 100% Concentration

For Leonard, Cold Grind and similar type grinders.

STANDARD SECTION	120 GRIT ORDER NO.	220 GRIT ORDER NO.	320 GRIT ORDER NO.	PRICE
1/32	3129-407	3129-409	3129-412	\$172.00
1/16	3129-427	3129-429	3129-432	189.00



Diamond Dressers

2

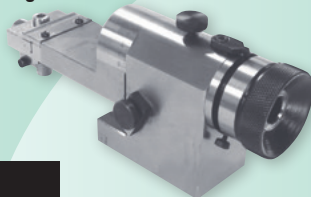
Optical Radius Angle Dresser

Visual Universal Wheel Dresser

Adaptable to surface grinders and universal tool grinders. 3X lens magnification through the spindle allows the operator to view the diamond point for radii and angle forming. Easy and accurate.

Order No. 3131-684

Price:\$561.50



SPECIFICATIONS	
Center Height	2.5"
Max. Wheel Diameter	8"
Max. Convex Radius	1/2"
Max. Concave Radius	1"
Dressing Angle	90 - 0 - 90 (1 deg incr)
Tangential Travel	.89" either side
Mounting Surface	3.27 x 1.87"
Overall Length	8.39"
Overall Height	3.94"

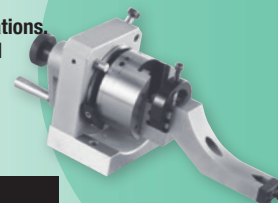
- Accuracy to 0.0001"
- Gauge block setting
- Radius and angle can be done perfectly tangent
- Compact design
- Wt. 7.7 lbs.
- Complete with Diamond Dressers, Hex Keys and Wood Case.

Precision Punch Former & Radius Wheel Dresser

For grinding wheel and punch forming applications. Concave and Convex radii. Hardened tool steel construction. Fitted case.

Order No. 3131-686

Price:\$1025.60



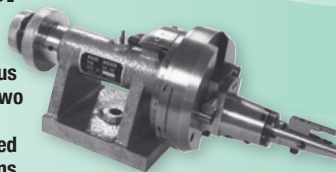
SPECIFICATIONS	
Max. Dia. - Workpiece	1-1/4"
V-Block	1-3/16"
Adjusting System	Rack and Pinion
Center Height	3-1/2"
Indexing Divisions	24 every 15 Degree +/-10 seconds
Angle Setting	By sine system
Roundness	0.0001"
Parallelism	w/i 0.0001" in 4"
Squareness	w/i 0.0002" in 4"
Graduation	360 Deg.
Weight	17.0 lbs.

Radius and Angle Dresser

For use on all OD, ID and surface grinding applications.

No height gage or set-up aids required. Radius is set on the grinder by measuring over the two pins or by inserting a gage block, for direct reading. Inside or outside radius is determined by using either the left hand or right hand pins. Uses 3/8" shank diamond tool.

Order No. 3131-687 Price: ..\$525.60



SPECIFICATIONS			
Max. Wheel Diameter	12"	Center Line Of Tool	3.4"
Max. Convex Radii	0 to 1-5/8"	Overall Length	16-5/8"
Max. Concave Radii	0 to 4"	Weight	30 lbs.
Tangent Travel	2"	Accuracy	.0005"

Profile Wheel Dresser

Accurate and versatile Radius and Angle Wheel Dresser.

*Fast and easy set-ups without elaborate accessories.

Only a micrometer and hex key wrench are needed.

*Dress 2 angles tangent to a radius in one continuous motion to within .0001".

*Precise and sharp contours, concave and convex, are consistently obtained at a full 180 Degree range.

Order No. 3131-685

Price:\$666.60



SPECIFICATIONS	
Max. Dia. - Workpiece	8"
Convex Radii	0 to 1-1/2"
Concave Radii	.030 to 1-1/2"
Center Height	3-1/2"
Height to center of diamond	6-1/2"
Dia. of Setting Pins	10mm
Overall Height	7"
Base	4-3/4 x 3-1/2 x 1-1/4"

Diamond Nib Holder

Use on surface grinders.

Holds Diamond Dresser

at 15 Deg. angle.

Base dimension: 2-1/2" x 6"

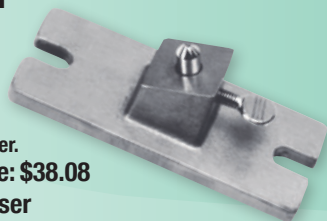
Keyway: 1/2" x 7/8"

Includes 7/16 x 2" 1/4 Carat dresser.

Order No. 3131-683 ...Price: \$38.08

Replacement Diamond Dresser

Order No. 3131-080 ...Price:\$11.00



Hi-Low Adjustable Dresser

Use on all grinding machines.

Dress O.D. and face of wheels.

Adjustable to 7" Height.

Includes 3/8 x 3" 1/4 Ct. dresser.

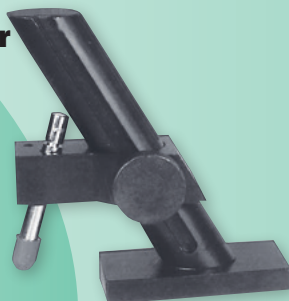
Order No. 3131-681

Price:\$70.88

Replacement Diamond Dresser

Order No. 3131-045

Price:\$11.00



Low-Boy Angle Dresser

Use on all grinding machines. Base Angle-Plate heavy, precision ground, square on six sides to .0005" accuracy. Side block pivots on hardened screws. Includes 3/8 x 2 1/4 Carat dresser.

Order No. 3131-682

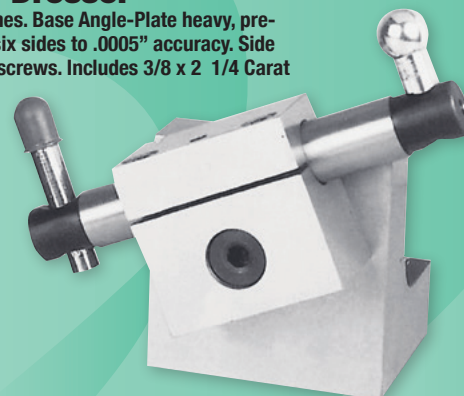
Price:\$136.40

Replacement

Diamond Dresser-

Order No. 3131-040

Price:\$11.00



Diamond & CBN Electro-Plated Mandrels/Jig Grinding Pins

2

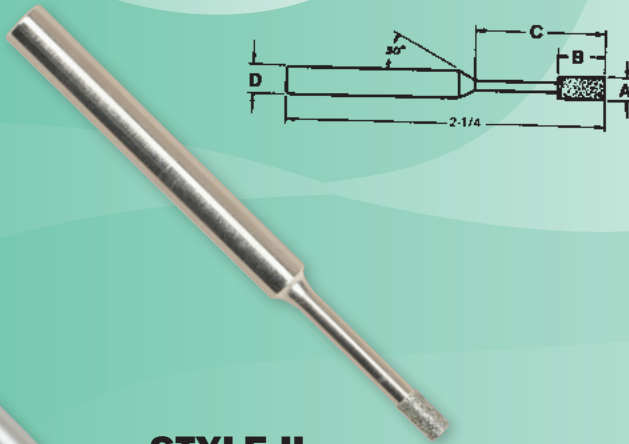
Coarse Grit 80/120

Tolerance on Hardened Steel Shanks: +.0000/-.0006

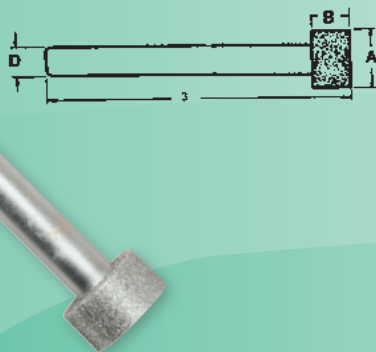
Diamond plated mandrels are used for internal grinding of glass, ceramics, cemented carbides, and other hard and abrasive materials.

CBN is ideal for High Speed Steels, such as M2, M3, M7 & T16; Die Steels, such as D2, D3, HB & A&O; Alloy Steels (harder than 50Rc); Nickel and Cobalt Base Super Alloys; Titanium, and Stainless Steels.

STYLE I



STYLE II



STYLE I

A HEAD	B HEAD LENGTH	C NECK LENGTH	D SHANK SIZE	DIAMOND ORDER NO.	CBN ORDER NO.	PRICE
.020	1/16	1/8	1/8	3128-600	3126-600	\$11.00
.025	3/32	1/4	1/8	3128-601	3126-601	9.40
.030	3/32	1/4	1/8	3128-602	3126-602	9.40
.035	3/32	1/4	1/8	3128-603	3126-603	9.40
.040	1/8	3/8	1/8	3128-604	3126-604	9.40
.045	1/8	3/8	1/8	3128-605	3126-605	9.80
.050	1/8	3/8	1/8	3128-606	3126-606	9.80
.050	1/8	1	1/8	3128-607	3126-607	11.80
.055	1/8	3/8	1/8	3128-608	3126-608	9.90
.060	1/8	3/8	1/8	3128-609	3126-609	9.70
.060	1/8	1	1/8	3128-610	3126-610	11.70
.070	5/32	1/2	1/8	3128-611	3126-611	10.30
.070	5/32	1	1/8	3128-612	3126-612	11.80
.080	5/32	1/2	1/8	3128-613	3126-613	10.90
.080	5/32	1	1/8	3128-614	3126-614	12.00
.090	5/32	1/2	1/8	3128-615	3126-615	11.00
.090	5/32	1	1/8	3128-616	3126-616	12.10
.100	5/32	1/2	1/8	3128-617	3126-617	11.00
.100	5/32	1	1/8	3128-618	3126-618	12.30
.110	5/32	1/2	1/8	3128-619	3126-619	11.30
.110	5/32	1	1/8	3128-620	3126-620	12.30
.125	5/32	1/2	1/8	3128-621	3126-621	11.90
.125	5/32	1	1/8	3128-622	3126-622	13.00
.141	1/4	1	1/4	3128-623	3126-623	16.80
.156	1/4	1	1/4	3128-624	3126-624	19.40
.188	1/4	1	1/4	3128-625	3126-625	19.40
.218	1/4	1	1/4	3128-626	3126-626	19.40
.250	1/8	1	1/4	3128-627	3126-627	19.40
.250	1/4	1	1/4	3128-628	3126-628	19.40

STYLE II

A HEAD	B HEAD LENGTH	D SHANK SIZE	DIAMOND ORDER NO.	CBN ORDER NO.	PRICE
.312	1/8	1/4	3128-640	3126-640	\$24.30
.312	1/4	1/4	3128-641	3126-641	27.90
.375	1/8	1/4	3128-642	3126-642	24.30
.375	1/4	1/4	3128-643	3126-643	27.90
.500	1/4	1/4	3128-644	3126-644	33.40
.500	3/8	1/4	3128-645	3126-645	33.40
.750	1/4	1/4	3128-646	3126-646	47.40
.750	1/2	1/4	3128-647	3126-647	47.40

Diamond Polishing & Lapping Compounds

2

“Universal Carrier”—

Oil or Water Soluble Stocked in 5 Gram Disposable Plastic Syringes

FINISH	COLOR	MICRON GRADE	MICRON RANGE	LIGHT CONCENTRATION		MEDIUM CONCENTRATION		HEAVY DUTY CONCENTRATION	
				ORDER NO.	PRICE	ORDER NO.	PRICE	ORDER NO.	PRICE
Super Fine	Yellow	3	1-5	3126-570	\$10.20	3126-571	\$12.90	3126-572	\$16.00
	Orange	5	4-8	3126-573	10.80	3126-574	15.00	3126-575	20.40
	Green	9	6-12	3126-576	11.80	3126-577	16.10	3126-578	21.40
Fine	Blue	15	10-22	3126-590	11.80	3126-591	16.10	3126-592	21.40
	Red	30	20-40	3126-593	11.80	3126-594	16.10	3126-595	21.40
	Brown	45	30-60	3126-596	11.80	3126-597	16.10	3126-598	21.40



T1 Cut-Off Wheels – Right Angle Grinder, Die Grinders

FLEXOVIT®

Razorblade® Type 1 Thin Cutoff Wheels

Razorblade® Type 1 Thin Cutoff Wheels for angle grinders are an indispensable tool for the metalworker in both production and maintenance

Buy
Std. Ctn.
Deduct
10%



1

SIZE DIA. x THICK. x ARBOR	RPM	STD. CTN.	GRADE	ORDER NO.	PRICE EACH
4-1/2 x .045 x 7/8	13300	25	A60SST	3893-670	\$ 4.55
5 x .045 x 7/8	12000	25	A60SST	3893-675	5.81

CGW
CAMEL GRINDING WHEELS

Type 1 Quickie Cut™ Right Angle Grinder Reinforced Cut-Off Wheels

Buy
Std. Ctn.
Deduct
10%



CGW Quickie Cut™ Reinforced Type 1 Cut-Off wheels are safe for use on Right Angle Grinders, providing excellent results on stainless steel, alloys, and ferrous. Select from B-Flex or Rigid configurations.

1

ZA60-TB-FLEX WHEELS					
SIZE DIA. x THICK. x ARBOR	SPEC	RPM	STD. CTN.	ORDER NO.	PRICE EACH
4 1/2 x .035 x 7/8	ZA60-TB-FLEX	13,300	25	3898-653	\$1.88
5 x .040 x 7/8	ZA60-TB-FLEX	12,250	25	3898-656	2.29
6 x .040 x 7/8	ZA60-TB-FLEX	10,200	25	3898-668	2.44
7 x 1/16 x 7/8	ZA60-TB-FLEX	8,500	25	3898-671	3.88
ZA36T RIGID WHEELS					
SIZE DIA. x THICK. x ARBOR	SPEC	RPM	STD. CTN.	ORDER NO.	PRICE EACH
4 1/2 x .045 x 7/8	ZA36-T-BF	13,300	25	3890-471	1.89
5 x .045 x 7/8	ZA36-T-BF	12,250	25	3890-472	2.33
6 x .045 x 7/8	ZA36-T-BF	10,200	25	3890-473	2.39
7 x 1/16 x 7/8	ZA36-T-BF	8,500	25	3890-474	3.73

Weiler Type 1 Right Angle Grinder Cutting Wheels For Steel/Metal



WOLVERINE®

Aluminum Oxide / Fast Cutting



TIGER®

Premium Aluminum Oxide / Long Life

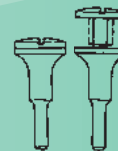
Buy
Std. Ctn.
Deduct
10%

1

WOLVERINE TIGER									
SIZE DIA. x THK. x AR.	MAX RPM	CASE QTY.	GRADE	ORDER NO.	PRICE EACH	GRADE	ORDER NO.	PRICE EACH	
4-1/2 x .045 x 7/8	13300	25	A60T	6556-281	\$1.80	A60T	6557-020	\$2.67	
4-1/2 x 1/16 x 7/8	13300	25	A60T	6556-103	2.13	A36T	6557-061	1.90	
5 x .045 x 7/8	12200	25	-	-	-	A60T	6557-021	3.07	
5 x 1/16 x 7/8	12200	25	A36T	6556-118	2.39	-	-	-	
6 x .040 x 7/8	10200	25	A60T	6556-282	2.49	-	-	-	
6 x .045 x 7/8	10200	25	A60T	6556-273	2.49	A60T	6557-022	3.24	
7 x .045 x 7/8	8500	25	A60T	6556-275	3.28	-	-	-	
7 x .060 x 7/8	8500	25	-	-	-	A60T	6557-023	3.82	

Mounting Mandrels

For small diameter
Type 1 Wheels



4

ARBOR SIZE	WHEEL THICKNESS	ORDER NO.	PRICE EACH
1/4"	.035 to 1/4	6556-489	\$11.87
3/8"	.035 to 1/4	6556-490	11.87
1/4", 3/8"	.035 to 1/4	6556-491	20.43

Small Diameter - Portable/Die Grinder - Fiberglass Reinforced - Aluminum Oxide - Resin Bonded

For use on air or electric straight shaft high speed right angle and die grinders. Designed for fast, burr free cutting and notching. Works especially well on thin walled tube and pipe.



Buy
Std. Ctn.
Deduct
10%

Use on
Straight & Die
Grinders

1

															
SIZE DIA. x THICK. x ARBOR			MAX. RPM	GRADE	STD. CTN.	ORDER NO.	PRICE EACH	GRADE	STD. CTN.	ORDER NO.	PRICE EACH	GRADE	STD. CTN.	ORDER NO.	PRICE EACH
3	x	.035 x 1/4	24000	A60	50	3890-410*	\$1.42	A60T	100	6556-061	\$1.34	A60T	100	3893-610	\$3.55
3	x	.035 x 3/8	24000	A60	50	3890-415*	1.42	A60T	100	6556-062	1.34	A60T	100	3893-615	3.55
3	x	1/16 x 1/4	24000	A36	50	3890-420	1.44	A36T	100	6556-065	1.44	A46T	50	3893-620	3.55
3	x	1/16 x 3/8	24000	A36	50	3890-425	1.44	A36T	100	6556-068	1.44	A46T	50	3893-625	3.55
3	x	1/8 x 1/4	24000	A24	25	3890-430	1.61	A36T	100	6556-270	1.35	A36R	25	3893-630	5.02
3	x	1/8 x 3/8	24000	A24	25	3890-435	1.61	A36T	100	6556-076	1.58	A36R	25	3893-635	5.02
4	x	.035 x 1/4	19000	A60	50	3890-440*	1.84	A60T	50	6556-165	1.74	A60T	100	3893-640	5.15
4	x	.035 x 3/8	19000	A60	50	3890-445*	1.84	A60T	25	6556-080	1.74	A60T	100	3893-645	5.15
4	x	1/16 x 1/4	19000	A36	50	3890-450	2.01	A36T	50	6556-166	1.81	A46T	50	3893-650	5.15
4	x	1/16 x 3/8	19000	A36	50	3890-455	2.01	A36T	25	6556-086	1.81	A46T	50	3893-655	5.15
4	x	1/8 x 1/4	19000	A24	25	3890-460	2.25	A36S	50	6556-167	1.93	A36R	25	3893-660	2.99
4	x	1/8 x 3/8	19000	A24	25	3890-465	2.23	A36T	25	6556-099	2.24	A36R	25	3893-665	5.98

* 1/32" Thick, ** 1/16" Thick

Type 1 Cut-Off Wheels

Circular Saw Wheels Fiberglass Reinforced – Resin Bonded

Designed to meet the demands of the professional contractor.
A general purpose wheel providing fast cutting action.



**Buy
Std. Ctn.
Deduct
10%**

								FLEXOVIT USA			FLEXOVIT USA			
METAL, STAINLESS				MASONRY, CONCRETE				METAL, STAINLESS			MASONRY, CONCRETE			
SIZE DIA.xTHICK.x ARBOR	MAX. RPM	ORDER NO.	PRICE EACH	ORDER NO.	PRICE EACH	GRADE	ORDER NO.	PRICE EACH	GRADE	ORDER NO.	PRICE EACH	GRADE	ORDER NO.	PRICE EACH
7 x 3/32 x 5/8 	8600	A24R	3890-475	\$1.53	C24R	3890-477	\$1.44	A36TB38	3893-700	\$7.83	—	—	—	
7 x 1/8 x 5/8 	8600	—	—	—	—	—	—	—	—	—	C30UB64	3893-710	\$8.39	
8 x 3/32 x 5/8 	7500	—	—	—	—	—	—	—	A36TB38	3893-705	8.78	—	—	
8 x 1/8 x 5/8 	7500	—	—	—	—	—	—	—	—	—	C30UB64	3893-715	9.45	

CGW –
Std. Ctns. of 25

Flexovit USA –
Std. Ctns. of 25

Chopsaw/Mitre Saw Wheels Fiberglass Reinforced – Resin Bonded

Used on lower horsepower bench top chopsaws and mitre saws,
these wheels combine optimum cutting speed and wheel life.

CGW				FLEXOVIT USA			
SIZE DIA. x THICK. x ARBOR	MAX. RPM	GRADE	STD. CTN.	ORDER NO.	PRICE EACH	GRADE	STD. CTN.
10 x 3/32 x 5/8	6130	A24R	10	3890-485	\$2.72	—	—
12 x 3/32 x 1	5100	A36P	10	3890-510	8.95	A30RB	10
14 x 3/32 x 1	4400	A36P	10	3890-515	9.72	A30RB	10



High Speed Gas & Electric Saw Wheels Fiberglass Reinforced – Resin Bonded

Durable, hard working wheels for a variety of job site applications.



								FLEXOVIT USA			FLEXOVIT USA		
METAL, STAINLESS				MASONRY, CONCRETE				METAL, STAINLESS			MASONRY, CONCRETE		
SIZE DIA.xTHICK.x ARBOR	MAX. RPM	GRADE	ORDER NO.	PRICE EACH	GRADE	ORDER NO.	PRICE EACH	GRADE	ORDER NO.	PRICE EACH	GRADE	ORDER NO.	PRICE EACH
12 x 1/8 x 1	6300	—	—	—	—	—	—	A24/305B	3893-800	\$11.38	C30UB	3893-820	\$11.38
12 x 1/8 x 20MM	6300	—	—	—	—	—	—	A24/305B	3893-805	11.38	C30UB	3893-825	11.38
12 x 5/32 x 1	6300	A24R	3890-520	\$9.56	C24R	3890-530	\$3.75	—	—	—	—	—	—
12 x 5/32 x 20MM	6300	A24R	3890-522	9.56	C24R	3890-532	3.75	—	—	—	—	—	—
14 x 1/8 x 1	5200	—	—	—	—	—	—	A24/305B	3893-810	18.70	C30UB	3893-830	18.70
14 x 1/8 x 20MM	5200	—	—	—	—	—	—	A24/305B	3893-815	18.70	C30UB	3893-840	18.70
14 x 5/32 x 1	5200	A24R	3890-524	13.78	C24R	3890-534	4.88	—	—	—	—	—	—
14 x 5/32 x 20MM	5200	A24R	3890-526	13.78	C24R	3890-536	4.88	—	—	—	—	—	—

CGW –
Std. Ctns. of 10

Flexovit USA –
Std. Ctns. of 10

Type 1 Stationary Saw Wheels Fiberglass Reinforced – Resin Bonded

For use in production cut-off applications. Fast cutting, reliable performance.

CGW				FLEXOVIT USA			
SIZE DIA. x THICK. x ARBOR	MAX. RPM	GRADE	STD. CTN.	ORDER NO.	PRICE EACH	GRADE	STD. CTN.
10 x 1/8 x 5/8	6130	A24R	10	3890-487	\$2.85	A30RB	10
12 x 1/8 x 1	5100	A24R	10	3890-490	5.89	A30RB	10
14 x 1/8 x 1	4300	A24R	10	3890-495	10.91	A30RB	10
16 x 5/32 x 1	3820	A24R	10	3890-500	24.89	A30RB	10
20 x 5/32 x 1	3050	A24R	10	3890-505	26.33	—	—
20 x 3/16 x 1	3066	—	—	—	—	A30RB	10



Type 27 Depressed Center Grinding Wheels



Type 27 Grinding Wheels

Fiberglass Reinforced – Resin Bonded For Metal, Stainless

For safe and efficient metal removal in all portable grinding operations. Remove weld beads, burrs, and rough edges aggressively, yet economically. Long life.

A24N Fast Cut: Aluminum Oxide Grain. Soft N-grade bond for fast stock removal.

Excellent ratio of stock removal/wheel loss.

A24R Fast Cut: Aluminum Oxide Grain. R-grade bond for excellent life and stock removal.

ZA24T: Zirconia Aluminum Oxide Grain.

High performance design for fast cutting and longer life. Excellent cutting of ferrous metals and stainless steel.



**Buy
Std. Ctn.
Deduct
10%**

1

SIZE DIA. x THICK. x ARBOR			ALUMINUM OXIDE				ULTRA PREMIUM ZIRCONIA			
			MAX. RPM	GRADE	STD. CTN.	ORDER NO.	PRICE EACH	STD. CTN.	ORDER NO.	PRICE EACH
4	x 1/4	x 5/8	15000	A24N	25	3890-035	\$1.91	-	-	-
4-1/2	x 1/4	x 7/8	13300	A24R	25	3890-045	1.99	ZA24T	25	3890-845 \$4.81
4-1/2	x 1/4	x 5/8-11	13300	A24R	10	3890-050	3.93	ZA24T	10	3890-850 7.02
5	x 1/4	x 7/8	12000	A24N	25	3890-060	2.63	-	-	-
7	x 1/4	x 5/8-11	8600	A24R	10	3890-075	6.19	ZA24T	10	3890-875 10.94
9	x 1/4	x 5/8-11	6800	A24N	10	3890-095	10.17	-	-	-

FLEXOVIT®

High Performance Type 27 Wheels

The hardest working aluminum oxide wheels available. Precision made to ensure smooth and safe operation, sets the standards for fast material removal, rugged reliability and long life. Made in USA



**Buy
Std. Ctn.
Deduct
10%**

1

SIZE DIA. x THICK. x ARBOR			ALUMINUM OXIDE			
			MAX. RPM	STD. GRADE	ORDER CTN. NO.	PRICE EACH
4-1/2	x 1/4	x 7/8	13300	A30S	25 3890-645	\$4.16
4-1/2	x 1/4	x 5/8-11	13300	A30S	10 3890-650	5.78
5	x 1/4	x 7/8	12000	A30S	25 3890-660	6.97
7	x 1/4	x 7/8	8600	A30S	10 3890-670	8.82
7	x 1/4	x 5/8-11	8600	A30S	10 3890-675	10.89
9	x 1/4	x 7/8	6800	A30S	10 3890-690	12.87



Type 27 Grinding Wheels For Steel/Metal

Fast Grinding and consistent performance at a good value for everyday, general purpose use. A24R: Aluminum Oxide Grain. Fast grinding on metal.



**Buy
Std. Ctn.
Deduct
10%**

1

SIZE DIA. x THICK. x ARBOR			WOLVERINE™ ALUMINUM OXIDE			
			MAX. RPM	STD. GRADE	ORDER CTN. NO.	PRICE EACH
4	x 1/4	x 5/8	15000	10	A24R 6556-473	\$2.33
4-1/2	x 1/4	x 7/8	13300	10	A24R 6556-464	2.08
4-1/2	x 1/4	x 5/8-11	13300	10	A24R 6556-454	3.84
7	x 1/4	x 5/8-11	8600	10	A24R 6556-468	7.33

Type 27 Depressed Center Cutting/Combo Wheels



Type 27 Cut/Grind/Finish Reinforced Rt. Angle Grinder Wheels

High performance wheels made to cut quickly, grind easily and finish work surfaces with ONE wheel. Fiberglass net reinforcement provides added strength and flexibility.

For working on flat grinding surfaces. Most efficient when used between 0° - 15° angle. The best choice for smooth finishing. Suitable For: Steel & Stainless Steel. Contaminate free wheel has < 0.1% iron, sulfur, or chlorine for rust-free and corrosion-free results.



**Buy
Std. Ctn.
Deduct
10%**

1

SIZE		SPEC	MAX. RPM	STD. CTN.	ORDER NO.	PRICE EACH
DIA. x THICK. x ARBOR						
4 1/2 x 3/32 x 7/8		A36S	13,300	25	3898-755	\$2.27
4 1/2 x 3/32 x 5/8-11		A36S	13,300	10	3898-756	4.42
5 x 3/32 x 7/8		A36S	12,250	25	3898-760	2.81
5 x 3/32 x 5/8-11		A36S	12,250	10	3898-761	4.96
6 x 3/32 x 7/8		A36S	10,200	25	3898-765	4.02
6 x 3/32 x 5/8-11		A36S	10,200	10	3898-766	6.22



Type 27 Quickie Cut™ Thin Reinforced Right Angle Grinder Cut-Off Wheels

CGW Quickie Cut™ Thin Reinforced Type 27 Cut-Off wheels are an excellent general purpose wheel with an Aluminum Oxide / Zirconia mixture. Zirconia grain allows for faster cutting and longer life. Use on Steel and Stainless Steel.



**Buy
Std. Ctn.
Deduct
10%**

1

SIZE		SPEC	MAX. RPM	STD. CTN.	ORDER NO.	PRICE EACH
DIA. x THICK. x ARBOR						
4 x .045 x 5/8		ZA60-S-BF	15,300	25	3898-705	\$2.07
4 1/2 x .045 x 7/8		ZA60-S-BF	13,300	25	3898-710	2.03
5 x .045 x 7/8		ZA60-S-BF	12,250	25	3898-715	2.37
6 x .045 x 7/8		ZA60-S-BF	10,200	25	3898-720	2.67

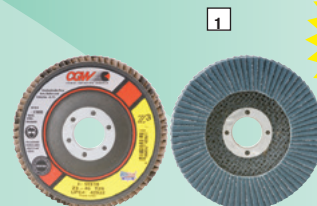
Abrasive Flap Discs

Zirconium Abrasive Flap Discs are used for coarse and intermediate grinding of welds, deburring, rust removal and snagging. Bridges the gap between angle grinding wheels and resin fiber discs, providing aggressive cutting action and longer life than fiber discs.

Type 29 – Angled Style Flap Discs – Zirconium Grain

A working angle of 15 to 25 Degrees. Excellent for contour or edge work.

- Phenolic resin/fiber backing is used to prevent scratching the work piece during operation.
- Aluminum backing provides rigid support for maximum aggression; recyclable.
- CGW XL discs have approximately 60% more material.



**Buy
Std. Ctn.
Deduct
10%**

SIZE	GRIT	STD. CTN.	PHENOLIC BACKING		PHENOLIC BACKING		PHENOLIC BACKING		PHENOLIC BACKING		ALUMINUM BACKING	
			ORDER NO.	PRICE	ORDER NO.	PRICE	ORDER NO.	PRICE	ORDER NO.	PRICE	ORDER NO.	PRICE
4-1/2 x 7/8	24	10	—	—	5720-422**	\$4.58	—	—	6550-601	\$8.54	6550-511	\$9.48
4-1/2 x 7/8	36	10	6531-343	\$4.08	5720-423	4.58	5720-823	\$5.77	—	—	6550-512	9.48
4-1/2 x 7/8	40	10	6531-344	4.08	5720-424	4.58	5720-824	5.77	6550-603†	3.25	6550-513	9.48
4-1/2 x 7/8	60	10	6531-345	4.08	5720-426	4.58	5720-826	5.77	—	—	6550-514	9.48
4-1/2 x 7/8	80	10	6531-346	4.08	5720-428	4.58	5720-828	5.77	—	—	6550-515	9.48
4-1/2 x 7/8	120	10	6531-347	4.08	5720-432	4.58	5720-832	5.77	6550-606	8.54	6550-516	9.48
7 x 7/8	40	10	—	—	5720-484	9.49	—	—	—	—	—	—
7 x 7/8	60	10	—	—	5720-486	9.49	—	—	—	—	—	—
7 x 7/8	80	10	—	—	5720-488	9.49	—	—	—	—	—	—

Other sizes, and 5/8-11 Hub Style are also available. Std. Carton Qty. only.

**Minimum order qty. 1000/pk.
† Limited Quantities

Type 27 – Flat Style Flap Discs

Ideal for working angles less than 15 Degrees. Smooth grinding.

Zirconium Grain

High rate of stock removal and long life in demanding applications.

CGW XL and Weiler Big Cat® Abrasive Flap Discs feature a thicker disc with a higher density of flaps which conform to curved surfaces producing a consistent finish. 30% to 40% longer life than standard flap discs. For those who value parts-per-disc over price-per-disc.



SIZE	GRIT	STD. CTN.	PHENOLIC BACKING		PHENOLIC BACKING		PHENOLIC BACKING		PHENOLIC BACKING	
			ORDER NO.	PRICE	ORDER NO.	PRICE	ORDER NO.	PRICE	ORDER NO.	PRICE
4-1/2 x 7/8	24	10	5720-222	\$4.78	—	—	—	—	—	—
4-1/2 x 7/8	36	10	5720-223	4.58	—	—	5720-623	\$5.77	—	—
4-1/2 x 7/8	40	10	5720-224	4.58	—	—	5720-624	5.77	6550-803	\$ 10.08
4-1/2 x 7/8	60	10	5720-226	4.58	6550-704†	\$3.25	5720-626	5.77	6550-804	10.08
4-1/2 x 7/8	80	10	5720-228	4.58	6550-705†	3.25	5720-628	5.77	6550-805	10.08
4-1/2 x 7/8	120	10	5720-232	4.58	6550-706	8.54	5720-632	5.77	6550-806	10.08
7 x 7/8	40	10	5720-284	9.49	—	—	—	—	—	—
7 x 7/8	60	10	5720-286	9.49	—	—	—	—	—	—
7 x 7/8	80	10	5720-288	9.49	—	—	—	—	—	—

† Limited Quantities

Adapting Nuts & Spanner Wrench

– For discs with 7/8" arbor hole

DESCRIPTION	THREAD	ORDER NO.	PRICE EACH
Adapting nuts	5/8-11	6556-494	\$39.07
Spanner wrench	—	6556-495	28.06



Right Angle Grinder
Adapting Nut #6556-494
Tiger Disc Abrasive Flap Disc
Adapting Nut #6556-494 (Not for use with Resin Fiber Discs)

Mini Flap Discs & Quick Change Discs

Mini Flap Discs - Type 27 Zirconia Grain



For use on Die Grinders, these mini flap discs combine grinding and finishing applications into one step, while providing the convenience and versatility of Quick Change Discs. They are designed to prevent walking, allow access to tight areas, and reduce heat build-up.

Applications:

- Grinding and finishing in one step.
- Grinding, deburring and blending on steel/stainless steel.
- Jobs requiring high aggression & rapid stock removal.
- Metal fabrication requiring light weld blending or edge chamfering.

  							
USA MADE							
SIZE	GRIT	RPM	PKG. QTY.	TYPE 27 (R HUB)		TYPE 27 (S HUB)	
				ORDER NO.	PRICE PER PACK	ORDER NO.	PRICE PER PACK
2"	36	24,000	10	5722-023	\$31.17	6550-932	\$51.27
2"	40	24,000	10	5722-024	31.17	6550-933	51.27
2"	60	24,000	10	5722-026	31.17	6550-934	51.27
2"	80	24,000	10	5722-028	31.17	6550-935	51.27
2"	120	24,000	10	5722-030	31.17	6550-936	51.27
3"	36	20,000	10	5722-033	46.89	6550-912	66.24
3"	40	20,000	10	5722-034	46.89	6550-913	66.24
3"	60	20,000	10	5722-036	38.84	6550-914	66.24
3"	80	20,000	10	5722-038	38.84	6550-915	66.24
3"	120	20,000	10	5722-040	38.84	6550-916	66.24



Quick Change Laminated Discs

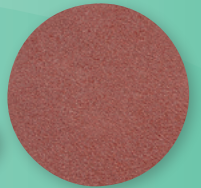
Use on Die Grinders for deburring, blending, finishing, removing tool marks, and die polishing on all types of materials. Suitable for a wide variety of light fabrication, repair and maintenance applications. Strong 2-Ply design for flat or contour work.

Aluminum Oxide - Color: Brown General purpose disc for grinding, deburring, and blending on ferrous metals.

Zirconia AO w/Grinding Aid - Color: Green Excellent disc for rapid stock removal on Stainless Steel. Lubricated super-size Grinding Aid coat for cooler running.

Premium Ceramic - Color: Pink Premium grain for greater durability and aggressive cut rates, including hard metals.

Turn On style,
(S-Hub) shown



											
				ALUMINUM OXIDE				ZIRCONIA AO W/GRINDING AID			
DIAM.	GRIT	RPM	PKG. QTY.	ROLL ON (R HUB)	TURN ON (S HUB)	PRICE PER PACK	ORDER NO.	ROLL ON (R HUB)	TURN ON (S HUB)	PRICE PER PACK	ORDER NO.
				ORDER NO.	ORDER NO.			ORDER NO.	ORDER NO.		
2"	36	25,000	50	5722-223	5722-623	\$35.67	5722-323	5722-723	\$51.36	5722-523	5722-923
	40	25,000	50	5722-224	5722-624	32.73	5722-324	5722-724	44.42	5722-524	5722-924
	50	25,000	50	5722-225	5722-625	33.00	5722-325	-	44.42	5722-525	5722-925
	60	25,000	50	5722-226	5722-626	33.00	5722-326	5722-726	44.42	5722-526	5722-926
	80	25,000	50	5722-228	5722-628	31.97	5722-328	5722-728	44.42	5722-528	5722-928
	100	25,000	50	5722-230	5722-630	31.97	-	-	-	5722-530	5722-930
3"	120	25,000	50	5722-232	5722-632	31.97	5722-332	5722-732	44.42	5722-532	5722-932
	36	20,000	25	5722-243	-	28.35	5722-343	-	37.23	5722-543	5722-943
	40	20,000	25	5722-244	5722-644	25.83	5722-344	-	33.45	5722-544	-
	50	20,000	25	5722-245	5722-645	25.97	5722-345	-	33.45	5722-545	5722-945
	60	20,000	25	5722-246	-	25.97	5722-346	-	31.39	5722-546	5722-946
	80	20,000	25	5722-248	-	24.79	5722-348	-	31.39	5722-548	5722-948
3"	100	20,000	25	5722-250	5722-650	24.79	-	-	-	5722-550	5722-950
	120	20,000	50	5722-252	-	49.58	5722-352	-	31.39	5722-552	5722-952



Quick Change Disc Rubber Holder Pads

- Medium grade reinforced rubber holder pad.
- Available for either internally threaded (S Hub) or externally threaded (R Hub) Quick Change discs.



		R-HUB		S-HUB	
SIZE	RPM	ORDER NO.	PRICE EACH	ORDER NO.	PRICE EACH
1-1/2"	25,000	5723-401	\$8.06	5723-411	\$8.91
2"	25,000	5723-402	9.92	5723-412	9.38
3"	20,000	5723-403	9.91	5723-413	10.91

Resin Fibre Discs

1

**Buy
Std. Ctn.
Deduct
10%**

GRAIN SELECTOR		
GRAIN	FEATURES	APPLICATIONS
Aluminum Oxide	- Fast, smooth cutting action - Tough and flexible - High resistance to heat, glazing, and loading	- All purpose weld removal and blending - Surface preparation and finishing of ferrous metals, plastic, and wood
Zirconium	- Superior cutting action - More durable – longer life - Ultra high resistance to heat, glazing, and loading	High performance grinding of stainless steel, tool steel, and hard-to-grind materials and exotic metals.



  										
		ALUMINUM OXIDE			ZIRCONIUM		ALUMINUM OXIDE		ALUMINUM OXIDE	
SIZE	GRIT	STD. CTN.	ORDER NO.	PRICE	ORDER NO.	PRICE	ORDER NO.	PRICE	ORDER NO.	PRICE
4 x 5/8	24	25	5710-152	\$0.60	—	—	—	—	—	—
4 x 5/8	80	25	5710-158	0.52	—	—	—	—	—	—
4-1/2 x 7/8	16	25	5710-201	0.85	—	—	—	—	—	—
4-1/2 x 7/8	24	25	5710-202	0.69	5710-432	\$1.03	6559-571	\$0.89	5616-132	\$2.22
4-1/2 x 7/8	36	25	5710-203	0.67	5710-433	0.95	6559-573	0.83	—	—
4-1/2 x 7/8	50	25	5710-205	0.65	5710-435	0.89	6559-575	0.81	—	—
4-1/2 x 7/8	60	25	5710-206	0.61	5710-436	0.85	6559-576	0.78	5616-136	1.95
4-1/2 x 7/8	80	25	5710-208	0.55	5710-438	0.81	6559-577	0.76	—	—
4-1/2 x 7/8	100	25	5710-210	0.55	—	—	—	—	—	—
4-1/2 x 7/8	120	25	5710-212	0.55	—	—	—	—	—	—
5 x 7/8	16	25	5710-251	0.91	—	—	—	—	—	—
5 x 7/8	24	25	5710-252	0.74	5710-462	1.10	6559-501	1.04	—	—
5 x 7/8	36	25	5710-253	0.69	5710-463	0.98	6559-503	1.00	—	—
5 x 7/8	50	25	5710-255	0.67	5710-465	0.91	6559-505*	0.81	—	—
5 x 7/8	60	25	5710-256	0.65	5710-466	0.89	6559-506	0.89	—	—
5 x 7/8	80	25	5710-258	0.63	5710-468	0.87	6559-507	0.88	—	—
5 x 7/8	100	25	5710-260	0.63	—	—	6559-508	0.80	—	—
5 x 7/8	120	25	5710-262	0.63	—	—	—	—	—	—
7 x 7/8	16	25	5710-301	1.50	—	—	6559-520	2.54	—	—
7 x 7/8	24	25	5710-302	1.31	—	—	6559-521	1.86	—	—
7 x 7/8	36	25	5710-303	1.23	—	—	6559-523	1.70	—	—
7 x 7/8	50	25	5710-305	1.21	5710-505	1.64	6559-525	1.54	5616-205	2.78
7 x 7/8	60	25	5710-306	1.21	5710-506	1.60	6559-526*	1.61	—	—
7 x 7/8	80	25	5710-308	1.16	5710-508	1.52	6559-527*	1.54	—	—
7 x 7/8	100	25	5710-310	1.16	—	—	6559-528*	1.52	—	—
7 x 7/8	120	25	5710-312	1.16	—	—	6559-529	1.39	—	—

† 3M™ brand replaces Standard Abrasives, which may be supplied until inventory is depleted.

* Minimum order quantity: (1000)

Spiralcool® Standard Air-Cooled Backing Pads

Ideal for all sanding operations on metal, plastic, fiberglass, etc. Smooth face pads available upon request.



Supplied with 5/8-11 Arbor Hole, except the 4-1/2" which will be supplied with a 5/8" smooth bore. Other arbor holes available upon request.

SIZE	DENSITY	MAX. RPM	ORDER NO.	PRICE EACH
4"	Flexible	12,000	5710-600	\$12.80
4"	Medium	12,000	5710-601	12.80
4"	Rigid	12,000	5710-602	12.80
4-1/2"	Flexible	11,000	5710-612	12.80
4-1/2"	Medium	11,000	5710-613	12.80
4-1/2"	Rigid	11,000	5710-614	12.80
5"	Flexible	10,000	5710-624	14.50
5"	Medium	10,000	5710-625	14.50
5"	Rigid	10,000	5710-626	14.50
7"	Flexible	7,000	5710-636	21.80
7"	Medium	8,500	5710-637	21.80
7"	Rigid	8,500	5710-638	21.80
9"	Flexible	6,500	5710-648	26.05
9"	Medium	6,500	5710-649	26.05
9"	Rigid	6,500	5710-650	26.05



Nuts and wrenches do not come with pads. Must be ordered separately.

DESCRIPTION	ORDER NO.	PRICE EACH
#102 Nut; 5/8-11	5710-665	\$4.90
#103 Nut; 5/8-11 For 4" – 5" Pads	5710-666	4.90
3/8-24 – 5/8-11 Adapter	5710-660	7.85
7/16-20 – 5/8-11 Adapter	5710-661	7.85
Spanner Wrench	5710-670	4.90

PSA Discs

PSA Aluminum Oxide Resin Bond Cloth Discs

Abrasive cloth discs have a pressure sensitive adhesive backing making them easy to apply to a rubber disc holder. Protective liner speeds disc changing and protects adhesive from work dust. Resin bond discs are made with a heavy resin abrasive cloth, assuring long life, with fast stock removal.



IMPORT				IMPORT				IMPORT			
GRIT	ORDER NO.	PKG QTY	PRICE PER PKG	GRIT	ORDER NO.	PKG QTY	PRICE PER PKG	GRIT	ORDER NO.	PKG QTY	PRICE PER PKG
1" DIAMETER				3" DIAMETER				8" DIAMETER			
36	5711-103	100	\$14.40	36	5711-253	100	\$49.10	36	5711-453	50	\$127.65
40	5711-104	100	13.00	40	5711-254	100	46.85	40	5711-454	50	123.65
50	5711-105	100	12.90	50	5711-255	100	43.70	50	5711-455	50	113.75
60	5711-106	100	12.90	60	5711-256	100	39.25	60	5711-456	50	106.20
80	5711-108	100	12.90	80	5711-258	100	39.10	80	5711-458	50	96.25
100	5711-110	100	12.90	100	5711-260	100	42.30	100	5711-460	50	93.55
120	5711-120	100	12.90	120	5711-262	100	37.15	120	5711-462	50	93.55
1-1/2" DIAMETER				5" DIAMETER				9" DIAMETER			
36	5711-153	100	\$18.50	36	5711-303	50	49.45	36	5711-503	50	\$176.85
40	5711-154	100	17.65	40	5711-304	50	46.60	40	5711-504	50	170.10
50	5711-155	100	16.80	50	5711-305	50	44.00	50	5711-505	50	153.65
60	5711-156	100	16.80	60	5711-306	50	39.15	60	5711-506	50	138.80
80	5711-158	100	16.80	80	5711-308	50	40.05	80	5711-508	50	132.15
100	5711-160	100	16.80	100	5711-310	50	40.15	100	5711-510	50	125.25
120	5711-162	100	16.80	120	5711-312	50	36.65	5620-508			50 \$198.50
2" DIAMETER				6" DIAMETER				12" DIAMETER			
36	5711-203	100	\$34.20	36	5711-353	50	\$75.35	40	5711-604	25	\$147.10
40	5711-204	100	32.50	40	5711-354	50	72.30	50	5711-605	25	138.75
50	5711-205	100	31.00	50	5711-355	50	73.90	60	5711-606	25	119.10
60	5711-206	100	29.50	60	5711-356	50	57.90	80	5711-608	25	116.50
80	5711-208	100	28.15	80	5711-358	50	56.60	100	5711-610	25	110.60
100	5711-210	100	26.70	100	5711-360	50	53.15	120	5711-612	25	110.60
120	5711-212	100	26.70	120	5711-362	50	53.15	5620-560			10 64.70
								5620-562			10 77.00

PSA Abrasive Disc – Disc Rolls With Liner

Silicon Carbide Grain glue bond, "A" weight paper. Treated for load resistance, recommended for all grinding of metal, wood and fiberglass. With release paper liner and self storing dispenser. Trouble free, the most efficient disc/roll package available. No grit or dust contamination, great shelf life. Stearate coated.



5"				6"	
GRIT	PKG QTY	ORDER NO.	PRICE PER PKG	ORDER NO.	PRICE PER PKG
100	100	—	—	5712-410†	\$26.75
120	100	5712-312†	\$21.95	5712-412†	26.75
150	100	5712-315†	21.95	5712-415†	26.75
180	100	5712-318†	21.95	5712-418†	26.75
220	100	5712-322†	21.95	5712-422†	26.75
320	100	5712-332†	21.95	5712-432†	26.75

† Limited Quantities

PSA Disc Holders – Optimum performance with PSA Discs



DIAM.	MAX. RPM	SHK	ORDER NO.	PRICE EACH
1	15,000	1/4	5642-192	\$10.90

Quick Change Discs

Available in a Choice of Quick Change Locking Systems.

12



A/O 2 Ply



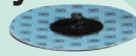
- Ideal for flat or contoured surfaces
- Best for MRO grinding, deburring, & finishing on ferrous metals.

A/O Extra 2-Ply



- Ideal for flat or contoured surfaces
- Good for difficult to grind metals, such as aircraft grade aluminum, High Nickel, Chrome Alloys, & heat-sensitive material.
- Includes grinding aid

Zirconia Pro 2-Ply



- Better choice for rapid stock removal on Stainless Steel, High Nickel Alloys, & Aluminum
- Features a grinding aid on a Y-weight backing
- Best performance under medium-to-heavy pressure

Ceramic 2-Ply



- Best choice for rapid stock removal on Stainless Steel and High Nickel Alloys.
- Features a grinding aid for cooler operation
- Heavy pressure required

DIA.	GRIT	A/O 2 PLY				A/O EXTRA 2 PLY				ZIRCONIA PRO 2 PLY				CERAMIC 2 PLY			
		TS-STYLE ORDER NO.	TR-STYLE ORDER NO.	PKG QTY	PRICE PER PK.	TS-STYLE ORDER NO.	TR-STYLE ORDER NO.	PKG. QTY.	PRICE PER PK.	TS-STYLE ORDER NO.	TR-STYLE ORDER NO.	PKG. QTY.	PRICE PER PK.	TS-STYLE ORDER NO.	TR-STYLE ORDER NO.	PKG. QTY.	PRICE PER PK.
1"	80	-	-	-	-	5601-608	-	50	\$25.52	-	-	-	-	-	-	-	-
	100	-	-	-	-	5601-610	-	50	25.52	-	-	-	-	-	-	-	-
	240	5600-124	-	50	\$23.36	-	-	-	-	-	-	-	-	-	-	-	-
1-1/2"	50	-	-	-	-	-	-	-	-	5604-655	-	50	\$35.05	5609-155	-	50	\$39.68
	80	-	-	-	-	5601-658	-	50	31.19	-	-	-	-	-	-	-	-
	100	-	-	-	-	5601-660	-	50	32.13	-	-	-	-	-	-	-	-
2"	24	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
	36	-	-	-	-	-	-	-	-	-	-	-	-	5609-203	-	50	62.00
	40	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
	60	-	5600-706	50	44.97	-	-	-	-	5604-706	-	50	51.60	5609-206	-	50	56.50
	100	5600-210	-	50	44.42	-	-	-	-	-	-	-	-	-	-	-	-
	40	-	-	-	-	-	-	-	-	5604-804	5605-304	50	68.50	-	-	-	-
	50	-	-	-	-	-	-	-	-	-	-	-	-	5609-305	-	50	75.00
3"	80	-	-	-	-	-	-	-	-	-	-	-	-	5609-308	-	50	70.00
	100	5600-310	-	50	55.50	5601-810	-	50	57.00	-	-	-	-	-	-	-	-
	120	-	-	-	-	5601-812	-	50	55.50	-	-	-	-	-	-	-	-

Holder Pads

For All Quick Change Style Discs

Available for all small diameter Quick Change style discs, in soft, medium, and firm grades.



TS (SocAtt®)



TR (Lockit®)

12

SIZE	DEN-SITY	MAX. RPM	TS - TA4		TR - TA4	
			ORDER NO.	ORDER NO.	PRICE EACH	PRICE EACH
3/4"	Med.	40,000	5641-014	-	\$ 21.29	
1"	Med.	40,000	5641-015	-	20.31	
1-1/2"	Soft	20,000	5641-016	5641-059	24.53	
1-1/2"	Med.	25,000	5641-017	5641-060	22.65	
1-1/2"	Firm	30,000	5641-018	5641-061	25.40	
2"	Soft	20,000	5641-019	5641-062	27.14	
2"	Med.	25,000	5641-020	5641-063	26.03	
2"	Firm	30,000	5641-021	5641-064	31.05	
3"	Soft	12,000	5641-022	5641-065	33.11	
3"	Med.	20,000	5641-023	5641-066	30.11	
3"	Firm	20,000	5641-024	5641-067	35.87	
5/8-11" ARBOR - LARGE DIAMETER, HARD FACE TS HOLDER PADS						
4-1/2"	Med.	18,000	5641-160	Low Profile	70.86	
4-1/2"	Med.	18,000	5641-150		70.86	

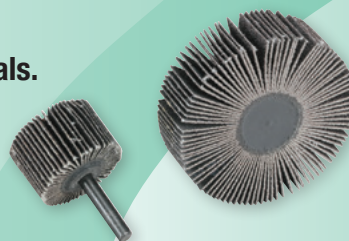
Flap Wheels

Perfect tool for deburring, blending, finishing and cleaning inside and outside diameters of ferrous and non-ferrous materials.

Mounted Flap Wheels (1"–3" Diameters)

Aluminum Oxide Resin Bond

* Permanently affixed 1/4" or 1/4-20 threaded steel shank allows choice of best system for your tooling, and fast wheel changes. Affixed mandrel for concentricity and reduced chatter; less operator fatigue.



1

**Buy
Std. Ctn.
Deduct
10%**

1/4" SHANK							1/4-20 SHANK					
IMPORT												
SIZE	GRIT	STD. CTN.	ORDER NO.	PRICE	ORDER NO.	PRICE	ORDER NO.	PRICE	ORDER NO.	PRICE	ORDER NO.	PRICE
1" x 1"	60	10	5714-156	\$2.16	6552-003	\$5.09	—	—	6552-601	\$5.15	5615-136	\$8.59
	80	10	5714-158	2.16	6552-004	5.09	5615-008	\$7.66	—	—	5615-138	8.59
	120	10	5714-162	2.16	6552-005	5.09	5615-012	7.88	—	—	5615-142	8.59
1-1/2" x 1"	60	10	5714-406	2.60	6552-009	6.61	—	—	—	—	—	—
	80	10	5714-408	2.60	6552-010	6.61	—	—	—	—	—	—
	120	10	5714-412	2.60	6552-011	6.61	—	—	—	—	—	—
2" x 1"	60	10	5714-556	3.10	6552-015	7.39	—	—	6552-611	7.14	—	—
	80	10	5714-558	3.10	6552-016	7.39	5615-058	11.46	6552-613	7.14	—	—
	120	10	5714-562	3.14	6552-017	7.39	5615-062	11.46	—	—	—	—
2-1/2" x 1"	60	10	5714-706	4.33	6552-486	7.72	5615-076	13.80	—	—	—	—
	80	10	5714-708	4.33	6552-487	7.72	—	—	—	—	—	—
	120	10	5714-712	4.39	—	—	—	—	—	—	—	—
3" x 1"	60	10	5714-906	4.81	6552-027	9.75	—	—	6552-621	10.34	—	—
	80	10	5714-908	4.81	6552-028	9.75	—	—	6552-623	10.34	5615-238	14.07
	120	10	5714-912	5.00	6552-029	9.75	5615-112	14.03	—	—	5615-242	15.31

Mounted Flap Wheel Drive Arbor



2

THREAD SIZE	ADAPTED SIZE	ORDER NO.	PRICE EACH
1/4-20	1/4"	5642-100	\$14.44

Large Flap Wheels (4"– 6" Diameters)

Aluminum Oxide Resin Bond

Best Flap Wheel for applications requiring high stock removal. Provides maximum stability and smaller contact areas on work surface. Highest initial cut rate.

2

4

SIZE	GRIT	STD. CTN.	IMPORT			
			ORDER NO.	PRICE	ORDER NO.	PRICE
4" x 1" x 5/8"	60	1	5716-156	\$ 13.95	—	—
	80	1	5716-158	14.20	6553-167†	\$19.84
	120	1	5716-162	15.00	6553-169†	21.16
6" x 1" x 1"	60	1	5716-356	22.20	—	—
	80	1	5716-358	22.85	—	—
	120	1	5716-362	23.75	6553-289†	36.95
6" x 2" x 1"	60	1	5716-456	33.35	—	—
	80	1	5716-458	34.15	—	—
	120	1	5716-462	36.85	—	—

† Limited Quantities

Unmounted Flap Wheel Reducer Bushings (Used in Pairs)

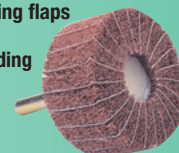
4

SIZE	ORDER NO.	PRICE/ PAIR
1 to 1/2	6503-833	\$4.53
1 to 5/8	6503-834	4.53
1 to 3/4	6503-835	4.90



Buff & Blend Combi Wheels

Wheels are constructed with alternating flaps of Buff & Blend and coated abrasive material. High rate of cut, while providing a uniform scratch pattern.



1

SIZE	GRIT	STD. CTN.	ESA STANDARD ABRASIVES	
			ORDER NO.	PRICE
2" x 1" x 1/4"	60	10	5650-788	\$23.71
	80	10	5650-789	23.71
	120	10	5650-790	23.71
	180	10	5650-791	23.71
3" x 1" x 1/4"	60	10	5650-792	28.75
	80	10	5650-793	28.75
	120	10	5650-794	28.75
	180	10	5650-795	28.75
3" x 2" x 1/4"	60	5	5650-796	42.75
	80	5	5650-797	42.75
	120	5	5650-798	42.75
	180	5	5650-799	42.75

Shop Rolls & Sanding Belts

Cloth Shop Rolls – Aluminum Oxide

* For Quick Stock Removal in Metal Finishing and Polishing Applications

* Ability to Tear Desired Amount Eliminates Waste

IMPORT				SA STANDARD ABRASIVES	
SIZE	GRIT	ORDER NO.	PRICE	ORDER NO.	PRICE
1"	50	—	—	5621-005	\$52.03
1"	60	5700-006	\$ 12.05	5621-006	48.78
1"	80	5700-008	11.50	5621-008	40.40
1"	100	5700-010	11.20	5621-010	39.84
1"	120	5700-012	11.20	5621-012	39.84
1"	150	5700-015	11.20	5621-015	39.84
1"	180	5700-018	11.20	5621-018	39.84
1"	220	5700-022	11.20	—	—
1"	240	5700-024	11.20	5621-024	39.84
1"	320	5700-032	11.20	5621-032	39.84
1-1/2"	50	—	—	5621-105	72.66
1-1/2"	60	5700-106	17.30	5621-106	68.65
1-1/2"	80	5700-108	16.45	5621-108	56.63
1-1/2"	100	5700-110	16.15	5621-110	54.54
1-1/2"	120	5700-112	16.15	5621-112	54.54
1-1/2"	150	5700-115	16.15	5621-115	54.54
1-1/2"	180	5700-118	16.15	5621-118	54.54
1-1/2"	220	5700-122	16.15	—	—
1-1/2"	240	5700-124	16.15	5621-124	54.54
1-1/2"	320	5700-132	16.15	5621-132	54.54
2"	50	—	—	5621-205	93.89
2"	60	5700-206	22.65	5621-206	86.82
2"	80	5700-208	21.60	5621-208	72.79
2"	100	5700-210	20.90	5621-210	69.25
2"	120	5700-212	20.90	5621-212	69.25
2"	150	5700-215	20.90	5621-215	69.25
2"	180	5700-218	20.90	5621-218	69.25
2"	220	5700-222	20.90	—	—
2"	240	5700-224	20.90	5621-224	69.25
2"	320	5700-232	20.90	5621-232	69.25



Cloth Sanding Belts – Aluminum Oxide

		1 x 42"		2 x 48"		3 x 21"		3 x 24"		4 x 24"	
GRIT	PKG QTY	ORDER NO.	PRICE PER PKG	ORDER NO.	PRICE PER PKG	ORDER NO.	PRICE PER PKG	ORDER NO.	PRICE PER PKG	ORDER NO.	PRICE PER PKG
40	10	5701-754	\$12.20	5702-754	\$21.45	5703-754	\$17.30	5703-854	\$18.90	5704-604	\$28.55
50	10	5701-755	11.75	5702-755	20.80	5703-755	16.90	5703-855	18.55	5704-605	27.45
60	10	5701-756	11.25	5702-756	20.05	5703-756	16.40	5703-856	18.30	5704-606	27.05
80	10	5701-758	10.40	5702-758	17.60	5703-758	15.40	5703-858	17.80	5704-608	25.50
100	10	5701-760	10.05	5702-760	17.10	5703-760	14.25	5703-860	16.95	5704-610	24.20
120	10	5701-762	10.05	5702-762	17.10	5703-762	14.25	5703-862	16.95	5704-612	24.20
150	10	—	—	—	—	—	—	—	—	5704-615†	21.95
180	10	—	—	—	—	—	—	—	—	5704-618†	21.95

† Limited Quantities

* X-Weight

* Resin Bonded

* Heavy Duty Construction

* Ideal for sanding wood or metal

Other sizes and grits available upon request.
Please inquire.

		4 x 36"		6 x 48"	
GRIT	PKG QTY	ORDER NO.	PRICE PER PKG	ORDER NO.	PRICE PER PKG
40	10	—	—	5705-654	\$61.85
50	10	5704-705	\$33.60	5705-655	59.85
60	10	5704-706	32.80	5705-656	58.55
80	10	5704-708	31.70	5705-658	55.85
100	10	5704-710	30.35	5705-660	54.10
120	10	5704-712	30.35	5705-662	54.10
150	5	5704-715†	13.80	5705-665†	24.60
180	5	5704-718†	13.80	—	—

† Limited Quantities



Abrasive Sheets

Quality Import

2



Aluminum Oxide

9" x 11" Cloth Sheets

- Resin Bonded
- Ideal for Sanding Wood or Metal
- Outlasts Paper by as much as 5 Times

GRIT	STD PKG	ORDER NO.	PRICE PER PKG
50	50	3273-050	\$37.00
60	50	3273-060	35.45
80	50	3273-080	34.75
100	50	3273-100	32.90
120	50	3273-120	32.90
150	50	3273-150	32.90
180	50	3273-180	32.90
220	50	3273-220	32.90
240	50	3273-240	32.90
320	50	3273-320	32.90
400	50	3273-400	32.90

Emery

9" x 11" Cloth Sheets

- Resin Bonded
- Ideal for Metal Finishing where Polishing is more important than Stock Removal

GRIT	STD PKG	ORDER NO.	PRICE PER PKG
Coarse	50	3273-500	\$35.45
Medium	50	3273-510	32.95
Fine	50	3273-520	32.95

Crocus Cloth

9" x 11" Sheets

- Resin Bonded
- Flexible cloth backing
- Used by machinists & mechanics for smoothing metal surfaces

GRIT	STD PKG	ORDER NO.	PRICE PER PKG
Fine	50	3273-700	\$47.15

Silicon Carbide

9" x 11" Waterproof Sheets

- Latex Impregnated Paper
- Offers Versatility of Wet or Dry Sanding

GRIT	STD PKG	ORDER NO.	PRICE PER PKG
100	50	3273-600	\$26.15
120	50	3273-605	26.15
150	50	3273-610	22.40
180	50	3273-615	18.85
220	50	3273-620	18.85
240	50	3273-625	18.85
280	50	3273-630	18.85
320	50	3273-635	18.85
400	50	3273-640	18.85
500	50	3273-645	18.85
600	50	3273-650	18.85
800	50	3273-655	18.85
1000	50	3273-660	18.85
1200	50	3273-665	18.85

Silicon Carbide

9" x 11" Sandscreen Sheets

- Unique Screen Mesh Prevents Loading
- Will Outlast Ordinary Sandpaper by as much as 10 Times
- Use Wet or Dry on Metal or Wood

GRIT	STD PKG	ORDER NO.	PRICE PER PKG
100	25	5718-010	\$40.80
120	25	5718-012	40.80
150	25	5718-015	40.80
220	25	5718-022	40.80

Cartridge Rolls

Straight Cartridge Rolls

Aluminum Oxide Resin Bond Cartridge Rolls feature a multi-layer, multi-wear design for long lasting durability. New abrasive cutting points are exposed throughout the life of the roll. Use for flash removal, polishing, removing machine tool marks, edge breaking, etc.



SIZE	GRIT	STD PKG	ORDER NO.	PRICE PER PKG	SIZE	GRIT	STD PKG	ORDER NO.	PRICE PER PKG	SIZE	GRIT	STD PKG	ORDER NO.	PRICE PER PKG
3/16 x 1 x 3/32	80	100	5618-001	\$47.32	3/8 x 1-1/2 x 1/8	40	100	5618-040	\$65.97	5/8 x 1-1/2 x 1/8	80	50	5618-080	\$60.60
3/16 x 1 x 3/32	100	100	5618-002	47.32	3/8 x 1-1/2 x 1/8	50	100	5618-041	65.97	5/8 x 1-1/2 x 3/16	60	50	5618-081	57.45
3/16 x 1 x 3/32	120	100	5618-003	50.14	3/8 x 1-1/2 x 1/8	60	100	5618-042	60.15	5/8 x 2 x 3/16	50	50	5618-084	66.60
3/16 x 1 x 3/32	180	100	5618-005	51.64	3/8 x 1-1/2 x 1/8	80	100	5618-043	65.97	5/8 x 2 x 3/16	60	50	5618-085	66.60
1/4 x 1 x 1/8	60	100	5618-008	47.32	3/8 x 1-1/2 x 1/8	100	100	5618-044	65.97	5/8 x 2 x 3/16	80	50	5618-086	70.97
1/4 x 1 x 1/8	80	100	5618-009	47.32	3/8 x 1-1/2 x 1/8	120	100	5618-045	65.97	3/4 x 1 x 1/8	80	50	5618-089	55.90
1/4 x 1 x 1/8	100	100	5618-010	50.14	3/8 x 1-1/2 x 1/8	180	100	5618-047	70.29	3/4 x 1 x 3/16	40	50	5618-090	53.72
1/4 x 1 x 1/8	120	100	5618-011	50.14	3/8 x 1-1/2 x 1/8	240	100	5618-048	70.29	3/4 x 1 x 3/16	80	50	5618-091	55.90
1/4 x 1 x 1/8	180	100	5618-012	51.64	3/8 x 2 x 1/8	60	100	5618-050	73.00	3/4 x 1-1/2 x 1/8	60	50	5618-092	65.51
1/4 x 1 x 1/8	240	100	5618-013	52.95	3/8 x 2 x 1/8	80	100	5618-051	78.79	3/4 x 1-1/2 x 1/8	80	50	5618-093	69.34
1/4 x 1 x 1/8	320	100	5618-014	52.95	3/8 x 2 x 1/8	100	100	5618-052	78.79	3/4 x 1-1/2 x 3/16	60	50	5618-095	65.51
1/4 x 1-1/2 x 1/8	60	100	5618-015	55.84	3/8 x 2 x 1/8	120	100	5618-053	80.29	3/4 x 1-1/2 x 3/16	80	50	5618-096	66.60
1/4 x 1-1/2 x 1/8	80	100	5618-016	57.32	1/2 x 1 x 1/8	60	100	5618-055	57.32	3/4 x 1-1/2 x 3/16	120	50	5618-097	65.51
1/4 x 1-1/2 x 1/8	100	100	5618-017	58.77	1/2 x 1 x 1/8	80	100	5618-056	58.77	3/4 x 1-1/2 x 1/4	60	50	5618-098	65.51
1/4 x 1-1/2 x 1/8	120	100	5618-018	57.32	1/2 x 1 x 1/8	100	100	5618-057	60.15	3/4 x 1-1/2 x 1/4	80	50	5618-099	69.34
1/4 x 1-1/2 x 1/8	150	100	5618-019	60.15	1/2 x 1 x 1/8	120	100	5618-058	60.15	3/4 x 1-1/2 x 1/4	120	50	5618-100	70.42
1/4 x 1-1/2 x 1/8	180	100	5618-020	60.15	1/2 x 1-1/2 x 1/8	36	100	5618-060	85.95	3/4 x 2 x 3/16	40	50	5618-102	87.90
1/4 x 1-1/2 x 1/8	320	100	5618-021	60.15	1/2 x 1-1/2 x 1/8	40	100	5618-061	84.50	3/4 x 2 x 3/16	60	25	5618-103	43.95
1/4 x 1-1/2 x 1/8	400	100	5618-022	55.35	1/2 x 1-1/2 x 1/8	50	100	5618-062	84.50	3/4 x 2 x 3/16	80	25	5618-104	45.59
1/4 x 2 x 1/8	80	100	5618-023	71.62	1/2 x 1-1/2 x 1/8	60	100	5618-063	80.29	3/4 x 2 x 3/16	100	50	5618-105	93.35
1/4 x 2 x 1/8	100	100	5618-024	71.62	1/2 x 1-1/2 x 1/8	80	100	5618-064	83.12	3/4 x 2 x 3/16	120	25	5618-106	45.59
1/4 x 2 x 1/8	120	100	5618-025	73.00	1/2 x 1-1/2 x 1/8	100	100	5618-065	84.50	3/4 x 2 x 1/4	60	25	5618-107	43.95
5/16 x 1-1/2 x 1/8	80	100	5618-030	65.97	1/2 x 1-1/2 x 1/8	120	100	5618-066	80.29	3/4 x 2 x 1/4	80	25	5618-108	46.95
5/16 x 1-1/2 x 1/8	100	100	5618-031	68.92	1/2 x 1-1/2 x 1/8	180	100	5618-067	84.50	3/4 x 2 x 1/4	120	25	5618-110	46.95
5/16 x 1-1/2 x 1/8	120	100	5618-032	70.29	1/2 x 1-1/2 x 1/8	240	100	5618-069	90.30	1 x 1-1/2 x 1/4	60	50	5618-111	117.37
3/8 x 1 x 1/8	60	100	5618-034	52.95	1/2 x 2 x 1/8	60	50	5618-071	48.67	1 x 1-1/2 x 1/4	80	25	5618-112	61.15
3/8 x 1 x 1/8	80	100	5618-035	52.95	1/2 x 2 x 1/8	80	50	5618-072	50.15	1 x 2 x 1/4	60	25	5618-113	72.88
3/8 x 1 x 1/8	100	100	5618-036	52.95	1/2 x 2 x 1/8	120	50	5618-074	50.15	1 x 2 x 1/4	80	25	5618-114	75.06
3/8 x 1 x 1/8	120	100	5618-037	52.95										
3/8 x 1 x 1/8	180	100	5618-038	55.84										
3/8 x 1 x 1/8	240	100	5618-039	55.84										

Cartridge Rolls

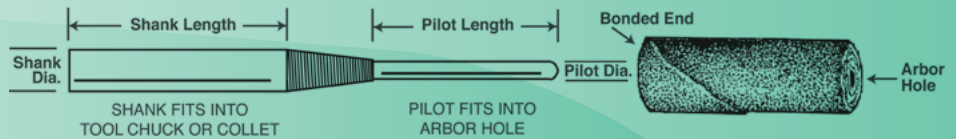
Full Taper Cartridge Rolls



SIZE	GRIT	STD PKG	ORDER NO.	PRICE PER PKG	SIZE	GRIT	STD PKG	ORDER NO.	PRICE PER PKG	SIZE	GRIT	STD PKG	ORDER NO.	PRICE PER PKG
3/8 x 1 x 1/8	60	100	5618-300	\$95.95	1/2 x 1-1/2 x 1/8	36	100	5618-312	\$117.90	1/2 x 2 x 1/8	60	50	5618-319	\$61.14
3/8 x 1 x 1/8	80	100	5618-301	100.29	1/2 x 1-1/2 x 1/8	60	100	5618-314	111.79	1/2 x 2 x 1/8	80	50	5618-320	61.69
3/8 x 1 x 1/8	120	100	5618-302	100.29	1/2 x 1-1/2 x 1/8	80	100	5618-315	113.15	1/2 x 2 x 1/8	180	50	5618-321	63.87
3/8 x 1 x 1/8	180	100	5618-303	100.29	1/2 x 1-1/2 x 1/8	100	100	5618-316	114.90	3/4 x 1-1/2 x 1/8	80	50	5618-324	78.61
3/8 x 1-1/2 x 1/8	60	100	5618-305	110.30	1/2 x 1-1/2 x 1/8	120	100	5618-317	113.15	3/4 x 1-1/2 x 3/16	80	50	5618-327	78.61
3/8 x 1-1/2 x 1/8	80	100	5618-306	107.44	1/2 x 1-1/2 x 1/8	180	100	5618-318	117.90					
3/8 x 1-1/2 x 1/8	120	100	5618-307	107.44										

Mandrels For Cartridge Rolls

- Cartridge Rolls of 3/4" length - 1/2" Pilot Length
- Cartridge Rolls of 1" length - 3/4" Pilot Length
- Cartridge Rolls of 1-1/2" length - 1" Pilot Length
- Cartridge Rolls of 2" length - 1-1/2" Pilot Length
- Cartridge Rolls of 2-1/2" length - 2" Pilot Length



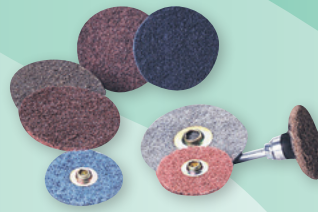
DESCRIPTION	PILOT DIA.	PILOT LGTH	SHANK DIA.	SHANK LGTH	O/A LGTH	ORDER NO.	PRICE EACH	DESCRIPTION	PILOT DIA.	PILOT LGTH	SHANK DIA.	SHANK LGTH	O/A LGTH	ORDER NO.	PRICE EACH
CM-2B	3/32	3/4	1/8	1	2-3/4	5642-150	\$6.27	CM-10	1/8	1-1/2	1/4	1-1/4	3-1/4	5642-161	\$6.06
CM-2E	3/32	3/4	1/4	1	2-3/4	5642-152	7.09	CM-11	1/8	2	1/4	1-1/4	4	5642-162	7.76
CM-2F	3/32	1	1/4	1-1/4	3	5642-153	7.09	CM-15	3/16	3/4	1/4	1-1/4	2-1/2	5642-163	7.09
CM-3	1/8	1/2	1/8	1	2-1/2	5642-154	6.27	CM-16	3/16	1	1/4	1-1/4	2-1/2	5642-164	7.09
CM-4	1/8	3/4	1/8	1	2-3/4	5642-155	6.27	CM-17	3/16	1-1/2	1/4	1-1/4	3-3/8	5642-165	8.07
CM-5	1/8	1	1/8	1	2-1/2	5642-156	6.27	CM-18	3/16	2	1/4	1-1/4	4	5642-166	8.07
CM-6	1/8	1-1/2	1/8	1	3-1/2	5642-157	7.09	CM-21	1/4	1	1/4	1-1/4	3	5642-168	7.09
CM-7	1/8	1/2	1/4	1-1/4	2-1/4	5642-158	7.09	CM-22	1/4	1-1/2	1/4	1-1/4	3-1/2	5642-169	8.07
CM-8	1/8	3/4	1/4	1-1/4	2-1/2	5642-159	7.09	CM-23	1/4	2	1/4	1-1/4	4	5642-170	8.07
CM-9	1/8	1	1/4	1-1/4	2-3/4	5642-160	6.06								

Non-Woven Abrasives



Surface Conditioning Discs Quick Change Discs, Aluminum Oxide (A/O), FE

Type "FE" material is very flexible, with high edge durability. FE provides a high initial and extended rate of cut. Performs well on flat and contoured surfaces. Ideal on a variety of deburring, blending and cleaning applica-



TS-STYL F			TR-STYL F			HOOK & LOOP		
SIZE	GRIT	MAX. RPM	ORDER NO.	ORDER NO.	MAX. RPM	ORDER NO.	PKG QTY	PRICE PER PKG
1-1/2"	Coarse	12,000 - 20,000	5650-106	5650-130	-	-	50	\$65.51
1-1/2"	Medium	12,000 - 20,000	5650-107	5650-131	-	-	50	65.51
2"	Coarse	12,000 - 20,000	5650-109	5650-133	-	-	50	98.81
2"	Medium	12,000 - 20,000	5650-110	5650-134	-	-	50	98.81
2"	Very Fine	12,000 - 20,000	5650-111	5650-135	-	-	50	98.81
3"	Coarse	10,000 - 18,000	5650-112	5650-136	-	-	25	94.17
3"	Medium	10,000 - 18,000	5650-113	5650-137	-	-	25	94.17
3"	Very Fine	10,000 - 18,000	5650-114	5650-138	-	-	25	94.17
4-1/2"	Coarse	-	-	-	6,000 - 8,000	5650-256	10	63.11
4-1/2"	Very Fine	-	-	-	6,000 - 8,000	5650-258	10	55.03
5"	Coarse	-	-	-	5,000 - 7,000	5650-259	10	75.34
5"	Medium	-	-	-	5,000 - 7,000	5650-260	10	65.51
5"	Very Fine	-	-	-	5,000 - 7,000	5650-261	10	65.51
7"	Coarse	-	-	-	3,000 - 6,000	5650-262	10	128.84

Type "GP" Surface Conditioning Discs are also available upon request. Call for delivery. Not as flexible as Type "FE", works especially well on flat surfaces.

Holder Pads For Hook & Loop Style Discs

SIZE	MAX. RPM	ORDER NO.	PRICE EACH
4-1/2" with 5/8-11	10,000	5642-502	\$48.51
5" with 5/8-11	10,000	5642-503	48.51
7" with 5/8-11	6,000	5642-504	56.95

High Strength Buff & Blend Discs With Center Hole, Aluminum Oxide (A/O)

The best product for finishing and light deburring applications. A very conformable and durable tool for finishing and polishing applications on metals, plastics and glass.



Holder Pads For All Quick Change Style Discs

Available for all small diameter Quick Change style discs, in soft, medium and firm grades.

			TS-STYLE w/TA4	TR-STYLE w/TA4	
SIZE	DENSITY	MAX. RPM	ORDER NO.	ORDER NO.	PRICE EACH
3/4"	Medium	40,000	5641-014	-	\$ 21.29
1"	Medium	40,000	5641-015	-	20.31
1-1/2"	Soft	20,000	5641-016	5641-059	24.53
1-1/2"	Medium	25,000	5641-017	5641-060	22.65
1-1/2"	Firm	30,000	5641-018	5641-061	25.40
2"	Soft	20,000	5641-019	5641-062	27.14
2"	Medium	25,000	5641-020	5641-063	26.03
2"	Firm	30,000	5641-021	5641-064	31.05
3"	Soft	12,000	5641-022	5641-065	33.11
3"	Medium	20,000	5641-023	5641-066	30.11
3"	Firm	20,000	5641-024	5641-067	35.87



TS (SocAtt®)



TR (Lockit®)

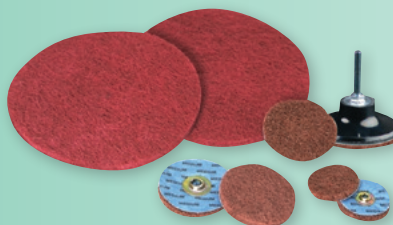
SIZE	HOLE	GRADE	MAX. RPM	PKG QTY	ORDER NO.	PRICE PER PKG
6"	1/2"	Very Fine	3,600	10	5650-671	\$49.57
8"	1/2"	Very Fine	2,700	10	5650-673	81.46
10"	1/2"	Very Fine	2,000	10	5650-674	112.57

Buff & Blend Discs

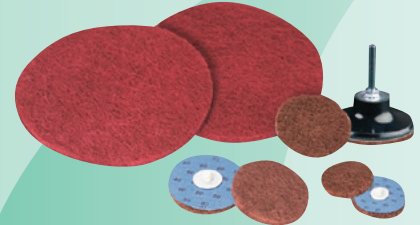
Buff & Blend Quick Change "GP" Discs, Aluminum Oxide (A/O)

Flexible, conformable discs constructed of GP material, which provides a high rate of cut while producing consistent finishes. Applications include blending, cleaning, deburring and finishing.

		TS-STYLE		TR-STYLE		PRICE PER PKG
SIZE	GRIT	MAX. RPM	PKG QTY	ORDER NO.	ORDER NO.	
1-1/2"	Medium	12,000	50	5650-506	-	\$83.52
1-1/2"	Fine	12,000	50	5650-507	-	81.34
2"	Medium	12,000	50	5650-509	5650-539	90.07
2"	Fine	12,000	50	5650-510	5650-540	85.70
2"	Very Fine	12,000	50	5650-511	5650-541	85.70
3"	Medium	8,000	25	5650-512	5650-542	73.16
3"	Fine	8,000	25	5650-513	5650-543	66.33
3"	Very Fine	8,000	25	5650-514	-	-



TS (SocAtt®)



TR (Lockit®)

Non-Woven Abrasives

SA STANDARD ABRASIVES™ Type 27 Unitized Discs

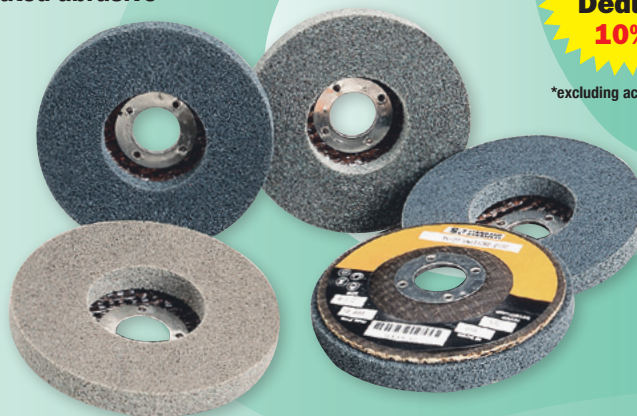
Manufactured from the highest quality Unitized material.
Unique design offers material removal while imparting a final finish.
Used in conjunction with, and sometimes in lieu of, a coated abrasive Resin Fibre Disc or Flap Disc.

- Deburring
- Edge Breaking
- Blending
- Cleaning
- Final Polishing

500	Soft Density - Finishing & Polishing
600	Medium Density - Blending & Polishing
700	Medium Density - Deburring & Cleaning
800	Hard Density - Deburring

1

SIZE	SERIES	STD. CTN.	ORDER NO.	PRICE EACH
4-1/2 x 7/8	532	5	5651-130	\$29.83
4-1/2 x 7/8	632	5	5651-131	32.60
4-1/2 x 7/8	732	5	5651-132	34.05
4-1/2 x 7/8	821	5	5651-135	38.89
4-1/2 x 7/8	811	5	5651-133	38.89



**Buy
Std. Ctn.
Deduct
10%***

*excluding accessories



Quick Change Surface Conditioning Discs

Use on Die Grinders for deburring, blending, finishing, cleaning and polishing. Suitable for a wide variety of light fabrication, repair and for stainless steel, and ferrous & non-ferrous metals.

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		ALUMINUM OXIDE				
DIAM.	GRIT	RPM	PKG. QTY.	ROLL ON (R HUB) ORDER NO.	TURN ON (S HUB) ORDER NO.	PRICE PER PACK
2"	Coarse	25,000	50	5723-300	5723-320	\$63.71
	Medium	25,000	50	5723-301	5723-321	63.71
	A Very Fine	25,000	50	5723-302	5723-322	63.71
3"	Coarse	20,000	25	5723-305	5723-325	60.61
	Medium	20,000	25	5723-306	5723-326	60.61
	A Very Fine	20,000	25	5723-307	-	60.61



Roll On style, (R-Hub) shown

Non-Woven Abrasives

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SA STANDARD ABRASIVES™

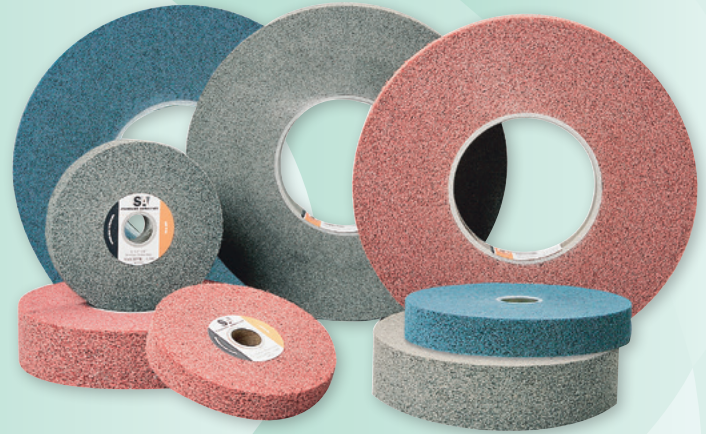
Convolute Wheels

Convolute Wheels are constructed by wrapping non-woven nylon, impregnated throughout with abrasive grain, around a hard core.

GP Plus Wheels

Removes medium to heavy burrs and edge breaking.

SIZE	GRAIN	SPEC.	GRADE	MAX. RPM	ORDER MULTIPLE	ORDER NO.	PRICE EACH
6 x 1/2 x 1	S/C	8SF	Fine	6,000	4	5651-880	\$ 88.57
6 x 1/2 x 1	S/C	8SM	Medium	6,000	4	5651-882	89.61
6 x 1/2 x 1	S/C	9SF	Fine	6,000	4	5651-881	88.57
6 x 1 x 1	S/C	8SF	Fine	6,000	3	5651-884	124.00
6 x 1 x 1	S/C	8SM	Medium	6,000	3	5651-887	125.45
6 x 1 x 1	S/C	9SF	Fine	6,000	3	5651-885	124.00
6 x 2 x 1	S/C	9SF	Fine	6,000	2	5651-888	220.83
8 x 1/2 x 3	S/C	8SF	Fine	4,500	4	5651-892	105.38
8 x 1/2 x 3	S/C	9SF	Fine	4,500	4	5651-893	105.38
8 x 1 x 3	S/C	8SF	Fine	4,500	3	5651-896	155.09
8 x 1 x 3	S/C	8SM	Medium	4,500	3	5651-894	156.84
8 x 1 x 3	S/C	9SF	Fine	4,500	3	5651-897	155.09
8 x 2 x 3	S/C	8SF	Fine	4,500	2	5651-900	270.41
8 x 2 x 3	S/C	8SM	Medium	4,500	2	5651-901	273.56
12 x 1/2 x 5	S/C	8SF	Fine	3,000	5	5651-904	148.69
12 x 1 x 5	S/C	8SF	Fine	3,000	2	5651-908	243.36
12 x 1 x 5	S/C	9SF	Fine	3,000	2	5651-909	243.36
12 x 2 x 5	S/C	8SF	Fine	3,000	-	5651-912	432.50
12 x 2 x 5	S/C	9SF	Fine	3,000	-	5651-913	432.50



Deburring Wheels

Excellent starting point for medium to heavy deburring and polishing.

SIZE	DENSITY	GRAIN	GRADE	MAX. RPM	ORDER MULTIPLE	ORDER NO.	PRICE EACH
6 x 1/2 x 1	Medium	S/C	Fine	6,000	4	5651-002	\$89.61
6 x 1/2 x 1	Hard	S/C	Fine	6,000	4	5651-003	89.61
6 x 1 x 1	Medium	S/C	Fine	6,000	3	5651-006	125.45
6 x 1 x 1	Hard	S/C	Fine	6,000	3	5651-007	125.45
6 x 2 x 1	Hard	S/C	Fine	6,000	2	5651-008	204.85
8 x 1/2 x 3	Hard	S/C	Fine	4,500	4	5651-010	106.60
8 x 1 x 3	Medium	S/C	Fine	4,500	3	5651-013	156.84
8 x 1 x 3	Hard	S/C	Fine	4,500	3	5651-014	156.84

LDW (Light Deburring Wheels)

Removes light burrs; use prior to polishing.

SIZE	GRAIN	SPEC.	GRADE	MAX. RPM	ORDER MULTIPLE	ORDER NO.	PRICE EACH
6 x 1/2 x 1	S/C	6SF	Fine	6,000	4	5651-920	\$ 89.84
6 x 1/2 x 1	S/C	7SF	Fine	6,000	4	5651-921	95.81
6 x 1/2 x 1	S/C	8SF	Fine	6,000	4	5651-922	95.81
6 x 1 x 1	S/C	6SF	Fine	6,000	3	5651-926	125.75
#6 x 1 x 1	S/C	7SF	Fine	6,000	3	5651-927	134.15
6 x 1 x 1	S/C	8SF	Fine	6,000	3	5651-928	134.15
8 x 1/2 x 3	S/C	8SF	Fine	4,500	4	5651-934	113.99
8 x 1 x 3	S/C	7SF	Fine	4,500	3	5651-939	167.79
8 x 1 x 3	S/C	8SF	Fine	4,500	3	5651-940	167.79
12 x 1/2 x 5	S/C	7SF	Fine	3,000	5	5651-945	147.39
12 x 1/2 x 5	S/C	8SF	Fine	3,000	5	5651-946	147.39
12 x 1 x 5	S/C	7SF	Fine	3,000	2	5651-951	241.16
12 x 1 x 5	S/C	8SF	Fine	3,000	2	5651-952	241.16
12 x 2 x 5	S/C	8SF	Fine	3,000	-	5651-958	428.76

Non-Woven Abrasives



Standard Abrasives - Unitized Mounted Points

Unitized Mounted Points are made from high durability material and are available in standard ANSI shapes for varying workpiece dimensions and applications.

Series:

- 600 - High Durability, Medium density (Blending/Polishing)
- 700 - High Durability, Medium density (Deburring/Cleaning)
- 800 - High Durability, Hard density (Deburring/Cleaning)

A SHAPES							
SHAPE	MAX. RPM	SERIES	GRAIN	GRADE	ORDER MULTIPLE	ORDER NO.	PRICE EACH
A21	34,500	731	A/O	Fine	5	5651-502	\$25.11
A21	34,500	732	S/C	Fine	5	5651-503	25.11

B SHAPES							
SHAPE	MAX. RPM	SERIES	GRAIN	GRADE	ORDER MULTIPLE	ORDER NO.	PRICE EACH
B52	45,300	731	A/O	Fine	5	5651-508	\$10.19
B52	45,300	732	S/C	Fine	5	5651-509	10.19
B52	45,300	811	A/O	Coarse	5	5651-510	10.67
B90	34,500	731	A/O	Fine	5	5651-512	8.11
B90	34,500	732	S/C	Fine	5	5651-513	8.11
B121	45,300	731	A/O	Fine	5	5651-516	8.83
B121	45,300	811	A/O	Coarse	5	5651-517	9.66
B121	45,300	821	A/O	Medium	5	5651-518	9.66

Size Chart:

SHAPE	SIZE
A21	1" x 1" x 1/4"
B52	3/8" x 3/4" x 1/8"
B90	1/2" x 1/2" x 1/8"
B121	1/2" x 1/2" x 1/8"

SHAPE	SIZE
W160	1/4" x 1/4" x 1/8"
W163	1/4" x 1/2" x 1/8"
W183	1/2" x 1/4" x 1/8"
W185	1/2" x 1/2" x 1/8"
W220	1" x 1" x 1/4"

W SHAPES							
SHAPE	MAX. RPM	SERIES	GRAIN	GRADE	ORDER MULTIPLE	ORDER NO.	PRICE EACH
W160	81,300	821	A/O	Medium	5	5651-520	\$5.45
W163	60,000	821	A/O	Medium	5	5651-522	6.42
W183	51,700	632	S/C	Fine	5	5651-523	6.16
W183	51,700	811	A/O	Coarse	5	5651-526	7.05
W183	51,700	821	A/O	Medium	5	5651-527	7.05
W185	34,500	631	A/O	Fine	5	5651-528	7.66
W185	34,500	632	S/C	Fine	5	5651-529	7.66
W185	34,500	731	A/O	Fine	5	5651-530	8.08
W185	34,500	732	S/C	Fine	5	5651-531	8.08
W185	34,500	811	A/O	Coarse	5	5651-532	8.91
W185	34,500	821	A/O	Medium	5	5651-533	8.91
W220	25,000	811	A/O	Coarse	5	5651-534	24.44

6" x 9" Hand Pads

Hand Pads are flexible, washable, and conform to workpiece. Ideal for hand applications on metals, composite or plastic surfaces. Use for cleaning, finishing or polishing. Color coded.



Hand Pad Holder ¹²

For use with 3" x 6" pads

Order No. 5642-520

Price each..... \$33.83



IMPORT										
COLOR CODE	APPLICATION	ORDER NO.	PKG QTY	PRICE PER PKG	ORDER NO.	PKG QTY	PRICE PER PKG	ORDER NO.	PKG QTY	PRICE PER PKG
White	Non-Abrasive Pad For Polishing and Light Cleaning	5718-100	10	\$8.10	-	-	-	5651-700	60	\$105.91
Grey	Ultra-Fine S/C Abrasive Pad For Free Hand Cleaning & Finishing Usable with mild detergents	5718-105	10	8.10	6551-434	60	\$113.02	5651-705	60	104.09
Maroon	General Purpose A/O Abrasive Pad For Basic Cleaning and Finishing Usable with most solvents	5718-110	10	8.95	6551-444 Economy Grade	60	115.09	5651-710	60	104.09
					6551-460	60	84.46			
Tan	Heavy Duty A/O Abrasive Pad For Heavy Duty Cleaning or Fast Action Finishing Usable with most solvents	5718-120	10	16.15	6551-454	40	178.30	5651-720	40	174.60

Scouring Hand Pads

Green	Industrial	5718-115	10	8.10	-	-	-	5651-715	60	108.01
Green	Commercial (Food Processing)	-	-	-	6551-457	60	87.77	-	-	-

HAND TOOLS



PATTERN & PRECISION FILES



Batteries & Flashlights.....	409-410
Chisels	393-394
Deburring Tools	401-403
Fastener Drive Tools.....	377-379
Files & Handles	396-399
Hammers.....	388-391
Hex Tools	384-387
Insulated Tools.....	375-377
Knives.....	376, 400
Levels.....	407
Machinery's Handbook.....	404
Nutdrivers.....	374-375
Pliers	360-367
Tube Cutters.....	406
Punches	392-395
Screwdrivers.....	368-377
Shop Tools	404-408
Socket Tools.....	343-355
Torx® Tooling	377-383, 385
Wrenches	356-360

1/4" Drive Sockets

1



Standard Length



Deep Length

6 Pt.- Standard Length

WILLIAMS 			
SIZE	LENGTH	ORDER NO.	PRICE EACH
1/8	7/8	7220-050	\$6.59
5/32	7/8	7220-051	6.59
3/16	7/8	7220-052	6.72
7/32	7/8	7220-053	6.72
1/4	7/8	7220-054	6.72
9/32	7/8	7220-055	6.72
5/16	7/8	7220-056	6.92
11/32	7/8	7220-057	6.92
3/8	7/8	7220-058	6.92
7/16	7/8	7220-059	6.92
1/2	7/8	7220-060	6.96
9/16	29/32	7220-061	6.99
5/8	31/32	7220-062	7.06

12 Pt. - Standard Length

WILLIAMS 			
SIZE	LENGTH	ORDER NO.	PRICE EACH
3/16	-	-	-
7/32	-	-	-
1/4	7/8	7220-080	\$6.72
9/32	-	-	-
5/16	7/8	7220-081	6.92
11/32	7/8	7220-082	6.92
3/8	7/8	7220-083	6.92
7/16	7/8	7220-084	6.92
1/2	7/8	7220-085	6.96
9/16	29/32	7220-086	6.99

Metric Sockets- 6 Pt. - Standard Length

WILLIAMS 			
SIZE MM	L'GTH	ORDER NO.	PRICE EACH
4	7/8	7220-200	\$6.52
4.5	-	-	-
5	7/8	7220-201	6.52
5.5	7/8	7220-202	6.69
6	7/8	7220-203	6.69
7	7/8	7220-204	6.69
8	7/8	7220-205	6.69
9	7/8	7220-206	6.69
10	7/8	7220-207	6.85
11	7/8	7220-208	6.85
12	7/8	7220-209	6.85
13	7/8	7220-210	6.99
14	29/32	7220-211	7.06
15	-	-	-

6 Pt. - Deep Length

WILLIAMS 			
SIZE	LENGTH	ORDER NO.	PRICE EACH
1/8	2	7251-217	\$3.67
5/32	2	7220-090	9.60
3/16	2	7220-091	9.60
7/32	2	7220-092	9.60
1/4	2	7220-093	9.70
9/32	2	7220-094	9.70
5/16	2	7220-095	9.86
11/32	2	7220-096	9.93
3/8	2	7220-097	9.96
7/16	2	7220-098	10.00
1/2	2	7220-099	10.03
9/16	2	7220-100	10.13

12 Pt. - Deep Length

WILLIAMS 			
SIZE	LENGTH	ORDER NO.	PRICE EACH
3/16	-	-	-
7/32	-	-	-
1/4	-	-	-
9/32	-	-	-
5/16	2	7220-115	\$9.86
11/32	2	7220-116	9.93
3/8	2	7220-117	9.96
7/16	2	7220-118	10.00
1/2	2	7220-119	10.03
9/16	2	7220-120	10.13

Metric Sockets- 6 Pt. - Deep Length

WILLIAMS 			
SIZE MM	L'GTH	ORDER NO.	PRICE EACH
4	2	7220-220	\$10.17
4.4	-	-	-
5	2	7220-221	10.17
5.5	2	7220-222	10.23
6	2	7220-223	10.27
7	2	7220-224	10.27
8	2	7220-225	10.33
9	2	7220-226	10.37
10	2	7220-227	10.47
11	2	7220-228	10.47
12	2	7220-229	10.50
13	2	7220-230	10.53
14	2	7220-231	10.57
15	-	-	-

3/8" Drive Sockets

1



Standard Length



Deep Length

6 Pt. - Standard Length

WILLIAMS 			
SIZE	LENGTH	ORDER NO.	PRICE EACH
1/4	1-1/32	7221-060	\$7.02
5/16	1-1/32	7221-061	7.02
11/32	1-1/32	7221-062	7.16
3/8	1-1/32	7221-063	7.02
7/16	1-1/32	7221-064	7.12
1/2	1-1/32	7221-065	7.12
9/16	1-3/32	7221-066	7.39
5/8	1-1/8	7221-067	7.66
11/16	1-5/32	7221-068	7.66
3/4	1-3/16	7221-069	7.92
13/16	1-1/4	7221-070	8.56
7/8	1-9/32	7221-071	8.89
15/16	1-3/8	7221-072	10.13
1	1-13/32	7221-073	10.47

12 Pt. - Standard Length

WILLIAMS 			
SIZE	LENGTH	ORDER NO.	PRICE EACH
1/4	1-1/32	7221-090	\$7.06
5/16	1-1/32	7221-091	7.06
11/32	1-1/32	7221-092	7.06
3/8	1-1/32	7221-093	7.06
7/16	1-1/32	7221-094	7.16
1/2	1-1/32	7221-095	7.16
17/32	1-1/32	7221-096	7.76
9/16	1-3/32	7221-097	7.66
19/32	1-3/32	7221-098	7.99
5/8	1-1/8	7221-099	7.66
11/16	1-5/32	7221-100	7.66
3/4	1-3/16	7221-101	7.92
13/16	1-1/4	7221-102	8.63
7/8	1-9/32	7221-103	8.89
15/16	1-3/8	7221-104	10.00
1	1-13/32	7221-105	10.27

6 Pt. - Deep Length

WILLIAMS 			
SIZE	LENGTH	ORDER NO.	PRICE EACH
1/4	2-1/8	7221-110	\$8.89
5/16	2-1/8	7221-111	9.03
11/32	2-1/8	7221-112	9.03
3/8	2-1/8	7221-113	9.26
7/16	2-1/8	7221-114	9.26
1/2	2-1/8	7221-115	9.26
9/16	2-3/8	7221-116	9.80
5/8	2-3/8	7221-117	10.03
11/16	2-5/8	7221-118	11.17
3/4	2-5/8	7221-119	12.61
13/16	2-3/4	7221-120	13.38
7/8	2-3/4	7221-121	14.95
15/16	2-3/4	7221-122	17.55
1	2-3/4	7221-123	19.23

12 Pt. - Deep Length

WILLIAMS 			
SIZE	LENGTH	ORDER NO.	PRICE EACH
1/4	2-1/8	7221-130	\$8.96
5/16	2-1/8	7221-131	9.20
11/32	-	-	-
3/8	2-1/8	7221-132	9.20
7/16	2-1/8	7221-133	9.30
1/2	2-1/8	7221-134	9.30
9/16	2-3/8	7221-135	9.86
5/8	2-3/8	7221-136	10.27
11/16	2-5/8	7221-137	11.24
3/4	2-5/8	7221-138	12.91
13/16	2-3/4	7221-139	13.61
7/8	2-3/4	7221-140	15.15
15/16	2-3/4	7221-141	18.06
1	2-3/4	7221-142	19.73

Metric Sockets - 6 Pt. - Std. Length

WILLIAMS 			
SIZE (MM)	LENGTH	ORDER NO.	PRICE EACH
5.5	1-1/32	7221-205	\$7.12
6	1-1/32	7221-206	7.12
7	1-1/32	7221-207	7.16
8	1-1/32	7221-208	7.16
9	1-1/32	7221-209	7.26
10	1-1/32	7221-210	7.26
11	1-1/32	7221-211	7.32
12	1-1/32	7221-212	7.32
13	1-1/32	7221-213	7.32
14	1-1/32	7221-214	7.79
15	1-3/32	7221-215	7.79
16	1-1/8	7221-216	7.79
17	1-5/32	7221-217	7.79
18	1-5/32	7221-218	7.79
19	1-3/16	7221-219	8.13
20	1-7/32	7221-220	8.29
21	1-1/4	7221-221	8.66
22	1-9/32	7221-222	8.89
23	1-5/16	7221-223	9.16
24	1-3/8	7221-224	10.37
26	-	-	-

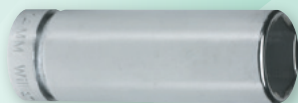
Metric Sockets - 12 Pt. - Std. Length

WILLIAMS 			
SIZE (MM)	LENGTH	ORDER NO.	PRICE EACH
6	1-1/32	7221-225	\$7.12
7	1-1/32	7221-226	7.16
8	1-1/32	7221-227	7.16
9	1-1/32	7221-228	7.26
10	1-1/32	7221-229	7.26
11	1-1/32	7221-230	7.32
12	1-1/32	7221-231	7.32
13	1-1/32	7221-232	7.32
14	1-1/32	7221-233	7.79
15	1-3/32	7221-234	7.79
16	1-1/8	7221-235	7.79
17	1-5/32	7221-236	7.79
18	1-5/32	7221-237	7.79
19	1-3/16	7221-238	8.13
20	1-7/32	7221-239	8.29
21	1-1/4	7221-240	8.66
22	1-9/32	7221-241	8.89
23	1-5/16	7221-242	9.16
24	1-3/8	7221-243	10.37
26	1-7/16	7221-245	11.17

3/8" Drive Sockets

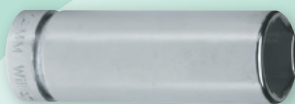
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Metric Sockets - 6 Pt. - Deep Length



WILLIAMS 			
SIZE (MM)	OVERALL LENGTH	ORDER NO.	PRICE EACH
6	2-1/8	7221-250	\$9.50
7	2-1/8	7221-251	9.50
8	2-1/8	7221-252	9.50
9	2-1/8	7221-253	9.63
10	2-1/8	7221-254	9.63
11	2-1/8	7221-255	9.63
12	2-1/8	7221-256	9.63
13	2-1/8	7221-257	9.63
14	2-3/8	7221-258	10.27
15	2-3/8	7221-259	10.27
16	2-3/8	7221-260	10.33
17	2-5/8	7221-261	10.47
18	2-5/8	7221-262	11.24
19	2-5/8	7221-263	11.77
20	2-5/8	7221-264	12.84
22	2-7/8	7221-265	15.52
23	2-7/8	7221-266	17.89
24	2-7/8	7221-267	19.06
25	2-7/8	7221-268	19.39

Metric Sockets - 12 Pt. - Deep Length



WILLIAMS 			
SIZE (MM)	OVERALL LENGTH	ORDER NO.	PRICE EACH
6	2-1/2	7231-806	\$6.45
7	2-1/2	7231-807	6.45
8	2-1/2	7231-808	6.72
9	2-1/2	7231-809	6.72
10	2-1/2	7231-810	6.45
11	2-1/2	7231-811	6.72
12	2-1/2	7231-812	6.45
13	2-1/2	7231-813	6.45
14	2-1/2	7231-814	7.02
15	2-1/2	7231-815	7.02
16	2-1/2	7231-816	7.02
17	2-1/2	7231-817	6.72
18	2-1/2	7231-818	7.16
19	2-1/2	7231-819	7.69

Socket Sets with Clips & Rail



Standard Socket Set

WILLIAMS 				
SET PIECES	SIZES/ DESCRIPTION	SOCKET TYPE	ORDER NO.	PRICE EACH
12	8-19mm	standard	7233-045	\$91.62
12	6-19mm metric (6 pt.)	standard deep	7232-317	91.62
			7232-318	122.38
13	1/4, 5/16, 3/8, 7/16, 1/2, 9/16, 5/8, 11/16, 3/4, 13/16, 7/8, 15/16, 1" (12 pt.)	standard	7232-060	105.66
		deep	7232-064	163.18

3/8" Hex Bit Set



Hex Bit

WILLIAMS 			
SET PIECES	SIZES/ DESCRIPTION	ORDER NO.	PRICE EACH
10 (hex)	above sizes+ 1/2, 9/16, 5/8"	7232-113	\$151.81



TURBOSOCKET® Salvage Socket Sets, 6pt



• Clips and Rail Included • Black Finish

SET PCS.	DESCRIPTION	ORDER NO.	PRICE
7	3/8, 7/16, 1/2, 9/16, 5/8, 11/16, 3/4"	7232-477	\$234.73
9	metric (mm): 10, 11, 12, 13, 14, 15, 16, 17, 19	7232-476	313.64
13	3/8, 7/16, 1/2, 9/16, 5/8, 11/16, 3/4" 10, 12-15, 17mm	7232-475	397.91

3/8" Drive Socket Sets

WILLIAMS®

15 pc. Drive Socket Set

- Pro-quality, high-grade chrome vanadium steel
- Sockets feature SUPERTORQUE® lobular openings for greater turning power
- Packed in rugged compact high-density polyethylene (HDPE) case: strong, durable, lightweight



1

DESCRIPTION	ORDER NO.	PRICE
Std. 12pt. 1/4, 5/16, 3/8, 7/16, 1/2, 9/16, 5/8, 11/16, 3/4, 13/16, 7/8	7296-437	\$59.35
DRIVE TOOLS		
7-3/4" Pear Head Ratchet, Extensions: 3, 6", Universal Joint		

WILLIAMS®

34 pc., 3/8" Drive Basic Tool Set



3

DESCRIPTION	ORDER NO.	PRICE
3/8": 1/4-1 std., 6 pt. 1/4" hex bits: 5/32-1/4 slt. #0-#3 phillips, #1-#2 sq. tip 1/8-1/4 hex tip	7297-664	\$89.28
DRIVE TOOLS		
1/4: Spinner Handle, Universal Joint, 1/4" 1/4" Hex Bit Holder		
3/8: 7-3/4" Ratchet, Extensions: 3", 6", Universal Joint, 1/4" Hex Bit Holder		

WILLIAMS®  Made in USA

29 pc. Socket Set



- In Metal Box • Fully Polished

1

DESCRIPTION	ORDER NO.	PRICE
5/8-7/8" (12 pt.) 1/4-5/16" (6 pt.) 6-19mm (6 pt. metric)	7232-813	\$337.72
DRIVE TOOLS		
Enclosed Head Ratchet, 8" Extensions, 3, 6", Universal Joint		

WILLIAMS®

95 pc. Master Socket & Tool Set



3/8" & 1/4" Drive

DESCRIPTION	ORDER NO.	PRICE
1/4: 3/16-9/16 std./deep, 1/8-5/16, 3-8mm hex, T10-T30 Torx, 5/32 slotted-#2 phillips bit 3/8: 3/8-1 std./deep (4) Screwdrivers: 3/16", 1/4" x 4" slt., #1, #2 x 4" phillips (9) 12pt. Wrenches: 1/4"-3/4"	7297-668	\$332.80
DRIVE TOOLS		
38-tooth Quick-Release Ratchet (1/4, 3/8), Extensions: 1/4: 1-1/2, 3", 3/8: 3, 6, 10" Flex Handle (1/4, 3/8: 10"), Spinner Handle (1/4), Universal Joint (1/4, 3/8), Sliding T-Handle (3/8) 1/4"F x 3/8" M Adapter, 3/8"F x 1/4" M Adapter, 3/8"F x 1/2" M Adapter		

1

WILLIAMS® 79 pc. Deluxe Tool Set

- Pro-quality, hi-grade chrome vanadium steel
- Supertorque® lobular openings for greater turning power without deforming the fastener
- Rugged high-density polyethylene (HDPE) case - strong, durable, and lightweight
- 2-component handles, easy-grip, comfortable to carry
- Shock-proof case at high/low temps, equipped with heavy-duty metal latches and hinges



1

DESCRIPTION	ORDER NO.	PRICE
1/4: 5/32-1/4 slotted, #0-#3 phillips bit #1-#2 sq. tip, 1/8-1/4 hex tip 3/8: 1/4-1 std./deep, 6/12pt. 6-19 mm std./deep	7297-667	\$223.36
DRIVE TOOLS		
38-tooth Quick-Release Ratchet (3/8), Extensions: 3/8: 3, 6, 10" Flex Handle (3/8: 10"), Spinner Handle (1/4), Universal Joint (1/4, 3/8), Sliding T-Handle (3/8) 1/4"F x 3/8" M Adapter, 3/8"F x 1/4" M Adapter, 3/8"F x 1/2" M Adapter 1/4" Hex Bit Holder		

1/2" Drive Sockets



Standard Length

Deep Length

6 Pt.- Standard Length

SIZE	LENGTH	ORDER NO.	PRICE EACH
3/8	1-1/2	7222-070	\$8.93
7/16	1-1/2	7222-071	8.89
1/2	1-1/2	7222-072	8.96
9/16	1-1/2	7222-073	9.03
19/32	1-1/2	7222-074	9.20
5/8	1-1/2	7222-075	9.16
21/32	1-1/2	7222-076†	4.23
11/16	1-1/2	7222-077	10.13
3/4	1-1/2	7222-078	10.17
25/32	1-1/2	7222-079	10.50
13/16	1-1/2	7222-080	11.64
7/8	1-1/2	7222-081	11.64
15/16	1-17/32	7222-082	11.77
1	1-9/16	7222-083	13.31
1-1/16	1-11/16	7222-084	13.94
1-1/8	1-3/4	7222-085	16.62
1-1/4	1-7/8	7222-086	18.89

† Limited Quantities

12 Pt. - Standard Length

SIZE	LENGTH	ORDER NO.	PRICE EACH
3/8	1-1/2	7222-110	\$8.89
7/16	1-1/2	7222-111	8.89
1/2	1-1/2	7222-112	8.96
9/16	1-1/2	7222-113	8.99
19/32	1-1/2	7222-114	9.20
5/8	1-1/2	7222-115	9.16
21/32	1-1/2	7222-116	9.90
11/16	1-1/2	7222-117	10.13
3/4	1-1/2	7222-118	10.17
25/32	1-1/2	7222-119	8.89
13/16	1-1/2	7222-120	11.64
7/8	1-1/2	7222-121	11.64
15/16	1-17/32	7222-122	11.77
31/32	1-9/16	7222-123	12.17
1	1-9/16	7222-124	13.34
1-1/16	1-11/16	7222-125	13.94
1-1/8	1-3/4	7222-126	16.62
1-3/16	1-3/4	7222-127	17.72
1-1/4	1-7/8	7222-128	18.89
1-5/16	1-7/8	7222-129	23.07
1-3/8	2-1/16	7222-130	24.91
1-7/16	2-1/4	7222-131	35.95
1-1/2	2-1/4	7222-132	35.95

6 Pt. - Deep Length

SIZE	LENGTH	ORDER NO.	PRICE EACH
1/2	3-7/32	7222-135	\$15.78
9/16	3-7/32	7222-136	15.88
5/8	3-1/4	7222-137	16.05
11/16	3-1/4	7222-138	16.12
3/4	3-1/4	7222-139	16.89
13/16	3-1/4	7222-140	17.05
7/8	3-1/4	7222-141	18.39
15/16	3-1/4	7222-142	19.23
1	3-1/4	7222-143	20.90
1-1/16	3-1/4	7222-144	21.90
1-1/8	3-1/4	7222-145	22.74

12 Pt. - Deep Length

SIZE	LENGTH	ORDER NO.	PRICE EACH
1/2	3-1/4	7222-150	\$15.65
9/16	3-1/4	7222-151	15.88
5/8	3-1/4	7222-152	16.05
11/16	3-1/4	7222-153	16.12
3/4	3-1/4	7222-154	16.89
25/32	3-1/4	7222-155	17.22
13/16	3-1/4	7222-156	17.05
7/8	3-1/4	7222-157	18.39
15/16	3-1/4	7222-158	19.23
1	3-1/4	7222-159	20.90
1-1/16	3-1/4	7222-160	21.90
1-1/8	3-1/4	7222-161	22.74

Metric Sockets- 12 Pt. - Standard Length

SIZE	LENGTH	ORDER NO.	PRICE EACH
10	1-1/2	7222-210	\$8.99
11	1-1/2	7222-211	9.03
12	1-1/2	7222-212	9.03
13	1-1/2	7222-213	9.03
14	1-1/2	7222-214	9.20
15	1-1/2	7222-215	9.20
16	1-1/2	7222-216	9.26
17	1-1/2	7222-217	9.86
18	1-1/2	7222-218	10.33
19	1-1/2	7222-219	10.33
20	1-1/2	7222-220	11.57
21	1-1/2	7222-221	12.07
22	1-1/2	7222-222	12.07
23	1-1/2	7222-223	12.10
24	1-17/32	7222-224	12.07
25	1-9/16	7222-225	12.97
26	1-5/8	7222-226	14.31
27	1-23/32	7222-227	14.75
28	1-3/4	7222-228	16.89
29	1-3/4	7222-229	16.89
30	1-3/4	7222-230	18.56
32	1-7/8	7222-232	20.73
34	2-1/16	7222-234	30.26

1/2" Drive Socket Sets



TURBOSOCKET®

Salvage Socket Set (6 pt.)



- Clips and Rail Included
- Black

SET PCS.	DESCRIPTION	ORDER NO.	PRICE
5	3/4-1", 19mm	7232-478	\$209.32
7	14-19, 21mm (metric)	7232-479	283.55



6 pc. Hex Bit Set



- High-polished chrome finish socket cleans easily
- Clip rail included

DESCRIPTION	ORDER NO.	PRICE
8-19mm (metric)	7232-904	\$89.28



5 pc. TORX® Bit Set



- High-polished chrome finish socket cleans easily
- Clip rail included

DESCRIPTION	ORDER NO.	PRICE
T40, T45, T50, T55, T60	7232-908	\$71.89



30 pc. Socket Set



- Keep-Safe-Foam system organizes, prevents loss
- Pro-quality, hi-grade chrome vanadium steel
- Supertorque® lobular openings for greater turning power without deforming the fastener
- Metal tool box made for years of rugged use

DESCRIPTION	ORDER NO.	PRICE
1/2-1-1/8" deep 3/8-1-1/4" std.	7233-843	\$648.69
DRIVE TOOLS		
15-1/2" Flex Handle, 10-3/8" Enclosed Head Ratchet, 5 & 10" Extensions, Universal Joint		



23 pc. Socket Set



- Pro-quality, hi-grade chrome vanadium steel
- Supertorque® lobular openings for greater turning power without deforming the fastener
- Rugged high-density polyethylene (HDPE) case - strong, durable, and lightweight
- Shock-proof case at high/low temps, equipped with heavy-duty metal latches & hinges
- 2-component handles, comfortable easy-grip

DESCRIPTION	ORDER NO.	PRICE
3/8-1/4" std.	7250-609	\$193.94
DRIVE TOOLS		
9-7/8" Quick- Release Ratchet, 3, 6, 10" Extensions, 15" Flex Handle Breaker Bar, Universal Joint, 1/2" FX 3/8" M Adapter, 1/2" FX 3/4" M Adapter		



23 pc. Socket Set (Metric)



- Pro-quality, hi-grade chrome vanadium steel
- Supertorque® lobular openings for greater turning power without deforming the fastener
- Rugged high-density polyethylene (HDPE) case - strong, durable, and lightweight
- Shock-proof case at high/low temps, equipped with heavy-duty metal latches & hinges
- 2-component handles, comfortable easy-grip

DESCRIPTION	ORDER NO.	PRICE
10mm - 32mm	7250-619	\$193.94
DRIVE TOOLS		
9-7/8" Quick- Release Ratchet, 3, 6, 10" Extensions, 15" Flex Handle Breaker Bar, Universal Joint, 1/2" FX 3/8" M Adapter, 1/2" FX 3/4" M Adapter		

Page In Transition
Please Continue On Next Page

3/4" Drive Sockets



Standard Length



Deep Length

12 Pt. - Standard Length

WILLIAMS 			
SIZE	LENGTH	ORDER NO.	PRICE EACH
3/4	2	7290-816	\$22.07
13/16	2	7290-766	22.40
7/8	2	7290-767	22.74
15/16	2	7290-768	22.74
31/32	2	7290-817	23.57
1	2-1/16	7223-055	22.40
1-1/16	2-1/8	7290-818	22.74
1-1/8	2-3/16	7223-057	23.07
1-3/16	2-1/4	7223-058	23.24
1-1/4	2-1/4	7223-059	25.08
1-5/16	2-5/16	7223-060	28.59
1-3/8	2-5/16	7223-061	32.43
1-7/16	2-3/8	7223-062	34.11
1-1/2	2-1/2	7223-063	35.95
1-9/16	2-5/8	7223-064	41.46
1-5/8	2-5/8	7223-065	42.30
1-11/16	2-3/4	7223-066	46.14
1-3/4	2-3/4	7223-067	49.32
1-13/16	2-7/8	7223-068	52.33
1-7/8	3	7223-069	55.84
2	3-1/8	7292-186	60.02
2-1/16	3-1/8	7223-073	68.21
2-1/8	3-1/4	7292-187	72.23
2-3/16	3-1/4	7223-075	77.24
2-1/4	3-3/8	7292-188	92.62
2-5/16	3-1/2	7223-077	91.95
2-3/8	3-5/8	7223-078	104.66

Metric Sockets- 12 Pt. - Standard Length

WILLIAMS 			
SIZE (MM)	LENGTH	ORDER NO.	PRICE EACH
19	2	7223-100	\$23.74
20	-	-	-
21	-	-	-
22	2	7290-769	32.10
23	-	-	-
24	2	7290-770	32.10
25	-	-	-
26	-	-	-
27	2	7223-108	34.61
28	-	-	-
29	-	-	-
30	2-7/32	7290-828	37.45
32	2-1/4	7223-113	40.46
33	-	-	-
35	2-5/16	7223-116	47.98
36	2-5/16	7223-117	53.67
38	2-1/2	7223-119	53.67
41	2-5/8	7223-122	61.19
46	3-1/8	7223-126	68.88
50	3	7223-130	84.60
54	3-1/4	7223-134	80.25
55	3-1/4	7223-135	100.31
58	-	-	-
60	3-5/8	7223-140	122.05

6 & 12 Pt. - Deep Length

WILLIAMS 			
SIZE	LENGTH (6 PT.)	ORDER NO.	PRICE EACH
7/8	3-1/2	7223-085	\$34.94
15/16	3-1/2	7223-086	35.95
1	3-1/2	7223-087	36.11
1-1/16	3-1/2	7223-088	37.12
1-1/8	3-1/2	7223-089	37.62
1-1/4	3-1/2	7223-091	38.95
1-5/16	3-1/2	7292-189	41.46
1-3/8	3-1/2	7223-093	46.31
1-7/16	3-1/2	7223-094	47.31
1-1/2	3-1/2	7223-095	52.00
1-5/8	3-1/2	7223-097	61.53

Ratchet Handles

Narrow Head



- Single pawl ratchet design with 36 tooth gear has 10° of engagement for working in a confined area
- 3/4" drive has 24 tooth gear, with 15° of engagement
- Shift lever reverses action instantly
- Nickel/Chrome plated
- ANSI B107.10m Fed. Spec. GGG-W-641e

1

WILLIAMS  Made in USA			
DRIVE	LENGTH	ORDER NO.	PRICE EACH
1/4	5-1/4	7290-494	\$ 38.95
3/8	8	7290-496	52.33
3/8	10-1/4	7290-498	61.69
1/2	10-1/4	7290-499	78.58
1/2	15	7290-501	86.60
3/4	20-1/8	7223-002	193.27

Flex Head



- Flex head swings 90° in either direction
- Nickel/Chrome plated
- ANSI B107.10m Fed. Spec. GGG-W-641e

1

WILLIAMS  Made in USA			
DRIVE	LENGTH	ORDER NO.	PRICE EACH
1/4	7	7294-564	\$44.64
3/8	9-11/16	7299-231	82.93
1/2	14-1/4	7294-566	106.33

Round Head



- Double pawl ratchet design with 72 teeth action provides a 5° ratcheting angle
- Shift lever reverses action instantly
- Chrome plated
- ANSI B107.10m Fed. Spec. GGG-W-641e

1

WILLIAMS  Made in USA			
DRIVE	LENGTH	ORDER NO.	PRICE EACH
1/4	5	7220-001	\$45.64
3/8	7-5/8	7221-000	52.83
3/8	10-1/2	7221-004	62.36
1/2	11-5/16	7222-000	79.92
1/2	15	7222-005	84.26

Drive Speeder



1

WILLIAMS  Made in USA			
DRIVE	LENGTH	ORDER NO.	PRICE EACH
1/4	15-1/2	7290-775	\$43.13
1/4	15-3/4	-	-
3/8	16-1/2	-	-
3/8	18	7221-030	51.83
1/2	13-5/8	7222-041	45.48
1/2	18-1/16	7222-042	48.48
1/2	19	-	-

Flexible Extension



1

WILLIAMS  Made in USA			
DRIVE	LENGTH	ORDER NO.	PRICE EACH
1/4	6	7220-025	\$18.22

Ratchet Handles & Accessories

1

Flex Handles



- Designed to provide additional leverage in turning nuts or fasteners
- 1/2" male adapter slides on bar for flexibility

			
DRIVE	LENGTH	ORDER NO.	PRICE EACH
1/4	5-3/4	7220-015	\$25.58
3/8	8-9/16	7236-976	33.60
1/2	10-7/16	7222-024	56.18
1/2	15-1/2	7222-025	64.20
3/4	22-1/8	7223-012	144.12

T-Handles



- Designed to provide additional leverage in turning nuts or fasteners
- 1/2" male adapter slides on bar for flexibility

			
DRIVE	LENGTH	ORDER NO.	PRICE EACH
3/8	7-15/16	7221-032	\$73.56
1/2	12	7222-043	83.59

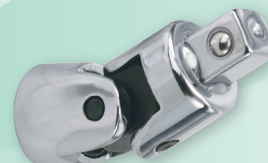
Drive Extensions



- Designed for use with ratchet and socket to access hard to reach areas
- Provided with ball and spring holding mechanism
- Hardened and Tempered
- Chrome Vanadium Steel
- Nickel Chrome Plated

			
DRIVE	LENGTH	ORDER NO.	PRICE EACH
1/4	2	7220-020	\$9.26
1/4	4	7220-021	10.83
1/4	6	7290-773	12.34
1/4	10	7290-772	17.72
1/4	24	7290-774	54.67
3/8	1-1/2	7221-013	8.33
3/8	3	7221-019	11.97
3/8	6	7221-020	15.28
3/8	11	7221-021	19.23
3/8	18	7221-022	43.64
1/2	2	7222-031	14.01
1/2	5	7222-032	18.22
1/2	10	7222-033	23.57
1/2	20	7222-040	48.48
3/4	3	7223-015	36.45
3/4	8	7223-016	65.37
3/4	16	7223-017	84.60

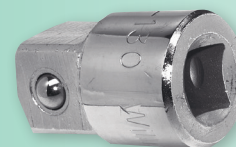
Universal Joint



- Designed to drive sockets at an offset angle

		
DRIVE	ORDER NO.	PRICE EACH
1/4	7220-033	\$28.59
3/8	7221-033	34.27
1/2	7222-049	33.10
3/4	7223-026	93.96

Drive Adapters



- Allows use of drivers of one drive size with sockets of the next larger size

			
FEMALE END	MALE END	ORDER NO.	PRICE EACH
1/4	3/8	7220-040	\$9.06
3/8	1/4	7231-008*	6.82
1/2	3/8	7232-008*	7.12
1/2	3/4	7222-053	17.72
3/4	1/2	7233-008*	15.92
3/4	1	7223-040	35.44
1	3/4	7223-041	51.66

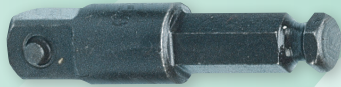
* IMPORT

Impact Accessories

1

Extensions, Universal Impact, Adapters

Extensions (Hexagon/Square Shank)



WILLIAMS  Made in USA				
DRIVE	LENGTH	MALE	ORDER NO.	PRICE EACH
3/8	2	3/8" SQ. x 1/4" HEX	7229-020	\$24.08
3/8	2 3/4	3/8" SQ. x 7/16" HEX	7229-021	20.56
1/2	2 3/4	1/2" SQ. x 7/16" HEX	7226-003	16.89
1/2	5	1/2" SQ. x 7/16" HEX	7226-004	22.24
1/2	2 3/4	1/2" SQ. x 5/8" HEX	7226-005	20.56

Extensions

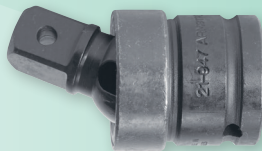





Made in USA

DRIVE	LENGTH	ORDER NO.	PRICE EACH
3/8	3	7225-004	\$14.75
3/8	6	7225-005	18.56
1/2	3-1/2	7225-200	15.41
1/2	5	7225-201	18.89
1/2	10	7225-202	22.40
3/4	6-7/8	7225-500	82.59
3/4	9-3/4	7225-501	86.60
3/4	13	7225-502	88.94

Universal Joint



1

WILLIAMS  Made in USA		
DRIVE	ORDER NO.	PRICE EACH
3/8	7225-006	\$33.60
1/2	7225-206	41.13
3/4	7225-503	113.02

Adapters



Williams - w/o Pin

1

WILLIAMS  Made in USA				
DRIVE	MALE END	FEMALE END	ORDER NO.	PRICE EACH
3/8	1/2	3/8	7225-007	\$10.83
1/2	3/8	1/2	7235-382	14.24
1/2	3/4	1/2	7225-208	23.07
3/4	1/2	3/4	7225-504	32.94
3/4	1	3/4	7225-505	36.61

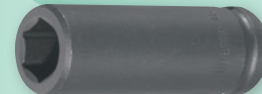
Impact Sockets

3



3/8" Drive - 6 pt. - Standard Length

WILLIAMS 				ARMSTRONG 			
SIZE	LENGTH	ORDER NO.	PRICE EACH	LENGTH	ORDER NO.	PRICE EACH	
1/4	1-5/32	7236-108	\$2.46	1.141	7519-608	\$5.17	
5/16	1	7236-110	2.46	1.141	7519-610	5.34	
3/8	1	7236-112	2.53	1.141	7519-612	5.30	
7/16	1-3/32	7236-114	2.59	1.141	7519-614	5.53	
1/2	1-5/32	7236-116	2.62	1.141	7519-616	5.37	
9/16	1-1/16	7236-118	2.69	1.141	7519-618	5.53	
5/8	1-1/16	7236-120	2.78	1.141	7519-620	5.53	
11/16	1-1/16	7236-122	2.88	1.141	7519-622	5.53	
3/4	1-1/8	7236-124	2.94	1.141	7519-624	5.59	



3/8" Drive - 6 pt. - Deep Length

WILLIAMS 				ARMSTRONG			
SIZE	LENGTH	ORDER NO.	PRICE EACH	LENGTH	ORDER NO.	PRICE EACH	
1/4	2-1/2	7236-308	\$3.07	2.516	7519-708	\$6.69	
5/16	2-1/2	7236-310	3.07	2.516	7519-710	6.62	
3/8	2-1/2	7236-312	3.10	2.516	7519-712	6.78	
7/16	2-1/2	7236-314	3.14	2.516	7519-714	6.98	
1/2	2-1/2	7236-316	3.23	2.516	7519-716	7.21	
9/16	2-1/2	7236-318	3.36	2.797	7519-718	7.52	
5/8	2-1/2	7236-320	3.42	2.797	7519-720	7.39	
11/16	2-1/2	7236-322	3.58	2.797	7519-722	7.90	
3/4	2-1/2	7236-324	3.71	2.797	7519-724	7.96	
13/16	-	-	-	2.797	7519-726	8.51	
7/8	-	-	-	2.797	7519-728	8.82	
15/16	-	-	-	2.797	7519-730	10.65	
1	-	-	-	2.797	7519-732	11.32	

1/2" Drive - 6 pt. - Standard Length

WILLIAMS				ARMSTRONG				Pittsburg 			
SIZE	LENGTH	ORDER NO.	PRICE EACH	LENGTH	ORDER NO.	PRICE EACH		LENGTH	ORDER NO.	PRICE EACH	
3/8	1-1/2	7237-112	\$3.07	1.531	7520-012	\$6.57	-	-	-	-	-
7/16	1-1/2	7237-114	3.14	1.531	7520-014	6.57	1.500	7706-541	\$2.67	-	-
1/2	1-1/2	7237-116	3.14	1.531	7520-016	6.57	1.500	7706-542	3.07	-	-
9/16	1-1/2	7237-118	3.14	1.531	7520-018	6.57	1.500	7706-543	3.14	-	-
5/8	1-1/2	7237-120	3.42	1.531	7520-020	6.57	1.500	7706-544	3.31	-	-
11/16	1-1/2	7237-122	3.87	1.531	7520-022	7.18	1.500	7706-545	3.47	-	-
3/4	1-1/2	7237-124	3.87	1.531	7520-024	7.40	1.500	7706-546	3.57	-	-
13/16	1-1/2	7237-126	4.67	1.656	7520-026	8.47	1.500	7706-547	3.80	-	-
7/8	1-1/2	7237-128	4.90	1.656	7520-028	8.99	1.500	7706-548	4.09	-	-
15/16	1-3/4	7237-130	5.25	1.797	7520-030	10.67	1.500	7706-549	4.09	-	-
1	1-3/4	7237-132	5.54	1.750	7520-032	11.07	-	-	-	-	-
1-1/16	1-3/4	7237-134	6.91	1.750	7520-034	12.54	-	-	-	-	-
1-1/8	1-3/4	7237-136	7.39	2.000	7520-036	13.03	-	-	-	-	-
1-3/16	-	-	-	2.000	7520-038	13.92	-	-	-	-	-
1-1/4	1-3/4	7237-140	10.85	2.000	7520-040	16.13	1.500	7706-554	7.76	-	-
1-5/16	-	-	-	2.000	7520-042	19.30	-	-	-	-	-
1-3/8	-	-	-	2.000	7520-044	19.30	-	-	-	-	-
1-7/16	-	-	-	2.000	7520-046	21.50	-	-	-	-	-
1-1/2	-	-	-	2.000	7520-048	27.09	-	-	-	-	-

1/2" Drive - 6 pt. - Deep Length

WILLIAMS				ARMSTRONG				Pittsburg 			
SIZE	LENGTH	ORDER NO.	PRICE EACH	LENGTH	ORDER NO.	PRICE EACH		LENGTH	ORDER NO.	PRICE EACH	
3/8	3-1/4	7237-312	\$5.34	3.266	7520-212	\$10.02	-	-	-	-	-
7/16	3-1/4	7237-314	5.34	3.266	7520-214	10.02	-	-	-	-	-
1/2	3-1/4	7237-316	5.34	3.266	7520-216	10.02	3.071	7706-737	\$5.52	-	-
9/16	3-1/4	7237-318	5.50	3.266	7520-218	10.46	3.071	7706-738	5.52	-	-
5/8	3-1/4	7237-320	5.50	3.266	7520-220	10.35	3.071	7706-739	5.66	-	-
11/16	3-1/4	7237-322	5.50	3.266	7520-222	10.83	3.071	7706-740	5.90	-	-
3/4	3-1/4	7237-324	5.98	3.266	7520-224	11.30	3.071	7706-741	6.33	-	-
13/16	3-1/4	7237-326	5.98	3.266	7520-226	11.79	3.071	7706-742	6.57	-	-
7/8	3-1/2	7237-328	7.07	3.266	7520-228	13.48	3.071	7706-743	6.80	-	-
15/16	3-1/2	7237-330	7.07	3.500	7520-230	13.56	3.071	7706-744	8.99	-	-
1	3-1/2	7237-332	8.06	3.500	7520-232	14.63	-	-	-	-	-
1-1/16	3-1/2	7237-334	9.22	3.500	7520-234	17.48	-	-	-	-	-
1-1/8	3-1/2	7237-336	12.86	3.500	7520-236	21.13	-	-	-	-	-
1-3/16	3-1/2	7237-338	13.38	-	-	-	-	-	-	-	-
1-1/4	3-1/2	7237-340	14.05	3.500	7520-240	22.50	-	-	-	-	-
1-5/16	-	-	-	3.500	7520-242	25.59	-	-	-	-	-
1-3/8	-	-	-	3.500	7520-244	28.23	-	-	-	-	-
1-7/16	-	-	-	3.500	7520-246	31.43	-	-	-	-	-
1-1/2	-	-	-	3.500	7520-248	36.98	-	-	-	-	-

3/4" Drive - 6 pt.- Standard Length

WILLIAMS				ARMSTRONG			
SIZE	LENGTH	ORDER NO.	PRICE EACH	LENGTH	ORDER NO.	PRICE EACH	
1/2	-	-	-	1.750	7521-016	\$15.41	
9/16	-	-	-	1.750	7521-018	15.49	
5/8	-	-	-	1.750	7521-020	15.49	
11/16	-	-	-	1.750	7521-022	15.49	
3/4	-	-	-	1.750	7521-024	15.76	
13/16	-	-	-	1.875	7521-026	17.73	
7/8	2	7238-128	\$9.66	1.875	7521-028	17.73	
15/16	2	7238-130	9.70	2.000	7521-030	17.73	
1	2-1/16	7238-132	9.98	2.000	7521-032	17.97	
1-1/16	2-1/16	7238-134	10.98	2.000	7521-034	19.17	
1-1/8	2-1/16	7238-136	11.36	2.000	7521-036	20.30	
1-3/16	2-1/16	7238-138	11.90	2.125	7521-038	20.67	
1-1/4	2-1/4	7238-140	11.90	2.125	7521-040	21.54	
1-5/16	2-1/4	7238-142	13.12	2.125	7521-042	22.07	
1-3/8	2-1/4	7238-144	13.44	2.250	7521-044	22.79	
1-7/16	2-1/4	7238-146	14.08	2.250	7521-046	24.23	
1-1/2	2-1/4	7238-148	14.08	2.375	7521-048	26.09	
1-9/16	2-1/4	7238-150	15.01	2.375	7521-050	26.92	
1-5/8	2-1/4	7238-152	15.87	2.375	7521-052	27.49	
1-11/16	2-7/16	7238-154	16.26	2.375	7521-054	26.92	
1-3/4	2-7/16	7238-156	16.32	2.625	7521-056	26.92	
1-13/16	2-7/16	7238-158	17.34	2.625	7521-058	26.92	
1-7/8	2-11/16	7238-160	18.88	2.750	7521-060	28.91	
1-15/16	2-11/16	7238-162	21.28	2.750	7521-062	30.27	
2	2-11/16	7238-164	22.56	2.875	7521-064	36.01	

3/4" Drive - 6 pt. - Deep Length

WILLIAMS 				ARMSTRONG			
SIZE	LENGTH	ORDER NO.	PRICE EACH	LENGTH	ORDER NO.	PRICE EACH	
9/16	-	-	-	3.250	7521-218	\$22.85	
5/8	-	-	-	3.250	7521-220	21.74	
11/16	-	-	-	3.250	7521-222	21.72	
3/4	3	7225-554	\$28.76	3.250	7521-224	22.37	
13/16	3	7225-555	29.09	3.500	7521-226	22.37	
7/8	3	7225-556	29.59	3.500	7521-228	23.25	
15/16	3	7225-557	31.43	3.500	7521-230	24.32	
1	3	7225-558	31.77	3.500	7521-232	25.19	
1-1/16	3	7225-559	32.43	3.500	7521-234	25.85	
1-1/8	3	7225-560	32.94	3.500	7521-236	27.46	
1-3/16	3-3/16	7225-561	38.62	3.500	7521-238	27.95	
1-1/4	3-1/4	7225-562	39.46	3.500	7521-240	30.10	
1-5/16	3-1/4	7225-563	42.63	3.562	7521-242	30.69	
1-3/8	3-1/4	7225-564	44.14	3.562	7521-244	33.01	
1-7/16	3-1/2	7225-565	46.14	3.562	7521-246	36.05	
1-1/2	3-1/2	7225-566	47.82	3.562	7521-248	36.22	
1-9/16	3-1/2	7225-567	47.82	3.562	7521-250	35.31	
1-5/8	3-1/2	7225-568	48.48	3.562	7521-252	38.82	
1-11/16	3-1/2	7225-569	49.32	3.562	7521-254	37.66	
1-3/4	3-1/2	7225-570	52.00	3.500	7521-256	40.60	
1-13/16	3-3/4	7225-571	54.67	3.500	7521-258	40.99	
1-7/8	2-3/4	7225-572	57.85	3.500	7521-260	43.66	
1-15/16	-	-	-	3.500	7521-262	44.55	
2	2-7/8	7225-574	60.02	3.750	7521-264	44.60	

Impact Sockets- Metric

3



3/8" Drive - 6 pt. - Standard Length

WILLIAMS				ARMSTRONG		
SIZE (MM)	LENGTH	ORDER NO.	PRICE EACH	LENGTH	ORDER NO.	PRICE EACH
7	1	7236-507	\$3.74	27.4	7546-607	\$5.65
8	1	7236-508	3.74	27.4	7546-608	5.65
9	1	7236-509	3.74	27.4	7546-609	5.65
10	1	7236-510	2.94	29.0	7546-610	5.65
11	1	7236-511	2.94	29.0	7546-611	5.65
12	1	7236-512	2.94	29.0	7546-612	5.65
13	1	7236-513	2.94	29.0	7546-613	5.65
14	1-1/16	7236-514	2.94	29.0	7546-614	5.65
15	1-1/16	7236-515	2.94	29.0	7546-615	5.65
16	1-1/16	7236-516	3.14	29.0	7546-616	5.78
17	1-1/16	7236-517	3.39	29.0	7546-617	6.09
18	1-1/16	7236-518	3.39	29.0	7546-618	6.26
19	1-5/32	7236-519	3.39	30.0	7546-619	6.38
20	-	-	-	30.0	7546-620	7.29
21	-	-	-	30.0	7546-621	7.55
22	-	-	-	30.0	7546-622	7.93



3/8" Drive - 6 pt. - Deep Length

WILLIAMS				ARMSTRONG		
SIZE (MM)	LENGTH	ORDER NO.	PRICE EACH	LENGTH	ORDER NO.	PRICE EACH
7	2-1/2	7236-707	\$3.71	63.9	7546-707	\$7.41
8	2-1/2	7236-708	3.71	63.9	7546-708	7.26
9	2-1/2	7292-657	-	63.9	7546-709	7.41
10	2-1/2	7236-710	3.71	63.9	7546-710	7.65
11	2-1/2	7236-711	3.71	63.9	7546-711	7.41
12	2-1/2	7236-712	3.71	63.9	7546-712	7.41
13	2-1/2	7236-713	3.71	63.9	7546-713	7.41
14	2-1/2	7236-714	3.71	63.9	7546-714	7.41
15	2-1/2	7236-715	3.71	71.0	7546-715	7.41
16	2-1/2	7236-716	3.78	71.0	7546-716	7.58
17	2-1/2	7236-717	4.00	71.0	7546-717	7.86
18	2-1/2	7236-718	4.00	71.0	7546-718	7.86
19	2-1/2	7236-719	4.00	71.0	7546-719	7.86

1/2" Drive - 6 pt. - Standard Length

WILLIAMS				ARMSTRONG		
SIZE (MM)	LENGTH	ORDER NO.	PRICE EACH	LENGTH	ORDER NO.	PRICE EACH
9	-	-	-	38.9	7547-009	\$6.71
10	1-1/2	7237-510	\$6.02	38.9	7547-010	6.71
11	1-1/2	7237-511	6.02	38.9	7547-011	6.71
12	1-1/2	7237-512	3.94	38.9	7547-012	6.71
13	1-1/2	7237-513	3.97	38.9	7547-013	6.71
14	1-1/2	7237-514	4.00	38.9	7547-014	6.71
15	1-1/2	7237-515	4.06	38.9	7547-015	6.85
16	1-1/2	7237-516	4.16	38.9	7547-016	7.02
17	1-1/2	7237-517	4.26	38.9	7547-017	7.26
18	1-1/2	7237-518	4.29	38.9	7547-018	7.26
19	1-1/2	7237-519	4.96	38.9	7547-019	7.79
20	-	-	-	42.1	7547-020	8.31
21	1-1/2	7237-521	5.50	42.1	7547-021	8.82
22	1-1/2	7237-522	6.14	42.1	7547-022	9.75
23	-	-	-	45.2	7547-023	10.35
24	1-3/4	7237-524	6.62	45.2	7547-024	11.59
25	-	-	-	44.5	7547-025	13.84
26	2	7237-527	8.70	50.8	7547-026	14.41
27	-	-	-	50.8	7547-027	14.12
29	-	-	-	50.8	7547-028	15.23

1/2" Drive - 6 pt. - Deep Length

WILLIAMS				ARMSTRONG		
SIZE (MM)	LENGTH	ORDER NO.	PRICE EACH	LENGTH	ORDER NO.	PRICE EACH
9	-	-	-	83.0	7547-209	\$11.06
10	3-1/4	7225-380	\$14.28	83.0	7547-210	10.83
11	3-1/4	7225-381	14.28	83.0	7547-211	10.83
12	3-1/4	7225-382	14.38	83.0	7547-212	11.14
13	3-1/4	7225-383	14.38	83.0	7547-213	10.91
14	3-1/4	7225-384	14.75	83.0	7547-214	10.91
15	3-1/4	7225-385	14.95	83.0	7547-215	11.14
16	3-1/4	7225-386	14.95	83.0	7547-216	11.96
17	3-1/4	7225-387	15.58	83.0	7547-217	11.96
18	3-1/4	7225-388	15.78	83.0	7547-218	11.96
19	3-1/4	7225-389	16.05	83.0	7547-219	11.96
20	3-1/4	7225-390	16.62	83.0	7547-220	13.04
21	3-1/4	7225-391	18.73	83.0	7547-221	14.25
22	3-1/2	7225-392	18.89	83.0	7547-222	14.54
23	3-1/2	7225-393	19.90	83.0	7547-223	15.20
24	3-1/2	7225-394	20.73	83.0	7547-224	16.20
25	3-1/2	7225-395	22.24	88.9	7547-225	18.59
26	3-1/2	7225-396	22.74	88.9	7547-226	18.24
27	3-1/2	7225-397	23.57	88.9	7547-227	18.52
28	-	-	-	88.9	7547-228	19.49
29	3-1/2	7225-399	24.41	88.9	7547-229	20.44
30	3-1/2	7225-400	24.41	88.9	7547-230	19.86
32	3-1/2	7225-402	29.76	88.9	7547-232	20.33
34	3-1/2	7225-404	34.11	88.9	7547-234	20.94
35	3-1/2	7225-405	36.45	88.9	7547-235	20.94
36	3-1/2	7225-406	37.62	88.9	7547-236	20.92

3/4" Drive - 6 pt. - Standard Length

WILLIAMS				ARMSTRONG		
SIZE (MM)	LENGTH	ORDER NO.	PRICE EACH	LENGTH	ORDER NO.	PRICE EACH
17	2	7290-459	\$20.90	-	-	-
19	2	7290-460	21.90	44.5	7548-019	\$15.20
20	2	7290-461	22.07	47.6	7548-020	15.20
21	-	-	-	47.6	7548-021	15.20
22	2	7290-462	23.91	47.6	7548-022	15.92
23	-	-	-	50.8	7548-023	16.44
24	2	7290-463	26.08	50.8	7548-024	17.13
25	-	-	-	50.8	7548-025	17.41
26	-	-	-	50.8	7548-026	17.77
27	2	7290-464	26.92	50.8	7548-027	18.29
30	2-3/32	7225-603	27.92	54.0	7548-030	19.35
31	2-1/8	7225-604	27.08	-	-	-
32	2-1/8	7225-605	29.76	54.0	7548-032	21.04
34	2-1/8	7225-607	32.27	-	-	-
35	2-1/4	7225-608	32.94	-	-	-
36	2-1/4	7225-609	33.10	57.2	7548-036	23.81
38	2-1/4	7225-611	34.11	-	-	-
41	2-5/8	7225-615	41.30	60.3	7548-041	30.41
46	2-5/8	7225-620	59.85	63.5	7548-046	40.51
50	-	-	-	68.3	7548-050	51.24

3/4" Drive - 6 pt. - Deep Length

ARMSTRONG			
SIZE (MM)	LENGTH	ORDER NO.	PRICE EACH
21	82.5	7548-221	\$22.46
22	88.9	7548-222	22.96
23	88.9	7548-223	22.53
24	88.9	7548-224	23.97
26	88.9	7548-226	24.06
27	88.9	7548-227	24.06
30	88.9	7548-230	28.29
32	88.9	7548-232	29.32
36	88.9	7548-236	33.68
41	88.9	7548-241	40.12

Combination Wrenches

12 Point



Satin Finish

- Satin chrome textured finish provides great feel and extra gripping power
- 12-pt. box end provides easy socket engagement and max versatility
- Recessed corners in box end for extra turning power



Satin Finish

- SUPERTORQUE® box opening design allows application of higher torque without rounding or deforming hex fastener points. No contact is made at the corners. Instead, wrenching forces are placed on the flat surfaces behind the points.
- Meets or exceeds aerospace specification AS 954 for 12 point fasteners (as defined by AS 870) to provide accurate torque/tension relationship for precision application.



Fully Polished

- Meets Fed. Std. GGG-W-636c ANSI Spec. B107.6
- 15 degree Offset
- Nickel-chrome finish provides lifetime corrosion resistance
- With AllenGrip® the wrench holds the fastener across a broader contact area and allows for greater torque loads without wrench slippage



Fully Polished

- Dyna-Drive™ Torque System dramatically improves faster driving performance

SIZE (INCH)	LENGTH (INCH)	ORDER NO.	PRICE EACH
1/4	5-1/8	7211-108	\$6.21
5/16	5-3/4	7211-110	6.21
3/8	6-1/2	7211-112	6.66
7/16	7-1/4	7211-114	6.98
1/2	8-1/8	7211-116	7.26
9/16	8-3/4	7211-118	8.22
5/8	9-1/2	7211-120	9.12
11/16	10-1/4	7211-122	9.95
3/4	11	7211-124	10.85
13/16	12	7211-126	13.54
7/8	12-3/8	7211-128	13.82
15/16	13-1/4	7211-130	15.39
1	14	7211-132	18.59
1-1/16	14-5/8	7211-134	21.66
1-1/8	16-1/4	7211-136	25.18
1-1/4	17	7211-140	29.70

SIZE (INCH)	LENGTH (INCH)	ORDER NO.	PRICE EACH
1/4	5-1/16	7290-055	\$15.41
5/16*	5-27/32	7290-056	15.41
11/32*	6-7/32	7290-057	15.65
3/8*	6-5/8	7290-058	16.38
7/16*	7-11/32	7290-059	17.05
1/2*	8-3/32	7290-060	18.06
9/16*	8-7/8	7290-061	19.90
5/8*	9-5/8	7290-062	22.40
11/16*	10-3/8	7290-063	24.08
3/4*	11-1/8	7290-064	26.92
13/16*	11-29/32	7290-065	28.76
7/8*	12-5/8	7290-066	34.11
15/16*	13-15/32	7290-067	37.62
1*	14-3/16	7290-068	45.14
1-1/16*	14-7/8	7290-069	53.50
1-1/8*	15-21/32	7290-071	62.70
1-3/16*	16-17/32	7290-070	67.21
1-1/4*	17-1/4	7290-072	73.56
1-5/16*	18	7290-073	81.92
1-3/8	18-25/32	7290-074	89.28
1-7/16	19-17/32	7290-075	99.64
1-1/2	20-7/32	7290-076	115.03
1-9/16	21	7210-039	128.07
1-5/8*	21-25/32	7210-040	129.40
1-11/16	22-17/32	7210-041	143.11
1-3/4	23-1/8	7210-042	156.49
1-13/16	23-11/16	7210-043	163.84
1-7/8	24-11/32	7210-044	189.26
2	25-1/4	7210-045	211.33
2-1/16	25-7/8	7210-046	236.74
2-1/8	26-1/2	7210-047	268.84
2-3/16	27	7210-048	284.22
2-1/4	27-21/32	7210-049	289.57
2-3/8	28-11/16	7210-050	364.47
2-1/2	29-15/16	7210-051	381.19
2-5/8	31-13/16	7210-052	578.47
2-3/4	31-13/16	7210-053	608.56
2-7/8	31-13/16	7210-054	635.31
2-15/16	31-13/16	7210-055	591.84
3	31-13/16	7210-056	595.19
3-1/8	31-13/16	7210-057	611.91
3-3/8	31-13/16	7210-058	605.22
3-1/2	31-13/16	7210-059	718.91

* SUPERTORQUE®

SIZE (INCH)	LENGTH (INCH)	ORDER NO.	PRICE EACH
1/4	5.000	7525-208	\$12.74
5/16	5.750	7525-210	13.02
11/32	5.750	7525-211	13.04
3/8	6.500	7525-212	14.16
7/16	7.250	7525-214	14.94
1/2	6.540	7525-216	15.54
9/16	8.750	7525-218	17.63
5/8	9.500	7525-220	19.52
11/16	10.250	7525-222	21.29
3/4	11.000	7525-224	23.23
13/16	11.750	7525-226	25.20
7/8	12.500	7525-228	29.57
15/16	13.250	7525-230	32.29
1	14.000	7525-232	39.02
1-1/16	14.750	7525-234	45.36
1-1/8	15.500	7525-236	53.99
1-3/16	16.310	7525-238	57.15
1-1/4	17.060	7525-240	63.57
1-5/16*	20.125	7525-242	65.11
1-3/8*	20.125	7525-244	69.40
1-7/16*	21.125	7525-246	79.61
1-1/2*	21.125	7525-248	93.54
1-5/8*	24.125	7525-252	101.46
1-11/16*	24.125	7525-254	104.06
1-3/4*	25.625	7525-256	111.68
1-13/16*	25.625	7525-258	117.91
1-7/8*	27.125	7525-260	140.92
2*	27.125	7525-264	148.17
2-1/16*	27.125	7525-266	173.42
2-1/8*	28.000	7525-268	195.48
2-3/16*	28.000	7525-270	207.17
2-1/4*	28.000	7525-272	217.36
2-3/8*	30.000	7525-276	266.79
2-1/2*	30.000	7525-280	279.55
2-9/16*	32.000	7525-282	395.59
2-5/8*	32.000	7525-284	391.56
2-3/4*	32.000	7525-288	451.21

* Satin Finish

SIZE (INCH)	LENGTH (INCH)	ORDER NO.	PRICE EACH
1/4	5.000	7704-300	\$3.92
5/16	5.750	7704-301	4.62
3/8	6.500	7704-302	4.90
7/16	7.250	7704-303	6.43
1/2	6.540	7704-304	6.95
9/16	8.750	7704-305	7.83
5/8	9.500	7704-306	8.80
11/16	10.250	7704-307	9.75
3/4	11.000	7704-308	11.06
13/16	11.750	7704-309	12.23
7/8	12.500	7704-310	14.30
15/16	13.250	7704-311	16.98
1	14.000	7704-312	19.03
1-1/16	14.750	7704-313	23.08
1-1/8	15.500	7704-314	25.83
1-1/4	17.060	7704-315	30.40
1-5/16	18.500	7704-316	45.70
1-3/8	18.500	7704-317	46.86
1-7/16	20.100	7704-318	53.82
1-1/2	20.100	7704-319	54.55



Double Offset Box Wrenches

- Hardened and Tempered
- Drop Forged Chrome Vanadium Steel
- Chrome Plated • Long Pattern
- 45° Angle • Shallow Offset
- Cam-Lock™ Design

SIZE (INCH)	ORDER NO.	PRICE EACH
3/8 x 7/16	7704-530	\$2.85
5/8 x 3/4	7704-532	4.28

Williams Reversible Ratcheting Combination Wrenches



- High-polished chrome finish cleans easily
- Ratchet level is easily accessible for quick direction changes
- Recessed corners in ends for extra turning power

SIZE	ORDER NO.	PRICE EACH
1/4	7291-883	\$20.90
5/16	7290-301	21.90
3/8	7290-302	23.41
7/16	7290-303	22.90
1/2	7290-304	26.25
9/16	7290-305	27.92
5/8	7290-306	28.76
11/16	7290-307	29.76
3/4	7290-308	32.27
13/16	7291-884	38.79
7/8	7291-885	42.80
1 5/16	7291-886	47.82
1	7291-887	50.32

Combination Wrenches- Metric

3

12 Point



Satin Finish

- SUPERTORQUE® box opening design allows application of higher torque without rounding or deforming hex fastener points. No contact is made at the corners. Instead, wrenching forces are placed on the flat surfaces behind the points.
- Meets or exceeds aerospace specification AS 954 for 12 point fasteners (as defined by AS 870) to provide accurate torque/tension relationship for precision application.



Satin Finish

- SUPERTORQUE® box opening design allows application of higher torque without rounding or deforming hex fastener points. No contact is made at the corners. Instead, wrenching forces are placed on the flat surfaces behind the points.
- Meets or exceeds aerospace specification AS 954 for 12 point fasteners (as defined by AS 870) to provide accurate torque/tension relationship for precision application.



Full Polish

- Meets Fed. Std. GGG-W-636c ANSI Spec. B107.6
- 15 degree Offset
- Nickel-chrome finish provides life-time corrosion resistance
- With AllenGrip® the wrench holds the fastener across a broader contact area and allows for greater torque loads without wrench slippage



Satin Finish

- Hardened and tempered
- Chrome Vanadium Steel
- Long Pattern
- Quad Grip® Flat Panel
- Nickel-satin finish
- Cam-Lock™ design

SIZE (MM)	LENGTH (INCH)	ORDER NO.	PRICE EACH
6	5-1/8	7211-506	\$ 6.14
7	5-3/8	7211-507	6.30
8	5-3/4	7211-508	6.50
9	6-1/2	7211-509	6.98
10	6-3/4	7211-510	7.14
11	7-1/4	7211-511	7.30
12	7-3/4	7211-512	7.62
13	8-1/8	7211-513	7.97
14	8-3/4	7211-514	8.38
15	9-1/8	7211-515	9.09
16	9-1/2	7211-516	9.54
17	10-1/4	7211-517	10.43
18	10-1/2	7211-518	10.85
19	11	7211-519	11.39
20	11-3/8	7211-520	12.32
21	12	7211-521	14.46
22	12-1/2	7211-522	15.33
23	12-1/2	7211-523	16.16
24	13-1/4	7211-524	17.82
25	14	7211-525	19.49
26	14	7211-526	20.42
27	14-5/8	7211-527	23.84
29	16-1/4	7211-529	25.28
30	16-1/4	7211-530	28.83
32	17	7211-532	31.10

SIZE (MM)	LENGTH (INCH)	ORDER NO.	PRICE EACH
6	4-27/32	7290-167	\$ 19.39
7	5-5/16	7290-168	19.56
8	5-25/32	7290-169	18.89
9	6-9/32	7290-170	18.39
10	6-3/4	7290-171	18.22
11	7-1/4	7290-172	18.56
12	7-11/16	7290-173	19.39
13	8-1/32	7290-174	20.56
14	8-5/8	7290-175	21.40
15	9-3/32	7290-176	23.07
16	9-1/2	7290-177	24.41
17	10-1/16	7290-178	26.92
18	10-17/32	7290-179	27.92
19	11-1/32	7290-180	29.26
20	11-1/2	7290-181	31.43
21	11-25/32	7290-182	36.95
22	12-1/2	7290-183	39.29
23	12-7/8	7290-184	41.30
24	13-9/32	7290-185	45.48
25	14-1/32	7290-186	49.99
26	14-5/16	7290-187	52.00
27	14-25/32	7290-188	61.02
29	15-17/32	7290-189	66.21
30	16-9/32	7290-190	68.55
32	17-1/32	7290-191	79.58
34	17-25/32	7290-192	82.59
36	19-9/32s	7290-193	103.99

SIZE (MM)	LENGTH (MM)	ORDER NO.	PRICE EACH
6	127.0	7552-206	\$ 12.88
7	135.0	7552-207	13.03
8	127.0	7552-208	13.66
9	155.7	7552-209	14.96
10	170.9	7552-210	15.32
11	184.2	7552-211	15.67
12	195.1	7552-212	16.36
13	207.0	7552-213	17.13
14	218.9	7552-214	17.66
15	230.9	7552-215	19.48
16	241.3	7552-216	20.56
17	256.0	7552-217	22.41
18	267.0	7552-218	23.35
19	279.4	7552-219	24.50
20	292.1	7552-220	26.57
21	304.0	7552-221	29.53
22	317.5	7552-222	30.76
23	327.9	7552-223	33.80
24	338.1	7552-224	37.12
25	355.6	7552-225	40.94
26	374.7	7552-226	42.84
27	374.7	7552-227	50.06
28	393.7	7552-228	55.56
29	393.7	7552-229	56.33
30	414.3	7552-230	58.40
32	433.3	7552-232	65.36
36*	511.2	7552-236	81.80
41*	612.8	7552-241	99.96
46*	650.9	7552-246	146.19
50*	689.0	7552-250	153.68

SIZE (MM)	ORDER NO.	PRICE EACH
7	7704-327	\$ 3.95
8	7704-328	4.97
9	7704-329	5.85
10	7704-330	5.95
11	7704-331	6.35
12	7704-332	6.64
13	7704-333	6.95
14	7704-334	7.83
15	7704-335	8.54
16	7704-336	9.07
17	7704-337	9.75
18	7704-338	10.32
19	7704-339	11.06
20	7704-340	12.37
21	7704-341	12.65
22	7704-342	14.66
23	7704-343	15.16
24	7704-344	16.84



Reversible Ratcheting Combination Wrenches (metric)



SIZE (MM)	ORDER NO.	PRICE EACH
8	7290-310	\$22.74
9	7290-311	22.74
10	7290-312	22.40
11	7290-313	22.90
12	7290-314	24.58
13	7290-315	26.25
14	7290-316	27.92
15	7290-317	27.08
16	7290-318	30.09
17	7290-319	31.10
18	7290-320	32.43
19	7290-321	32.27
21	7291-890	40.46
22	7291-891	42.80
24	7291-892	47.82
25	7291-893	47.98



Geared Combination Wrenches



- All Steel Construction
- Long Pattern
- 45° Angle
- Shallow Offset
- Maximum Torque Design



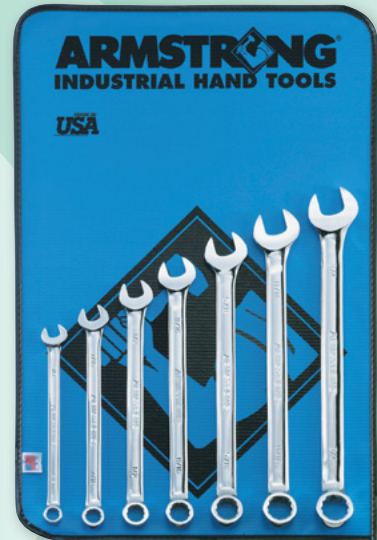
SIZE (MM)	ORDER NO.	PRICE EACH
10	7552-810	\$ 20.99
11	7552-811	21.45
12	7552-812	22.38
13	7552-813	23.48
14	7552-814	24.72
15	7552-815	26.70
16	7552-816	28.14
17	7552-817	30.73
18	7552-818	32.04
19	7552-819	33.49

Combination Wrench Sets

Fractional

		•Satin Finish - 12 pt. •Vinyl Pouch Included		•Satin Finish - 12 pt. •Roll Included		•Full Polish - 12 pt. •Roll Included	
		WILLIAMS		WILLIAMS		ARMSTRONG	
SET PIECES	SIZES/ DESCRIPTION	ORDER NO.	PRICE EACH	ORDER NO.	PRICE EACH	ORDER NO.	PRICE EACH
7	3/8, 7/16, 1/2, 9/16, 5/8, 11/16, 3/4"	-	-	7290-194	\$160.17	7525-631	\$119.99
7	sizes above (midget)	-	-	7211-030	45.14	7525-609	118.58
9	1/4-3/4"	7211-002	\$ 64.13	-	-	-	-
15	5/16-1-1/4"	-	-	7290-196	531.66	-	-
16	1/4-1-1/4"	7211-006	188.06	-	-	-	-
22	1/4-1-5/8" (satin finish)	-	-	-	-	7525-682†	841.43

† Without vinyl roll



Metric

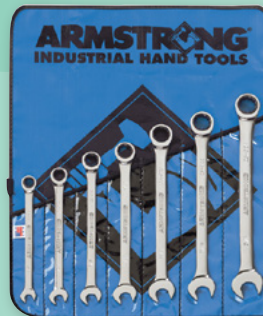
		•Satin Finish - 12 pt. •Roll Included		•Full Polish - 12 pt. •Roll Included		•Quad Grip - 12 pt. •Tray Included	
		WILLIAMS		WILLIAMS		ARMSTRONG	
SET PIECES	SIZES/ DESCRIPTION	ORDER NO.	PRICE EACH	ORDER NO.	PRICE EACH	ORDER NO.	PRICE EACH
5	12-15mm, 17mm	7290-209†	\$62.60	-	-	-	-
7	10-15mm	-	-	-	-	7704-803	\$14.41
9	7-15mm	-	-	7552-630	\$137.00	-	-
10	10-19mm	-	-	7552-631	183.17	-	-
15	7-10, 12, 14, 16, 18, 20, 22, 24, 26, 28, 29, 30, 32mm	-	-	7552-632	475.16	-	-

† Limited Quantities



Geared (Ratcheting)- Fractional and Metric

		•Satin Finish - 12 pt. •Roll Included		•Full Polish - 12 pt. •Roll Included	
		WILLIAMS		ARMSTRONG	
SET PIECES	SIZES/ DESCRIPTION	ORDER NO.	PRICE EACH	ORDER NO.	PRICE EACH
7	3/8, 7/16, 1/2, 9/16, 5/8, 11/16, 3/4"	-	-	7525-661	\$183.05
8	5/16, 3/8, 7/16, 1/2, 9/16, 5/8, 11/16, 3/4"	7290-309	\$193.94	-	-
10	1/4, 5/16, 11/32, 3/8, 7/16, 1/2, 9/16, 5/8, 11/16, 3/4"	-	-	7525-667	238.07
10	10-19mm	-	-	7552-667	273.77
12	8-19mm	7290-322	280.88	-	-



Wrenches

Adjustable Wrenches



Black Finish

- Fed Spec.: GGG-W-631B-5; ANSI B107 8M
- Drop forged, heat-treated industrial finish with satin finish handles for firm, safe grip.



Chrome Finish

- Fed Spec.: GGG-W-631B; ANSI B107 8M
- Chrome or Black Oxide Finish

WILLIAMS 				Pittsburgh 		
SIZE	CHROME ORDER NO.	PRICE EACH	BLACK ORDER NO.	PRICE EACH	CHROME ORDER NO.	PRICE EACH
4"	—	—	7222-749	\$20.40	—	—
6"	7222-766	\$21.73	7222-769	21.73	7701-006	\$16.53
8"	—	—	7222-789	22.07	7701-008	18.46
10"	7222-710	27.75	7222-810	25.58	7701-010	23.70
12"	7222-712	40.13	7222-812	38.45	7701-012	33.80
15"	7222-715	67.88	7222-815	66.71	7701-015	60.81
18"	—	—	—	—	7701-018	103.35
24"	—	—	7222-824	188.59	—	—



Spanner Wrenches

Adjustable Face



SPAN DIA. (INCHES)	OAL LENGTH	PIN DIA.	ORDER NO.	PRICE EACH
2	6 1/4	3/16	7210-421	\$39.79
3	8 1/8	1/4	7210-422	58.18
4	10 3/8	5/16	7210-423	83.26

Adjustable Hook



SPAN DIA. (INCHES)	HOOK DEPTH	ORDER NO.	PRICE EACH
3/4-2	1/8	7210-416	\$44.47
1 1/4-3	5/32	7210-417	50.49
2-4 3/4	3/16	7210-418	70.22
4 1/2-6 1/4	1/4	7210-419	74.23
6 1/8-8 3/4	5/16	7210-420	89.95

Adjustable Pin



SPAN DIA. (INCHES)	PIN LENGTH	PIN DIA.	ORDER NO.	PRICE EACH
3/4-2	6 3/8	1/8	7210-410	\$46.81
3/4-2	6 3/8	3/16	7210-411	46.81
1 1/4-3	8 1/8	3/16	7210-412	52.83
1 1/4-3	8 1/8	1/4	7210-413	52.83
2-4 3/4	11 3/8	1/4	7210-414	72.56
4 1/2-6 1/4	12 1/8	3/8	7210-415	78.24



Striking Face Wrenches

Offset Pattern - Black Finish - 12 Point



- Fed Spec.: GGG-W-636E.
- Straight handle available upon request.
- Striking face wrenches are designed to be struck by a hammer on the anvil area in order to loosen frozen fasteners or to set and tighten fasteners. Anvils are proportional to opening sizes. Special heat treating provides maximum durability for long life.
- Offset handle designed close to head to provide clearance in confined areas.

SIZE (INCHES)	ORDER NO.	PRICE EACH	SIZE (INCHES)	ORDER NO.	PRICE EACH
1-1/16	7210-430	\$71.56	2	7210-446	\$144.45
1-1/8	7210-431	73.23	2-1/8	7210-447	155.48
1-3/16	7210-432	75.90	2-3/16	7210-449	216.01
1-1/4	7210-433	77.91	2-1/4	7210-448	168.53
1-5/16	7210-434	79.58	2-5/16	7210-450	175.21
1-3/8	7210-435	98.31	2-3/8	7210-451	180.56
1-7/16	7210-436	95.30	2-1/2	7210-452	220.69
1-1/2	7210-438	95.63	2-9/16	7210-453	225.37
1-5/8	7210-439	112.68	2-5/8	7210-454	226.71
1-11/16	7210-440	117.37	2-3/4	7210-455	308.29
1-3/4	7210-441	129.07	2-7/8	7210-456	296.26
1-13/16	7210-442	130.74	2-15/16	7210-457	367.81
1-7/8	7210-443	137.43	3	7210-458	288.23
1-15/16	7210-444	149.47	3-1/8	7210-459	391.22



Adjustable Construction Wrench



- One wrench covers a wide range of fastener sizes up to 1-13/16".
- Tapered (spud) handle designed to locate and align bolt and rivet holes.

SIZE (INCHES)	LENGTH	CAPACITY	ORDER NO.	PRICE EACH
1-1/2	15	1-13/16	7213-625	\$46.81



Original Chain Pipe Tong



- Fed Spec.: GGG-W-00651D-1
- The "original" Williams Chain Pipe Tong is still the favorite tong for general work. Chain swings from the center and can be used on either side of the jaws, which reduces tooth wear. Flat link chains are heat-treated for greater strength and reliability.
- Fully adjustable to fit any shape pipe.
- Heat-treated chains for greater strength.

PIPE MIN.	DIA. MAX.	TONG LENGTH	CHAIN LENGTH	LOADING CAP (LBS.)	LBS.	KGS.	ORDER NO.	PRICE EACH
1/4	2-1/2	27	18-1/2	13,800	9.48	4.30	7230-602†	\$255.19
1	6	46-1/4	33	20,000	23.98	10.82	7230-608†	406.12
1-1/2	8	50-1/2	40-3/4	22,000	31.00	14.10	7230-611†	436.46

† Limited Quantities

Pliers & Pipe Wrenches

IRWIN

GrooveLock Pliers



- Press and slide button quickly adjusts lower jaw
- All purpose jaw grips on round, flat, square and hex shapes
- More groove positions provide the optimum hand location for a better grip on the work piece
- ProTouch™ Grips provide extra comfort and reduces hand fatigue

LENGTH	ORDER NO.	PRICE EACH
8"	3255-385	\$24.21
10"	3255-386	29.09
12"	3255-387	34.92

WILLIAMS



Utility Groove Joint Pliers



- Double dipped plastic handle grips are comfortable/durable
- Jaws are phosphate finished for rust protection
- Parallel jaw grip in all positions to maximum opening

LENGTH	ORDER NO.	PRICE EACH
5	7223-104	\$10.72
10	7223-105	12.86
12	7223-106	16.10
16	7223-107	26.40

ARMSTRONG



Tongue & Groove Pliers



- Precision milled undercut rib joint
- Angled teeth provide superior gripping power

LENGTH	ORDER NO.	PRICE EACH
5	7567-717	\$16.94
7	7567-777	16.04
10	7567-779	18.82
12	7567-781	22.05
16	7567-783	33.59

ARMSTRONG



Pipewrench Tongue & Groove Pliers



- Pipe wrench design with 90° offset head provides up to 20% more leverage

LENGTH	ORDER NO.	PRICE
10.000	7567-789	\$22.33
12.750	7567-791	30.92

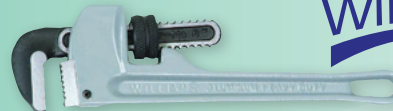
Pipe Wrenches

ARMSTRONG



- Handles made from pearlitic malleable alloy or aluminum
- Hook jaw is drop forged, with replaceable insert jaw

WILLIAMS



- Heavy duty construction for strength & durability
- Scale on wrench indicates pipe diameter
- Aluminum pipe wrenches are approx. 40% lighter than cast iron

USA-MADE ARMSTRONG				CAST IRON Pittsburg ALLEGANY		ALUMINUM Pittsburg ALLEGANY		ALUMINUM WILLIAMS		CAST IRON WILLIAMS	
SIZE (INCH)	CAPACITY (INCH)	ORDER NO.	PRICE EACH	ORDER NO.	PRICE EACH	ORDER NO.	PRICE EACH	ORDER NO.	PRICE EACH	ORDER NO.	PRICE EACH
6	1/8-3/4	7573-006	\$21.23	-	-	-	-	-	-	7213-516	\$8.42
8	1/8-1	7573-008	23.72	7701-308	\$12.18	-	-	7213-500	\$17.50	7213-518	10.85
10	1 1/8-1 1/2	7573-010	30.45	7701-310	15.34	-	-	7213-502	24.38	7213-520	18.91
12	1/8-2	7573-012	38.01	-	-	-	-	7213-504	31.97	7213-522	21.34
14	1/4-2	7573-014	44.35	7701-314	22.50	7701-614	\$32.28	-	-	7213-524	24.35
18	1/4-2 1/2	7573-018	63.20	7701-318	35.64	7701-618	48.67	-	-	7213-526	31.14
24	1/4-3	7573-024	94.16	7701-324	54.88	7701-624	73.27	7213-510	76.64	7213-528	49.28
36	1/4-4 1/2	7573-036	212.49	7701-336	99.13	7701-636	146.00	-	-	-	-

Pliers

3

WILLIAMS

Combination Slip Joint Pliers



- Jaws polished with rust-proof coating
- Gripping surfaces will grip round & flat surfaces
- 2-position joint for a wide range of grips
- Shear type wire-cutter extends tool use

LENGTH	ORDER NO.	PRICE EACH
6-1/4	7223-101	\$ 6.91
8	7223-102	8.70
9-3/4	7223-103	11.20

ARMSTRONG



Slip Joint Pliers



- Angled teeth provide superior gripping power over standard teeth.
- Specially designed fastener ensures permanent assembly and smooth operation.

LENGTH	ORDER NO.	PRICE
6.500	7567-667	\$13.42
8.000	7567-669	16.39
10.000	7567-671	20.24

Pittsburg
ALLEGHANY

Slip Joint Pliers



- Hardened and Tempered
- Drop Forged Steel
- Fully Polished
- Matte Finish
- Precision Jaws
- Cushion Grip Handles

LENGTH	ORDER NO.	PRICE EACH
6-1/2"	7710-006	\$7.87
8"	7710-008	9.19
10"	7710-010	12.04

WILLIAMS



Side Cutters



- Fed Spec.: Linesman's GGG-F-471E
- Designed for wiring, electrical equipment installation and maintenance for utility linemen
- Polished faces • Cushion grip handles
- Induction hardened cutting edges
- Diamond serrated jaws

LENGTH	DESCRIPTION	ORDER NO.	PRICE EACH
6 1/2	Electricians'	7227-023†	\$14.99
7	Electricians'	7227-024	47.31
8 1/2	Electricians'	7227-025	50.99
8*	Linesmans'	7223-403	18.91
9 1/2	New England	7227-030	75.90

* Williams Global

† Limited Quantities

WILLIAMS



Side Cutting Slip-Joint Pliers



- Fed Spec.: GGG-P-471E
- Polished Head
- Serrated jaws

LENGTH	ORDER NO.	PRICE EACH
7-1/2	7227-032†	\$19.91

† Limited Quantities

WILLIAMS



Duckbill Pliers



- Fed Spec.: Regular: GGG-P-471E
- Fed Spec.: High Leverage: GGG-P-4710
- Provided with polished faces
- Flat wide nose provides a better grip than the regular needle nose models
- Cushion grip handles

LENGTH	DESCRIPTION	ORDER NO.	PRICE EACH
6 1/2	regular nose	7227-020	\$36.95
8	high leverage, short nose	7227-021	40.63

ARMSTRONG



Lineman's Pliers



- Precision machined cutting edges meet at the hinge, providing improved cutting performance.
- Induction hardened cutting edge ensures maximum durability and long life.
- Diamond serrated jaws provides a firm grip.

LENGTH	ORDER NO.	PRICE
6.438	7567-063	\$29.66
7.375	7567-065	31.64
8.375	7567-067	33.34
9.500	7567-069	34.25

Pittsburg
ALLEGHANY

Lineman's Pliers



- Hardened and Tempered
- Drop Forged Steel
- Fully Polished
- Matte Finish
- Precision Jaws
- Cushion Grip Handles

LENGTH	ORDER NO.	PRICE
7"	7710-307	\$10.13
8"	7710-308	11.02

Pliers

3



Heavy-Duty Diagonal Cutting Pliers



- Fed Spec.: Regular: GGG-P-468A
- Supplied with polished faces
- Induction hardened cutting edges
- Handles are designed to cut wire with ease
- Regular flush cutters are used for cutting hard wire

LENGTH	DESCRIPTION	ORDER NO.	PRICE EACH
6-1/4	Double Dipped Handle	7223-406	\$15.07
7	Double Dipped Handle	7223-407	16.32



Diagonal Pliers



- Precision machined cutting edges meet at the tip, providing improved cutting performance.
- Induction hardened cutting edge ensures maximum durability and long life.

LENGTH	ORDER NO.	PRICE
4.500	7567-184	\$21.12
4.250	7567-155	20.93
5.125	7567-159	21.22
6.375	7567-161	20.93
7.438	7567-163	23.14



Diagonal Cutting Pliers

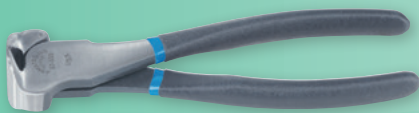


- Hardened and Tempered
- Drop Forged Steel
- Fully Polished Precision Jaws
- Cushion Grip Handles
- Matte Finish

LENGTH	DESCRIPTION	ORDER NO.	PRICE EACH
6"	Diagonal Cutting Pliers	7710-406	\$8.28
7"	Heavy Duty Cutting Pliers	7710-407	9.44
7-1/2	Diagonal Cutting Pliers	7710-408	12.25



End Cutting Pliers



- Precision machined cutting edges meet at the tip, providing improved cutting performance.
- Induction hardened cutting edge ensures maximum durability and long life.

LENGTH	ORDER NO.	PRICE
7.375	7567-535	\$34.02



End Nipper



- Hardened and Tempered
- Drop Forged Steel
- Fully Polished Precision Jaws
- Matte Finish

LENGTH	DESCRIPTION	ORDER NO.	PRICE EACH
6"	End Nipper	7710-507	\$7.88



Long Reach High Leverage Diagonal Cutting Pliers



- Extra long handle provides high leverage cutting capabilities with less effort
- Extra wide handle provides more comfort and reduces hand fatigue
- 30° angled head provides access to hard to reach areas

LENGTH	ORDER NO.	PRICE
11.125	7567-101	\$49.11



Diagonal Pliers, Angled Head, Heavy Duty



- Extra long handle provides high leverage cutting capabilities with less effort

LENGTH	ORDER NO.	PRICE
8.000	7567-123	\$26.80



Long Reach Diagonal Pliers



- Gripping tips provide cutting and gripping capabilities in one plier

LENGTH	ORDER NO.	PRICE
11.125	7567-103	\$48.95



Diagonal Pliers with Spring



- Precision machined cutting edges meet at the tip, providing improved cutting performance.

LENGTH	ORDER NO.	PRICE
4.468	7567-183	\$22.23
5.125	7567-173	23.10
6.313	7567-175	35.03



Needle Nose Pliers



- Polished heads reduce rust and corrosion, extending the tool life
- Serrated jaws provide extra gripping power

LENGTH	DESCRIPTION	ORDER NO.	PRICE EACH
4-1/2	Short nose w/spring	7227-016	37.28
7	Long nose	7227-017	36.11
5-1/2	Long curved nose	7227-019†	16.14

†Limited Quantities



Chain Nose Pliers with Wire Cutter

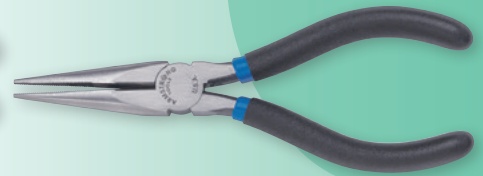


- Precision machined cutting edges meet at the tip, providing improved cutting performance.
- Induction hardened cutting edge ensures maximum durability and long life.

LENGTH	ORDER NO.	PRICE
5.625	7567-303	\$23.67
6.375	7567-305	22.81
7.750	7567-307	27.55



Chain Nose Pliers

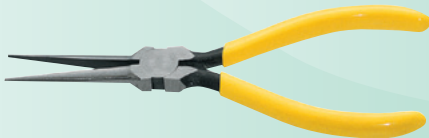


- Hardened and Tempered
- Drop Forged Steel
- Fully Polished Precision Jaws
- Cushion Grip Handles
- Matte Finish

LENGTH	ORDER NO.	PRICE EACH
4.750	7567-253	\$19.35
5.313	7567-255	20.41
6.313	7567-257	21.63
7.875	7567-259	23.01



Long Nose Pliers



- Hardened and Tempered
- Drop Forged Steel
- Fully Polished Precision Jaws
- Matte Finish

LENGTH	DESCRIPTION	ORDER NO.	PRICE EACH
6"	Long Nose Pliers	7710-206	\$7.95
8"	Long Nose Pliers	7710-208	9.26



Chain Nose Pliers with Wire Stripper



- Precision machined cutting edges meet at the tip, providing improved cutting performance.
- Induction hardened cutting edge ensures maximum durability and long life.

LENGTH	ORDER NO.	PRICE
7.813	7567-331	\$38.58



Long Reach Chain Nose Pliers



Long Reach Bent Chain Nose Pliers

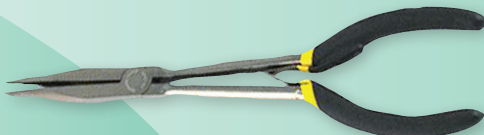


- Extra long handle provides high leverage cutting capabilities with less effort
- Bent nose design allows access around obstructions

LENGTH	DESCRIPTION	ORDER NO.	PRICE EACH
11.562	Long Chain Nose	7567-240	\$41.47
11.375	Bent Long Chain Nose	7567-241	41.50



Long Neck Pliers



- Hardened and Tempered
- Drop Forged Steel
- Fully Polished
- Matte Finish Cushion Grips
- Leaf Spring Handles

LENGTH	DESCRIPTION	ORDER NO.	PRICE EACH
11"	Pliers, straight	7710-540	\$15.30
11"	Pliers, 45°	7710-542	15.30



Chain Nose Pliers - Extra Long Reach



- Polished heads reduce rust and corrosion, extending the tool life
- Extra long handles provide access into confined areas, and greater holding power at the tip
- Bent nose provides access to obstructed areas

LENGTH	DESCRIPTION	ORDER NO.	PRICE EACH
11	Straight Jaw	7292-227	\$63.20
11	45° Bent Nose	7292-228	63.20

Miniature Pliers



Retaining Ring Pliers - Internal



- Shape C, straight tips
- Die forged cylindrical precision formed
- Chrome-vanadium special tool steel
- For inserting/removing internal retaining rings

RANGE	RING SIZE	ORDER NO.	PRICE EACH
5.5"	5/16-1/2	7832-681	\$28.93
5.5"	1/2-1	7832-682	29.46
7"	3/4-2-3/8	7832-683	30.64
8.9"	1-1/2-4	7832-684	38.51



4 Pc. External Ring Pliers Set



- Shape C, straight tips
- Die forged cylindrical precision formed
- Chrome-vanadium special tool steel
- For inserting/removing internal retaining rings

Order No. 7832-628 Price Each \$174.12 ⁸



Retaining Ring Pliers - External



- Shape A, straight tips, CV special tool steel
- Die forged, cylindrical precision formed
- For inserting/removing external retaining rings
- Soft vinyl grips

RANGE	RING SIZE	ORDER NO.	PRICE EACH
5.5"	1/8-3/8	7832-689	\$32.07
5.5"	3/8-1	7832-690	31.59
7"	3/4-2-3/8	7832-691	33.31
8.9"	1-1/2-4	7832-692	38.51



4 Pc. Internal Ring Pliers Set



- Shape C, straight tips
- Die forged cylindrical precision formed
- Chrome-vanadium special tool steel
- For inserting/removing internal retaining rings

Order No. 7832-626 Price Each \$162.84 ⁸



- Hardened and Tempered, Drop Forged Steel
- Fully Polished Precision Jaws, Matte Finish, Cushion Grip Handles
- Handles do not provide protection against electric shock



ESD-Safe ⁸

- Cutters drop-forged for an ideal material structure.
- Precise aligned cutting edges are additionally induction hardened at a hardness of approx. 64°HRC.
- Two component non-slip soft grip handle
- ESD Safe Dissipative. ESD standard IEC 61340-5-1

4 1/2" End Nipper



Order No. 7710-645
Price Each: \$3.33

4 1/2" Diagonal Cut



Order No. 7710-655
Price Each: \$3.33

4-1/2" Precision Cutters, Small Tapered (Chain Nose) Bent 45°, Head, Flush



Order No. 7832-705
Price Each: \$75.45

4-3/4" Snipe Nose Smooth Jaws



Order No. 7832-744
Price Each: \$64.87

5" Needle Nose



Order No. 7710-625
Price Each: \$3.33

4-3/4" Short Flat Nose Pliers, Smooth Jaws



Order No. 7832-752
Price Each: \$62.54

4-3/4" Short Round Nose Plier, Smooth Jaws



Order No. 7832-750
Price Each: \$62.54

5" Flat Nose



Order No. 7710-635
Price Each: \$3.33

5" Long Nose



Order No. 7710-665
Price Each: \$3.33

4-3/4" Short Snipe Nose (Chain Nose) Straight, Serrated Jaws



Order No. 7832-742
Price Each: \$63.14

4-1/2" Wide Oval Head, Bevel

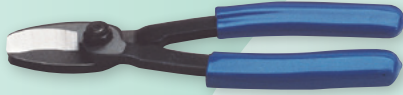


Order No. 7832-716
Price Each: \$69.39

Cutting Pliers



Cable Cutters



- For use with copper or aluminum cable up to 3/0 gauge
- Jamb nut on joint helps maintain even pressure on inside surface of blades
- Ground blades cut easily and cleanly

[3]

LENGTH	ORDER NO.	PRICE
7.500	7567-850	\$31.73



22.5" Cable Cutter For Ferrous Materials



- Lightweight handles provide ease of control while offering solid durability. • Rubber grips offer control and comfort during working application.
- Cutting notch below top cutting blades provided for cuts on ferrous material.

Order No. 7302-375 Price Each...\$ 160.00 [3]



Insulated Ratcheting Cable Cutters



- Insulation According to ENIEC 50900, DIN ISO 8976, ASTM F-1505 & CSA Specification. Up To 1000 Volt. Individually Tested.
- High leverage ratchet cable cutter with shear type blades cuts stranded and flexible copper and aluminum cable. Not for use on steel.
- Features built in safety release in all cutting positions. locking mechanism for safe transport and high-visibility comfort grip handles. [8]

LENGTH	DIAMETER	ORDER NO.	PRICE
10"	1.25"	7811-960	\$602.37
11"	2.0"	7811-975	801.78



- Hardened and Tempered
- Cuts bolts, wire, and cable
- Drop Forged chrome molybdenum blades [3]

LENGTH	DESCRIPTION	ORDER NO.	PRICE EACH
8"	center cut	7739-008	\$9.13
14"	center cut	7739-014	20.60
18"	center cut	7739-018	26.05
24"	center cut	7739-024	35.81
30"	center cut	7739-028	57.74
36"	center cut	7739-036	57.62

IRWIN Aviation Snips



- Cold forged blades are 44% stronger, requires 25% less cutting force
- 10% reduced hand span to decrease fatigue
- One handed release for ease of use

[2]

TYPE	ORDER NO.	PRICE EACH
straight	3255-392	\$24.11
left	3255-390	23.95
right	3255-391	23.95
left - offset	3255-397	26.82
right - offset	3255-398	26.82

Pittsburg Aviation Tin Snips



- Precision machined
- Heat Treated Chrome Alloy Compound Blades
- Color Coded Vinyl Handle Grips [3]

LENGTH	CUT	ORDER NO.	PRICE
10"	right	7739-101	\$5.50
10"	left	7739-102	5.50
10"	straight	7739-103	5.50

Pittsburg Straight Tin Snips



- Alloy Steel, Drop Forged, Cushion Handle Grips [3]

LENGTH	ORDER NO.	PRICE
8"	7739-108	\$5.43
10"	7739-110	6.75
12"	7739-112	8.63



PVC Cutter



- For cutting PVC, PE, ABS pipe.
- Professional quality, all-metal construction for greater durability.
- Ratchet-action for easy cutting. • Exclusive angle cutting feature.
- High carbon steel blade provides longer sharpness and clean cuts.
- Handle lock for safety. • Ergonomically designed handle for comfort.

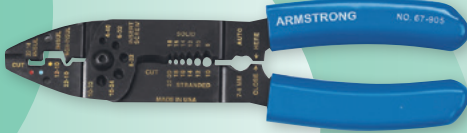
MFG. NO.	CAPACITY	LENGTH	ORDER NO.	PRICE EACH
119	1/8" to 1-5/8"	8-1/4"	6931-173	\$30.54
119BG	Replacement Blade		6931-175	17.45

[8]

Wire Strippers, Cutters & Crimpers

ARMSTRONG

Electrician's Stripper/Cutter Crimper Pliers



- Strips Wire Sizes: 10, 12, 14, 16, 18, 20, 22
 - Crimps Wire Sizes: Auto 7&8 mm, 22-14, 12-10
 - Cuts Bolt Sizes: 4-40, 6-32, 8-32, 10-32, 10-24
- Order No. 7567-905 Price Each: \$26.43 3

ARMSTRONG

Wire Stripper with Spring



- Strips Wire Sizes: 10, 12, 14, 16, 18, 20
- Order No. 7567-889 Price Each: \$18.97 3



Ratchet Crimper For Standard Connectors



- Crimps insulated & non-insulated connectors.
 - 3 crimp positions range
 - AWG 20-16 red, 16-14 blue, 12-10 yellow.
 - Soft grip non-slip handles.
 - Factory set auto release at end of crimp cycle.
- Order No. 7843-618 Price Each: \$269.60 3

WILLIAMS



Made in USA

Multi-Purpose Combination Wire Tool



- Crimp and strip wire sizes 10-22 AWG
 - Double-dipped handles w/air cushion pockets
 - Bolt cutter cuts 5 sizes:
4-40, 6-32, 8-32, 10-32, 10-24
 - Front end crimper, with Anvil Cutter style nose
- Order No. 7223-524 Price Each: \$29.43 3

WILLIAMS



Made in USA

Super Duty Front End Wire Stripper w/Bolt Cutters



- Capacity: AWG-solid 10-18, Stranded 12-20
 - Double-dipped handles w/air cushion pockets
 - Longer, curved handles for extra leverage
 - Bolt cutter cuts 6-32, 8-32 screws cleanly
 - Serrated gripping jaws in nose for use as pliers
- Order No. 7223-533 Price Each: \$25.58 3

Locking Pliers

WISE-GRIP®

Curved Jaw Locking Pliers

With wire cutter



1

3

WISE-GRIP® ORIG. HANDLE					
L'GTH	JAW ADJ.	MODEL NO.	ORDER NO.	PRICE EACH	ORDER NO.
4"	15/16	4WR	3255-212	\$14.91	-
5"	1-1/8	5WR	3255-210	20.86	7711-005
7"	1-1/2	7WR	3255-208	21.39	7711-007
10"	1-7/8	10WR	3255-206	21.78	7711-010

WISE-GRIP®

Curved Jaw Locking Pliers

Without wire cutter



1

ORIG. HANDLE				
L'GTH	JAW ADJ.	MODEL NO.	ORDER NO.	PRICE EACH
7"	1-1/2	7CR	3255-218	\$21.39

WISE-GRIP®

Straight Jaw Locking Pliers



1

WISE-GRIP® ORIG. HANDLE				
L'GTH	JAW ADJ.	MODEL NO.	ORDER NO.	PRICE EACH
7"	1-1/2	7R	3255-204	\$21.39
10"	1-3/4	10R	3255-202	21.78

WISE-GRIP®

Long Nose Locking Pliers

With wire cutter



1

3

WISE-GRIP® ORIG. HANDLE					
L'GTH	JAW ADJ.	MODEL NO.	ORDER NO.	PRICE EACH	ORDER NO.
4"	0-1-5/8h"	4LN	3255-224	\$16.87	-
6"	0-2"	6LN	3255-220	22.44	7711-306
9"	0-2-3/4"	9LN	3255-222	26.88	7711-309

WISE-GRIP®

Locking Wrench

With wire cutter



1

ORIG. HANDLE			
WRENCH SIZE RANGE	ITEM	ORDER NO.	PRICE EACH
1/4"-9/16"	4LW	3255-256	\$15.57
7mm-14mm			
7/16"-3/4"	7LW	3255-257	17.94
11mm-19mm			
5/8"-1-1/8"	10LW	3255-258	22.79
16mm-28mm			

WISE-GRIP®

Locking Sheet Metal Tool

Makes bending, forming, & crimping sheet metal jobs easier.



1

ORIG. HANDLE					
L'GTH	JAW WIDTH	THROAT DEPTH	MODEL NO.	ORDER NO.	PRICE EACH
8"	3-1/8	1-3/4	8R	3255-252	\$25.33

WISE-GRIP®

Large Jaw Locking Pliers

Heavy-duty jaw grips work of all shapes; ideal for plumbers, mechanics, welders, and large jobs.



1

ORIG. HANDLE				
L'GTH	JAW ADJ.	MODEL NO.	ORDER NO.	PRICE EACH
12"	0-3-1/8"	12LC	3255-216	\$26.31

WISE-GRIP®

Locking Pinch Off Tool

Pinches off and locks onto tubing, leaving both hands free.



1

SIZE	JAW ADJ.	JAW DEPTH	MODEL NO.	ORDER NO.	PRICE EACH
7"	1-1/4"	1"	RR	3255-255	\$20.49

WISE-GRIP®

Welding Clamp



1

L'GTH	JAW WIDTH	THROAT DEPTH	MODEL NO.	ORDER NO.	PRICE EACH
9"	1-5/8	2-3/4	9R	3255-253	\$30.15

WISE-GRIP®

Locking "C" Clamp

*With swivel pads



1

L'GTH	JAW WIDTH	THROAT DEPTH	MODEL NO.	ORDER NO.	PRICE EACH
4"	0-1-5/8	1-1/4	4SP*	3255-249	\$15.77
6"	0-2-1/8	1-1/2	6SP*	3255-242	22.50
11"	0-4"	2-5/8	11SP*	3255-244	36.30
18"	0-8"	9-1/2"	18SP*	3255-246	50.81
24"	0-10"	15-1/2	24SP*	3255-248	63.43

WISE-GRIP®

Locking "C" Clamp



1

L'GTH	JAW ADJ.	THROAT DEPTH	MODEL NO.	ORDER NO.	PRICE EACH
6"	0-2-1/8	1-1/2	6R	3255-241	\$20.01
11"	0-4"	2-5/8	11R	3255-243	33.75
18"	0-8"	9-1/2"	18R	3255-245	49.38
24"	0-12-1/2	15-1/2"	24R	3255-251	60.87

WISE-GRIP® Sets

3 Piece Tool Set

Contains:

5" Locking Pliers,
6" Long Nose Locking Pliers,
10" Locking Pliers and Kit Bag

Order No. 3255-235

Price Each \$65.02

1



WISE-GRIP®

Locking Chain Clamp

18" effective chain length holds and locks around any shape, any size. Adjusts for ratchet action in either direction. Wide variety of uses.

Order No. 3255-254 Price Each: \$38.30



Screwdrivers

Industrial Screwdrivers and Sets



Standard-Round Shank



- Comfort-grip handle w/thumb stop

BLADE WIDTH/BLADE SIZE	LENGTH	ORDER NO.	PRICE EACH
3/16	3	7292-627	\$9.96
1/4	stubby	7292-638	9.16
1/4	4	7292-628	10.83
5/16	6	7292-629	12.87
3/8	8	7292-630	15.18
3/8	12	7292-637*	16.61
7/16	10	7292-631	19.56

*Square shank



Electrician's Thin Blade-Round Shank



- Comfort-grip handle w/thumb stop

BLADE WIDTH/BLADE SIZE	LENGTH	ORDER NO.	PRICE EACH
1/4	4	7292-615	\$10.97
1/4	6	7227-663†	6.20
1/4	8	7292-620	13.54
1/4	12	7227-665†	8.24
3/16	3	7292-616	10.17
3/16	6	7292-617	10.67
3/16	10	7292-618	11.97
1/8	3	7292-619	8.56

† Limited Quantities



Standard-Pocket Size

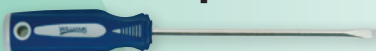


- Magnetized Tip, Large PVC handle

BLADE WIDTH/BLADE SIZE	LENGTH	ORDER NO.	PRICE EACH
1/8	4	7722-104	\$1.43



Standard- Bi-Mold Comfort Grip Handles



- Bi-mold handles provide comfortable grip reducing hand fatigue • Handle end shows size

BLADE WIDTH/BLADE SIZE	LENGTH	ORDER NO.	PRICE EACH
3/16	4	7224-205	\$5.76
3/16	6	7224-209	5.82
1/4	4	7224-219	7.81
1/4	6	7224-229	8.45
5/16	6	7224-237	10.21
5/16	8	7224-239	10.88
3/8	8	7224-241	10.98
3/8	12	7224-243	11.97



Phillips-Round Shank



- Comfort-grip handle w/thumb stop

BLADE WIDTH/BLADE SIZE	LENGTH	ORDER NO.	PRICE EACH
1	3	7292-621	\$9.80
2	4	7292-622	12.87
2	8	7292-623	16.48
3	6	7292-625	16.35
4	6	7292-626	19.39
2	stubby	7293-394	9.80



8-pc. Screwdriver Set



1/4-4", 5/16-6", 3/8-8", No. 1-3", No. 2-4", 3-6", 3/16-3", 3/16-6"

- 3 Slotted, 3 Phillips, 2 Electrician's
- Comfort grip handle w/thumb stop
- Blades made from special alloy steel for extra strength
- Vapor-blasted tips grip fasteners, and prevent chipping, extending tool life

Order No. 7292-897 Price Each: \$92.96



6-pc. Screwdriver Set



6-pc. (3"¹/₂"-12")
Standard Tip - Round Shank
Order No. 7292-895 \$99.64



6-pc. Screwdriver Set



6-pc.
1-3", 2-4", 2-8", 3-6", 4-6", 2-Stubby
Phillips- Round Shank
Order No. 7292-894 \$89.28



Standard-Mechanic's



BLADE WIDTH/BLADE SIZE	LENGTH	ORDER NO.	PRICE EACH
1/4	1-1/2	7722-121	\$2.86
1/4	4	7722-124	3.55
1/4	6	7722-126	3.78
5/16	6	7722-136	4.80

Phillips-Assorted



BLADE SIZE	BLADE LENGTH	ORDER NO.	PRICE EACH
#0	2-1/2	7722-152	\$1.43
#1	3	7722-163	2.83
#2	1-1/2	7722-171	2.67
#2	4	7722-174	3.55
#3	6	7722-186	4.80

Standard-Electrician's



BLADE WIDTH/BLADE SIZE	LENGTH	ORDER NO.	PRICE EACH
3/16	3	7722-113	\$3.02
3/16	4	7722-114	3.23
3/16	6	7722-116	3.42

Screwdrivers

3

Industrial Screwdrivers and Sets



Standard-Square Shank



- Blue/Black Fluted Handle

BLADE WIDTH/BLADE SIZE	LENGTH	SCREW SIZE#	ORDER NO.	PRICE EACH
1/8	3	2,3	7566-202	\$7.65
3/16	4	5,6,7	7566-203	8.07
3/16	6	5,6,7	7566-205	9.85
1/4	4	8,9	7566-208	9.14
1/4	8	8,9	7566-209	11.12
1/4	6	8,9	7566-211	9.95
1/4	3	8,9	7566-212	7.43
5/16	8	10	7566-214	11.12
5/16	6	10	7566-217	11.32
3/8	8	12,	7566-220	13.85
3/8	10	14-24,	7566-221	13.75
3/8	12	1/4-3/8	7566-223	19.02
3/8	6	^	7566-224	12.11
7/16	12	-	7566-226	19.25



8-pc. Screwdriver Set



8-pc. Standard, Phillips, and Cabinet
Standard: 4", 6" Phillips: #1, #2, #3
Cabinet: 3", 4", 5"
Order No. 7566-620 \$77.48



7-pc. Screwdriver Set



7-pc. Standard, Square Shank
4", 6" (1/4" tip & 5/16" tip), 8", 10", 12", 1-1/2"
Order No. 7566-626 \$94.66



Standard-with Pocket Clip



BLADE WIDTH/BLADE SIZE	LENGTH	SCREW SIZE#	ORDER NO.	PRICE EACH
1/8	3	2,3	7566-253 (Round Shank)	\$6.55
1/8	3	2,3	7566-202 (Square Shank)	\$7.65



Cabinet Tip-Round Shank



BLADE WIDTH/BLADE SIZE	LENGTH	SCREW SIZE#	ORDER NO.	PRICE EACH
.020	3	5-1/4	7566-253	\$6.55
.020	4	6-1/4	7566-255	7.04
.020	5	7-1/4	7566-256	7.25
.020	6	8-1/4	7566-258	7.70
.020	8	10-1/4	7566-259	7.99
.037	3	6-3/4	7566-261	8.07
.037	4	7-3/4	7566-262	8.31
.037	5	8-3/4	7566-265	8.28
.037	6	9-3/4	7566-267	8.65
.037	8	11-3/4	7566-268	8.61
.037	10	13-3/4	7566-270	9.47
.040	10	14-1/4	7566-271	9.66



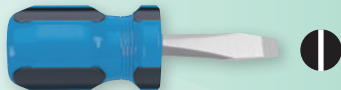
Standard-Round Shank



BLADE WIDTH/BLADE SIZE	LENGTH	SCREW SIZE#	ORDER NO.	PRICE EACH
1/4	4	8,9	7566-102	\$8.19
5/16	6	10	7566-103	9.71
5/16	10	10	7566-105	15.69
3/8	8	12,	7566-106	10.81
3/8	10	14-24,	7566-108	15.51
3/8	12	1/4-3/8	7566-109	16.13



Standard-Stubby



BLADE WIDTH/BLADE SIZE	LENGTH	SCREW SIZE#	ORDER NO.	PRICE EACH
3/16	1	5,6,7	7566-230	\$6.44
1/4	1-1/2	8,9	7566-232	6.28



Philips-Stubby



BLADE WIDTH/BLADE SIZE	LENGTH	SCREW SIZE#	ORDER NO.	PRICE EACH
#2	1-1/2	P2	7566-150	\$7.09



Philips-with Pocket Clip



BLADE WIDTH/BLADE SIZE	LENGTH	SCREW SIZE#	ORDER NO.	PRICE EACH
#0	2-1/2	P0	7566-152	\$6.45

GENERAL® Ratchet Offset Screwdrivers



Model 807X

- For reaching hard to get at screws, especially where leverage is required. • Individually cased.
- Blades are made of machined ground & hardened tool steel.
- Ratchet adjusts for forward or reverse position.
- Conforms to government specifications GGG-S-1408.

MODEL	INCLUDES	ORDER NO.	PRICE
807X	No. 1 and No. 2 crosspoint blades	6942-670	\$11.95
807SX	1/4" straight and No. 2 crosspoint blades	6942-667	10.62



Phillips-Round Shank



BLADE WIDTH/BLADE SIZE	LENGTH	SCREW SIZE#	ORDER NO.	PRICE EACH
#0	2-1/2	4-3/4	7566-152	\$6.45
#1	3	6-3/4	7566-153	7.73
#1	6	9-3/4	7566-155	9.88
#2	4	8-1/4	7566-156	10.31
#2	8	12-1/4	7566-158	12.13
#3	6	11	7566-161	12.20
#4	8	13-1/2	7566-164	14.35

GENERAL® Ratchet Offset Screwdriver Set



- For reaching inaccessible screws where leverage is desired.
- Ratchet driver is plated steel and instantly adjusts for right or left hand use.
- Has hardened tempered steel blades.
- Five piece set includes 1/4" and 3/8" straight blades, No. 1 and No. 2 crosspoint blades, & handle.

MODEL	ORDER NO.	PRICE
8071	6942-673	\$14.70

Screwdrivers



Wiha Soft-Finish® Handle - Ergonomic Cushion Grip

- Achieves 40% more torque than conventional handles
- Blades made of chrome-vanadium-molybdenum tool steel
- Tips are precision machined • Red and black handles

Slotted- Round Blade



BLADE WIDTH/BLADE SIZE	LENGTH	ORDER NO.	PRICE EACH
1/8	3.9*	7830-205	\$7.97
9/64	3.9*	7830-210	8.19
5/32	3.9*	7830-215	8.28
5/32	5.9*	7830-217	8.47
7/32	5*	7830-220	10.36
7/32	11.8*	7830-238	13.06
1/4	3.9	7830-223	11.08
1/4	5.9	7830-225	11.65
5/16	5.9	7830-227	16.58
5/16	7	7830-230	16.61
3/8	8	7830-235	17.97
15/32	9.8	7830-236	23.73

* Cabinet Tip

Phillips- Round Blade



BLADE WIDTH/BLADE SIZE	LENGTH	ORDER NO.	PRICE EACH
#0	2.4	7831-105	\$6.20
#1	3.0	7831-110	8.97
#1	8.0	7831-112	11.87
#1	12.0	7831-114	17.30
#2	4.0	7831-115	11.72
#2	8.0	7831-117	12.59
#2	12.0	7831-118	17.32
#3	6.0	7831-120	15.76
#4	8.0	7831-125	24.79

Slotted - Hex Blade- Hex Bolster - Metal Cap



BLADE WIDTH/BLADE SIZE	LENGTH	ORDER NO.	PRICE EACH
9/64	3	7853-010	\$16.44
3/16	3.5	7853-015	17.36
7/32	3.9	7853-020	20.83
1/4	5	7853-025	22.99
5/16	5.9	7853-027	31.99
3/8	7	7853-035	32.50
1/2	8	7853-040	32.44

Phillips - Hex Blade Hex Bolster - Metal Cap



BLADE WIDTH/BLADE SIZE	LENGTH	ORDER NO.	PRICE EACH
#1	3.1	7853-110	\$17.49
#2	3.9	7853-115	21.73
#3	5.9	7853-120	27.58

Phillips-Hex Blade



BLADE WIDTH/BLADE SIZE	LENGTH	ORDER NO.	PRICE EACH
#1	3.1	7831-201	\$10.70
#2	3.9	7831-202	13.82
#3	5.9	7831-203	19.36

Slotted-Hex Blade



BLADE WIDTH/BLADE SIZE	LENGTH	ORDER NO.	PRICE EACH
7/32	3.9	7830-815	\$13.94
1/4	5	7830-817	15.00
9/32	5	7830-820	15.14
5/16	5.9	7830-825	16.40
3/8	7	7830-830	23.50
1/2	12	7830-835	32.71

5-pc. Screwdriver Set



5-pc. Standard/Phillips
Hex Blade - Hex Bolster
Std. Tip Dia.: 5.5, 7, 8mm
Phillips: #1-2
Order No. 7830-892 \$70.92



Screwdrivers

Ergonomic Screwdrivers

Standard - 3K Series



- 3K Ergonomic handle, cushion grip
- Blade chrome-vanadium-moly steel, hardened, nickel plated
- Blue & black handles

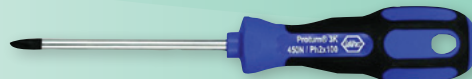
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BLADE WIDTH/BLADE SIZE	LENGTH	ORDER NO.	PRICE EACH
3/32	3**	7845-040	\$ 4.54
5/32	3.9**	7845-054	5.40
3/16	3.9	7845-055	5.00
3/16	5.9	7845-056	5.96
3/16	8	7845-057	6.34
1/4	8	7845-062	7.62
1/4	1-1/2*	7845-064	5.70
1/4	5.9	7845-065	7.40
3/8	8	7845-069	10.02

*Stubby-Powerhandle, not a 3K handle

**Cabinet Tips

Phillips- 3K Series



- 3K Ergonomic handle, cushion grip
- Blade chrome-vanadium-moly steel, hardened, nickel plated
- Blue & black handles

8

BLADE WIDTH/BLADE SIZE	LENGTH	ORDER NO.	PRICE EACH
#0	2.4	7845-135	\$4.72
#1	8.0	7845-140	6.28
#2	8.0	7845-147	10.34
#2	1.6*	7845-150	5.34
#3	6.0	7845-152	9.44

*Stubby-Powerhandle, not a 3K handle



6-in-1 Multi-Tool



- Contains 1/4" & 3/16" slotted bit and a #1 & #2 philips bit.
- The chrome/nickel plated tube is a hex tube to create a 1/4" & 5/16" nut driver.
- Handle has a wide diameter for a better, more comfortable grip.

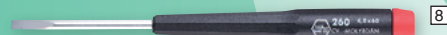
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COLOR	ORDER NO.	PRICE EACH
Orange	9622-063	\$7.17
Yellow	9622-064	7.17
Red	9622-065	7.17

Screwdrivers- Professional Quality

Precision Series

Slotted Screwdriver, with Precision Handle



Blade high alloy chrome-vanadium-molybdenum-steel.

BLADE WIDTH INCH	BLADE LENGTH INCH	ORDER NO.	PRICE EACH
1/32	1.6	7826-008	\$8.40
.039	1.6	7826-010	7.73
3/64	1.6	7826-012	6.61
1/16	1.6	7826-015	6.16
.070	1.6	7826-018	5.92
5/64	1.6	7826-020	5.71
5/64	2.0	7826-022	5.71
5/64	3.9	7826-023	5.71
3/32	2.0	7826-025	5.34
3/32	3.9	7826-027	5.35
3/32	6.0	7826-028	7.01
1/8	2.0	7826-030	5.15
1/8	2.4	7826-032	5.53
1/8	3.9	7826-033	5.94
1/8	5.9	7826-034	7.03
9/64	2.4	7826-035	5.73
5/32	2.4	7826-040	6.41
5/32	3.9	7826-041	6.39
5/32	5.9	7826-042	7.51

TORX® Screwdriver, with Precision Handle



Blade high alloy chrome-vanadium-molybdenum-steel.

SIZE	BLADE LENGTH mm	INCH	ORDER NO.	PRICE EACH
T3	40	1.6	7826-703	\$7.46
T4	40	1.6	7826-704	7.46
T5	40	1.6	7826-705	5.82
T6	40	1.6	7826-706	7.47
T7	40	1.6	7826-707	7.48
T9	50	2	7826-709	7.50
T10	50	2	7826-710	7.84
T15	60	2.4	7826-715	7.86
T20	60	2.4	7826-720	6.08

Phillips Screwdriver, with Precision Handle



Blade high alloy chrome-vanadium-molybdenum-steel.

SIZE	BLADE LENGTH mm	INCH	ORDER NO.	PRICE EACH
000	40	1.6	7826-102	\$8.28
00	40	1.6	7826-100	6.38
00	75	3.0	7826-101	5.16
0	50	2.0	7826-105	5.72
0	75	3.0	7826-108	5.57
0	100	3.9	7826-107	4.78
0	150	5.9	7826-109	7.53
1	60	2.4	7826-110	5.97
1	80	3.1	7826-113	5.02
1	100	3.9	7826-114	6.50
1	150	5.9	7826-115	8.05

6 Piece Precision Handle Screwdriver Set - TORX®



TORX® 6 Piece Set
Blade: alloy chrome-vanadium-molybdenum-steel.
Contains sizes: T6, T7, T8, T9, T10, T15
Order No. 7826-790 Price Each \$45.25

7 Piece Precision Handle Screwdriver Set



Slotted & Phillips Driver 7 Piece Set
Blade: alloy chrome-vanadium-molybdenum-steel.
Contains: Slotted sizes (mm)- 1.5, 2.0, 2.5, 3.0
Phillips sizes (mm)- 00, 0, 1
Order No. 7826-190 Price Each \$61.31

6 Piece Precision Handle Screwdriver Set - Slotted



Slotted Driver 6 Piece Set
Blade: alloy chrome-vanadium-molybdenum-steel.
Contains mm sizes: 1.5, 2.0, 2.5, 3.0, 3.5, 4.0
Order No. 7826-090 Price Each \$35.97

7-pc. Extra Long Screwdriver Set



BLADE WIDTH/ SIZE	BLADE LENGTH	BLADE WIDTH/ SIZE	BLADE LENGTH
2.5mm	100mm	4.0mm	100mm
2.5mm	50mm	3.0mm	150mm
3.0mm	100mm	4.0mm	150mm
Ph. 0	75mm		

7-pc. Slotted/Phillips- Blade high-alloy chrome-vanadium molybdenum steel
Order No. 7826-092 \$42.64

Master Technicians Benchtop Set

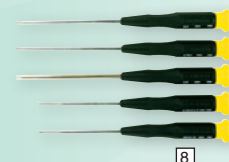


SET INCLUDES:
Screwdrivers: Phillips #000, #00, #0, #1
Slotted .8, 1.0, 1.2, 1.5, 1.8, 2.0, 2.5, 3.0, 3.5, 4.0
Torx: T1, T2, T3, T4, T5, T6, T7, T8, T9, T10
Metric Hex: 1.27, 1.5, 2.0, 2.5, 3.0
Inch Hex:
.028, .035, .050, 1/16, 5/64, 3/32, 7/64, 1/8, 9/64, 5/32
Metric Nut Drivers:
1.5, 1.8, 2.0, 2.5, 3.0, 3.5, 4.0, 4.5, 5.0, 5.5
Chip Lifter

• Plexiglass frame, equipped with 50 precision drivers.

Order No. 7892-190 Price Each \$359.97

GENERAL® Screwdriver Sets



MODEL	DESCRIPTION & SIZE	ORDER NO.	PRICE
701	#00 x 2 1/2" (#00 x 60mm)	6922-048	\$ 4.28
703	#1 x 4" (#1 x 100mm)	6922-050	4.28
705	3/8 x 2 1/2" (2.5 x 60mm)	6922-052	3.46
706	1/2 x 4" (3 x 100mm)	6922-053	3.86
707	5/8 x 4" (3.5 x 100mm)	6922-054	4.44
708	3/4 x 4" (4 x 100mm)	6922-055	3.86
700	5 pc. Set:	6922-066	21.88
	701, 702, 703, 705, 706		

Torque Control Screwdrivers

3

Torque Tool & Blade Set

- Ergonomic, multi-component handle, cushion grip
- Window scale, audible click at each torque setting



24-pc. Micro Bit Set

incl. Ergonomic Adjustable Handle,
21 Micro Bits, Holder, and
Torque Adjustment Tool, in steel box
Handle Range: 7.5 - 20" lbs,
Slotted: 1.5, 2.0, 3.0, 4.0mm
Phillips: #00, #0, #1
TORX: T6, T7, T8, T9, T10, T15
Hex Inch: .050, 1/16, 5/64, 3/32,
7/64, 1/8, 9/64, 5/32

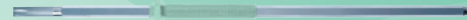
Order No. 7828-590 Price Each: \$245.04

Adjustable Handle



RANGE INCH/LBS.	ORDER NO.	PRICE EACH
5-10" lbs.	7828-502	\$171.97
10-50" lbs.	7828-506	193.31

TORX Plus Blades - Hex Shaft



BLADE WIDTH/BLADE SIZE	LENGTH	ORDER NO.	PRICE EACH
IP5	175	7828-571	\$11.97
IP6	175	7828-572	11.97
IP7	175	7828-573	11.97
IP8	175	7828-574	11.97
IP9	175	7828-575	11.97
IP10	175	7828-576	11.97
IP15	175	7828-577	11.97
IP20	175	7828-578	11.97
IP25	175	7828-579	11.97

TORX Blades - Hex Shaft



Phillips Blades - Hex Shaft



Standard Blades - Hex Shaft



BLADE SIZE	LENGTH (mm)	ORDER NO.	PRICE EACH
T5	175	7828-561	\$11.97
T6	175	7828-562	11.97
T7	175	7828-563	11.97
T8	175	7828-564	11.97
T9	175	7828-565	11.97
T10	175	7828-566	11.97
T15	175	7828-567	10.64
T20	175	7828-568	11.97
T25	175	7828-569	11.97

BLADE WIDTH/BLADE SIZE	LENGTH	ORDER NO.	PRICE EACH
000	175	7828-540	\$11.97
#00	175	7828-541	11.97
#0	175	7828-542	11.97
#1	175	7828-543	11.97

BLADE WIDTH/BLADE SIZE	LENGTH	ORDER NO.	PRICE EACH
1/16	175	7828-534	\$11.97
5/64	175	7828-535	11.97
3/32	175	7828-536	11.97
1/8	175	7828-537	11.97
9/64	175	7828-538	11.97
5/32	175	7828-539	11.97

Nutdriver- Fractional Wiha SoftFinish Handle



- CVM Steel, Hardened. Deep drawn 1" socket.
- Solid shafts. Multi-component, cushion grips.
- Red and black handle

BLADE WIDTH/LENGTH SIZE	BLADE LENGTH (INCH)	ORDER NO.	PRICE EACH
9/64	5	7834-134	\$7.50
3/16	5	7834-136	9.29
7/32	5	7834-137	9.98
1/4	5	7834-138	10.00
5/16	5	7834-139	10.00
11/32	5	7834-140	10.42
3/8	5	7834-141	10.86
7/16	5	7834-142	12.26
1/2	5	7834-143	13.04
9/16	5	7834-144	14.11
5/8	5	7834-145	16.85

Nutdriver- Metric Wiha SoftFinish Handle



- CVM Steel, Hardened. Deep drawn 1" socket.
- Solid shafts. Multi-component, cushion grips.
- Red and black handle

BLADE SIZE (MM)	BLADE LENGTH (INCH)	ORDER NO.	PRICE EACH
5.0	5	7834-120	\$9.83
5.5	5	7834-121	9.86
6.0	5	7834-122	10.27
7.0	5	7834-123	11.21
8.0	5	7834-124	11.18
9.0	5	7834-125	7.94
10.0	5	7834-126	11.21
11.0	5	7834-127	12.08
12.0	5	7834-128	13.09
13.0	5	7834-129	13.53
14.0	5	7834-130	16.16
15.0	5	7834-131	16.80

10-pc. Nutdriver Set



- CVM Steel, Hardened. Deep drawn 1" socket.
 - Solid shafts. Multi-component,
 - Red and black handle
- Inch: 3/16, 7/32, 1/4, 5/16, 11/32, 3/8, 7/16, 1/2, 9/16, 5/8
Order No. 7834-195 Price: \$118.26

7-pc. Nut Driver Set



DESCRIPTION	ORDER NO.	PRICE
7 Piece - Metric Set Wt. 1.89 lbs. Contains 1 each (mm): 5.0, 5.5, 6.0, 7.0, 8.0, 10.0, 13.0	7834-194	\$76.57
7 Piece Inch Set Wt. 1.89 lbs. Contains 1 each: 3/16, 1/4, 5/16, 11/32, 3/8, 7/16, 1/2	7834-193	75.28

8-pc. Nutdriver Set



Blade Chrome Vanadium steel
Inch: 3/32, 7/64, 1/8, 9/64, 5/32, 3/16, 7/32, 1/4
Order No. 7826-591 Price: \$69.31

Insulated Tools

Screwdrivers



- Insulated according to ASTM F-1505-01, New VDE Spec. 0682/part 201 and EN/IEC 60900, up to 1000V. Yellow & red handle.

BLADE WIDTH/BLADE SIZE	LENGTH	ORDER NO.	PRICE EACH
5/64	3	7832-005	\$7.55
3/32	3	7832-010	7.63
1/8	4	7832-012	7.70
9/64	4	7832-015	8.65
3/16	5	7832-024	9.96
7/32	7	7832-026	11.15
1/4	6	7832-039	13.61
5/16	7	7832-042	17.50
3/8	8	7832-045	22.66

Phillips



BLADE SIZE	LENGTH	ORDER NO.	PRICE EACH
0	2.4	7832-100	\$8.18
1	3.0	7832-101	9.73
2	4.0	7832-102	12.07
3	6.0	7832-103	17.09

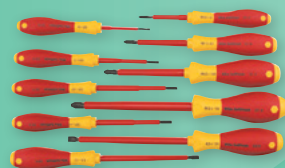


6-Pc. Set



SLOTTED		PHILLIPS	
BLADE WIDTH	BLADE LENGTH	SIZE	BLADE LENGTH
mm	mm	mm	mm
3.5	100	1	80
4.5	125	2	100
6.5	150	3	50

Order No. 7832-092 Price Each \$69.31



10-Pc. Set



SLOTTED		PHILLIPS	
BLADE WIDTH	BLADE LENGTH	SIZE	BLADE LENGTH
mm	mm	mm	mm
2.0	60	0	60
2.5	75	1	80
3.0	100	2	100
3.5	100	3	150
4.5	125		
6.5	150		

Order No. 7832-093 Price Each \$106.64

Nut Drivers



- Insulated according to ASTM F-1505-01, New VDE Spec. 0682/part 201 and EN/IEC 60900, up to 1000V. Yellow & red handle.

BLADE WIDTH/BLADE SIZE	LENGTH	ORDER NO.	PRICE EACH
5/32	5	7832-255	\$13.29
3/16	5	7832-258	14.35
7/32	5	7832-261	14.31
1/4	5	7832-264	13.32
5/16	5	7832-267	17.11
3/8	5	7832-270	19.23
7/16	5	7832-273	21.00
1/2	5	7832-276	22.05
9/16	5	7832-278	22.38
5/8	5	7832-280	24.18

Metric



BLADE WIDTH/BLADE SIZE (MM)	LENGTH (MM)	ORDER NO.	PRICE EACH
4.0	125	7832-206	\$13.52
5.0	125	7832-209	14.33
5.5	125	7832-212	14.37
6.0	125	7832-215	14.33
7.0	125	7832-218	16.09
8.0	125	7832-221	16.98
9.0	125	7832-224	19.29
10.0	125	7832-227	20.48
11.0	125	7832-230	21.08
12.0	125	7832-233	21.22
13.0	125	7832-236	22.25



5-Pc. Set



STANDARD			
SIZE INCH	BLADE LENGTH INCH	SIZE INCH	BLADE LENGTH INCH
7/32	5	3/8	5
1/4	5	1/2	5
5/16	5		

Order No. 7832-292 Price Each \$82.64



5-Pc. Set Metric



SIZE mm	BLADE LENGTH mm	SIZE mm	BLADE LENGTH mm
6.0	125	9.0	125
7.0	125	10.0	125
8.0	125		

Order No. 7832-291 Price Each \$86.70



TORX® Screwdrivers



- Insulated according to ASTM F-1505-01, New VDE Spec. 0682/part 201 and EN/IEC 60900, up to 1000V. Yellow & red handle.

BLADE WIDTH/BLADE SIZE	LENGTH	ORDER NO.	PRICE EACH
T5	2.4	7832-505	\$8.58
T6	2.4	7832-511	8.57
T7	2.4	7832-516	8.60
T8	2.4	7832-521	8.55
T9	2.4	7832-526	8.60
T10	2.4	7832-531	8.56
T15	3.0	7832-536	10.70
T20	3.0	7832-541	10.78
T25	3.0	7832-546	10.80
T27	4.0	7832-551	13.41
T30	4.0	7832-556	13.41
T40	6.0	7832-561	16.14

6-Pc. Set

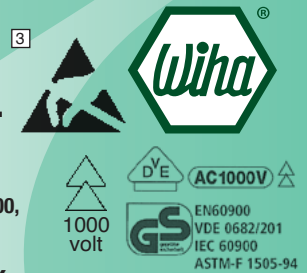


SIZE	BLADE LENGTH INCH	SIZE mm	BLADE LENGTH INCH
T8	60	T15	80
T9	60	T20	80
T10	60	T25	80

Order No. 7832-590 Price Each \$57.31

Insulated Tools

WARNING: All insulated tool for use with insulated sockets and attachments only.



11-pc. Insulated Pliers & Screwdriver Set



11 Pc. Pliers & Screwdriver Set.
 • Insulation According to VDE 0682/part 201, DIN EN 60900, EN/IEC 60900, ASTM F-1505-01, NFPA70E, up to 1000 volt. Individually Tested.
 • In Roll Out Pouch
Order No. 7832-986
Price Each \$ 253.31

Set Includes:
 • 6.3" Long Nose Pliers
 • 6.3" Diagonal Cutters
 • 8.0" Combination Pliers
 • 6.3" Stripping Pliers
 • Insulated Slotted: 3.0, 4.5, 5.5mm
 • Insulated Phillips: #1, #2
 • Insulated Square: #1, #2

Insulation according to VDE0682/part 201, EN/IEC 60900, ASTM F-1505-01, NFPA70E & CSA, up to 1000 volt.

Insulated Long Nose Pliers w/

LENGTH	ORDER NO.	PRICE
6.3"	7832-926	\$35.97
8"	7832-923	43.97



Combination Pliers w/Dynamic Joint

LENGTH	ORDER NO.	PRICE
8"	7832-930	\$43.97



Insulated Diagonal Cutters

LENGTH	ORDER NO.	PRICE
6.3"	7832-933	\$39.97
8"	7832-929	51.97



7-pc. Insulated Pliers/Cutters & Screwdriver Set

7 Pc. Insulated Industrial Pliers/Cutters & Screwdrivers

Set Includes:
 • 8.0" Combo Pliers
 • 6.3" Long Nose
 • 6.3" Diagonal Cutters
 • Insulated Drivers: Slotted: 3.0, 4.5mm
 Phillips: #1, #2
 • In Belt Pack Pouch

Order No. 7832-985
Price Each \$ 166.64



Insulated Stripping Pliers

LENGTH	ORDER NO.	PRICE
6.3"	7832-947	\$37.54



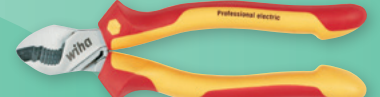
Insulated High Leverage Diagonal

LENGTH	ORDER NO.	PRICE
7"	7832-836	\$43.52
8"	7832-838	52.82



Insulated Serrated Edge Cable Cutters

LENGTH	ORDER NO.	PRICE
6.3"	7832-826	\$43.30
8"	7832-828	59.04



Insulated Stripping Knife w/Insulated Handle



• Insulation According to VDE Specification.
 • Up to 1,000 Volt. • Individually Tested.
 • Blade tool steel, hardened. Insulation molded directly on.
 • Hooked cutting edge, half round ground. Cover included.

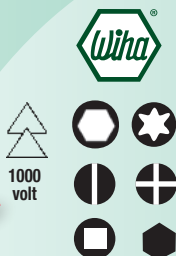
LENGTH	ORDER NO.	PRICE
7"	7815-050	\$32.99

Insulated Tools

34



Master Electrician's Set - 66 Pc.



SET INCLUDES: Pliers: 8" Long Nose, 6.3" Long Flat Nose, 9" Combination Pliers/Crimpers, 8" Cable Cutters, 6.3" Side Cutters, 8" High Leverage Cutters; Screwdrivers: Ins. Slotted 2.0, 2.5, 3.0, 4, 4.5, 5.5, 6, 8.0, 10.0, Ins. Phillips #0-3; Nut Drivers: 1/4", 5/16", 11/32", 3/8", 7/16"; Metric (mm): 5.0, 5.5, 6.0, 7.0, 8.0, 10.0, 13.0; T-Handle Hex: 5/32", 3/16", 7/32", 1/4", 5/16", 3/8". Metric (mm): 4.0, 5.0, 6.0, 8.0 Torx: T8, T10, T15, T20, T25, T30; Hex L-Key: 10mm, 1/2"; Insulated Sockets: 1/2", 9/16", 5/8", 11/16", 3/4", 13/16", 7/8"; Metric: 8.0, 10.0, 13.0, 14.0, 15.0, 17.0, 19.0, 22.0 Tools: Ins. Cable Knife 50mm, 8" Adjustable Wrench, Ins. Square #1-#2, Ins. Sit/Ph Terminal #1x80, #2x100, Ins. Extension 4.9", Ins. Ratchet 3/8" drive

- Pliers drop-forged from special tool steel, individually high frequency induction hardened, chrome and nickel plated, mirror polished
- Insulation according to VDE 0682/part 201, EN/IEC 60900, ASTM F-1505-01, NFPA70E & CSA, up to 1000 volt. Individually Tested.

Order No. 7832-876....Price Each \$1906.64

24 Pc. Insulated Combo Set



SET INCLUDES: 11 insulated metric sockets: 6, 7, 8, 9, 10, 11, 12, 13, 14, 17, 19mm; 2 Extensions: 5" & 10"; Insulated 3/8" Ratchet: 10-1/4" OAL; Insulated Pliers: 8" Combination, 6.3" Long Nose, 6.3" Diagonal Cutter; Screwdrivers: Standard: 9/64, 3/16, 1/4; Phillips: #1-3; Insulated knife; In molded storage box

- CV Steel, forged, oil-hardened sockets. Insulated to EN/IEC 60900
- Sockets for use with insulated ratchets & extensions.

Order No. 7831-592....Price Each \$981.31

Insulated Bit Holder



Multi-bit Screwdriver with Wiha Powerhandle and insulated shaft. Multi-bit handle is 10,000 volt tested. Insulation meets EN/IEC 60900. Set includes 1/4" bits: Slotted: 5.5, 6mm Phillips: #0, #1, #2, #3

Order No. 7838-006....Price Each \$19.96

14 Pc. Pliers & Screwdriver Set



SET INCLUDES: Pliers: 8" Long Nose, 9" Combination, 6.3" Stripping; 6.3" Side Cutters, 8" High Leverage Cutters; Screwdrivers: Ins. Phillips #1-3, Ins. Slotted 2.0, 2.5, 3.0, 3.5, 4.5, 6.5

- Pliers drop-forged from special tool steel, individually high frequency induction hardened, chrome and nickel plated, mirror polished
- In zipper carry case
- Insulation according to VDE 0682/part 201, EN/IEC 60900, ASTM F-1505-01, NFPA70E, up to 1000 volt. Individually Tested.

Order No. 7832-895....Price Each \$398.64

ESD Safe Sets

27 pc. Precision Interchangeable Bit Set - System 4, ESD Safe

- Sets include your choice of Wiha precision handle, bit extension, and 25 Wiha interchangeable bits.
- Plexiglass frame, equipped with 50 precision drivers.



SET INCLUDES:
Phillips #000-1, Slotted 1.5, 2.0, 3.0, 4.0
Torx: T3, T4, T5, T6, T7, T8, T9, T10, T15
Metric Hex: 1.3, 1.5, 2.0, 2.5, 3.0
Inch Hex: .050, 1/16, 5/64, 3/32, 7/64, 1/8, 9/64, 5/32 105mm Bit Extension

Set with ESD Safe Precision Handle:
Order No. 7875-992 Price Each \$66.24

9-pc. Interchangeable Blade Set - System 4, ESD Safe

ESD safe precision collet lock handle and 8 Wiha interchangeable blades.



SET INCLUDES:
Phillips #000-1, Slotted 1.5, 2.0, 3.0, 4.0
Torx: T3, T4, T5, T6, T7, T8, T9, T10, T15
Metric: 1.5, 2.0, 2.5, 3.0, 3.5, 4.0

Order No. 7826-997 Price Each \$79.76

Fastener Drive Tools

Slotted Insert Bit – IRWIN 1/4" Hex Shank – 1" OAL



[8]

SCREW SIZE	BLADE THICKNESS	BLADE WIDTH	STD. PK.	ORDER NO.	PRICE EACH
4F-5R	.034	3/16	25	4222-000	\$0.37
6F-8R	.040	7/32	25	4222-004	0.47
8F-10R	.042	1/4	25	4222-008	0.47
12F-14R	.050	9/32	25	4222-016	0.37
14F-16R	.055	9/32	25	4222-020	0.37

Slotted Power Bit – IRWIN 1/4" Hex Shank – 1-15/16" OAL



[8]

SCREW SIZE	BLADE THICKNESS	BLADE WIDTH	STD. PK.	ORDER NO.	PRICE EACH
4F-5R	.034	.187	10	4214-004	\$0.81
5F-6R	.036	.245	10	4214-008	0.65
6F-8R	.038	.250	10	4214-012	0.81
8F-10R	.042	.281	10	4214-016	0.81
12F-14R	.050	.375	10	4214-024	1.37

IRWIN Slotted/Phillips Bit For Speed Control Drills 1/4" Hex Size



[8]

OAL	SCREW SIZE	STD. PK.	ORDER NO.	PRICE EACH
1-1/2"	#1 Phillips/6-8 Slot	10	4230-000	\$0.85
1-1/2"	#2 Phillips/8-10 Slot	10	4230-004	0.85
1-1/2"	#3 Phillips/10-12 Slot	10	4230-008	0.80
2-3/8"	#1 Phillips/6-8 Slot	10	7874-303	2.94
2-3/8"	#2 Phillips/8-10 Slot	10	7874-306	2.94
2-3/8"	#3 Phillips/10-12 Slot	10	7874-309	2.83

*Longer Lengths Available

Phillips Insert Bit – 1/4" Hex Shank – 1" OAL



[3]

POINT SIZE	STD. PK.	ORDER NO.	PRICE EACH
0	10	7871-100	\$8.85
1	10	7871-101	8.85
2	10	7871-102	8.85
3	10	7871-103	8.85

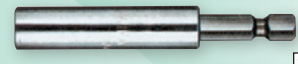
Phillips Power Bit – 1/4" Hex Shank



[3]

POINT SIZE	OVERALL LENGTH	STD. PK.	ORDER NO.	PRICE EACH
1	2"	10	7874-103	\$18.57
2	2"	10	7874-112	18.57
3	2"	10	7874-124	18.57
1	2-3/4"	10	7874-106	49.35
2	2-3/4"	10	7874-115	49.35
3	2-3/4"	10	7874-127	49.49

Mag. 1 Pc. Bit Holders – 1/4" Hex Shank



[3]

OAL	STD. PK.	ORDER NO.	PRICE EACH
2-31/32	10	7871-130	\$9.73
2-1/4	10	7871-131	6.02

Bit Selector with Slotted, Phillips and TORX® Bits 10-Piece Set

This handy set includes 10 hardened bits of chrome-vanadium-molybdenum steel. 1/4" magnetic bit holder can be used in power tools. Plastic storage box is compact, durable and light weight. Molded hex cavity turns box into handle for quick fastening jobs.



[3]

SLOTTED BLADE WIDTH mm	PHILLIPS SIZE	TORX® SIZE	ORDER NO.	PRICE EACH
5.5	0	T10	7879-243	\$24.32
5.5	1	T15		
6.5	2	T20		
8.0	3	–		

Universal Holder 1/4" x 2.3"

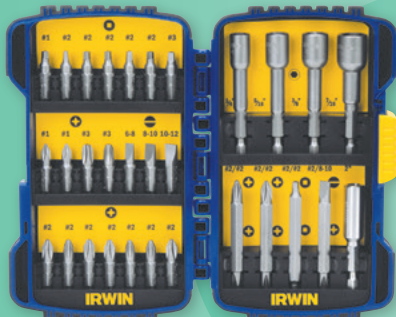
Bit Selector with TORX® Bits – 10-Piece Set



[3]

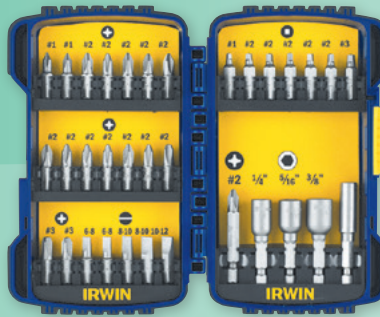
TORX® SIZES	ORDER NO.	PRICE EACH
T7, T8, T9, T10, T15, T20, T25, T27, T30, T40	7879-245	\$26.20

IRWIN 30-Pc. Fastener Bit Set IRWIN 33-Pc. Fastener Bit Set



Includes most popular insert bits, power bits, and nutsetters

QTY.	CONTENTS DESCRIPTION
16	Phillips Insert Bits 1" – #1 (2), #2 (12), #3 (2)
7	Square Recess Insert Bits 1" – #1 (1), #2 (5), #3 (1)
3	Nutsetter – 1/4"x 1-7/8", 5/16"x1-7/8", 3/8"x1-7/8"
1	Phillips Power Bit 2" – #2
5	Slotted Insert Bits 1" – 6-8(2), 8-10(2), 10-12(1)
1	Magnetic Bit Holder 2-1/4"



QTY.	CONTENTS DESCRIPTION
11	Phillips Insert Bits – #1 (2), #2 (7), #3 (2)
7	Square Recess Insert Bits – #1 (1), #2 (5), #3 (1)
3	Nutsetter – 1/4"x 1-7/8", 5/16"x1-7/8", 3/8"x1-7/8"
3	Slotted Insert Bits 1" – 6-8, 8-10, 10-12
2	Phillips Double End Bit #2/#2
1	Square Recess Double End Bit #2
1	Slotted Double End Bits 8-10
5	Magnetic Nutsetters – 1/4"(2), 5/16"(1), 3/8"(1), 7/16"(1), all 2-9/16"
1	Magnetic Bit Holder 2-1/4"

Order No. 4296-501 Price Each: \$43.39 [8] Order No. 4296-502 Price Each: \$41.35 [8]

Bits Collector with Security Bits – 39-Piece Set



Bits Collector with Security Bits in Tamper Resistant TORX®, Triwing, Torq Set, Spanner, Tamper resistant Hex, Slotted, Phillips, Pozidriv®, and Squire bits. 39-Piece set including handle, 1/4" magnetic bit holder, 1/4" bit holding socket adapter.

Order No. 7871-990
Price Each: \$97.31 [3]

Fastener Drive Tools

3

ClicFix® 1/4" Magnetic Bit Holder



- Internal bit lock mechanism
- Spring loaded, no fumbling
- One handed bit changes

OAL 2.9" Order No. 7871-491 \$22.64

CentroFix® 1/4" Hi-Precision Tool Holder



- Quick release tool for drills, countersinks, power bits
- OAL 2.3" Order No. 7871-480 \$35.97

IRWIN®

Magnetic Nutsetters

2-9/16" OAL & 1-7/8" OAL



LOBULAR DESIGN GoldSet® MAGNETIC NUTSETTER	STD. PK.	ORDER NO.	PRICE EACH
1-7/8 OAL x 1/4	10	4210-560	\$4.02
1-7/8 OAL x 5/16	10	4210-576	4.36
1-7/8 OAL x 3/8	10	4210-584	4.52
1-7/8 OAL x 7/16	10	4210-592	5.14
2-9/16 OAL x 5/16	10	4210-520	5.38
2-9/16 OAL x 3/8	10	4210-536	5.62
2-9/16 OAL x 7/16	10	4210-552	6.54

Hex Inch Power Bits 1/4" Hex Shank - 2" OAL



SIZE	STD. PK.	ORDER NO.	PRICE EACH
3/32	10	7874-311	\$18.57
7/64	10	7874-312	18.57
1/8	10	7874-313	18.57
9/64	10	7874-314	18.57
5/32	10	7874-315	18.57
3/16	10	7874-316	18.57
7/32	10	7874-317	18.57
1/4	10	7874-318	18.57

Hex Metric Insert Bits 1/4" Hex Shank



SIZE	STD. PK.	ORDER NO.	PRICE EACH
1.5	10	7871-303	\$8.85
2.0	10	7871-306	8.85
2.5	10	7871-308	8.85
3.0	10	7871-309	8.85
4.0	10	7871-312	8.85
5.0	10	7871-315	8.85
6.0	10	7871-318	8.85
8.0	10	7871-321	35.63
10.0	10	7871-324	45.47

TORX® Plus® Insert Bits, 1/4" Hex, 1" OAL



SIZE	OAL (MM)	STD. PK.	ORDER NO.	PRICE EACH
IP6	25	10	7871-606	\$27.48
IP7	25	10	7871-607	27.26
IP8	25	10	7871-608	26.97
IP9	25	10	7871-609	22.93
IP10	25	10	7871-610	23.18
IP15	25	10	7871-615	23.25
IP20	25	10	7871-620	23.14
IP25	25	10	7871-625	23.25
IP27	25	10	7871-627	22.93
IP30	25	10	7871-630	27.22
IP40	25	10	7871-640	27.26

Hex Inch Insert Bits 1/4" Hex Shank



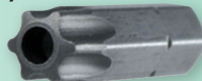
SIZE	STD. PK.	ORDER NO.	PRICE EACH
1/16	10	7871-326	\$8.85
5/64	10	7871-328	8.85
3/32	10	7871-330	8.85
7/64	10	7871-333	8.85
1/8	10	7871-336	8.85
9/64	10	7871-339	8.85
5/32	10	7871-342	8.85
3/16	10	7871-345	8.85
7/32	10	7871-348	8.85
1/4	10	7871-351	8.85
5/16	10	7871-353	35.63
7/32	10	7871-356	39.07

TORX® Bits, 1/4"



TORX SIZE	OVERALL LENGTH (MM)	STD. PK.	ORDER NO.	PRICE EACH
T5	25	10	7871-505	\$8.85
T6	25	10	7871-506	8.85
T7	25	10	7871-507	8.85
T8	25	10	7871-508	8.85
T9	25	10	7871-509	8.85
T10	25	10	7871-510	8.85
T15	25	10	7871-515	8.85
T20	25	10	7871-520	8.85
T25	25	10	7871-525	8.85
T27	25	10	7871-527	8.85
T30	25	10	7871-530	8.85
T40	25	10	7871-540	8.85

TORX® Bits, Tamper Resistant 1/4" Hex Shank



SIZE	OAL (MM)	STD. PK.	ORDER NO.	PRICE EACH
T7s	25	10	7870-127	\$35.44
T8s	25	10	7870-128	34.35
T9s	25	10	7870-129	35.44
T10s	25	10	7870-135	30.31
T15s	25	10	7870-139	30.23
T20s	25	10	7870-142	30.23
T25s	25	10	7870-148	30.23
T27s	25	10	7870-160	30.31
T30s	25	10	7870-163	30.23
T40s	25	10	7870-168	34.35

TORX® Power Bits, Tamper Resistant 1/4" Hex Shank



SIZE	OAL (MM)	STD. PK.	ORDER NO.	PRICE EACH
T7s	50	10	7870-507	\$64.27
T8s	50	10	7870-508	66.63
T9s	50	10	7870-509	66.63
T10s	50	10	7870-510	66.63
T15s	50	10	7870-515	66.63
T20s	50	10	7870-520	66.63
T25s	50	10	7870-525	66.63
T27s	50	10	7870-527	66.63
T30s	50	10	7870-530	66.63
T40s	50	10	7870-540	66.63
T45s	50	10	7870-545	89.80
T50s	50	10	7870-550	89.68

TORX® Power Bits, 1/4" Drive, 2" OAL



TORX SIZE	OVERALL LENGTH (MM)	STD. PK.	ORDER NO.	PRICE EACH
T6	50	10	7874-511	\$18.57
T7	50	10	7874-512	18.57
T8	50	10	7874-513	18.57
T9	50	10	7874-517	18.57
T10	50	10	7874-519	18.57
T15	50	10	7874-521	18.57
T20	50	10	7874-523	18.57
T25	50	10	7874-529	18.57
T27	50	10	7874-531	18.57
T30	50	10	7874-533	18.57

TORX® Plus® Power Bits, 1/4" Hex, 2" OAL



SIZE	OAL (MM)	STD. PK.	ORDER NO.	PRICE EACH
IP8	50	10	7874-604	\$60.86
IP9	50	10	7874-608	60.69
IP10	50	10	7874-612	62.14
IP15	50	10	7874-616	61.45
IP20	50	10	7874-620	62.22
IP25	50	10	7874-624	61.81
IP27	50	10	7874-628	61.89
IP30	50	10	7874-632	62.12
IP40	50	10	7874-636	62.14

TORXPlus® Screwdrivers

3

T-Handle TORXPlus®

BLADE WIDTH/LENGTH SIZE	BLADE LENGTH (INCH)	ORDER NO.	PRICE EACH
IP10	3.9	7836-463	\$9.81
IP15	3.9	7836-466	10.46
IP20	3.9	7836-469	11.94
IP25	5.9	7836-472	12.52
IP27	5.9	7836-474	14.11
IP30	5.9	7836-476	14.24

6-pc. TORXPlus® T-Handle Set

- Blade high Alloy CVM Steel, hardened, hard chromed, high quality plastic handle, impact resistant

TORXPlus: IP10, IP15, IP20, IP25, IP30, IP40

Order No. 7836-496....Price Each \$72.62

TORXPlus® Pocketstar Fold Outs 8 Pc. Set

- High Alloy CVM Steel, hardened mold-
ed ergonomic handle
- TORXPlus: IP6, IP7, IP8, IP9, IP10, IP15, IP20, IP25

Order No. 7836-697
Price Each \$37.92

EasyTorque® TorqueControl Tool SoftFinish® Handle w/Blade

TORX®

BLADE WIDTH/TORQUE SIZE (LBS.)	TORX® ORDER NO.	PRICE EACH
T5	7829-232	\$79.97
T15	7829-242	79.97

* No calibration certificates;
Release accuracy +/- 10%

TORXPlus®

BLADE WIDTH/TORQUE SIZE (LBS.)	TORXPLUS® ORDER NO.	PRICE EACH
IP6	7829-247	\$79.97
IP8	7829-249	79.97
IP9	7829-252	79.97
IP10	7829-253	79.97

TORXPlus®

- Round blades of Wiha exclusive CRM-72 tool steel
- Through hardened durability, Ideal for setting Carbide Inserts.
- Precision machined exact fit Torx Plus tips
 - Micron vapor hard chromed finish
- Ergo handle shape with SoftFinish cushion grip
- Guaranteed Quality - Made by Wiha Germany

BLADE WIDTH/LENGTH SIZE	BLADE LENGTH (INCH)	ORDER NO.	PRICE EACH
IP6	2.4	7836-211	\$6.92
IP7	2.4	7836-223	6.50
IP8	2.4	7836-228	6.60
IP9	2.4	7836-229	6.90
IP15	3.1	7836-238	7.99
IP25	3.9	7836-243	9.89
IP27	4.5	7836-248	10.58
IP30	4.5	7836-253	13.37
IP40	5.1	7836-255	14.43

7-pc. TORXPlus® Set



- Blade high Alloy CVM Steel, hardened, hard chromed, Wiha-SoftFinish handle, multi-component
- Blue and black handle

TORXPlus: IP8, IP10, IP15, IP20, IP25, IP30, IP40

Order No. 7836-299....Price Each \$69.79

6-pc. TORXPlus® Set



- Blade high Alloy CVM Steel, hardened, hard chromed, Wiha-SoftFinish handle, multi-component
- Blue and black handle

TORXPlus: IP6, IP7, IP8, IP9, IP10, IP15

Order No. 7836-296....Price Each \$44.51

TORX® Screwdriver, with Wiha-Powerhandle



- CVM steel blade, hardened, hard chromed.
- Wiha Powerhandle cellulose-acetate

SIZE	BLADE LENGTH MM	ORDER NO.	PRICE EACH
T5	2.0	7836-205	\$7.36
T8	2.4	7836-215	POA
T9	2.4	7836-220	5.96
T10	3.1	7836-225	6.06
T15	3.1	7836-230	6.72
T20	3.9	7836-235	7.02
T25	3.9	7836-240	8.78
T27	4.5	7836-245	8.88
T30	4.5	7836-250	11.64

TORX® Screwdriver, with Wiha-SoftFinish® Handle



- Round blade, high alloy CVM steel, chrome plated.
- Multi-component, red & black handle, cushion grips.

SIZE	BLADE LENGTH INCH	ORDER NO.	PRICE EACH
T5	2.4	7836-264	\$6.94
T6	2.4	7836-266	6.93
T7	2.4	7836-268	6.73
T8	2.4	7836-270	6.73
T9	2.4	7836-272	7.50
T10	3.1	7836-274	7.56
T15	3.1	7836-276	8.65
T20	3.9	7836-278	8.33
T25	3.9	7836-280	9.91
T27	4.5	7836-282	11.20
T30	4.5	7836-284	13.28
T40	5.1	7836-286	14.10
T45	5.1	7836-288	15.35

6 Piece TORX® Screwdriver Set - Wiha-SoftFinish® Handle



TORX® 6 Piece Set
Blade: high alloy CVM steel, chrome-plated. Red handle.
Contains sizes: T6, T7, T8, T9, T10, T15
Order No. 7836-291 Price Each \$42.64

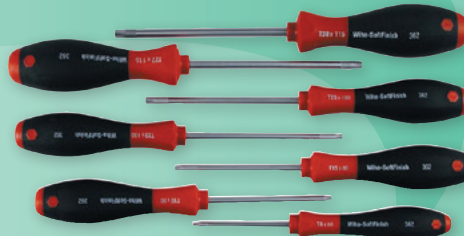
Tamper Resistant TORX® Screwdriver, with Wiha-SoftFinish® Handle



- Round blade, high alloy CVM steel, chrome plated.
- Multi-component, red & black handle, cushion grips.

SIZE	BLADE LENGTH INCH	ORDER NO.	PRICE EACH
T7s	2.4	7836-269	\$11.70
T8s	2.4	7836-271	11.67
T9s	2.4	7836-273	11.69
T10s	3.1	7836-275	11.98
T15s	3.1	7836-277	12.22
T20s	3.9	7836-279	15.43
T25s	3.9	7836-281	15.74
T27s	4.5	7836-283	18.43
T30s	4.5	7836-285	21.38
T40s	5.1	7836-287	23.64

Tamper-Resistant TORX® 7 Piece Screwdriver Set - Wiha-SoftFinish® Handle



TORX® 7 Piece Set
Blade: high alloy CVM steel, chrome-plated. Red & black handle.
Contains sizes: T7s, T8s, T9s, T10s, T15s, T20s, T25s
Order No. 7836-298 Price Each \$89.17

TORX® Screwdrivers

WILLIAMS

**TORX® Screwdriver,
Bi-Mold Comfort Grip
Handles**



1

SIZE	OAL INCH	ORDER NO.	PRICE EACH
T10	7-1/4	7297-834	\$6.56
T15	7-1/4	7297-835	6.82
T20	7-3/4	7297-836	7.04
T25	8-1/4	7297-837	7.30
T27	8-1/4	7297-838	7.62
T30	8-1/4	7297-839	7.87

Pittsburg®
ALLEGHANY

**Standard Grip TORX®
Screwdriver with Round Blade**



- Chrome Vanadium Steel Blade
- Cellulose Acetate Handle

3

SIZE	BLADE LENGTH INCH	ORDER NO.	PRICE EACH
T10	3	7729-261	\$4.28
T15	3	7729-262	4.28
T20	3	7729-263	4.28
T25	4	7729-264	4.62
T27	4	7729-265	4.62
T30	4	7729-266	4.62
T40	6	7729-267	5.18

**TORX® Screwdriver,
w/ Wiha-Proturn Handle**



- Blade high alloy CVM steel, black finish.
- Ergonomic, impact resistant, red handle

3

SIZE	BLADE LENGTH INCH	ORDER NO.	PRICE EACH
T7	2.0	7845-506	\$3.04
T9	2.4	7845-516	3.62
T10	3.1	7845-521	3.92
T20	3.9	7845-531	4.26
T27	4.5	7845-541	5.12
T30	4.5	7845-546	6.90
T40	5.1	7845-551	7.62
T45	5.1	7845-556	7.16
T50	5.1	7845-561	7.84

BONDHUS

Star T-Handle Sets

- Model TTHX8
- 8 tools with stand
- Contains: T9, T10, T15, T20, T25, T27, T30, T40

1

Order No. 3188-599
Price Each \$73.34



BONDHUS

Star Pro-Hold T-Handle Sets

- Model PHTTHX8
- Never drop a screw again
- 8 tools with stand
- Contains: T9, T10, T15, T20, T25, T27, T30, T40

1

Order No. 3188-600
Price Each \$112.18



Wiha TORX® For Tooling— Professional Quality

MADE IN GERMANY

3

TORX® Short Arm L-Keys



DESCRIPTION	ORDER NO.	PRICE
T6 x 39MM	7836-306	\$3.02
T7 x 42MM	7836-307	3.01
T8 x 45MM	7836-308	2.95
T9 x 48MM	7836-309	2.99
T15 x 54MM	7836-315	2.99
T20 x 58MM	7836-320	2.85
T25 x 63MM	7836-325	2.94
T27 x 67MM	7836-327	3.01
T30 x 73MM	7836-330	4.07
T40 x 79MM	7836-340	5.85
T45 x 82MM	7836-345	7.40
T50 x 95MM	7836-350	6.90
T55 x 108MM	7836-355	10.53
T60 x 120MM	7836-360	13.18

T-Handle TORX®



DESCRIPTION	ORDER NO.	PRICE
T9 x 100MM	7836-409	\$ 8.01
T10 x 100MM	7836-410	8.25
T15 x 100MM	7836-415	9.70
T15 x 200MM	7836-417	9.89
T20 x 100MM	7836-420	10.94
T20 x 200MM	7836-422	11.02
T25 x 100MM	7836-425	11.55
T25 x 200MM	7836-427	11.58
T27 x 200MM	7836-432	13.18
T30 x 100MM	7836-435	12.90
T40 x 200MM	7836-442	14.51

SoftGrip Dual Drive T-Handle TORX®



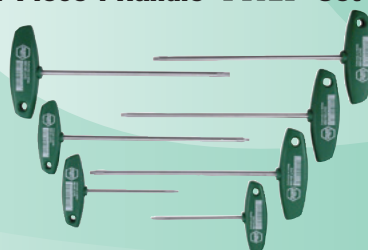
DESCRIPTION	ORDER NO.	PRICE
T10 x 100MM	7836-480	\$9.81
T15 x 100MM	7836-481	10.98
T20 x 100MM	7836-482	12.10
T25 x 150MM	7836-483	12.33
T27 x 150MM	7836-484	14.26
T30 x 150MM	7836-486	14.81

TORX® L-Keys In Plastic Holder



DESCRIPTION	ORDER NO.	PRICE
7 Piece Set Wt. .3 lbs. Contains 1 each Short Arm TORX L-Keys: T6, T7, T8, T9, T10, T15, T20	7836-392	\$25.31
9 Piece Set Wt. 1.0 lbs. Contains 1 each Short Arm TORX L-Keys: T8, T9, T10, T15, T20, T25, T27, T30, T40	7836-394	35.23

7 Piece T-Handle TORX® Set



DESCRIPTION	ORDER NO.	PRICE
7 Piece Set Contains 1 each T-Handle TORX® T9, T10, T15, T20, T25, T27, T30	7836-492	\$76.00

SoftGrip Dual Drive T-Handle TORX® 7-Pc. Set



DESCRIPTION	ORDER NO.	PRICE
7 Piece Set In Vinyl Pouch Contains 1 each T-Handle TORX® T10, T15, T20, T25, T27, T30, T40	7836-497	\$89.47

7-Pc. WingTORX® Set in Metal Stand



DESCRIPTION	ORDER NO.	PRICE
7 Piece Set Contains 1 each Wing TORX® Keys: T6, T7, T8, T9, T10, T15, T20	7836-590	\$27.97

7-Pc. Flag Style TORX® Key Set in Metal Stand



DESCRIPTION	ORDER NO.	PRICE
7 Piece Set Contains 1 each Wing TORX® Keys: T6, T7, T8, T9, T10, T15, T20. Wt. .7 lbs.	7837-090	\$27.97

**WE ALSO STOCK
TorxPlus®
SEE PAGE: 380**

Balldriver® L-Wrench Sets



15

MODEL	DESCRIPTION	ORDER NO.	PRICE EACH
BLX8	8 pc.(.050-5/32)	3188-121	\$11.54
BLX12	12 pc.(7/64-5/16)	3188-123	19.97
BLX13	13 pc.(.050-3/8)	3188-199	25.60
BLX10	10 pc.(1/16-1/4)	3188-122	15.99
BLX7	7 pc.(5/64-3/16)	3188-124	10.85
BLX6M	6 pc.(1.5-5mm)	3188-126	9.48
BLX15	15 pc.(1.27-10mm)	3188-234	34.94
BLX9M	9 pc.(1.5-10mm)	3188-125	20.80
BLX 21	21 pc.(BLX12,BLX9M)	3188-235	38.52
BLX22	22 pc.(BLX13,BLX9M)	3188-227	43.67

Balldriver® L-Wrench Singles



8

SIZE (IN.)	PKG. QTY.	ORDER NO.	PRICE EACH
.050	10	3188-085	\$1.33
1/16	10	3188-086	1.33
5/64	10	3188-087	1.33
3/32	10	3188-088	1.39
7/64	10	3188-089	1.55
1/8	10	3188-090	1.62
9/64	10	3188-091	1.62
5/32	10	3188-092	1.68
3/16	10	3188-093	1.96
7/32	5	3188-094	2.35
1/4	5	3188-095	2.72
5/16	5	3188-096	4.29
3/8	5	3188-097	6.01
7/16	5	3188-098	12.49
1/2	5	3188-099	15.99
9/16	5	3188-100	19.57
5/8	5	3188-101	21.86
3/4	5	3188-102	36.16

SIZE (mm)	PKG. QTY.	ORDER NO.	PRICE EACH
1.27	10	3188-103	\$1.33
1.5	10	3188-104	1.33
2.0	10	3188-105	1.33
2.5	10	3188-106	1.43
3.0	10	3188-107	1.59
3.5	10	3188-109	1.66
4.0	10	3188-108	1.68
4.5	10	3188-110	1.94
5.0	10	3188-111	2.15
5.5	10	3188-112	2.50
6.0	10	3188-113	2.88
7.0	10	3188-114	3.90
8.0	5	3188-115	4.59
9.0	5	3188-116	5.51
10	5	3188-117	6.72
11	1	3188-118	12.38
12	1	3188-119	14.84
14	1	3188-120	18.55
17	1	3188-202	29.43
19	1	3188-203	34.89

ProHold® Ballpoint Sets



15

MODEL	DESCRIPTION	ORDER NO.	PRICE EACH
PBLX13	13 pc.(.050-3/8")	3188-315	\$39.56
PBLX9M	9 pc.(1.5-10mm)	3188-318	32.07
PBLX22	22 pc. combination	3188-598	67.37

Stubby L-Wrenches Fractional BriteGuard® & Metric GoldGuard® Extra Long Balldrivers Double End Balldrivers



- Model SBLX13
- Stubby L-Wrenches have smaller inside radius for tight spaces
- Allows for lower clearance
- Balldriver® Tip on long arm for angle entry and fast screw removal

Order No. 3188-337

Price Each \$31.45 15

- Model BLX22GB
- Quickly identify metric from inch keys
- Fractional sizes are silver BriteGuard® and metric keys have GoldGuard® finish
- Fractional set contains: 13 pcs., .050" to 3/8"
- Metric set contains: 9 pcs., 1.5mm to 10mm
- Double pack sets come in Bondhex® locking tool cases

Order No. 3188-601

Price Each \$65.57 15

- Fractional Set Model BLX13XL
- Extra long length for greater reach
- Fractional set contains: 13 pcs., .050" to 3/8"

Order No. 3188-404

Price Each \$30.90

- Metric Set Model BLX9MXL
- Extra long length for greater reach
- Metric set contains: 9 pcs., 1.5mm to 10mm

Order No. 3188-407

Price Each \$24.99 15

- Fractional Set Model SDBLX13XL
- Exclusive MaxTorque™ ball shape delivers 2x the torque of competitor ball end tools; 15° angle
- Fractional set contains: 13 pcs., .050" to 3/8"

Order No. 3188-408

Price Each \$39.18 15

- Metric Set Model SDBLX9MXL
- Exclusive MaxTorque™ ball shape delivers 2x the torque of competitor ball end tools; 15° angle
- Metric set contains: 9 pcs., 1.5mm to 10mm

Order No. 3188-409

Price Each \$ 31.73 15

Balldrivers® & Fold-Up Sets



Balldriver® T-Handle Sets

- Solid steel handles
- Welded handle/blade connection
- Ergonomic handle design
- Flywheel effect saves time
- Smooth, non-porous handle coating
- Handle coating extends along blade ¹⁵



MODEL	DESCRIPTION	ORDER NO.	PRICE EACH
BTX10	3/32-3/8"	3188-221	\$80.60
BTX60	5/32-3/8"	3188-220	59.77
BTX10/S	3/32-3/8"+Stand	3188-336	85.95
BTX50M	4-10mm	3188-222	51.33
BTX80M	2-10mm	3188-223	66.05
BTX80M/S	2-10mm+Stand	3188-335	71.37



GorillaGrip® Fold-Up Hex Sets

- Handle is 40% stronger than steel handles
- Comfortable to hold, and does not conduct heat or cold
- 90° stop convert the tool into a non-stop, time saving, speed wrench ¹⁵



MODEL	DESCRIPTION	ORDER NO.	PRICE EACH
FHX5	5pc 3/16-3/8"	3188-290	\$14.55
FHX9	9pc 5/64-1/4"	3188-286	10.29
FHX9S	9pc .050-3/16"	3188-285	7.96
FHX7M	2, 2.5, 3, 4, 5, 6, 8mm	3188-288	11.04
FHX6M	3, 4, 5, 6, 8, 10mm	3188-291	15.44
FTX8S	TORX-T6, T7, T8, T9, T10, T15, T20, T25	3188-289	19.91
FTX8	TORX-T9, T10, T15, T20, T25, T27, T30, T40	3188-294	20.38



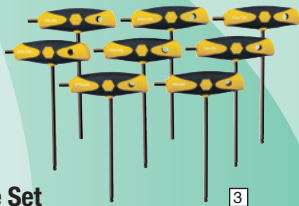
Metal Fold-Up Hex Wrenches



SIZE RANGE	NO. OF PIECES	ORDER NO.	PRICE EACH
5/64" - 1/4"	9	3188-311	\$9.20
1.5 - 6mm	7	3188-313	7.56



8-Pc. Inch SoftGrip Dual Drive Hex T-handle Set



DESCRIPTION	ORDER NO.	PRICE
8 Piece Set	7833-498	\$78.71



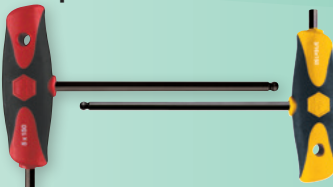
Balldriver® T-Handle Singles



SIZE (IN.)	LENGTH (IN.)	ORDER NO.	PRICE EACH
3/32*	6.1	3188-250	\$5.47
7/64*	6.8	3188-251	5.88
1/8*	7.6	3188-252	6.23
9/64*	8.3	3188-253	6.61
5/32	9.1	3188-254	7.18
3/16	9.8	3188-255	7.57
7/32	10.3	3188-256	8.90
1/4	10.8	3188-257	9.12
5/16	11.4	3188-258	13.97
3/8	11.8	3188-259	15.41
METRIC			
2.0*	5.9	3188-269	\$6.23
2.5*	6.8	3188-270	6.23
3.0*	7.7	3188-271	6.61
4.0	8.7	3188-272	7.56
5.0	9.7	3188-273	8.68
6.0	10.5	3188-274	9.42
8.0	11.2	3188-275	14.19
10.0	12.1	3188-276	15.56

*STRAIGHT HEX END TO PREVENT BREAKAGE

SoftGrip Dual Drive Hex T-handle



SIZE (IN.)	LENGTH (IN.)	ORDER NO.	PRICE EACH
5/64	5.9	7833-418*	\$6.78
3/32	5.9	7833-420*	6.77
7/64	5.9	7833-422*	7.05
1/8	5.9	7833-424*	7.01
9/64	5.9	7833-426*	7.03
5/32	5.9	7833-428	7.04
3/16	5.9	7833-430	7.87
7/32	5.9	7833-432	8.97
1/4	5.9	7833-433	10.36
5/16	7.9	7833-439	12.77
3/8	7.9	7833-440	17.74
METRIC (MM)			
2.0MM	150MM	7833-442*	\$6.78
2.5MM	150MM	7833-444*	6.83
3.0MM	150MM	7833-446*	7.55
4.0MM	150MM	7833-448	8.13
5.0MM	150MM	7833-450	9.75
6.0MM	150MM	7833-452	10.37
8.0MM	200MM	7833-454	15.12
10.0MM	200MM	7833-458	19.86

*No Ball - Standard Hex



8-Pc. Metric SoftGrip Dual Drive Hex T-handle Set



DESCRIPTION	ORDER NO.	PRICE
8 Piece Set In Vinyl Pouch	7833-496	\$83.97
Contains 1 each Hex T-Handle listed above		



ProHold® T-Handle Ballpoint Sets



- Holds screw tight on the tool EVERY TIME
- Button is non-magnetic
- Super smooth rotational action, with no interference from the ProHold® button
- ProHold® button doesn't compromise tool strength
- Solid steel handles
- Welded handle/blade connection ¹⁵

MODEL	DESCRIPTION	ORDER NO.	PRICE EACH
PBTX60	6 pc.(5/32-3/8)	3188-346	\$66.62
PBTX50M	5 pc.(4-10mm)	3188-347	56.96



Balldriver® Screwdriver Sets



- ComfortGrip ergonomically designed handle delivers maximum torque
- Handle shape prevents rolling on surfaces angled up to 15°
- Faster than ball end hex keys in assembly applications

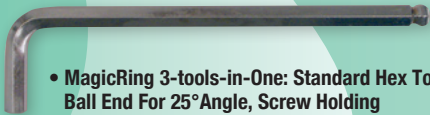
- Fractional set contains: 13 pcs., .050" to 3/8"
- Fractional Set Model BSX13
- Order No. 3188-184 \$76.83 ¹⁵

- Metric set contains: 9 pcs., 1.5mm to 10mm
- Metric Set Model BSX9M
- Order No. 3188-188 \$60.56 ¹⁵

Hex Keys

3

MagicRing Ball End Hex L-Key - Long - Metric



- MagicRing 3-tools-in-One: Standard Hex Tool, Ball End For 25°Angle, Screw Holding
- Spring Steel Compression Ring
- Securely Grips Inner Head Of Screw
- Allows free hand for work positioning

BLADE WIDTH/LENGTH SIZE	BLADE LENGTH (mm)	ORDER NO.	PRICE EACH
1.5*	90	7866-904	\$2.12
2.0*	99	7866-908	2.12
2.5*	111	7866-912	2.14
3.0	125	7866-916	4.88
4.0	138	7866-920	4.60
5.0	158	7866-924	5.22
6.0	178	7866-928	6.18
8.0	198	7866-936	8.70
10.0	221	7866-944	11.24

* Standard Ball - No Ring

22-Pc. Combination MagicRing L-Key Set in ProStar Holder

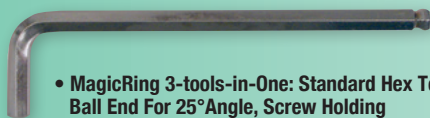


- Blade CVM steel, hardened, hard chromed.

DESCRIPTION	ORDER NO.	PRICE
22 Piece Combination Set Wt. 2.21 lbs. Contains 1 each MagicRing Long Ball End L-Keys: 1.5*, 2.0*, 2.5*, 3.0, 4.0, 5.0, 6.0, 8.0, 10.0mm .050*, 1/16*, 5/64*, 3/32*, 7/64*, 1/8, 9/64, 5/32, 3/16, 7/32, 1/4, 5/16, 3/8"	7866-992	\$119.97

* Standard Ball - No Ring

MagicRing Ball End Hex L-Key - Long - Fractional



- MagicRing 3-tools-in-One: Standard Hex Tool, Ball End For 25°Angle, Screw Holding
- Spring Steel Compression Ring
- Securely Grips Inner Head Of Screw
- Allows free hand for work positioning

BLADE WIDTH/LENGTH SIZE	BLADE LENGTH (INCH)	ORDER NO.	PRICE EACH
.050*	2.8	7866-945	\$2.06
1/16*	3.1	7866-946	2.05
5/64*	3.5	7866-947	2.07
3/32*	3.9	7866-950	2.06
7/64*	4.3	7866-952	2.48
1/8	4.6	7866-953	4.79
9/64	5.2	7866-955	5.03
5/32	5.7	7866-956	4.80
3/16	6.2	7866-959	5.03
7/32	6.7	7866-962	5.35
1/4	7.3	7866-965	7.50
5/16	8.0	7866-968	8.34
3/8	8.8	7866-971	11.31

* Standard Ball - No Ring

MagicRing Ball End Hex Long L-Key Set in ProStar Holder



DESCRIPTION	ORDER NO.	PRICE
9 Piece Metric Set Wt. .1.07 lbs. Contains 1 each MagicRing Long Ball End L-Keys (mm): 1.5, 2.0, 2.5, 3.0, 4.0, 5.0, 6.0, 8.0, 10.0	7866-990	\$55.97
13 Piece Inch Set Wt. 1.14 lbs. Contains 1 each MagicRing Long Ball End L-Keys: .050, 1/16, 5/64, 3/32, 7/64, 1/8, 9/64, 5/32, 3/16, 7/32, 1/4, 5/16, 3/8	7866-991	71.97

* Standard Ball - No Ring

Hex Keys

Fractional- Short Arm

2

BONDHUS						
HEX SIZE (IN)	BULK PER BOX	ORDER NO.	PRICE PER BOX	SM PACK QTY PER BOX	ORDER NO.	PRICE PER BOX
.028	100	3188-436	\$24.00	10	3188-410	\$3.92
.035	100	3188-437	24.00	10	3188-411	3.92
.050	100	3188-438	14.40	10	3188-412	2.88
1/16	100	3188-439	14.40	10	3188-413	2.88
5/64	100	3188-440	17.60	10	3188-414	3.04
3/32	100	3188-441	17.60	10	3188-415	3.04
7/64	100	3188-442	19.20	10	3188-416	3.20
1/8	100	3188-443	19.20	10	3188-417	3.20
9/64	100	3188-444	20.80	10	3188-418	3.60
5/32	100	3188-445	20.80	10	3188-419	3.60
3/16	100	3188-446	28.80	10	3188-420	4.40
7/32	50	3188-447	21.20	5	3188-421	2.88
1/4	50	3188-448	25.60	5	3188-422	3.48
5/16	50	3188-449	42.00	5	3188-423	5.24
3/8	50	3188-450	63.60	5	3188-424	7.72
7/16	50	3188-451	147.20	1	3188-425	3.60
1/2	50	3188-452	173.20	1	3188-426	4.26
9/16	25	3188-453	122.60	1	3188-427	5.84
5/8	20	3188-454	128.64	1	3188-428	7.57
3/4	15	3188-455	155.40	1	3188-429	12.03
7/8	-	-	-	1	3188-430	19.18
1"	-	-	-	1	3188-431	28.13
1-1/4	-	-	-	1	3188-432	80.58
1-1/2	-	-	-	1	3188-433	100.68
1-3/4	-	-	-	1	3188-434	192.41
2"	-	-	-	1	3188-435	258.34

Long Arm

2

BONDHUS						
HEX SIZE (IN)	BULK PER BOX	ORDER NO.	PRICE PER BOX	PACK QTY PER BOX	ORDER NO.	PRICE PER BOX
.028	100	3188-480	\$32.80	10	3188-456	\$5.44
.035	100	3188-481	32.80	10	3188-457	5.44
.050	100	3188-482	19.20	10	3188-458	3.20
1/16	100	3188-483	20.80	10	3188-459	3.68
5/64	100	3188-484	20.80	10	3188-460	3.68
3/32	100	3188-485	20.80	10	3188-461	3.68
7/64	100	3188-486	28.80	10	3188-462	4.40
1/8	100	3188-487	29.60	10	3188-463	4.56
9/64	100	3188-488	29.60	10	3188-464	4.56
5/32	100	3188-489	32.80	10	3188-465	5.12
3/16	100	3188-490	41.60	10	3188-466	5.44
7/32	50	3188-491	32.00	5	3188-467	4.12
1/4	50	3188-492	44.00	5	3188-468	5.60
5/16	50	3188-493	70.00	5	3188-469	8.36
3/8	50	3188-494	104.40	5	3188-470	11.08
7/16	25	3188-495	113.20	1	3188-471	5.13
1/2	25	3188-496	127.20	1	3188-472	5.82
9/16	10	3188-497	65.92	1	3188-473	7.61
5/8	10	3188-498	107.60	1	3188-474	11.95
3/4	5	3188-499	79.12	1	3188-475	17.37
7/8	-	-	-	1	3188-476	29.42
1"	-	-	-	1	3188-477	40.29
1-1/4	-	-	-	1	3188-478	160.16
1-1/2	-	-	-	1	3188-479	255.78



Metric Hex Keys

2

SHORT ARM							LONG ARM						
SIZE	BULK		PRICE	SM PACK		PRICE	BULK		PRICE	SM PACK		PRICE	
QTY PER	QTY PER	ORDER	PER	QTY PER	QTY PER	PER	QTY PER	ORDER	PER	QTY PER	ORDER	PER	
(MM)	BOX	NO.	BOX	BOX	NO.	BOX	BOX	NO.	BOX	BOX	NO.	BOX	
0.7mm	100	3188-527	\$24.00	10	3188-500	\$3.92	100	3188-576	\$32.80	10	3188-550	\$5.44	
0.9mm	100	3188-528	24.00	10	3188-501	3.92	100	3188-577	32.80	10	3188-551	5.44	
1.3mm	100	3188-529	14.40	10	3188-502	2.88	100	3188-578	19.20	10	3188-552	3.20	
1.5mm	100	3188-530	14.40	10	3188-503	2.88	100	3188-579	20.80	10	3188-553	3.68	
2.0mm	100	3188-531	17.60	10	3188-504	3.04	100	3188-580	20.80	10	3188-554	3.68	
2.5mm	100	3188-532	19.20	10	3188-505	3.04	100	3188-581	28.80	10	3188-555	4.40	
3.0mm	100	3188-533	19.20	10	3188-506	3.20	100	3188-582	28.80	10	3188-556	4.40	
3.5mm	100	3188-534	20.80	1	3188-507	0.36	100	3188-583	32.80	1	3188-557	0.51	
4.0mm	100	3188-535	20.80	10	3188-508	3.60	100	3188-584	32.80	10	3188-558	5.12	
4.5mm	100	3188-536	32.80	1	3188-509	0.44	100	3188-585	52.80	1	3188-559	0.76	
5.0mm	100	3188-537	32.80	5	3188-510	2.20	100	3188-586	52.80	5	3188-560	3.80	
5.5mm	50	3188-538	25.60	1	3188-511	0.70	50	3188-587	44.00	1	3188-561	1.10	
6.0mm	50	3188-539	25.60	5	3188-512	3.48	50	3188-588	44.00	5	3188-562	5.52	
7.0mm	50	3188-540	44.00	1	3188-513	1.10	50	3188-589	77.20	1	3188-563	1.78	
8.0mm	50	3188-541	44.00	5	3188-514	5.52	50	3188-590	77.20	5	3188-564	8.92	
9.0mm	50	3188-542	77.20	1	3188-515	1.78	50	3188-591	120.80	1	3188-565	2.82	
10.0mm	50	3188-543	77.20	5	3188-516	8.92	50	3188-592	120.80	5	3188-566	14.12	
11.0mm	50	3188-544	194.80	1	3188-517	4.56	25	3188-593	135.00	1	3188-567	6.06	
12.0mm	50	3188-545	194.80	1	3188-518	4.56	25	3188-594	135.00	1	3188-568	6.06	
14.0mm	25	3188-546	134.40	1	3188-519	6.26	10	3188-595	73.60	1	3188-569	8.06	
17.0mm	20	3188-547	119.04	1	3188-520	6.79	10	3188-596	104.32	1	3188-570	11.51	
19.0mm	15	3188-548	151.92	1	3188-521	11.51	5	3188-597	73.60	1	3188-571	15.99	
22.0mm	-	-	-	1	3188-522	26.85	-	-	-	1	3188-572	30.06	
24.0mm	-	-	-	1	3188-523	33.59	-	-	-	1	3188-573	42.18	
27.0mm	-	-	-	1	3188-524	67.18	-	-	-	-	-	-	
32.0mm	-	-	-	1	3188-525	80.58	-	-	-	1	3188-574	164.79	
36.0mm	-	-	-	1	3188-526	100.68	-	-	-	1	3188-575	268.59	



Straight Hex L-Wrench Sets

15

MODEL	DESCRIPTION	ORDER NO.	PRICE EACH
HLX8	8 pc.(.050-5/32)	3188-319	\$6.65
HLX12	12 pc.(.050-5/16)	3188-231	11.67
HLX13	13 pc.(.050-3/8)	3188-320	14.68
HLX10	10 pc.(1/16-1/4)	3188-321	8.11
HLX7	7 pc.(5/64-3/16)	3188-232	5.85
HLX6M	6 pc.(1.5-5mm)	3188-322	7.01
HLX15M	15 pc.(1.27-10mm)	3188-324	23.49
HLX9M	9 pc.(1.5-10mm)	3188-325	13.94
HLX22	22 pc. Multi Pack (HLX13, HLX9M)	3188-326	27.13

Hammers



Professional Nail Hammers - Full Octagon Hickory



- Full polished head with octagon neck and face
 - Top quality, full octagon white hickory handles
 - Triple wedged and epoxy sealed for "Sure-Lock" handle tightness
- Made in USA STD. PKG.: 4

1

MFG. NO.	LENGTH	HEAD WEIGHT (OZ.)	ORDER NO.	PRICE EACH
D016	13"	16	9543-080	\$25.70
D020	14"	20	9543-085	27.35



Professional Fiberglass Hammers - Full Octagon Curved Claw



- Full polished head with octagon neck and face
 - Patented hollow core fiberglass handle, absorbs shock
 - Steel wedged and epoxy sealed for "Sure-Lock" handle tightness
 - Slip-resistant grip, contoured for comfort
- Made in USA STD. PKG.: 4

1

MFG. NO.	LENGTH	HEAD WT. (OZ.)	ORDER NO.	PRICE EACH
FS16	13"	16	9543-081	\$29.55
FS20	14"	20	9543-086	31.95



Claw Hammers, Hardwood Handle



- Hardened and Tempered
- Drop Forged Alloy Steel Head, Fully Polished
- Epoxy Bonded, Hardwood Handle

3

WEIGHT (OZ.)	DESCRIPTION	ORDER NO.	PRICE EACH
8	claw hammer	7760-014	\$8.69



Claw Hammers, Fiberglass Handle



- Hardened and Tempered
- Drop Forged Alloy Steel Head, Fully Polished
- Epoxy Bonded, Fiberglass Handle

3

WEIGHT (OZ.)	DESCRIPTION	ORDER NO.	PRICE EACH
16	claw hammer	7760-330	\$13.34

Hammers



Ball Pein Hammers — Fiberglass Handle



- Exclusive Hollow Core fiberglass handle improves balance and absorbs shock
- Drop forged heat treated head
- Slip resistant cushioned grip
- Made in USA STD. PKG.: 4

1

MFG. NO.	LENGTH	HEAD WEIGHT (OZ.)	ORDER NO.	PRICE EACH
FS308	12-1/2"	8	9543-124	\$21.15
FS2012	13"	12	9543-125	26.35
FS016	13"	16	9543-126	27.55
FS224	14-1/2"	24	9543-127	30.20
FS432	14-3/4"	32	9543-128	32.25



Ball Pein Hammers — Steel Handle



- Patented "ShockBlok" plug absorbs shock and reduces vibration
- Made in USA STD. PKG.: 4

1

MFG. NO.	LENGTH	HEAD WEIGHT (OZ.)	ORDER NO.	PRICE EACH
R308	11-3/4"	8	9543-119	\$25.10
R2012	12"	12	9543-120	26.05
R016	13-3/4"	16	9543-121	26.95
R224	15-14"	24	9543-122	29.75
R432	15-3/4"	32	9543-123	31.65



Commercial Ball Pein Hammers Hickory Handle



- Drop forged heat treated head
- American hickory handle
- Made in USA STD. PKG.: 4

1

MFG. NO.	LENGTH	HEAD WEIGHT (OZ.)	ORDER NO.	PRICE EACH
TC504	10-1/4"	4	9543-110	\$13.55
TC308	11-3/4"	8	9543-111	14.00
TC2012	12"	12	9543-112	15.35
TC016	13-3/4"	16	9543-113	16.55
TC120	15"	20	9543-114	18.05
TC224	15-1/4"	24	9543-115	20.15
TC432	15-3/4"	32	9543-116	22.60
TC640	16"	40	9543-117	25.95
TC848	16"	48	9543-118	30.55



Ball Pein Hammers Fiberglass Handle



- Forged High Carbon Steel Head, Polished Striking Head & Pein
- Jacketed Fiberglass Handle w/Rubber Grip
- Meets or Exceeds ANSI Standards

3

WEIGHT (OZ.)	DESCRIPTION	ORDER NO.	PRICE EACH
16	—	7761-274	\$18.99
24	—	7761-276	23.91



Blacksmith Hammers — Fiberglass Handle



- Exclusive Hollow Core fiberglass handle improves balance and absorbs shock
- High impact overstrike guard
- Slip resistant cushioned grip
- Drop forged heat treated head
- Made in USA STD. PKG.: 4

1

MFG. NO.	LENGTH	HEAD WEIGHT (LB.)	ORDER NO.	PRICE EACH
S48F	10-3/4"	3	9543-149	\$29.80



Blacksmith Hammers — Hickory Handle



- Drop forged heat treated head
- American hickory handle
- Made in USA STD. PKG.: 4

1

MFG. NO.	LENGTH	HEAD WEIGHT (LB.)	ORDER NO.	PRICE EACH
S40	15-1/2"	2-1/2	9543-146	\$25.75
S48	16"	3	9543-147	27.00



Tinner's Riveting Hammers



- Flat striking face
- Rounded cross pein
- Exclusive Hollow Core fiberglass handle improves balance and absorbs shock
- Made in USA STD. PKG.: 4

1

MFG. NO.	LENGTH	HEAD WEIGHT (OZ.)	ORDER NO.	PRICE EACH
TR16F	12-1/2"	16	9543-131	\$27.55



Welder's Chipping Hammers



- Sharp 1" blade with back bevel
- Tapered point
- Drop forged head
- Flame treated American Hickory handle
- Made in USA

1

MFG. NO.	LENGTH	HEAD WEIGHT (OZ.)	ORDER NO.	PRICE EACH
WC12	11-1/4"	12	9543-132	\$21.55



Scaling Hammers



- Double beveled straight blade for removing scale
- Single beveled cross blade for removing flash
- Drop forged head
- Flame treated American Hickory handle
- Made in USA STD. PKG.: 4

1

MFG. NO.	LENGTH	HEAD WEIGHT (OZ.)	ORDER NO.	PRICE EACH
SC16	12-1/4"	16	9543-133	\$17.15

Hammers



Rubber Mallets



- Drop Forged head provides extra driving power
- Non-marring white and black tips
- American Hickory handle
- Made in USA • STD. PKG.: 4

MFG. NO.	LENGTH	HEAD WEIGHT (OZ.)	ORDER NO.	PRICE EACH
RM24	14"	24	9543-182	\$23.25

1



Split Head Hammers



- Patented head design allows quick face and handle change.
- Malleable iron heads provide uniform clamping.
- Extension collar transfers shock reducing used fatigue.
- Top quality hardwood handles. STD. PKG.: 4 (SH200, SH275: 2)

MFG. NO.	LENGTH	WEIGHT (LB.)	ORDER NO.	PRICE EACH
SH125	11"	1-1/2	9543-340	\$36.95
SH150	12"	2	9543-341	42.85
SH175	12-3/4"	3-1/4	9543-342	50.20
SH200	12-3/4"	4-1/2	9543-343	59.60
SH275	15-3/4"	7-1/2	9543-344	98.20

1



Nylon Face Hammers



- Molded one piece replaceable threaded faces.
- Supplied with two white nylon faces.
- Serrated head helps keep faces tight.
- Top quality hardwood handles.
- STD. PKG.: 4

1

MFG. NO.	LENGTH	HEAD WEIGHT (LB.)	ORDER NO.	PRICE EACH
NT100	10"	1/2	9543-321	\$22.10
NT125	11"	1	9543-322	24.55
NT150	11-1/4"	1-1/2	9543-323	28.35
NT175	12"	2	9543-324	33.60
NT200	13"	2-3/4	9543-325	47.55
NT250	14"	5-1/2	9543-326	64.05



Soft Face Hammers—Plastic Tip



- Forged Steel Head
- Press fitted replaceable tips
- Soft Red/Hard Yellow
- Flame Treated Hickory Handle
- Made in USA • STD. PKG.: 4

1

MFG. NO.	LENGTH	HEAD WEIGHT (OZ.)	ORDER NO.	PRICE EACH
SF6	10-1/2"	6	9543-176	\$18.70
SF12	12-1/2"	12	9543-177	20.80



Rawhide Mallets



- Compressed & seasoned rawhide ideal for non-marring applications
- Extra large striking face
- Hardwood handle
- STD. PKG.: 4 (RM250, RM275: 2)

1

MFG. NO.	LENGTH	APPROX. WEIGHT	ORDER NO.	PRICE EACH
RM100	10"	3 oz.	9543-333	\$18.05
RM125	10"	4 oz.	9543-334	22.05
RM150	10-3/4"	6 oz.	9543-335	30.30
RM175	12"	8 oz.	9543-336	34.35
RM200	12"	12 oz.	9543-337	38.40
RM250	13-1/2"	1-1/4 lbs.	9543-338	54.40
RM275	13-1/2"	1-1/2 lbs.	9543-339	62.75



Rubber Mallets



- Black Rubber Head
- Hardwood Handle

3

WEIGHT (OZ.)	ORDER NO.	PRICE EACH
8	7761-108	\$4.47
16	7761-116	6.30

Hammers



Double Face Hammers — Fiberglass Handle



- Exclusive Hollow Core fiberglass handle improves balance and absorbs shock
- High impact overstrike guard
- Drop forged heat treated head
- Slip resistant cushioned grip
- Made in USA STD. PKG.: 4

1

MFG. NO.	LENGTH	HEAD WEIGHT (LB.)	ORDER NO.	PRICE EACH
SDF48F	15-1/4"	3	9543-153	\$26.55
SDF64F	15-1/2"	4	9543-154	32.45



Double Face Hammers — Hickory Handle



- Drop forged, heat treated head
- American hickory handle
- Made in USA
- STD. PKG.: 4

1

MFG. NO.	LENGTH	HEAD WEIGHT (LB.)	ORDER NO.	PRICE EACH
SDF40	15-1/2"	2-1/2	9543-150	\$25.20
SDF48	16"	3	9543-151	26.85



Hand Drilling Hammers



- 3 lb. Forged Steel Head provides extra driving power for greater impact
- Patented shock absorbing plug ergonomically designed to reduce vibration transfer to user's arm, wrist and elbow
- Cushioned PVC Grip for extra comfort
- Designed for striking star drills, cold chisels, brick chisels and punches.
- Made in USA

1

MFG. NO.	LENGTH	HEAD WEIGHT (LB.)	ORDER NO.	PRICE EACH
RHD3	10-1/4"	3	9543-190	\$35.35



Dead-Blow Hammers, Standard Head



- Shot Filled Canister
- Hot Cast Urethane with Steel Reinforced Handle
- Will not spark or mar surfaces • Resists chipping and splitting

3

OVERALL LENGTH	HEAD DIA.	HEAD WT. (OZ.)	WEIGHT (OZ.)	ORDER NO.	PRICE EACH
10.125"	1.25"	7	13	7569-530	\$45.55
11.250"	1.75"	11	21	7569-531	53.15
12.750"	2"	16	26	7569-532	60.74
14.375"	2.25"	30	45	7569-533	75.93
15.250"	2.75"	38	53	7569-534	95.68



Dead Blow Hammers, Sledge Head One-Piece



3

OVERALL LENGTH	HEAD DIA.	HEAD WT. (OZ.)	WEIGHT (LBS.)	ORDER NO.	PRICE EACH
20"	2.75"	3.65	5.5	7569-550	\$167.07
30"	2.75"	3.65	9	7569-551	194.41
30"	3.25"	6.65	10.5	7569-552	273.40
36"	3.25"	6.65	12	7569-554	303.78

Punches



Center Punch Knurled Body - Round Head



Marking work by indentation for starting drills in metal and other materials.

POINT EDGE	BODY DIA.	OAL	ORDER NO.	PRICE EACH
1/16"	1/4"	3"	3109-104	\$2.54
5/64"	5/16"	4"	3109-105	2.80
3/32"	5/16"	4"	3109-106	2.93
1/8"	5/16"	4"	3109-108	1.57
5/32"	3/8"	4"	3109-110	3.19
3/16"	3/8"	4"	3109-112	1.90
1/4"	7/16"	5"	3109-116	2.20
5 PIECE SET				
1/16", 5/64", 3/32", 1/8", 5/32"				3109-954 \$8.03

Drive Pin Punch 4" Knurled Body



Driving and removing such things as pins and keys after initial movement by a starting punch.

					
POINT EDGE	BODY DIA.	PIN LG'TH	OAL	ORDER NO.	PRICE EACH
1/16"	1/4"	3/4"	4"	3109-134	\$2.34
3/32"	1/4"	3/4"	4"	3109-136	2.34
1/8"	1/4"	7/8"	4"	3109-138	2.34
5/32"	1/4"	7/8"	4"	3109-140	2.34
3/16"	5/16"	1"	4"	3109-142	2.34
7/32"	5/16"	1"	4"	3109-144	2.34
1/4"	3/8"	1"	4"	3109-146	2.34
5/16"	7/16"	1"	4"	3109-150	2.34
8 PIECE SET					
1/16", 3/32", 1/8", 5/32", 3/16", 7/32", 1/4", 5/16"				3109-956	\$12.12

Drive Pin Punch 8" Knurled Body



Driving and removing such things as pins and keys after initial movement by a starting punch.

					
POINT EDGE	BODY DIA.	PIN LG'TH.	OAL	ORDER NO.	PRICE EACH
1/16"	3/8"	3-1/2"	8"	3109-174	\$2.70
3/32"	3/8"	3-1/2"	8"	3109-176	2.70
1/8"	3/8"	3-1/2"	8"	3109-178	3.71
5/32"	3/8"	3-1/2"	8"	3109-180	2.70
3/16"	1/2"	3-1/2"	8"	3109-182	3.07
1/4"	1/2"	3-1/2"	8"	3109-186	3.07
5/16"	1/2"	3-1/2"	8"	3109-190	3.07
3/8"	1/2"	3-1/2"	8"	3109-194	3.07
SETS					
5 pc.: 1/8", 3/16", 1/4", 5/16", 3/8"				3109-958	\$14.93
8 pc.: (1 of each size)				3109-959	22.28

Center Punches Hex Body



Marking work by indentation for starting drills in metal and other materials.

POINT EDGE	BODY DIA.	OAL	ORDER NO.	PRICE EACH
5/64"	1/4"	3-1/2"	3109-215	\$1.13
1/8"	5/16"	4-1/4"	3109-218	1.90
5/32"	3/8"	5"	3109-220	2.10
1/4"	1/2"	6"	3109-226	2.70
3/8"	5/8"	6-1/4"	3109-234	4.00
5 PIECE SET				
5/64", 1/8", 5/32", 1/4", 3/8"				3109-960 \$12.68

Pin Punches Hex Body



Driving and removing such things as pins and keys after initial movement by a starting punch.

					
POINT EDGE	BODY DIA.	PIN LG'TH	OAL	ORDER NO.	PRICE EACH
1/16"	1/4"	3/4"	4"	3109-254	\$1.30
3/32"	5/16"	1"	4-1/2"	3109-256	1.77
1/8"	5/16"	1"	4-3/4"	3109-258	1.77
5/32"	5/16"	1"	5"	3109-260	1.77
3/16"	3/8"	1-1/8"	5-1/4"	3109-262	2.20
7/32"	3/8"	1-1/4"	5-1/2"	3109-264	2.20
1/4"	3/8"	1-1/4"	5-3/4"	3109-266	2.20
5/16"	7/16"	1-3/8"	6"	3109-270	2.40
7 PIECE SET					
1/16", 3/32", 1/8", 5/32" 3/16", 7/32", 1/4"				3109-962	\$15.67

Pin Punches, Extra Long - Hex Body



Pin punch for use where an extra length is needed.

					
POINT EDGE	BODY DIA.	PIN LG'TH	OAL	ORDER NO.	PRICE EACH
1/8"	5/16"	3-1/2"	8"	3109-308	\$2.03
3/16"	3/8"	3-1/2"	8"	3109-312	2.40
1/4"	3/8"	3-1/2"	8"	3109-316	2.40
5/16"	7/16"	3-1/2"	8"	3109-320	2.70
3/8	1/2"	3-1/2"	8"	3109-324	3.03
5 PIECE SET					
1/8", 3/16", 1/4", 5/16", 3/8"				3109-964	\$13.45

Punches & Chisels



Taper Line Up/Drift Punches Hex Body



Aligning and sizing holes in light gauge metal and other materials.

POINT EDGE	BODY DIA.	TAPER	OAL	ORDER NO.	PRICE EACH
1/8"	5/16"	3-1/2"	8"	3109-338	\$2.03
5/32"	3/8"	4-1/4"	9"	3109-340	3.03
3/16"	1/2"	6-1/2"	10"	3109-342	4.77
7/32"	1/2"	6-1/2"	10"	3109-344	4.77
1/4"	5/8"	7-1/2"	12"	3109-346	6.20
5/16"	3/4"	7-1/2"	12"	3109-350	7.47
3/8"	3/4"	8"	15"	3109-354	9.20
1/2"	7/8"	9-1/2"	18"	3109-362	11.41
7 PIECE SET					
1/8", 5/32", 3/16", 7/32", 1/4", 5/16", 3/8"					3109-951 38.87

Aligning Punch Set 4 Piece - Knurled Body



For aligning and sizing holes in light gauge metal and other materials. Pouch included.

Includes sizes:

1/8" tip x 7" OAL, 3/16" tip x 9" OAL
1/4" tip x 10" OAL, 5/16" tip x 12" OAL

Order No. 3109-950 Price Each: \$15.80

Solid/Starter Punches Hex Body



Loosening frozen or tight pins and keys, or knocking out rivets.

POINT EDGE	BODY DIA.	PIN LG'TH.	OAL	ORDER NO.	PRICE EACH
1/16"	3/8"	1-3/4"	5"	3109-374	\$2.03
3/32"	3/8"	1-3/4"	5"	3109-376	2.03
1/8"	3/8"	1-3/4"	5"	3109-378	2.03
5/32"	3/8"	2-1/4"	5"	3109-380	2.03
3/16"	3/8"	2-1/4"	5"	3109-382	2.03
1/4"	3/8"	2-1/8"	5"	3109-386	2.03
5/16"	1/2"	2"	6"	3109-390	2.67
3/8"	5/8"	2-1/4"	6-1/2"	3109-394	3.93
1/2"	5/8"	2-1/2"	7"	3109-398	4.13
6 PIECE SET					
3/32", 1/8", 5/32", 3/16", 1/4", 5/16"					3109-966 13.81

Prick Punches Hex Body



Marking by small indentation along drawn or scribed lines in layout work. Also for piercing holes in light gauge metal and other materials.

POINT EDGE	BODY DIA.	OAL	ORDER NO.	PRICE EACH
5/64"	1/4"	3"	3109-405	\$1.27
5/32"	3/8"	5"	3109-410	2.17
1/4"	1/2"	6"	3109-416	3.03

Automatic Center Punch



Adjustable center punch for light-to-heavy markings. Marking punch force can be regulated by rotating the threaded screw

TAP DIA.	BODY DIA.	OAL	ORDER NO.	PRICE EACH
1/8"	1/2"	5"	3109-952	\$6.03
1/8"	5/8"	5-1/2"	3109-953	7.95

Cold Chisels



Cutting, shaping, and removing metal softer than the cutting edge itself.

CUTTING EDGE	BODY DIA.	OAL	ORDER NO.	PRICE EACH
1/4"	1/4"	5"	3109-604	\$1.27
5/16"	1/4"	5"	3109-605	1.27
3/8"	5/16"	5-1/2"	3109-606	1.57
1/2"	7/16"	6"	3109-608	2.00
5/8"	1/2"	6-1/2"	3109-610	2.57
3/4"	5/8"	7"	3109-612	3.50
7/8"	3/4"	7-1/2"	3109-614	5.17
1"	7/8"	8"	3109-616	6.13
6 PIECE SET				
1/4", 5/16", 3/8", 1/2", 5/8, 3/4"				

Extra Long Cold Chisels



Same outstanding features as Cold Chisels, but with extra long overall size.

CUTTING EDGE	BODY DIA.	OAL	ORDER NO.	PRICE EACH
1/2"	7/16"	12"	3109-638	\$3.23
5/8"	1/2"	12"	3109-640	3.93
3/4"	5/8"	12"	3109-642	5.30
7/8"	3/4"	12"	3109-644	6.53
1"	3/4"	12"	3109-646	7.80
3/4"	5/8"	18"	3109-664	7.17
1"	3/4"	18"	3109-666	10.25

Floor Chisels



Blade is tempered to cut nails. Thin blade allows cutting tongues off floor board and lifting them without marring surface.

POINT EDGE	BODY DIA.	OAL	ORDER NO.	PRICE EACH
2-1/2"	3/4"	9"	3109-682	\$6.83
3"	3/4"	12"	3109-684	10.47

Punches & Chisels



16 Piece - Hex Body Punch & Chisel Kit



- Set Includes:
- Cold Chisels (5): 1/4", 1/2", 5/8", 3/4", 1"
- Punches (11): Prick (1): 5/32", Center (2): 5/32", 1/4"
- Pin (5): 3/32", 1/8", 5/32", 3/16", 1/4"
- Drift (3): 1/8", 5/32", 3/16"

Order No. 3109-700 Price Each \$54.60

14 Piece - Hex Body Punch & Chisel Kit



- Set Includes:
- Cold Chisels (5): 3/8", 1/2", 5/8", 3/4", 7/8"
- Punches (9): Center (2): 5/32", 1/4"
- Line-up (2): 1/8", 5/32"
- Pin (3): 1/16", 1/8", 3/16"
- Solid (2): 5/16", 1/8"

Order No. 3109-705 Price Each \$39.97

26 Piece - Hex Body Punch & Chisel Kit



- Set Includes:
- Plastic pouch
- Cold Chisels (9): 1/4", 5/16", 3/8", 1/2", 5/8", 3/4", 7/8", 1", 1 1/2" x 12"
- Punches (17): Prick (1): 3/8"
- Center (3): 5/32", 1/4", 3/8"
- Pin (6): 3/32", 1/8", 5/32", 3/16", 7/32", 1/4"
- Drift (3): 1/8", 3/16", 1/4"
- Starting (4): 1/16", 1/8", 3/16", 1/4"

Order No. 3109-715
Price Each \$72.77

24 Piece - Hex Body - Punch & Chisel Kit



- Set Includes:
- Cold Chisels (7): 1/4", 5/16", 3/8", 1/2", 5/8", 3/4", 7/8"
- Punches (17): Center (3): 5/64", 5/32", 1/4"
- Pin (7): 1/16", 3/32", 1/8", 5/32", 3/16", 1/4", 5/16"
- Solid (6): 1/16", 1/8", 5/32", 3/16", 1/4", 5/16"
- Auto Center Punch (1)

Order No. 3109-710 Price Each \$62.20

TruPunch™ Punch & Die Set

FEATURES:

- Nine (9) punch sizes: 1/8", 3/16", 1/4", 5/16", 3/8", 7/16", 1/2", 5/8", 3/4"
- Eight (8) I.D. sizes: 1/8", 3/16", 1/4", 5/16", 3/8", 7/16", 1/2", 5/8"
- Precision Brand TruPunch™ makes perfect, custom washers, shims, and gaskets in seconds
- Eliminates time and material wasted with conventional punch & dies
- The base and punches are made of a hardened and A2 steel
- Exclusive, patented punch, pilot and pin system
- No guess work needed to center the I.D.
- Packaged in a durable plastic case

Order No.: 3238-672 Price Each: \$425.80



- How to use the TruPunch® by PRECISION BRAND:
1. Punch the I.D. hole first
 2. Attach the appropriate I.D. pilot to the O.D. punch
 3. Move the material so the I.D. hole is beneath the O.D. guide
 4. Insert the O.D. punch so that the I.D. pilot moves into the I.D. hole, which should automatically center the material. Make sure the O.D. punch is pushed completely through the plastic top and is touching the material
 5. Strike the punch squarely with enough force to penetrate the material with one blow

"THE BIG" TruPunch™ Punch & Die Set

FEATURES:

- Four (4) punch sizes: 7/8", 1", 1-1/8", 1-1/4"
- Four (4) I.D. pilot sizes: 3/4", 7/8", 1", 1-1/8"
- "THE BIG" TruPunch™ makes perfect, custom washers, shims, and gaskets in seconds, and can accommodate up to 1-1/4" O.D.
- Works in conjunction with PRECISION BRAND's TruPunch® I.D. pilots
- are interchangeable to allow for 77 O.D. and I.D. shim combinations
- Cut brass, copper, aluminum, rubber, and plastic effortlessly up to .020" thick. Cuts steel up to .015" thick.
- Cut stainless and blue tempered shim up to .010" thick

Order No.: 3238-675 Price Each: \$566.16



Punches & Chisels

Transfer Punch Sets



28 Pc. Set:
3/32" thru 1/2"
by 64ths & 17/32

Order No. 3254-000
Price Each: \$29.05



33 Pc. Set:
1/2" thru 1" by 64ths

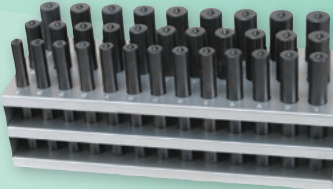
Order No. 3254-001
Price Each: \$165.62

Spellmaco® Transfer Punches



28 Pc. Set

3/32" thru 1/2" by 64ths & 17/32
Order No. 3254-901 Price Each: \$102.60



33 Pc. Set

1/2" thru 1"
Order No. 3254-902 Price Each: \$349.65

Transfer Punches – Individual Sizes

Transfer punches are used to mark the center of an existing hole onto a workpiece below.



SIZE	ORDER NO.	PRICE EACH	SIZE	ORDER NO.	PRICE EACH	SIZE	ORDER NO.	PRICE EACH
1/16	3254-004	\$2.57	27/64	3254-027	\$2.65	25/32	3254-050	\$7.31
5/64	3254-005	2.57	7/16	3254-028	2.65	51/64	3254-051	7.39
3/32	3254-006	1.95	29/64	3254-029	3.30	13/16	3254-052	7.46
7/64	3254-007	1.95	15/32	3254-030	3.30	53/64	3254-053	7.52
1/8	3254-008	1.95	31/64	3254-031	3.30	27/32	3254-054	7.57
9/64	3254-009	1.95	1/2	3254-032	3.30	55/64	3254-055	7.64
5/32	3254-010	1.95	33/64	3254-033	5.03	7/8	3254-056	7.72
11/64	3254-011	1.95	17/32	3254-034	3.30	57/64	3254-057	7.79
3/16	3254-012	1.95	35/64	3254-035	5.70	29/32	3254-058	7.98
13/64	3254-013	1.95	9/16	3254-036	5.98	59/64	3254-059	8.04
7/32	3254-014	1.95	37/64	3254-037	6.05	15/16	3254-060	8.11
15/64	3254-015	1.95	19/32	3254-038	6.11	61/64	3254-061	8.17
1/4	3254-016	1.95	39/64	3254-039	6.17	31/32	3254-062	8.24
17/64	3254-017	2.20	5/8	3254-040	6.24	63/64	3254-063	8.33
9/32	3254-018	2.20	41/64	3254-041	6.30	1	3254-064	8.39
19/64	3254-019	2.20	21/32	3254-042	6.37	1-1/32	3254-066	8.71
5/16	3254-020	2.20	43/64	3254-043	6.44	1-1/16	3254-068	9.06
21/64	3254-021	2.20	11/16	3254-044	6.52	1-3/32	3254-070	10.25
11/32	3254-022	2.20	45/64	3254-045	6.85	1-1/8	3254-072	12.23
23/64	3254-023	2.20	23/32	3254-046	6.92	1-3/16	3254-076	15.17
3/8	3254-024	2.65	47/64	3254-047	6.98	1-1/4	3254-080	18.16
25/64	3254-025	2.65	3/4	3254-048	7.12			
13/32	3254-026	2.65	49/64	3254-049	7.25			

1.0mm thru 13.0 by .5mm
Order No. 3254-903
Price Each: \$148.16



A to Z
Order No. 3254-905
Price Each: \$135.36



No. 1 thru 60
Order No. 3254-904
Price Each: \$168.60



GENERAL® Extra Long Drive Pin Punches

- Made of tool steel, hardened and centerless ground.
- Knurled body is 4-1/2" long and the drive pin section 3-1/2" long.
- For use on work not accessible with shorter punches.
- Set contains five punches, one of each of 1/8, 3/16, 1/4, 5/16, & 3/8, in a vinyl case.
- Conforms to government specifications GGG-P-831E.



MODEL	CAPACITY	ORDER NO.	PRICE
SPC76	1/8", 3/16", 1/4", 5/16", 3/8"	6931-050	\$40.76

GENERAL® Hollow Steel Punches

- For punching holes in leather, rubber, canvas, cardboard, plastic and other materials.
- Made of forged steel with side clearance hole for easy removal of punched material.
- The 1280ST, which consists of six punches, 3/16", 1/4", 5/16", 3/8", 7/16" and 1/2", comes in a plastic roll pouch.



MFG. NO.	ORDER NO.	PRICE
1280ST	6943-896	\$48.29

GENERAL® Steel Automatic Center Punch



- For making lighter markings than Heavy Duty Punch No. 78.
- Black oxide finish inhibits rust.
- All steel 5" body with threaded, replaceable hardener steel point and shaft.
- Body diameter is 1/2".

MODEL	ORDER NO.	PRICE
79	6931-072	\$30.44
79P Replacement point	6931-078	4.44

GENERAL® Pocket Automatic Center Punch



- Punches, marks, scribes and starts nail or screw holes.
- Lightweight aluminum body with replaceable alloy steel point for long wear.
- Adjusts for light or heavy markings.
- Pencil slim design with pocket clip.

MODEL	ORDER NO.	PRICE
87	6931-108	\$20.73
87P Replacement point	6931-110	3.76

GENERAL® Ball Bearing Automatic Center Punch



- Unique ball bearing action.
- Lightweight aluminum body with long wearing alloy steel parts.
- Body diameter 5/8"; overall length 5".
- All steel solid point is replaceable.

MODEL	ORDER NO.	PRICE
77 Automatic Center Punch	6931-062	\$22.40

American Pattern Files

Quality Import

Flat Files



Used primarily by machinists and repair people whenever rapid stock removal is desired. Both sides are double cut.

SIZE	W.	THK.	BASTARD CUT		QUALITY IMPORT SECOND CUT		SMOOTH CUT	
			ORDER NO.	PRICE EACH	ORDER NO.	PRICE EACH	ORDER NO.	PRICE EACH
4	15/32	5/64	3620-001	\$ 4.95	3620-010	\$ 4.95	3620-020	\$ 6.30
6	5/8	5/32	3620-002	4.95	3620-011	5.40	3620-021	6.30
8	25/32	7/32	3620-003	6.75	3620-012	7.20	3620-022	8.10
10	31/32	1/4	3620-004	9.00	3620-013	9.45	3620-023	10.35
12	1-5/32	9/32	3620-005	13.50	3620-014	14.40	3620-024	15.30
14	1-11/32	5/16	3620-006	17.55	3620-015	18.45	3620-025	19.80
16	-	-	-	-	-	-	3620-026	18.10

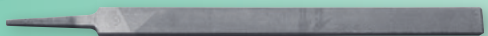
Hand Files



Used primarily for rapid metal removal on sharp corners, shoulders, and flat surfaces. This double cut file is similar to the Flat file without the taper. It offers one safety edge which reduces damage to the workpiece when filing up to a corner. Double cut top and bottom, one edge single cut, one edge is safe.

SIZE	BASTARD CUT		SECOND CUT		SMOOTH CUT	
	ORDER NO.	PRICE EACH	ORDER NO.	PRICE EACH	ORDER NO.	PRICE EACH
6	3619-061	\$4.95	3619-071	\$5.40	3619-081	\$6.30
8	3619-062	6.75	3619-072	7.20	3619-082	8.10
10	3619-063	8.55	3619-073	9.45	3619-083	10.35
12	3619-064	12.60	3619-074	14.40	3619-084	15.30

Pillar Files



These files are parallel in width and tapered in thickness to make perfectly flat filing possible. Double cut top and bottom- both edges are safe.

SIZE	BASTARD CUT		SECOND CUT		SMOOTH CUT	
	ORDER NO.	PRICE EACH	ORDER NO.	PRICE EACH	ORDER NO.	PRICE EACH
6	3620-150	\$3.85	-	-	-	-
8	3620-151	5.20	-	-	3620-171	\$6.60
10	3620-152	7.55	3620-162	\$8.40	-	-

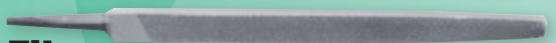
Square Files



For filing slots, keyways & square holes. 4 filing surfaces & slightly tapered to the point.

SIZE	BASTARD CUT		SECOND CUT		SMOOTH CUT	
	ORDER NO.	PRICE EACH	ORDER NO.	PRICE EACH	ORDER NO.	PRICE EACH
4	3620-060	\$ 5.40	3620-070	\$ 5.85	3620-080	\$ 3.70
6	3620-061	5.85	3620-071	6.30	3620-081	6.30
8	3620-062	6.30	3620-072	6.75	3620-082	7.65
10	3620-063	9.00	3620-073	9.00	3620-083	9.45
12	3620-064	12.60	3620-074	9.15	3620-084	10.55
14	-	-	-	-	3620-085	13.00

Three Square Files



File of choice by machinists when filing angles more acute than 90°, cleaning out corners, and filing taps and cutters. Double cut on all three sides.

LG'TH.	W.	BASTARD CUT		SECOND CUT		SMOOTH CUT	
		ORDER NO.	PRICE EACH	ORDER NO.	PRICE EACH	ORDER NO.	PRICE EACH
4	-	3620-120	\$ 5.85	3620-130	\$ 6.30	3620-140	\$ 4.75
6	15/32	3620-121	6.30	3620-131	6.75	3620-141	6.75
8	5/8	3620-122	8.10	3620-132	9.00	3620-142	9.00
10	3/4	3620-123	11.25	3620-133	11.70	3620-143	12.60
12	-	3620-124	16.65	3620-134	12.20	3620-144	18.45
14	-	3620-125	14.65	-	-	-	-

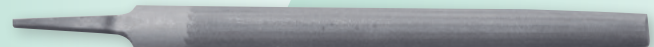
Knife Files



File of choice by tool and die makers for filing keyways, slots, and acute angles. Both sides are double cut, top edge is safe, knife edge is single cut.

SIZE	W.	THK.	BASTARD CUT		QUALITY IMPORT SECOND CUT		SMOOTH CUT	
			ORDER NO.	PRICE EACH	ORDER NO.	PRICE EACH	ORDER NO.	PRICE EACH
4	15/32	7/64	3620-180	\$ 5.15	3620-190	\$ 5.75	3620-200	\$ 9.00
6	21/32	5/32	3620-181	8.10	3620-191	8.10	3620-201	9.45
8	27/32	3/16	3620-182	9.90	3620-192	9.90	3620-202	11.25
10	1-1/32	1/4	3620-183	13.05	3620-193	13.95	3620-203	14.40

Half Round Files



Popular with foundries and machinists, the half round file is good for quick material removal, while leaving a smooth finish. Used for filing convex, concave, and flat surfaces, as well as rounding out holes. Double cut, both sides.

SIZE	W.	THK.	BASTARD CUT		QUALITY IMPORT SECOND CUT		SMOOTH CUT	
			ORDER NO.	PRICE EACH	ORDER NO.	PRICE EACH	ORDER NO.	PRICE EACH
4	7/16	1/8	3620-030	\$ 6.75	3620-040	\$ 7.20	3620-050	\$ 8.10
6	19/32	5/32	3620-031	8.10	3620-041	8.55	3620-051	9.00
8	3/4	7/32	3620-032	9.90	3620-042	10.80	3620-052	11.70
10	15/16	9/32	3620-033	13.05	3620-043	15.30	3620-053	15.75
12	1-1/8	11/32	3620-034	19.80	3620-044	21.15	3620-054	22.50
14	1-9/32	13/32	3620-035	24.75	3620-045	17.00	3620-055	19.30
16	-	-	3620-036	20.60	-	-	-	-

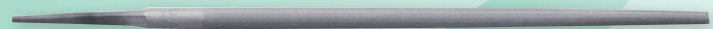
Mill Files



Where a smooth finish is desired, a Mill file is the file of choice. The Mill file has many applications such as sharpening saws and tools, finishing metal, lathe work, draw filing, and general shop use. All sides are single cut.

SIZE	W.	THK.	BASTARD CUT		QUALITY IMPORT SECOND CUT		SMOOTH CUT	
			ORDER NO.	PRICE EACH	ORDER NO.	PRICE EACH	ORDER NO.	PRICE EACH
4	7/16	5/64	3620-210	\$ 4.50	3620-220	\$ 4.50	3620-230	\$ 5.40
6	19/32	7/64	3620-211	4.50	3620-221	4.95	3620-231	5.85
8	25/32	9/64	3620-212	5.85	3620-222	6.30	3620-232	6.75
10	31/32	11/64	3620-213	7.65	3620-223	8.10	3620-233	9.00
12	1-5/32	7/32	3620-214	10.35	3620-224	10.80	3620-234	11.25
14	1-5/16	1/4	3620-215	13.95	3620-225	9.70	3620-235	16.20

Round Files



When holes need enlarging, and corners need rounding, a round file is the solution. This file tapers, making it adaptable to a variety of hole sizes.

SIZE	DIA.	BASTARD CUT		QUALITY IMPORT SECOND CUT		SMOOTH CUT	
		ORDER NO.	PRICE EACH	ORDER NO.	PRICE EACH	ORDER NO.	PRICE EACH
4	5/32	3620-090	\$ 4.95	3620-100	\$ 4.95	3620-110	\$ 4.95
6	7/32	3620-091	4.95	3620-101	4.95	3620-111	5.40
8	5/16	3620-092	6.30	3620-102	6.30	3620-112	6.30
10	3/8	3620-093	8.10	3620-103	8.10	3620-113	8.55
12	1/2	3620-094	11.70	3620-104	11.70	3620-114	12.60
14	5/8	3620-095	16.20	-	-	3620-115	11.90
16	-	3620-096	13.30	-	-	-	-

Grobet Swiss Pattern Precision Files



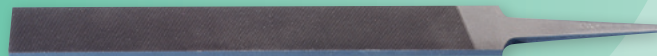
Regular Pillar Files

Parallel in width and tapered in thickness, for perfectly flat filing.
Double cut top and bottom - both edges are safe.

SIZE	WIDTH	THICK- NESS	#0 CUT		#2 CUT	
			ORDER NO.	PRICE EACH	ORDER NO.	PRICE EACH
4	3/8	1/8	3619-245	\$ 30.50	3619-255	\$ 33.00
6	1/2	11/64	3619-246	36.00	3619-256	37.50
8	19/32	13/64	3619-247	45.50	3619-257	47.00
10	23/32	15/64	3619-248	62.50	-	-
12	25/32	9/32	3619-249	80.00	-	-

Hand Files

A general purpose file, parallel in width and tapered in thickness. Sides are double cut - single cut one edge, safe on the other edge. No. 4 cut safe on both edges.



SIZE	WIDTH	THICK- NESS	#0 CUT		#2 CUT	
			ORDER NO.	PRICE EACH	ORDER NO.	PRICE EACH
4	17/32	1/8	3619-279	\$ 28.50	3619-289	\$ 31.00
6	3/4	5/32	3619-280	33.50	3619-290	36.00
8	29/32	3/16	3619-281	42.00	3619-291	45.00
10	1	1/4	3619-282	57.50	3619-292	62.00
12	1-3/16	5/16	3619-283	49.70	-	-

Half Round Files

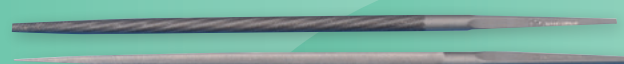
Tapered in width and thickness, coming to a point. Double cut on both sides.



SIZE	WIDTH	THICK- NESS	#0 CUT		#2 CUT	
			ORDER NO.	PRICE EACH	ORDER NO.	PRICE EACH
4	15/32	9/64	3619-320	\$ 45.00	3619-332	\$ 50.50
6	19/32	3/16	3619-321	55.00	3619-333	59.00
8	13/16	15/64	3619-322	75.50	3619-334	81.50
10	1	19/64	3619-323	103.50	-	-

Round Files

Gradually tapered and workable to the point. Used where it is necessary to enlarge a hole, or round off a radius. Double cut.



SIZE	DIA. (IN.)	#0 CUT		#2 CUT	
		ORDER NO.	PRICE EACH	ORDER NO.	PRICE EACH
4	5/32	3619-362	25.50	3619-372	\$ 26.50
6	1/4	3619-363	26.50	3619-374	31.00
8	5/16	3619-364	35.00	3619-375	42.50

Equalling Files

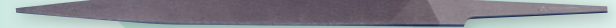
Parallel in width and thickness. Used primarily for filing slots and corners. Double cut top and bottom - both edges are single cut.



SIZE	WIDTH	THICK- NESS	#0 CUT		#2 CUT	
			ORDER NO.	PRICE EACH	ORDER NO.	PRICE EACH
4	13/32	5/64	3619-394	\$ 34.50	3619-397	\$ 37.00
6	1/2	7/64	3619-395	40.50	3619-398	44.00
8	21/32	1/8	3619-396	55.50	3619-399	60.00

Warding Files

Parallel in thickness and tapered in width. Useful for removal of burrs. Double cut top and bottom, both edges single cut.



SIZE	WIDTH	THICK- NESS	#0 CUT		#2 CUT	
			ORDER NO.	PRICE EACH	ORDER NO.	PRICE EACH
4	23/64	1/32	3619-408	\$ 33.00	3619-412	\$ 35.50
6	1/2	3/64	3619-409	39.00	3619-413	42.00
8	7/8	7/64	-	-	3619-414	37.25

Knife Files

Tapered in width and thickness, with the knife edge having the same thickness from point to shoulder. The included angle of the sharp edge is approx. 10°. Generally used to file in a slot or wedge shaped opening. Curved knife edge allows for easy filing in restricted areas. Both sides double cut, top edge safe, knife edge is single cut.



SIZE	WIDTH	THICK- NESS	#0 CUT		#2 CUT	
			ORDER NO.	PRICE EACH	ORDER NO.	PRICE EACH
4	15/32	1/8	-	-	3619-429	\$ 41.50
6	23/32	5/32	3619-424	\$ 45.00	3619-430	49.00
8	7/8	13/64	3619-425	62.50	3619-431	67.00

Three Square Files

Gradually tapered, cut, and workable to the point. Double cut on all three sides.



SIZE	WIDTH	#0 CUT		#2 CUT	
		ORDER NO.	PRICE EACH	ORDER NO.	PRICE EACH
4	9/32	3619-439	\$ 31.00	3619-447	\$ 35.00
6	3/8	3619-440	36.50	3619-448	39.00
8	1/2	3619-441	50.00	3619-449	53.50

Square Files

General purpose file, cut and useable to the point. Gradually tapered. Double cut on all four sides.



SIZE	WIDTH	#0 CUT		#2 CUT	
		ORDER NO.	PRICE EACH	ORDER NO.	PRICE EACH
4	5/32	-	-	3619-467	\$ 30.50
6	15/64	3619-460	\$ 33.00	3619-468	35.50
8	5/16	-	-	3619-469	49.00

Crossing Files

Half-round on two sides, with one side having a larger radius than the other. Tapered in width and thickness. Cut and useable to the point. Used primarily for filing interior curved surfaces. Double radius makes it possible to file at the junction of two curved surfaces or a straight and curved surface. Double cut on both sides.



SIZE	WIDTH	THICK- NESS	#0 CUT		#2 CUT	
			ORDER NO.	PRICE EACH	ORDER NO.	PRICE EACH
6	19/32	3/16	3619-476	\$ 75.50	3619-479	\$ 81.00

Grobet Swiss Pattern Needle Files



Precision files, for exacting work, especially under magnification. Made of highest quality steel, machined and finished for precision shape, accuracy, and balance. With round, knurled handles.

Barrette Files

		#0 CUT		#2 CUT	
OAL	LG'TH. OF CUT	ORDER NO.	PRICE EACH	ORDER NO.	PRICE EACH
4	1-3/4	3619-488	\$ 21.15	3619-492	\$ 21.15
5-1/2	2-1/2	3619-489	16.65	3619-493	16.65
6-1/4	3	3619-490	17.55	3619-494	17.55
7-3/4	4-1/8	3619-491	21.60	3619-495	21.60

Knife Files

		#0 CUT		#2 CUT	
OAL	LG'TH. OF CUT	ORDER NO.	PRICE EACH	ORDER NO.	PRICE EACH
4	1-3/4	3619-705	\$ 23.85	3619-709	\$ 23.85
5-1/2	2-1/2	3619-706	18.90	3619-710	18.90
6-1/4	3	3619-707	20.25	3619-711	20.25
7-3/4	4-1/8	3619-708	24.75	3619-712	24.75

Crossing Files

		#0 CUT		#2 CUT	
OAL	LG'TH. OF CUT	ORDER NO.	PRICE EACH	ORDER NO.	PRICE EACH
5-1/2	2-1/2	3619-518	\$ 19.35	3619-522	\$ 19.35
6-1/4	3	3619-519	19.80	3619-523	19.80
7-3/4	4-1/8	3619-520	25.65	3619-524	25.65

Round Files

		#0 CUT		#2 CUT	
OAL	LG'TH. OF CUT	ORDER NO.	PRICE EACH	ORDER NO.	PRICE EACH
4	1-3/4	3619-737	\$ 18.45	3619-741	\$ 18.45
5-1/2	2-1/2	3619-738	15.75	3619-742	15.75
6-1/4	3	3619-739	15.75	3619-743	15.75
7-3/4	4-1/8	3619-740	19.80	3619-744	19.80

Equalling Files

		#0 CUT		#2 CUT	
OAL	LG'TH. OF CUT	ORDER NO.	PRICE EACH	ORDER NO.	PRICE EACH
4	1-3/4	3619-549	\$ 18.45	3619-553	\$ 18.45
5-1/2	2-1/2	3619-550	15.30	3619-554	15.30
6-1/4	3	3619-551	15.75	3619-555	15.75
7-3/4	4-1/8	3619-552	20.70	3619-556	20.70

Square Files

		#0 CUT		#2 CUT	
OAL	LG'TH. OF CUT	ORDER NO.	PRICE EACH	ORDER NO.	PRICE EACH
4	1-3/4	3619-770	\$ 20.70	3619-774	\$ 20.70
5-1/2	2-1/2	3619-771	16.65	3619-775	16.65
6-1/4	3	3619-772	17.55	3619-776	17.55
7-3/4	4-1/8	3619-773	21.60	3619-777	21.60

Half-Round Files

		#0 CUT		#2 CUT	
OAL	LG'TH. OF CUT	ORDER NO.	PRICE EACH	ORDER NO.	PRICE EACH
4	1-3/4	3619-581	\$ 24.30	3619-585	\$ 24.30
5-1/2	2-1/2	3619-582	18.90	3619-586	18.90
6-1/4	3	3619-583	19.80	3619-587	19.80
7-3/4	4-1/8	3619-584	25.65	3619-588	25.65

Slitting Files

		#0 CUT		#2 CUT	
OAL	LG'TH. OF CUT	ORDER NO.	PRICE EACH	ORDER NO.	PRICE EACH
5-1/2	2-1/2	3619-799	\$ 18.45	3619-803	\$ 18.45
6-1/4	3	3619-800	12.90	3619-804	20.25

12-pc. Swiss Pattern Grobet Needle File Sets

Each set consists of one each: Barrette, Crossing, Equalling, Half-Round, Joint Round Edge, Knife, Marking, Round, Slitting, Square, Three-square, and Warding.

		#0 CUT		#2 CUT	
FILE LG'TH.		ORDER NO.	PRICE EACH	ORDER NO.	PRICE EACH
5-1/2		3619-688	\$ 208.15	3619-696	\$208.25
6-1/4		3619-689	223.45	3619-697	221.20

Joint, Round Edge

		#0 CUT		#2 CUT	
OAL	LG'TH. OF CUT	ORDER NO.	PRICE EACH	ORDER NO.	PRICE EACH
5-1/2	2-1/2	3619-630	\$ 18.45	3619-634	\$ 18.45
6-1/4	3	3619-631	19.35	3619-635	19.35

6-pc. Swiss Pattern Needle File Set R



- Set Consists of one each: Warding (Flat), Square, Round, Half-Round, Three-Square, Equalling (Mill)
- A basic set of General Purpose Files to meet the needs of craftspeople, tool and die makers, hobbyists and jewelers.
 - Set includes 6 different files. All measure 5-1/2" (138mm) long with 1/8" (3mm) dia. shanks.
 - Constructed of high quality Chromium Alloy Steel.
 - All files are 2-1/2" (63mm) long, #2 Single Cut Swiss Pattern.
 - Knurled handle file can be used without handle assembly.
 - Precision locking screw chuck holds files securely in place.
 - Precision engineered 700 Series Versa-Grip™ handle for maximum performance.



Marking Files

		#0 CUT		#2 CUT	
OAL	LG'TH. OF CUT	ORDER NO.	PRICE EACH	ORDER NO.	PRICE EACH
5-1/2	2-1/2	3619-657	\$ 17.10	3619-661	\$ 18.45
6-1/4	3	3619-658	19.35	3619-662	19.35

MODEL	LENGTH	FILES IN SET	ORDER NO.	PRICE
707476	5-1/2"	6	6970-746	\$18.36

File Handles and Accessories

Long Ferrule File Handles

Waxed white birch handles.

Bright Zinc Plated, heavy steel ferrule. Packed 3 dozen per box.



SIZE	LENGTH	DIAM.	BORE	DEPTH	ORDER NO.	PRICE EACH
#1 (for 3" to 6" files)	4"	1"	1/8" x 1-3/4"		9610-001	\$2.73
#2 (for 6" to 8" files)	4-1/2"	1-3/16"	11/64" x 2"		9610-002	3.02
#3 (for 8" to 12" files)	5"	1-5/16"	1/4" x 2-3/4"		9610-003	3.57
#4 (for 12" to 16" files)	5-1/2"	1-7/16"	5/16" x 2-9/16"		9610-004	3.95
#5 (for 16" to 20" files)	6"	1-9/16"	11/32" x 2-9/16"		9610-005	4.35

1

Short Ferrule File Handles

Waxed white birch handles. Packed 3 dozen per box.



SIZE	LENGTH	DIAM.	BORE	DEPTH	ORDER NO.	PRICE EACH
#00 (for small files)	3-1/2"	13/16"	1/8" x 1-1/4"		9610-100	\$1.50
#01 (for 3" to 4" files)	3-1/2"	13/16"	5/32" x 1-1/4"		9610-101	1.53
#02 (for 4" to 6" files)	4"	15/16"	3/16" x 1-5/8"		9610-102	1.53
#03 (for 6" to 8" files)	4-1/4"	1-3/64"	7/32" x 2"		9610-103	1.53
#04 (for 8" to 10" files)	4-3/4"	1-1/8"	9/32" x 2-1/4"		9610-104	1.78
#05 (for 10" to 14" files)	5"	1-1/4"	3/8" x 2-1/2"		9610-105	2.00

1

SKROO-ZON® File Handles



SIZE	LENGTH	DIAM.	ORDER NO.	PRICE EACH
#T1 (for small files)	3-1/2"	1-1/16"	9610-201	\$2.92
#T2 (for 4" files)	3-1/2"	1-1/16"	9610-202	3.03
#T3 (for 5" files)	4"	1-1/8"	9610-203	3.13
#T4 (for 6" files)	4"	1-1/8"	9610-204	3.20
#T5 (for 8" files)	4-1/2"	1-1/4"	9610-205	3.68
#T6 (for 10" files)	4-1/2"	1-1/4"	9610-206	3.77
#T7 (for 12" files)	5"	1-3/8"	9610-207	4.67
#T8 (for 14" files)	5"	1-3/8"	9610-208	4.73
#T9 Rasp handle	5"	1-3/8"	9610-209	4.73

1

Waxed white birch handles. Ferrules heavy gauge steel bright zinc plated.

Case hardened threaded steel insert holds tang of file tightly in two places.

Packed 3 dozen per box.

Adjustable File/ Tool Handle



- For holding files, reamers, hacksaw blades and other tang handled tools.
- Exclusive steel parallel clamping jaws grip the entire length of the inserted tang to prevent slipping.
- Large, quick adjusting knurled knob ensures positive locking.
- Rustproof handle with steel parts.



8

MFG. NO.	ORDER EACH	PRICE EACH
890	6943-666	\$8.76

No. 10 Lutz File Cleaner



Sharp steel bristles dig and quickly remove filings from grooves of files to restore their clean cutting capacity. For machinists, mechanics and others in cutting, cleaning and roughing applications. 8" long. Packed one dozen per box.

ORDER NO.	PRICE EACH
9620-010	\$8.75

1

No. 20 Combination File Card and Brush Combo



File Card same as No. 10 . Brush side used especially to remove filings on finer cut files. Also, to brush clean saws, drill bits and in other areas where hand brush is needed. 9" long. Packed one dozen per box.

ORDER NO.	PRICE EACH
9620-020	\$17.47

1

WALTON

Ergonomic File Handles

- Designed to align with the natural wrist angle, approx. 35°
- Constructed so the tool's axis is better aligned with the forearm, significantly reducing muscle fatigue.
- Grooved surface provides a perfect non-slip grip
- Protect workers, while making them more comfortable and efficient.



6

FITS SIZE	ORDER EACH	PRICE EACH
4"	3154-411	\$18.35
10-12"	3154-413	18.35
GRIP (replacement)	3153-721	5.65

Snap-on

Industrial File Handles

- Ergonomically shaped bi-molded plastic handle provides soft, textured grip.



9484 series

9485/9486 series

2

LENGTH (IN.)	FILE TYPES	SERIES	ORDER NO.	PRICE EACH
4	Half Round	9484	3640-251	\$6.25
6	Mill, Square, 3 Square, Round	9486	3640-255	8.63
6	Flat, Half Round	9486	3640-256	8.80
8	Square, Round	9486	3640-256	8.80
12	Hand, Flat, Mill, Half Round	9485	3640-254	8.63



Knives and Blades

No. 82 Safety Nose Retractable Blade Knife

Retractable utility knife, heavy duty industrial quality with zinc retractor for smoother operation, with 3 cutting positions. Knife is available in Black, Safety Orange or Construction Yellow. Knife is designed to fit the hand for a more comfortable grip and is equipped with a safety nose consisting of top and bottom overlap for security. Uses heavy duty .025 blade. Packed 1 dozen per box. Available carded.



ORDER NO.	PRICE EACH
9630-082-Black	\$5.83
9630-182-Orange	5.83
9630-282-Yellow	5.83

Standard & Heavy Duty Utility Knife Blade

CAT. NO.	THICK-NESS	PACK	ORDER NO.	PRICE PER PK.
L91	.018	5	9600-091	\$0.62
L92	.025	5	9600-092	0.95
L92	.025	100 (20-5's)	9630-092	18.90
L92D	.025	100/dispenser	9631-092	21.18
L92C	.025	50 (5/card, 10 cards)	9630-192	11.63
L92B	.025	400	9631-192	56.67

1



Carded, Wrapped, Bulk, Dispenser

Small & Large Heavy Duty Utility Hook Blade

CAT. NO.	THICK-NESS	PACK	ORDER NO.	PRICE PER PK.
L92HS	.025	5	9600-892	\$ 1.94
L92HSC	.025	50 (5/card, 10 cards)	9630-894	28.18
L92HL	.025	5	9601-392	2.65
L92HL	.025	100 (20-5's)	9631-392	53.03

1



Carded & Wrapped

Precision Hobby Knives

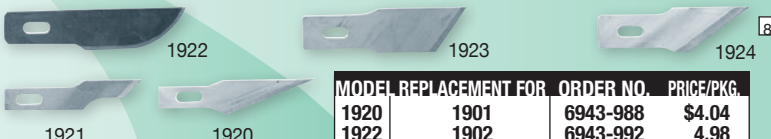


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MODEL	HANDLE CONSTRUCTION	KNIFE WEIGHT	ORDER NO.	PRICE
1901	Aluminum	Light duty	6943-974	\$4.22
1903	Aluminum	Heavy duty	6943-978	7.69

Hobby Knife Blades



MODEL	REPLACEMENT FOR	ORDER NO.	PRICE/PKG.
1920	1901	6943-988	\$4.04
1922	1902	6943-992	4.98

8



IRWIN

ProTouch® Retractable Utility Knife



- Quick change mechanism allows for easy blade removal without opening the knife
- Smooth, three-position slide provides increased durability for frequent use
- Easy tool-free entry with push button operation opens the knife and exposes replacement blades
- Features inside storage for up to 5 blades
- Includes 3 IRWIN BLUE BLADE™ Bi-Metal Utility Blades

Order No. 3255-410...Price Each: \$17.24

2

Standard Retractable Utility Knife



- Optimized cutting angle for reduced fatigue
- Slide Assembly Durable 3 Position Design
- Magnetic Nose For Easy Blade Changes
- Captured Screw Prevents Loss During Blade Change
- Features inside storage for up to 5 blades
- Includes 1 IRWIN BLUE BLADE™ Blade, Lasts 3X Longer, Shatter Proof Bi-Metal

Order No. 3255-412...Price Each: \$5.71

2

Safety Knife & Bi-Metal Safety Blades



- Self-retracting spring action returns blade safely into the housing when not in use
- Ergonomic grip fits comfortably in the hand
- Two blade positions - 2mm extension for box cutting and full extension for general use
- Tool-free entry

Safety Knife Order No. 3255-415 Price Each: \$9.01

Safety blade: Blunted ends inhibit puncture wounds

DESCRIPTION	QTY.	ORDER NO.	PRICE PER PK.
Bi-Metal Safety Blades	5 pack	3255-430	\$2.68
	50 pack	3255-433	16.98

2

Blue Blade - Bi-Metal Utility Blade



- Features patented Bi-Metal technology that sets new standards of performance
- UNBREAKABLE*: Spring steel body delivers superior flexibility to prevent breaking (*under normal working conditions)
- LASTS LONGER*: High speed steel cutting edge stays sharp longer than traditional carbon utility blades (*tested on 20lb recycled paper)
- Fits most utility knives

QTY.	ORDER NO.	PRICE EACH
5 pack	3255-420	\$2.42
100 pack	3255-425	36.59

Deburring Tools

2

SHAVIV® "B" Set w/Telescopic Holder



- Takes all "B" series blades, includes (1) B-10 blade, (1) B-20 blade.
- Holder telescopes from 1/2" to 5".
- Handle has storage compartment for spare blades.
- Blade can be inserted at 90° for deburring cross holes.

DESCRIPTION	ORDER NO.	PRICE EACH
Complete "B" Set	3259-020	\$12.89
Handle Only	3259-030	4.29
B Holder Only	3255-102	5.73

Double-Header Versa/Burr

CLOSEOUT!



- Includes handle, one B-10 blade, one B-20 blade and a Double-Header telescoping blade (B/E) reversible holder

DESCRIPTION	ORDER NO.	PRICE EACH
Complete Double-Header Versa/Burr	3255-015	\$8.60
Versa/Burr Handle Only	3255-186	4.60
B/E Holder Only	3255-185	5.80

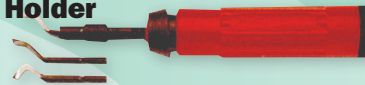
SHAVIV® Set B Aluminum "The Workhorse"



- Popular set for holes, slots, & edges.
- B holder supports all B blades
- Blades can be inserted axially or perpendicular to holder

DESCRIPTION	ORDER NO.	PRICE EACH
Aluminum handle, B Holder B10, B20 blades	3259-021	\$16.47

SHAVIV® Heavy Duty "E" Set w/Telescopic Holder



- Holder telescopes from 1/2" to 5".
- Handle has storage compartment for spare blades.
- Includes one E-100 blade, one E-200 blade & one E-300 blade.

DESCRIPTION	ORDER NO.	PRICE EACH
Complete "E" Set	3259-022	\$15.04
Handle Only	3259-030	4.29
E Holder Only	3255-105	5.73

SHAVIV® Non-Telescopic Sets



3259-023 - Shaviv® Set 1 - The Original Deburring Tool

- Holds all "E" series blades • Contains E100, E200, E300 blades, Shaviv-1 handle
- 3259-024 - Shaviv® Set 1-5 • Set 1, + 2 extra "E" series blades (E111, E120)

DESCRIPTION	ORDER NO.	PRICE EACH
Plastic handle complete w/3 blades	3259-023	\$11.46
Plastic handle complete w/5 blades	3259-024	11.59
Shaviv-1 handle only	3259-029	7.88

SHAVIV® Set E Aluminum Heavy DeBurr



- Rugged deburring set for heavy-duty deburring of holes, slots, & edges.
- E holder supports all E blades

DESCRIPTION	ORDER NO.	PRICE EACH
Aluminum handle, E Holder E100, E200, E300 blades	3259-141	\$19.34

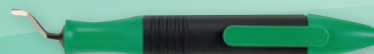
SHAVIV® Rainbow Series: GLO-BURR "B"



- Popular, easy-to-grip deburring tool, strong, lightweight
- Supplied with B10 blade, holds other popular B blades
- Deburrs Steel, Aluminum, Copper, and Plastics

DESCRIPTION	ORDER NO.	PRICE EACH
GLO-BURR "B" Blue	3259-072	\$3.58
GLO-BURR "B" Yellow	3259-075	3.58
GLO-BURR "B" Green	3259-073	3.58
GLO-BURR "B" Red	3259-074	3.58

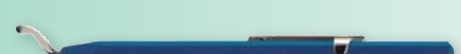
SHAVIV® Rainbow Series: GLO-BURR "E"



- Popular, easy-to-grip deburring tool, strong, lightweight
- Supplied with heavy-duty E100 blade, holds all E blades
- Deburrs Steel, Aluminum, Copper, and Plastics

DESCRIPTION	ORDER NO.	PRICE EACH
GLO-BURR "E" Blue	3259-077	\$3.58
GLO-BURR "E" Yellow	3259-080	3.58
GLO-BURR "E" Green	3259-078	3.58
GLO-BURR "E" Red	3259-079	3.58

SHAVIV® UNIBURR™ Disposable Deburring Tool



- Low-priced yet can handle almost every deburring job.
- Choice of E100 or B10 blade, blue handle, & handy pocket clip.
- For removing burrs from steel and aluminum.

DESCRIPTION	ORDER NO.	PRICE EACH
UB1 with E100 blade (blue)	3259-005	\$4.36
UB2 with B10 blade (blue)	3259-000	3.62



Swivel Head Deburring Tool



- Economically priced, with the quality and performance of higher priced deburring tools.
- (2) interchangeable blades, 5" aluminum handle w/push button blade release.

MODEL		ORDER NO.	PRICE
482	Tool with 2 blades	6942-324	\$14.16
482A	Blade for steel, copper aluminum, and plastic	6942-327	3.11
482B	Blade for Brass and cast iron	6942-330	3.00

Pittsburg® ALLEGHANY Scraper & Burring Tool



- Economical. • Sure Grip handle.
- Comes with Double End Straight Blade.

DESCRIPTION	ORDER NO.	PRICE EACH
Disposable Tool	3255-013	\$6.25
Replacement Blade	3255-009	1.85

Mango II Set B “The Workhorse” Telescoping Holder



- Popular set for holes, slots, & edges.
- Supports all B series blades
- Blades can be inserted axially or perpendicular to holder

DESCRIPTION	ORDER NO.	PRICE EACH
Mango II handle, B Holder B10, B20 blades	3259-025	\$13.97

Mango II Set E “Heavy DeBurr” Telescoping Holder



- Rugged deburring set for heavy-duty deburring of holes, slots, and edges

DESCRIPTION	ORDER NO.	PRICE EACH
Mango II handle, E Holder E100, E200, E300 blades	3259-026	\$16.12

Mango IIE +3, +5 Sets Non-Telescoping Holder



- Sets contain the Mango IIE handle, and a variety of blades for deburring materials with spiral chips

Features:

- Permanent adapters for simple blade replacement
- Comfortable, ergonomic handle for standard-sized hands
- Deburrs steel, aluminum, copper, brass, cast iron, plastics

DESCRIPTION	ORDER NO.	PRICE EACH
Mango IIE handle, E200, E350, E100	3259-027	\$9.53
Mango IIE handle, E200, E350, E100 E111, E120 blades	3259-028	12.17

Mango II Set C “The Scraper”



- Features triangular blade with 3 cutting edges for high quality finishing and scraping.
- Telescopic blade holder gets into hard-to-reach areas.
- Includes key for safe removal of blades.

DESCRIPTION	ORDER NO.	PRICE EACH
Mango II handle, C holder, C42 blade	3259-142	\$20.74

Mango II Set F “The Countersink”



- Powerful tool, excellent for chamfering and countersinking.
- Use for hole-edge applications with up to 0.79” (20mm) dia.

DESCRIPTION	ORDER NO.	PRICE EACH
Mango II handle, F Holder F20 blade	3259-143	\$30.97

Mango II Set Burr-Bi “Heavy-Duty Sheet Cleaner”



- For heavy-duty deburring of materials with double or straight edges up to 0.56” (14mm).
- Holder can take 2 R10, R20, or R30 blades for arc shaped finishes on workpieces up to 0.63” (16mm) thick.

DESCRIPTION	ORDER NO.	PRICE EACH
Mango II handle, BR holder, R10 blades, BR key	3259-144	\$22.95

Deburring & Scraping Kit Standard Duty

- Set contains the Mango II handle, Holder B, Holder C, C Key, Blades: B10, B20, B30, B60, B11, B70, C40

Order No. 3259-145...Price Each: \$42.33



Deburring & Scraping Kit Heavy Duty

- Set contains the Mango II handle, Holder E, Holder C, C Key, Blades: C42, E100P, E111, E200, E300, E600, E700

Order No. 3259-146...Price Each: \$44.32

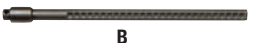


Replacement Blades

Standard Duty "B" Series Blades,"C" Series Scrapers

MODEL	DESCRIPTION	ORDER NO.	PRICE EA.
	B10 HSS for steel and aluminum	3255-110	\$1.07
	B10B Bulk package (100)	3255-110B	97.00
	B10C Solid carbide for hardened steel	3259-100	7.16
	B10P PVD TiN coated, highly wear-resistant	3259-103	2.21
	B10S Cobalt-enriched, long-lasting	3259-105	1.20
	Extra thin, HSS. Deburrs holes with min. diameter .08" (2mm)	3259-106	1.15
	B20 HSS for brass & cast iron; rotates clockwise & counterclockwise	3255-111	1.07
	B20C Solid carbide for hardened steel	3259-109	7.16
	B20P PVD TiN coated, wear-resnt.	3259-110	2.21
	HSS; removes internal and external burrs simultaneously from holes drilled into tubing and sheet metal	3255-112	1.58
	Carbide-tipped scribe, can be reground	3255-113	5.37
	HSS; for internal deburring, especially for inaccessible locations	3255-114	2.16
	Small, 0.16" (4mm), triangular HSS scraper for precision work	3255-116	7.36
	Standard size, 0.31" (8mm) triangular HSS scraper	3255-117	12.52
	Double-sided, 0.30" (7.8mm) triangular scraper	3259-151	29.45

Replacement Holders

MODEL	DESCRIPTION	ORDER NO.	PRICE
	Blade Holder B for all B blades. Use axially or perpendicular.	3255-102	\$5.73
	Blade Holder E for all E blades.	3255-105	\$5.73
	Blade Holder C for C40 & C42 blades.	3255-103	5.73
	Blade Holder F for all F blades.	3255-106	5.73
	Blade Holder FR: Ratchet holder for all F blades.	3259-050	14.07

Replacement Handles

mango®

MODEL	DESCRIPTION	ORDER NO.	PRICE EA.
	Mango II Handle Long Reach	3259-152	\$5.37
	Mango II Handle B Extra Close	3259-153	5.37
	Mango II Handle E Extra Close	3259-154	5.37
	Mango Click E	3259-155	6.44

Heavy Duty "E" Series Blades

MODEL	DESCRIPTION	ORDER NO.	PRICE EA.
	E100 HSS for steel & aluminum	3255-120	\$1.44
	E100B Bulk package (100)	3255-120B	128.00
	E100C Wear-resistant carbide	3259-117	7.16
	E100P PVD TiN coated	3259-120	2.94
	E100S Long-lasting, cobalt enriched	3259-121	1.65
	E110 For material w/spiral chips	3259-122	1.58
	E111 Thin-nosed, HSS	3259-124	1.58
	E120 E shaft with B-20 cutting edge; rotates counter/clockwise	3259-140	1.58
	E200 HSS for brass and cast iron	3255-121	1.44
	E200C Wear-resistant carbide	3259-125	7.16
	E200P PVD TiN coated	3259-126	2.94
	HSS; removes internal/ external burrs simultaneously from holes drilled into tubing & sheet metal	3255-122	1.80
	HSS for straight edges/all materials	3255-123	1.44
	HSS to facilitate deburring in the most inaccessible locations	3255-124	2.87

"F" Series Countersinks, "R" Series Round Blade

MODEL	DESCRIPTION	ORDER NO.	PRICE EA.
	F12 Countersink for hole edges with up to 0.47" (12mm) dia.	3255-125	\$13.99
	F20 Countersink for hole edges with up to 0.78" (20mm) dia.	3255-126	19.14
	F30 Countersink for hole edges with up to 1.18" (30mm) dia.	3255-127	33.13
	F26X Excellent for internal chamfering of pipes, tubes with up to 1.02" (26mm) dia.	3255-128	26.50
"R" Series Round Deburring Blade			
	R10 Double sided, round HSS blade. "A" side deburrs materials with spiral chips, B side with powdery chips.	3259-083	5.01

Replacement Handles - Standard

MODEL	DESCRIPTION	ORDER NO.	PRICE
	Classic Handle A	3259-030	\$4.29
	Handle A Aluminum	3259-031	8.60
	Handle 1	3259-029	7.88
	HandyChuck Pin Vise	3259-070	25.07

Machinery's Handbook ¹

Useful, practical, easy-to-read data and information- often hard to find elsewhere - are its trademark and are made readily available to answer questions and help solve problems sure to arise in the drafting room, manufacturing plant, machine shop, laboratory or classroom. Its wealth of engineering and shop standards, illustrations, formulas and easy-to-read graphs and tables have all been retained in this new edition.

Toolbox Size - 4.625" x 7"

Large Print - 7" x 10"

Order No. 3258-000 Price Each \$105.00

Order No. 3258-001 Price Each \$125.00



Swivel Head Pin Vise



- An exceptional pin vise for delicate work on models, instruments, and jewelry.
- Single collet made of hardened tool steel.
- Has large free wheeling swivel head.
- 4" overall and 5/16" diameter body.
- Comes with 3 drills No. sizes 66, 70, 72 that store in body.

⁸

MODEL	CAPACITY	ORDER NO.	PRICE
92	.10 to .125" .0 to 3.2mm	6941-062	\$13.13

Double End Pin Vise



- Each end has a double end collet which may be reversed to desired size.
- Nickel plated body is made of tubing to permit use of long wire or rods.
- 3-3/4" long with 5/16" body diameter.

⁸

MODEL	CAPACITY	ORDER NO.	PRICE
90	.0 to .125" .0 to 3.2mm	6941-058	\$17.00

Adjustable Pin Vise



²

- 0-1/4" Capacity
- 3 Jaw Steel screw Chuck
- Unbreakable Plastic Handle
- Ideal for holding small drills, burs, wires, reamers and other miniature tools

Order No. 3131-750
Price Each: \$6.20

4-in-1 Pin Vise



⁸

- Contains 2 double ended collets:
0 - 0.031" and 0.093" - 0.125"
0.031" - 0.062" and 0.062" - 0.093"

- Internal storage under cap for spare collet.

- Has large, freewheeling hex shaped swivel head that prevents rolling.

MFG. NO.	ORDER NO.	PRICE EACH
75801	6975-973	\$21.20



TESA
TECHNOLOGY

wood brown & sharpe

Pin Chucks



⁷

- A convenient means of holding small work on lathes and other machines.
- Set consists of a chuck and three collets to hold work from .010" to .100" diameter.

DESCRIPTION	B&S NUMBER	ORDERING NUMBER	PRICE EACH
Pin Chuck Set	599-793	7146-480	\$69.00

Adapter Pin Chuck Set

- For use with miniature drills
- Lock this adapter in chuck to convert it for precise drilling
- Also adapts 3/32" collets on rotary tools & flexible shafts to a for useful No. 0 to 3/32



Order No. 3131-740

Price Each\$9.69 ²

Adjustable Pin Vise



- Use for electronic assembling, tool-making, model making and hobbies.
- Holds small drills, burs, wires, files, reamers and other small tools.
- 3 jaw hardened steel keyless chuck, sturdy plastic handle.
- Overall length 6-7/8"; body diameter 1".

MODEL	CAPACITY	ORDER NO.	PRICE
93	.040 to .250" 1mm to 6.4mm	6941-065	\$16.82

⁸

4-Piece Pin Vise Set

- Capacity: 0-1.0mm; 0.8-1.5mm; 1.3-3.1mm & 3.0-4.8mm
- Heavy knurled bodies with a black finish
- Collet grips firmly when screw chuck is tightened
- Attractive plastic pouch included

²



Order No. 3131-745
Price Each...\$9.95

Single End Pin Vise Set

- For holding small rods, wire, drills, taps, and other small tools.
- Tool steel collets are hardened and grip firmly when screw chuck is tightened.
- Nickel plated body is hollow to permit holding of long rods of wire.
- Available in individual sizes.
- Conforms to government specifications GGG-V-412a.



⁸

MODEL	RANGE	ORDER NO.	PRICE
S94	Set or 4 sizes, A-D, listed below, packed in a plastic case 0 to .055" (0 to 1.40mm) .025 to .075" (.64 to 1.01mm) .045 to .125" (1.14 to 3.2mm) .110 to .187" (2.80 to 4.75mm)	6941-068	\$71.60

Shop Tools

GENERAL®

3

Pocket Scribers

- Replaceable hardened and centerless ground point.
- Point reverses into knurled body for safety.
- Body diameter 3/8".
- Conforms to government specifications GGG-S-131e.



Model 81



Model 83

MODEL	BODY DIA.	BLADE LENGTH	OVERALL LENGTH	ORDER NO.	PRICE
81	3/8"	2-7/8"	5-7/8"	6931-092	\$7.02
81P	3/8"	2-7/8"	5-7/8"	6931-094	1.31
83	1/4"	2-3/8"	4-3/4"	6931-098	5.89

Tungsten Carbide Scriber & Magnet 3-Piece Probe Set

- Tungsten carbide tip marks hard materials including hardened steel, ceramics, and glass.
- 88CM features Alinco permanent magnet picks up small parts and retrieves steel chips from hard to reach places.
- Scriber point reverses for safety.
- Replacement Point No. 88P.
- Overall length 6".

MODEL	DESCRIPTION	ORDER NO.	PRICE
88	Scriber	6931-112	\$8.02
88CM	Scriber & Magnet	6931-116	9.84
88P	Repl. Point	6931-114	4.53

- For probing, cleaning, picking or marking small work surfaces.
- Three heat-treated, high carbon steel point configurations: 45 degree, double bend, and hook bend.
- Extra long aluminum knurled body.
- Hex head prevents rolling.
- Overall length 6-1/2".

MODEL	ORDER NO.	PRICE
862	6924-500	\$12.53



3 Piece Marking Tool Set



- Used for marking, etching, or engraving metal, glass, plastics and ceramics.
- Set includes: one Multi-Purpose Handle assembly; one Steel Awl (For marking and piercing); one Tungsten Carbide Scribe (For etching hard materials) and one Steel Scribe (For marking soft materials).
- Close tolerance locking screw chuck holds steel point securely in place.
- Ergonomically designed handle with contoured head allows for greater control and comfort.
- Eight sided cushion grip has a non-slip finish. Internal storage under cap for extra tips.

MFG. NO.	ORDER NO.	PRICE EACH
707088	6970-708	\$10.02

Drill Stop Set

- For use on twist or brad point drills to prevent excessive drill penetration.
- Positive depth control assures exact hole depths for multiple drilling jobs.
- Black oxide finish on cold rolled steel.
- Includes hex wrench.



MODEL	SIZE INCLUDED	ORDER NO.	PRICE
S838	3/16" dia., 1/4" dia. 5/16" dia., 3/8" dia. 7/16" dia., 1/2" dia.	6923-096	\$6.27

Full Size Awl



- Allow steel blade runs through the handle and is securely fastened to the cap.
- Designed for scribing and layout work, starting screw holes and piercing soft materials.
- Heavy duty ergonomically designed handle with free spinning comfort knob and 8-sided cushion grip.

MFG. NO.	ORDER NO.	PRICE EACH
810817	6981-018	\$6.01

Fixed Two Point Scriber



- Hardened and ground steel needle points are fixed to a knurled body.
- Has one straight point and one bent point.
- Measures 8-1/2" overall.

MODEL	ORDER NO.	PRICE
80	6931-090	\$4.76

Inspection Mirrors



- These mirrors facilitate inspection of inaccessible workpieces and machines by toolmakers, assemblers, inspectors, and mechanics.
- Fully polished mirrors are enclosed in plated holders which are attached to knurled handles with ball and socket joints.
- # 557 & 560 have telescoping arms and vinyl cushion grip handles.

MODEL	SIZE	OVERALL LENGTH	ORDER NO.	PRICE
555	1 1/4" dia.	8"	6942-465	\$10.09
557	2 1/4" dia.	10 1/2" extends to 15"	6942-468	14.44
558	1" by 2" oval	9"	6942-471	12.11
560	3 1/2" x 2" oblong	11 1/2" extends to 16"	6942-473	16.09

2" x 3" Rectangular Telescoping Mirror



- For the inspection of obstructed and hard to see objects.
- 2" x 3" (51mm x 76mm) rectangular shatter resistant Lexan™ mirror, fastened to a stainless steel wand with a double ball joint, adjusts to any angle, and telescopes from 9-1/4" to 30" (235mm to 762mm).
- Ergonomically designed, rugged impact ABS plastic handle with contoured head allows for greater control and comfort.
- Eight sided cushion grip has a non-slip finish.

MFG. NO.	ORDER NO.	PRICE EACH
759570	6975-950	\$17.51

4-Piece Probe Set - Precision Fixed Blade

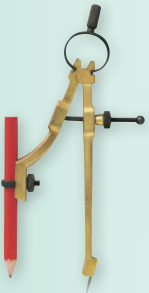
- For probing, cleaning, picking/markings small work surfaces.
- 8-sided cushion grip handle ensures a firm grip.
- Set includes the most popular mini-tool styles.
- Ergonomically designed handle with contoured head allows for greater control and comfort.
- Set includes: 4 heat treated stainless steel point configurations: Straight, 180° hook, 35° bend, 90° bend.
- Blade length: 2-5/8" (67mm)
Overall length: 6"

MFG. NO.	ORDER NO.	PRICE EACH
60004	6960-004	\$13.69



Precision Pencil Compass

- Carpentry quality pencil compass is made of long lasting die cast, rust resistant metal.
- Spring tension adjustment for marking up to 8" diameters.
- Scribe guide for edge marking.
- For use with pencil (included) or slim ballpoint pen.



MODEL	ORDER NO.	PRICE
842	6924-126	\$7.71

Hardwood Handle Scratch Awl



- Our finest quality scratch awl is also our best seller.
- Alloy steel blade runs through the handle and is securely fastened to both the plated steel ferrule and the cap.
- Hardwood fluted handle is contoured for comfortable grip.
- Overall length is 6-1/2" with 3-1/2" blade.

MODEL	ORDER NO.	PRICE
818	6924-047	\$8.73

Tools

3" Diam. Bench Black

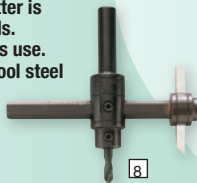
- Handy for holding work when driving pins, drilling, etc.
- V-Groove across face accommodates round & odd shaped stock
- Hardened & ground
- Smooth finish on the face preserves the work being held
- Holes vary in size from 1/8" to 5/8"
- Approx. 3" diam. and 1-1/2" high



Order No. 3131-735
Price Each\$16.55

Heavy Duty Circle Cutter

- General's industrial quality cutter is most preferred by professionals.
- 1/2" round shank for drill press use.
- Replaceable 1/4" high speed tool steel bit and replaceable 1/4" pilot drill.
- Maximum safe speed is 500 RPM.



MODEL	CAPACITY	ORDER NO.	PRICE
55	1-3/4" to 7-7/8"	6921-012	\$42.02
5/6/55 Drill		6921-014	5.16
55 Blade		6927-015	8.04

Industrial Tweezers - Individual Styles

General's quality tweezers for toolmakers, repairmen, electronic assemblers, and other professionals.

MODEL	POINT STYLE	LENGTH	ORDER NO.	PRICE
401XX	Strong sharp	4-1/2"	6942-263	\$8.07
403	Blunt serrated	6"	6942-266	7.82
407	Blunt (soldering)	4"	6942-269	3.89
410	Narrow sharp	4-1/4"	6942-280	5.40
411	Sharp (self closing)	4-3/4"	6942-283	5.51
412	Blunt (side lock)	6-1/2"	6942-286	6.98
413	Sharp	4-1/2"	6942-289	5.24



Lathe Boring Tools

- Made from accurately machined steel
- Includes holder & 1 double end boring bar; one end 45°, other end 90°
- Black shining finish •Tool bits not included 



BAR DIA.	FOR SQ. TOOL BIT	SHANK SIZE	ORDER NO.	PRICE EACH
9/16	3/16	3/8 x 7/8 x 5-3/8	3143-500	\$88.40
3/4	1/4	1/2 x 1-1/8 x 6-1/8	3143-502	102.70
15/16	5/16	5/8 x 1-3/8 x 7-7/16	3143-504	53.15

Precision Trammel Set*

Will accurately transfer measurements, scribe arcs, and lay out circles too large for conventional compasses.

- Will fit any scale 1/2" to 1-1/8" wide.
- Two scriber points and two pencil points included.
- Up to 4 points can be stored in body.
- Free-wheeling thimble for greater precision.
- Aluminum knurled body.
- Steel collet holds replacement leads, scribers and crayons.
- Points reverse into body for safety.



* Ruler not included in set.

MODEL	ORDER NO.	PRICE
524	6923-095	\$21.04

Plumbing Tools

Gold Standard Replacement Cutter Wheels

RW121/2- For thin wall cutting- Fits all General tubing cutters, Pro or Classic Series; mini, standard or high performance sizes. (Packed 2 per card)
RW122- Larger capacity: For iron or PVC pipe-Fits Nos. 1240, 120, 1209, 125, 1259, 126 and 127 cutters. (Replaces RW122P)



MFG. NO.	DESCRIPTION	ORDER NO.	PRICE EACH
RW122	Iron Pipe	6912-027	\$8.53
RW 121/2	Fits all tubing cutters	6912-023	8.53

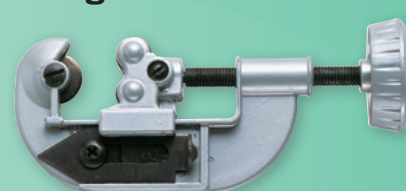
Heavy Duty Cutter



- Newly redesigned comfort grip for heavy duty industrial applications
- Bearing tool steel cutter wheel. • Full size fold-out reamer.
- Wider, hardened flared grooved rollers allow cuts close to a flared end to avoid tube replacement in existing installations.
- Cuts copper, aluminum, brass, thin wall tubing and stainless steel.
- Oversize knob for additional leverage.
- Spare cutting wheel storage position in handle.
- Replaceable cutting wheels: RW121/2, RW122.

MFG. NO.	CAPACITY	ORDER NO.	PRICE EACH
125	1/4" to 1-5/8"	6912-015	\$25.56

Tubing Cutter



- Newly redesigned contoured shape comfort grip design.
- Bearing tool steel cutter wheel.
- Wide hardened flared grooved rollers allow cuts close to a flared end to avoid tube replacement in existing installations.
- Full sized fold out reamer with double cutting edges.
- Cuts copper, aluminum, brass, thin wall tubing and stainless steel.
- Large knob with a covered extra cutter wheel storage space.
- Replaceable cutting wheels: RW121/2, RW122.

MFG. NO.	CAPACITY	ORDER NO.	PRICE EACH
120	1/8" to 1-1/8"	6912-003	\$15.69

E-Z Ratchet Tubing Cutter



- Ratcheting action rotates the cutter around the tube allowing a standard size cutter to be used in close quarter applications.
- Longer handle requires less effort to rotate cutter, reducing hand fatigue.
- Wide hardened flared grooved rollers allow true cuts close to flared end tubing to avoid tube replacement in existing installations.
- Replaceable bearing tool steel cutting wheel, RW121/2.
- Cuts copper, aluminum, brass, thin wall tubing and stainless steel.
- Spare cutting wheel supplied in handle.

MFG. NO.	CAPACITY	ORDER NO.	PRICE EACH
133	5/16" to 1-1/8"	6913-300	\$28.20

Compound Tubing Bender

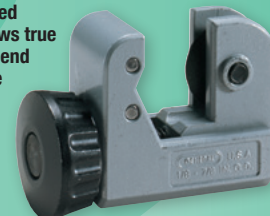
- Will bend copper, brass, thin wall tubing, aluminum, soft wire and rods.
- 180° bends in a single action.
- Bender has calibrated angle markings from 0° to 180° for making accurate left, right and offset bends.
- Bends four sizes.



MFG. NO.	CAPACITY	ORDER NO.	PRICE EACH
153	3/16", 1/4", 5/16", 3/8"	6914-019	\$41.38

Mini Tubing Cutter

- Comfort grip design for easy turning.
- Full size bearing tool steel cutter wheel.
- Large fluted adjusting knob for greater torque.
- Cuts copper, aluminum, brass, thin wall tubing and stainless steel.
- Wide hardened flared grooved rollers allows true cuts close to flared end tubing to avoid tube replacement in existing installations.



MFG. NO.	CAPACITY	ORDER NO.	PRICE EACH
129X	1/8" to 7/8"	6912-032	\$13.04

Shop Tools

Pittsburg® Round Magnifiers



- Plastic handle light weight magnifiers ideal for engineers, professionals and hobbyists
- Ideal reading glass assuring edge to edge clarity

LENS DIA.	POWER	ORDER NO.	PRICE EACH
1-1/2"	3.5X	3100-650	\$2.45
2"	2.5X	3100-651	3.15
2-1/2"	2.5X	3100-652	4.70
3"	2.25X	3100-653	6.75
4 piece set 1-1/2" thru 3"		3100-656	20.00

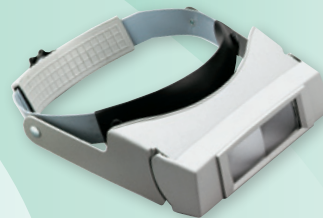
4" Illuminated Magnifier



- 4" diameter with 3 power lens covers large areas of print
- 5 power bifocal lens insert gives even greater magnification
- Bulb gives wide circle of illumination
- Plastic body and optical plastic lens
- Replaceable bulb and 2 C batteries included

MODEL	POWER	FOCAL LENGTH	ORDER NO.	PRICE EACH
554	3.0	3-1/3"	6942-462	\$39.27

Binocular Magnifiers



- For assemblers and inspectors of electronic and small parts
- Leaves hands free to work
- Ground and polished optical lenses eliminate eye strain
- Tilt up lens frame
- Fits over prescription glasses

MODEL	POWER	FOCAL LENGTH	ORDER NO.	PRICE EACH
950-5	2.25	8"	6943-734	\$38.80

Pittsburg® Folding Pocket Magnifiers -Triplet



- 4X, 7X, 10X magnification range
- High power inspection magnifiers for machinist, laboratory technicians and students

ORDER NO.	PRICE EACH
3100-646	\$17.10

5-1/2" Magnifier



- Economical and versatile magnifier for laboratory and industrial uses, for do-it-yourselfers, mechanics & inspectors
- 2" diameter with 4 power lens
- Lightweight, durable 1-piece molded plastic frame

MODEL	ORDER NO.	PRICE EACH
538	6942-414	\$8.76

2-1/2" Round Telescoping 3X Power Magnifying Mirror



MFG. NO.	ORDER NO.	PRICE EACH
759563	6975-959	\$18.82

- For the inspection of obstructed and hard to see objects.
- 2-1/2" (64mm) diameter glass mirror, fastened to a stainless steel wand with a double ball joint, adjusts to any angle, and telescopes from 8-1/2" - 29" (216mm - 737mm).
- Rugged impact ABS plastic handle.
- Ergonomically designed handle with contoured head allows for greater control and comfort.
- Eight sided cushion grip has a non-slip finish.

Pittsburg®

Folding Pocket Magnifiers in Leather Case

- 2-1/2" diameter
- 4X magnification power
- Ground and polished optical glass

ORDER NO.	PRICE EACH
3100-645	\$2.05



IRWIN®

I-Beam Level

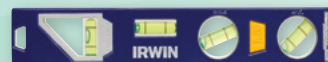


- MagnaVials™ are 20% larger for easy, accurate reading
- Shock absorbing rubber end caps
- Patent-Pending dual chamber design is 2x stronger than traditional I-Beam levels
- Acrylic vial housings are impact resistant
- Top Read™ window allows for convenient viewing

TYPE	ORDER NO.	PRICE EACH
24" non-mag	3255-403	\$28.39
48" non-mag	3255-404	46.91
72" non-mag	3255-405	71.61

IRWIN®

9" Magnetic Heavy Duty Torpedo Level



- Die cast aluminum body provides extreme durability/strength
- 1.5" integrated button for easy 1/4" per foot drainage; button has a slight radius to ensure it sits securely on pipe
- Plumb Site® offers dual-sided, undistorted viewing in the plumb position and easy, more accurate plumb readings
- B-Tank valve key provides the ability to open an acetylene tank valve without stripping
- Rare earth magnets are 5X stronger than strip magnets and allow for easy hands-free steel construction work

Order No. 3255-400 Price Each: \$48.06

Pittsburg® 3-Piece Eye Loupe Set



Contains one each:
2X, 5X, and 10X loupes

ORDER NO.	PRICE EACH
3100-640	\$4.85

Shop Tools

Power Alnico Magnets



- Strong magnetic pull for lifting, holding, sorting, clamping, or retrieving steel or iron parts.
- Hole in top of magnet for attaching conveyors, racks, and welding jigs.

MODEL	SIZE OZ.	APPROX. PULL LBS.	ORDER NO.	PRICE
370-2	2	13	6942-044	\$24.82
370-3	3	17	6942-047	19.53
370-4	4	22	6942-050	26.33
370-6	6	30	6942-053	43.40
370-8	8	32	6942-056	63.38
370-12	12	42	6942-061	107.16
370-16	16	50	6942-064	147.56
370-24	24	70	6942-067	175.38

Alnico Shallow Pot Magnets



- Our best quality shallow pot magnets.
- Shallow depth permits use in confined spaces.
- Alnico metal capable of withstanding extreme heat.
- Will not lose magnetism.

MODEL	DIA.	PULL	DEPTH	HOLE	ORDER NO.	PRICE
378C	1.5"	29 lbs.	.406"	.190"	6942-130	\$17.82

Pickup Stick



- An ideal tool for retrieving iron, steel and ferrous materials.
- Powerful, permanent magnet
- Vinyl-coated magnet for long-life and durability.
- 37-inch steel shaft for greater strength.
- Plastic handle grip for greater control and comfort.

MFG. NO.	ORDER NO.	PRICE EACH
397	6931-434	\$29.73

Flexible Magnetic Pick Up



- An excellent tool for retrieving steel parts from hard-to-reach places.
- High-power neodymium magnet is six times more powerful than a cobalt magnet of the same size and density.
- Knurled aluminum body with flexible 15" wire.
- Overall length is 20".
- Lifts up to 2 pounds.

MODEL	SPECIFICATIONS	ORDER NO.	PRICE
395	2 lb. pull	6942-229	\$10.18

Telescoping High-Power Magnetic Pickup



- A powerful permanent magnetic pickup tool.
- Ideal for retrieving steel & iron parts from hard-to-reach work areas.
- Magnet is fitted in a 5-1/2" long nickel-plated steel handle that can extend up to 23-1/2".
- Holder is fitted with a pocket clip.

MODEL	PULL	ORDER NO.	PRICE
383NX	2 lb. pull	6942-208	\$11.98

Pocket Magnetic Pickups



- Powerful permanent magnet in a knurled aluminum holder with handy pocket clip.
- High-powered neodymium magnet which is six times more powerful than standard magnet.
- Ideal for retrieving small steel and iron parts from hard-to-reach areas.

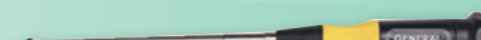
MFG. NO.	PULL	ORDER NO.	PRICE EA.
386	2 lb. pull	6942-219	\$7.98

Flex-O-Stiff Neodymium Magnetic Pickup

- An ideal tool for retrieving steel parts from hard-to-reach places.
- Permanent magnetic power.
- Magnet is fitted into an 18" nickel-plated holder, which can be extended to a 32" flexible receiver.

MODEL	PULL	ORDER NO.	PRICE
384N	2 lb. pull	6942-210	\$15.31

Telescoping Magnetic Pick-Ups



- 10 lb. smooth surface pull capacity Neodymium magnet.
- Neodymium Magnet is fastened to a stainless steel wand with a double ball joint that adjusts to any angle and telescopes from 6-1/2" to 27" (165mm to 686mm).
- Neodymium Magnet is 6 times stronger than Cobalt Magnets of equal size.
- Magnet holder is made of high-strength reinforced nylon.
- Ergonomically designed, rugged high impact ABS plastic handle with contoured head allows for greater control and comfort.
- Eight sided cushion grip has a non-slip finish.

MFG. NO.	PULL	ORDER NO.	PRICE
759398	10 lb.	6975-939	\$19.00

Mini-Light with Magnetic Pick-Up



- Mini Light with 2 lb. Neodymium Magnetic pick-up are both fastened to a stainless steel telescoping wand molded into a rugged high-impact ABS plastic handle.
- Handle is ergonomically designed with an eight-sided, cushion

- grip and contoured head for greater control and comfort.
- Telescope from 7-3/4" to 28-3/4" (197mm to 720mm).
- 4 Silver-Oxide, SR-48 Batteries - 64 hrs. of continuous use.

MFG. NO.	ORDER NO.	PRICE EACH
759582	6975-967	\$28.20

CUSTANITE Precision



Welding Magnet

- Designed to enable fast & accurate holding of ferrous metal for welding and assemble jobs.
- Holds both sheet and tube at angles of 180°, 90°, 45° & 30°.
- Two body holes enable the clamp to be built into jigs or hung when not in use.

MFG. NO.	THICKNESS	PULL LBS.	WT. OZ.	ORDER NO.	PRICE
377	.468	50.0	9.0	6942-122	\$17.64

Wiha® Magnetizer and Demagnetizer

To magnetize and demagnetize steel screw-driver blades, tweezers and similar tools. Box is high quality plastic, shock resistant, green, cadmium free.

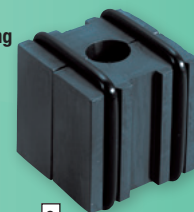
Application: To magnetize, lead tool away slowly through the lower square opening (+). To demagnetize guide tool slowly through the upper opening (-).
Packaged dimensions: 85 x 160mm 3.3" x 6.3"
Uses 2-C8 Ind. Permanent magnets.



Order No. 7840-010 Price Each: \$7.19

Magnetizer/Demagnetizer

- Powerful rare earth magnet specially designed for magnetizing and demagnetizing screwdrivers, nut runners, wrenches, taps, and small tools.
- Converts any tool blade into a magnetic retriever for screws, nuts, and metallic particles.



MODEL	DIMENSIONS	ORDER NO.	PRICE
360	1" x 1" x 1"	6942-021	\$3.93

Extra-Long, Magnetic Pickup with Pivot Joint



- An excellent tool for retrieving steel parts from hard-to-reach places.
- High-power neodymium magnet lifts up to five pounds and will never lose its magnetism.
- Steel body measures 13" and can be extended to 27".
- Locking pivot joint allows user to pick up objects around corners.
- Body is chrome plated with vinyl cushion grip handle.

MODEL	SPECIFICATIONS	ORDER NO.	PRICE
394	5 lb. pull	6942-228	\$18.16

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Batteries & Flashlights

Industrial Maximum Alkaline Batteries Contractor Packs

- Easy to open container is resealable and reusable.
- Keeps batteries upright and organized. No more loose or lost batteries.
- Protects batteries from damage and short circuiting.



CROSS REFERENCE						
RAYOVAC MODEL NO.	DESCRIPTION	EVEREADY	BRIGHT STAR	DURACELL	STD. PACK	ORDER NO. PRICE PER PACK
ALC-12	Alkaline C size	EN93	7522	PC1400	12	9520-041 \$15.86
ALD-12	Alkaline D size	EN95	7520	PC1300	12	9520-042 22.25
ALAA-24	Alkaline AA size	EN91	7524	PC1500	24	9520-043 14.20
ALAAA-18	Alkaline AAA size	EN92	7256	PC2400	18	9520-044 11.01
AL9V-12	Alkaline 9V size	EN22	7590	PC1604	12	9520-045 26.98

Alkaline Batteries Shrink Packages



CROSS REFERENCE						
RAYOVAC MODEL NO.	DESCRIPTION	EVEREADY	BRIGHT STAR	DURACELL	STD. PACK	ORDER NO. PRICE PER PACK
AL-C	Alkaline C size	EN93	7522	PC1400	6	9520-005 \$ 8.17
AL-D	Alkaline D size	EN95	7520	PC1300	6	9520-006 11.24
ALAA	Alkaline AA size	EN91	7524	PC1500	8	9520-007 4.89
AL-AAA	Alkaline AAA size	EN92	7256	PC2400	8	9520-008 4.89
AL-9V	Alkaline 9 Volt	EN22	7590	PC1604	6	9520-009 13.61

Rechargeable Batteries



SIZE AA

SIZE C



PS33-4B

SIZE	STD. PACK	ORDER NO.	PRICE PER PACK
C	2	9520-015	\$13.61
D	2	9520-016	13.61
AA	4	9520-017	18.39
AAA	4	9520-018	17.17
9 Volt	1	9520-019	13.61

CHARGER			
MODEL NO.	SIZE	ORDER NO.	PRICE EACH
PS33-4B	AA/AAA, C, D, 9V	9520-023	\$16.27

Silver Watch/Electronic Batteries

New Zero Mercury Formula!

RAYOVAC MODEL NO.	DESC.	CROSS REF.	STD. PACK	ORDER NO.	PRICE EACH
303/357-1ZM	1.5V Silver Watch/Elec.	303, 357, SR44W, V357	1	9520-031	\$2.13

ENERGIZER MODEL NO.	DESC.	CROSS REF.	STD. PACK	ORDER NO.	PRICE EACH
357/303	1.5V Silver Watch/Elec.	303, 357, SR44W, V357	1	9520-033	\$2.09



Keyless Entry Battery - 3V

RAYOVAC MODEL NO.	STD. PACK	INTERCHANGEABLE NUMBERS	ORDER NO.	PRICE EACH
KECR2032-1	1	CR2032, BR2032, ECR2032, CL2032B	9520-028	\$1.92



Lithium Batteries— 3V



RL123A-1



CR2032

RAYOVAC MODEL NO.	STD. PACK	INTERCHANGEABLE NUMBERS	ORDER NO.	PRICE EACH
Photo/Electronic RL123A-1	1	DL123AS, EL123APBP	9520-025	\$3.48
RLCR2-1	1	DLCR2B, CL1CR2BP	9520-026	3.52
Keyless/Elect. CR2032	1	CR2032, BR2032, ECR2032, CL2032B	9520-028	1.92

Industrial Flashlights

- Polypropylene construction resists impact, chemicals, oil, gas, water, and corrosion.
- Toolbox tough. Barrier wall and shock-absorbing spring protect bulb.



WHH2D-BA

RAYOVAC MODEL NO.	USES BATT.	DESCRIPTION	ORDER NO.	PRICE EACH
WHH2D-BA	2-D	Workhorse™ 3-LED Hanging Ring Flashlight	9520-065	\$9.73
IN2-MSE*	2-D	Orange Industrial Safety Flashlight w/safety head and ring hanger	9520-051	6.60
WHK2AA-BA	2-AA	Yellow Industrial Flashlight w/Krypton bulb	9520-054	3.62

*Sold without batteries

Sportsman® LED Flashlight

- SPHW3AAA-BXA • Bright .5 Watt High-Powered LED • 20 Lumens
- Run Time: 45 Hours • Machined Aluminum with Knurled Grip
- Water Resistant • Bronze Finish
- Handy Holster Included • Run Time: 45 Hours
- Uses 3AAA Batteries (included)
- Lifetime Warranty



Order No. 9520-080 Price Each...\$ 14.28

SPHW3AAA-BXA

AIR & POWER TOOLS

Blow Gun	414, 428-431
Compressor Accessories	427
Couplers	419-422
Cross-Reference Chart	417-418
Die Grinders	412
Drills	413
Dryer, Air Line	432
Filters	424
Grinders	414
Hose & Tubing	416, 434
Hose Ends	433

In-Line FRL's	433
Lubricators	425-426
Nylon Tube Fittings	416
Plugs	419-422
Regulators	425-426
Sanders	414-415
Saw, Cut-Off	413
Scalers	414
Signal Bells	434
Swivels	433
Tank Valves	434
Tire Gages	431-432
Wrenches	415

GUARDAIR
SAFETY AIR GUNS,
PNEUMATIC VACUUMS

DREMEL[®]
ROTARY TOOLS & ACCESSORIES

MILTON[®]
AIR TOOLS & ACCESSORIES

VIKING
AIR TOOLS

POWER TOOLS

Rotary Tools	435
Engraver	435
Accessories	435-436

1/4" Air Die Grinder



**1-YEAR
Warranty**

- All ball bearing construction • Self locking safety throttle to prevent accidental starts
- Ergonomic positive grip • Rear exhaust • Viking Model # VT3000, VT3005

ORDER NO.	AIR SPEED (R.P.M.)	AIR COLLECT SIZE	AIR PRESSURE (P.S.I.)	AIR CONSUMPTION (CFM)	PRICE EACH
3280-700	25,000	1/4"	90	14	\$43.00

1/4" Extended Die Grinder



**1-YEAR
Warranty**

- Durable precision machined and hardened steel gears
- Precision air motor with exceptionally high turning force
- Ergonomic square handle design for positive grip • High quality ball bearings for longer tool life
- Safety throttle lever • Rear exhaust • Industrial duty • Model VT3002E

ORDER NO.	AIR SPEED (R.P.M.)	AIR COLLECT SIZE	AIR PRESSURE (P.S.I.)	AIR CONSUMPTION (CFM)	PRICE EACH
3280-706	22,000	1/4"	90	4	\$125.00

1/4" Mini Angle Die Grinder



**1-YEAR
Warranty**

- Lightweight and versatile design
- Great for hard-to-reach areas
- Features 20,000 RPM reliability, minimal vibration
- Model VT3000A

ORDER NO.	AIR SPEED (R.P.M.)	AIR COLLECT SIZE	AIR PRESSURE (P.S.I.)	AIR CONSUMPTION (CFM)	PRICE EACH
3280-704	20,000	1/4"	100	4	\$96.00

1/2" Heavy Duty Reversible Drill

- One hand quick reverse lever
- Ergonomic design, elastomer handle grip
- Heavy duty ball and needle bearing construction
- Planetary gear reduction balances the drilling load, maximizing performance
- Precision air motor with exceptionally high turning force • Model VT5007



ORDER NO.	AIR SPEED (R.P.M.)	CHUCK SIZE	SPINDLE THREAD	AIR CONSUMPTION (CFM)	PRICE EACH
3280-713	800	1/2"	3/8"-24	4	\$191.00

1/2" Non-Reversing Heavy Duty Drill

- Compact, low profile angle head enables easy access to tight areas
- Light weight and powerful
- Comfortable lever throttle
- One hand quick reverse lever
- Ergonomic design with elastomer handle grip for improved comfort
- Heavy duty ball and needle bearing construction
- Planetary gear reduction balances the drilling load and maximizes performance
- Precision air motor with exceptionally high turning force • Model No. V5006



ORDER NO.	AIR SPEED (R.P.M.)	CHUCK SIZE	SPINDLE THREAD	AIR CONSUMPTION (CFM)	PRICE EACH
3280-712	1,500	3/8"	3/8"-24	4	\$223.00

4" Angle Grinder

- Precision air motor with exceptionally high turning force
- Sealed ball bearing motor
- Compact body for working in tight places
- Front exhaust keeps working area clear
- Safety locking lever with variable throttle to prevent accidental starts
- Removable side handle for left or right hand operation
- Unique motor controller that virtually eliminates over speeding
- Precision gearing (bevel/pin) for long life/smooth operation
- Uses Type 27 4" capacity wheels • Model No. VT3104



ORDER NO.	AIR SPEED (R.P.M.)	WHEEL SIZE	SPINDLE THREAD	AIR PRESSURE (P.S.I.)	AIR CONSUMPTION (CFM)	PRICE EACH
3280-718	11,000	4"	3/8"-24	90	6	\$226.00

4.5"/5" Right Angle Grinder

- Precision air motor with exceptionally high turning force
- Sealed ball bearing motor
- Compact body for working in tight places
- Front exhaust keeps working area clear
- Safety locking lever with variable throttle to prevent accidental start-ups
- Removable side handle for left or right hand operation
- Unique motor controller that virtually eliminates over speeding
- Precision gearing (bevel/pin) for long life and smooth operation
- Includes guard, hex wrenches and spanner
- Uses Type 27 4.5"/5" capacity wheels • Model No. VT3105



ORDER NO.	AIR SPEED (R.P.M.)	CHUCK SIZE	MAX. PRESSURE (PSI)	AIR CONSUMPTION (CFM)	PRICE EACH
3280-719	11,000	1/4"	90-100	6	\$233.00

Air Needle Scaler, Pistol Grip Handle

- Heat treated barrels and pistons for extended tool life
- Comfortable throttle lever
- Ergonomic rubber grip for greater vibration absorption and operator convenience
- Needles are made from Chrome Vanadium SCM-4 steel heat treated for extended life
- Model No. VT6202



ORDER NO.	BLOWS PER MIN. (B.P.M.)	NEEDLE SIZE	MAX. PRESSURE (PSI)	AIR CONSUMPTION (CFM)	PRICE EACH
3280-752	3,700	0.12"(3mm) 7" long	90	10	\$233.00

3/8" Professional Impact Wrench

- Durable pin clutch impact mechanism
- Ergonomic contoured elastomer handle grip for improved comfort
- Built in regulator with 4 power settings
- Easy touch trigger provides greater control and operator comfort
- Model VT2100



ORDER NO.	SQUARE DRIVE	FREE SPEED (R.P.M.)	MAX TORQUE (FT/LBS)	AIR CONSUMPTION (CFM)	PRICE EACH
3280-710	3/8"	10,000	75	3	\$173.00

1/2" Professional Impact Wrench

- Durable pin clutch impact mechanism
- Ergonomic contoured elastomer handle grip for improved comfort
- Handle exhaust directs the air away from operator and workpiece
- 360° air inlet swivel prevents air hose from becoming twisted or kinked, for snag-free operator comfort
- Push button forward/reverse for single hand operation
- Easy touch trigger provides greater control and operator comfort
- Model VT2101



ORDER NO.	SQUARE DRIVE	FREE SPEED (R.P.M.)	MAX TORQUE (FT/LBS)	AIR CONSUMPTION (CFM)	PRICE EACH
3280-756	1/2"	8,000	241-400	13.6	\$ 212.00

1/2" General Purpose Impact Wrench

- Economical rocking dog impact delivers smooth operation and max. durability
- Built in regulator with 4 power settings
- Delivers max. torque in the reverse direction
- One hand push button forward and reverse
- Model VT2000



ORDER NO.	SQUARE DRIVE	FREE SPEED (R.P.M.)	MAX TORQUE (FT/LBS)	AIR CONSUMPTION (CFM)	PRICE EACH
3280-711	1/2"	7,000	230	16	\$77.00

3/8" Ratchet Wrench



- Planetary gear design
- Combines speed and power for small applications
- Lever throttle for easy operation and enhanced speed control
- Great for hard-to-reach areas
- Lightweight and well balanced
- Model VT1001

ORDER NO.	SQUARE DRIVE	FREE SPEED (R.P.M.)	MAX TORQUE (FT/LBS)	AIR CONSUMPTION (CFM)	PRICE EACH
3280-725	3/8"	150	45	14	\$66.00

Mini Saw Cut-Off Tool

- Features a 3" Heavy Duty wheel and metal guard for operator safety
- 20,000 RPM direct drive motor provides low vibration cutting with a safety throttle lever
- Model No. V325



**2-YEAR
Warranty**

ORDER NO.	AIR SPEED (R.P.M.)	INLET NPT	HOSE SIZE	AIR CONSUMPTION (CFM)	PRICE EACH
3280-749	20,000	1/4	3/8"	4	\$173.00

3/8" Belt Sander

- Precision air motor, exceptionally high turning force
- Anti-slip on drive drum
- Used for internal/external finishing
- Quick change belt replacement system
- Lightweight ergonomic handle design for control & comfort
- 360° head rotation is versatile for every job
- Model VT4501



ORDER NO.	AIR SPEED (R.P.M.)	AIR CONSUMPTION (CFM)	BELT SIZE	PRICE EACH
3280-731	16,000	8	3/8 x 13	\$156.00

Air Blow Gun - 2 Tips

- 1/4" NPT Threads
- 11 CFM - OSHA round tip • 8 CFM - Point tip
- Easy one-hand operation
- Baked dry powder finish for maximum durability
- Model No. VT9000



ORDER NO.	WEIGHT (LBS)	THREAD SIZE - NPT	AIR CONSUMPTION (CFM)	PRICE EACH
3280-722	.035	1/4"	11	\$5.00

Coupler & Plug Interchanges

With the Milton "Match-up system" all couplers and plugs with same letter code (on face of skin-card) can be used together regardless of thread sizes. Milton "M" style "Kwik-change" couplers and plugs will INTERCHANGE with all manufacturers who comply with the dimensional requirements of military specification MIL-C-4109

MILTON	AMFLO	ARO	CAMEL	COIL HOSE	DIXON	FORNEY	LINCOLN	NAPA	PARKER	TRU-FLATE	MILTON
1/4" Basic size: MILTON INDUSTRIAL "M" STYLE											
711	C20-AU		61-572			75305	5878	90-669		13-201	711
715	C20	MSCF22-000	61-573	150	DC20	75317	632004	90-670	B23	13-235/13-236	715
716	C21	MSCM22-000	61-574	152	DC21	75316		90-672	B22	13-224/13-225	716
717	C20-42	MSCH22-000	61-575	153	DC2042	75480		90-671	B20-3B	13-264	717
717-6	C20-44	MSCH23-000	61-720		DC2044					13-266	717-6
718	C20-23	MSCF23-000	61-718	151	DC2023	75479		90-667	B23E	13-236	718
719	C21-03	MSCM23-000	61-716	155	DC2103			90-657	B22E	13-225	719
726	CP21-01	23902-110		1504	DC2101		630102	90-675	H0C		726
727	CP21	23902-210	61-578	1501	DCP21	75301	630104	90-674	H2C	12-224/12-225	727
728	CP20	23902-200	61-579	1502	DCP20	75302	630204	90-676	H3C	12-234/12-235	728
729	CP20-21	23902-100		1509	DCP2021			90-665	H1C		729
731	CP22		61-023								731
732	CP20-23	23902-300		1505	DCP2023			90-659	H3C-E	12-236	732
733	CP21-03	23902-310	61-535	1503	DCP2103	75471		90-677	H2C-E	12-226	733
736	CP21-42	23902-220	61-576	1506	DCP2142			90-673	H8C	12-264	736
736-6	CP21-44	23902-420		1508	DCP2144	75472			H9C	12-266	736-6
745						75527				13-510/13-511	745
746						75526				13-508/13-509	746
755	C40B	MSCF22-X00	61-013		DCB20	75520		90-615	B33	13-755	755
756	C41B	MSCM22-X00	61-011		DCB21	75521		90-617	B32	13-756	756
1717-4	C20-42L	MSCP22-000							B20-3BP		1717-4
1717-6	C20-44L	MSCP23-000							B20-5BP		1717-6
1736-4	CP21-42L	23902-227							H8CP		1736-4
1736-6	CP21-44L	23902-228							H9CP		1736-6
1/4" Basic size: ARO 210 "A" STYLE											
772						75522				13-301	772
775	C38, C46	210	61-518, 61-526	140	DC38	75318		90-613	B53	13-334/13-335	775
776	C37, C45	210-212	61-527, 61-581		DC37	75482			B50	13-324/13-325	776
776-4	C38-42	210-022			DC3842			90-679	B50-3BP		776-4
776-6	C38-44	210-215			DC3844				B50-5BP		776-6
777	CP37	2608	61-528	1401	DCP37	75303	13329	90-618	A2C	12-324/12-325	777
777-4	CP37-42	3946		1406	DCP3742				A8C		777-4
777-6	CP37-44	22238			DCP3744						777-6
778	CP38	2609	61-529	1402	DCP38	75473	13331	90-620	A3C	12-334/12-335	778
1776-4	C38-42L	210-227									1776-4
1776-6	C38-44L	210-028									1776-6
1777-4	CP37-42L	6944							A8CP		1777-4
1777-6	CP37-44L										1777-6
3/8" Basic size: ARO "AA" STYLE											
1875	C36	310			DC36						1875
1877	CP35	3804			DCP35						1877
1878	CP36	3806			DCP36						1878
1/4" Basic size: LINCOLN "L" STYLE											
790	C28	LNCF22-000	61-548	170	DC28	75523 w/plug	815	90-644	B73	13-434/13-435	790
791	CP27	LNPM22-000	61-550	1701	DCP27	75304	11659	90-648	L2C	12-424/12-425	791
792	CP28	LNPF22-000	61-551	1702	DCP28	75524	11661	90-650	L3C	12-434/12-435	792
794	C27	LNCM22-000	61-486		DC27	75525		90-645		13-424/13-425	794
1/4" Basic size: TRU-FLATE/PARKER "T" STYLE											
779	CP12		61-544							12-104	779
780			61-543					90-634			780
781	CP14		61-552					90-652			781
782						75519		90-624		13-101	782
783	CP1	TFPM22-000	61-538	1601	DCP1	75300	5872	90-628	2C	12-124/12-125	783
783-4	CP1-42	TFPH22-000		1606	DCP142	75470		90-630	8C	12-117	783-4
783-6	CP1-44	TFPH23-000		1608	DCP143			90-626	9C		783-6
784	CP2	TFPF22-000	61-539	1602	DCP2	75308	5873	90-600	3C	12-134/12-135	784
785	C2	TFCF22-000	61-523	160	DC2	75315	5871	90-610	B13	13-134/13-135	785
786	C1	TFCM22-000	61-524	162	DC1	75309	5870	90-607	B12	13-124/13-125	786
786-4	C2-42	TFCH22-000		163	DC242			90-611	B10-3B	13-164	786-4
786-6	C2-44	TFCH23-000		166	DC244			90-609	B10-5B		786-6
787	C2R		61-487, 61-545			75478				13-136/13-137	787
788	C2-23	TFCF23-000	61-704							13-138	788
789	C1-03	TFCM23-000			DC103						789
1783-4	CP1-42L	TFPP22-000							8CP		1783-4
1783-6	CP1-44L	TFPP23-000							9CP		1783-6
1786-4	C2-42L	TFCH22-000							B10-3BP		1786-4
1786-6	C2-44L	TFCH23-000							B10-5BP		1786-6

Universal Couplers



5 In ONE™ Universal Safety Exhaust Coupler

The 5 In ONE™ Universal Industrial Safety Exhaust couplers by Milton are designed to safely bleed off air pressure before releasing the connector. The safety exhaust feature allows for safe disconnection, eliminating potentially dangerous hose whip. The coupler remains connected to the plug while pressurized air is safely bled off. Ideal for applications requiring a durable and long lasting pneumatic coupler, Milton's safety couplers are constructed of heavy-duty steel. Connects to all major interchanges including Industrial (M-style), High flow (V-Style), Automotive (T-Style), Aro (A-Style), and Lincoln (L-Style).



Specifications:

- Compatible with Industrial (M-style), High flow (V-style), Automotive (T-style), Aro (A-style), and Lincoln (L-Style).
- Available in 1/4" and 3/8" thread size in both Female and Male NPT

S-1750 - 1/4" Female NPT - Order No. 3351-836 Price Each: \$27.72

S-1751 - 1/4" Male NPT - Order No. 3351-839 Price Each: \$27.72

S-1752 - 3/8" Female NPT - Order No. 3351-842 Price Each: \$29.66

S-1753 - 3/8" Male NPT - Order No. 3351-845 Price Each: \$29.66

5 In ONE™ Universal Quick Connect Coupler

Milton's 5 In ONE™ Universal Industrial couplers are designed to Connects to all major interchanges: Industrial (M-style), High flow (v-style), automotive (t-style), Aro (A-style), and Lincoln (L-Style). Constructed of heavy-duty steel which is ideal for applications requiring a durable and long lasting pneumatic coupler.



Specifications:

- Compatible with Industrial (M-style), High flow (v-style), Automotive (t-style), Aro (A-style), and Lincoln (L-Style)
- 1/4" NPT - Female or Male
- 6 Ball Construction for long life

S-743 - 1/4" Female NPT

Order No. 3351-830 Price Each: \$21.31

S-744 - 1/4" Male NPT

Order No. 3351-833 Price Each: \$21.31

Coupler & Plug Interchanges (Continued)

MILTON	AMFLO	ARO	CAMEL	COIL HOSE	DIXON	FORNEY	LINCOLN	NAPA	PARKER	TRU-FLATE	MILTON
3/8" Basic size: MILTON INDUSTRIAL "H" STYLE											
1796-6	C26-44L	MSCP33-000							24-5BP		1796-6
1797-6	CP25-44L	23903-28							H5EP		1797-6
1833	C26-22	MSCM32-000		582	DC2622			90-629	25C		1833
1834	C25-02							90-625			1834
1835	C26	MSCF33-000	61-482	580	DC26	75321	642006	90-680	25	13-536/13-537	1835
1836	C25	MSCM33-000	61-483	581	DC25	75483		90-682	24	13-526/13-527	1836
1836-6	C26-44	MSCH33-000		586	DC2644			90-635	24-6B		1836-6
1837	CP25	23903-310	61-484	5801	DCP25	75307	640108	90-683	H2E	12-526/12-527	1837
1837-6	CP25-44	23903-420		5806	DCP2544			90-651	H5E		1837-6
1838	CP26	23903-300	61-485	5802	DCP26	75474	640206	90-681	H3E	12-536/12-537	1838
1839	CP25-02	23903-210		5803	DCP2502		640104	90-605	H0E	12-525	1839
1840	CP26-22	23903-200		5804	DCP2622		640204	90-606	H1E	12-535	1840
3/8" Basic size: TRU-FLATE/PARKER "P" STYLE											
1746-6	C6-44L	TFCP23-000							14-5BP		1746-6
1747-6	CP5-44L	TFPP23-000							5EP		1747-6
1803	C8	TFCF32-000	61-476	592	DC8	75485		90-686	15C	13-610/13-611	1803
1804	C7	TFCM32-000	61-478		DC7			90-684		13-602	1804
1805	C6	TFCF33-000	61-553	590	DC6	75320	5874	90-654	15	13-612/13-613	1805
1806	C5	TFCM33-000	61-554	591	DC5	75484		90-656	14	13-604	1806
1806-6	C6-44	TFCH33-000		598	DC644			90-521	14-5B	13-666	1806-6
1807	CP5	TFPM33-000	61-558	5901	DCP5		5875	90-658	2E	12-604/12-605	1807
1807-6	CP5-44	TFPH33-000		5906	DCP544			90-530	5E		1807-6
1808	CP6	TFPF33-000	61-559	5902	DCP6	75476	5876	90-660	3E	12-612	1808
1809	CP7	TFPM32-000	61-480	5903	DCP7	75475		90-685	0E	12-602/12-603	1809
1810	CP8	TFPE32-000	61-481	5904	DCP8			90-687	1E	12-610	1810
1/2" Basic size: MILTON INDUSTRIAL "G" STYLE											
1813	C10-23	TFCF43-000	61-472	123	DC1023			90-690	17E	13-710	1813
1814	C9-03	TFCM43-000		121	DC903			90-688	16E	13-702	1814
1815	C10	TFCF44-000	61-563	120	DC10		652008	90-662	B37	13-712/13-713	1815
1816	C9	TFCM44-000	61-564	122	DC9			90-664	B36	13-704	1816
1855											1855
1857	CP17	23904-410	61-134	1201	DCP17		650108	90-578	H2F	12-752	1857
1858	CP18	23904-400	61-137	1202	DCP18		650208	90-588	H3F	12-762	1858
1859	CP17-03	23904-310	61-133	1203	DCP1703		650106	90-575	H0F		1859
1860	CP18-23	23904-3	61-136	1204	DCP1823		650206	90-587	H1F		1860
1/2" Basic size: TRU-FLATE/PARKER "G" STYLE											
1813	C10-23	TFCF43-000	61-472	123	DC1023			90-690	17E	13-710	1813
1814	C9-03	TFCM43-000		121	DC903			90-688	16E	13-702	1814
1815	C10	TFCF44-000	61-563	120	DC10			90-662	B37	13-712/13-713	1815
1816	C9	TFCM44-000	61-564	122	DC9			90-664	B36	13-704	1816
1817	CP9	TFPM44-000	61-568		DCP9			90-666	2F	12-704/12-705	1817
1818	CP10	TFPF44-000	61-569		DCP10			90-668	3F	12-712	1818
1819	CP9-03	TFPM43-000	61-474		DCP903			90-689	0F	12-702	1819
1820	CP10-23	TFPF43-000	61-475		DCP1023			90-691	1F	12-710	1820

No liability is assumed resulting from the use of the information contained herein.

Air Couplers & Plugs

Milton Industrial Interchange Series



S-715



S-716



717

Ctn. Qty.: 10

"M"STYLE 1/4" BASIC SIZE

NPT THREAD	FEMALE	ORDER NO.	PRICE EACH	MALE	ORDER NO.	PRICE EACH	BARB	ORDER NO.	PRICE EACH
COUPLERS									
1/4"	S-715	3350-389	\$8.03	S-716	3350-392	\$8.03	717	3350-394	\$10.37
3/8"	S-718	3350-399	\$10.41	S-719	3350-402	\$10.41	717-6	3350-396	\$10.99



S-728



S-727



S-736

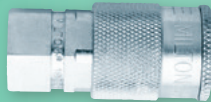
Ctn. Qty.: 10, Male/Female: 2/cd

"M"STYLE 1/4" BASIC SIZE

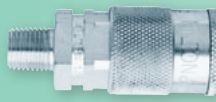
NPT THREAD	FEMALE	CARD PACK	ORDER NO.	PRICE PER CARD	MALE	CARD PACK	ORDER NO.	PRICE PER CARD	BARB	ORDER NO.	PRICE EACH
PLUGS											
1/4"	S-728	2	3350-409	\$3.96	S-727	2	3350-406	\$3.84	736	3350-419	\$4.16
3/8"	S-732	2	3350-414	\$6.90	S-733	2	3350-417	\$6.70	736-6	3350-421	\$4.21

"M-STYLE 1/4" COUPLER & PLUG COMBOS AND KITS

KIT PART NO.	DESCRIPTION	COUPLER	PLUG	CTN. QTY.	ORDER NO.	PRICE EACH
S-711	M style coupler & plug combo	(1) 715	(1) 727	10	3350-383	\$9.76
S-210	M style coupler & plug kit- 12 pc.	(2) 715	(8) 727, (2) 728	5	3350-068	\$33.89
S-211	M style coupler & plug kit- 5 pc.	(1) 715	(3) 727, (1) 728	10	3350-069	\$15.26
S-212	M style coupler & plug kit- 7 pc.	(1) 715	(3) 727, (3) 728	10	3350-070	\$19.09



S-1833



S-1836



S-1836-6

"H"STYLE 3/8" BASIC SIZE

Ctn. Qty.: 5

NPT THREAD	FEMALE	ORDER NO.	PRICE PER CARD	MALE	ORDER NO.	PRICE PER CARD	BARB	ORDER NO.	PRICE EACH
COUPLERS									
1/4"	S-1833	3350-995	\$17.96	1834	3350-997	\$17.76	-	-	-
3/8"	S-1835	3351-000	\$18.31	S-1836	3351-003	\$18.31	1836-6	3351-005	\$19.96

"H"STYLE 3/8" BASIC SIZE

Ctn. Qty.: 10, Male/Female: 2/cd

NPT THREAD	FEMALE	CARD PACK	ORDER NO.	PRICE PER CARD	MALE	CARD PACK	ORDER NO.	PRICE PER CARD	BARB	ORDER NO.	PRICE EACH
PLUGS											
1/4"	S-1840	2	3351-018	\$7.03	S-1839	2	3351-015	\$6.87	-	-	-
3/8"	S-1838	2	3351-012	\$7.89	S-1837	2	3351-007	\$7.76	1837-6	3351-009	\$5.12



S-1815



S-1816

Ctn. Qty.: 5

"G"STYLE 1/2" BASIC SIZE

NPT THREAD	FEMALE	ORDER NO.	PRICE EACH	MALE	ORDER NO.	PRICE EACH
COUPLERS						
3/8"	1813	3350-976	\$20.62	1814	3350-977	\$20.20
1/2"	S-1815	3350-979	\$21.48	S-1816	3350-982	\$21.32
PLUGS						
1/4"	-	-	-	1855	3351-020	\$4.95
3/8"	1860	3351-024	\$5.81	1859	3351-023	\$5.07
1/2"	1858	3351-022	\$6.25	1857	3351-021	\$5.79

M-Style Couplers & Plugs

Milton M-style "Kwik-change" couplers and plugs will interchange with all manufacturers who comply with the dimensional requirements of military specification MIL-C-4109.

- M-style coupler bodies are brass with brass sleeves
- M-style plugs are case hardened steel, plated to resist rust
- Maximum inlet pressure: 300 PSI
- Maximum temperature: 250° F
- Air flow: 40 SCFM
- Seals: Buna-N

WARNING: COUPLERS IN THIS SECTION ARE FOR USE WITH SHOP AIR ONLY.

M-Style Synthetic Washer

- Replacement M-style part # 768
- Sold in standard packs of 10 only.

Order No. 3350-457 Price Each: \$0.64

H-Style Couplers & Plugs

- H-style coupler bodies steel, plated to resist rust
- H-style plugs are case hardened steel plated to resist rust
- Maximum inlet pressure: 300 PSI
- Maximum temperature: 250° F
- Seals: Buna-N

WARNING: COUPLERS IN THIS SECTION ARE FOR USE WITH SHOP AIR ONLY.

G-Style Couplers & Plugs (Industrial Interchange)

- G-style coupler bodies are steel, plated to resist rust
- G-style plugs are case hardened steel, plated to resist rust
- Maximum inlet pressure: 300 PSI
- Maximum temperature: 250° F
- Air flow: 99 SCFM
- Seals: Buna-N

WARNING: COUPLERS IN THIS SECTION ARE FOR USE WITH SHOP AIR ONLY.

Air Couplers & Plugs



ARO Interchange Series



S-775



S-776



S-776-4

Ctn. Qty.: 10

"A 210" STYLE 1/4" BASIC SIZE

NPT THREAD	FEMALE	ORDER NO.	PRICE EACH	MALE	ORDER NO.	PRICE EACH	BARB	ORDER NO.	PRICE EACH
COUPLERS									
1/4"	S-775	3350-460	\$10.80	S-776	3350-463	\$12.04	776-4	3350-465	\$13.54
3/8"	-	-	-	-	-	-	776-6	3350-466	\$16.02

A 210 Style Couplers & Plugs

- A-style couplers are push type
- A-style coupler bodies are steel, plated to resist rust
- A-style plugs are case hardened steel, plated to resist rust
- Maximum inlet pressure: 300 PSI
- Maximum temperature: 250° F
- Air flow: 34 SCFM
- Seals: Buna-N

WARNING: COUPLERS IN THIS SECTION ARE FOR USE WITH SHOP AIR ONLY.



S-777



S-778



S-777-4

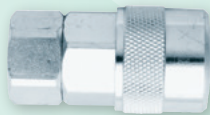
Ctn. Qty.: 10 Male/Female; 2/cd

"A 210" STYLE 1/4" BASIC SIZE

NPT THREAD	FEMALE	CARD PACK	ORDER NO.	PRICE PER CARD	MALE	CARD PACK	ORDER NO.	PRICE PER CARD	BARB	ORDER NO.	PRICE EACH
PLUGS											
1/4"	S-778	2	3350-475	\$4.53	S-777	2	3350-468	\$4.60	777-4	3350-470	\$4.27
3/8"	-	-	-	-	-	-	-	-	777-6	3350-472	\$5.62

A-STYLE 1/4" COUPLER & PLUG COMBOS AND KITS

KIT PART NO.	DESCRIPTION	COUPLER	PLUG	ORDER NO.	PRICE EACH
S-772	A style coupler & plug combo	(1) 775	(1) 777	3350-458	\$13.19
S-213	A style coupler & plug kit - 5 pc.	(1) 775	(3) 777, (1) 778	3350-071	\$19.52



1875



1877



1878

Ctn. Qty.: 5

"AA 310" STYLE 3/8" BASIC SIZE

NPT THREAD	FEMALE	ORDER NO.	PRICE EACH	MALE	ORDER NO.	PRICE EACH
COUPLERS						
3/8"	1875	3351-048	\$20.26	-	-	-
PLUGS						
3/8"	1878	3351-050	\$4.55	1877	3351-049	\$4.10

AA-ARO 310 Style Couplers & Plugs

- AA-style couplers are push type
- AA-style coupler bodies are heavy duty steel
- AA-style plugs are case hardened steel, plated to resist rust
- Maximum inlet pressure: 300 PSI
- Maximum temperature: 250° F
- Air flow: 59 SCFM
- Seals: Buna-N

WARNING: COUPLERS IN THIS SECTION ARE FOR USE WITH SHOP AIR ONLY.

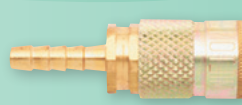
Tru-flate (Automotive) Interchange Series



S-785



S-786



786-4

Ctn. Qty.: 10

"T" STYLE 1/4" BASIC SIZE

NPT THREAD	FEMALE	ORDER NO.	PRICE EACH	MALE	ORDER NO.	PRICE EACH	BARB	ORDER NO.	PRICE EACH
COUPLERS									
1/4"	S-785	3350-490	\$9.57	S-786	3350-493	\$9.91	786-4	3350-495	\$12.44
3/8"	788	3350-499	\$10.58	789	3350-500	\$8.54	786-6	3350-496	\$13.21

T Style Couplers & Plugs

- T-style coupler bodies are brass
- T-style plugs are case hardened steel, plated to resist rust
- Maximum inlet pressure: 300 PSI
- Maximum temperature: 250° F
- Air flow: 40 SCFM
- Seals: Buna-N

WARNING: COUPLERS IN THIS SECTION ARE FOR USE WITH SHOP AIR ONLY.

Air Couplers & Plugs



Tru-flate (Automotive) Interchange Series (Continued)



S-784



S-783

"T" STYLE 1/4" BASIC SIZE

Ctn. Qty.: 10 Male/Female: 2/cd

NPT THREAD	FEMALE	CARD PACK	ORDER NO.	PRICE PER CARD	MALE	CARD PACK	ORDER NO.	PRICE PER CARD
PLUGS								
1/4"	S-784	2	3350-487	\$4.25	S-783	2	3350-482	\$4.27
T-STYLE 1/4" COUPLER & PLUG COMBOS AND KITS								
KIT PART NO.	DESCRIPTION			COUPLER	PLUG	ORDER NO.	PRICE EACH	
S-782	T style coupler & plug combo			(1) 785	(1) 783	3350-480	\$12.23	
S-215	T style coupler & plug kit - 5 pc.			(1) 785	(3) 783, (1) 784	3350-072	\$16.87	

T Style Couplers & Plugs

- T-style coupler bodies are brass
- T-style plugs are case hardened steel, plated to resist rust
- Maximum inlet pressure: 300 PSI
- Maximum temperature: 250° F
- Air flow: 40 SCFM
- Seals: Buna-N

WARNING: COUPLERS IN THIS SECTION ARE FOR USE WITH SHOP AIR ONLY.



S-1807



S-1808



1807-6

"P" STYLE 3/8" BASIC SIZE

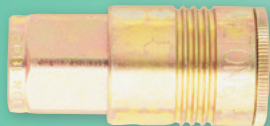
Ctn. Qty.: 10 Male/Female: 2/cd

NPT THREAD	FEMALE	CARD PACK	ORDER NO.	PRICE PER CARD	MALE	CARD PACK	ORDER NO.	PRICE PER CARD	BARB	ORDER NO.	PRICE EACH
PLUGS											
1/4"	S-1810	2	3350-973	\$6.88	S-1809	2	3350-970	\$6.75	-	-	-
3/8"	S-1808	2	3350-967	\$7.52	S-1807	2	3350-963	\$7.44	1807-6	3350-965	\$4.05

P Style Couplers & Plugs

- P-style coupler bodies are heavy duty steel
- P-style plugs are case hardened steel plated to resist rust
- Bodies have 8 locking balls
- Maximum inlet pressure: 300 PSI
- Maximum temperature: 250° F
- Air flow: 68 SCFM
- Seals: Buna-N

WARNING: COUPLERS IN THIS SECTION ARE FOR USE WITH SHOP AIR ONLY.



S-1803



1804

"P" STYLE 3/8" BASIC SIZE

NPT THREAD	FEMALE	ORDER NO.	PRICE EACH	MALE	ORDER NO.	PRICE EACH
COUPLERS						
1/4"	S-1803	3350-950	\$17.32	1804	3350-952	\$16.77
3/8"	S-1805	3350-955	\$17.60	S-1806	3350-958	\$17.55

Ctn. Qty.: 5

Push Button Safety Couplers

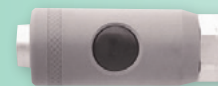
Double click to engage properly. First click locks coupler and plug; the second click engages the air pressure. To disconnect, push button twice. First push relieves pressure; second push allows plug and coupler to be disengaged.



S-99705



S-99706



S-99773



S-99774

Ctn. Qty.: 5

SAFETY COUPLERS

PART NO.	THREAD TYPE	STYLE	NPT SIZE	ORDER NO.	PRICE EACH
S-99705	Female	M	1/4"	3351-355	\$22.64
S-99706	Male	M	1/4"	3351-356	22.81
S-99773	Female	A	1/4"	3351-357	23.07
S-99774	Male	A	1/4"	3351-358	21.84

G Style Couplers & Plugs (Tru-flate/Automotive)

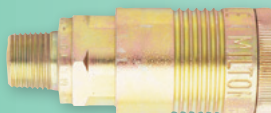
- G-style coupler bodies are steel plated to resist rust
- G-style plug bodies are case hardened steel to resist rust

- Maximum inlet pressure: 300 PSI
- Air flow: 99 SCFM
- Maximum temperature: 250° F
- Seals: Buna-N

WARNING: COUPLERS IN THIS SECTION ARE FOR USE WITH SHOP AIR ONLY.



S-1813



1814

"G" STYLE 1/2" BASIC SIZE

Ctn. Qty.: 5

NPT THREAD	FEMALE	ORDER NO.	PRICE EACH	MALE	ORDER NO.	PRICE EACH
COUPLERS						
3/8"	1813	3350-976	\$20.62	1814	3350-977	\$20.20
1/2"	S-1815	3350-979	\$21.48	S-1816	3350-982	\$21.32



S-1818



S-1817

Ctn. Qty.: 5

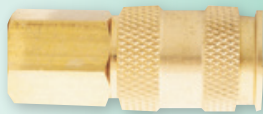
"G" STYLE 1/2" BASIC SIZE

NPT THREAD	FEMALE	ORDER NO.	PRICE EACH	MALE	ORDER NO.	PRICE EACH
PLUGS						
3/8"	1820	3350-992	\$5.86	1819	3350-990	\$4.86
1/2"	S-1818	3350-988	\$6.90	S-1817	3350-985	\$5.90

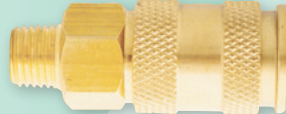
Air Couplers & Plugs



V-Style Hi-Flow Interchange Series



S-764



S-765

"V"STYLE 1/4" BASIC SIZE						Ctn. Qty.: 10
NPT THREAD	FEMALE	ORDER NO.	PRICE EACH	MALE	ORDER NO.	PRICE EACH
COUPLERS						
1/4"	S-764	3350-450	\$10.12	S-765	3350-452	\$9.82
3/8"	S-766	3350-454	11.04	S-767	3350-456	11.04



S-761-1



S-760-1

"V"STYLE 1/4" BASIC SIZE									Ctn. Qty.: 10, 2/cd	
NPT THREAD	FEMALE	CARD PACK	ORDER NO.	PRICE PER CARD	MALE	CARD PACK	ORDER NO.	PRICE PER CARD		
PLUGS										
1/4"	S-761-1	2	3350-440	\$4.55	S-760-1	2	3350-436	\$4.42		
3/8"	S-763-1	2	3350-448	7.09	S-762-1	2	3350-444	6.92		

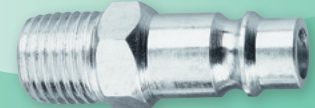
V Style Couplers & Plugs

- V-style specifically designed for HVLP (High Volume Low Pressure) applications.
- V-style couplers will accept "M" and "A" style plugs, however to retain max. flow, use "V" style plugs
- V-style couplers are push-type
- Maximum inlet pressure: 300 PSI
- Maximum temperature: 250° F
- Air flow: 74 SCFM
- Seals: Buna-N

WARNING: COUPLERS IN THIS SECTION ARE FOR USE WITH SHOP AIR ONLY.



S-764



S-760-1

"V"STYLE 1/4" BASIC SIZE					
KIT NO.	DESCRIPTION	COUPLER	PLUG	ORDER NO.	PRICE EACH
V-STYLE 1/4" COUPLER & PLUG COMBOS AND KITS					
S-216	1/4" V style coupler & plug combo	(1) 764	(1) 760-1	3350-073	\$12.48
S-217	1/4" V style coupler & plug kit- 6 pc.	(2) 764	(2) 760-1, (2) 761-1	3350-074	\$27.69

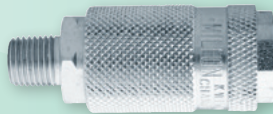
Lincoln Interchange Series - L Style Couplers & Plugs

- L-style couplers are push type
- L-style plugs are case hardened steel, plated to resist rust
- L-style couplers are steel, plated to resist rust
- Maximum inlet pressure: 300 PSI
- Maximum temperature: 250° F
- Air flow: 32 SCFM
- Seals: Buna-N

WARNING: COUPLERS IN THIS SECTION ARE FOR USE WITH SHOP AIR ONLY.



S-790



794

"L"STYLE 1/4" BASIC SIZE						Ctn. Qty.: 10
NPT THREAD	FEMALE	ORDER NO.	PRICE EACH	MALE	ORDER NO.	PRICE EACH
COUPLERS						
1/4"	S-790	3350-502	\$16.87	794	3350-510	\$17.16



S-792



S-791

"L"STYLE 1/4" BASIC SIZE							Ctn. Qty.: 10, 2/cd		
NPT THREAD	FEMALE	CARD PACK	ORDER NO.	PRICE PER CARD	MALE	CARD PACK	ORDER NO.	PRICE PER CARD	
PLUGS									
1/4"	S-792	2	3350-508	\$6.48	S-791	2	3350-505	\$5.98	

AMT-Style Interchange Series - 3-Way Couplers

- AMT-style are push type with drag guard
- Heavy duty brass-rust resistant
- Accepts the 3 most popular 1/4" basic style plugs sold
- 1- Milton or industrial style plugs (M-style)
- 2- Aro 210-style plugs (A-style)
- 3- Tru-Flate/Parker automotive style plugs (T-style)

WARNING: COUPLERS IN THIS SECTION ARE FOR USE WITH SHOP AIR ONLY.



S-745



S-746

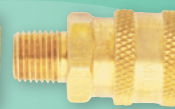
"AMT"STYLE 1/4" BASIC SIZE							Ctn. Qty.: 10
NPT THREAD	FEMALE	ORDER NO.	PRICE EACH	MALE	ORDER NO.	PRICE EACH	
COUPLERS							
1/4"	S-745	3350-424	\$17.64	S-746	3350-427	\$18.06	

Straight Thru Couplers & Plugs

- Straight thru couplers are brass with stainless steel balls and spring
- Straight thru plugs are case hardened steel, plated to resist rust
- Compatible with other major manufacturers of straight thru couplers
- Application: high pressure washers, industrial carpet cleaning



1765



1762



1764



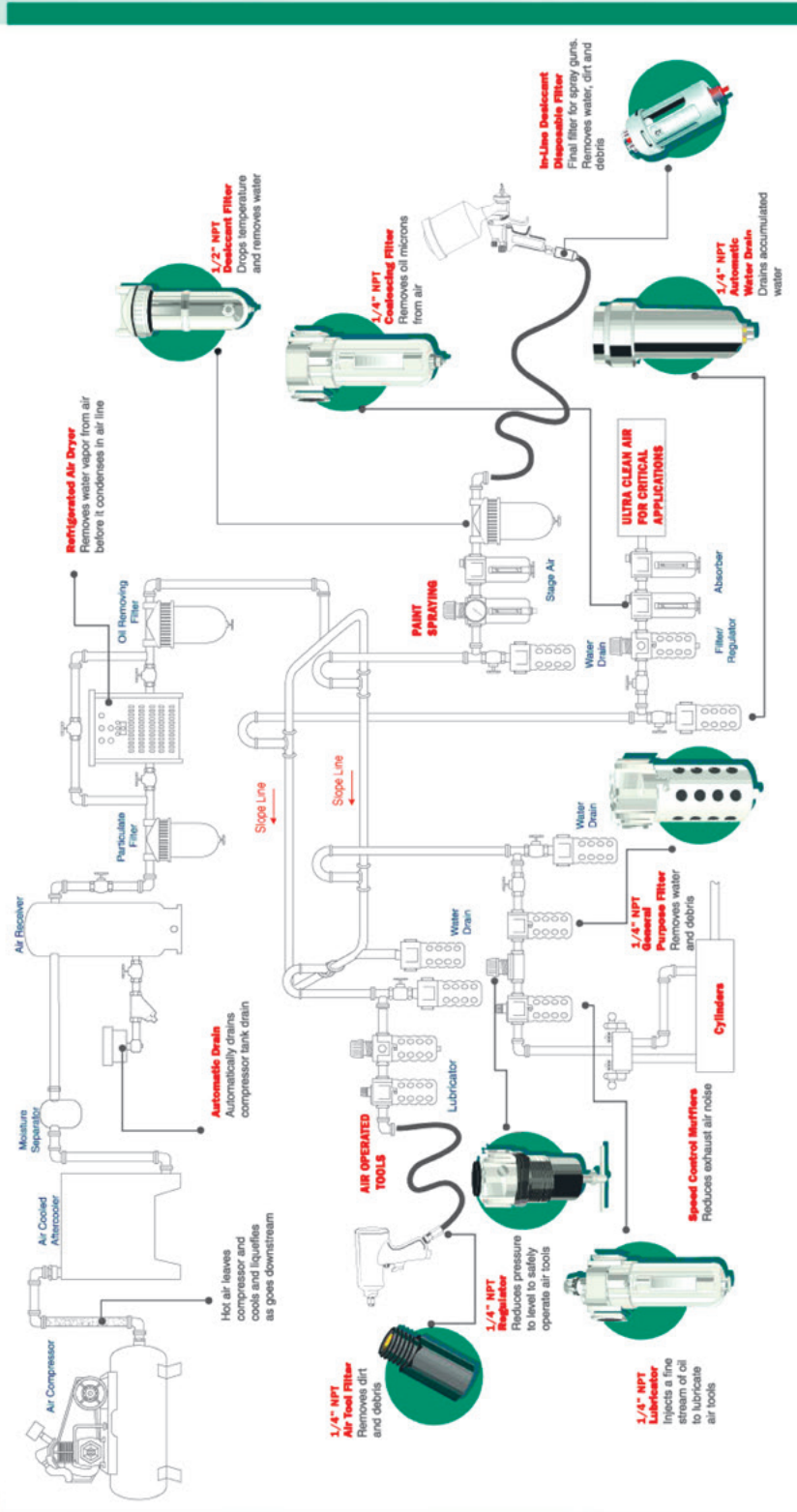
1763

STRAIGHT THRU 1/4" & 3/4" BASIC SIZE							Ctn. Qty.: 10
NPT THREAD FEMALE		ORDER NO.	PRICE EACH	MALE	ORDER NO.	PRICE EACH	
COUPLERS							
1/4"	1761	3350-919	\$11.42	1762	3350-921	\$11.66	
PLUGS							
1/4"	1764	3350-925	\$3.45	1763	3350-923	\$2.62	
3/8"	1768	3350-933	4.79	1767	3350-931	5.29	

TECH TIPS

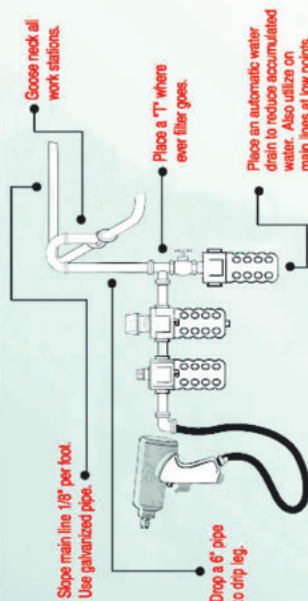
BUILDING AN EFFICIENT AIR SYSTEM

Compressed air powered equipment and machinery are critical elements in the productivity, efficiency, and economy of today's industry and quality air is the essential element. Water and dirt cause more problems in compressed air lines than anything else. High speed pneumatic production lines operate efficiently because of air dryers and filters that remove moisture and impurities from the air, which results in eliminating downtime. Regulators and lubricators can be added to control and lubricate downstream equipment. A good air system is the key to saving time, money and to operating at maximum efficiency.



5 IMPORTANT STEPS TO AN AIR SYSTEM SETUP

1. Main line filter and regulator should be placed at least 20 feet from the compressor. The air will cool down, allowing much of the water vapor to condense naturally for removal by filtration.
2. Main line piping should slope down from point of origin by 1/8" per foot. Any water in the line will flow down to the lowest point for draining.
3. All line drops (work stations) should be taken from the top of the main line. This prevents water from flowing into branch lines.
4. Galvanized pipe is recommended when building an air system.
5. Follow illustration to the right when building a work station drop.



MILTON
PRODUCTS

Micro Filters



1018



1018-8

- All micro filters supplied with preassembled AUTOMATIC OVERNIGHT DRAIN
- Porous bronze 40 micron filter element allows less pressure drop and longer cleaning intervals
- Safety metal bowl guards or metal bowls standard on 1/4", 3/8", 1/2" models
- Metal bowls only on 3/4" and 1" models
- 3 stage baffle system for exceptional moisture removal.
- Sintered bronze elements are permanent and cleanable
- Light weight aluminum die-cast housing
- Element range 10 or 40 microns exactly matching filter and air flow needs
- Corrosion resistant metal bowls
- 1022-8 and 1022-10 include sight glass for visual check of condensation collection

WARNING: FOR COMPRESSED AIR SERVICE ONLY. NOT TO BE USED ON LIFE SUPPORT SYSTEMS OR BREATHING AIRSYSTEMS. NEVER USE POLY-CARBONATE PLASTIC BOWLS ON AIR SUPPLIED BY A COMPRESSOR LUBRICATED WITH SYNTHETIC OILS OR OIL CONTAINING PHOSPHATE ESTERS OR CHLORINATE HYDROCARBONS.

MICRO & MINI FILTERS

PART NO.	NPT	ORDER NO.	PRICE EACH	BOWL TYPE	BOWL CAPACITY	MAX. SCFM	MAX INLET PSI	TEMP. OP. RANGE	FILTER ELEMENT(MICRON)
1018	1/4"	3350-552	\$72.43	POLY w/GUARD	5 OZ	48	150	40°F-120°F	40, 10 opt.
1018-8	1/4"	3350-554	85.62	METAL	6 OZ	48	250	40°F-160°F	40, 10 opt.
1019	3/8"	3350-557	72.84	POLY w/ GUARD	5 OZ	75	150	40°F-120°F	40, 10 opt.
1019-8	3/8"	3350-559	85.62	METAL	6 OZ	75	250	40°F-160°F	40, 10 opt.
1020	1/2"	3350-560	74.22	POLY w/ GUARD	5 OZ	100	150	40°F-120°F	40, 10 opt.
1020-8	1/2"	3350-562	85.19	METAL	6 OZ	100	250	40°F-160°F	40, 10 opt.
1022-8	3/4"	3350-563	170.45	METAL	10 OZ	230	250	40°F-160°F	40
1022-10	3/4"	3350-564	263.96	METAL	20 OZ	245	250	40°F-160°F	40
1120-8	1/2"	3350-682	115.80	METAL	9 OZ	115	250	40°F-160°F	40
1122-8	1"	3350-683	197.29	METAL	29 OZ	300	250	40°F-160°F	40
S-1144	1/4"	3350-694	47.54	POLY	1 OZ	27	150	40°F-120°F	20
1144 M	1/4"	3350-697	58.26	METAL	1 OZ	27	250	40°F-120°F	20

REPAIR PARTS

MICRO FILTER PART NO.	BOWL KIT	ORDER NO.	PRICE EACH	FILTER (40 MICRON)	ORDER NO.	PRICE EACH
1018	1018-P	3350-556	\$43.00	1118-1	3350-679	\$17.21
1018-8	1018-M	3350-555	61.11	1118-1	3350-679	17.21
1019	1018-P	3350-556	43.00	1118-1	3350-679	17.21
1019-8	1018-M	3350-555	61.11	1118-1	3350-679	17.21
1020	1018-P	3350-556	43.00	1118-1	3350-679	17.21
1020-8	1018-M	3350-555	61.11	1118-1	3350-679	17.21
1022-8	-	-	-	P1022-18	3351-364	23.80
(20 MICRON)						
S-1144	1152	3350-706	19.43	1144-1	3350-695	10.63
1144 M	-	-	-	1144-1	3350-695	10.63
1144-2	1152	3350-706	19.43	1144-1	3350-695	10.63

Coalescing Filters

An extremely efficient filter designed for applications that require air free of oil and all foreign particles. Effective filtration and low pressure drop make these filters perfect for fluidics, body shop, spray painting, food processing, instrumentation and pharmaceuticals.

- Automatic overnight drain • Metal bowl • .03 SUB-MICRON = 99.97 efficiency
- 1037-8 includes sight glass for visual check of condensation collection

COALESCING FILTERS

PART NO.	NPT	ORDER NO.	PRICE EACH	BOWL TYPE	BOWL CAPACITY	MAX. SCFM	MAX INLET PSI	TEMP. OP. RANGE	FILTER ELEMENT(MICRON)
1035	1/4"	3350-581	\$164.14	METAL	6 OZ	24	250	40°F-200°F	.03 Sub micron
1036	3/8"	3350-582	165.12	METAL	6 OZ	37	250	40°F-200°F	.03 Sub micron
1037	1/2"	3350-583	164.94	METAL	6 OZ	37	250	40°F-200°F	.03 Sub micron
1037-8	3/4"	3350-584	245.61	METAL	10 OZ	60	250	40°F-160°F	.03 Sub micron

REPAIR PARTS

COALESCING FILTER PART NO.	BOWL KIT	ORDER NO.	PRICE EACH
1035	1018-M	3350-555	\$61.11
1036	1018-M	3350-555	61.11
1037	1018-M	3350-555	61.11



1035



1037-8

Regulators, & Lubricators



Mid-Size & Heavy Duty Regulators

The Milton heavy duty and mid-size RELIEVING TYPE regulators offer stable downstream air pressure over a wide range of air flows with accurate control, fast response and minimal pressure drop. Offset 1/4" gage ports can also serve as two 1/4" supply lines, allowing up to three regulated full flow out ports. Gage not included, but available as an accessory.

WARNING: REGULATORS SHOULD ALWAYS BE PRECEDED BY A FILTER TO ELIMINATE DAMAGE TO THE UNIT OR INACCURATE AIR FLOW.

- Inlet pressure: 250 PSI
- Operating temperature: 40° F to 120° F
- Aluminum die-cast body
- Buna-N diaphragm and O rings
- Balanced piston, molded rubber seat



1113



S-1145

MID-SIZE & HEAVY DUTY REGULATORS								
PART NO.	NPT	ORDER NO.	PRICE EACH	MAX. SCFM	OP. RANGE PSI	MAX INLET PSI	GAGE PORT NPT	TEMP. OP. RANGE
1113	1/4"	3350-669	\$ 71.84	50	5-125	250	1/4"	40°F-120°F
1113-8	1/4"	3350-671	78.15	50	10-250	250	1/4"	40°F-120°F
1114	3/8"	3350-673	72.18	80	5-125	250	1/4"	40°F-120°F
1114-8	3/8"	3350-675	78.15	80	10-250	250	1/4"	40°F-120°F
1115	1/2"	3350-676	89.18	100	5-125	250	1/4"	40°F-120°F
1115-8	1/2"	3350-678	96.77	100	10-250	250	1/4"	40°F-120°F
1026	3/4"	3350-565	118.75	220	5-125	250	1/4"	40°F-120°F
1026-8	3/4"	3350-566	126.08	220	10-250	250	1/4"	40°F-120°F
1027	1"	3350-567	159.57	250	5-125	250	1/4"	40°F-120°F
1027-8	1"	3350-568	172.22	250	10-250	250	1/4"	40°F-120°F
S-1145	1/4"	3350-698	44.42	25	5-125	250	1/8"	40°F-120°F
S-1146	1/4"	3350-702	42.35	25	0-60	250	1/8"	40°F-120°F
1145-2	1/8"	3350-701	44.70	25	5-125	250	1/8"	40°F-120°F

Precision Lubricators

Ideal for the customer who wants trouble-free protection and tamper proof reliability. Drop style allows precise setting and then removal of adjustment knob. Perfect for lubrication of air motors, tools, valves or where low air flow is encountered or where extremely fine adjustments are necessary.

WARNING: POLYCARBONATE BOWLS CAN BE CHEMICALLY ATTACKED AND RUPTURE. CHECK INSTRUCTION SHEET WITH EACH LUBRICATOR FOR LIST OF KNOWN HARMFUL CHEMICALS.

- Sight glass dome on drop type allows observation for instant drip rate adjustment
- Tamper proof
- Lubricator may be filled without shutting down line pressure
- Oil supply tube check valve guarantees INSTANT START-UP LUBRICATION
- Low pressure drop at full air flow
- Oil delivered at an air flow as low as 2 SCFM



1028



1028-8



S-1150

PRECISION LUBRICATORS									
PART NO.	NPT	ORDER NO.	PRICE EACH	BOWL TYPE	BOWL CAPACITY	MAX. SCFM	MAX INLET PSI	TEMP. OP. RANGE	TYPE
1028	1/4"	3350-569	\$90.77	POLY W/ GUARD	5 OZ	16	150	40°F-125°F	DROP
1028-8	1/4"	3350-571	101.52	METAL	6 OZ	16	200	40°F-160°F	DROP
1029	3/8"	3350-574	95.22	POLY W/ GUARD	5 OZ	82	150	40°F-125°F	DROP
1029-8	3/8"	3350-576	101.89	METAL	6 OZ	82	200	40°F-160°F	DROP
1030	1/2"	3350-577	90.93	POLY W/ GUARD	5 OZ	142	150	40°F-125°F	DROP
1030-8	1/2"	3350-579	101.39	METAL	6 OZ	142	200	40°F-160°F	DROP
1031-8	1/2"	3350-580	118.94	METAL	9 OZ	142	200	40°F-160°F	DROP
1131-9	3/4"	3350-684	149.25	METAL	10 OZ	142	250	40°F-160°F	DROP
1132-8	1"	3350-686	197.29	METAL	29 OZ	175	250	40°F-160°F	WICK
S-1150	1/4"	3350-703	72.48	POLY	1 OZ	16	150	40°F-120°F	DROP
1150 M	1/4"	3350-705	88.95	METAL	1 OZ	16	150	40°F-120°F	DROP

REPAIR PARTS			
LUBRICATOR PART NO.	BOWL KIT	ORDER NO.	PRICE EACH
1028	1028-P	3350-573	\$40.82
-	-	-	-
1029	1028-P	3350-573	40.82
-	-	-	-
1030	1028-P	3350-573	40.82
-	-	-	-
-	-	-	-
-	-	-	-
-	-	-	-
-	-	-	-
S-1150	1152	3350-706	19.43

Piggyback Filter/Regulator

Piggyback duo has the features of the standard regulator, plus the space saving convenience of a combined filter. Gage not included, but available as an accessory.

- Non-rising adjustment
- 3 position knob lock/adjust/remove

REPAIR PARTS						
FILTER/REG. PART NO.	BOWL KIT	ORDER NO.	PRICE EACH	FILTER	ORDER NO.	PRICE EACH
S-1142	1152	3350-706	\$19.43	1144-1	3350-695	\$10.63
1142-1	1152	3350-706	19.43	1144-1	3350-695	10.63



1109

PIGGYBACK FILTERS/REGULATORS											
PART NO.	NPT	FILTER ORDER NO.	AUTO PRICE EACH	BOWL TYPE	BOWL CAPACITY	MAX. SCFM	OPEN RANGE PSI	MAX INLET TEMP. PSI	OP. RANGE	ELEMENT (MICRON)	DRAIN
1109	1/4"	3350-663	\$148.01	METAL	6 OZ	50	2-125	200	40°F-160°F	40	YES
1110	3/8"	3350-665	148.52	METAL	6 OZ	80	2-125	200	40°F-160°F	40	YES
1111	1/2"	3350-667	148.99	METAL	6 OZ	100	2-125	200	40°F-160°F	40	YES
S-1142	1/4"	3350-691	100.29	POLY	1 OZ	25	0-125	150	40°F-120°F	20	YES
1142-1	1/8"	3350-692	108.15	METAL	1 OZ	25	0-125	150	40°F-120°F	20	YES

Deluxe F-R Duo

- Factory assembled
- Automatic overnight drains
- Relieving regulator
- Complete with gage #1191
- 40 micron filter element
- Outlet pressure range: 2-125 PSI
- Temperature range: 40° F to 150° F



1106

Deluxe F-R-L Trios

- Filter has automatic overnight drain
- Relieving regulator, drop style lubricator
- Complete with gage #1191
- 40 micron filter element
- Outlet pressure range: 2-125 PSI
- Temperature range: 40° F to 150° F



1100

DELUXE F-R DUO						
MILTON PART. NO.	NPT	BOWL TYPE	MAX SCFM	MAX PSI	ORDER NO.	PRICE EACH
1106	1/4"	Poly with metal guard	48	150	3350-660	\$177.63
1107	3/8"	Poly with metal guard	75	150	3350-661	183.18
1108	1/2"	Metal bowl	100	250	3350-662	200.23

DELUXE F-R-L TRIOS						
MILTON PART. NO.	NPT	BOWL TYPE	FACTORY ASSEMBLED	MAX SCFM	MAX PSI	ORDER NO. PRICE EACH
1100	1/4"	Poly with metal guard	Yes	16	150	3350-657 \$267.73
1101	3/8"	Poly with metal guard	Yes	80	150	3350-658 266.47
1102	1/2"	Metal bowl	No	100	250	3350-659 305.77

Deluxe Mini F-R-L Trio



S-1140

When space is a problem we recommend the mini filter-regulator-lubricator which offers most of the same features as our full size units. Comes pre-assembled with 0-160 PSI gage (#1189). Length: 5 1/4" x height: 6 1/2". Maximum SCFM 20.

MILTON PART. NO.	DESCRIPTION	ORDER NO.	PRICE EACH
S-1140	1/4" NPT Filter, Regulator, Lubricator	3350-690	\$178.14

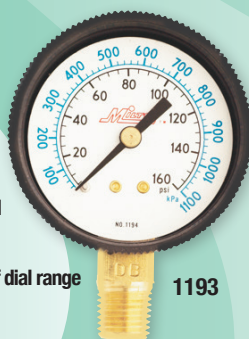
Compressor Accessories



Pressure Gages

Milton high quality dry gages for reliable service with compressors, filters-regulators-lubricators, air lines, pneumatic tools & equipment.

- Resistant to heat, corrosion, water, salt water, and oil
- Can be used in steam applications if less than 120° F
- Brass mechanism. ABS case. Polycarbonate lens
- Maximum working pressure: Should be limited to 75% of dial range
- Maximum working temperature: -13° F to +120° F



1193

MILTON PART. NO.	NPT	MOUNT	PSI RANGE	FACE	ORDER NO.	PRICE EACH
1188	1/8"	Mini center back	0-60 PSI	1 1/2"	3350-724	\$21.57
1189	1/8"	Mini center back	0-160 PSI	1 1/2"	3350-725	21.47
1190	1/4"	Center back	0-60 PSI	2"	3350-726	18.27
1191	1/4"	Center back	0-160 PSI	2"	3350-727	18.11
1192	1/4"	Center back	0-300 PSI	2"	3350-728	18.18
1193	1/4"	Bottom	0-60 PSI	2"	3350-729	18.27
1194	1/4"	Bottom	0-160 PSI	2"	3350-730	18.11
1195	1/4"	Bottom	0-300 PSI	2"	3350-731	18.18

Compressor Pressure Switches

Furnace universal pressure switches are suitable to replace pressure switches on compressors up to: 2 HP @ 120V 1 phase, 3 HP @ 240V 1 phase or 5 HP @ 240V 3 phase. Combination terminals can be used with quick connects (slip on terminals) or standard screw terminals. Auto-off disconnect lever and rotating unloader valve for applications requiring these modifications. Four 1/4" NPT female port manifold complete with plugs. UL listed, CSA certified. Switches are in displayable packaging.

S-1060 PRESSURE SWITCH 95-125 PSI
Order No. 3350-591 ...Price Each: \$77.14

S-1062 PRESSURE SWITCH 140-175 PSI
Order No. 3350-592 ...Price Each: \$77.95



S-1060

Pneumatic Exhaust Mufflers

Muffler-filters use a porous sintered bronze, bonded to a copper plated steel pipe threaded fitting. These 40 micron exhaust mufflers diffuse air and muffle noise from exhaust ports of air tools, cylinders and valves to an acceptable OSHA noise requirements.

- Maximum operating pressure: 300 PSI
- Operating temperatures: 40° F to 300° F

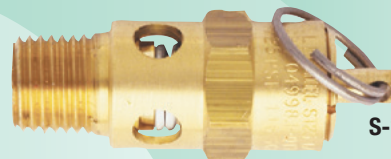


S-1086-2

Ctn. Qty.: 5

MILTON PART. NO.	SIZE	LENGTH	HEX	WEIGHT (LBS.)	CTN. QTY.	ORDER NO.	PRICE EACH
S-1086-2	1/8" NPT	1 1/8"	7/16"	.02	5	3350-603	\$6.62
S-1086-4	1/4" NPT	1 3/8"	9/16"	.04	5	3350-606	7.27
S-1086-6	3/8" NPT	1 1/2"	9/16"	.05	5	3350-609	9.37
1086-8	1/2" NPT	1 7/8"	7/8"	.10	-	3350-611	8.22

ASME Coded Safety Valves



S-1090-70

Valves are manufactured to ASME standards and certified by the national board of boiler and pressure vessel inspectors. Bubble tight to 10% of set pop-off pressure. Milton ASME safety valves are interchangeable with all other ASME valves of same size and pressure. 2" length.

MILTON PART. NO.	MALE NPT	POP-OFF PRESSURE	AIR FLOW POP-OFF PSI	ORDER NO.	PRICE EACH
S-1090-70	1/4"	70 PSI	70 CFM	3350-621	\$16.97
S-1090-125	1/4"	125 PSI	120 CFM	3350-623	16.83
S-1090-150	1/4"	150 PSI	140 CFM	3350-625	16.83
S-1090-200	1/4"	200 PSI	170 CFM	3350-627	16.83

Full Port Brass Ball Valves

These high capacity ball valves are designed for use with compressed air, water or oil to isolate segments of the system without disrupting service to the rest of the system. All brass body with plated steel ball, teflon seals, plated 1/4 turn handle.



S-1094-4

- Maximum working pressure air, water, oil: 400 PSI
- Maximum working pressure steam: 150 PSI
- Temperature: -20° F to 350° F

MILTON PART. NO.	FEM. X FEM NPT	BODY LENGTH	MAX PRESSURE AT 210° F (PSI)	ORDER NO.	PRICE EACH
S-1094-4	1/4" x 1/4"	1 3/4"	280	3350-642	\$17.26
S-1094-6	3/8" x 3/8"	1 3/4"	260	3350-644	20.89
S-1094-8	1/2" x 1/2"	2 1/2"	250	3350-646	22.14
1094-12	3/4" x 3/4"	2 1/2"	220	3350-647	35.79
1094-16	1" x 1"	3 1/4"	190	3350-648	43.80

Breather Vents

Offer vacuum relief or pressure equalization on gear boxes, oil tanks or reservoirs. Prevents dirt and particles from entering open ports. 40 micron units have standard pipe thread for quick assembly or removal.

- Maximum working pressure: 150 PSI
- Operating temperatures: 35° F to 300° F



S-1088-6

MILTON PART. NO.	MALE NPT SIZE	CTN. QTY.	ORDER NO.	PRICE EACH
1088-2	1/8"	10	3350-613	\$2.71
S-1088-4	1/4"	10	3350-615	3.68
S-1088-6	3/8"	5	3350-617	4.85
S-1088-8	1/2"	5	3350-619	5.92

Milton "safety" blo-guns in this section meet OSHA requirements of special relief holes in nozzle which limits pressure to 30 PSI when dead ended (static pressure). For use on regulated compressed air lines maximum PSI 150. Always use personal protective equipment such as safety goggles and ear protection.

Safety Button Blo-Gun

Compact hand held unit can be used anywhere with compressed air. Streamlined comfort fit and full volume control. Many uses such as cleaning fuel and oil lines, or air cleaners, drying out wet ignition systems and spark plugs or blowing out dirt filings and metal chips.

- Maximum working pressure: 150 PSI
- Maximum nozzle pressure: 30 PSI when dead ended
- SCFM 11.4 @ 100 PSI
- 1/4" NPT air inlet, nozzle thread 5/16"-24
- Zinc die cast body
- OSHA compliant

S-107 SAFETY BUTTON BLO-GUN
Order No. 3350-012 Price Each: \$11.95



S-107

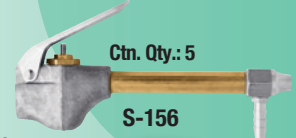
Ctn. Qty.: 10

Siphon Spray Blo-Gun

Excellent for degreasing engines, garage bays and parts, spraying livestock, plants and flowers. Perfect for rust proofing tools and machinery and lubricating parts and engines. Kit comes complete with #156 siphon blo-gun, 8' of tubing, and displayable vinyl storage pouch.

S-156 SIPHON SPRAY BLO-GUN

Order No. 3350-045
Price Each: \$23.55



Ctn. Qty.: 5

S-156

- Maximum working pressure: 150 PSI
- SCFM 14.0 @ 100 PSI
- 1/4" NPT air inlet

S-157 SIPHON SPRAY BLO-GUN KIT

Order No. 3350-046
Price Each: \$32.90



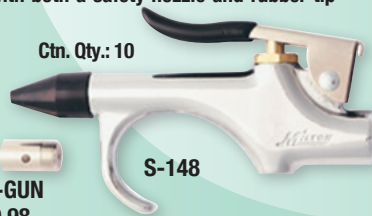
S-157

Compact Safety Lever Blo-Gun

Compact and versatile blo-gun comes with both a safety nozzle and rubber tip nozzle. Hang-up hook for easy storage.

- Maximum working pressure: 150 PSI
- SCFM 11.7 @ 100 PSI safety-tip
- SCFM 12.9 @ 100 PSI rubber tip
- 1/4" NPT air inlet
- Zinc die-cast body
- OSHA compliant with safety tip only

S-148 COMPACT SAFETY LEVER BLO-GUN
Order No. 3350-030 Price Each: \$10.98



Ctn. Qty.: 10

S-148

Pistol Grip Blo-Gun

Pistol style multi use blo-gun.

- Accepts Milton #122, 6" ext. and #123, 10" ext.
- Maximum working pressure: 150 PSI • SCFM 10.0 @ 100 PSI
- 1/4" NPT air inlet • Nozzle thread 1/8"-27 NPS
- Zinc die-cast, chrome plated body

S-160 PISTOL GRIP BLO-GUN

Order No. 3350-051 Price Each: \$33.09



S-160

Ctn. Qty.: 5

Adjustable Aluminum Pocket Blo-Guns

Easy grip two finger control to adjust from full volume air flow to complete shut off. Knurled grip for secure handling even with oily or greasy fingers. Always keep one handy with included shirt pocket clip. 4 different models to fit popular coupler interchange styles.

- Maximum inlet pressure: 150 PSI
- SCFM 15.9 @ 100 PSI

S-115 M-style Fits M-style or any 1/4" Industrial style coupler

Order No. 3350-016 Price Each: \$8.13

S-116 A-style Fits A-style or any 1/4" Aro 210 style coupler

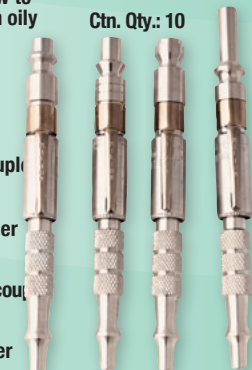
Order No. 3350-018 Price Each: \$8.15

S-117 T-style Fits T-style or any 1/4" Tru-Flate/Parker style coupler

Order No. 3350-019 Price Each: \$8.15

S-118 L-style Fits L-style or any 1/4" Lincoln style coupler

Order No. 3350-020 Price Each: \$9.82



Ctn. Qty.: 10

S-115

S-116

S-117

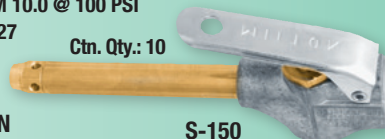
S-118

Full-Flow Safety Lever Blo-Gun

- Maximum working pressure: 150 PSI • SCFM 10.0 @ 100 PSI
- 1/4" NPT air inlet, nozzle thread size: 7/16"-27
- Body outlet thread size 1/2"-27
- OSHA compliant

S-150 FULL FLOW SAFETY LEVER BLO-GUN

Order No. 3350-034 Price Each: \$20.69



Ctn. Qty.: 10

S-150

Rubber Tip Blo-Guns

- 1/4" NPT air inlet. Rubber tip

S-153 LEVER BLO-GUN

Order No. 3350-041 Price Each: \$18.93

- 1/4" NPT air inlet.

- Rubber tip. 45° bent tube is ideal for automatic transmissions

- Maximum working pressure: 150 PSI
- SCFM 11.4 @ 100 PSI

S-154 LEVER BLO-GUN Ctn. Qty.: 5

Order No. 3350-043 Price Each: \$21.02

151 CONTROL VALVE Ctn. Qty.: 10

Order No. 3350-036 Price Each: \$14.41



S-153



S-154

151

Brass Extensions

Fits most blo-guns with nozzle thread of 1/8" NPS including Milton numbers 120, S 120, S160

122 - 6" BLO-GUN EXTENSION

No. 3350-024 Price: \$16.61

123 - 10" BLO-GUN EXTENSION

No. 3350-025 Price: \$21.29



Pistol Grip Blo-Gun Kit

Safety Tip Nozzle & KWIK-CHANGE® Universal Tip System (4-Piece)

- PISTOL GRIP BLOW GUN: Contoured grip for comfort, easy handling. Simple trigger-controlled air flow.
- INCLUDES: The KWIK-CHANGE® Universal Tip System (Milton # S-168).

- SAFETY TIP: OSHA-Compliant, 4" angled safety nozzle w/side vent. Adjustable flow control knob.

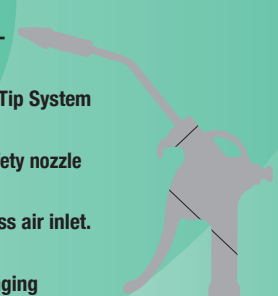
- 90 MAX PSI: 1/4" national pipe thread brass air inlet. 16.5 standard cubic feet per minute.

- EASY STORAGE: Built-in hook/loop for hanging anywhere in your home garage or shop.

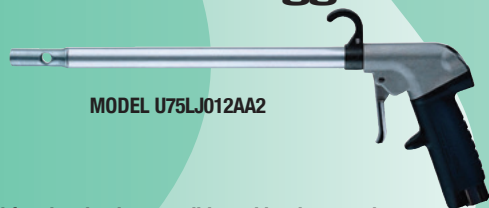
S-174 - KIT PISTOL GRIP BLOW GUN KIT

Order No. 3351-654 Price Each: \$30.62

S-174 Kit



Ultra® Venturi Safety Air Gun - Short Trigger



MODEL U75LJ012AA2

Ideal for cleaning inaccessible and hard-to-reach areas. Efficient venturi nozzle boosts thrust up to 300% over conventional air guns, yet limits static pressure to less than 30 psi should the tip become blocked. Ergonomic, cushioned pistol-grip style handle provides unparalleled comfort.

- Cast aluminum body with premium cushion grip
- Ergonomic trigger
- Adjustable hanging hook
- Aluminum extension
- Zinc alloy venturi nozzle
- 3/8" FNPT inlet
- Meets OSHA Standards
- Thrust: 2.8 lbs.
- Noise: 104 dB • Air Usage: 49 cfm

GUARDAIR PART. NO.	DESCRIPTION	WEIGHT/ LBS.	ORDER NO.	PRICE EACH
U75LJ012AA2	w/ 12" Extension	1.2	3355-002	\$77.77

Long John® Safety Air Guns



MODEL 75LJ006AA



MODEL 75LJX03

The perfect tool for cleaning inaccessible and hard-to-reach areas. Used for blowing floor debris, cleaning masonry forms, tanks, ovens, molds, and rafters, as well as machinery and storage areas. Efficient venturi nozzle boosts thrust up to 200% over conventional air guns, yet limits static pressure to less than 30 psi should the tip become blocked.

- Durable cast aluminum body with hanging hook
- Wide comfort trigger
- Rugged aluminum extension
- Powerful zinc alloy venturi nozzle
- 1/4" FNPT inlet
- Meets OSHA Standards
- Thrust: 2.0 lbs.
- Noise: 107 dB
- Air Usage: 34 cfm

GUARDAIR PART. NO.	DESCRIPTION	WEIGHT/ LBS.	ORDER NO.	PRICE EACH
75LJ006AA	w/ 6" Extension	0.7	3355-161	\$44.63
75LJ012AA	w/ 12" Extension	0.85	3355-162	47.17
75LJ018AA	w/ 18" Extension	0.9	3355-163	49.72
75LJ024AA	w/ 24" Extension	1.02	3355-164	52.27
75LJ036AA	w/ 36" Extension	1.25	3355-165	57.37
75LJ048AA	w/ 48" Extension	1.45	3355-166	60.42
75LJX03	75LJ Assembled Casting	0.4	3355-913	30.60

Xtra Thrust® Safety Air Guns

Featuring the Xtra Thrust® venturi nozzle, it delivers over 300% more thrust than conventional air guns. Designed for tough, close-in work. Most powerful Guardair bench-top gun. Guardair recommends the use of High Flow connectors for maximum performance.

GUARDAIR PART. NO.	DESCRIPTION	WEIGHT/ LBS.	ORDER NO.	PRICE EACH
75XXT	Xtra Thrust Safety Air Gun	0.75	3355-210	\$44.63
75XT006AA	w/ 6" Extension	0.72	3355-211	51.00
75XT012AA	w/ 12" Extension	0.82	3355-212	53.54
75XT024AA	w/ 24" Extension	1.02	3355-214	58.64
75XT036AA	w/ 36" Extension	1.24	3355-215	63.74
75XT048AA	w/ 48" Extension	1.44	3355-216	68.84



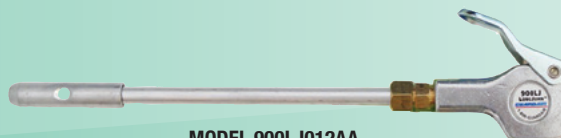
MODEL 75XT006AA

- Durable cast aluminum body
- Rugged hanging hook
- Full length comfort trigger
- Thrust: 2.5 lbs.
- 1/4" FNPT inlet
- Meets OSHA Standards
- Zinc alloy Xtra Thrust® venturi nozzle
- Noise: 108 dB • Air Usage: 54 cfm

Thumbswitch Safety Air Guns

Compact design fits comfortably in the palm of your hand. Venturi nozzle delivers safe yet powerful thrust.

GUARDAIR PART. NO.	DESCRIPTION	WEIGHT/ LBS.	ORDER NO.	PRICE EACH
900	Safety Air Gun	0.44	3355-290	\$20.40
900LJ012AA	w/ 12" Extension	0.56	3355-312	39.53
900LJ024AA	w/ 24" Extension	0.62	3355-314	44.63



MODEL 900LJ012AA

- Durable, cast aluminum body
- Comfortable, steel trigger
- Aluminum venturi nozzle
- 1/4" FNPT inlet
- Meets OSHA Standards
- Thrust: 1.1 lbs.
- Noise: 97 dB
- Air Usage: 16 cfm

Compact Thumbswitch Safety Air Gun

GuardAir's most compact design fits comfortably in the palm of your hand. Venturi nozzle delivers safe yet powerful thrust.

- Durable cast zinc body
- Rubber cushioned, steel trigger
- Convenient hanging hook
- Brass venturi nozzle
- 1/4" FNPT inlet
- Meets OSHA Standards
- Thrust: 0.6 lbs.
- Weight: 0.35 lbs
- Noise: 104 dB
- Air Usage: 8 cfm

Model 970 - Order No. 3355-294 Price Each: \$17.84



MODEL 970

Jet Guard Safety Air Guns

Featuring a proprietary, protective air cone to shield against dangerous "chip fly-back," the 74S and 74SK are perfect for close-in applications.

GUARDAIR PART. NO.	DESCRIPTION	WEIGHT/LBS.	ORDER NO.	PRICE EACH
74S	Safety Air Gun	0.7	3355-106	\$35.70
74SK	w/ Volume Control	0.7	3355-108	45.90

- Durable cast aluminum body with hanging hook
- Wide comfort trigger
- Safety air shield
- Pinned tamper-proof nozzle
- 1/4" FNPT inlet
- Meets OSHA Standards
- Thrust: 0.4 lbs.
- Noise: 102 dB
- Air Usage: 35 cfm



MODEL 74S



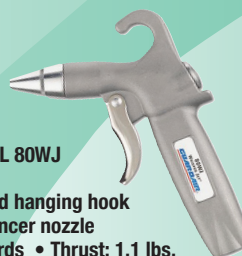
MODEL 74SK

Whisper Jet® Safety Air Guns

Whisper Jet® nozzle technology to reduce air gun noise. Solid conical tip prevents blockage of nozzle. Ideal for cleaning in noise sensitive areas.

GUARDAIR PART. NO.	DESCRIPTION	WEIGHT/ LBS.	ORDER NO.	PRICE EACH
80WJ	Safety Air Gun	0.64	3355-240	\$42.07
80LJ012AA	w/ 12" Extension	0.82	3355-232	51.00

- Durable cast aluminum body
- Rugged hanging hook
- Powerful aluminum Whisper Jet® silencer nozzle
- 1/4" FNPT inlet
- Meets OSHA Standards
- Thrust: 1.1 lbs.
- Wide comfort trigger
- Noise: 93 dB
- Air Usage: 20 cfm



MODEL 80WJ

Lazer® Safety Air Guns

Designed to maximize operator comfort and reduce hand fatigue. Integrated hanging hook for intuitive storage and retrieval. Powerful, accurate. Perfect for DIY, automotive, and industrial cleaning applications.

Model LZR600 - Order No. 3355-250 Price Each: \$ 28.04

- Lightweight, all metal construction
- Soft, over-molded rubber, comfort trigger
- Brass venturi nozzle
- 1/4" FNPT inlet
- Meets OSHA Standards
- Thrust: 0.4 lbs.
- Noise: 102 dB
- Air Usage: 35 cfm
- Weight: 0.5 lbs.



MODEL LZR600

Pistol Grip Safety Air Gun

MODEL LZR650



With a unique, ergonomic, pistol-grip design, the LZR650 provides hours of fatigue-free operation. Integrated hanging eyelet for easy storage and retrieval. Powerful, accurate. Perfect for DIY, automotive, and industrial cleaning applications.

- Lightweight, all metal construction
- Wide, contoured trigger
- Brass venturi nozzle
- 1/4" FNPT inlet
- Meets OSHA Standards
- Weight: 0.5 lbs.
- Thrust: 0.6 lbs.
- Noise: 100 dB
- Air Usage: 8 cfm

Order No. 3355-258 Price Each: \$28.04

Syphon Spray Gun

MODEL 79SG012



Designed for heavy-duty use, the versatile 79SG012 Syphon Gun is ideal for spraying oils, solvents, insecticides, and coatings. Powerful syphon delivers up to 16 gallons of liquid per hour. Adjustable nozzle tip controls flow and spray pattern.

- Durable cast aluminum body with hanging hook
- Wide comfort trigger
- 1/4" FNPT inlet
- 6', 1/4" ID, clear PVC feed tube with brass sinker
- 12" aluminum extension
- Brass nozzle tip
- Weight: 1.65 lbs.
- Flow rate: 12 gph
- Air Usage: 8 cfm

Order No. 3355-451 Price Each: \$123.67

Force 5® Series

MODEL F5024AA



The most powerful safety air gun on the planet, the Force 5 Series is designed for heavy-duty industrial and construction cleaning applications. Featuring a dead-man trigger, the Force 5 Series are the safe alternative to dangerous, "home-made," ball valve actuated, open pipes. Engineered to be paired with tow-behind, or large in-plant compressors.

- Rugged, lightweight, pistol-grip style aluminum handle
- Heavy-duty aluminum extension
- Adjustable auxiliary handle
- Weight: 3.9 lbs.
- Venturi and Quiet Force Nozzle options available
- 3/4" FNPT inlet
- Meets OSHA Standards
- Thrust: 13.5 lbs.
- Noise: 121 dB
- Air Usage: 185 cfm

Order No. 3355-384 Price Each: \$364.63

Pneumatic Vacuums

MV2000 - 5.5 Gal. Pneumatic Vacuum

Engineered to mount on any vertical surface, the powerful, portable 5.5 gallon MV2000 Pneumatic Vacuum quickly and effectively sucks up debris, metal chips, dirt, sawdust, and fine materials including powders and talc. Also capable of vacuuming liquids such as machine oils, lubricants, and other fluids. Virtually maintenance-free; no moving parts to wear out. With no electric motor to spark or burn out, the Mac Vac eliminates electrical extension cords—potentially dangerous in wet environments and always a tripping hazard.

Order No. 3355-490 Price Each: \$ 1485.65

- 5.5 gal. chemical resistant polyethylene container
- Predrilled, steel mounting plate
- Cartridge filter (77% Efficient @ 0.8 Microns)
- Liquid shut-off and drum drain
- 1-1/2" ID x 10' flexible vacuum hose
- 1-1/2" OD x 11" plastic crevice tool
- 3/8" FNPT inlet

- Vacuum Lift (in H2O): 77
- Vacuum Flow: 73 cfm
- Air Usage: 21 cfm
- Noise Level: 88 dB
- Weight: 13 lbs.



MODEL MV2000

CS3000 - Personnel Cleaning Station

Running off standard shop compressed air, the Personnel Cleaning Station pairs a proprietary, on-demand air-agitator brush attachment with a high-efficiency pneumatic vacuum. Thumb-switch activated, the air-agitator loosens and lifts particles airborne where the vacuum sucks them away safely and effectively. With no motor to burn out, the Personnel Cleaning Station is virtually maintenance-free. Vertical Mounting System (VMS) mounts on any vertical surface, saving valuable factory floor space.

Order No. 3355-480 Price Each: \$ 2416.24

- 5.5 gal. chemical resistant polyethylene container
- Predrilled, steel mounting plate
- Cartridge filter (77% Efficient @ 0.8 Microns)
- Liquid shut-off and drum drain
- 1-1/2" ID x 10' flexible vacuum hose
- 1-1/2" OD x 11" plastic crevice tool
- 3/8" FNPT inlet

- Vacuum Lift (in H2O): 77
- Vacuum Flow: 73 cfm
- Air Usage: 21 cfm
- Noise Level: 88 dB
- Weight: 13 lbs.



MODEL CS3000

1500 - Gun Vac® Kit

Place twice the power of a standard shop vacuum in the palm of your hand. Powered by standard shop compressed air, the lightweight 1500 Gun Vac has no electric motors to burn out. Easy to empty, high filtration collection bag attaches to rear of vacuum via hose cuff. Tapered vacuum inlet accepts all standard 1-1/4" vac accessories. Unit hangs on a hook, ready for use at anytime.

Order No. 3355-460 Price Each: \$ 153.85

- Rugged, all metal construction
- Contoured comfort grip
- Convenient hanging eyelet
- High filtration collection bag with zipper
- 9" crevice tool included
- 1/4" FNPT bottom and rear inlets

- Vacuum Lift (in H2O): 75
- Vacuum Flow: 78 cfm
- Air Usage: 29 cfm
- Weight: 2.1 lbs.



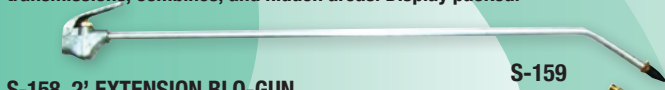
MODEL 1500

Blo-Guns, Inflator Gages, Parts



Safety Extension Blo-Gun

OSHA approved multi-punction blo-gun comes with a safety nozzle and rubber tip nozzle. Extension is bent to access hard to reach areas such as motors, machinery, transmissions, combines, and hidden areas. Display packed.



S-158 2' EXTENSION BLO-GUN

Order No. 3350-047

Price Each: \$39.05

S-159 4' EXTENSION BLO-GUN

Order No. 3350-049 Price Each: \$50.06

Rubber Tip For Blo-Guns

For use where leak-proof connection is required when blowing out fluid lines. O-ring seals create an air-tight connection. A must where metal tip could mar delicate finish in molds or paint. Dual thread design permits use on all blo-guns with 7/16"-27 and 1/8" NPS.

S-152 RUBBER BLO-GUN TIP

Order No. 3350-038

Price Each: \$5.73



Truck Inflator Gage With 15' Hose

Newer steel belted sidewall tires on trucks present a potential danger during inflation. Milton's NEW 501 inflator keeps the technician 15' out of harm's way. Heavy duty construction provides long service life even with constant use. Gage & valve cartridges are replaceable. All window inflator gages equipped with magnifying glass for full view of scale.

- 15' hose, 10 -160 PSI
- Built-in deflator to relieve excess pressure
- Dual foot locking chuck
- Heavy duty construction
- Magnifying lens
- Unit pack qty. - 1, wt. 4 lbs.

98-A1-501 TRUCK INFLATOR GAGE WITH 15' HOSE

Order No. 3350-174 Price Each: \$135.55



Filler Faucets

Easy operation and smooth flow due to long flexible rubber spout with lever control. Heavy duty, ruggedly built with stainless steel springs.

- Operating pressure: standard municipal (city) water
- Pressure 30 - 35 psi, nitrile rubber, zinc alloy body

209 FEMALE 1/4" NPT THREAD

Order No. 3350-066 Price Each: \$23.88



Brass Hose Ferrules

Economical and dependable brass ferrules to make custom hose assemblies. Refer to chart to choose ferrules required for custom sizes.



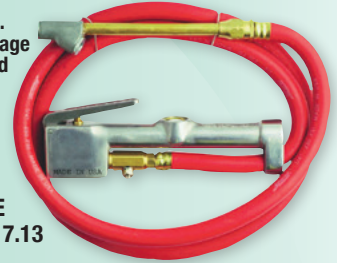
Window Inflator Gage

Heavy duty construction provides long service life even with constant use. Gage cartridge and valve cartridge replaceable. All window inflator gages equipped with magnifying lens for full view of scale.

Model 501: For high pressure truck tires. 10 lbs. to 160 lbs., in 2 lb. increments. Gage complete with a 5' hose with a dual head straight foot chuck for innerduals with lock on threads both ends (full swivel). Built in deflator to relieve excess pressure. Meets OSHA regulation No. 1910.177 on inflation.

Model 501 WINDOW INFLATOR GAGE

Order No. 3350-173 Price Each: \$117.13



Window Inflator Gage Replacement Parts

OSHA approved multi-function blo-gun comes with a safety nozzle and rubber tip nozzle. Extension is bent to access hard to reach areas such as motors, machinery, transmissions, combines, and hidden areas . Display packed.

509 HOSE WHIP ASSEMBLY COMPLETE

Order No. 3350-185

Price Each: \$33.94



512A REPLACEMENT VALVE CARTRIDGE

Order No. 3350-188

Price Each: \$15.05



Repair Parts For Inflator Gages

OSHA approved multi-function blo-gun comes with a safety nozzle and rubber tip nozzle. Extension is bent to access hard to reach areas such as motors, machinery, transmissions, combines, and hidden areas . Display packed.

500-4 DUAL HEAD CHUCK

(Free flowing for tire gages only)

Order No. 3350-169

Price Each: \$6.51



500-6 STANDARD SIZE WASHER

(For dual head chuck & straight head chuck)

Order No. 3350-170

Price Each: \$0.59

500-6 STANDARD SIZE WASHER

(For single head chuck)

Order No. 3350-171

Price Each: \$0.63



MILTON PART. NO.	SIZE	HOSE OD	ORDER NO.	PRICE EACH
1654-2	1" x .525 ID	1/2	3350-838	\$0.89
1654-3	1" x .562 ID	9/16	3350-840	0.96
1654-4	1" x .593 ID	19/32	3350-842	0.98
1654-5	1" x .625 ID	5/8	3350-844	1.04
1654-6	1" x .656 ID	21/32	3350-846	1.02
1654-7	1" x .687 ID	11/16	3350-848	1.13
1654-8	1" x .718 ID	23/32	3350-850	1.11
1654-9	1" x .750 ID	3/4	3350-852	1.11
1654-12	1" x .900 ID	7/8	3350-854	1.17

Tire Gages & Air Chucks



Air Chucks

WARNING: SEALING TYPE CHUCKS ARE NOT FOR USE ON MILTON INFLATOR GAGES.
Max: 150 PSI



MILTON PART. NO.	DESCRIPTION	SIZE	ORDER NO.	PRICE EACH
S-690	Dual Head	1/4" female NPT	3350-362	\$11.79
S-691	Straight Head	1/4" female NPT	3350-364	13.15
S-692	Safety Grip Chuck Clip: fits all standard single head air chucks		3350-365	9.08
S-693	Dual Head Straight Foot, for inner duals, ends lock on threads	1/4" female NPT	3350-367	16.40
S-696	Kwik-Grip Safety Chuck	1/4" NPT	3350-372	17.09
S-697	Euro Style Chuck Clip	1/4" ID hose barb	3350-374	8.46
S-698	Chuck Clip w/Female Chuck	1/4" NPT	3350-376	12.37
S-699	Female Single Head Chuck	1/4" NPT	3350-379	3.81

Ctn. Qty.: 10

Inflator Gage (Window)

Heavy-duty construction provides long service life, even with constant use. Gage/valve cartridges replaceable. All gages equipped with magnifying lens for full view of scale.



S-506 Gage Complete, Dual Head Chuck (Full Swivel), 15" Hose
Order No. 3350-181...Price Each: \$68.56

Dial Type Tire Gages

- Internal diaphragm construction for greater quality.
- Dial reads in PSI and kPa.
- 45° chuck. • Durable rubber boot.

• Angled single head chuck
S-931 0-15 PSI in 1/2 lb increments.
Order No. 3351-479...Price Each: \$38.18

• Angled single head chuck
S-932 0-60 PSI in 2 lb. increments.
Order No. 3351-480...Price Each: \$39.31



Mini Disposable Air Line Dessicant Filter/Dryer

Removes all traces of dirt, dust, water vapor, oil vapor. Unit ideal for spray guns and applications requiring clean supply of air. 3 3/4" x 1 1/2" size. Light weight 2 oz. Male & female 1/4" NPT ports. See through, non-metallic chemical resistant material. Replace unit when desiccant changes to pink in color.

- Maximum working pressure: 125 PSI
- Maximum flow capacity: 15 SCFM
- Working temperature: 32° F to 130° F (0° to 54° C)
- 2/cd

S-1173 MINI IN LINE DESICCANT DRYER
Order No. 3350-718...Price Per Card: \$42.22



S-1173

Pencil Type Pressure Gages

Consumer tire gages are molded of rugged Delrin with strong flexible white NYLON INDICATOR BAR to provide long trouble free life with the same certified accuracy associated with all Milton tire gages. Always check tire pressure when tires are cold. (Ctn. Qty.: 10)

USA made tire gages provide accurate, long life with trouble free performance. Durable plated brass with 4 side nylon indicator bar. Always check tire pressure when tires are cold. (Ctn. Qty.: 10)



S-917

• 2 sides 2 to 20 PSI, in 1 lb increments and 2 sides 20 to 140 kPa, in 10 kPa units
S-917 LOW PRESSURE GAGE IDEAL FOR USE ON ATV'S, GOLF CARTS AND AIR SPRINGS. Order No. 3350-535...Price Each: \$10.88



S-920

• PSI mini spare tire. Built in tire tread depth gage in 1/16" increments.
• 2 sides 10 to 70 PSI in 2 lb increments and 2 sides 60 to 500 kPa in 10 kPa units
S-920 HIGHER PRESSURE AUTOMOBILE TIRES, including 60
Order No. 3350-536...Price Each: \$10.65



S-921

• 2 sides 5 to 50 PSI in 1 lb increments and 2 sides 40 to 350 kPa in 10 kPa units
S-921 PASSENGER CAR TIRE GAGE FOR RADIAL & CONVENTIONAL TIRES.
Order No. 3350-537...Price Each: \$8.95



S-923

• 2 sides 5 to 50 PSI in 1 lb increments and 2 sides 40 to 350 kPa in 10 kPa units
• 1 lb increments and 2 sides 40 to 350 kPa in 10 kPa units
S-923 STRAIGHT CHUCK CAR TIRE GAGE FOR RADIAL & CONVENTIONAL TIRES.
Order No. 3350-538...Price Each: \$7.70



S-925

• 2 sides 20 to 120 PSI in 2 lb increments and 2 sides 120 to 820 kPa in 20 kPa units
S-925 TRUCK, RV, BICYCLE TIRE GAGE.
Order No. 3350-539...Price Each: \$9.29



S-927

• 2 sides 20 to 120 PSI in 2 lb increments 2 sides 120 to 820 kPa in 20 kPa units
S-927 DUAL CHUCK TRUCK TIRE GAGE.
Order No. 3350-540...Price Each: \$13.56



S-928

• 2 sides 5 to 50 PSI in 1 lb increments and 2 sides 40 to 350kPa in 10 kPa units
S-928 TRACTOR TIRE GAGE FOR AIR/WATER FILLED TIRES.
Order No. 3350-541...Price Each: \$13.31

Service Gages

Milton precision engineered service gages provide accurate, long life trouble free performance. Plated brass tube and 4 sided nylon indicator bar. Calibrated 2 sides 10 to 160 PSI, in 2 lb increments and 2 sides 80 to 1100 kPa, in 20 kPa units. (Ctn. Qty.: 5)



S-976

S-976 DUAL HEAD CHUCK SERVICE GAGE
Order No. 3350-543...Price Each: \$29.92



S-986

S-986 STRAIGHT FOOT DUAL HEAD CHUCK SERVICE GAGE
FOR INNER STYLE DUALS
Order No. 3350-545 ...Price Each: \$35.26

Hose Ends, Swivels, & In-Line FRL's



Brass Hose Ends

Brass hose fittings packed 10 per Box. Skin cards bulk packed, fitting quantities check Milton price sheet. NPT=National Pipe Taper (Tapered Thread for general use)

Hose ID = Inside diameter of hose. Hose OD = Outside diameter of hose.



S-600



S-605

Ctn. Qty.: 10, 2/cd

MILTON PART. NO.	DESC.	HOSE ID	THREAD	CARD PACK	ORDER NO.	PRICE PER CARD
S-600	Male	1/4"	1/4" NPT	2	3350-206	\$4.19
S-601	Male	5/16"	1/4" NPT	2	3350-212	4.25
S-602	Male	3/8"	1/4" NPT	2	3350-215	4.59
S-603	Male	3/8"	3/8" NPT	2	3350-218	5.26
S-605	Female, non swivel	1/4"	1/4" NPT	2	3350-224	5.51
S-605-2	Female, non swivel	3/8"	1/4" NPT	2	3350-228	5.34

Brass Male Full Swivel Fittings



S-611-6

Ctn. Qty.: 5

MILTON PART. NO.	HOSE ID	NPT THREAD	ORDER NO.	PRICE EACH
S-611-6	3/8"	1/4"	3350-240	\$ 6.22

Brass Hose Menders



S-640

Ctn. Qty.: 10, 2/cd

MILTON PART. NO.	HOSE ID	CARD PACK	ORDER NO.	PRICE PER CARD
S-640	1/4" x 1/4"	2	3350-276	\$4.95
S-641	5/16" x 5/16"	2	3350-279	5.09
S-642	3/8" x 3/8"	2	3350-281	5.16

Variable Angle Swivel Fittings

Fittings rotate 360° at a 45° angle in any direction virtually eliminating hose twisting and kinking. Rubber dust cover.

- Max. working pressure: 145 PSI
- Temp. range -37° F to 176° F



S-99681-1

S-99681



S-99681-4

Ctn. Qty.: 5

SWIVEL FITTINGS				
PART NO.	NPT SIZE	CONNECTION	ORDER NO.	PRICE EACH
S-99681	1/4" Male NPT	1/4" Male	3351-347	\$12.71
S-99681-1	1/4" Female NPT	1/4" Male	3351-348	8.96
S-99681-4	1/4" M-Style Plug	1/4" Male	3351-351	12.79

Full Swivel Hose Ends

Ctn. Qty.: 10

MILTON PART. NO.	MALE NPT SIZE	NPT OR ID	ORDER NO.	PRICE EACH
S-659	1/4"	1/4" NPT female swivel end	3350-331	\$ 13.01



S-659

Reusable Brass Hose Fittings

Note: S-617 may be used with 5/16" hose.



S-617 Ctn. Qty.: 10

MILTON PART. NO.	DESCRIPTION	HOSE OD	HOSE ID	NPT	ORDER NO.	PRICE EACH
S-617	Male end	5/8"	1/4"	1/4"	3350-260	\$6.42
S-621	Male end	3/4"	3/8"	1/4"	3350-264	8.31

Brass Fittings

Ctn. Qty.: 10, 2/cd

MILTON PART. NO.	DESC.	THREAD SIZE (NPT)	CARD PACK	ORDER NO.	PRICE PER CARD
S-643	Female	1/4" x 1/4"	2	3350-285	\$4.29
S-646	Male hex nipple	1/4" x 1/4"	2	3350-291	4.24



S-646

Air Hose Swivel Connector

Attach portable air tools to air hose. 360° swivel in two places prevents hose kinking, and keeps the hose out of the way. Female pipe threads connect to most hose fittings and adapters. Not for use with percussion tools.

MILTON PART. NO.	DESC.	ORDER NO.	PRICE EACH
S-657	1/4" Swivel Connector	3350-320	\$17.67
S-657-1	3/8" Swivel Connector	3350-321	21.91
S-657-2	1/4" Swivel Connector w/Flow Control	3350-322	16.65



S-657-2

3-in-1 Air Manifolds

Supply 3 air tools from a single inlet. No need to disconnect and connect for every tool change. Sturdy and lightweight aluminum body.

MILTON PART. NO.	INLET NPT	3 OUTLETS FEMALE NPT	ORDER NO.	PRICE EACH
S-685-4	1/4"	1/4"	3350-354	\$ 16.91
S-685-6	3/8"	1/4"	3350-356	17.51



S-685-4

Drain Cocks

- Brass body • Steel handle

Ctn. Qty.: 10, 2/cd

MILTON PART. NO.	NPT	CARD PACK	ORDER NO.	PRICE PER CARD
S-614-2	1/8"	2	3350-246	\$ 6.35
S-614-4	1/4"	2	3350-249	6.35



S-614-2

In-Line Air Flow Regulators

To regulate air pressure to air tools from full flow to complete shut-off. Use as shut-off valve for air and non-corrosive liquids.

- Maximum: 150 PSI
- SCFM 5 @ 100 PSI
- Temperature range: 40° F to 250° F

MILTON PART. NO.	FEMALE NPT	MALE NPT	ORDER NO.	PRICE EACH
S-638	1/4"	1/4"	3350-271	\$25.47
S-638-1	1/4"	1/4" w/gage	3350-272	43.22



S-638-1

In-Line Lubricator

To lubricate pneumatic tools for full protection by accurately metering correct amount of oil. 1/2 oz

MILTON PART. NO.	MALE NPT SIZE	FEMALE NPT SIZE	ORDER NO.	PRICE EACH
S-639	1/4"	1/4"	3350-274	\$31.25



S-639

Signal Bells, Tank Valves, Air Hose



Tank Valves

Attach portable air tools to air hose. 360° swivel in two places prevents hose kinking, and keeps the hose out of the way. Female pipe threads connect to most hose fittings and adapters. Not for use with percussion tools.

Ctn. Qty.: 10

MILTON PART. NO.	NPT	CARD PACK	ORDER NO.	PRICE PER CARD
S-684	1/8"	2	3350-349	\$5.05
S-684-4	1/4"	2	3350-352	7.85



S-684

Nylon Re-Koil Air Hose

Assembled with re-usable, full flow male NPT swivel fittings on both ends to avoid twisting and kinking. Individual display bag packaged. Resists abrasions.

- Maximum working pressure: 200 PSI @ 70° F
- Working temperature: -40° F to 180° F (-38° C to 82° C)
- Material: Equivalent to nylon 12
- Color: Yellow



1669

MILTON PART. NO.	HOSE ID	LENGTH	SWIVEL MALE NPT	ORDER NO.	PRICE EACH
1667	1/4"	12'	1/4"	3350-856	\$28.18
1669	1/4"	25'	1/4"	3350-857	35.61
1670	1/4"	50'	1/4"	3350-861	60.45
1674	3/8"	25'	3/8"	3350-872	71.15

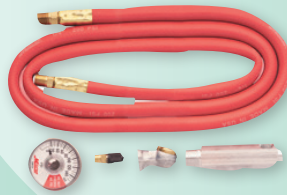
Tank Conversion Kit

Do it yourself kit allows you to convert all no longer allowed R-12 freon tanks to portable air tanks.

WARNING: NOT FOR PROPANE TANK CONVERSION.

KIT contains: filler valve, gage, 4' air hose assembly, manifold, chuck

MILTON PART. NO.	DESC.	ORDER NO.	PRICE EACH
S-682	filler valve, gage, 4' air hose assembly, manifold, chuck	3350-342	\$35.21

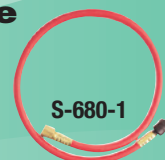


S-682

Swivel End Snubber Hose

Absorb shock to air couplers from impact tools and/or air hammers. Snubber hoses are fitted with a full 360° steel swivel fitting for greater flexibility and easier use.

- Burst pressure: 800 lbs.
- Maximum working pressure: 200 PSI



S-680-1

MILTON PART. NO.	HOSE ID	LENGTH	360° SWIVEL FITTING NPT	BRASS FITTING	ORDER NO.	PRICE EACH
S-680-1	1/4"	5'	Male 1/4"	Female 1/4"	3350-337	\$24.52
S-680-2	3/8"	30"	Male 1/4"	Female 1/4"	3350-338	19.71

Driveway Signal

Completely self contained unit is easy to install and use just plug into any 110 volt electric outlet. Offers instant signal every time, operating with up to 300 feet of signal hose. For use at service stations, bank or restaurant drive up windows, or any drive up application where an attendant needs to be alerted.

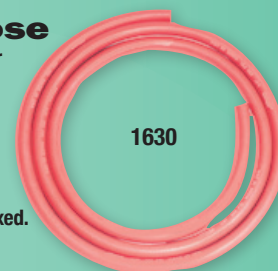
805 DRIVEWAY SIGNAL BELL (6" diameter)
Order No. 3350-516 Price Each: \$133.75



805

EPDM 2 Braid Air Hose

Deluxe heavy duty EPDM rubber is designed for tough service station and shop applications. Kink resistant and flexible in extreme temperatures, resists abrasion, weathering and ozone. Assemblies coupled with brass fittings, bulk hose comes without fittings in either a dispensing box or handy reel. Individually boxed. Limited oil resistance.



1630

- Maximum working pressure: 250 PSI
- Burst pressure: 1000 PSI
- Working temperature: -40° F to 190° F (-38° C to 87° C)
- Material: EPDM rubber tube & cover, spiral synthetic yarn reinforcement
- Color: Red

MILTON PART. NO.	HOSE ID	LENGTH	FITTINGS, NPT	ORDER NO.	PRICE EACH
1630	1/4"	25'	Male 1/4" both ends	3350-816	\$59.79
1631	1/4"	50'	Male 1/4" both ends	3350-820	122.59
1632	3/8"	25'	Male 3/8" both ends	3350-821	80.16
1633	3/8"	50'	Male 3/8" both ends	3350-825	147.28

Remote Control Air Switch & Signal Bell

Deluxe terminal box construction assures maximum sensitivity with long term performance. Weatherproof for use inside and outside. Easy connections with Barrier terminal strip and conduit openings for versatility in installation.

- Conduit type box construction for wall or conduit mounting. Burn out proof coil assures long service.
- 825 REMOTE CONTROL AIR SWITCH
(use with any voltage from 6V to 220V, 10 amps maximum)
Order No. 3350-518...Price Each: \$128.65



825

Requires Milton air switch #825

827 REMOTE CONTROLLED SIGNAL BELL (110V)
Order No. 3350-519...Price Each: \$140.40

- Key slot opening in back makes installation easy. Tone is clear and melodious. Burn out proof coil assures long service.
- Requires Milton Air switch #825



827

800 Series Accessories

819 HOSE ANCHOR (for 3/8" ID signal hose)
Order No. 3350-517...Price Each: \$26.31



838 DELUXE DRIVEWAY SIGNAL HOSE SBR RUBBER (3/8" ID 50' length)
Order No. 3350-521...Price Each: \$83.52

839 DELUXE DRIVEWAY SIGNAL HOSE SBR RUBBER (3/8" ID 300' reel)
Order No. 3350-522...Price Each: \$434.73



838
839

Ctn. Qty.: 5

Rotary Tool Lite™ Kit 4V 7760-N/10



Dremel Lite is a user-friendly solution for a wide range of projects. Whether you are completing the light finishing touches, needing to fit into a tight spot, or completing the most precise tasks—the versatility of the Dremel Lite allows you to respond to projects quicker. The cordless rotary tool features 8,000-25,000 RPM of rechargeable battery powered by an efficient USB system that holds its charge. The four different speed settings offer better control for different applications, plus the lightweight design and soft grip make it easy and comfortable to use.

Kit Contains:

- 7760 Lite 4V Li-Ion cordless rotary tool
- 10-piece accessories & case
- USB charging cable & power adaptor
- User manual, quick start guide, 2-year warranty card

Order No. 3267-760 Price Each: \$ 58.35

Rotary Tool Kit 4000-2/30



The Dremel 4000 variable speed rotary tool offers the highest performance and most versatility of all Dremel rotary tools. The increased strength of its motor plus electronic feedback circuitry enables consistent performance at all speed levels. Dremel 4000 can use all existing Dremel accessories and attachments plus high-performance attachments to complete the widest range of projects. A slim, ergonomic body provides a 360-degree grip zone for comfort and control in any grip position.

Kit Contains:

- Dremel 4000 High Performance Rotary Tool
- Circle Cutter/Straight Edge Guide
- Sanding/Grinding Guide
- Storage Case
- Includes 30 genuine Dremel accessories
- Quick Start Book

Order No. 3264-030 Price Ea: \$116.45

Rotary Tool Kit - 4000-6/50



The Dremel 4000 variable speed rotary tool offers the highest performance and most versatility of all Dremel rotary tools. The increased strength of its motor plus electronic feedback circuitry enables consistent performance at all speed levels. Dremel 4000 can use all existing Dremel accessories and attachments plus high-performance attachments to complete the widest range of projects. A slim, ergonomic body provides a 360-degree grip zone for comfort and control in any grip position.

Kit Contains:

- Dremel 4000 High Performance Rotary Tool
- Planer attachment • Flex Shaft attachment
- Circle Cutter/Straight Edge Guide
- Sanding/Grinding Guide
- Multipurpose Cutting Guide attachment
- Detail Nose Piece
- Lawn Mower and Garden Tool Sharpening Attachment
- Storage Case • Quick Start Book
- Includes 50 genuine Dremel accessories

Order No. 3264-300 Price Ea: \$200.30

12VMax Lithium-Ion Cordless Rotary Tool Kit - 8220-1/28

The Dremel 8220 variable-speed cordless rotary tool offers the highest performance and versatility of all Dremel cordless rotary tools. The increased strength of its motor facilitates maximum performance at all speed levels. The ability to use all existing Dremel accessories and attachments let the Dremel 8220 complete the widest range of projects. A slim ergonomic body provides a 360-degree rip zone for control in any position. Powered by 12VMAX Lithium-ion battery technology, the Dremel 8220 has a speed of cut that is 2X times faster than the leading cordless rotary tool.

Includes storage case and 28 genuine Dremel accessories
1-hour charger with LED light shows proper charging

- MODEL NUMBER: 8220-1/28
- SPEED: Variable, 5,000 - 30,000 RPM
- VOLTAGE: 12V Max DC

Order No. 3268-240
Price Each: \$ 131.55

Single Speed Rotary Tool Kit 100-N/7

- Ideal for sanding, carving, and drilling.
- Set Includes:
- 100 Series Single Speed Rotary Tool
 - 402 Mandrel
 - 407 Coarse 1/2" Sanding Drum • 415 Dressing Stone
 - 420 Heavy Duty Emery Cut-Off Wheel
 - 432 1/2" 120 Grit Sanding Band
 - 932 Aluminum Oxide Grinding Stone
 - 84922 Silicon Carbide Grinding Stone
 - CORD LENGTH: 6' • SPEED: 35,000 rpm
 - VOLTAGE: 120 AC, 50-60 Hz
 - WARRANTY: 2 years

Order No. 3260-098 Price:\$ 51.90

Variable-Speed Rotary Tool Kit 3000-1/24

- Rotary Tool
- Includes Storage Case and 24 Accessories
- Sanding/Grinding Guide Attachment
- EZ Twist™ nose cap with wrench for fast accessory changes
- Tool works with all Dremel accessories and attachments, except PL400 and MS400
- Variable speed from 5,000 to 32,000 RPM



- Cool-running ball bearing construction for smooth and quiet operation
- Replaceable motor brushes extend tool life
- Four year warranty

Order No. 3263-001
Price Each: \$ 90.50

Cordless Two-Speed Rotary Tool Kit 7300-N/8

Designed for drilling, sanding, shaping, detailing and other light-duty jobs: Can be used with any Dremel accessory bit with up to a 1/8" shank. Two speeds 6,500 and 13,000 rpm to match the proper speed required Compact and lightweight for easy handling Two-year warranty



Kit includes:

- 4.8V Cordless Rotary Tool
- 407 1/2" 60 Grit Sanding Drum with Mandrel
- 401 Mandrel
- 414 Felt Polishing Wheel
- 432 1/2" 120 Grit Sanding Band
- 84922 Silicon Carbide Grinding Stone
- Wrench

Order No. 3267-350
Price Each: \$ 35.50

Electric Engraver Model 290-01



Contains:

- Engraver Tool • Carbide Point (9924)
- Letter/Number Template
- Engraves permanently on metal, wood, plastic, ceramics and more.
- Protect valuables, discourage theft.
- Perfect for hobbies and crafts.

Order No. 3260-290
Price Each: \$ 22.75

Extra CARBIDE Point for normal applications:
Order No. 3269-924 Price Ea.: \$5.67

Extra DIAMOND Point for Commercial Work:
Order No. 3269-929 Price Ea.: \$ 17.47

Right Angle Attachment Model 575



- Enhances the versatility of the Dremel tool, by allowing use in hard-to reach areas
- Ball bearings and spiral bevel gears provide smooth and cool operation
- Coupling system allows orientation of attachment in 12 different directions
- Quick connect system easily attaches to rotary tool in place of the housing cap, no wrench required
- Compact, durable design, for hard-to reach places

Order No. 3260-575
Price Each: \$ 24.30

Accessories

DREMEL® 1

Grinding/Sharpening

Silicon Carbide Grinding Stones

9/32" 7,1mm	3/16" 4,8mm	25/32" 19,8mm	13/32" 10,3mm
Order No. 3263-142 Price Ea. \$ 2.42	Order No. 3264-922 Price Ea. \$ 3.62	Order No. 3265-422 Price Ea. \$ 2.42	Order No. 3269-952 Price Ea. \$ 2.42

Aluminum Oxide Grinding Stones

3/8" 9,5mm	1/4" 6,4mm	3/8" 9,5mm	1" 25,4mm
Order No. 3260-932 Price Ea. \$ 2.43	Order No. 3260-953 Price Ea. \$ 3.62	Order No. 3260-952 Price Ea. \$ 2.43	Order No. 3268-215 Price Ea. \$ 2.42

Cut-Off Wheels

15/16" 23,8 mm .025"thickness 36 per pack	15/16" 23,8 mm .040"thickness 20 per pack	1-1/4" 31,8 mm .045"thickness 5 per pack
Order No. 3260-409 Price /Pk. \$ 5.97	Order No. 3260-420 Price /Pk. \$ 6.22	Order No. 3260-426 Price /Pk. \$ 8.08

Carving/Engraving

5/16", 7,9mm 2 per pack	1/4", 6,4mm 2 per pack	1/4" 6,4mm	1/4", 6,4mm 2 per pack	3/16", 4,8mm 2 per pack	1/8", 3,2mm 2 per pack	3/8" 9,5mm	3/32", 2,4mm 2 per pack	1/4" 6,4mm	5/16" 7,9mm	5/16" 7,9mm
Order No. 3260-115 Price/Pk. \$ 7.22	Order No. 3260-117 Price/Pk. \$ 7.22	Order No. 3260-121 Price Ea. \$ 4.87	Order No. 3260-125 Price/Pk. \$ 7.22	Order No. 3260-192 Price/Pk. \$ 7.22	Order No. 3260-194 Price/Pk. \$ 7.93	Order No. 3260-199 Price Ea. \$ 5.70	Order No. 3260-107 Price/Pk. \$ 3.62	Order No. 3269-931 Price Ea. \$ 12.75	Order No. 3269-933 Price Ea. \$ 12.75	Order No. 3269-935 Price Ea. \$ 12.75

Structured Tooth Tungsten Carbide Cutters

Cleaning/Polishing

1/2" 3 per pk.	3/8" Felt	1" Felt	Emery Polishing Wheel 2 per pack
Order No. 3260-414 Price Ea. \$ 2.45	Order No. 3260-422 Price Ea. \$ 2.45	Order No. 3260-429 Price Ea. \$ 2.45	Order No. 3262-425 Price/Pk. \$ 4.38

Bristle Brushes

3/4", 19,1mm 2 per pack	1/2", 12,7mm 2 per pack
Order No. 3262-403 Price/Pk. \$4.38	Order No. 3262-404 Price/Pk. \$4.38

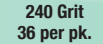
C.S. Wire Brushes

3/4", 10,3mm 2 per pack	1/2", 7,1mm 2 per pack	1/8", 4,8mm 2 per pack
Order No. 3262-428 Price/Pk. \$4.38	Order No. 3262-442 Price/Pk. \$4.38	Order No. 3262-443 Price/Pk. \$5.08

Tungsten Carbide Cutters

1/8" 3,2mm	1/8" 3,2mm	1/8" 3,2mm
Order No. 3269-901 Price Ea. \$9.07	Order No. 3269-903 Price Ea. \$9.07	Order No. 3269-909 Price Ea. \$9.07

Sanding

Flapwheels							Collets & Chucks		
1/4"	1/2"	1/2" 60 Grit 6 per pk.	1/2" 120 Grit 6 per pk.	fine 240 Grit 36 per pk.	3/8"9,5mm 80 Grit	3/16"4,8mm 120 Grit		1/8" 3,2mm	1/32" 0,8mm
									
Order No. 3260-430 Price Ea. \$ 3.55	Order No. 3260-407 Price Ea. \$ 3.62	Order No. 3260-408 Price /Pk. \$ 2.43	Order No. 3260-432 Price /Pk. \$ 2.43	Order No. 3260-413 Price /Pk. \$ 2.70	Order No. 3260-502 Price Ea. \$ 5.97	Order No. 3260-505 Price Ea. \$ 5.97	Order No. 3264-486 Price Ea. \$ 10.10	Order No. 3260-480 Price Ea. \$2.42	Order No. 3260-483 Price Ea. \$ 2.42

EZ Lock™ Mandrels/Wheels

EZ Lock Mandrel	1" Cloth	1-1/2" Diamond Wheel	1-1/2" Cutoff Wheel-Thin Cut 5 per pk.	1-1/2" Cutoff Wheel-Metal 5 per pk.	Abrasive Buffs 2 per pk. 180/280 grit	Detail Abrasive Brush - Coarse 36 grit	Detail Abrasive Brush - Medium 120 grit	Detail Abrasive Brush - Fine 220 grit
Order No. 3261-402 Price Ea. \$8.82	Order No. 3261-423 Price Ea. \$ 3.33	Order No. 3261-545 Price Ea. \$ 24.57	Order No. 3261-409 Price /Pk. \$ 10.98	Order No. 3261-456 Price /Pk. \$ 11.32	Order No. 3261-511 Price /Pk. \$ 4.35	Order No. 3261-471 Price Ea. \$ 7.58	Order No. 3261-472 Price Ea. \$ 7.58	Order No. 3261-473 Price Ea. \$ 7.58

Mandrels

Order No. 3260-401 Price Ea. \$ 2.43	Order No. 3260-402 Price Ea. \$ 2.43

709-02 110 Pcs. Super Accessory Kit

This versatile and re-usable accessory kit includes everything you need to cut, grind, sand, polish, drill, sharpen, clean and more.

Order No. 3260-709
Price Each: \$ 29.12



710-08 160-Pcs. All Purpose Accessory Kit

This versatile and re-usable accessory kit includes everything you need to cut, grind, sand, polish, drill, sharpen, clean and more. Includes 8 EZ Lock™ accessories.

Order No. 3260-729
Price Each: \$ 37.28



FASTENERS



Dowel Pins.	446
Maintenance Kits.	447
Metric Button Head Cap Screws .	445
Metric Flat Head Cap Screws . . .	445
Metric Socket Head Cap Screws .	445
Socket Button Head Cap Screws.	441
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Socket Head Cap Screws . . .	438-440
Socket Head Shoulder Screws . .	441
Socket Set Screws - Cup Point	442-443

Socket Head Cap Screws — 1960 Series

Alloy Steel Heat Treated - Class 3A Thread Fit Standard - Complete Traceability



CAMCAR					
ALLOY STEEL			TORX		
LENGTH UNDER HEAD	QTY PER BOX	ORDER NO.	PRICE PER BOX	ORDER NO.	PRICE PER BOX
0-80 UNF .050 hex					
1/8	100	4411-035	\$33.38	-	-
3/16	100	4411-038	33.48	-	-
1/4	100	4411-041	33.74	-	-
3/8	100	4411-044	33.97	-	-
1-72 UNF 1/16" hex					
1/8	100	4411-047	33.48	-	-
3/16	100	4411-050	33.74	-	-
1/4	100	4411-053	33.84	-	-
3/8	100	4411-056	34.31	-	-
2-56 UNC 5/64" hex					
3/16	100	4410-003	18.18	-	-
1/4	100	4410-006	18.31	-	-
3/8	100	4410-012	18.51	-	-
1/2	100	4410-015	18.62	-	-
3-48 UNC 5/64" hex					
3/16	100	4410-024	32.20	-	-
1/4	100	4410-027	18.51	-	-
3/8	100	4410-030	18.97	-	-
1/2	100	4410-033	19.17	-	-
4-40 UNC 3/32" hex					
			10IP		
3/16	100	4410-040	9.80	-	-
1/4	100	4410-042	9.34	4430-042	\$16.60
5/16	100	4410-043	9.47	-	-
3/8	100	4410-048	9.54	4430-048	16.95
1/2	100	4410-054	9.73	4430-054	17.30
5/8	100	4410-057	9.80	4430-057	17.42
3/4	100	4410-060	10.06	4430-060	17.88
7/8	100	4410-061	11.68	-	-
1	100	4410-062	12.13	-	-
1-1/4	100	4410-065	39.34	-	-
1-1/2	100	4410-068	43.60	-	-
5-40 UNC 3/32" hex					
			10IP		
1/4	100	4410-078	9.39	4430-078	16.72
3/8	100	4410-084	9.47	4430-084	16.84
1/2	100	4410-090	9.86	4430-090	17.54
5/8	100	4410-093	9.93	-	-
3/4	100	4410-096	10.12	-	-
1	100	4410-099	28.14	-	-
6-32 UNC 7/64" hex					
			15IP		
1/4	100	4410-108	9.47	4430-108	16.84
3/8	100	4410-114	9.60	4430-114	17.07
1/2	100	4410-120	9.73	4430-120	17.30
5/8	100	4410-123	10.06	4430-123	17.88
3/4	100	4410-126	10.38	4430-126	18.45
7/8	100	4410-129	11.42	-	-
1	100	4410-132	12.58	4430-132	22.37
1-1/4	100	4410-133	14.53	-	-
1-1/2	100	4410-136	15.89	-	-
1-3/4	100	4410-139	16.87	-	-
2	100	4410-141	18.04	-	-
6-40 UNF 7/64" hex					
			15IP		
1/4	100	4411-062	19.50	-	-
3/8	100	4411-068	19.72	-	-
1/2	100	4411-074	20.07	-	-
5/8	100	4411-077	21.79	-	-
3/4	100	4411-080	24.55	-	-

CAMCAR					
ALLOY STEEL			TORX		
LENGTH UNDER HEAD	QTY PER BOX	ORDER NO.	PRICE PER BOX	ORDER NO.	PRICE PER BOX
8-32 UNC 9/64" hex					
			25IP		
1/4	100	4410-156	\$9.28	4430-156	\$16.49
5/16	100	4410-165	16.73	-	-
3/8	100	4410-162	9.54	4430-162	16.95
1/2	100	4410-168	9.80	4430-168	17.42
5/8	100	4410-174	17.53	4430-174	17.53
3/4	100	4410-177	10.90	4430-177	19.38
7/8	100	4410-180	11.42	4430-180	20.30
1	100	4410-186	12.78	4430-186	22.72
1-1/4	100	4410-192	14.01	4430-192	24.92
1-1/2	100	4410-198	15.17	4430-198	26.98
1-3/4	100	-	-	-	-
2	100	4410-201	18.81	-	-
2-1/2	100	4410-208	20.96	-	-
8-36 UNF 9/64" hex					
3/8	100	4411-089	25.37	-	-
1/2	100	4411-092	25.84	-	-
3/4	100	4411-095	29.19	-	-
10-24 UNC 5/32" hex					
			27IP		
1/4	100	4410-210	22.95	-	-
3/8	100	4410-216	9.60	4430-216	17.07
1/2	100	4410-219	9.80	4430-219	17.42
5/8	100	4410-225	10.12	4430-225	18.00
3/4	100	4410-228	10.83	4430-228	19.26
7/8	100	4410-231	11.75	4430-231	20.88
1	100	4410-234	12.78	4430-234	22.72
1-1/4	100	4410-240	13.88	4430-240	24.67
1-1/2	100	4410-246	27.56	4430-246	27.56
1-3/4	100	4410-249	17.06	-	-
2	100	4410-255	18.49	4430-255	32.87
2-1/4	100	4410-258	35.75	-	-
2-1/2	100	4410-260	38.28	-	-
3	100	4410-262	27.83	-	-
10-32 UNF 5/32" hex					
			27IP		
1/4	100	4411-105	13.42	-	-
3/8	100	4411-107	9.80	4431-107	17.42
1/2	100	4411-113	9.93	4431-113	17.65
5/8	100	4411-119	10.64	4431-119	18.91
3/4	100	4411-122	19.72	4431-122	19.72
7/8	100	4411-125	22.61	4431-125	22.61
1	100	4411-128	13.04	4431-128	23.19
1-1/4	100	4411-134	14.53	4431-134	25.84
1-1/2	100	4411-137	16.28	4431-137	28.95
1-3/4	100	4411-140	17.78	4431-140	31.60
2	100	4411-143	19.78	4431-143	35.17
2-1/4	100	4411-145	21.80	-	-
2-1/2	100	4411-147	23.35	-	-
3	100	4411-150	54.81	-	-
1/4-20 UNC 3/16" hex					
			30IP		
1/4	100	4410-265	12.33	-	-
3/8	100	4410-267	10.12	4430-267	18.00
1/2	100	4410-270	10.38	4430-270	18.45
5/8	100	4410-273	10.77	4430-273	19.15

Socket Head Cap Screws— 1960 Series



Alloy Steel Heat Treated - Class 3A Thread Fit Standard - Complete Traceability ³



AMCAR					
ALLOY STEEL			TORX		
LENGTH UNDER HEAD	QTY PER BOX	ORDER NO.	PRICE PER BOX	ORDER NO.	PRICE PER BOX
1/4-20 UNC 3/16" hex				30IP	
3/4	100	4410-276	\$11.68	4430-276	\$20.76
7/8	100	4410-279	12.59	4430-279	22.38
1	100	4410-282	13.37	4430-282	23.76
1-1/4	100	4410-291	14.34	4430-291	25.49
1-1/2	100	4410-294	16.22	4430-294	28.83
1-3/4	100	4410-300	17.74	4430-300	31.54
2	100	4410-306	POA	4430-306	34.14
2-1/4	100	4410-309	24.00	4430-309	42.68
2-1/2	100	4410-312	26.66	4430-312	47.41
2-3/4	100	4410-315	57.32	4430-315	57.32
3	100	4410-318	63.43	4430-318	35.68
3-1/4	100	4410-319	67.59	-	-
3-1/2	100	4410-320	79.70	-	-
3-3/4	100	-	-	-	-
4	100	4410-322	105.65	-	-
1/4-28 UNF 3/16" hex				30IP	
1/4	100	-	-	-	-
3/8	100	4411-161	20.18	4431-161	20.18
1/2	100	4411-164	20.64	4431-164	20.64
5/8	100	4411-170	20.99	4431-170	20.99
3/4	100	4411-176	22.72	4431-176	22.72
7/8	100	4411-179	25.15	-	-
1	100	4411-182	26.65	4431-182	26.65
1-1/4	100	4411-188	29.29	4431-188	29.29
1-1/2	100	4411-191	32.41	4431-191	32.41
1-3/4	100	4411-194	35.76	4431-194	35.76
2	100	4411-200	39.09	4431-200	39.09
2-1/4	100	4411-203	47.99	-	-
2-1/2	100	-	-	-	-
3	100	-	-	-	-
4	100	-	-	-	-
5/16-18 UNC 3/16" hex				45IP	
3/8	100	4410-348	17.12	4430-348	30.45
1/2	100	4410-351	13.23	4430-351	23.52
5/8	100	4410-354	13.82	4430-354	24.57
3/4	100	4410-357	14.27	4430-357	25.37
7/8	100	4410-360	15.63	4430-360	27.80
1	100	4410-363	16.02	4430-363	28.49
1-1/4	100	4410-369	17.97	4430-369	31.95
1-1/2	100	4410-372	19.07	4430-372	33.91
1-3/4	100	4410-375	21.40	4430-375	38.06
2	100	4410-381	23.10	4430-381	41.07
2-1/4	100	4410-387	28.55	4430-387	50.75
2-1/2	100	4410-393	31.20	4430-393	55.47
2-3/4	100	4410-396	42.49	4430-396	75.55
3	100	4410-399	86.96	4430-399	86.96
3-1/4	100*	4410-402	108.42	-	-
3-1/2	100*	4410-405	119.50	4430-405	119.50
4	100*	4410-410	125.49	-	-
4-1/2	100	4410-413	140.95	-	-
5	100	4410-416	111.65	-	-
5/16-24 UNF 3/16" hex				45IP	
1/2	100	4411-221	25.15	-	-
5/8	100	4411-224	26.29	-	-
3/4	100	4411-227	28.04	4431-227	28.04
7/8	100	4411-230	30.91	4431-230	30.91
1	100	4411-233	31.49	4431-233	31.49
1-1/4	100	4411-239	33.33	4431-239	33.33
1-1/2	100	4411-242	37.26	4431-242	37.26
1-3/4	100	4411-248	41.07	-	-
2	100	4411-254	45.21	-	-
2-1/4	100	4411-257	53.51	-	-
2-1/2	100	4411-260	62.05	-	-

AMCAR					
ALLOY STEEL			TORX		
LENGTH UNDER HEAD	QTY PER BOX	ORDER NO.	PRICE PER BOX	ORDER NO.	PRICE PER BOX
3/8-16 UNC 5/16" hex				50IP	
1/2	100	4410-435	\$16.29	4430-435	\$28.95
5/8	100	4410-438	16.80	4430-438	29.87
3/4	100	4410-441	17.19	4430-441	30.56
7/8	100	4410-444	18.81	4430-444	33.45
1	100	4410-447	19.46	4430-447	34.61
1-1/4	100	4410-450	20.96	4430-450	37.26
1-1/2	50	4410-456	11.55	4430-456	20.53
1-3/4	50	4410-459	13.17	4430-459	23.42
2	50	4410-462	14.21	4430-462	25.26
2-1/4	50	4410-465	17.78	4430-465	31.60
2-1/2	50	4410-468	19.33	4430-468	34.37
2-3/4	50	4410-471	26.37	4430-471	46.89
3	50	4410-474	28.80	4430-474	51.21
3-1/4	50	4410-477	61.36	4430-477	61.36
3-1/2	50	4410-483	39.28	4430-483	69.84
4	50	4410-489	46.38	4430-489	82.47
4-1/2	50	4410-495	98.79	-	-
5	50	4410-501	118.11	-	-
5-1/2	50	-	-	-	-
6	50	4410-510**	33.03	-	-
3/8-24 UNF 5/16" hex				50IP	
1/2	100	4411-275	34.67	-	-
5/8	100	4411-278	35.65	-	-
3/4	100	4411-281	36.32	4431-281	36.32
7/8	100	4411-284	39.22	-	-
1	100	4411-287	39.91	4431-287	39.91
1-1/4	100	4411-290	43.13	4431-290	43.13
1-1/2	50	4411-293	47.17	-	-
1-3/4	50	4411-296	27.04	-	-
2	50	4411-299	29.70	4431-299	29.70
2-1/4	50	4411-302	37.95	-	-
2-1/2	50	4411-305	41.52	-	-
3	50	4411-308	56.29	-	-
3-1/2	50	-	-	-	-
4	50	-	-	-	-
5	50	-	-	-	-
7/16-14 UNC 3/8" hex				55IP	
5/8	100	4410-518	63.55	-	-
3/4	100	4410-519	65.05	-	-
7/8	100	4410-521	69.66	-	-
1	100	4410-525	40.22	-	-
1-1/4	100*	4410-528	43.53	-	-
1-1/2	100*	4410-531	47.75	-	-
1-3/4	100*	4410-537	52.74	-	-
2	50	4410-540	28.48	-	-
2-1/4	50	4410-543	56.11	-	-
2-1/2	50	4410-546	33.41	-	-
2-3/4	25	4410-549	34.23	-	-
3	25	4410-552	36.91	-	-
3-1/4	25	-	-	-	-
3-1/2	25	4410-558	42.71	-	-
4	25	4410-564	47.38	-	-
4-1/2	25	-	-	-	-
5	25	-	-	-	-
7/16-20 UNF 3/8" hex					
1	100	4411-326	78.78	-	-
1-1/4	100*	4411-329	84.32	-	-
1-1/2	100*	4411-332	94.93	-	-
2	50	4411-338	55.43	-	-

Socket Head Cap Screws— 1960 Series



Alloy Steel Heat Treated - Class 3A Thread Fit Standard - Complete Traceability ³





		ALLOY STEEL		TORX	
LENGTH UNDER HEAD	QTY PER BOX	ORDER NO.	PRICE PER BOX	ORDER NO.	PRICE PER BOX
1/2-13 UNC 3/8" hex				55IP	
1/2	50	4410-573	\$43.13	4430-573	\$43.13
5/8	50	4410-576	45.15	4430-576	45.16
3/4	50	4410-579	22.07	4430-579	39.24
7/8	50	4410-582	39.97	-	-
1	50	4410-585	22.64	4430-585	40.25
1-1/4	50	4410-588	23.48	4430-588	41.75
1-1/2	25	4410-591	13.30	4430-591	26.60
1-3/4	25	4410-594	14.73	4430-594	52.37
2	25	4410-597	15.63	4430-597	55.59
2-1/4	25	-	-	4430-600	31.58
2-1/2	25	4410-606	18.99	4430-606	33.77
2-3/4	25	4410-609	21.86	4430-609	38.87
3	25	4410-612	23.21	4430-612	41.26
3-1/4	25	4410-618	45.10	4430-618	45.10
3-1/2	25	4410-621	26.89	4430-621	47.81
4	25	4410-627	32.34	4430-627	57.49
4-1/2	25	4410-633	67.42	-	-
5	25	4410-639	74.80	-	-
5-1/2	25	4410-645	83.07	-	-
6	25	4410-654	88.67	-	-
6-1/2	10	4410-657	55.28	-	-
7	10	4410-660	63.03	-	-
8	10	4410-663	78.64	-	-

† Limited Quantities

AMCAR					
ALLOY STEEL			TORX		
LENGTH UNDER HEAD	QTY PER BOX	ORDER NO.	PRICE PER BOX	ORDER NO.	PRICE PER BOX
1/2-20 UNF 3/8" hex					
1	50	4411-356	\$41.12	-	-
1-1/4	50	4411-359	46.77	-	-
1-1/2	25	4411-362	50.35	-	-
1-3/4	25	4411-365	15.59	-	-
2	25	4411-368	29.73	-	-
2-1/4	25	4411-371	33.25	-	-
2-1/2	25	4411-374	34.98	-	-
3	25	4411-377	44.78	-	-
5/8-11 UNC 1/2" hex					
1	25	-	-	-	-
1-1/4	50	4410-672	48.05	-	-
1-1/2	50	4410-678	51.59	-	-
1-3/4	50	4410-681	54.99	-	-
2	50	4410-684	58.44	-	-
2-1/4	25	4410-687	31.36	-	-
2-1/2	25	4410-690	32.60	-	-
2-3/4	25	4410-693†	21.33	-	-
3	25	4410-696	38.34	-	-
3-1/4	25	-	-	-	-
3-1/2	25	4410-702	42.12	-	-
3/4-10 UNC 5/8" hex					
2	25	4410-753	55.86	-	-
2-1/2	25	4410-759	61.14	-	-
3	25	4410-765	76.85	-	-

See our selection of Tools:
Hex Bit Sockets: Page 345, 348
Hex Keys: Pages 386-387
Balldrivers: Pages 384-385
Torx® Bit Sockets: Pages 345, 348
Torx® : Pages 380-383
TorxPlus® : Page 380
Fastener Drive Tools: Pages 378-379

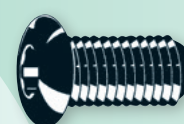
Socket Head Shoulder Screws

Alloy Steel Heat Treated—
Class 3A Thread Fit Standard—
Complete Traceability



Socket Button Head Cap Screws

Alloy Steel Heat Treated—
Class 3A Thread Fit Standard —
Complete Traceability



ALLOY STEEL			
LENGTH UNDER HEAD	QTY PER BOX	ORDER NO.	PRICE PER BOX
1/4 UNC 1/8" hex			
1/4	25	4413-755	\$32.67
3/8	25	4413-759	16.07
1/2	25	4413-762	16.23
5/8	25	4413-765	29.99
3/4	25	4413-768	17.37
1	25	4413-771	32.21
1-1/4	25	4413-774	34.92
1-1/2	25	4413-777	36.27
2	25	4413-780	43.22
5/16 UNC 5/32" hex			
1/4	25	4413-793	40.20
3/8	25	4413-795	19.04
1/2	25	4413-798	34.20
5/8	25	4413-801	34.83
3/4	25	4413-804	35.52
1	25	4413-810	20.47
1-1/4	25	4413-813	40.02
1-1/2	25	4413-816	23.30
1-3/4	25	4413-819	43.71
2	25	4413-822	44.09
3/8 UNC 3/16" hex			
1/4	25	4413-834	50.63
3/8	25	4413-837	21.68
1/2	25	4413-840	21.97
5/8	25	4413-843	39.42
3/4	25	4413-846	40.14
1	25	4413-849	22.74
1-1/4	25	4413-852	42.91
1-1/2	25	4413-855	44.12
1-3/4	25	4413-858	45.38
2	25	4413-861	48.79
2-1/4	25	4413-864	51.35
2-1/2	25	4413-867	56.60
2-3/4	25	4413-870	59.83
3	25	4413-873	63.01
3-1/4	25	4413-876	71.68
3-1/2	25	4413-879	77.88
3-3/4	25	4413-882	88.93
4	25	4413-885	90.48
1/2 UNC 1/4" hex			
3/8	25	4413-889	73.30
1/2	25	4413-891	35.05
5/8	25	4413-894	65.11
3/4	25	4413-897	36.81
1	25	4413-900	37.01
1-1/4	25	4413-903	67.50
1-1/2	25	4413-906	38.81
1-3/4	25	4413-909	72.95
2	25	4413-912	76.53
2-1/4	25	4413-915	80.25
2-1/2	25	4413-918	82.87

ALLOY STEEL			
LENGTH UNDER HEAD	QTY PER BOX	ORDER NO.	PRICE PER BOX
1/2 UNC 1/4" hex			
2-3/4	25	4413-921	\$87.80
3	25	4413-924	93.05
3-1/4	25	4413-927	103.40
3-1/2	25	4413-930	110.87
3-3/4	25	4413-933	124.22
4	25	4413-936	127.31
4-1/4	25	4413-939	150.58
4-1/2	10	4413-942	61.27
4-3/4	10	4413-945	67.25
5	10	4413-948	69.10
5/8 UNC 5/16" hex			
3/4	25	4413-956	125.01
1	25	4413-958	147.16
1-1/4	25	4413-960	106.30
1-1/2	25	4413-963	112.50
1-3/4	25	4413-966	115.29
2	25	4413-969	119.48
2-1/4	25	4413-972	132.29
2-1/2	25	4413-975	141.49
2-3/4	25	4413-978	147.25
3	25	4413-981	147.98
3-1/4	25	4413-984	189.51
3-1/2	25	4413-987	211.95
3-3/4	10	4413-990	95.99
4	10	4413-993	100.38
4-1/4	10	4413-996	112.81
4-1/2	10	4413-999	115.65
4-3/4	10	4414-002	124.02
5	10	4414-005	125.75
5-1/2	10	4414-008	215.51
6	10	4414-011	256.73
3/4 UNC 3/8" hex			
1-1/2	10	4414-020	85.73
1-3/4	10	4414-023	86.37
2	10	4414-026	82.16
2-1/4	10	4414-029	91.35
2-1/2	10	4414-032	99.17
2-3/4	10	4414-035	104.22
3	10	4414-038	108.90
3-1/4	10	4414-041	127.68
3-1/2	10	4414-044	130.85
3-3/4	10	4414-047	138.34
4	10	4414-050	142.56
4-1/4	10	4414-053	159.16
4-1/2	10	4414-056	161.06
4-3/4	10	4414-059	176.33
5	10	4414-062	176.85
5-1/2	10	4414-065	275.92
6	10	4414-068	314.03

ALLOY STEEL			
LENGTH UNDER HEAD	QTY PER BOX	ORDER NO.	PRICE PER BOX
2-56 UNC .050 hex			
3/16	100	4414-070	\$37.72
1/4	100	4414-072	40.14
3/8	100	4414-074	43.13
4-40 UNC 1/16" hex			
3/16	100	4414-078	22.49
1/4	100	4414-080	15.69
3/8	100	4414-083	16.72
1/2	100	4414-089	17.88
6-32 UNC 5/64" hex			
3/16	100	4414-095	23.64
1/4	100	4414-101	9.09
3/8	100	4414-107	9.27
1/2	100	4414-110	17.54
5/8	100	4414-113	18.45
8-32 UNC 3/32" hex			
1/4	100	4414-125	9.86
3/8	100	4414-131	10.25
1/2	100	4414-134	10.38
5/8	100	4414-137	20.99
3/4	100	4414-140	21.91
1	100	4414-143	23.42
10-24 UNC 1/8" hex			
1/4	100	4414-152	17.42
3/8	100	4414-155	9.99
1/2	100	4414-158	10.38
5/8	100	4414-161	20.87
3/4	100	4414-164	22.37
7/8	100	4414-167	25.37
1	100	4414-170	26.30
10-32 UNC 1/8" hex			
1/4	100	4414-302	17.42
3/8	100	4414-305	9.99
1/2	100	4414-311	10.38
5/8	100	4414-314	20.87
3/4	100	4414-317	22.37
7/8	100	4414-320	25.37
1	100	4414-323	26.30
1/4-20 UNC 1/16 hex			
3/8	100	4414-176	11.16
1/2	100	4414-179	11.35
5/8	100	4414-182	11.68
3/4	100	4414-185	21.57
7/8	100	4414-188	24.80
1	100	4414-191	25.15
1-1/4	100	4414-194	30.79
1-1/2	100	4414-197	33.45

ALLOY STEEL			
LENGTH UNDER HEAD	QTY PER BOX	ORDER NO.	PRICE PER BOX
1/4-28 UNF 1/4" hex			
3/8	100	4414-329	\$19.84
1/2	100	4414-332	20.18
5/8	100	4414-335	20.76
3/4	100	4414-338	21.57
1	100	4414-344	25.15
5/16-18 UNC 5/16" hex			
3/8	100	4414-203	25.95
1/2	100	4414-206	14.72
5/8	100	4414-209	31.02
3/4	100	4414-212	17.71
7/8	100	4414-215	34.60
1	100	4414-218	35.18
1-1/4	100	4414-221	55.94
1-1/2	100	4414-224	59.05
5/16-24 UNF 5/16" hex			
3/8	100	4414-350	25.95
1/2	100	4414-353	26.18
5/8	100	4414-356	31.02
3/4	100	4414-359	31.49
1	100	4414-365	35.18
3/8-16 UNC 3/8" hex			
1/2	100	4414-230	38.64
5/8	100	4414-233	42.68
3/4	100	4414-236	25.56
7/8	100	4414-239	49.94
1	100	4414-242	28.34
1-1/4	100	4414-245	50.52
1-1/2	100	4414-248	63.09
3/8-24 UNF 3/8" hex			
1/2	100	4414-371	38.64
3/4	100	-	-
1	100	4414-380	50.38
1/2-13 UNC 5/16" hex			
1	25	4414-260	40.02
1-1/4	25	4414-263	47.35
1-1/2	25	4414-266	52.82
2	25	4414-272	67.70

Socket Set Screws - Cup Point

3

Alloy Steel Heat Treated - Class 3A Thread Fit Standard - Complete Traceability



LENGTH UNDER HEAD	QTY PER BOX	ALLOY STEEL		KNURLED	
		ORDER NO.	PRICE PER BOX	ORDER NO.	PRICE PER BOX
2-56 UNC .035 hex					
1/16 100		4411-449	\$55.82	-	-
3/32 100		4411-450	58.13	-	-
1/8 100		4411-452	58.82	-	-
3/16 100		4411-455	61.48	-	-
1/4 100		4411-458	62.28	-	-
3-48 UNC .050 hex					
3/32 100		4411-463	45.68	-	-
1/8 100		4411-464	46.13	-	-
3/16 100		4411-467	46.82	-	-
1/4 100		4411-470	47.28	-	-
4-40 UNC .050 hex					
1/8 100		4411-473	8.82	4413-135	\$9.63
3/16 100		4411-476	8.95	-	-
1/4 100		4411-479	9.01	-	-
5/16 100		4411-482	16.26	-	-
3/8 100		4411-485	17.30	-	-
1/2 100		4411-491	11.42	-	-
5/8 100		4411-494	24.57	-	-
4-48 UNF .050 hex					
1/8 100		4411-962	15.69	-	-
3/16 100		4411-965	15.91	-	-
1/4 100		4411-968	16.03	-	-
5-40 UNC 1/16 hex					
1/8 100		4411-497	9.47	-	-
3/16 100		4411-500	9.67	-	-
1/4 100		4411-503	17.53	-	-
5/16 100		4411-506	17.76	-	-
3/8 100		-	-	-	-
1/2 100		4411-515	20.77	-	-
5/8 100		4411-518	12.13	-	-
3/4 100		4411-521	22.60	-	-
6-32 UNC 1/16 hex					
1/8 100		4411-524	18.46	4413-180	9.17
3/16 100		4411-527	9.28	4413-183	9.30
1/4 100		4411-530	9.41	4413-186	9.50
5/16 100		4411-533	16.96	-	-
3/8 100		4411-536	17.19	-	-
1/2 100		4411-542	18.22	-	-
5/8 100		4411-545	24.57	-	-
3/4 100		4411-548	27.46	-	-
7/8 100		4411-551	38.06	-	-
1 100		4411-554	40.83	-	-
6-40 UNF 1/16 hex					
1/8 100		4411-986	18.46	-	-
3/16 100		4411-989	16.49	-	-
1/4 100		4411-992	16.73	-	-
3/8 100		4411-998	17.19	-	-
8-32 UNC 5/64 hex					
1/8 100		4411-557	15.34	-	-
3/16 100		4411-560	15.57	-	-
1/4 100		4411-563	8.89	-	-
5/16 100		4411-566	16.15	-	-
3/8 100		4411-569	9.34	-	-

LENGTH UNDER HEAD	QTY PER BOX	ALLOY STEEL		KNURLED	
		ORDER NO.	PRICE PER BOX	ORDER NO.	PRICE PER BOX
8-32 UNC 5/64 hex					
7/16 100		-	-	-	-
1/2 100		4411-575	\$10.57	-	-
5/8 100		4411-578	25.72	-	-
3/4 100		4411-581	27.22	-	-
7/8 100		4411-584	36.22	-	-
1 100		4411-587	40.14	-	-
8-36 UNF 5/64 hex					
1/8 100		-	-	-	-
3/16 100		-	-	-	-
1/4 100		4412-007	15.80	-	-
3/8 100		4412-013	16.61	-	-
10-24 UNC 3/32 hex					
3/16 100		4411-590	8.89	-	-
1/4 100		4411-593	9.08	4413-243	\$9.43
5/16 100		4411-596	16.61	-	-
3/8 100		4411-599	10.06	-	-
1/2 100		4411-602	10.84	-	-
5/8 100		4411-605	20.06	-	-
3/4 100		4411-608	22.72	-	-
7/8 100		4411-611	38.06	-	-
1 100		4411-617	41.98	-	-
1-1/4 100		4411-620	43.95	-	-
10-32 UNF 3/32 hex					
3/16 100		4412-022	8.89	4413-627	9.23
1/4 100		4412-025	16.15	4413-630	9.43
5/16 100		4412-028	16.61	-	-
3/8 100		4412-031	17.88	4413-636	10.02
1/2 100		4412-037	19.27	4413-639	11.54
5/8 100		4412-040	20.07	-	-
3/4 100		4412-043	22.72	-	-
1 100		4412-049	41.98	-	-
1-1/4 100		4412-052	43.95	-	-
1/4-20 UNC 1/8 hex					
3/16 100		4411-626	9.73	4413-270	9.56
1/4 100		4411-629	8.89	4413-273	9.50
5/16 100		4411-632	9.08	4413-276	9.84
3/8 100		4411-635	9.93	4413-279	9.95
1/2 100		4411-641	10.51	4413-282	10.54
5/8 100		4411-644	22.38	-	-
3/4 100		4411-647	14.27	4413-288	14.73
7/8 100		4411-650	32.07	-	-
1 100		4411-653	20.50	-	-
1-1/4 100		4411-656	46.13	-	-
1-1/2 100*		4411-659	58.02	-	-
1-3/4 100*		4411-662	74.16	-	-
2 100*		4411-665	84.54	-	-
1/4-28 UNF 1/8 hex					
3/16 100		4412-061	17.30	-	-
1/4 100		4412-064	15.80	-	-
5/16 100		4412-067	16.15	-	-
3/8 100		4412-070	17.65	-	-
1/2 100		4412-076	18.68	-	-
5/8 100		4412-079	22.38	-	-
3/4 100		4412-082	25.37	-	-
1 100		4412-085	36.45	-	-
1-1/4 100		4412-088	46.13	-	-

(Continued)

Socket Set Screws - Cup Point (Continued)

3

**Alloy Steel Heat Treated -
Class 3A Thread Fit Standard -
Complete Traceability**



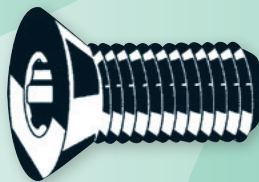
LENGTH UNDER HEAD	QTY PER BOX	ALLOY STEEL		KNURLED	
		ORDER NO.	PRICE PER BOX	ORDER NO.	PRICE PER BOX
5/16-18 UNC 5/32 hex					
1/4	100	4411-671	\$10.64	4413-309	\$11.20
5/16	100	4411-674	10.06	4413-312	10.02
3/8	100	4411-677	10.19	-	-
7/16	100	4411-680	18.56	-	-
1/2	100	4411-683	10.64	-	-
5/8	100	4411-686	23.98	-	-
3/4	100	4411-689	15.57	-	-
7/8	100	4411-692	38.75	-	-
1	100	4411-695	23.23	-	-
1-1/4	100	4411-698	47.28	-	-
1-1/2	100	4411-701	62.63	-	-
1-3/4	100*	4411-704	77.39	-	-
2	100*	4411-707	82.23	-	-
5/16-24 UNF 5/32 hex					
1/4	100	4412-094	18.92	-	-
5/16	100	4412-097	17.88	-	-
3/8	100	4412-100	18.11	-	-
1/2	100	4412-106	18.92	-	-
5/8	100	4412-109	23.98	-	-
3/4	100	4411-687	27.68	-	-
1	100	4412-118	41.30	-	-
3/8-16 UNC 3/16 hex					
1/4	100	4411-713	23.30	-	-
5/16	100	4411-716	13.95	-	-
3/8	100	4411-719	11.68	-	-
7/16	100	-	-	-	-
1/2	100	4411-725	13.62	-	-
5/8	100	4411-728	15.76	-	-
3/4	100	4411-731	16.87	-	-
7/8	100	-	-	-	-
1	100	4411-737	23.23	-	-
1-1/4	100	4411-740	52.36	-	-
1-1/2	100	4411-743	68.17	-	-
1-3/4	100	4411-746	82.81	-	-
2	100	-	-	-	-
2-1/2	100	4411-752	104.96	-	-
3/8-24 UNF 3/16 hex					
1/4	100	4412-124	23.30	-	-
3/8	100	4412-130	20.76	-	-
1/2	100	4412-136	24.22	-	-

LENGTH UNDER HEAD	QTY PER BOX	ALLOY STEEL		KNURLED	
		ORDER NO.	PRICE PER BOX	ORDER NO.	PRICE PER BOX
3/8-24 UNF 3/16 hex					
5/8	100	4412-139	\$28.03	-	-
3/4	100	4412-142	29.99	-	-
1	100	4412-148	41.30	-	-
1-1/4	100	4412-151	52.36	-	-
1-1/2	100	4412-134	68.17	-	-
7/16-14 UNC 7/32 hex					
3/8	100	-	-	-	-
7/16	100	4411-758†	27.09	-	-
1/2	100	4411-761	50.30	-	-
5/8	100	4411-764	54.90	-	-
3/4	100	4411-767	59.28	-	-
7/8	50	-	-	-	-
7/16-14 UNC 7/32 hex					
1	100*	4411-773	76.47	-	-
1-1/4	100*	4411-776	82.12	-	-
1-1/2	100*	4411-779	95.85	-	-
2	50	4411-782	60.38	-	-
7/16-20 UNF 7/32 hex					
3/8	100	4412-163	26.20	-	-
7/16	100	-	-	-	-
1/2	100	4412-169	50.30	-	-
1/2-13 UNC 1/4 hex					
3/8	100	4411-794	61.11	-	-
1/2	100	4411-800	33.91	4413-426	\$66.83
5/8	100	4411-803	37.27	-	-
3/4	100	4411-806	38.60	-	-
7/8	100*	4411-809	76.73	-	-
1	100*	4411-812	48.78	-	-
1-1/4	100*	4411-815	109.05	-	-
1-1/2	100*	4411-818	121.39	-	-
1-3/4	500	4411-821	70.28	-	-
2	500	4411-824	79.56	-	-
2-1/2	500	4411-830	102.41	-	-
3	500	4411-833	106.59	-	-
1/2-20 UNF 1/4 hex					
1/2	100	4412-187	60.28	-	-
3/4	100	4412-193	68.63	-	-
1	100	4412-196	86.72	-	-

Socket Flat Countersunk Head Cap Screws

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**Alloy Steel Heat Treated -
Class 3A Thread Fit Standard -
Complete Traceability**



ALLOY STEEL				
LENGTH UNDER HEAD	QTY PER BOX	ORDER NO.	PRICE PER BOX.	
2-56 UNC .050 hex				
3/16	100	4414-382	\$42.79	
1/4	100	4414-385	46.02	
3/8	100	4414-387	50.05	
1/2	100	4414-390	53.75	
4-40 UNC 1/16 hex				
1/4	100	4414-392	20.76	
3/8	100	4414-395	21.45	
1/2	100	4414-398	22.72	
5/8	100	4414-401	23.76	
3/4	100	4414-404	27.10	
5-40 UNC 5/64 hex				
1/4	100	4414-413	21.87	
3/8	100	4414-416	22.38	
1/2	100	4414-419	23.76	
5/8	100	4414-422	26.30	
3/4	100	4414-425	29.76	
6-32 UNC 5/64 hex				
1/4	100	4414-434	13.10	
3/8	100	4414-440	13.43	
1/2	100	4414-443	13.82	
5/8	100	4414-446	26.64	
3/4	100	4414-449	27.22	
1	100	4414-451	32.18	
8-32 UNC 3/32 hex				
3/8	100	4414-458	13.75	
1/2	100	4414-461	14.29	
5/8	100	4414-464	25.95	
3/4	100	4414-467	28.38	
1	100	4414-473	31.60	
10-24 UNC 1/8 hex				
3/8	100	4414-482	23.64	
1/2	100	4414-485	14.50	
5/8	100	4414-488	26.99	
3/4	100	4414-491	15.31	
1	100	4414-497	32.64	
1-1/4	100	4414-500	41.98	
1-1/2	100	4414-503	48.21	
10-32 UNF 1/8 hex				
3/8	100	4414-773	23.64	
1/2	100	4414-779	25.77	
5/8	100	4414-782	26.99	
3/4	100	4414-785	27.22	
1	100	4414-791	32.64	
1-1/4	100	4414-794	41.98	
1-1/2	100	4414-797	48.21	
1/4-20 UNC 5/32 hex				
3/8	100	4414-506	26.53	
1/2	100	4414-509	14.40	
5/8	100	4414-515	15.31	
3/4	100	4414-518	15.37	
1	100	4414-524	20.61	

ALLOY STEEL				
LENGTH UNDER HEAD	QTY PER BOX	ORDER NO.	PRICE PER BOX	
1/4-20 UNC 5/32 hex				
1-1/4	100	4414-527	\$40.37	
1-1/2	100	4414-530	47.28	
1-3/4	100	4414-533	57.32	
2	100	4414-536	62.28	
2-1/2	100	4414-542	68.17	
1/4-28 UNF 5/32 hex				
3/8	100	4414-809	26.53	
1/2	100	4414-815	25.61	
5/8	100	4414-818	27.22	
3/4	100	4414-821	27.33	
1	100	4414-824	36.64	
1-1/4	100	4414-827	40.37	
1-1/2	100	4414-830	47.28	
5/16-18 UNC 3/16 hex				
1/2	100	4414-548	30.33	
5/8	100	4414-554	31.83	
3/4	100	4414-557	18.17	
7/8	100	4414-560	33.45	
1	100	4414-563	19.46	
1-1/4	100	4414-566	44.17	
1-1/2	100	4414-572	49.02	
1-3/4	100	4414-575	70.36	
2	100	4414-578	77.51	
2-1/4	100	4414-581	89.50	
2-1/2	100	4414-584	100.46	
5/16-24 UNF 3/16 hex				
1/2	100	4414-839	30.33	
5/8	100	4414-842	31.83	
3/4	100	4414-845	32.30	
7/8	100	4414-846	33.45	
1	100	4414-848	34.61	
1-1/4	100	4414-851	44.17	
1-1/2	100	4414-854	49.02	
3/8-16 UNC 7/32 hex				
1/2	100	4414-590	46.82	
5/8	100	4414-593	48.07	
3/4	100	4414-596	27.31	
1	100	4414-602	49.02	
1-1/4	100	4414-605	52.25	
1-1/2	100	4414-608	55.01	
1-3/4	100	4414-611	79.70	
2	100	4414-614	87.66	
2-1/4	100	4414-617	104.27	
2-1/2	50	4414-620	56.28	
3	50	4414-626	66.55	
3/8-24 UNF 7/32 hex				
5/8	100	4414-866	48.07	
3/4	100	4414-869	48.55	
1	100	4414-872	49.02	
1-1/4	100	4414-875	52.25	
1-1/2	100	4414-878	55.01	

ALLOY STEEL				
LENGTH UNDER HEAD	QTY PER BOX	ORDER NO.	PRICE PER BOX	
7/16-14 UNC 7/16 hex				
3/4	100	4414-635	\$	95.85
1	100	4414-638		105.31
1-1/4	100	4414-641		115.34
1-1/2	100	4414-644		123.19
1-3/4	100	4414-647		128.95
2	100	4414-650		134.25
1/2-13 UNC 5/16 hex				
3/4	100	4414-653		98.13
1	100	4414-662		102.58
1-1/2	100	4414-668		124.92
1-3/4	50	4414-671		70.51
2	50	4414-674		73.45
2-1/4	25	4414-677		44.01
2-1/2	25	4414-680		47.33
3	25	4414-686		54.03
1/2-20 UNF 5/16 hex				
3/4	25	4414-884		98.13
1	25	4414-887		102.58
1-1/4	25	4414-890		118.23
1-1/2	25	4414-893		124.92
1-3/4	25	4414-896		70.51
2	25	4414-902		73.45
5/8-11 UNC 3/8 hex				
1-1/4	25	4414-698		55.73
1-1/2	25	4414-701		60.82
1-3/4	25	4414-704		70.36
2	25	4414-707		73.33

Metric Socket Head Cap Screws

Alloy Steel Heat Treated - Class 12.9 - Complete Traceability

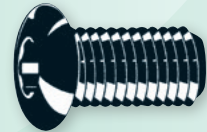


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		L'GTH UNDER HEAD	HEX KEY	QTY PER BOX	ORDER NO.	PRICE PER BOX			L'GTH UNDER HEAD	HEX KEY	QTY PER BOX	ORDER NO.	PRICE PER BOX			L'GTH UNDER HEAD	HEX KEY	QTY PER BOX	ORDER NO.	PRICE PER BOX
SIZE		MM	MM				SIZE		MM	MM				SIZE		MM	MM			
M 3.0	x 0.50	x 6	2.5	100	4460-003	\$20.57	M 6.0	x 1.00	x 20	5	100	4460-077	\$23.31	M 10.0	x 1.50	x 60	8	50	4460-151	\$36.80
M 3.0	x 0.50	x 8	2.5	100	4460-005	18.51	M 6.0	x 1.00	x 25	5	100	4460-079	24.91	M 10.0	x 1.50	x 70	8	50	4460-155	47.58
M 3.0	x 0.50	x 10	2.5	100	4460-007	18.74	M 6.0	x 1.00	x 30	5	100	4460-081	26.74	M 12.0	x 1.75	x 25	10	50	4460-165	23.35
M 3.0	x 0.50	x 12	2.5	100	4460-009	19.54	M 6.0	x 1.00	x 35	5	100	4460-083	30.84	M 12.0	x 1.75	x 20	10	50	4460-167	43.13
M 3.0	x 0.50	x 16	2.5	100	4460-011	19.88	M 6.0	x 1.00	x 40	5	100	4460-085	32.56	M 12.0	x 1.75	x 30	10	50	4460-169	44.40
M 3.0	x 0.50	x 20	2.5	100	4460-013	20.57	M 8.0	x 1.25	x 12	6	100	4460-103	26.98	M 12.0	x 1.75	x 35	10	50	4460-171	49.82
M 3.0	x 0.50	x 25	2.5	100	4460-015	24.57	M 8.0	x 1.25	x 16	6	100	4460-105	27.56	M 12.0	x 1.75	x 40	10	50	4460-173	57.50
M 4.0	x 0.70	x 8	3	100	4460-025	18.74	M 8.0	x 1.25	x 20	6	100	4460-107	28.83	M 12.0	x 1.75	x 45	10	50	4460-175	62.63
M 4.0	x 0.70	x 10	3	100	4460-027	19.08	M 8.0	x 1.25	x 25	6	100	4460-109	31.83	M 12.0	x 1.75	x 50	10	50	4460-177	66.38
M 4.0	x 0.70	x 12	3	100	4460-029	19.88	M 8.0	x 1.25	x 30	6	100	4460-111	33.91	M 12.0	x 1.75	x 55	10	25	4460-179	36.04
M 4.0	x 0.70	x 16	3	100	4460-031	20.79	M 8.0	x 1.25	x 35	6	100	4460-113	36.91	M 12.0	x 1.75	x 60	10	25	4460-181	38.38
M 4.0	x 0.70	x 20	3	100	4460-033	22.28	M 8.0	x 1.25	x 40	6	100	4460-115	38.87	M 16.0	x 2.00	x 35	14	25	4460-201	52.88
M 4.0	x 0.70	x 25	3	100	4460-035	25.14	M 8.0	x 1.25	x 50	6	100	4460-119	46.93	M 16.0	x 2.00	x 40	14	25	4460-203	53.40
M 5.0	x 0.80	x 10	4	100	4460-049	20.57	M 10.0	x 1.50	x 16	8	100	4460-133	40.83	M 16.0	x 2.00	x 45	14	25	4460-205	58.77
M 5.0	x 0.80	x 12	4	100	4460-051	22.28	M 10.0	x 1.50	x 20	8	100	4460-135	41.29	M 16.0	x 2.00	x 50	14	25	4460-207	60.68
M 5.0	x 0.80	x 16	4	100	4460-053	23.31	M 10.0	x 1.50	x 25	8	100	4460-137	42.33	M 16.0	x 2.00	x 55	14	25	4460-209	65.54
M 5.0	x 0.80	x 20	4	100	4460-055	23.99	M 10.0	x 1.50	x 30	8	100	4460-139	44.29	M 16.0	x 2.00	x 60	14	25	4460-211	67.99
M 5.0	x 0.80	x 25	4	100	4460-057	24.67	M 10.0	x 1.50	x 35	8	100	4460-142	48.44							
M 5.0	x 0.80	x 30	4	100	4460-059	25.93	M 10.0	x 1.50	x 40	8	100	4460-143	52.25							
M 6.0	x 1.00	x 12	5	100	4460-073	21.02	M 10.0	x 1.50	x 45	8	50	4460-145	27.68							
M 6.0	x 1.00	x 16	5	100	4460-075	22.28	M 10.0	x 1.50	x 50	8	50	4460-147	29.59							

Camcar Metric Socket Button Head Cap Screws

Alloy Steel Heat Treated - Class 3A Thread Fit Standard - Complete Traceability



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			L'GTH UNDER HEAD	HEX KEY	QTY PER BOX	ORDER NO.	PRICE PER BOX				L'GTH UNDER HEAD	HEX KEY	QTY PER BOX	ORDER NO.	PRICE PER BOX				L'GTH UNDER HEAD	HEX KEY	QTY PER BOX	ORDER NO.	PRICE PER BOX	
SIZE			MM	MM				SIZE			MM	MM					SIZE			MM	MM			
M 3.0	x 0.50	x 8	2	100	4460-405	\$16.15	M 5.0	x 0.80	x 10	3	100	4460-419	\$18.91	M 6.0	x 1.00	x 25	4	100	4460-439	\$26.99				
M 3.0	x 0.50	x 10	2	100	4460-407	16.49	M 5.0	x 0.80	x 12	3	100	4460-421	19.38	M 8.0	x 1.25	x 12	5	100	4460-445	27.22				
M 3.0	x 0.50	x 12	2	100	4460-409	17.30	M 5.0	x 0.80	x 16	3	100	4460-423	21.34	M 8.0	x 1.25	x 16	5	100	4460-447	27.56				
M 4.0	x 0.70	x 8	2.5	100	4460-411	18.23	M 6.0	x 1.00	x 10	4	100	4460-431	19.61	M 8.0	x 1.25	x 25	5	100	4460-451	32.07				
M 4.0	x 0.70	x 10	2.5	100	4460-413	18.91	M 6.0	x 1.00	x 12	4	100	4460-433	20.30	M 8.0	x 1.25	x 30	5	100	4460-453	35.76				
M 4.0	x 0.70	x 12	2.5	100	4460-415	19.49	M 6.0	x 1.00	x 16	4	100	4460-435	22.26	M 8.0	x 1.25	x 40	5	100	4477-133	39.28				
M 4.0	x 0.70	x 16	2.5	100	4460-417	21.34	M 6.0	x 1.00	x 20	4	100	4460-437	23.64											

Camcar Metric Socket Flat Countersunk Head Cap Screws

Alloy Steel Heat Treated - Complete Traceability



3

L'GTH UNDER HEAD MM							L'GTH UNDER HEAD MM							L'GTH UNDER HEAD MM						
SIZE	HEX KEY MM	QTY PER BOX	ORDER NO.	PRICE PER BOX	SIZE	HEX KEY MM	QTY PER BOX	ORDER NO.	PRICE PER BOX	SIZE	HEX KEY MM	QTY PER BOX	ORDER NO.	PRICE PER BOX						
M 3.0 x 0.50 x 8	2	100	4460-277	\$21.91	M 5.0 x 0.80 x 16	3	100	4460-307	\$27.80	M 8.0 x 1.25 x 16	5	100	4460-337	\$40.14						
M 3.0 x 0.50 x 10	2	100	4460-279	23.52	M 5.0 x 0.80 x 20	3	100	4460-309	28.38	M 8.0 x 1.25 x 20	5	100	4460-339	41.06						
M 3.0 x 0.50 x 12	2	100	4460-281	24.22	M 5.0 x 0.80 x 25	3	100	4460-311	32.41	M 8.0 x 1.25 x 25	5	100	4460-341	42.68						
M 3.0 x 0.50 x 16	2	100	4460-283	25.83	M 6.0 x 1.00 x 12	4	100	4460-319	26.53	M 8.0 x 1.25 x 30	5	100	4460-343	45.10						
M 4.0 x 0.70 x 8	2.5	100	4460-287	23.52	M 6.0 x 1.00 x 16	4	100	4460-321	27.22	M 8.0 x 1.25 x 35	5	100	4460-345	49.37						
M 4.0 x 0.70 x 10	2.5	100	4460-289	24.11	M 6.0 x 1.00 x 20	4	100	4460-323	29.41	M 10.0 x 1.50 x 20	6	100	4460-351	51.44						
M 4.0 x 0.70 x 12	2.5	100	4460-291	25.15	M 6.0 x 1.00 x 25	4	100	4460-325	33.91	M 10.0 x 1.50 x 25	6	100	4460-353	51.91						
M 4.0 x 0.70 x 16	2.5	100	4460-293	25.83	M 6.0 x 1.00 x 30	4	100	4460-327	39.33	M 10.0 x 1.50 x 30	6	100	4460-355	56.29						
M 5.0 x 0.80 x 10	3	100	4460-303	26.99	M 6.0 x 1.00 x 35	4	100	4460-329	45.10											
M 5.0 x 0.80 x 12	3	100	4460-305	27.22	M 8.0 x 1.25 x 12	5	100	4477-057	39.28											

Dowel Pins

Alloy Steel Heat Treated - Standard Size +.0002 Over Nominal Diameter
Oversize +.001 Over Nominal Diameter



 					
DIA.	ALLOY STEEL	ALLOY STEEL			
LENGTH OVER- ALL	QTY PER BOX	ORDER NO.	PRICE PER BOX	ORDER NO.	PRICE PER BOX
1/16" dia					
3/16	100	-	-	4415-766	\$26.09
1/4	100	-	-	4415-769	26.45
3/8	100	3185-020†	\$7.78	4415-775	26.81
1/2	100	-	-	4415-781	28.01
5/8	100	-	-	4415-784	28.25
3/4	100	3185-040†	9.32	4415-787	28.61
7/8	100	3185-045†	10.02	-	-
1	100	3185-050†	11.38	-	-
3/32" dia					
3/16	100	-	-	4415-736	24.78
1/4	100	-	-	4415-739	24.90
5/16	100	-	-	4415-742	25.02
3/8	100	-	-	4415-745	25.25
7/16	100	-	-	4415-748	26.09
1/2	100	3185-080†	6.67	4415-751	26.57
5/8	100	3185-085†	6.75	4415-754	27.05
3/4	100	3185-090†	6.83	4415-757	27.29
7/8	100	3185-095†	7.78	-	-
1	100	3185-100†	8.00	4415-763	27.53
1/8" dia					
1/4	100	3185-105†	4.37	-	-
3/8	100	3185-110†	5.19	4415-802	25.74
1/2	100	3185-115†	5.29	4415-808	14.68
5/8	100	-	-	4415-811	26.32
3/4	100	-	-	4415-814	15.53
7/8	100	3185-130†	5.87	4415-817	29.85
1	100	-	-	4415-820	18.24
1-1/8	100	3185-140†	6.49	-	-
1-1/4	100	3185-145†	6.95	4415-826	18.70
1-3/8	100	3185-150†	9.29	-	-
1-1/2	100	-	-	4415-832	21.61
1-3/4	100	3185-160†	8.70	4415-835	23.59
2	100	3185-165†	10.52	4415-838	46.06
3/16" dia					
1/2	100	3185-175†	6.13	4415-841	27.73
5/8	100	-	-	4415-844	28.44
3/4	100	-	-	4415-847	17.18
7/8	100	3185-190†	7.16	4415-850	32.44
1	100	3185-195†	7.37	4415-853	19.04
1-1/4	100	3185-205†	8.43	4415-859	21.15
1-1/2	100	-	-	4415-865	23.40
1-3/4	100	3185-225†	10.67	4415-868	46.19
2	100	3185-230†	12.44	4415-871	51.35
1/4" dia					
1/2	100	-	-	4415-874	17.51
5/8	100	-	-	4415-877	32.78
3/4	100	-	-	4415-880	18.77
7/8	100	3185-250†	9.71	4415-883	36.43
1	100	3185-255†	10.22	4415-886	21.02
1-1/4	100	-	-	4415-892	40.66
1-1/2	100	-	-	4415-898	25.64
1-3/4	100	-	-	4415-901	51.59
2	100	-	-	4415-904	32.12
2-1/4	100	3185-290†	18.40	4415-907	69.68
2-1/2	100	3185-295†	21.44	4415-910	70.98

† Limited Quantities

						
DIA.	ALLOY STEEL			ALLOY STEEL		
LENGTH OVER- ALL	ORDER NO.	QTY PER BOX	PRICE PER BOX	ORDER NO.	QTY PER BOX	PRICE PER BOX
5/16" dia						
1/2	3185-300†	100	\$11.86	4415-919	100	\$38.31
5/8	3185-305†	100	12.27	4415-922	100	40.19
3/4	-	-	-	4415-925	100	23.33
7/8	3185-320†	100	13.30	4415-928	100	42.51
1	-	-	-	4415-931	100	23.99
1-1/8	3185-330†	100	14.33	-	-	-
1-1/4	-	-	-	4415-937	100	26.57
1-1/2	-	-	-	4415-943	100	29.74
1-3/4	3185-350†	50	10.02	4415-946	100	64.17
2	3185-355†	50	11.47	4415-952	100	38.93
2-1/4	3185-360†	50	12.53	-	-	-
2-1/2	-	-	-	4415-958	100	86.13
3	-	-	-	4415-961	100	102.95
3/8" dia						
1/2	3185-375†	100	15.84	4415-967	20	9.40
5/8	-	-	-	4415-970	20	9.75
3/4	-	-	-	4415-973	20	5.63
7/8	3185-390†	100	18.57	4415-976	20	10.27
1	3185-395†	100	19.46	4415-979	20	5.86
1-1/4	-	-	-	4415-985	20	6.28
1-1/2	3185-410†	100	25.37	4415-991	20	7.14
1-3/4	3185-415†	50	14.67	4415-994	20	14.57
2	3185-420†	50	15.79	4415-997	20	9.01
2-1/4	3185-425†	50	18.90	4416-000	20	17.53
2-1/2	3185-430†	50	19.86	4416-003	20	11.24
3	3185-440†	50	25.40	4416-009	20	13.87
7/16" dia						
1	3185-455†	50	17.73	4416-021	20	19.34
1-1/4	3185-460†	50	18.83	-	-	-
1-1/2	3185-465†	50	19.78	4416-027	20	22.35
2-1/2	3185-485†	50	32.00	-	-	-
3	3185-495†	50	37.33	-	-	-
1/2" dia						
3/4	3185-505†	20	7.12	4416-051	20	20.71
1	3185-520†	20	8.00	4416-057	20	12.33
1-1/4	3185-525†	20	8.48	4416-060	20	23.36
1-1/2	3185-530†	20	9.20	4416-063	20	13.96
1-3/4	3185-540†	20	10.56	4416-066	20	26.42
2-1/4	3185-550†	20	13.02	4416-072	20	33.02
2-1/2	3185-555†	20	14.90	4416-075	20	19.91
3	3185-565†	20	16.48	4416-081	20	42.12
3-1/2	3185-570†	20	20.41	-	-	-
5/8" dia						
1-1/4	3185-585†	10	8.10	4416-099	10	18.79
1-1/2	-	-	-	4416-102	10	19.55
1-3/4	3185-595†	10	10.42	4416-106	10	22.67
2	3185-600†	10	10.84	4416-108	10	24.54
2-1/4	3185-605†	10	11.56	-	-	-
2-1/2	-	-	-	4416-114	10	28.88
3	-	-	-	4416-120	10	19.27
4-1/2	3185-630†	10	24.51	-	-	-
3/4" dia						
1-3/4	3185-645†	10	15.87	-	-	-
2	3185-650†	10	16.35	-	-	-
4	3185-675†	10	33.50	-	-	-
1" dia						
2	3185-695†	10	34.67	-	-	-

Maintenance Kits

Cotter Pins



Contents:

130	1/16" x 1"
100	1/8" x 1-1/4"
80	1/8" x 2"
150	3/32" x 1"
100	3/32" x 1-3/4"
40	5/32" x 2-1/2"

Strong and flexible zinc plated steel pins with one prong extended for easy insertion and bending. Pins also have chisel point ends.

PIECES	ORDER NO.	PRICE EACH
600	3237-605	\$55.55

E-Clips



Contents:

30	1/8"	30	3/8"
20	5/32"	25	7/16"
30	3/16"	20	1/2"
20	7/32"	15	5/8"
30	1/4"	10	3/4"
30	5/16"	5	7/8"

External clips made of carbon steel to retain positive retention of pulleys, sprockets, springs and bearings on shafts and rods.

PIECES	ORDER NO.	PRICE EACH
265	3237-610	\$54.36

Roll Pins



Contents:

1/16", 5/64", 3/32", 1/8", 5/32", 3/16", 7/32", 1/4", 5/16", and 3/8" diameters. Four lengths included for each diameter.

Made of flexible spring steel, cold rolled, hardened and tempered. Chamfered ends simplify insertion.

PIECES	ORDER NO.	PRICE EACH
300	3237-625	\$64.83

Hitch Pin Clips



Contents:

60	1/16"	#18
30	3/32"	#3
20	3/32"	#7
20	1/8"	#16
15	5/32"	#10
5	3/16"	#6

Reusable, quick release pins for fast assembly and disassembly. Made of spring steel to maintain tension.

PIECES	ORDER NO.	PRICE EACH
150	3237-615	\$51.88

Housing Rings



Contents:

15	1/2"	10	1-1/16"
15	5/8"	10	1-1/8"
15	11/16"	10	1-1/4"
15	3/4"	5	1-3/8"
15	13/16"	5	1-1/2"
15	7/8"	5	1-5/8"
10	1"	5	1-3/4"

Internal rings with tapered design maintains constant pressure to prevent slippage of axles, gears and bearings inside machinery housing.

PIECES	ORDER NO.	PRICE EACH
150	3237-620	\$59.98

Set Screws



Contents:

10	6-32 x 3/16"
10	8-32 x 3/16"
10	10-24 x 1/4"
30	1/4-20 x 1/4"
20	1/4-28 x 1/4"
20	1/4-20 x 3/8"
30	5/16-18 x 3/8"
20	5/16-24 x 3/8"
20	5/16-18 x 1/2"
10	3/8-16 x 3/8"
10	3/8-24 x 3/8"
10	3/8-16 x 1/2"

High grade alloy steel set screws with hexagon recessed heads. Ends have cup points for positive torque.

PIECES	ORDER NO.	PRICE EACH
200	3237-650	\$56.76

O Rings



Contents:

140 pieces of 1/16" body, 80 pieces of 3/32" body, and 80 pieces of 1/8" body. Various sizes are included for each body size.

Made of BUNA-N 70 durometer rubber compound. Creates a tight seal for fluid or gas connections.

PIECES	ORDER NO.	PRICE EACH
300	3237-630	\$86.73

Snap Rings



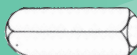
Contents:

30	1/4"	30	5/8"
20	5/16"	35	3/4"
50	3/8"	10	13/16"
20	7/16"	20	7/8"
50	1/2"	10	1"
20	9/16"	5	1-1/4"

External, spring steel snap rings used to retain pulleys, gears or wheels on shafts.

PIECES	ORDER NO.	PRICE EACH
300	3237-600	\$62.75

Machinery Keys



Contents:

3	1/8" x 1/8" x 3/4"	5	1/4" x 1/4" x 1-1/4"
3	1/8" x 1/8" x 1"	5	1/4" x 1/4" x 1-1/2"
5	3/16" x 3/16" x 3/4"	5	5/16" x 5/16" x 1-1/4"
5	3/16" x 3/16" x 1"	5	5/16" x 5/16" x 1-1/2"
5	3/16" x 3/16" x 1-1/4"	5	3/8" x 3/8" x 1-1/4"
5	1/4" x 1/4" x 3/4"	5	3/8" x 3/8" x 1-1/2"
		2	1/2" x 1/2" x 1-1/2"

Zinc plated steel, square keys have chamfered ends for easy insertion into keyways.

PIECES	ORDER NO.	PRICE EACH
58	3237-655	\$85.91

Socket Head Cap Screws



Contents:

10	6-32 x 1/2"	10	10-24 x 1"
10	6-32 x 1"	10	1/4-20 x 1/2"
10	8-32 x 1/2"	10	1/4-20 x 3/4"
10	8-32 x 3/4"	10	1/4-20 x 1"
10	8-32 x 1"	10	1/4-20 x 1-1/4"
10	10-32 x 1/2"	10	1/4-20 x 1-1/2"
10	10-32 x 3/4"	10	1/4-28 x 3/4"
10	10-32 x 1"	10	1/4-28 x 1"
10	10-32 x 1-1/4"	10	1/4-28 x 1-1/4"
10	10-24 x 1/2"	10	1/4-28 x 1-1/2"

High grade alloy steel socket head screws with hexagon recessed heads.

PIECES	ORDER NO.	PRICE EACH
190	3237-670	\$60.22

WORK HOLDING & TOOL STEEL



Bushings..... 470

Clamps

Adjustable Handscrew..... 467

Angle..... 468

Band..... 467

Bar..... 466

C-Clamps..... 455, 465

Hold Down..... 467

Parallel..... 467

Pipe..... 468

Pneumatic..... 453, 464

Spring..... 467

Toggle..... 449-464

Clamp-Rite Clamps..... 456-464

De-Sta-Co Clamps..... 449-455

Drill Rod..... 480-481

Feeler Gage..... 483

Flat Stock..... 477-479

Jig Fixtures & Components..... 471

Keystock..... 483

Threaded Rod..... 481

Shim & Key Stock..... 482-483

Vises..... 469

Clamps - DE-STA-CO® Toggle Lock Plus Clamps



DE-STA-CO® has taken several of their popular toggle clamps and have added a locking lever for improved safety. The locking lever helps ensure that the over-center locking condition is maintained. In order to open each clamp, the locking lever must first be released. If a clamp application warrants concerns over accidental clamp opening, severe stresses of vibrations on the clamps, or overhead installations, then the DE-STA-CO® Toggle Lock Plus is the right clamp for the job.

Vertical Style

These clamps are unique in that they lock with the aid of the locking lever in both the clamped and unclamped position. Bolt retainer supplied with solid bar Models 207-UR and 210-SR. Spindle assembly and flanged washers supplied with "U" bar Models 207-UR and 210-UR.

MODEL NO.	ORDER NO.	OVERALL HEIGHT	HEIGHT UNDER BAR	OAL	HOLDING CAPACITY LBS.	PRICE EACH
207-UR	4352-078	6-29/32	1-1/4	4-37/64	500	\$52.36
210-UR	4352-108	8	1-11/16	6-39/64	750	75.68



Model 207-UR

Horizontal Style

Equipped with a locking lever which locks in the clamped position only. Clamps are supplied with bonded neoprene-tipped spindle assemblies and flanged washers.



Model 225-UR

MODEL NO.	ORDER NO.	OVERALL HEIGHT	HEIGHT UNDER BAR	OAL	HOLDING CAPACITY LBS.	PRICE EACH
225-UR	4352-251	1-59/64	1-21/64	7-9/64	500	\$48.50
235-UR	4352-351	2-35/64	1-45/64	10-17/32	750	82.76
305-UR	4353-051	1-7/16	1/2	2-1/4	150	38.21
307-UR	4353-071	2-7/16	7/8	3-39/64	350	52.75

Pull Action Latch Style - Horizontal Type

Supplied with a locking lever catch accessory which allows the clamp to lock in the closed position only. Latch plates are supplied with the clamp.



Model 341-R

MODEL NO.	ORDER NO.	OVERALL HEIGHT	OAL	DRAWING MOV'MT	HOLDING CAPACITY LBS.	PRICE EACH
323-R	4353-233	1-3/16	4	1-11/64	360	\$34.19
323-RSS	4353-234	1-3/16	4	1-11/64	360	62.04
331-R	4353-311	2-5/64	5-31/32	1-3/4	700	45.58
331-RSS	4353-318	2-1/64	6-11/64	2	700	84.40
341-R	4353-411	2-57/64	7-1/2	2-1/2	2000	66.74
341-RSS	4353-414	2-7/8	8-9/32	2-1/2	2000	135.28
375-R**	4353-751	4-3/16	9-5/8	3-1/2	4000	122.94
385-R**	4353-854	1-3/8	8-3/4	2-3/16	7500	154.64

** Latch plate optional

J-Hook Pull Action

Supplied with a release lever catch accessory which allows the clamp to lock in the closed position only. Large handle pad improves operability of the clamp.



Model 351-R

MODEL NO.	ORDER NO.	HEIGHT TO (*)	OAL	DRAWING MOV'MT	HOLDING CAPACITY LBS.	PRICE EACH
351-R	4353-511	3/4	9-7/64	4	375	\$46.03

Pull Action Latch Style - Vertical Type

Model 324-R

MODEL NO.	ORDER NO.	OVERALL HEIGHT	OAL	DRAWING MOV'MT	HOLDING CAPACITY LBS.	PRICE EACH
324-R	4353-248	2-5/64	3-15/32	1-17/32	500	\$50.12
334-R	4353-343	2-35/64	4-1/8	2	1000	61.29
344-R	4353-443	2-25/64	5-49/64	2-1/2	2000	93.49

Plunger Style

Patented design locks the release lever into the forged steel base to prevent accidental opening. Clamps lock in both the extended and retracted positions while the release lever secures the clamp in the extended position only.



Model 603-R

MODEL NO.	ORDER NO.	OVERALL HEIGHT	HEIGHT TO (*) OF PLUNGER	OAL	DRAWING MOV'MT	HOLDING CAPACITY LBS.	PRICE EACH
603-R	4356-032	3-27/64	31/32	4-11/16	1-1/2	600	\$70.33
630-R	4356-301	3-1/16	13/16	7-1/32	2	2500	133.09

Heavy Duty Vertical Hold Down Clamps

Features: High strength forged alloy steel clamping arm, Hardened steel pivot pins and bushings for long life, Large clearance under clamping bar, Black oxide finish.



Model 5110-R

MODEL NO.	ORDER NO.	HEIGHT TO (*)	OAL	DRAWING MOV'MT	HOLDING CAPACITY LBS.	PRICE EACH
5110-R	4397-939	8.7	3.37	6.33	1150	101.95

Heavy Duty Horizontal Hold Down Clamps

Features: High strength forged alloy steel clamping arm, Hardened steel pivot pins and bushings for long life, Black oxide finish

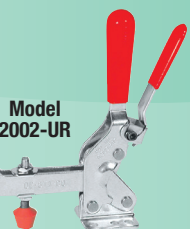


Model 5310-R

MODEL NO.	ORDER NO.	OVERALL HEIGHT	HEIGHT UNDER BAR	OAL	HOLDING CAPACITY LBS.	PRICE EACH
5305-R	4397-975	1.51	1.12	8.36	600	\$113.63
5310-R	4397-979	2.00	1.31	11.02	1300	158.28

Vertical Hold Down Clamps

Features: Longer handle with greater hand clearance, Longer clamp arm, Spindle contacts workpiece vertically, Bolts up to legacy model 202



Model 2002-UR

MODEL NO.	ORDER NO.	OVERALL HEIGHT	HEIGHT UNDER BAR	OAL	HOLDING CAPACITY LBS.	PRICE EACH
2002-UR	4351-902	4.72	0.95	3.29	600	\$40.31
2007-UR	4351-905	7.17	1.25	4.82	1000	59.89
2010-UR	4351-908	9.08	1.7	6.09	1400	89.85

Horizontal Hold Down Clamps

Features: Longer handle with greater hand clearance, Longer clamp arm, Spindle contacts workpiece vertically

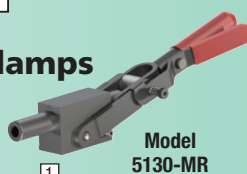


Model 2017-UR

MODEL NO.	ORDER NO.	OVERALL HEIGHT	HEIGHT UNDER BAR	OAL	HOLDING CAPACITY LBS.	PRICE EACH
2013-UR	4351-926	1.3	0.75	5.87	295	\$45.99
2017-UR	4351-927	1.95	0.98	8.65	560	59.93
2027-UR	4351-928	2.25	1.32	9.88	840	65.25

Heavy Duty Straight Line Action Clamps

Features: Hardened plungers, Reverse acting (handle rotates backward as plunger advances) for a low profile, keeps handle out of the work zone, Hardened steel pivot pins and bushings for long life, Black oxide finish

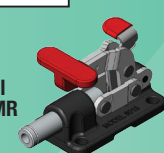


Model 5130-MR

MODEL NO.	ORDER NO.	OVERALL HEIGHT	HEIGHT TO (*)	OAL	DRAWING MOV'MT	HOLDING CAPACITY LBS.	PRICE EACH
5130-R	4397-947	3.63	1.38	11.11	1.9	5800	\$136.78

Straight Line Action Clamps

Features: Smallest machined cast base plunger clamp • Compact design combined with high holding capacity • Allow handle to fall below mounting plane to lock in retracted position



Model 6015-MR

MODEL NO.	ORDER NO.	OVERALL HEIGHT	HEIGHT TO (*)	OAL	DRAWING MOV'MT	HOLDING CAPACITY LBS.	PRICE EACH
6015-R	4356-114	1-19/32	1/2	2-61/64	45/64	560	\$64.45
6015-MR	4356-014	1-39/64	1/2	2-61/64	45/64	560	66.97

Clamps



Model Identification Code:

S Solid Holding Bar (bolt retainer furnished)

SS Stainless Steel

U Shaped Holding Bar

*Measured to (¢) of mounting holes on straight base models.

Straight-Line Action/Toggle Clamps

Smallest of the straight-line clamps, ideal for electronic applications and similar small fixturing. Model 601 has an 8-32 nylon spindle.

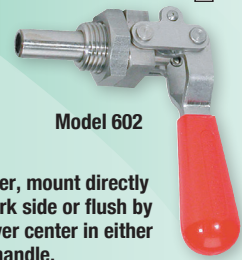


Model 601

MODEL NO.	ORDER NO.	OVERALL HEIGHT	HEIGHT TO (¢) OF PLUNGER	OVERALL LENGTH	PLUNGER TRAVEL	HOLDING CAPACITY LBS.	PRICE EACH
601	4356-010	1-3/16	1/2	2-5/8	5/8	150	\$15.34
601-O	4356-016	1-3/16	1/2	2-55/64	5/8	100	28.36
601-SS	4356-019	1-3/16	1/2	2-5/8	5/8	100	37.69
6001	4356-003	1-17/64	1/2	2-5/8	5/8	150	29.84

Fully Retractable Plunger Clamps

These models have fully retractable plunger, mount directly through a member by a jam nut on the work side or flush by drilling and tapping the member. Locks over center in either extended or retracted position. Red vinyl handle.



Model 602

MODEL NO.	ORDER NO.	OVERALL HEIGHT	OVERALL LENGTH	PLUNGER TRAVEL	HOLDING CAPACITY LBS.	PRICE EACH
602	4356-020	3-9/64	2-7/16	3/4	200	\$21.68
602-SS	4356-029	3-9/64	2-7/16	3/4	200	83.15
604	4356-040	4-5/32	4-25/32	1-1/2	300	24.20
604-SS	4356-049	4-5/32	4-25/32	1-1/2	400	75.15
624-SS	4356-249	5-5/8	6-11/16	2-5/8	700	160.01

Compact Straight-Line Action Clamps

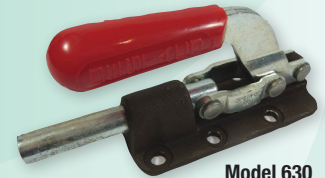


Model 6015

MODEL NO.	ORDER NO.	HEIGHT TO (*)	OVERALL LENGTH	DRAWING MOV'MT	HOLDING CAPACITY LBS.	PRICE EACH
6015-SS	4356-113	0.5	2.96	0.7	630	85.62
6015-M	4356-015	1/2	2-61/64	45/64	560	67.97
6015-MSS	4356-013	1/2	2-61/64	45/64	630	77.84

Low Profile Plunger Clamps

Compact models feature De-Sta-Co balanced construction for durability and rigid holding ability. Red vinyl grip. Clamps lock in both the extended and retracted position.

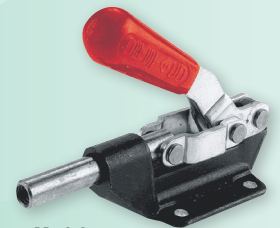


Model 630

MODEL NO.	ORDER NO.	OVERALL HEIGHT	HEIGHT TO (¢) OF PLUNGER	OVERALL LENGTH	PLUNGER TRAVEL	HOLDING CAPACITY LBS.	PRICE EACH
607	4356-070	3-19/32	11/16	6-1/64	1-5/8	800	\$45.82
630	4356-300	3-3/32	13/16	7-1/32	2	2500	55.51
640	4356-400	4-3/8	1-1/4	12-21/32	4	7500	163.74

Push-Pull Plunger Clamps

These units have a large holding capacity for their size, and are well suited for use in confined areas. Equipped with red ergonomic grips. Locks in either extended or retracted position.



Model 603

MODEL NO.	ORDER NO.	OVERALL HEIGHT	HUT. BASE TO (¢) OF PLUNGER	OVERALL LENGTH	PLUNGER TRAVEL	HOLDING CAPACITY LBS.	PRICE EACH
603-SS	4356-039	3-9/32	31/32	4-23/32	1-1/4	840	\$81.40
609	4356-090	3-1/4	31/32	5-7/16	1-1/4	300	29.29

Hold Down Clamps



Vertical Handle Hold-Down Clamps

Model 2002-S



These clamps deliver two to three times the holding capacity of our legacy models in the same envelope. Now you can save valuable space in all your applications without sacrificing holding capacity or clamp performance. The open "U" bar has a knob on the end to prevent the spindle from slipping off the end of the arm. Unique design delivers greater hand clearance in the open position eliminating pinch points and improving safety and ergonomics. Clamp comes complete with ergonomic handle grip, two flanged washers and spindle assembly ("U" bar models only"). All "S" bar models supplied with bolt retainer. To order without a spindle, include a -LS suffix.

MODEL NO.	ORDER NO.	OVERALL HEIGHT (IN.)	HEIGHT UNDER BAR (IN.)	OVERALL LENGTH (IN.)	HOLDING CAPACITY LBS.	PRICE EACH
2002-S	4352-003	4.73	0.95	3.29	600	\$36.47
2002-U	4352-002	4.73	0.95	3.29	600	33.26
2002-UB	4352-004	5.07	1.27	3.29	600	39.13
2007-U	4352-007	7.21	1.25	4.82	1000	46.77
2007-UB*	4352-006	7.64	1.68	4.82	1000	37.02
2010-U	4352-001	9.00	1.70	6.09	1400	73.42

*Code = 7

Hold-Down Action Clamps Vertical Hold-Down Clamps

All models have a red vinyl handle grip. Many options are available in most model sizes including straight or flanged bases, solid or U-bars, extra length bars and stainless steel. Bolt retainer is furnished with solid bar models, flanged washers with U-bar models. Model 2002-U207 is mounting pattern interchangeable with Model 207-U.

Model 207-U



MODEL NO.	ORDER NO.	OVERALL HEIGHT	HEIGHT UNDER BAR	OVERALL LENGTH	HOLDING CAPACITY LBS.	PRICE EACH
201-U	4352-010	3-1/32	5/8	2-1/64	100	\$23.84
201-USS	4352-019	3-1/32	5/8	2-1/64	125	34.47
202-SS	4352-029	4-7/32	15/16	2-5/16	250	44.05
202-U	4352-026	4-7/32	15/16	2-47/64	200	24.77
202-UL	4352-120	4-7/32	15/16	3-17/64	200	28.95
202-USS	4352-039	4-7/32	15/16	2-47/64	250	44.25
207-L	4352-084	6-57/64	1-1/4	5-1/64	500	38.09
207-S	4352-080	6-57/64	1-1/4	3-3/4	500	32.37
207-U	4352-070	6-57/64	1-1/4	3-11/16	375	32.38
2002-U207	4352-202	5.01	1-1/4	3.29	600	36.16
207-UL	4352-074	6-57/64	1-1/4	5-13/32	375	32.27
207-USS	4352-079	5-5/8	1-1/4	4-3/8	450	60.69
210-S	4352-101	8	1-43/64	5-17/32	750	64.85
210-U	4352-100	8	1-43/64	5-17/32	600	47.91
210-USS	4352-109	8	1-43/64	5-17/32	750	84.74
247-S	4352-471	8-11/16	2	6-7/8	1000	88.61
247-U	4352-470	8-11/16	2	6-7/8	1000	74.87
267-U	4352-670	11-7/8	3-5/64	8-59/64	1200	125.03

Heavy Duty Vertical Handle Hold-Down Clamps 1

- High strength forged alloy steel clamping arm
- Hardened steel pivot pins and bushings for long life
- Black oxide finish



Model 5110

MODEL NO.	ORDER NO.	OVERALL HEIGHT	HEIGHT UNDER BAR	OVERALL LENGTH	CAPACITY LBS.	PRICE EACH
5905-B	4397-981	6.24	1.27	4.02	750	\$64.72
5910-B	4397-983	8.72	1.75	6.02	1600	89.72
LARGE CLEARANCE UNDER CLAMPING BAR						
5105	4397-932	6.54	2.54	4.13	700	48.73

Horizontal Handle Hold-Down Clamps



Model 2013-U

- 60% more holding capacity than legacy product • Robust Design
- Low arm deflection under load (greater stiffness) • Long Handle, increased operator comfort • DE-STA-CO locks handle in open and closed positions
- Available standard or as an add-on kit • Large Hand Clearance eliminates "knuckle busters" • Adjustable Pre-load eliminates arm play for locating applications
- Low Pivot Point Provides perpendicular clamping force
- Bushings at key pivot points provides long life and smooth operation
- Fixed Handle Pivot eliminates sticking points, provides smooth action

MODEL NO.	ORDER NO.	OVERALL HEIGHT (IN.)	HEIGHT UNDER BAR (IN.)	OVERALL LENGTH (IN.)	HOLDING CAPACITY LBS.	PRICE EACH
2013-U	4351-918	1.27	0.75	5.88	295	\$39.42
2017-U	4351-919	1.95	0.98	8.62	560	48.52
2027-U	4351-920	2.20	1.32	9.88	840	53.66

Horizontal Hold-Down Clamps

Low silhouette series requires minimum overhead clearance. Spindle, jam nuts, and flanged washers or bolt retainer are included. Bar opens 90° to completely clear work area. Perfect as OEM component on pressure vessels and in assembly jigs.



200 Series Straight Handle

300 Series T-Handle

MODEL NO.	ORDER NO.	OVERALL HEIGHT	HEIGHT UNDER BAR	OVERALL LENGTH	HOLDING CAPACITY LBS.	PRICE EACH
205-S	4352-060	43/64	3/8	2-25/32	60	\$17.56
205-USS	4352-069	43/64	3/8	2-25/32	75	26.92
205-U	4352-050	43/64	5/16	2-21/32	60	18.34
205-USS	4352-059	43/64	5/16	2-21/32	75	26.38
206-S	4352-067	1-1/16	13/32	2-3/4	100	39.85
213-U	4352-130	1-25/64	23/32	4-1/8	150	24.07
213-USS	4352-139	1-25/64	23/32	4-1/8	150	37.00
215-U	4352-150	1-17/32	1	5-1/2	200	24.67
215-USS	4352-159	1-17/32	1	5-1/2	250	36.83
217-U	4352-170	1-61/64	31/32	6-9/16	200	30.14
217-USS	4352-179	1-61/64	31/32	6-9/16	250	44.74
225-U	4352-250	1-27/32	1-21/64	6-45/64	500	26.70
225-USS	4352-259	1-27/32	1-21/64	6-45/64	600	50.24
227-U	4352-270	2-7/16	1-19/64	7-9/16	500	33.22
227-USS	4352-279	2-7/16	1-19/64	7-9/16	600	60.09
235-U	4352-350	2-35/64	1-3/4	10-7/8	750	46.90
237-U	4352-370	3-13/64	1-5/8	10-43/64	750	63.88
245-U	4352-450	4-1/4	2-1/4	12-21/64	1000	102.31
305-U	4353-050	1-3/8	1/2	2-7/32	150	23.65
305-USS	4353-059	1-3/8	1/2	2-7/32	200	34.12
307-U	4353-070	2-13/32	7/8	3-39/64	350	37.00
307-USS	4353-079	2-13/32	7/8	3-39/64	350	56.53
309-U*	4353-090	3-35/64	1-19/64	5-3/16	750	45.81

*Model 309-U = 7

Heavy Duty Horizontal Handle Hold-Down Clamps 1

Model 5310



MODEL NO.	ORDER NO.	OVERALL HEIGHT	HEIGHT UNDER BAR	OVERALL LENGTH	CAPACITY LBS.	PRICE EACH
5305	4397-972	1.51	1.12	8.36	600	\$63.61
5305-B	4397-973	1.2	0.81	8.36	600	67.74
5310-B	4397-977	1.69	1	11.02	1300	105.01

Low Silhouette - Drop Handle Clamp



Model 317-S

Combined low silhouette and mounting flexibility provide easy operation for part loading and unloading. Available in U-bar and solid bar models.

MODEL NO.	ORDER NO.	OVERALL HEIGHT	HEIGHT UNDER BAR	OVERALL LENGTH	HOLDING CAPACITY LBS.	PRICE EACH
317-U	4353-170	5-5/8	2-43/64	6-13/16	375	\$51.73
317-S	4353-171	5-5/8	2-43/64	6-13/16	375	49.99

Pull Action Clamps



Model Identification Code:
S Solid Holding Bar (bolt retainer furnished)
SS Stainless Steel
U Shaped Holding Bar
 *Measured to (¢) of mounting holes on straight base models.

2 SS = 7

Latch Type Clamp

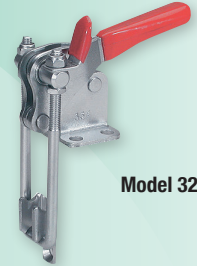
Latch-type pull action clamps are convenient to operate. One hand engages or disengages the latch bar while the other moves the handle. Red vinyl grip for comfortable handling.



Model 311

Vertical Latch Type

Ideal for lid closure applications where it is better to mount the latch on the lid or door and the latch plate on the vessel or container. Height is measured from base to top of handle.



Model 324

MODEL NO.	ORDER NO.	HEIGHT TO (¢)	OVERALL LENGTH	DRAWING MOVEMENT	HOLDING CAPACITY LBS.	PRICE EACH
311	4353-110	2-1/16	9-33/64	3-3/8	1200	\$39.98

MODEL NO.	ORDER NO.	OVERALL HEIGHT	OVERALL LENGTH	DRAWING MOVEMENT	HOLDING CAPACITY LBS.	PRICE EACH
324	4353-240	2-63/64	3-23/64	1-17/32	500	\$27.23
324-SS	4353-249	2-63/64	3-23/64	1-17/32	500	54.82
334	4353-340	3-55/64	4-1/4	2	1000	33.76
334-SS	4353-349	3-55/64	4-1/4	2	1000	64.88
344	4353-440	5-19/64	5-23/64	2-1/2	2000	52.35
344-SS	4353-449	5-19/64	5-23/64	2-1/2	2000	110.79

J-Hook Pull-Action Clamps

Pull actions are excellent for many types of latching operations. When base is welded or bolted in place units can be used for latching pressure vessels, clean out doors, etc. J-hook is threaded for easy adjustment. Ergonomic grip.



Model 330

Horizontal Pull-Action Clamps

These units combine maximum holding capacity with easy operation and simple adjustment. All use threaded U-bolts for adjustment. An optional forged latch plate is available on some models for applications such as holding two piece molds.



Model 331-R

MODEL NO.	ORDER NO.	HEIGHT TO (¢)	OVERALL LENGTH	DRAWING MOVEMENT	HOLDING CAPACITY LBS.	PRICE EACH
330	4353-300	9/16	5-41/64	2-5/16	200	\$22.11
330-SS	4353-309	4-7/32	15/16	2-47/64	200	41.65
351	4353-510	3/4	8-9/16	4	375	16.88
351-B	4353-515	55/64	8-9/16	4	375	33.61
351-SS	4353-519	3/4	8-9/16	4	450	43.24
371	4353-710	750	11.89	5.38	750	46.78
371-SS	4353-719	750	11.89	5.38	750	116.61
381	4353-810	1-27/64	12	5-3/8	750	52.97

MODEL NO.	ORDER NO.	OVERALL HEIGHT	OVERALL LENGTH	DRAWING MOVEMENT	HOLDING CAPACITY LBS.	PRICE EACH
323	4353-230	1-1/8	4	1-3/16	360	\$16.60
323-SS	4353-239	1-1/8	4	1-3/16	360	42.36
331	4353-310	1-31/32	4	2	700	22.07
331-SS	4353-319	1-31/32	5-5/8	2	700	50.30
341	4353-410	2-3/4	7-1/2	2-1/2	2000	35.27
341-SS	4353-419	2-3/4	7-1/2	2-1/2	2000	90.26
375†	4353-750	4-3/16	10-3/4	3-1/2	4000	86.49
385†	4353-850	3-3/4	8-5/8	2-3/16	7500	110.12
385-L	4353-851	1-27/32	10-1/4	2-3/16	7500	200.09

† Latch plate not included

Pull-Action Latch Clamps

Controlled Latch Clamps

Model 3051-R



Innovative controlled motion allows for single handed operation. Once locked over-center, the included J-hook is completely restrained in all directions. Upon opening the hook travels forward 3/4" and then pivots out of the way.

FEATURES:

- Safe, single handed operation
- Innovative controlled motion
- Secure toggle-locking action
- Simple set-up and adjustment
- Clamp hook/arm moves and stays safely out of the way

APPLICATIONS:

- Molding
- Closures for doors, lids, covers
- Assembly
- Checking fixtures

MODEL NO.	ORDER NO.	HEIGHT TO (¢)	OVERALL LENGTH	DRAWING MOVEMENT	HOLDING CAPACITY LBS.	PRICE EACH
3051-R	4353-063	0.69	8.98	0.75	1500	\$ 90.51

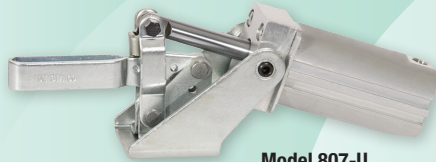
MODEL NO.	MAX. HOLDING CAPACITY	WEIGHT	EF:AF	DRAWING MOVEMENT	REPLACEMENT HOOK ASSEMBLY
3051 3051-R	1500lbf	1.0lb	12:1	0.75	3051208

Pneumatic Power Clamps



Powered Hold-Down Action

DE-STA-CO over center toggle action linkage combined with pneumatic cylinder provides an economical holding device, easily adapted to a wide variety of applications. Units are completely assembled and ready to operate.



Model 807-U

7

MODEL NO.	ORDER NO.	OVERALL HEIGHT	HEIGHT UNDER BAR	OVERALL LENGTH	HOLDING CAPACITY LBS.	PRICE EACH
812-U*	4358-120	1-9/16	11/16	5-39/64	150	\$156.03
802-U	4358-020	2-11/32	1-1/16	7-25/64	200	182.89
807-S	4358-071	3	1-3/8	9-31/32	500	194.19
807-U	4358-070	3	1-3/8	9-7/32	375	194.19
810-S	4358-101	3-51/64	1-51/64	12-1/8	750	348.58
810-U	4358-100	3-51/64	1-51/64	12-9/32	600	313.31
817-S	4358-171	7-27/64	2-11/16	6-3/4	450	240.16
817-U	4358-170	7-27/64	2-11/16	6-3/16	350	229.91
827-S	4358-271	9-21/32	3-7/8	8-41/64	700	410.95
827-U	4358-270	9-21/32	3-7/8	8-3/4	600	407.15
847-U	4358-470	4-11/32	2-1/4	16	800	604.75

*Model 812-U= 6

Heavy-Duty Power Roller

These air operated power clamps use a roller and cam principle to clamp work of inconsistent thickness and still maintain a locked condition.

Model 871-2
(Clamp shown in closed position)

14



MODEL NO.	ORDER NO.	OVERALL HEIGHT	OVERALL WIDTH	ARM POSITION: WHEN CLOSED	HOLDING CAPACITY LBS.	PRICE EACH
870-2	4358-700	11-13/32	2-1/8	180	2000	\$ 997.55
871-2	4358-710	11-3/4	2-1/8	90	2000	997.55

Miniature

- Compact Design
- Long life cycle
- High holding torques
- Low weight (aluminum body)
- Two mounting areas (front, rear)
- Toggle action mechanism
- Models can be fitted with magnetic end sensors

14

MODEL NO.	ORDER NO.	HEIGHT (mm)	WIDTH (mm)	PISTON DIA. (mm)	HLDG. TQ. MAX. [in-lbf.]	PRICE EACH
81L12-10100	4358-130	104	28	12	220	\$564.22
81L16-10100	4358-132	119	30	16	528	612.86
81L20-10100	4358-134	151	35	20	885	713.36
81L25-10100	4358-136	151	35	25	885	713.36



Model 81L20-10100

Swing Clamps - 9500 Series

The 9500 Series Swing Clamps have been redesigned with flexible mounting options and an additional size with a larger bore.

- Ideal for tight spaces with an arm motion that rotates at the top of the stroke.
- Includes a rod weld cover to protect the rod throughout the entire stroke
- 9500 Swing Clamps can be mounted on any face with optional mounting kit (sold separately)
- Swing arms also sold separately



Model 9522-2L

6

MODEL NO.	ORDER NO.	CLAMPING STROKE	OVERALL HEIGHT	BASE WIDTH	CLAMPING FORCE AT 87PSI	SWING	PRICE EACH
9522-2L	4395-220	0.50	5.22	1.42	34lb.	LH	\$470.29
9522-2R	4395-221	0.50	5.22	1.42	34lb.	RH	470.29
9530-2L	4395-300	0.50	6.54	1.81	76lb.	LH	508.94
9530-2R	4395-302	0.50	6.54	1.81	76lb.	RH	508.94
9540-2L	4395-400	0.79	6.73	2.05	123lb.	LH	521.18
9540-2R	4395-402	0.79	6.73	2.05	123lb.	RH	521.18
9550-2L	4395-500	0.79	7.85	2.52	196lb.	LH	661.49
9550-2R	4395-502	0.79	7.85	2.52	196lb.	RH	661.49

Pneumatic Lever Clamps - 8700 Series

- Alternative clamping solution to swing clamps when space is limited
- Lever arm can be positioned left, forward, or right within the same clamp body
- Consistent clamping force over a range of part thickness
- Up to 25% more clamping force than comparably sized swing clamps
- Convenient mounting using the upper flange or through a clearance hole using optional jam nuts



Model 8725

6

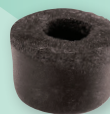
MODEL NO.	ORDER NO.	OVERALL HEIGHT	HEIGHT UNDER BAR	OVERALL LENGTH	CAPACITY LBS.	PRICE EACH
8725	4387-250	5.67	15-25	1.97	43	\$450.85
8732	4387-320	6.65	16-30	2.36	64	468.33
8740	4387-400	6.93	19-29	2.35	106	485.80
8750	4387-500	7.87	22-33	2.95	167	520.75

Polyurethane Caps- Flat Tipped



POLYURETHANE CAPS			
MODEL NO.	FOR SPINDLE DIAMETER	ORDER NO.	PRICE EACH
215219	1/4-20	4359-110	\$2.37
225219	5/16-18	4359-111	2.37

Neoprene Caps For Hex Head Spindles



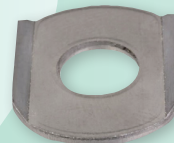
POLYURETHANE CAPS			
MODEL NO.	FOR SPINDLE DIAMETER	ORDER NO.	PRICE EACH
215119	1/4	4359-102	\$0.95
225119	5/16	4359-103	1.02
235119	3/8	4359-105	1.19

Hex Head Spindle Assembly with Locknuts



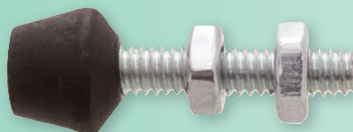
MODEL NO.	SIZE	ORDER NO.	PRICE EACH
207203	5/16-18 x 2-3/4	4359-304	\$2.22
210203	3/8-16 x 3	4359-305	2.69

Flanged Washers



MODEL NO.	SIZE	ORDER NO.	PRICE EACH
102111	For No. 10 Spindle	4359-121	\$0.55
215105	For 1/4 Spindle	4359-123	0.55
247109	For 1/2 Spindle	4359-126	1.45

Bolt Assembly with Bonded Cap & Locknuts



MODEL NO.	ORDER NO.	SIZE	LENGTH	PRICE EACH
201208	4359-816	10-32	1-3/8	\$2.66
201208-M	4359-824	M4 X 0.7	1-17/64	4.19
202208	4359-803	1/4-20	1-5/8	3.06
202208-M	4359-825	M6 X 1.0	1-47/64	5.11
205208-M	4359-836	M4 X 0.7	7/8	5.03
215208	4359-805	1/4-20	2-1/8	3.59
215208-M	4359-827	M6 X 1.0	2-1/8	5.66
225208	4359-807	5/16-18	2-3/16	3.59
225208-M	4359-828	M8 X 1.25	2-3/32	5.66
507208	4359-812	5/16-18	3"	3.66

MODEL NO.	ORDER NO.	SIZE	LENGTH	PRICE EACH
507208-M	4359-831	M8 X 1.25	3-17/64	\$5.88
240208	4359-809	3/8-16	3-1/4	4.83
240208-M	4359-830	M10 X 1.50	3-7/64	7.81
527208	4359-815	3/8-16	3-1/2	5.45
235208	4359-808	3/8-16	5-3/4	6.62
247208	4359-820	1/2-13	4"	7.47
247208-M	4359-835	M12 X 1.75	3-53/64	15.48
307208-M	4359-839	M8 X 1.25	1-9/64	5.59
305208-M	4359-838	M5 X 0.8	1-11/16	4.79

Sensor

Used along with pneumatic clamps to sense position of the cylinder piston.



14

MODEL NO.	ORDER NO.	MOUNT STYLE	CONNECTOR	FUNCTION	PRICE EACH
8EA-109-1	4358-195	T-Slot	M8 Male	Reed	\$142.40

Squeeze Action Clamps

Most models have De-Sta-Co trigger release for easy one hand operation. These clamps are ideal for a wide range of applications for clamping and fixturing, holding and processing, etc.



Model 325

2



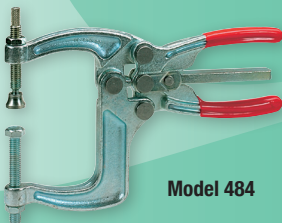
Model 441



Model 462



Model 482



Model 484

MODEL NO.	ORDER NO.	OVERALL LENGTH	WIDTH OPENING	THROAT DEPTH	HOLDING CAPACITY LBS.	PRICE EACH
325	4353-250	8-11/16	1-25/32	1-1/4	800	\$42.28
325-SS**	4353-259	8-11/16	1-25/32	1-1/4	800	109.25
441	4354-410	6-1/16	1-1/4	1-49/64	350	34.21
462	4354-620	8-1/2	1-3/4	2-23/32	700	51.62
484*	4354-840	9-1/16	3-53/64	2-9/16	1200	71.58

** SS = 7

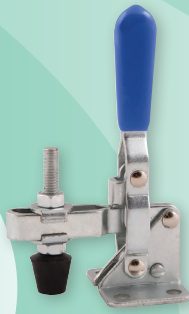
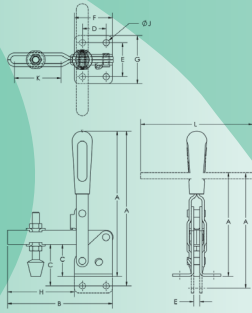
* Code = 14

Vertical Handle Toggle Clamps

4 **CLAMP-RITE**

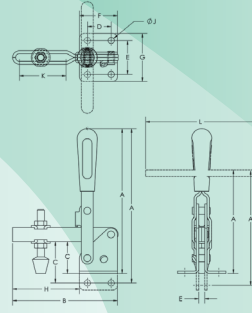
Model 11011CR

- Bar Opens: 100°
- Handle Opens: 56°
- Spindle Type: Bonded Neoprene
- Spindle Size: #10-24 x 1.38



Model 11020CR

- Bar Opens: 100°
- Handle Opens: 60°
- Spindle Type: Bonded Neoprene
- Spindle Size: 1/4-20 x 1.75

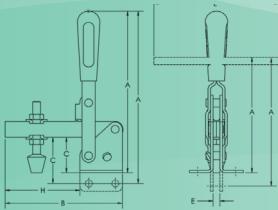


MODEL NO.	DE-STA-CO CROSS-REF. NO.		ORDER NO.	PRICE EACH	HLDG. CPCTY.	WT.	BASE TYPE	BAR TYPE	HANDLE TYPE		
11011CR	201-U		4311-011	\$7.65	100	.13	Flanged	U-bar	Std.		
MODEL NO.	A	B	C	D	E	F	G	H	J	K	L
11011CR	3.38	2.07	0.73	0.63	0.95	1.00	1.32	1.06	0.17	0.77	-

MODEL NO.	DE-STA-CO CROSS-REF. NO.		ORDER NO.	PRICE EACH	HLDG. CPCTY.	WT.	BASE TYPE		BAR TYPE		HANDLE TYPE	
11020CR	202		4311-020	\$8.35	200	.37	Flanged		Solid		Std.	
MODEL NO.	A	B	C	D	E	F	G	H	J	K	L	
11020CR	4.01	2.5	0.98	0.51	1	0.98	1.5	1.28	0.21	-	-	

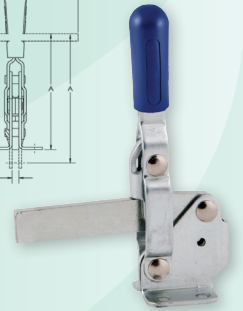
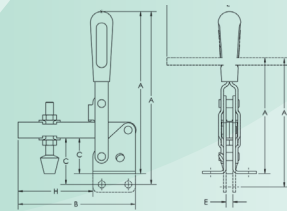
Model 11074CR

- Bar Opens: 100°
- Handle Opens: 60°
- Spindle Type: Bonded Neoprene
- Spindle Size: 5/16-18 x 2.50



Model 11671CR

- Bar Opens: 140°
- Handle Opens: 60°
- Spindle Type: Hex Head
- Spindle Size: 3/8-16 x 3.50

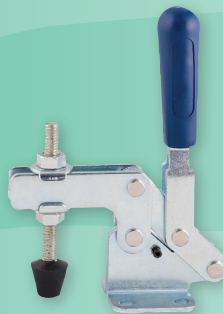
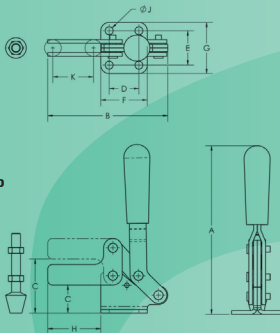


MODEL NO.	DE-STA-CO CROSS-REF. NO.		ORDER NO.	PRICE EACH		HLDG. CPCTY.	WT.	BASE TYPE	BAR TYPE	HANDLE TYPE	
11074CR	207-S		4311-074	\$10.75		375	.75	Flanged	U-bar	Std.	
MODEL NO.	A	B	C	D	E	F	G	H	J	K	L
11074CR	5.9	3.75	1.26	0.74	1.25	1.37	1.8	2.24	0.27	-	-

MODEL NO.	DE-STA-CO CROSS-REF. NO.		ORDER NO.	PRICE EACH	HLDG. CPCTY.	WT.	BASE TYPE		BAR TYPE	HANDLE TYPE	
11671CR	267-U		4311-671	\$34.95	1200	5.6	Flanged		U-bar	Std.	
MODEL NO.	A	B	C	D	E	F	G	H	J	K	L
11671CR	11.87	9	3.08	2	2.75	2.99	3.75	5.99	0.48	4.33	-

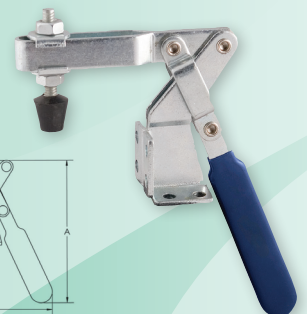
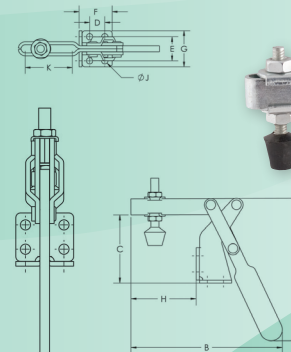
Model 11352CR

- Bar Opens: 90°
- Handle Opens: 85°
- Spindle Type: Bonded Neoprene
- Spindle Size: 3/8-16 x 3.50



Model 11170CR

- Bar Opens: 185°
- Handle Opens: 60°
- Spindle Type: Bonded Neoprene
- Spindle Size: 5/16-18 x 2.50



MODEL NO.	DE-STA-CO CROSS-REF. NO.		ORDER NO.	PRICE EACH	HLDG. CPCTY.	WT.	BASE TYPE		BAR TYPE	HANDLE TYPE	
11352CR	136-DI		4311-352	\$10.85	850	1.32	Flanged		high U-bar	Std.	
MODEL NO.	A	B	C	D	E	F	G	H	J	K	L
11352CR	6.85	4.22	2.26	1.26	1.44	1.97	2.2	2.25	0.33	1.53	-

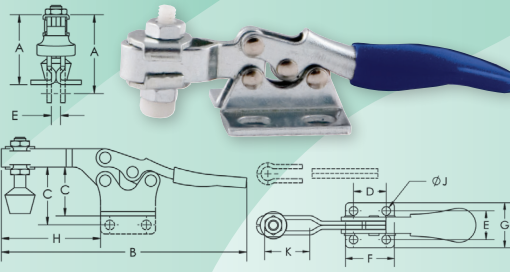
MODEL NO.	DE-STA-CO CROSS-REF. NO.		ORDER NO.	PRICE EACH	HLDG. CPCTY.	WT.	BASE TYPE		BAR TYPE	HANDLE TYPE	
11170CR	317-U		4311-170	\$14.71	375	.88	Flanged		U-bar	Std.	
MODEL NO.	A	B	C	D	E	F	G	H	J	K	L
11170CR	6.37	5.86	2.8	0.64	1.02	1.39	1.54	2.55	0.26	2.11	-

Horizontal Handle Toggle Clamps

4 CLAMP-RITE

Models 14051CR- 14054CR

- Bar Opens: 90°
- Handle Opens: 80°
- Spindle Type: Nylon Hex Head
- Spindle Size: #8-32 x .75

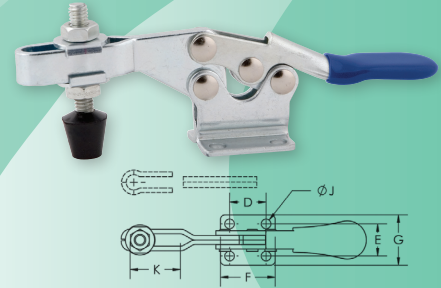


MODEL NO.	DE-STA-CO CROSS-REF. NO.	ORDER NO.	PRICE EACH	HLDG. CPCTY.	WT.	BASE TYPE	BAR TYPE	HANDLE TYPE
14051CR	205-U	4314-051	\$5.95	60	.06	Flanged	U-bar	Std.
14054CR	205-S	4314-054	5.95	60	.06	Flanged	Solid	Std.

MODEL NO.	A	B	C	D	E	F	G	H	J	K
14051CR	0.70	3.10	0.34	0.53	0.42	0.95	0.98	0.78	0.17	0.48
14054CR	0.73	5.24	1.42	1.38	0.41	0.95	0.98	0.87	0.17	-

Model 14151CR

- Bar Opens: 85°
- Handle Opens: 60°
- Spindle Type: Bonded Neoprene
- Spindle Size: 1/4-20 x 2.13

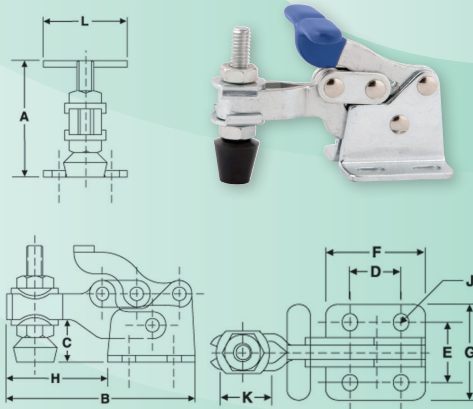


MODEL NO.	DE-STA-CO CROSS-REF. NO.	ORDER NO.	PRICE EACH	HLDG. CPCTY.	WT.	BASE TYPE	BAR TYPE	HANDLE TYPE
14151CR	215-U	4314-151	\$8.11	200	.29	Flanged	U-bar	Std.

MODEL NO.	A	B	C	D	E	F	G	H	J	K
14151CR	1.52	5.90	0.96	0.98	0.86	1.46	1.36	2.29	0.21	1.51

Models 16051CR- 16071CR

- Bar Opens: 90°
- Handle Opens: 170°
- Spindle Type: Bonded Neoprene
- Spindle Size: #10-24 x 1.38 (16051)
5/16-18 x 2.50 (16071)

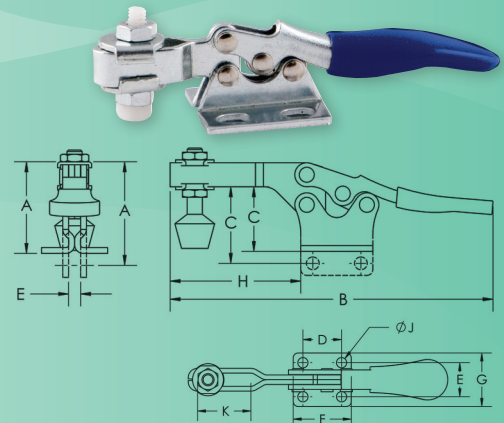


MODEL NO.	DE-STA-CO CROSS-REF. NO.	ORDER NO.	PRICE EACH	HLDG. CPCTY.	WT.	BASE TYPE	BAR TYPE	HANDLE TYPE
16051CR	305-U	4316-051	\$7.40	150	.13	Flanged	U-bar	T-Handle
16071CR	307-U	4316-071	POA	350	.51	Flanged	U-bar	T-Handle

MODEL NO.	A	B	C	D	E	F	G	H	J	K	L
16051CR	1.47	2.30	0.65	0.53	0.66	1.03	1.03	1.26	0.17	0.44	1.32
16071CR	2.49	3.68	0.89	0.91	1.17	1.72	1.82	1.93	0.28	0.77	2.01

Model 14252CR

- Bar Opens: 90°
- Handle Opens: 65°
- Spindle Type: Bonded Neoprene
- Spindle Size: 5/16-18 x 3.00



MODEL NO.	DE-STA-CO CROSS-REF. NO.	ORDER NO.	PRICE EACH	HLDG. CPCTY.	WT.	BASE TYPE	BAR TYPE	HANDLE TYPE
14252CR	225-UB	4314-252	\$10.35	500	.7	Flanged	U-bar	Std.

MODEL NO.	A	B	C	D	E	F	G	H	J	K	L
14252CR	2.18	6.87	1.66	0.99	0.23	1.51	-	2.91	0.28	1.42	-

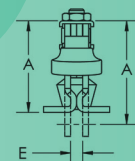
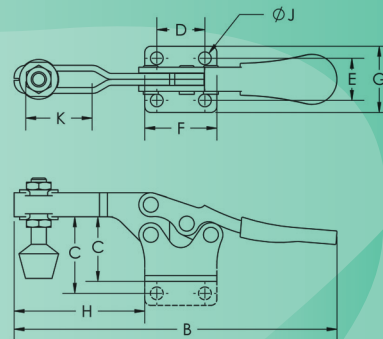
Model 14351CR

- Bar Opens: 85°
- Handle Opens: 50°
- Spindle Type: Bonded Neoprene
- Spindle Size: 3/8-16 x 3.50



MODEL NO.	DE-STA-CO CROSS-REF. NO.	ORDER NO.	PRICE EACH	HLDG. CPCTY.	WT.	BASE TYPE	BAR TYPE	HANDLE TYPE
14351CR	235-U	4314-351	\$15.65	750	1.5	Flanged	U-bar	Std.

MODEL NO.	A	B	C	D	E	F	G	H	J	K	L
14351CR	2.55	10.4	1.73	1.62	1.6	2.25	2.23	4.29	0.31	2.74	-

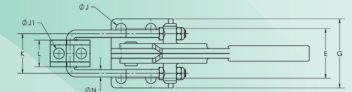
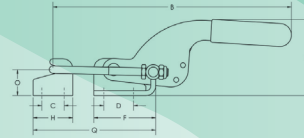


Pull Action Clamps

4 **CLAMP-RITE**

Models 12310CR, 12410CR

- Drawing Movement: 1.75" (12310), 2.50" (12410)
- Hook Size: M5 (12310), M8 (12410)
- Spindle Type: U-Hook
- Base Type: Flanged
- Bar Type: Standard

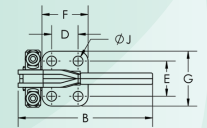
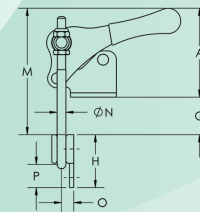
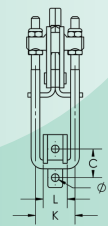


MODEL NO.	DE-STA-CO CROSS-REF. NO.	ORDER NO.	PRICE EACH	HLDG. CPCTY.	WT.	A	B	C	D	E	F
12310CR	331	4312-310	\$11.56	700	.50	1.91	6.56	0.48	0.78	1.25	1.52
12410CR	341	4312-410	18.55	2,000	1.5	2.75	8.48	0.76	1.62	1.44	2.39

MODEL NO.	G	H	J	K	L	M	N	O	P	Q MIN	Q MAX
12310CR	1.75	1.01	0.28	1.00	0.79	-	0.17	0.50	-	2.53	3.69
12410CR	2.12	1.17	0.34	1.75	1.17	-	0.31	0.83	-	4.39	5.37
12410CRSS	2.12	1.17	0.34	1.75	1.17	-	0.31	0.83	-	4.39	5.37

Models 12240CR, 12340CR

- Drawing Movement: 1.53" (12240), 2.00" (12340)
- Spindle Type: U-Hook
- Hook Size: M4 (12240), M5 (12340)
- Base Type: Flanged
- Bar Type: Standard

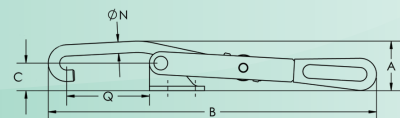
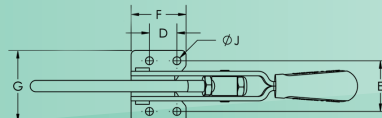


MODEL NO.	DE-STA-CO CROSS-REF. NO.	ORDER NO.	PRICE EACH	HLDG. CPCTY.	WT.	A	B	C	D	E	F
12240CR	324	4312-240	\$12.15	500	.25	2.22	3.15	0.57	0.51	0.87	1.02
12340CR	334	4312-340	14.90	1,000	.55	2.86	4.71	0.81	0.75	1.02	1.30

MODEL NO.	G	H	J	K	L	M	N	O	P	Q MIN	Q MAX
12240CR	1.39	1.00	0.21	0.86	0.54	3.43	0.12	0.20	0.43	0.54	1.20
12340CR	1.56	1.50	0.28	1.06	0.67	4.36	0.23	0.25	0.64	0.54	1.50

Models 12710CR, 12810CR

- Drawing Movement: 5.38" (12710), 6.13" (12810)
- Spindle Type: U-Hook
- Hook Size: M10 (12710), M12 (12810)



MODEL NO.	DE-STA-CO CROSS-REF. NO.	ORDER NO.	PRICE EACH	HLDG. CPCTY.	WT.	BASE TYPE	HANDLE TYPE
12710CR	371	4312-710	\$17.00	750	1.38	Flanged	Std.
12810CR	381	4312-810	18.40	1000	2.49	Flanged	Std.

MODEL NO.	A	B	C	D	E	F	G	J	N	Q MIN	Q MAX
12710CR	2.17	11.46	0.96	1.25	1.97	1.86	2.61	0.35	0.39	2.70	3.44
12810CR	2.62	13.80	1.82	1.13	2.49	2.13	3.30	0.41	0.47	2.75	3.60

Straight-Line Action Clamps

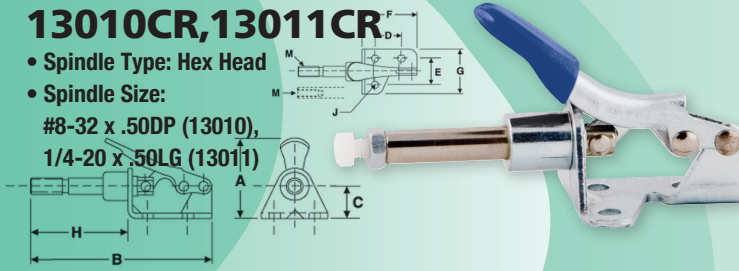
4 CLAMP-RITE

Models

13010CR, 13011CR

- Spindle Type: Hex Head
- Spindle Size:

#8-32 x .50DP (13010),
1/4-20 x .50LG (13011)



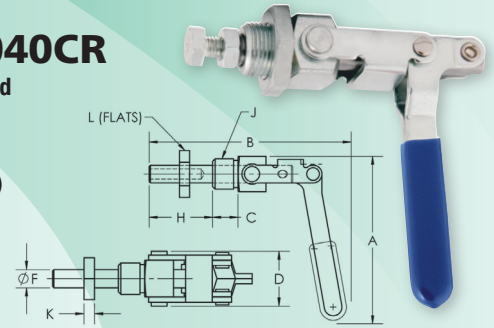
MODEL NO.	DE-STA-CO CROSS-REF. NO.	ORDER NO.	PRICE EACH	HLDG. CPCTY.	PLNGR. WT.	BASEHANDLE TYPE	THD. TYPE
13010CR	610	4313-010	\$8.10	100	.11	Fling.	Std. Int.
13011CR	601-0	4313-011	6.42	100	.11	Flanged	Std. Ext.

MODEL NO.	A	B	C	D	E	F	G	H	J	M
13010CR	1.57	2.67	0.52	0.63	0.61	1.31	1.07	1.35	0.17	0.25
13011CR	1.59	2.85	0.57	0.63	0.61	1.32	1.07	1.53	0.17	1/4-20

Models 13040CR

- Spindle Type: Hex Head
- Spindle Size:

1/4-20 x .63 (13020)
5/16-18 x 1.00 (13040)
3/8-16 x 1.25 (13240)



MODEL NO.	DE-STA-CO CROSS-REF. NO.	ORDER NO.	PRICE EACH	HLDG. CPCTY.	PLNGR. WT.	MOUNT TYPE	HANDL TYPE
13040CR	604	4313-040	\$12.65	300	.60	Through-hole	Std.

MODEL NO.	A	B	C	D	F	H	J	K	L
13040CR	4.16	4.26	0.63	1.28	0.43	1.57	0.73	0.25	1.17

Model 13050CR

- Spindle Type: Hex Head
- Spindle Size: 5/16-18 x 1.00

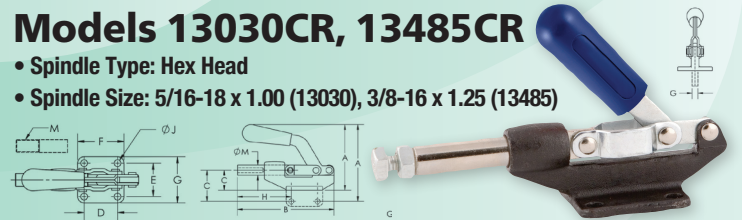


MODEL NO.	DE-STA-CO CROSS-REF. NO.	ORDER NO.	PRICE EACH	HLDG. CPCTY.	PLNGR. WT.	BASEHANDLE TYPE	THD. TYPE
13050CR	605	4313-050	\$11.90	300	.66	Fling.	Std.

MODEL NO.	THD.	A	B	C	D	E	F	G	H	J	K
13050CR	Int.	3.14	5.45	0.98	1.38	1.64	3.55	2.22	1.90	0.22	0.47

Models 13030CR, 13485CR

- Spindle Type: Hex Head
- Spindle Size: 5/16-18 x 1.00 (13030), 3/8-16 x 1.25 (13485)



MODEL NO.	DE-STA-CO CROSS-REF. NO.	ORDER NO.	PRICE EACH	HLDG. CPCTY.	PLNGR. WT.	BASEHANDLE TYPE	THD. TYPE
13485CR	608	4313-485	\$25.75	850	1.28	Fling.	45° Int.

MODEL NO.	A	B	C	D	E	F	G	H	J	M
13485CR	4.19	6.41	1.25	1.62	1.63	2.33	2.25	3.13	0.33	0.63

Models 13090CR

- Spindle Type: Hex Head
- Spindle Size: 5/16-18 x 1.00

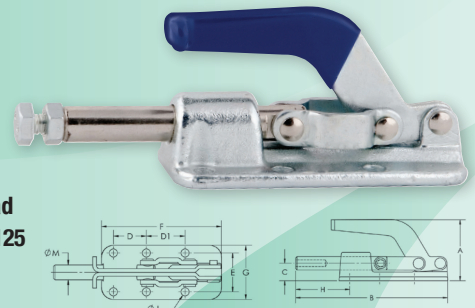


MODEL NO.	DE-STA-CO CROSS-REF. NO.	ORDER NO.	PRICE EACH	HLDG. CPCTY.	PLNGR. WT.	BASEHANDLE TYPE	THD. TYPE
13090CR	609	4313-090	\$12.95	300	.76	Flanged	Std.

MODEL NO.	THD.	A	B	C	D	E	F	G	H	J	K
13090CR	Int.	4.10	5.00	0.85	1.57	1.33	3.27	1.95	1.71	0.26	0.47

Models 13070CR, 13300CR

- Spindle Type: Hex Head
- Spindle Size: 3/8-16 x 1.25



MODEL NO.	DE-STA-CO CROSS-REF. NO.	ORDER NO.	PRICE EACH	HLDG. CPCTY.	PLNGR. WT.	BASEHANDLE TYPE	THD. TYPE
13070CR	607	4313-070	\$23.25	800	1.7	Flanged	Std. Int.
13300CR	630	4313-300	29.25	2500	2.06	Flanged	Std. Int.

MODEL NO.	A	B	C	D	E	F	G	H	J	M
13070CR	3.28	6.10	0.68	1.38	1.62	4.30	2.18	1.86	0.28	0.51
13300CR	2.93	7.06	0.88	1.39	1.63	5.25	2.24	1.82	0.35	0.63

Pneumatic Hold-Down Clamps

4 CLAMP-RITE

Model 17101CR

- Spindle Type: Bonded Neoprene
- Spindle Size: 5/16-18 x 2.50 (17018)
3/8-16 x 3.50 (17101)

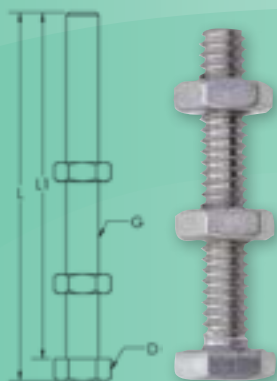


MODEL NO.	DE STA-CO CROSS-REF. NO.	ORDER NO.	PRICE EACH	HLDG. CPCTY.	WT.	PORT SIZE	TYPE	BAR TYPE
17101CR	810-U	4317-101	\$120.16	600	4.00	1/8 NPT	Horizontal Adj. Hold-Down	

MODEL NO.	A	B	C	D	F	G	H	J	K
17101CR	3.69	15.43	1.74	1.25	1.78	4.00	3.74	0.33	2.31

Clamp Accessories

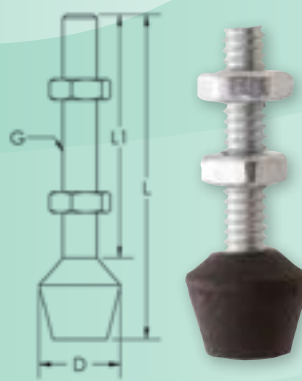
Hex Head Spindle



3

MODEL NO.	ORDER NO.	PRICE EACH	D	G	L	L1
19112CR	4319-112	\$0.82	0.43	1/4-20	1.65	1.50
19212CR	4319-212	0.89	0.49	5/16-18	2.71	2.50
19338CR	4319-338	1.02	0.55	3/8-16	3.23	3.00
19310CR	4319-310	1.82	0.74	1/2-13	3.31	3.00

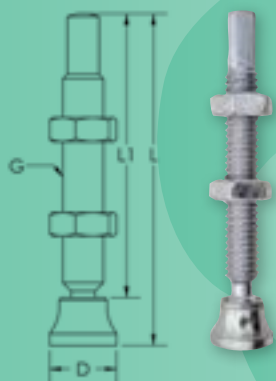
Bonded Neoprene Spindle



3

MODEL NO.	ORDER NO.	PRICE EACH	D	G	L	L1
19312	4319-312	\$2.00	0.88	3/8-16	3.44	2.60

Swivel Foot Spindle



3

MODEL NO.	ORDER NO.	PRICE EACH	D	G	L	L1
19214	4319-214	\$2.10	0.43	1/4-20	3.20	2.80
19234	4319-234	2.25	0.47	5/16-18	2.72	2.44
19300	4319-300	2.58	0.63	3/8-16	2.91	2.56

Bolt Retainer



3

MODEL NO.	ORDER NO.	PRICE EACH	BOLT SIZE	A	B	F1	d
19516	4319-516	\$0.90	5/16, M8	1.20	0.64	0.25	0.32
19380	4319-380	1.25	3/8, M10	1.47	0.74	0.33	0.41
19120	4319-120	1.35	1/2, M12	1.70	1.19	0.38	0.67

Clamps

WILTON[®] Series 400 Deep Throat Clamps

400 SERIES FEATURES:

- Drop Forged steel frame, regular-duty with extra deep throat.
- Both Black-oxide and copper spindles w/Perma-Pad[®] and are replaceable.
- Innovative frame geometry for maximum strength.
- Spark Duty Series features copper plated spindles for better resistance to welding spatter and corrosion.
- V-grooved anvil provides secure hold for all material shapes including round, square, and flat.

Wilton's exclusive Perma-Pad[®] Design.

WILTON[®] Series 800 Standard Throat Clamps

800 SERIES FEATURES:

- Drop-forged, regular-duty with standard throat depth.
- A value alternative for clamping, not requiring as much throat depth or clamping pressure as a 400 series clamp.
- Equipped with Wilton Perma-Pads[®] and a precision-cut, single lead acme thread.
- ACME rolled spindle and black oxide coating.

Wilton's exclusive Perma-Pad[®] Design.

Pittsburgh[®] C-Clamps

- Malleable Cast Reinforced Frame
- Black Oxide Spindle and Handle

3

DIMENSIONS	ORDER NO.	PRICE EACH
3 x 2"	7738-130	\$6.75
3 x 4-1/2"	7738-134	9.01
4 x 3"	7738-144	12.02
5 x 3-1/4"	7738-145	15.32
6 x 3-1/2"	7738-146	17.63
8 x 4"	7738-148	24.19

WILTON[®] Series 100 Clamps

Designed for heavy industrial and construction work. Frames are forged of special quality steel. Standard throat. Forged spindle end permits wrench tightening. Spindles are black oxide coated.

2

WILTON CAT. NO.	CAPACITY	THROAT DEPTH	SPINDLE DIAMETER	MIN. PROOF TEST (LBS.)	ORDER NO.	PRICE EACH
102	0 - 2"	1-1/2"	9/16"	7500	9540-508	\$68.60
103	0 - 3	2	5/8	8750	9540-509	144.90
104	0 - 4	2-3/8	5/8	8750	9540-510	164.20
106	2 - 6	2-1/2	5/8	8750	9540-511	230.00
108	4 - 8	2-5/8	5/8	8750	9540-512	297.50

WILTON[®] Series 540 Carriage Clamps

The 540 Series is rugged constructed with a hardened steel spindle. To permit a truly acceptable stress point, Wilton engineers selected a high tensile ductile alloy casting for the 540's body.

WILTON CAT. NO.	CAPACITY	THROAT DEPTH	SPINDLE DIA.	ORDER NO.	PRICE EACH
540A-4	0 - 4	2-1/8	5/8	9540-645	\$43.20
540A-6	0 - 6	2-3/4	5/8	9540-647	64.30
540A-8	0 - 8	3-11/32	3/4	9540-648	71.10

WILTON[®] Super-Junior[®] Forged C-Clamps

FEATURES:

- Super junior clamps are forged steel with heat treated frames to provide much stronger clamp than pressed steel or malleable clamps.
- Steel screws are nickel plated for longer life.

WILTON CAT. NO.	CAPACITY	THROAT DEPTH	ORDER NO.	PRICE EACH
50	0 - 1"	1"	9540-626	\$9.80
51	0 - 1	1-1/2	9540-627	9.80
52	0 - 1-1/4	1-1/4	9540-628	9.80

2

WILTON CAT. NO.	CAPACITY	THROAT DEPTH	SPINDLE DIAMETER	MIN. PROOF TEST (LBS.)	SHIP WT. (LBS.)	ORDER NO.	PRICE EACH
400 SERIES							
402	0 - 2-1/8"	2-1/4"	9/16"	3500	2	9540-464	\$35.40
403	0 - 3	2-1/2	9/16	3500	3	9540-465	43.30
404	0 - 4-1/4	3-1/4	3/4	6200	4	9540-466	64.60
406	0 - 6-1/16	4-1/8	3/4	6600	6	9540-467	98.00
408	0 - 8-1/4	5	3/4	6900	7	9540-468	127.20
410	2 - 10-1/8	6	3/4	8000	11	9540-469	169.60
412	2 - 12-1/4	6-5/16	7/8	9300	15	9540-470	270.80
400 SERIES HI-VISIBILITY							
402SF	0 - 2-1/8"	2-1/4"	9/16"	3500	2	9540-477	\$33.50
403SF	0 - 3	2-1/2	9/16	3500	3	9540-478	44.00
404SF	0 - 4-1/4	3-1/4	3/4	6200	4	9540-479	64.40
406SF	0 - 6-1/16	4-1/8	3/4	6600	6	9540-480	102.40
408SF	0 - 8-1/4	5	3/4	6900	7	9540-481	128.40
410SF	2 - 10-1/8	6	3/4	8000	11	9540-482	174.90
412SF	2 - 12-1/4	6-5/16	7/8	9300	15	9540-483	286.00
400 SERIES SPARK DUTY (COPPER PLATED SPINDLE)							
402P	0 - 2-1/8"	2-5/8"	9/16"	3500	2	9540-536	\$35.90
403P	0 - 3	2-1/2	5/8	3500	3	9540-537	47.40
404P	0 - 4-1/4	3-1/4	3/4	6200	4	9540-538	66.40
406P	0 - 6-1/16	4-1/8	3/4	6600	6	9540-539	105.30
408P	0 - 8-1/4	5	3/4	6900	7	9540-540	129.40
410P	2 - 10-1/8	6	3/4	8000	11	9540-541	183.60
412P	2 - 12-1/4	6-5/16	7/8	9300	15	9540-542	300.00
WILTON CAT. NO.	CAPACITY	THROAT DEPTH	SPINDLE DIAMETER	MIN. PROOF TEST (LBS.)	SHIP WT. (LBS.)	ORDER NO.	PRICE EACH
800 SERIES							
803	0 - 3"	1-15/16"	9/16"	3000	1-5/8	9540-516	\$41.30
804	0 - 4	2-5/16	5/8	3700	2-7/8	9540-517	57.00
806	0 - 6	2-15/16	5/8	4500	3-7/8	9540-518	93.40
808	0 - 8	3-7/16	3/4	5200	6-3/4	9540-519	107.10

Jorgensen[®] MASTER-QUALITY CLAMPS



Carriage Clamps

- Most universally-used general-purpose "C" clamps for regular-duty industrial service.
- Frame - heat-treated, perlitic and/or ductile iron; ribbed to resist side strain.
- Anvil - machine-ground; extra-wide.
- Screw - cold-drawn steel with special, smoothly cut acme threads; steel sliding-pin handle.
- Swivel - exclusive JORGENSEN design with steel internal tooth washers for positive "stay-on" power.

3

MFG. NO.	OPENING MAX.	MIN.	DEPTH OF THROAT	SCREW DIA.	NORMAL LOAD LMT.	ORDER NO.	PRICE EACH
103	3"	0	1-7/8"	9/16"	1,800 lbs.	9545-041	\$11.65
108	8"	0	3-1/4"	3/4"	2,400 lbs.	9545-045	36.53
110	10"	1-1/2"	3-5/8"	13/16"	2,400 lbs.	9545-046	49.30
112	12"	3-7/16"	3-5/8"	13/16"	2,400 lbs.	9545-047	65.04

'Adjustable'[™] "C" Clamps

- Light-duty "C" clamps.
- Frame - ductile and/or malleable iron; bright plated finish on frames #1410 - #1434.
- Anvil - machine-ground.
- Screw - cold-drawn steel with special, smoothly "rolled" threads (U.S.S. on #1410-#1434; Acme on #1440 - #1480); steel sliding-pin handle.
- Swivel - bright plated steel; securely fastened to screw; revolves freely.

3

MFG. NO.	OPENING	DEPTH	NORMAL LOAD LIMIT	ORDER NO.	PRICE EACH
1413	1"	3"	400 lbs.	9545-251	\$ 4.16
1415	1-1/2"	1-1/2"	400 lbs.	9545-252	3.02
1422	2-1/2"	1-3/8"	600 lbs.	9545-254	4.21
1423	2"	3-1/2"	400 lbs.	9545-255	5.91
1425	2-1/2"	2-1/2"	600 lbs.	9545-256	4.87
1430	3"	2"	800 lbs.	9545-257	5.10
1480	8"	4"	1200 lbs.	9545-262	16.66

#1491 3-piece set - Contains one each of the following "C" clamps: #1410, #1420, #1430. Features are identical to the preceding ADJUSTABLE Style No. 1400 "C" clamps.

Order No. 9545-305
Price Each...\$ 8.81

Clamps



Spring Clamps

- Heavy Gauge Metal Frame
- Extra Thick/Durable PVC/Rubber Tip and Grip

3

DIMENSIONS	ORDER NO.	PRICE EACH
1"	7738-301	\$2.14
2"	7738-302	3.50
3"	7738-303	7.45



Tool Maker's Parallel Clamps

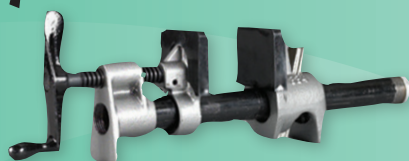
- Hardened & tempered jaws
- Clamps equipped with spring screw clip.
- Black finish.
- Useful for holding small work together when drilling, welding, assembling.

2

JAW LENGTH	JAW OPENING	ORDER NO.	PRICE EACH
2	1-1/4	3100-102	\$ 3.85
3	2-1/4	3100-104	6.35
4	2-3/4	3100-106	7.95
5	3-1/2	3100-108	13.50
Complete Set Sizes 2 thru 5		3100-110	20.60



Pipe Clamps



- Malleable Iron Bodies, Extra Wide Base
- Quick Release Clutch Mechanism
- Pipe not included

3

DIMENSIONS	ORDER NO.	PRICE EACH
1/2"	7738-332	\$16.70
3/4"	7738-334	24.69
4 pc. Pipe Clamp Pad Set Order No. 7738-399 Price Each		\$1.73



90° Steel Angle Clamps



The 90° angle clamp is made of high quality cast iron.

- The copper plated spindle pivots allowing the moveable jaw to securely grip parts at 90°
- Slotted holes are provided in the base for convenient workbench mounting
- Work surfaces (including base) are milled for added precision

2

WILTON CAT. NO.	CAPACITY MITER	JAW HEIGHT	JAW LENGTH	SHIP WT. LBS. EA.	ORDER NO.	PRICE EACH
AC-326	4-3/8"	2-3/8"	4-1/8"	18	9540-843	\$292.00



Vise Jaws

Magnefix Vise Jaw Caps

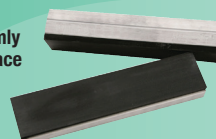
MODEL A-ALUMINUM MAGNEFIX JAW CAPS

- Aluminum alloy design includes six grooves to compensate for the unevenness of the workpiece
- Deeper V-groove for more secure clamping of circular workpieces
- Use together with rubber magnefix jaw caps



MODEL R-RUBBER FACE MAGNEFIX JAW CAPS

- Aluminum alloy with synthetic rubber cover
- Jaw cap conforms to workpiece and grips firmly without slipping while protecting work surface
- Use in combination with aluminum and prism jaw caps to clamp taper pins or tapered workpieces



MODEL P-PRISM MAGNEFIX JAW CAPS

- Aluminum alloy with synthetic rubber cover
- Jaw construction includes a 120° horizontal V-groove, three vertical V-grooves and a 90° groove for marking out and center punching
- Ideal for light tapping and thread cutting



2

WILTON NO.	JAW WIDTH	ORDER NO.	PRICE EA.
A-3.5	3-1/2	9540-399	\$30.25
A-4	4	9540-400	67.70
A-4.5	4-1/2	9540-401	69.80
A-5	5	9540-402	72.00
A-5.5	5-1/2	9540-403	78.60
A-6	6	9540-404	78.60
A-6.5	6-1/2	9540-405	82.90

WILTON NO.	JAW WIDTH	ORDER NO.	PRICE EA.
R-3.5	3-1/2	9540-423	\$33.15
R-4	4	9540-424	67.70
R-4.5	4-1/2	9540-425	72.00
R-5	5	9540-426	72.00
R-5.5	5-1/2	9540-427	78.60
R-6	6	9540-428	78.60
R-6.5	6-1/2	9540-429	80.80

WILTON NO.	JAW WIDTH	ORDER NO.	PRICE EA.
P-3.5	3-1/2	9540-415	\$33.15
P-4	4	9540-416	74.20
P-4.5	4-1/2	9540-417	80.80
P-5	5	9540-418	80.80
P-5.5	5-1/2	9540-419	85.10
P-6	6	9540-420	82.90
P-6.5	6-1/2	9540-421	87.30



Copper Jaw Caps



- Designed to avoid marring the surface of materials
- 100% copper jaw caps have polished faces and pliable copper extensions for a sure-grip fit

2

WILTON CAT. NO.	JAW WIDTH	ORDER NO.	PRICE EACH
404-3	3"	9540-389	\$ 61.80
404-3-1/2	3-1/2	9540-390	81.90
404-4	4"	9540-391	85.50
404-4-1/2	4-1/2	9540-392	87.30
404-5	5"	9540-393	123.70
404-5-1/2	5-1/2	9540-394	151.00
404-6	6"	9540-395	176.40
404-6-1/2	6-1/2	9540-396	207.40

Bar Clamps

Jorgensen
MASTER-QUALITY CLAMPS

Steel Bar Clamps and Pads



FEATURES FOR LIGHT AND MEDIUM DUTY:

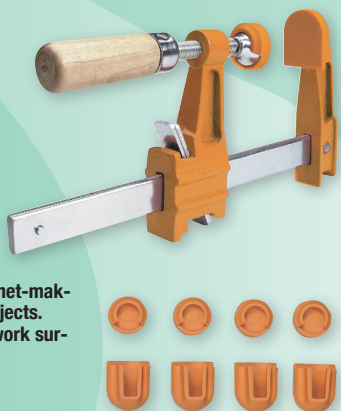
- Clutch discs- hardened, plated steel; two clutch discs and one clutch spring constitute the Multiple-Disc-Clutch.
- Swivel- 3/4" diameter; plated steel; ball-and-socket type.

FEATURES FOR HEAVY DUTY:

These are made for all wood types of heavy-duty clamping. Used by cabinet-makers, woodworkers, metalworkers or for home-shop and do-it-yourself projects. Protective pads made for thick, durable plastic. Clamps rest parallel on work surface for ease of work placement and adjustment.

FEATURES FOR BAR CLAMP PADS:

Protective non-mar, non-stick, non-slip pads.



Pony & Jorgensen products are subject to availability.

2

MFG. NO.	MAX. OPENING CAPACITY	NORMAL LOAD LIMIT	ORDER NO.	PRICE EACH
LIGHT DUTY				
3708-LD	8"	300 lbs.	9545-562	\$8.38
3712-LD	12"	300 lbs.	9545-563	9.09
MEDIUM DUTY				
3706	6"	600 lbs.	9545-570	\$10.92
3712	12"	600 lbs.	9545-571	12.08
3724	24"	600 lbs.	9545-573	15.02
3730	30"	600 lbs.	9545-574	17.05
HEAVY DUTY				
3706-HD	6"	1,000 lbs.	9545-580	\$15.27
3712-HD	12"	1,000 lbs.	9545-581	16.25
3724-HD	24"	1,000 lbs.	9545-583	19.54
3730-HD	30"	1,000 lbs.	9545-584	21.12
3736-HD	36"	1,000 lbs.	9545-585	22.27
BAR CLAMP PADS (for light/med. duty only)				
7437	8 piece pack		9545-764	\$3.85

Jorgensen
MASTER-QUALITY CLAMPS

Steel "I" Bar Clamps



- Clamping faces- approximately 2"x 1-3/4".
- Bar- 1-1/2" x 7/16" high carbon steel; rolled to a special "I" beam shape.

2

MFG. NO.	MAX. OPENING CAPACITY	NORMAL LOAD LIMIT	ORDER NO.	PRICE EACH
7224	24"	7000 lbs.	9545-750	\$45.39
7236	36"	7000 lbs.	9545-752	50.67
7248	48"	7000 lbs.	9545-753	56.41

IRWIN

QUICK-GRIP Medium-Duty One-Handed Bar Clamps



FEATURES:

- Evenly distributes up to 300 lbs. of sustained clamping force
- I-beam bar to reduce flexing & bowing
- New grip design and Quick-Release™ trigger provide simple, one-handed operation

2

MFG. NO.	CLAMPING CAPACITY	SPREADING CAPACITY	THROAT DEPTH	ORDER NO.	PRICE EACH
1964717	6"	7-7/8" - 13-3/8"	3-3/16"	3255-450	\$30.34
1964718	12"	7-7/8" - 19-3/8"	3-3/16"	3255-451	35.26
1964719	18"	7-7/8" - 25-3/8"	3-3/16"	3255-452	39.48
1964720	24"	7-7/8" - 31-3/8"	3-3/16"	3255-453	43.30
1964741	36"	7-7/8" - 43-3/8"	3-3/16"	3255-454	51.31

Jorgensen
MASTER-QUALITY CLAMPS

Bar Clamps ISB™

- Dual durometer handle design for comfort.
- 10-40% more clamping force.



2

MFG. NO.	BAR LENGTHS	ORDER NO.	PRICE EACH
33012	12"	9545-481	\$23.71
33024	24"	9545-483	29.29
33036	36"	9545-484	33.76

IRWIN

QUICK-GRIP Heavy-Duty One-Handed Bar Clamps



FEATURES:

- Evenly distributes up to 600lbs of sustained clamping pressure; one of the top performance One-Handed Bar clamps available
- Ideal for heavy-duty applications such as installation, demolition and rough glue-up
- Dual removable swivel jaws and non-marring, full-faced pads for even distribution of clamping force
- Pads can be removed for full contact of the swivel jaws to combat flexing at extreme pressure and to conform to irregular shapes
- New grip design and Quick-Release™ trigger provide simple, one-handed operation

2

MFG. NO.	CLAMPING CAPACITY	SPREADING CAPACITY	THROAT DEPTH	ORDER NO.	PRICE EACH
1974711	6"	9-1/4"-14-7/8"	3-5/8"	3255-460	\$39.29
1974712	12"	9-1/4"-20-7/8"	3-5/8"	3255-461	42.90
1974713	18"	9-1/4"-26-7/8"	3-5/8"	3255-462	48.62
1974714	24"	9-1/4"-32-7/8"	3-5/8"	3255-463	54.64
1974715	36"	9-1/4"-44-7/8"	3-5/8"	3255-464	66.54

Jorgensen
MASTER-QUALITY CLAMPS

Cabinet Master 90° Parallel Steel Bar Clamps



2

MFG. NO.	MAX. OPENING CAPACITY	NORMAL LOAD LIMIT	ORDER NO.	PRICE EACH
8024	24"	1,000 lbs.	9545-772	\$46.66
8036	36"	1,000 lbs.	9545-774	53.69
8048	48"	1,000 lbs.	9545-775	59.30

Pittsburg
ALLEGHANY

Bar Clamps

3

DIMENSIONS	ORDER NO.	PRICE EACH
6 x 2-1/2"	7738-202	\$10.66
12 x 2-1/2"	7738-204	10.58
18 x 2-1/2"	7738-206	11.90
24 x 2-1/2"	7738-208	15.66
30 x 2-1/2"	7738-210	15.08
36 x 2-1/2"	7738-212	19.08



- Sliding Quick Release Precision Steel Jaw,
- Steel Bar, Protective Clamp Pad

Clamps

PONY

Spring Clamps

FEATURES:

- Jaws- light-weight, nickel-plated steel.
- Spring- heavy-duty tempered steel for maximum strength
- Handles- designed for optimum comfort with minimized spread.
- Poly-vinyl handles and jaw tips.



2

MFG. NO.	MAX. OPENING CAPACITY	JAW LENGTH	REACH	ORDER NO.	PRICE EACH
3201-HT	1"	4"	1-1/4"	9545-364	\$1.90
3203-HT	3"	9"	3"	9545-404	8.28

PONY

Band Clamp



Made in USA

The small, lightweight Band Clamp features 15 feet of 1-inch width, high-strength nylon webbing which enables the perimeter clamping of round, rectangular and irregular shapes. Positive hold is afforded by the self-locking aluminum cam which is also allows instant release. Four cleverly designed steel "corners" are furnished to assist in clamping mitered joints and to protect the nylon band from sharp corners. A small steel wrench is also furnished to apply final clamping pressure.

2

MFG. NO.	LOAD LIMIT	ORDER NO.	PRICE EACH
1215	1,000 lbs.	9545-240	\$15.04



Adjustable Handscrews

FEATURES:

- The jaws hold odd shapes easily, are capable of overlapping.
- Provide protection against marring of finished surfaces.
- Seasoned hard maple.



2

MFG. NO.	JAW IN.	MAX. OPENING IN.	REACH IN.	ORDER NO.	PRICE EACH
0	8"	4-1/2"	4"	9545-004	\$26.82
1	10"	6"	5"	9545-005	30.46
2	12"	8-1/2"	6"	9545-006	37.92



Hold-Down Clamp

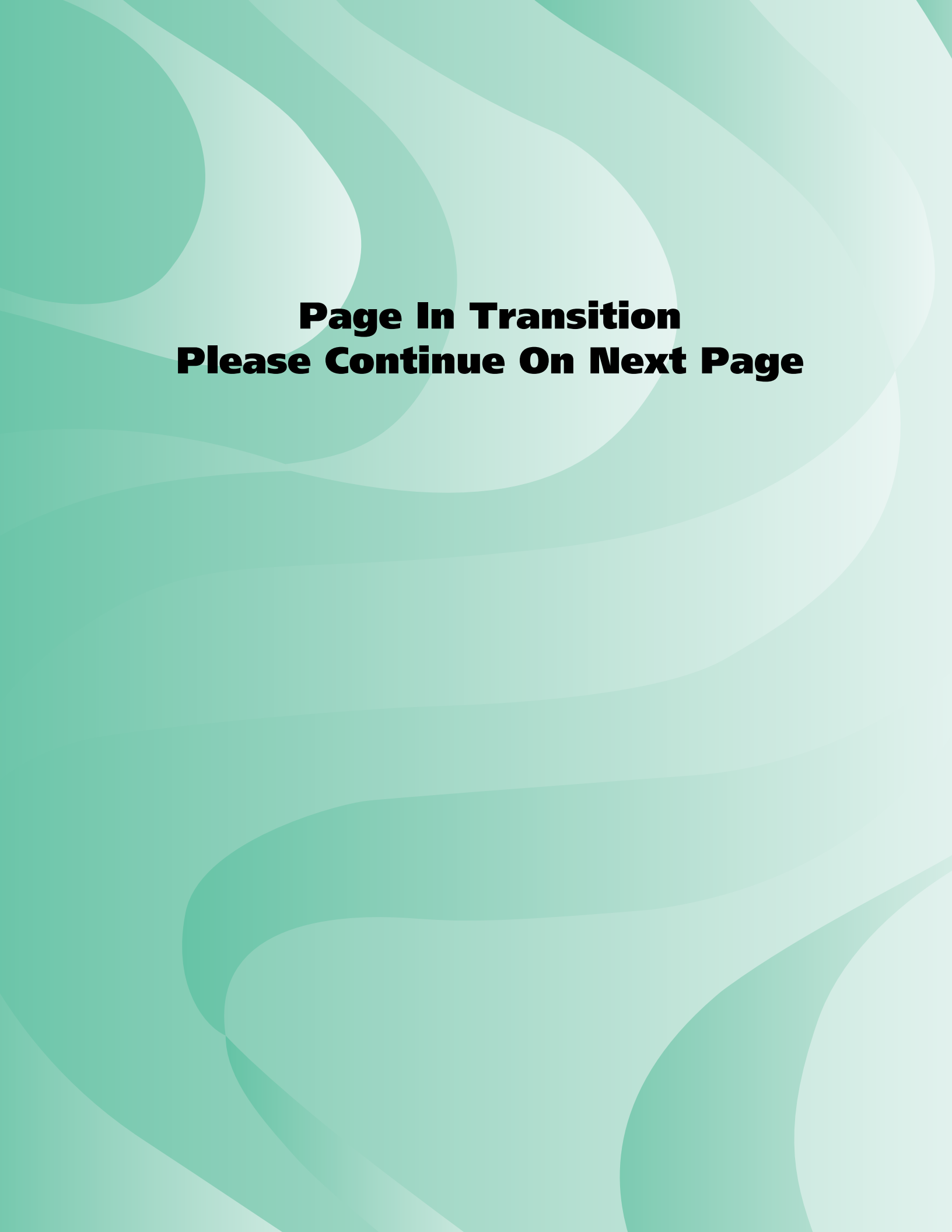


Made in USA

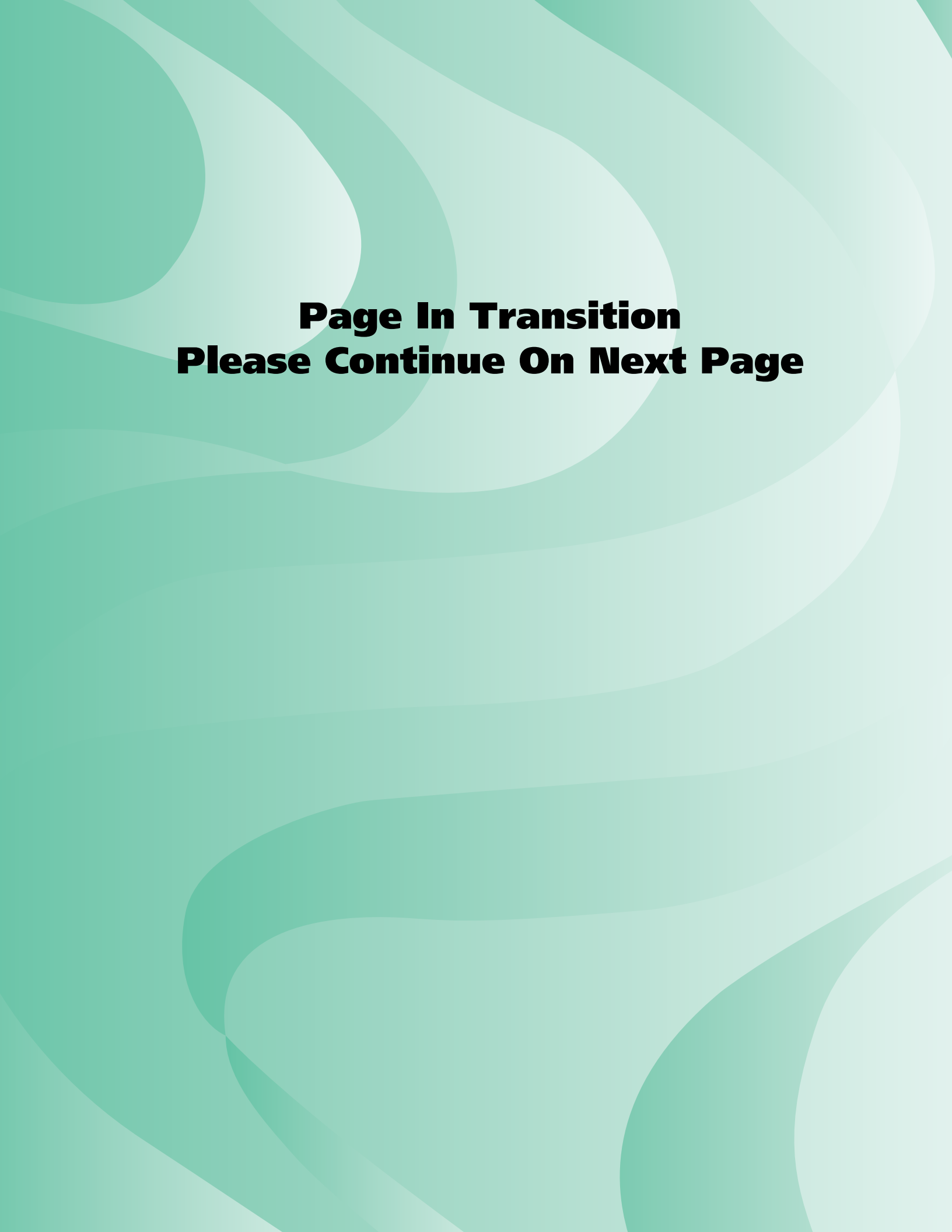
#1623 Hold-down clamps offer the advantage of bench-top and machine "surface" clamping. Designed to rotate 360 degrees around the holding bolt. Use anywhere on wood or metal surfaces.

2

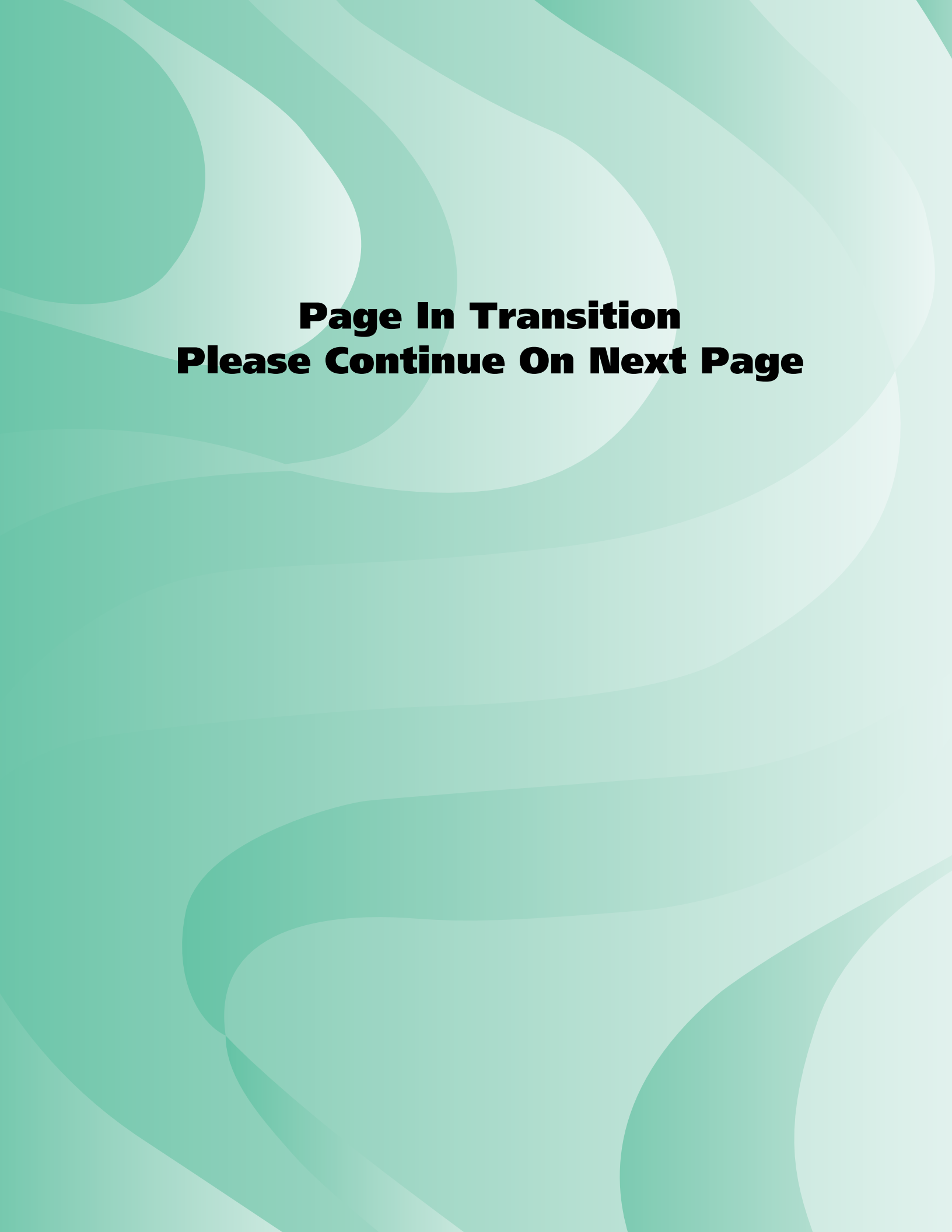
MFG. NO.	OPENING CAPACITY	DEPTH OF THROAT	SCREW DIA.	NORMAL LOAD LMT.	ORDER NO.	PRICE EACH
1623	3"	1-3/4"	9/16"	2,000 lbs.	9545-310	\$19.55



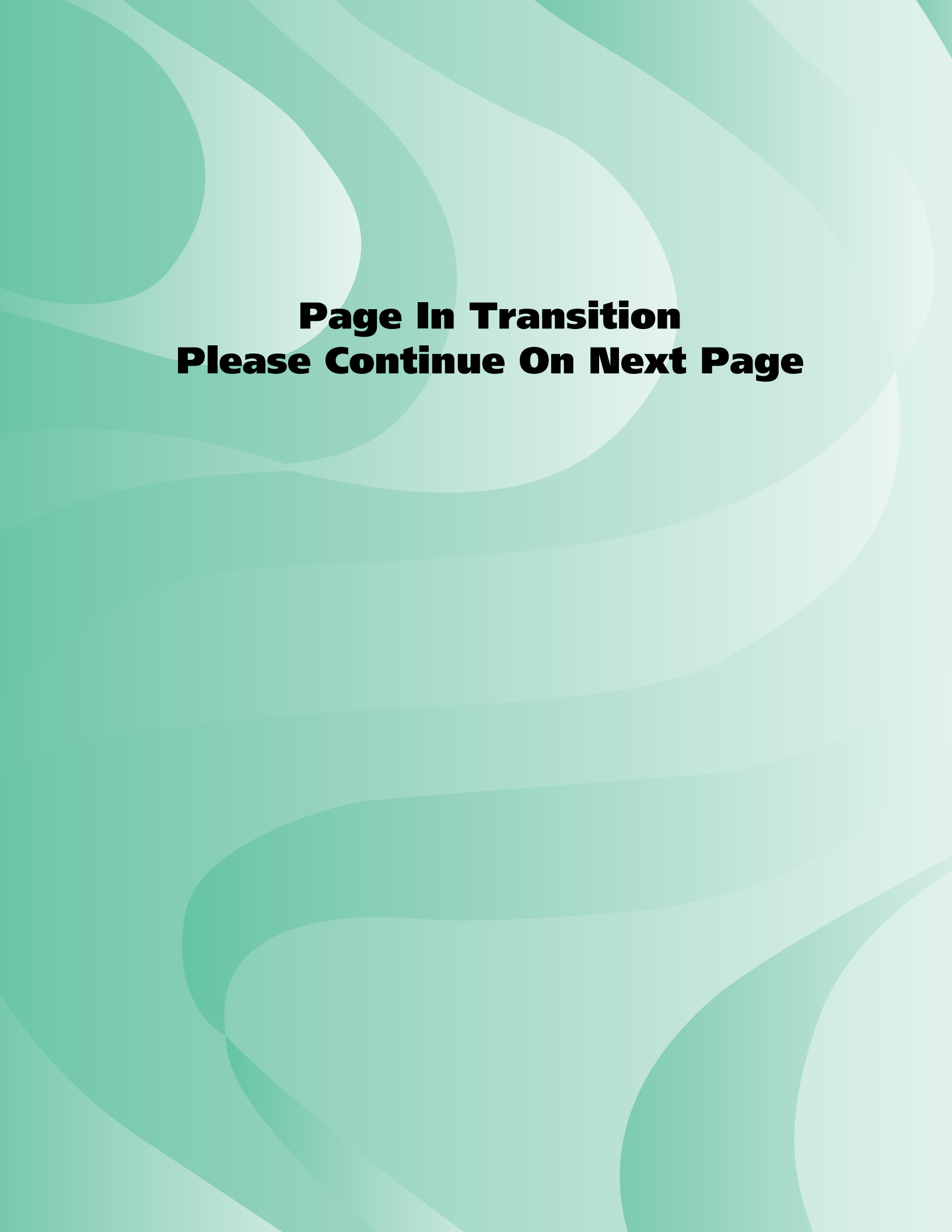
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Bench Vises

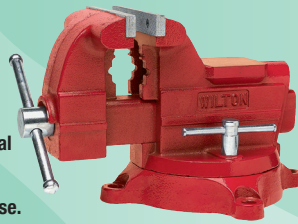


Utility Workshop Vises

Versatile, all-around vise recommended for the professional craftsman or home workshop enthusiast.

FEATURES:

- Replaceable, serrated steel top jaws.
- 180° swivel base.
- Large anvil work area.
- Built-in pipe jaws



2

WILTON CAT. NO.	JAW WIDTH	MAX OPENING	PIPE CAP.	JAW DEPTH	SHIP WT. (LBS.)	ORDER NO.	PRICE EACH
674U	4-1/2"	4"	1/8" - 2"	3-1/2"	19	9540-346	\$ 232.90
675U	5-1/2"	5"	1/8 - 2-1/2	4"	29	9540-347	287.50
676U	6-1/2"	5-1/2"	1/8 - 2-1/2	5"	41	9540-348	391.90
656UHD	6"	6"	1/8 - 3"	6"	63	9540-368	520.30
648UHD	8"	7-1/2"	1/8 - 3"	8"	79	9540-367	730.40



Cam Action Drill Press Vises



- Simple push or pull on the center bar knob sets the jaw in position
- Easy press locking lever cams the jaw ahead 3/32", exerting a holding pressure that is adjustable from 400 to 1100 lbs.
- Base is designed for clear through drilling applications
- Unique top locking lever can be raised/lowered to tighten/loosen against the work

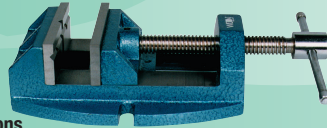
WILTON CAT. NO.	JAW WIDTH	MAX OPENING	JAW DEPTH	HEIGHT	SHIP WT. (LBS.)	ORDER NO.	PRICE EACH
1204	4"	4-11/16"	1-5/16"	3-1/4"	18	9540-439	\$330.20
1206	6"	6-3/16"	1-13/16"	3-3/4"	35	9540-440	573.30
1208	8"	8-3/16"	2"	4-7/16"	53	9540-441	716.20



Drill Press Vises

FEATURES:

- The 1300 series is made of graded cast irons and offers a ground vise bed for a smooth, consistent jaw movement and hardened top u-groove jaws.
- The 1400 series is made of graded cast iron and features precision 90° machining of the vise's side bodies, which allows them to be used additionally as bases. A rapid action nut for fast loading of production material. The nut provides extra tightening capabilities. Sturdy main castings provides extra strength and increased durability.



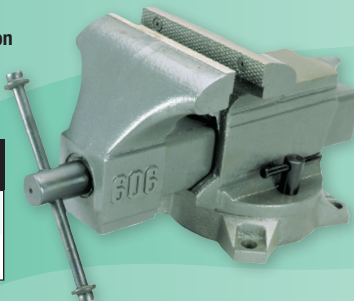
WILTON CAT. NO.	JAW WIDTH	JAW OPENING	JAW DEPTH	SHIP WT. (LBS.)	ORDER NO.	PRICE EACH
SERIES 1300						
1335	3"	1-7/8"	2-1/2"	6"	9540-442	\$145.40
1345	4"	2-1/8"	3-3/4"	12"	9540-443	209.80
1360	5"	2-1/8"	4-7/8"	24"	9540-444	299.70
SERIES 1400						
1445	4-1/2"	1-7/8"	4-3/4"	15"	9540-446	334.10
1460	6"	2-1/8"	6-3/4"	38"	9540-447	469.30



Mechanics' Bench Vises

- 30,000 PSI Castings, Heavy Duty Construction
- Chrome Plated Spindle/Handle
- Hardened Steel Replaceable Jaw Faces
- 270° Swivel Base, 4 Lug Reinforcement

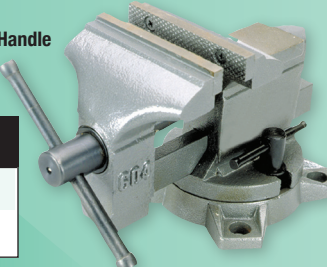
DIMENSIONS	ORDER NO.	PRICE EACH
4"	7738-614	\$ 105.17
5"	7738-615	145.98
6"	7738-616	210.47
7"	7738-617	243.38



Workshop Series Bench Vises

- 20,000 PSI Castings, Black Oxide Spindle/Handle
- Hardened Steel Replaceable Jaw Faces
- 270° Swivel Base, 4 Lug Reinforcement

DIMENSIONS	ORDER NO.	PRICE EACH
3"	7738-603	\$ 30.07
4"	7738-604	61.07
5"	7738-605	111.10
6"	7738-606	155.85



Super Precision 3-Way Tilting Machine Vise

FEATURES:

- Perfect vise for 3 axis jobs in milling, drilling, grinding, shaping and jig boring
- Manufactured from close grain high tensile cast iron
- Jaw plates, hardened and ground
- Hardness of jaws - 55 ±3 HRC
- No jaw tilt
- Accuracy indexed for 3 way angular work
- All ground surfaces are made to close accuracies
- 360° swivel base • 45° tilting range on either side • 90° vertical indexing



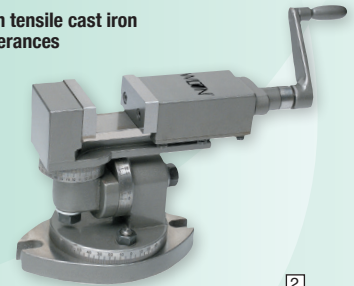
WILTON CAT. NO.	JAW WIDTH	JAW OPENING	JAW DEPTH	SHIP WT. (LBS.)	ORDER NO.	PRICE EACH
TLT/SP-50	2"	2"	5/16"	8"	9541-159	\$611.10
TLT/SP-75	3"	3"	1-15/16"	24"	9541-160	1009.00



Super Precision 2-Way Angular Machine Vise

FEATURES:

- Manufactured from close grained high tensile cast iron
- All ground surfaces made to close tolerances
- Jaw plates, hardened and ground
- Perfect vise for grinding, jig boring, and shaping jobs
- No jaw tilt
- Hardness of jaws - 55 ±3 HRC
- 90° vertical and 180° horizontal indexing
- 360° swivel base
- 90° tilting range
- Perfectly indexed for angular work



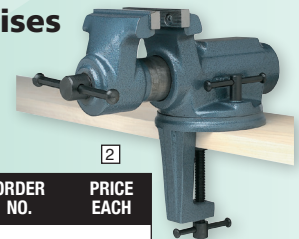
WILTON CAT. NO.	JAW WIDTH	JAW OPENING	JAW DEPTH	SHIP WT. (LBS.)	ORDER NO.	PRICE EACH
AMV/SP-75	3"	3"	1-15/16"	21"	9541-163	\$719.00
AMV/SP-100	4"	4"	1-9/16"	38"	9541-164	882.70



Super Junior Vises

FEATURES:

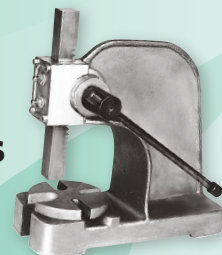
- Clamp-on models are portable.
- Top jaws are grooved and replaceable.
- Spindle is fully enclosed.
- Double lockdowns ensure stability.



WILTON CAT. NO.	JAW WIDTH	MAX. OPENING	SHIP WT. (LBS.)	ORDER NO.	PRICE EACH
CLAMP-ON BASE					
CBV-65	2-1/2"	2-1/2"	9"	9540-378	\$182.50
CBV-100	4"	4"	15"	9540-377	216.90
SWIVEL BASE					
SBV-65	2-1/2"	2-1/2"	8"	9540-380	157.40
SBV-100	4"	4"	14"	9540-379	175.30



Arbor Presses



MODEL NO.	PRESS TONS	HT. OF PRESS	BASE DIAM.	MAX HEIGHT	LARGEST ARBOR	ORDER NO.	PRICE EACH
0	1/2 TON	10"	4" x 9-1/2"	4-1/2'	1-1/8"	2904-000	\$ 50.20
1	1 TON	12"	5" x 11"	5-1/4'	1-3/8"	2904-010	68.40
2	2 TON	17"	6-3/4" x 17"	8-1/2'	1-3/4"	2904-020	164.80
3	3 TON	21-1/2"	8" x 18"	12-1/2'	2-1/2"	2904-030	298.10

Drill Bushings

2

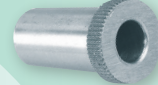
NOTE: Standard sizes in a given I.D. range are sizes listed in the decimal equivalent chart either as a fraction, number or letter size. Any other decimal or millimeter size within a given range is considered special and will be priced accordingly.

1-5 pcs.....List	Quantity Discounts:	200-499 pcs...-51%
6-11 pcs.....-18%	24-49 pcs.....-34%	500 pcs. up.....-52%
12-23 pcs.....-29%	50-99 pcs.....-43%	Same Size - No Mix
	100-199 pcs...-47%	

ANSI Tolerances – Sizes Not Listed Available on Request



TYPE "P"



TYPE "H"



TYPE "SF"

Headless Press Fit

O.D.				BODY LENGTH – LIST PRICE – UNGROUND BUSHINGS ARE AVAILABLE															
I.D. RANGE (STD. DRILL SIZE)		NOM.	ACTUAL	ANSI SYMBOL	1/4	5/16	3/8	1/2	5/8	3/4	1"	1-1/4	1-3/8	1-1/2	1-3/4	2"	2-1/8	2-1/2	3"
NOM.	DECIMAL				-4	-5	-6	-8	-10	-12	-16	-20	-22	-24	-28	-32	-34	-40	-48
#55-1/16	.0520-.0625	5/32	.1578-.1575	P-10	\$18.53	\$19.21	\$19.70	\$19.90	-	\$21.58	-	-	-	-	-	-	-	-	-
#52-#39	.0625-.0995	13/64	.2046-.2043	P-13	8.68	9.69	10.38	10.70	-	11.73	\$12.75	-	\$19.37	-	-	-	-	-	-
#40-9/64	.0980-.1406	1/4	.2516-.2513	P-16	7.99	8.50	9.17	9.69	\$10.38	10.88	12.05	-	19.05	\$19.94	\$20.90	-	-	-	-
1/8-#10	.1250-.1935	5/16	.3141-.3138	P-20	6.65	6.97	7.30	7.66	7.99	8.33	8.68	-	12.75	14.79	16.83	-	-	-	-
#10-#1	.1935-.2280	3/8	.3766-.3763	P-24	5.77	5.94	6.46	6.65	6.97	7.30	8.50	-	-	-	-	-	-	-	-
3/16-F	.1875-.2570	13/32	.4078-.4075	P-26	5.77	5.94	6.46	6.65	-	7.30	8.50	-	9.69	10.88	12.05	-	-	-	-
A-L	.2340-.2900	7/16	.4392-.4389	P-28	5.77	5.94	6.46	6.65	6.97	7.30	8.50	-	-	-	-	-	-	-	-
3/16-O	.1875-.3160	1/2	.5017-.5014	P-32	5.77	5.94	6.46	6.65	-	7.30	8.50	-	9.69	10.88	12.05	-	\$24.31	-	-
M-11/32	.2950-.3437	9/16	.5642-.5639	P-36	6.65	5.77	6.13	6.13	6.46	6.65	6.97	-	-	-	-	-	-	-	-
5/16-7/16	.3125-.4375	5/8	.6267-.6264	P-40	6.65	5.77	6.13	6.13	6.46	6.65	6.97	\$ 9.53	9.53	10.02	10.88	-	13.08	-	-
5/16-17/32	.3125-.5312	3/4	.7518-.7515	P-48	6.97	5.94	6.65	6.65	6.97	6.97	7.66	9.69	9.69	10.38	11.24	-	13.25	\$24.31	-
1/2-21/32	.5000-.6562	7/8	.8768-.8765	P-56	-	8.68	9.00	7.99	8.33	8.33	8.68	9.53	9.53	10.38	11.39	-	13.08	15.13	-
1/2-49/64	.5000-.7656	1"	1.0018-1.0015	P-64	-	-	-	8.33	8.33	8.33	8.84	9.53	9.53	10.70	11.73	-	13.08	15.13	\$25.33
5/8-1-1/32	.6250-1.0312	1-3/8	1.3772-1.3768	P-88	-	-	-	13.08	12.40	10.88	13.08	14.45	14.45	15.81	17.13	\$19.70	19.94	22.26	30.75

Boxed prices indicate counterbored bushings.

Head Press Fit

O.D.				BODY LENGTH – LIST PRICE – UNGROUND BUSHINGS ARE AVAILABLE															
I.D. RANGE (STD. DRILL SIZE)		NOM.	ACTUAL	ANSI SYMBOL	1/4	5/16	3/8	1/2	5/8	3/4	1"	1-1/4	1-3/8	1-1/2	1-3/4	2"	2-1/8	2-1/2	3"
NOM.	DECIMAL				-4	-5	-6	-8	-10	-12	-16	-20	-22	-24	-28	-32	-34	-40	-48
#55-1/16	.0520-.0625	5/32	.1578-.1575	H-10	\$19.37	\$19.70	\$19.94	\$20.22	-	\$22.60	-	-	-	-	-	-	-	-	-
#52-#39	.0635-.0995	13/64	.2046-.2043	H-13	11.24	11.39	12.05	12.40	-	14.10	\$18.19	-	-	-	-	-	-	-	-
#40-9/64	.0980-.1406	1/4	.2516-.2513	H-16	9.69	10.38	10.88	11.24	\$12.40	13.76	17.52	-	\$25.33	\$27.02	-	-	-	-	-
1/8-#10	.1250-.1935	5/16	.3141-.3138	H-20	7.99	8.50	9.00	9.17	9.36	9.53	11.39	-	19.21	21.76	-	-	-	-	-
#10-#1	.1935-.2280	3/8	.3766-.3763	H-24	7.30	7.99	8.33	8.50	8.84	9.00	10.70	-	-	-	-	-	-	-	-
3/16-F	.1875-.2570	13/32	.4078-.4075	H-26	7.30	7.66	8.33	8.50	-	9.00	10.70	-	12.05	13.43	\$14.79	-	-	-	-
A-L	.2340-.2900	7/16	.4392-.4389	H-28	7.30	7.99	8.33	8.50	8.84	9.00	10.70	-	-	-	-	-	-	-	-
3/16-O	.1875-.3160	1/2	.5017-.5014	H-32	7.30	7.66	8.33	8.50	-	9.00	10.70	-	12.40	13.43	14.79	-	-	-	-
M-11/32	.2950-.3437	9/16	.5642-.5639	H-36	8.33	7.30	7.99	7.99	8.33	8.33	9.00	-	-	-	-	-	-	-	-
5/16-7/16	.3125-.4375	5/8	.6767-.6264	H-40	8.33	7.30	7.66	7.66	8.33	8.33	9.00	-	12.05	12.75	13.76	-	-	-	-
5/16-17/32	.3125-.5312	3/4	.7518-.7515	H-48	9.00	7.99	8.33	8.33	8.68	9.00	9.69	\$12.40	12.40	13.08	13.92	-	\$16.32	-	-
1/2-21/32	.5000-.6562	7/8	.8768-.8765	H-56	-	-	-	10.02	10.02	10.21	10.70	11.73	11.73	13.08	14.45	-	16.32	\$19.57	-
1/2-49/64	.5000-.7656	1"	1.0018-1.0015	H-64	-	-	-	10.38	-	10.38	11.24	-	12.05	14.10	15.81	-	18.53	21.24	\$32.80
5/8-1-1/32	.6250-1.0312	1-3/8	1.3772-1.3768	H-88	-	-	-	16.83	-	15.46	17.01	-	18.86	20.22	21.58	-	24.67	27.68	38.91

Boxed prices indicate counterbored bushings.

Slip-Fixed Renewable

O.D.				BODY LENGTH – LIST PRICE – UNGROUND BUSHINGS ARE AVAILABLE															
I.D. RANGE (STD. DRILL SIZE)		NOM.	ACTUAL	ANSI SYMBOL	1/4	5/16	3/8	1/2	5/8	3/4	1"	1-1/4	1-3/8	1-1/2	1-3/4	2"	2-1/8	2-1/2	3"
NOM.	DECIMAL				-4	-5	-6	-8	-10	-12	-16	-20	-22	-24	-28	-32	-34	-40	-48
#39-9/64	.0995-.1406	1/4	.2500-.2498	SF-16	\$12.05	\$12.05	\$12.40	\$13.08	\$13.92	\$14.79	-	-	-	-	-	-	-	-	-
#55-1/16	.0520-.0625	5/16	.3125-.3123	SF-20	-	21.92	22.60	22.75	-	25.00	-	-	-	-	-	-	-	-	-
#52-#43	.0635-.0890	5/16	.3125-.3123	SF-20	-	13.25	13.59	14.10	-	15.98	\$19.57	-	-	-	-	-	-	-	-
#42-#31	.0935-.1200	5/16	.3125-.3123	SF-20	-	12.05	12.40	13.08	-	14.79	17.52	-	\$22.21	-	-	-	-	-	-
1/8-#10	.1250-.1935	5/16	.3125-.3123	SF-20	-	11.73	12.05	12.58	-	14.27	17.13	-	21.92	-	-	-	-	-	-
#10-#1	.1935-.2280	3/8	.3750-.3748	SF-24	8.33	8.84	9.17	9.69	\$10.02	10.38	11.73	-	-	-	-	-	-	-	-
A-L	.2340-.2900	7/16	.4375-.4373	SF-28	8.33	8.84	9.17	9.69	10.02	10.38	11.73	-	-	-	-	-	-	-	-
#28-3/16	.1405-.1875	1/2	.5000-.4998	SF-32	-	10.02	10.38	10.70	-	11.73	13.43	-	15.46	16.49	17.85	-	-	-	-
#12-11/32	.1890-.3437	1/2	.5000-.4998	SF-32	-	8.84	9.17	9.53	-	10.38	11.73	-	14.10	14.79	16.15	-	\$30.09	-	-
M-11/32	.2950-.3437	9/16	.5625-.5623	SF-36	8.33	8.84	9.17	9.69	10.02	10.38	11.73	-	-	-	-	-	-	-	-
S-7/16	.3480-.4375	5/8	.6250-.6248	SF-40	-	-	9.36	9.36	9.69	10.02	10.54	\$14.10	-	-	-	-	-	-	-
9/32-9/16	.2812-.5625	3/4	.7500-.7498	SF-48	-	-	9.17	9.36	-	10.02	10.70	-	\$14.10	15.13	16.32	-	18.53	\$31.61	\$43.84
35/64-21/32	.5469-.6562	7/8	.8750-.8748	SF-56	-	-	-	11.73	12.05	12.24	13.08	14.27	-	15.81	-	-	-	-	-
15/32-25/32	.4687-.7812	1"	1.0000-.9998	SF-64	-	-	-	11.73	-	12.05	13.08	-	14.27	15.46	17.13	-	20.54	33.63	44.35
21/32-1-1/16	.7187-1.0625	1-3/8	1.3750-1.3747	SF-88	-	-	-	-	-	17.85	20.22	-	21.92	23.29	25.16	-	28.21	38.06	49.45

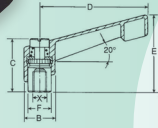
Boxed prices indicate counterbored bushings.

Jig Fixtures & Components

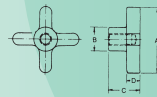
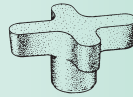
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Adjustable Clamping Levers Plastic Handle and Die-Cast Zinc Handle

- Black thermoplastic handle with metal insert.
- Zinc die-cast handle with black finish
- All steel parts ensure durability
- Internal thread with black oxide finish



						PLASTIC HANDLE			DIE-CAST HANDLE		
X THREAD	B	C	D	E	F	REF. NO.	ORDER NO.	PRICE EACH	REF. NO.	ORDER NO.	PRICE EACH
#10-24	.55	.95	1.65	1.30	.39	AH-101	3161-968	\$ 4.85	MH-101	3163-658	\$6.30
#10-32	.55	.95	1.65	1.30	.39	AH-102	3161-969	4.85	MH-102	3163-659	6.30
#1/4"-20	.55	.95	1.65	1.30	.39	AH-103	3161-970	4.85	MH-103	3163-660	6.30
# 1/4"-20	.71	1.22	2.56	1.77	.53	AH-104	3161-971	5.80	MH-104	3163-661	7.45
#5/16"-18	.71	1.22	2.56	1.77	.53	AH-105	3161-972	5.80	MH-105	3163-662	7.45
#5/16"-18	.86	1.41	3.07	2.12	.63	AH-106	3161-973	7.20	MH-106	3163-663	8.80
#3/8"-16	.86	1.41	3.07	2.12	.63	AH-107	3161-974	7.20	MH-107	3163-664	8.80
3/8"-16	.98	1.69	3.62	2.52	.75	AH-108	3161-975	8.95	MH-108	3163-665	10.35
1/2"-13	.98	1.69	3.62	2.52	.75	AH-109	3161-976	8.95	MH-109	3163-666	10.35
1/2"-13	1.18	1.98	4.25	2.95	.91	-	-	-	MH-112	3163-667	13.70
5/8"-11	1.18	1.98	4.25	2.95	.91	-	-	-	MH-113	3163-668	13.70

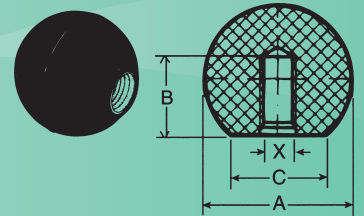


Hand Knobs — Zinc Plated

						CAST IRON			ALUMINUM		
A	B	C	D	R REAM	T TAPPED	REF. NO.	ORDER NO.	PRICE EACH	REF. NO.	ORDER NO.	PRICE EACH
1-1/2	5/8	7/8	3/8		5/16-18	HK 307	3160-523	\$6.15	HK 307A	3161-923	\$6.30
1-1/2	5/8	7/8	3/8	.3115		HK 308	3160-524	6.10	HK 308A	3161-924	6.30
1-1/2	5/8	7/8	3/8	BLANK		HK 309	3160-525	4.95	HK 309A	3161-925	5.05
2	3/4	7/8	3/8		3/8-16	HK 410	3160-526	7.60	HK 410A	3161-926	7.50
2	3/4	7/8	3/8	.3115		HK 411	3160-527	7.55	HK 411A	3161-927	7.50
2	3/4	7/8	3/8	.374		HK 412	3160-528	7.55	HK 412A	3161-928	7.50
2	3/4	7/8	3/8	BLANK		HK 413	3160-529	6.20	HK 413A	3161-929	6.05
2-1/2	1	2-1/4	1/2	BLANK		HK 515	3160-531†	5.35	-	-	-
2-1/2	1-1/8	1-1/2	1/2		1/2-13	HK 616	3160-532	9.85	HK 616A	3161-932	10.70
2-1/2	1-1/8	1-1/2	1/2	.499		HK 617	3160-533	9.85	HK 617A	3161-933	10.60
2-1/2	1-1/8	1-1/2	1/2		5/8-11	HK 618	3160-534	10.25	HK 618A	3161-934	10.60
2-1/2	1-1/8	1-1/2	1/2	.624		HK 619	3160-535	10.75	HK 619A	3161-935	10.95
2-1/2	1-1/8	1-1/2	1/2	.374		HK 620	3160-536	11.45	HK 620A	3161-936	10.85
2-1/2	1-1/8	1-1/2	1/2	BLANK		HK 621	3160-537	8.80	HK 621A	3161-937	9.00
3	1-1/4	1-3/4	1/2	BLANK		HK 725	3160-541†	5.10	-	-	-
3	1-1/2	1-3/4	1/2		3/4-10	HK 826	3160-542†	6.90	HK 826A	3161-942	17.60
3	1-1/2	1-3/4	1/2	.624		-	-	-	HK 827A	3161-943	17.60
3	1-1/2	1-3/4	1/2	.749		-	-	-	HK 828A	3161-944	17.60
3	1-1/2	1-3/4	1/2	BLANK		HK 829	3160-545†	5.55	HK 829A	3161-945	14.10

† Limited Quantities

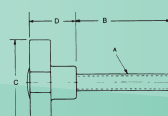
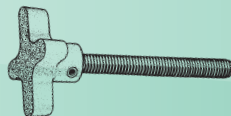
Plastic Ball Knobs



Plastic Ball Knobs have brass insert

A	B TAP	REF. NO.	ORDER NO.	PRICE EACH
3/4	#10-32	PB5	3160-809	\$2.25
1	1/4-20	PB9	3160-810	2.45
1	5/16-1/8	PB 10	3160-811	2.55
1-3/8	3/8-16	PB 11	3160-812	3.00
1-1/2	1/2-13	PB 13	3160-814	6.30

Hand Knob Screws



				CAST IRON			ALUMINUM		
A	B	C	D	REF. NO.	ORDER NO.	PRICE EACH	REF. NO.	ORDER NO.	PRICE EACH
1/4-20	1	1/2	7/8	HKS-2510	3160-546	\$7.80	HKS-2510A	3161-946	\$7.55
	1-1/2			HKS-2515	3160-547	7.95	HKS-2515A	3161-947	7.80
	1-3/4			HKS-2517	3160-548	8.75	HKS-2517A	3161-948	8.50
	2			HKS-2520	3160-549	9.25	HKS-2520A	3161-949	8.75
	3			HKS-2530	3160-550	9.85	HKS-2530A	3161-950	9.20
5/16-18	1-3/4			HKS-3117	3160-551	9.30	HKS-3117A	3161-951	9.55
	2-1/2			HKS-3125	3160-552	9.80	HKS-3125A	3161-952	10.20
	3			HKS-3130	3160-553	10.50	HKS-3130A	3161-953	10.50
3/8-16	1-1/4	2	7/8	HKS-3712	3160-554	9.80	HKS-3712A	3161-954	10.20
	1-3/4			HKS-3717	3160-555	9.90	HKS-3717A	3161-955	10.30
	2			HKS-3720	3160-556	10.60	HKS-3720A	3161-956	10.40
	2-1/2			HKS-3725	3160-557	10.75	HKS-3725A	3161-957	10.70
	3			HKS-3730	3160-558	11.60	HKS-3730A	3161-958	11.30
1/2-13	1-1/2	2-1/2	1-1/2	HKS-5015	3160-559	13.70	HKS-5015A	3161-959	12.75
	1-3/4			HKS-5017	3160-560	14.85	HKS-5017A	3161-960	13.30
	2			HKS-5020	3160-561	14.95	HKS-5020A	3161-961	13.45
	2-1/2			HKS-5025	3160-562	15.40	HKS-5025A	3161-962	14.25
	3			HKS-5030	3160-563	15.60	HKS-5030A	3161-963	14.70
5/8-11	1-3/4			HKS-6217	3160-564	15.65	HKS-6217A	3161-964	14.60
	2-1/2			HKS-6225	3160-565	16.40	HKS-6225A	3161-965	15.60
	3			HKS-6230	3160-566	16.50	HKS-6230A	3161-966	15.75
	3-1/2			HKS-6235	3160-567	17.20	HKS-6235A	3161-967	16.50

Precision Stainless Steel Thumb Screw



- Made from 303 stainless steel
- Diamond knurl on head
- Longer head length than standard thumb screw

A	D	B	C	PART #	ORDER NO.	PRICE EACH
4-40	1"	3/16	3/8	4118	3164-825	\$2.40
6-32	1"	3/16	3/8	4122	3164-826	2.40
8-32	1/2	3/16	3/8	4219	3164-828	2.35
8-32	1"	3/16	3/8	4228	3164-829	2.40
10-24	1/2	1/4	1/2	4310	3164-831	2.90
10-24	1"	1/4	1/2	4326	3164-833	2.95
10-32	1/2	1/4	1/2	4359	3164-835	2.90
10-32	1"	1/4	1/2	4374	3164-836	3.05
1/4-20	1/2	5/16	1/2	4410	3164-838	3.05
1/4-20	1"	5/16	1/2	4413	3164-840	3.00

Jig Fixtures & Components

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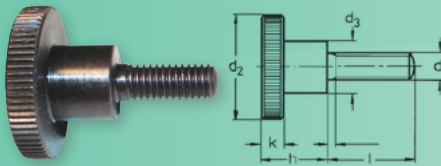
Adjustable Clamping Levers Plastic Handle w/ Stud and Die-Cast Zinc Handle w/ Stud

- Black thermoplastic handle with metal insert
- Steel parts give increased stability and rigidity
- External steel stud with black oxide finish
- Additional thread lengths available upon request



X THREAD	L	B	C	D	E	F	PLASTIC HANDLE			DIE-CAST HANDLE		
							REF. NO.	ORDER NO.	PRICE EACH	REF. NO.	ORDER NO.	PRICE EACH
#10-24	.63	.55	.95	1.65	1.30	.39	AH-301	3161-986	\$5.60	MH-301	3163-680	\$6.80
#10-32	.63	.55	.95	1.65	1.30	.39	AH-302	3161-987	5.60	MH-302	3163-681	6.80
#10-32	1.25	.55	.95	1.65	1.30	.39	AH-3027	3162-085	5.60	MH-3027	3163-732	6.90
1/4"-20	.78	.55	.95	1.65	1.30	.39	AH-303	3161-988	5.60	MH-303	3163-682	6.80
1/4"-20	1.25	.55	.95	1.65	1.30	.39	AH-3034	3162-087	5.60	MH-3034	3163-734	6.90
1/4"-20	1.57	.55	.95	1.65	1.30	.53	AH-3038	3162-091	6.60	MH-3038	3163-738	7.70
1/4"-20	.98	.71	1.22	2.56	1.77	.53	AH-3035	3162-088	7.45	MH-3035	3163-735	8.80
5/16"-18	.78	.71	1.22	2.56	1.77	.53	AH-3037	3162-090	7.45	MH-3037	3163-737	8.50
5/16"-18	1.26	.71	1.22	2.56	1.77	.53	AH-3039	3162-092	7.45	MH-3039	3163-739	8.50
5/16"-18	1.57	.71	1.22	2.56	1.77	.53	AH-304	3161-989	7.45	MH-304	3163-683	8.50
5/16"-18	2.48	.71	1.22	2.56	1.77	.53	AH-3045	3162-094	7.45	MH-3045	3163-741	8.50
3/8"-16	.78	.71	1.22	2.56	1.77	.53	AH-3047	3162-095	7.45	MH-3047	3163-742	8.50
3/8"-16	1.25	.71	1.22	2.56	1.77	.53	AH-3048	3162-096	7.45	MH-3048	3163-743	8.50
3/8"-16	1.57	.71	1.22	2.56	1.77	.53	AH-305	3161-990	7.45	MH-305	3163-684	8.50
5/16"-18	1.97	.86	1.41	3.07	2.12	.63	AH-3053	3162-097	9.30	MH-3053	3163-744	10.15
3/8"-16	.98	.86	1.41	3.07	2.12	.63	AH-3056	3162-098	9.30	MH-3056	3163-745	10.15
3/8"-16	1.26	.86	1.41	3.07	2.12	.63	AH-3058	3162-099	9.30	MH-3058	3163-746	10.15
3/8"-16	1.57	.86	1.41	3.07	2.12	.63	AH-306	3161-991	9.30	MH-306	3163-685	10.10
3/8"-16	1.97	.86	1.41	3.07	2.12	.63	AH-307	3161-992	9.30	MH-307	3163-686	10.10
3/8"-16	2.48	.86	1.41	3.07	2.12	.63	AH-3079	3162-102	9.30	MH-3079	3163-749	10.40
3/8"-16	1.57	.98	1.69	3.62	2.52	.75	AH-3075	3162-100	10.55	MH-3075	3163-747	12.55
3/8"-16	1.97	.98	1.69	3.62	2.52	.75	AH-3078	3162-101	10.55	MH-3078	3163-748	12.55
1/2"-13	1.25	.98	1.69	3.62	2.52	.75	AH-308	3161-993	10.55	MH-308	3163-687	12.55
1/2"-13	1.57	.98	1.69	3.62	2.52	.75	AH-3085	3162-103	10.55	MH-3085	3163-750	12.55
1/2"-13	1.97	.98	1.69	3.62	2.52	.75	AH-309	3161-994	10.55	MH-309	3163-688	12.55
1/2"-13	2.48	.98	1.69	3.62	2.52	.75	AH-310	3161-995	10.75	MH-310	3163-689	12.55
1/2"-13	1.57	1.18	1.98	4.25	2.95	.91	-	-	-	MH-321	3163-690	15.95
1/2"-13	2.48	1.18	1.98	4.25	2.95	.91	-	-	-	MH-322	3163-691	15.95
5/8"-11	1.57	1.18	1.98	4.25	2.95	.91	-	-	-	MH-324	3163-692	15.95
5/8"-11	2.48	1.18	1.98	4.25	2.95	.91	-	-	-	MH-325	3163-693	15.95

Knurled Thumb Screws



- Metric and Inch sizes available
- Available in stainless steel and steel
- Solid one-piece construction
- Straight knurl

d ²	THREAD	THREAD LGTH	d ³	h	k	STEEL			STAINLESS STEEL		
						PART NO.	ORDER NO.	PRICE EACH	PART NO.	ORDER NO.	PRICE EACH
1	1/4-20	5/16	1/2	5/8	1/4	KK-2531	3163-061	\$5.10	KK-2531SS	3163-106	\$8.55
1	1/4-20	3/8	1/2	5/8	1/4	KK-2537	3163-062	5.20	KK-2537SS	3163-107	8.95
1	1/4-20	1/2	1/2	5/8	1/4	KK-2550	3163-063	5.45	KK-2550SS	3163-108	9.40
1	1/4-20	5/8	1/2	5/8	1/4	KK-2562	3163-064	5.75	KK-2562SS	3163-109	9.95
1	1/4-20	3/4	1/2	5/8	1/4	KK-2575	3163-065	5.95	KK-2575SS	3163-110	10.75
1	1/4-20	1	1/2	5/8	1/4	KK-2510	3163-060	6.25	KK-2510SS	3163-105	11.40
1-1/4	5/16-18	1/2	5/8	3/4	1/4	KK-3150	3163-069	7.50	KK-3150SS	3163-114	13.10
1-1/4	5/16-18	5/8	5/8	3/4	1/4	KK-3162	3163-070	7.70	KK-3162SS	3163-115	13.60
1-1/4	5/16-18	3/4	5/8	3/4	1/4	KK-3175	3163-071	8.05	KK-3175SS	3163-116	14.45
1-1/4	5/16-18	1	5/8	3/4	1/4	KK-3110	3163-066	8.95	KK-3110SS	3163-111	16.15
1-1/4	5/16-18	1-1/4	5/8	3/4	1/4	KK-3112	3163-067	9.20	KK-3112SS	3163-112	17.50
1-1/4	5/16-18	1-1/2	5/8	3/4	1/4	KK-3115	3163-068	10.45	KK-3115SS	3163-113	18.65
1-3/8	3/8-16	5/8	3/4	1	5/16	KK-3762	3163-075	10.80	KK-3762SS	3163-120	21.20
1-3/8	3/8-16	3/4	3/4	1	5/16	KK-3775	3163-076	11.60	KK-3775SS	3163-121	22.50
1-3/8	3/8-16	1	3/4	1	5/16	KK-3710	3163-072	12.80	KK-3710SS	3163-117	22.95
1-3/8	3/8-16	1-1/4	3/4	1	5/16	KK-3712	3163-073	14.20	KK-3712SS	3163-118	23.75
1-3/8	3/8-16	1-1/2	3/4	1	3/4	KK-3715	3163-074	15.50	KK-3715SS	3163-119	24.10

Metric Thumb Screws

- Carbon steel, black oxide finish
- Straight knurl



X THREAD	THREAD LENGTH D	B	C	PART NO.	ORDER NO.	PRICE EACH
M3	6mm	12mm	2.5mm	521203006	3165-050	\$2.45
M3	10	12	2.5	521203013	3165-051	2.50
M3	16	12	2.5	521203016	3165-052	2.55
M4	8	16	3.5	521604008	3165-053	2.80
M4	10	16	3.5	521604010	3165-054	2.85
M4	12	16	3.5	521604012	3165-055	2.90
M4	16	16	3.5	521604016	3165-056	3.20
M4	20	16	3.5	521604020	3165-057	3.60
M5	10	20	4	522005010	3165-058	3.40
M5	12	20	4	522005012	3165-059	3.50
M5	16	20	4	522005016	3165-060	3.60
M5	20	20	4	522005020	3165-061	4.25
M6	12	24	5	522406012	3165-062	4.45
M6	16	24	5	522406016	3165-063	4.50
M6	20	24	5	522406020	3165-064	4.70
M6	30	24	5	522406030	3165-065	6.25
M6	40	24	5	522406040	3165-066	7.50
M8	16	30	6	523008016	3165-067	6.50
M8	20	30	6	523008020	3165-068	7.20
M8	25	30	6	523008025	3165-069	7.45
M8	30	30	6	523008030	3165-070	9.20
M8	40	30	6	523008040	3165-071	10.95
M10	20	36	8	523610020	3165-072	9.90
M10	25	36	8	523610025	3165-073	11.25
M10	30	36	8	523610030	3165-074	12.95
M10	40	36	8	523610040	3165-075	15.50

Precision Thumb Screws w/Shoulder

- Precision thumb screw for a wide variety of applications
- 303 stainless steel or carbon steel with black oxide finish
- Shoulder provides an excellent bearing surface
- Diamond knurl on head



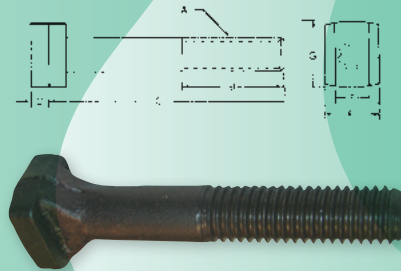
A THREAD	B	C	D	E	F	STEEL			STAINLESS STEEL		
						PART NO.	ORDER NO.	PRICE EACH	PART NO.	ORDER NO.	PRICE EACH
4-40	3/8	1/4	1/4	3/16	3/32	3101	3164-619	\$2.45	-	-	-
4-40	3/8	1/4	1/4	3/16	3/32	3102	3164-620	2.45	-	-	-
6-32	7/16	3/8	7/6	5/16	3/32	3202	3164-621	2.55	4202	3164-853	\$3.25
6-32	7/16	3/8	9/16	5/16	3/32	3204	3164-622	2.55	4204	3164-854	3.25
8-32	7/16	3/8	5/16	5/16	3/32	3205	3164-623	2.55	4205	3164-855	3.25
8-32	7/16	3/8	3/8	5/16	3/32	3206	3164-624	2.55	4206	3164-856	3.25
8-32	7/16	3/8	7/16	5/16	3/32	3207	3164-625	2.55	4207	3164-857	3.25
8-32	7/16	3/8	1/2	5/16	3/32	3208	3164-626	2.75	4208	3164-858	3.60
8-32	7/16	3/8	9/16	5/16	3/32	3209	3164-627	2.75	4209	3164-859	3.60
8-32	1/2	3/8	5/16	5/16	3/32	3301	3164-628	2.95	4301	3164-860	4.20
8-32	1/2	3/8	3/8	5/16	3/32	3302	3164-629	2.95	4302	3164-861	4.20
8-32	1/2	3/8	7/16	5/16	3/32	3303	3164-630	3.00	4303	3164-862	4.25
8-32	1/2	3/8	1/2	5/16	3/32	3304	3164-631	3.15	4304	3164-863	4.35
8-32	1/2	3/8	5/8	5/16	3/32	3305	3164-632	3.15	4305	3164-864	4.35
10-32	1/2	3/8	5/16	5/16	3/32	3401	3164-646	2.85	4401	3164-865	4.25
10-32	1/2	3/8	3/8	5/16	3/32	3402	3164-647	2.85	4402	3164-866	4.25
10-32	1/2	3/8	7/16	5/16	3/32	3403	3164-648	3.05	4403	3164-867	4.40
10-32	1/2	3/8	1/2	5/16	3/32	3403	3164-649	3.20	4404	3164-868	4.50
10-32	1/2	3/8	9/16	5/16	3/32	3405	3164-650	3.20	4405	3164-869	4.50
10-32	1/2	3/8	5/8	5/16	3/32	3406	3164-651	3.25	4406	3164-870	4.50

Jig Fixtures & Components

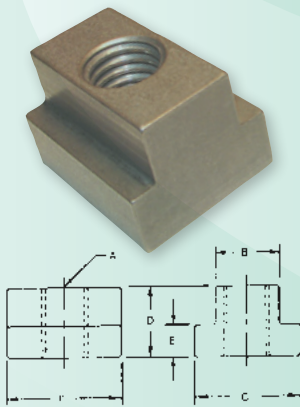
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A	B	C	D	E	F	G	REF. NO.	ORDER NO.	PRICE EACH
3/8-16	5/8	1	13/16	3/8	5/8	3/4	TB-3710	3161-640	\$13.25
3/8-16	1	1-1/2	13/16	3/8	5/8	3/4	TB-3715	3161-641	13.75
3/8-16	1-1/4	2	13/16	3/8	5/8	3/4	TB-3720	3161-642	14.40
3/8-16	1-1/2	2-1/2	13/16	3/8	5/8	3/4	TB-3725	3161-643	14.55
3/8-16	1-1/2	3	13/16	3/8	5/8	3/4	TB-3730	3161-644	14.95
3/8-16	1-1/2	3-1/2	13/16	3/8	5/8	3/4	TB-3735	3161-645	15.25
3/8-16	1-1/2	4	13/16	3/8	5/8	3/4	TB-3740	3161-646	15.75
1/2-13	1	1-1/2	1/4	1/2	13/16	15/16	TB-5015	3161-647	17.65
1/2-13	1-1/4	2	1/4	1/2	13/16	15/16	TB-5020	3161-648	18.65
1/2-13	1-1/2	2-1/2	1/4	1/2	13/16	15/16	TB-5025	3161-649	19.40
1/2-13	1-1/2	3	1/4	1/2	13/16	15/16	TB-5030	3161-650	19.70
1/2-13	1-1/2	3-1/2	1/4	1/2	13/16	15/16	TB-5035	3161-651	20.20
1/2-13	1-1/2	4	1/4	1/2	13/16	15/16	TB-5040	3161-652	21.10
1/2-13	1-1/2	5	1/4	1/2	13/16	15/16	TB-5050	3161-653	23.40
1/2-13	2	6	1/4	1/2	13/16	15/16	TB-5060	3161-654	24.20
5/8-11	1	1-1/2	5/16	5/8	1-1/64	1-1/8	TB-6215	3161-655	20.75
5/8-11	1-1/4	2	5/16	5/8	1-1/64	1-1/8	TB-6220	3161-656	21.05
5/8-11	1-1/2	2-1/2	5/16	5/8	1-1/64	1-1/8	TB-6225	3161-657	22.40
5/8-11	1-1/2	3	5/16	5/8	1-1/64	1-1/8	TB-6230	3161-658	23.10
5/8-11	1-1/2	3-1/2	5/16	5/8	1-1/64	1-1/8	TB-6235	3161-659	23.75
5/8-11	1-1/2	4	5/16	5/8	1-1/64	1-1/8	TB-6240	3161-660	25.50
5/8-11	1-1/2	5	5/16	5/8	1-1/64	1-1/8	TB-6250	3161-661	27.25
5/8-11	2	6	5/16	5/8	1-1/64	1-1/8	TB-6260	3161-662	28.90
5/8-11	3	8	5/16	5/8	1-1/64	1-1/8	TB-6280	3161-663	29.90
3/4-10	1-1/2	3	3/8	3/4	1-1/4	1-3/8	TB-7530	3161-664	29.10
3/4-10	1-1/2	3-1/2	3/8	3/4	1-1/4	1-3/8	TB-7535	3161-665	32.00
3/4-10	1-1/2	4	3/8	3/4	1-1/4	1-3/8	TB-7540	3161-666	34.00

T-Slot Bolts



T-Slot Nuts

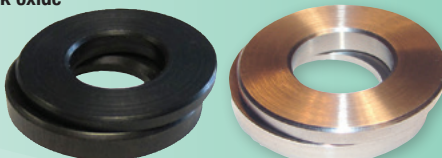
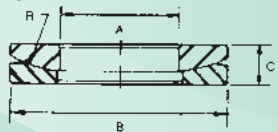


CARBON STEEL						STAINLESS STEEL					
A TAP	B	C	D	E	F	REF. NO.	ORDER NO.	PRICE EACH	REF. NO.	ORDER NO.	PRICE EACH
5/16-18	.343	5/8	13/32	7/32	3/4	TN 0	3161-129	\$4.15	TN 0SS	3170-365	\$7.30
5/16-18	.418	11/16	3/8	1/4	11/16	TN 00	3161-130	3.90	TN 00SS	3170-366	7.65
3/8-16	.430	3/4	1/2	7/32	1	TN 05	3161-131	3.65	TN 05SS	3170-367	7.95
3/8-16	.490	7/8	5/8	1/4	7/8	TN 10	3161-132	3.90	TN 10SS	3170-368	8.30
3/8-16	.543	7/8	5/8	5/16	1-1/4	TN 15	3161-133	4.20	TN 15SS	3170-369	8.30
1/2-13	.555	7/8	3/4	11/32	1-1/4	TN 20	3161-134	4.50	TN 20SS	3170-370	9.75
1/2-13	.562	7/8	3/4	5/16	1-1/4	TN 1	3161-135	4.60	TN 1SS	3170-371	11.10
1/2-13	.562	1-1/8	3/4	25/64	1-1/4	TN 2	3161-136	4.60	TN 2SS	3170-372	10.15
1/2-13	.625	1	3/4	3/8	1-1/4	TN 22	3161-137	4.60	TN 22SS	3170-373	9.95
1/2-13	.625	1-1/8	3/4	7/16	1-1/4	TN 23	3161-138	5.45	TN 23SS	3170-374	10.25
1/2-13	.665	1-1/8	3/4	13/32	1-1/4	TN 21	3161-139	4.60	TN 21SS	3170-375	10.30
5/8-11	.675	1-1/8	1-1/8	15/32	1-1/2	TN 30	3161-140	6.90	TN 30SS	3170-376	14.20
5/8-11	.687	1-1/4	1	15/32	1-1/2	TN 3	3161-141	6.60	TN 3SS	3170-377	13.75
5/8-11	.780	1-1/4	1	17/32	1-1/2	TN 31	3161-142	6.90	TN 31SS	3170-378	13.90
3/4-10	.800	1-3/8	1-3/8	17/32	1-3/4	TN 40	3161-143	9.40	TN 40SS	3170-379	20.00
3/4-10	.812	1-1/2	1	9/16	1-3/4	TN 5	3161-144	9.15	TN 5SS	3170-380	21.20
3/4-10	.968	1-5/8	1	9/16	1-3/4	TN 4	3161-145	9.15	TN 4SS	3170-381	20.60
3/4-10	1.030	1-5/8	1	9/16	1-3/4	TN 41	3161-150	9.40	TN 41SS	3170-382	22.10

Carbon steel is case hardened. Black Oxide finish. Note: An imperfect thread is left in the base to eliminate the danger of damaging the table by screwing the stub through.

Spherical Washer Sets

Carbon steel is case hardened. Black oxide finish.



Precision Flat Washers

Carbon steel is case hardened. Black oxide finish.



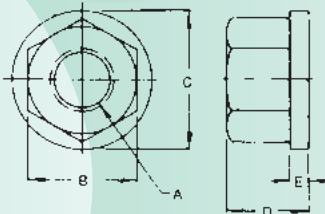
CARBON STEEL											STAINLESS STEEL			
BOLT SIZE					REF. NO.	ORDER NO.	PRICE EACH					REF. NO.	ORDER NO.	PRICE EACH
	A	B	C	R										
1/4	9/32	5/8	3/16	3/4	SP 0	3161-009	\$2.90	SP 0SS	3170-187	\$5.50				
5/16	11/32	3/4	1/4	1	SP 01	3161-010	3.50	SP 01SS	3170-188	6.20				
3/8	13/32	7/8	1/4	1-1/4	SP 1	3161-011	3.60	SP 1SS	3170-189	7.30				
1/2	17/32	1-1/8	5/16	1-1/2	SP 2	3161-012	4.50	SP 2SS	3170-190	8.90				
5/8	21/32	1-3/8	5/16	1-3/4	SP 3	3161-013	6.20	SP 3SS	3170-191	11.30				
3/4	25/32	1-5/8	3/8	2-1/4	SP 4	3161-014	7.70	SP 4SS	3170-192	13.80				
7/8	15/16	1-3/4	3/8	2-1/2	SP 5	3161-015	9.20	SP 5SS	3170-193	17.40				
1	1-1/16	2	1/2	2-3/4	SP 6	3161-016	11.20	SP 6SS	3170-194	20.80				
1-1/8	1-3/16	2-1/4	1/2	3	SP 7	3161-017	17.50	SP 7SS	3170-195	32.80				
1-1/4	1-5/16	2-5/8	1/2	3	SP 8	3161-018	20.40	SP 8SS	3170-196	38.00				
1-1/2	1-9/16	2-7/8	9/16	3-1/2	SP 9	3161-019	25.00	SP 9SS	3170-197	47.00				
1-5/8	1-11/16	3-1/4	11/16	3-1/2	SP 10	3161-020	31.20	SP 10SS	3170-198	54.20				
1-3/4	1-13/16	3-1/4	11/16	3-1/2	SP 11	3161-021	34.60	SP 11SS	3170-199	68.50				
2	2-1/16	3-7/8	3/4	4	SP 12	3161-022	39.50	SP 12SS	3170-200	86.00				

CARBON STEEL								STAINLESS STEEL		
BOLT SIZE	A	B	C	REF. NO.	ORDER NO.	PRICE EACH	REF. NO.	ORDER NO.	PRICE EACH	
1/4	9/32	5/8	1/8	FW 0	3160-474	\$0.79	FW 0SS	3170-100	\$1.68	
5/16	11/32	3/4	1/8	FW 01	3160-475	0.88	FW 01SS	3170-101	1.85	
3/8	13/32	7/8	1/8	FW 1	3160-476	0.90	FW 1SS	3170-102	2.10	
1/2	17/32	1-1/8	1/8	FW 2	3160-477	0.96	FW 2SS	3170-103	2.80	
5/8	21/32	1-3/8	1/8	FW 3	3160-478	1.15	FW 3SS	3170-104	3.35	
3/4	25/32	1-5/8	5/32	FW 4	3160-479	1.52	FW 4SS	3170-105	3.60	
7/8	29/32	1-3/4	5/32	FW 5	3160-480	1.78	FW 5SS	3170-106	4.60	
1	1-1/32	2	3/16	FW 6	3160-481	2.45	FW 6SS	3170-107	6.20	

Jig Fixtures & Components

Collar Nuts

LOW CARBON STEEL					STAINLESS STEEL		
A	B	C	D	E	REF. NO.	ORDER NO.	PRICE EACH
1/4-20	1/2	5/8	5/16	3/32	CN 0	3160-298	\$ 3.10
5/16-18	9/16	3/4	3/8	3/32	CN 00	3160-299	3.60
3/8-16	11/16	7/8	1/2	1/8	CN 10	3160-300	3.65
7/16-14	3/4	1	9/16	5/32	CN 15	3160-301	3.85
1/2-13	7/8	1-1/8	11/16	5/32	CN 20	3160-302	4.50
5/8-11	1-1/16	1-3/8	13/16	3/16	CN 30	3160-303	5.20
3/4-10	1-1/4	1-5/8	1	1/4	CN 40	3160-304	7.85
7/8-9	1-7/16	1-3/4	1-1/8	1/4	CN 50	3160-305	10.75
1-8	1-5/8	2	1-1/4	1/4	CN 60	3160-306	12.85
1-1/8-7	1-13/16	2-1/4	1-1/4	1/4	CN 70	3160-307	20.10
1-1/4-7	1-13/16	2-1/4	1-1/4	1/4	CN 80	3160-308	24.95
1/4-28	1/2	5/8	5/16	3/32	CN 100	3160-310	3.15
5/16-24	9/16	3/4	3/8	3/32	CN 105	3160-309	3.65
3/8-24	11/16	7/8	1/2	1/8	CN 110	3160-311	3.75
7/16-20	3/4	1	9/16	5/32	CN 115	3160-312	3.85
1/2-20	7/8	1-1/8	11/16	5/32	CN 120	3160-313	4.60
5/8-18	1-1/16	1-3/8	13/16	3/16	CN 130	3160-314	5.55
3/4-16	1-1/4	1-5/8	1	1/4	CN 140	3160-315	8.45
7/8-14	1-7/16	1-3/4	1-1/8	1/4	CN 150	3160-316	10.95
1-14	1-5/8	2	1-1/4	1/4	CN 160	3160-317	13.10
1-1/8-12	1-13/16	2-1/4	1-1/4	1/4	CN 170	3160-318	20.50
1-1/4-12	1-13/16	2-1/4	1-1/4	1/4	CN 180	3160-319	25.50
					CN OSS	3170-045	\$ 5.30
					CN 00SS	3170-046	5.50
					CN 10SS	3170-047	5.90
					CN 15SS	3170-048	6.90
					CN 20SS	3170-049	7.90
					CN 30SS	3170-050	9.90
					CN 40SS	3170-051	13.80
					CN 50SS	3170-052	21.30
					CN 60SS	3170-053	25.75
					CN 70SS	3170-054	47.00
					CN 80SS	3170-055	63.00
					CN 100SS	3170-056	5.45
					CN 105SS	3170-057	5.75
					CN 110SS	3170-058	6.20
					CN 115SS	3170-059	7.10
					CN 120SS	3170-060	8.55
					CN 130SS	3170-061	10.15
					CN 140SS	3170-062	14.20
					CN 150SS	3170-063	21.60
					CN 160SS	3170-064	26.00
					CN 170SS	3170-065	48.25
					CN 180SS	3170-066	64.50



Acorn Nuts

- Available in case hardened steel or stainless steel
- Excellent for protecting exposed threads



LOW CARBON STEEL					
A	HEX	C	PART NO.	ORDER NO.	PRICE EACH
5/16-18	5/8	5/8	AN-0	3160-000	\$ 3.95
3/8-16	3/4	3/4	AN-1	3160-002	4.25
1/2-13	7/8	15/16	AN-2	3160-003	5.25
5/8-11	1-1/16	1-3/16	AN-3	3160-004	6.85
3/4-10	1-1/4	1-3/8	AN-4	3160-005	8.60
7/8-9	1-3/8	1-5/8	AN-5	3160-006	9.95

CARBON STEEL IS CASE HARDENED AND BLACK OXIDE FINISHED.

Swing Bolts

- Available in case hardened black oxide finish steel or stainless steel.
- Precision machined from bar stock.
- Swing bolts are not to be used for lifting.



STEEL							STAINLESS STEEL		
A	B	C	D	E	F	G	PART NO.	ORDER NO.	PRICE EACH
1/4-20	1/4	3/4	1-3/16	1-1/2	1/2	5/16	SWB-01	3161-119	\$ 7.85
1/4-20	1/4	1-1/4	2-3/16	2-1/2	1/2	5/16	SWB-02	3161-120	9.55
5/16-18	5/16	1	1-5/8	2	5/8	3/8	SWB-03	3161-121	9.50
5/16-18	5/16	1-3/8	2-5/8	3	5/8	3/8	SWB-04	3161-122	10.30
3/8-16	3/8	1-3/8	2-5/8	3	5/8	3/8	SWB-1	3161-123	12.40
3/8-16	3/8	2	3	3-1/2	3/4	1/2	SWB-10	3161-126	13.00
1/2-13	1/2	1-5/8	2-1/2	3-1/8	1	5/8	SWB-2	3161-124	13.60
1/2-13	1/2	2-1/2	3-1/2	4-1/8	1	5/8	SWB-20	3161-127	17.65
5/8-11	5/8	1-5/8	2-3/4	3-1/2	1-1/4	3/4	SWB-3	3161-125	25.70
5/8-11	5/8	2-1/2	4	4-3/4	1-1/4	3/4	SWB-30	3161-128	29.80
							SWB-01SS	3170-350	\$ 13.80
							SWB-02SS	3170-351	16.75
							SWB-03SS	3170-352	17.35
							SWB-04SS	3170-353	19.90
							SWB-1SS	3170-354	23.40
							SWB-10SS	3170-357	27.30
							SWB-2SS	3170-355	33.30
							SWB-20SS	3170-358	39.50
							SWB-3SS	3170-356	47.50
							SWB-30SS	3170-359	52.00

STAINLESS STEEL					
A	HEX	C	PART NO.	ORDER NO.	PRICE EACH
5/16-18	5/8	5/8	AN-0SS	3170-000	\$ 5.15
3/8-16	3/4	3/4	AN-1SS	3170-001	6.60
1/2-13	7/8	15/16	AN-2SS	3170-002	9.20
5/8-11	1-1/16	1-3/16	AN-3SS	3170-003	15.40
3/4-10	1-1/4	1-3/8	AN-4SS	3170-004	18.50
7/8-9	1-3/8	1-5/8	AN-5SS	3170-005	25.00

Tapped End Clamp Straps

- Case hardened, black oxide finish
- Machined from carbon steel



Stainless Steel Clamp Straps

- Made from 300 series stainless steel



A	B	C	D	E	F	G	H	PART NO.	ORDER NO.	PRICE EACH
3/8	5/8	2	1/2	1	9/32	1/4-20	7/32	CS-7A	3160-338	\$ 7.95
3/8	5/8	2-1/2	1/2	1-1/8	9/32	1/4-20	1/32	CS-107	3160-374	8.10
1/2	1	2-3/4	7/16	1-1/2	11/32	5/16-18	9/32	CS-71	3160-365	11.10
1/2	1	3-1/4	13/16	1-1/2	11/32	5/16-18	9/32	CS-72	3160-366	12.00
1/2	1	3-3/4	1-3/16	1-1/2	11/32	5/16-18	9/32	CS-73	3160-367	13.85
5/8	1-1/4	3	3/4	1-11/16	13/32	3/8-16	5/16	CS-74	3160-368	14.10
5/8	1-1/4	4	1	2-3/16	13/32	3/8-16	5/16	CS-75	3160-369	14.20
5/8	1-1/4	5	1-1/2	2-11/16	13/32	3/8-16	5/16	CS-76	3160-370	16.90
5/8	1-1/4	6	2	3-3/16	13/32	3/8-16	5/16	CS-77	3160-371	17.00
5/8	1-1/4	4	1	2-1/4	17/32	1/2-13	7/16	CS-7	3160-340	17.10
5/8	1-1/4	4-1/2	1	2-1/4	17/32	1/2-13	7/16	CS-700	3160-392	17.35
5/8	1-1/4	5	1-1/2	2-1/4	17/32	1/2-13	7/16	CS-8	3162-342	16.90
5/8	1-1/4	6	1-1/2	2-1/4	17/32	1/2-13	7/16	CS-9	3160-341	18.50
3/4	1-1/2	4-1/2	1	2-1/2	21/32	5/8-11	1/2	CS-10	3160-342	18.50
3/4	1-1/2	5	1-1/2	2-1/2	21/32	5/8-11	1/2	CS-1000	3160-393	18.90
3/4	1-1/2	5-1/2	1-1/2	2-1/2	21/32	5/8-11	1/2	CS-11	3160-343	18.85
3/4	1-1/2	6	1-1/2	2-1/2	21/32	5/8-11	1/2	CS-12	3160-344	22.00

A	B	C	D	E	F	G	H	J	PART NO.	ORDER NO.	PRICE EACH
1/4	1/2	1-1/2	5/16	5/8	5/64	10-32	7/32	11/16	1503	3164-503	\$ 11.55
1/4	1/2	1-3/4	7/16	3/4	5/64	10-32	7/32	13/16	1504	3164-504	12.25
1/4	1/2	2	9/16	7/8	5/64	10-32	7/32	15/16	1505	3164-505	12.65
5/16	5/8	1-3/4	3/8	3/4	3/32	1/4-20	9/32	3/4	1628	3164-518	14.40
5/16	5/8	2	1/2	7/8	3/32	1/4-20	9/32	7/8	1629	3164-519	15.30
5/16	5/8	2-1/2	11/16	1-1/16	3/32	1/4-20	9/32	1-3/16	1630	3161-193	16.85
3/8	3/4	2	1/2	7/8	1/8	5/16-18	11/32	13/16	1753	3164-528	14.70
3/8	3/4	2-1/2	3/4	1-1/8	1/8	5/16-18	11/32	1-1/16	1754	3164-529	16.30
3/8	3/4	3	7/8	1-5/16	1/8	5/16-18	11/32	1-3/8	1755	3164-530	17.50
1/2	7/8	3	3/4	1-5/16	1/8	3/8-16	13/32	1-5/16	1878	3164-536	22.50
1/2	7/8	3-1/2	1	1-1/2	1/8	3/8-16	13/32	1-5/8	1879	3164-537	24.40
1/2	7/8	4	1-1/8	1-5/8	1/8	3/8-16	13/32	2	1879	3164-538	25.15

Jig Fixtures & Components

1

Stainless Steel Available Upon Request

Set-Up Studs



STEEL			
SIZE	LENGTH	ORDER NO.	PRICE EACH
1/4	1-1/2	3161-459	\$4.30
1/4	2	3161-460	4.25
1/4	2-1/2	3161-461	3.10
1/4	3	3161-462	3.70
1/4	3-1/2	3161-463	4.20
1/4	4	3161-464	4.75
5/16	1-1/2	3161-473	3.85
5/16	2	3161-474	3.75
5/16	2-1/2	3161-475	3.70
5/16	3	3161-476	3.75
5/16	3-1/2	3161-477	3.85
5/16	4	3161-478	3.90
5/16	4-1/2	3161-479	4.30
5/16	5	3161-480	4.35
5/16	6	3161-482	4.60
5/16	7	3161-483	4.90
5/16	8	3161-485	5.25
3/8	1-1/2	3161-487	3.75
3/8	2	3161-488	3.80
3/8	2-1/2	3161-489	3.80
3/8	3	3161-490	3.90
3/8	3-1/2	3161-491	4.00
3/8	4	3161-492	4.20
3/8	4-1/2	3161-493	4.45
3/8	5	3161-494	4.75
3/8	5-1/2	3161-495	4.90
3/8	6	3161-496	5.10
3/8	6-1/2	3161-497	5.35
3/8	7	3161-498	5.65

STEEL			
SIZE	LENGTH	ORDER NO.	PRICE EACH
3/8	7-1/2	3161-499	\$5.90
3/8	8	3161-500	6.15
1/2	1-1/2	3161-501	5.10
1/2	2	3161-502	5.05
1/2	2-1/2	3161-503	5.05
1/2	3	3161-504	5.10
1/2	3-1/2	3161-505	5.40
1/2	4	3161-506	5.65
1/2	4-1/2	3161-507	6.50
1/2	5	3161-508	7.10
1/2	5-1/2	3161-509	7.15
1/2	6	3161-510	7.25
1/2	6-1/2	3161-511	7.35
1/2	7	3161-512	7.40
1/2	7-1/2	3161-513	7.55
1/2	8	3161-514	7.65
1/2	9	3161-515	10.70
1/2	10	3161-516	13.25
1/2	12	3161-517	15.85
1/2	14	3161-518	17.25
5/8	1-1/2	3161-519	6.60
5/8	2	3161-520	6.45
5/8	2-1/2	3161-521	6.30
5/8	3	3161-522	7.05
5/8	3-1/2	3161-523	7.30
5/8	4	3161-524	7.40
5/8	4-1/2	3161-525	7.95
5/8	5	3161-526	8.40
5/8	5-1/2	3161-527	8.90
5/8	6	3161-528	9.05

STEEL			
SIZE	LENGTH	ORDER NO.	PRICE EACH
5/8	6-1/2	3161-529	\$9.35
5/8	7	3161-530	9.60
5/8	7-1/2	3161-531	9.75
5/8	8	3161-532	10.25
5/8	9	3161-533	15.75
5/8	10	3161-534	17.45
5/8	12	3161-535	17.80
5/8	14	3161-536	19.40
3/4	3	3161-538	8.10
3/4	4	3161-540	8.90
3/4	5	3161-542	11.50
3/4	6	3161-544	13.65
3/4	7	3161-546	14.30
3/4	8	3161-548	15.10
3/4	9	3161-549	23.40
3/4	10	3161-550	24.20
3/4	12	3161-551	26.50
3/4	14	3161-552	27.50
7/8	3	3161-553	11.25
7/8	4	3161-555	11.95
7/8	5	3161-557	12.20
7/8	6	3161-559	13.50
7/8	7	3161-561	14.20
7/8	8	3161-563	15.30
7/8	9	3161-564	18.10
7/8	10	3161-565	20.45
7/8	12	3161-566	23.20
7/8	14	3161-567	26.75

STEEL			
SIZE	LENGTH	ORDER NO.	PRICE EACH
1	3	3161-568	12.65
1	4	3161-570	13.55
1	5	3161-572	15.00
1	6	3161-574	15.30
1	7	3161-575	16.20
1	8	3161-577	17.75
1	9	3161-578	22.60
1	10	3161-579	25.30
1	12	3161-580	28.10
1	14	3161-581	30.80

† Limited Quantities

Eye Bolts

A THREAD	B	C	D	E	F	STEEL REF.	STEEL ORDER	STEEL PRICE	STAINLESS REF.	STAINLESS ORDER	STAINLESS PRICE
1/4-20	7/8	2-1/8	3/16	1/4	1/2	EB 0	3160-444	\$ 8.75	EB 0SS	3170-070	\$ 16.70
1/4-20	7/8	2-1/8	1/4	1/4	1/2	EB 05	3160-445	8.75	EB 05SS	3170-071	16.60
1/4-20	1-1/4	3	3/16	1/4	1/2	EB 010	3160-446	9.50	EB 010SS	3170-072	17.80
1/4-20	1-1/4	3	1/4	1/4	1/2	EB 020	3160-447	9.50	EB 020SS	3170-073	17.80
5/16-18	1-1/4	2-1/2	1/4	1/4	5/8	EB 030	3160-448	10.45	EB 030SS	3170-074	18.25
5/16-18	1-1/4	2-1/2	5/16	5/16	5/8	EB 040	3160-449	10.45	EB 040SS	3170-075	18.35
5/16-18	1-1/2	3-1/2	1/4	1/4	5/8	EB 050	3160-450	11.85	EB 050SS	3170-076	20.50
5/16-18	1-1/2	3-1/2	5/16	5/16	5/8	EB 060	3160-451	11.85	EB 060SS	3170-077	20.50
5/16-18	2	4	1/4	1/4	5/8	EB 061	3160-452	12.75	EB 061SS	3170-078	22.90
5/16-18	2	4	5/16	5/16	5/8	EB 062	3160-453	12.75	EB 062SS	3170-079	22.90
3/8-16	1-1/2	3-1/2	5/16	5/16	3/4	EB 070	3160-454	12.35	EB 070SS	3170-080	25.10
3/8-16	1-1/2	3-1/2	3/8	3/8	3/4	EB 080	3160-455	12.35	EB 080SS	3170-081	25.10
3/8-16	2	3-3/4	5/16	5/16	3/4	EB 090	3160-456	12.60	EB 090SS	3170-082	26.45
3/8-16	2	3-3/4	3/8	3/8	3/4	EB 100	3160-469	12.50	EB 100SS	3170-083	26.45
3/8-16	2-1/2	5	5/16	3/8	3/4	EB 101	3160-470	13.20	EB 101SS	3170-084	29.50
3/8-16	2-1/2	5	3/8	1/2	3/4	EB 102	3160-471	16.30	EB 102SS	3170-085	29.50
1/2-13	1-1/2	3-3/4	3/8	3/8	1	EB 1	3160-457	18.75	EB 1SS	3170-086	31.50
1/2-13	1-1/2	3-3/4	1/2	1/2	1	EB 5	3160-459	18.65	EB 5SS	3170-087	31.25
1/2-13	2	5	3/8	3/8	1	EB 10	3160-460	20.20	EB 10SS	3170-088	41.25
1/2-13	2	5	1/2	1/2	1	EB 15	3160-461	20.20	EB 15SS	3170-089	41.25
1/2-13	2-1/2	5-1/2	3/8	1/2	1	EB 16	3160-462	24.25	EB 16SS	3170-090	47.50
1/2-13	2-1/2	5-1/2	1/2	1/2	1	EB 17	3160-463	24.25	EB 17SS	3170-091	47.50
5/8-11	1-3/4	4-1/2	5/8	5/8	1-1/4	EB 20	3160-464	26.40	EB 20SS	3170-092	47.50
5/8-11	2	4-1/2	5/8	5/8	1-1/4	EB 2	3160-458	26.25	EB 2SS	3170-093	51.20
5/8-11	2-1/2	6	5/8	5/8	1-1/4	EB 25	3160-465	29.75	EB 25SS	3170-094	60.50
5/8-11	3	6	5/8	5/8	1-1/4	EB 26	3160-466	30.20	EB 26SS	3170-095	64.50
3/4-10	4-1/2	4-1/2	3/4	3/4	1-1/2	EB 30	3160-467	40.65	EB 30SS	3170-096	62.50
3/4-10	6	6	3/4	3/4	1-1/2	EB 35	3160-468	48.85	EB 35SS	3170-097	72.00



Stainless Steel



Steel - Black Oxide



Jig Fixtures & Components

1

Steel Ball Plungers

- Steel body, stainless steel ball nose.
- All plungers equipped with nylon pellet for positive holding. If you require plungers without the nylon locking element, please specify when ordering.
- Ideal for locating or positioning applications.



END PRESSURES				LBS.		PART. NO.	ORDER NO.	PRICE EACH
A	B	C	DIAM. D	START	FULL			
#4-48	3/16	.020	.062	.12	.5	MBP-100	3163-508	\$5.70
#5-40	1/4	.020	.062	.12	.5	MBP-101	3163-509	5.55
#6-40	5/16	.023	.078	.5	1.0	MBP-102	3163-510	5.40
#8-36	11/32	.025	.093	.5	1.25	MBP-103	3163-511	5.20
#8-32	11/32	.025	.093	.5	1.25	MBP-104	3163-512	5.20
#10-32	33/64	.025	.093	.5	1.5	MBP-106	3160-751	4.90
#10-32	33/64	.025	.093	1.5	3.0	MBP-105	3160-750	4.90
#10-32	33/64	.025	.093	2.0	5.0	MBP-107	3160-752	4.90
1/4-20	17/32	.035	1.25	2.0	4.0	MBP-111	3160-754	4.95
1/4-20	17/32	.035	1.25	3.0	7.0	MBP-110	3160-753	4.95
1/4-20	17/32	.035	1.25	4.0	12.0	MBP-112	3160-755	4.95
5/16-18	37/64	.040	.156	2.0	4.5	MBP-116	3160-757	5.10
5/16-18	37/64	.040	.156	4.0	9.0	MBP-115	3160-756	5.10
5/16-18	37/64	.040	.156	6.0	17.0	MBP-117	3160-758	5.10
3/8-16	5/8	.048	.187	2.5	5.0	MBP-121	3160-760	5.20
3/8-16	5/8	.048	.187	5.0	10.0	MBP-120	3160-759	5.20
3/8-16	5/8	.048	.187	6.0	21.0	MBP-122	3160-749	5.20
1/2-13	3/4	.072	.281	3.0	6.0	MBP-126	3160-762	5.35
1/2-13	3/4	.072	.281	6.0	12.0	MBP-125	3160-761	5.35
1/2-13	3/4	.072	.281	6.0	30.0	MBP-127	3160-763	5.35
5/8-11	63/64	.096	.375	4.5	9.0	MBP-131	3160-765	6.50
5/8-11	63/64	.096	.375	9.0	18.0	MBP-130	3160-764	6.50
5/8-11	63/64	.096	.375	7.0	50.0	MBP-132	3160-766	6.50

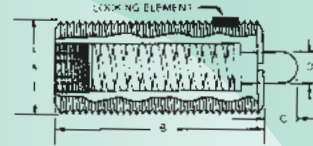
Stainless Steel Ball Plungers

- All parts are made of stainless steel.
- All plungers equipped with nylon pellet for positive holding. If you require plungers without the nylon locking element, please specify when ordering.
- Ideal for locating or positioning applications.



END PRESSURES				LBS.		PART. NO.	ORDER NO.	PRICE EACH
A	B	C	DIAM. D	START	FULL			
#4-48	3/16	.020	.062	.12	.5	MBP-090SS	3163-589	\$5.90
#5-40	1/4	.020	.062	.12	.5	MBP-091SS	3163-590	5.90
#6-40	5/16	.023	.078	.5	1.0	MBP-092SS	3163-591	5.90
#8-36	11/32	.025	.093	.5	1.25	MBP-093SS	3163-592	5.90
#8-32	11/32	.025	.093	.5	1.25	MBP-094SS	3163-593	5.90
#10-32	33/64	.025	.093	.5	1.5	MBP-106SS	3163-595	6.05
#10-32	33/64	.025	.093	1.5	3.0	MBP-105SS	3163-594	6.05
#10-32	33/64	.025	.093	2.0	5.0	MBP-107SS	3163-596	6.05
1/4-20	17/32	.035	1.25	2.0	4.0	MBP-111SS	3163-598	6.20
1/4-20	17/32	.035	1.25	3.0	7.0	MBP-110SS	3163-597	6.20
1/4-20	17/32	.035	1.25	4.0	12.0	MBP-112SS	3163-599	6.20
5/16-18	37/64	.040	.156	2.0	4.5	MBP-116SS	3163-601	7.05
5/16-18	37/64	.040	.156	4.0	9.0	MBP-115SS	3163-600	7.05
5/16-18	37/64	.040	.156	6.0	17.0	MBP-117SS	3163-602	7.05
3/8-16	5/8	.048	.187	2.5	5.0	MBP-121SS	3163-604	10.95
3/8-16	5/8	.048	.187	5.0	10.0	MBP-120SS	3163-603	7.20
3/8-16	5/8	.048	.187	6.0	21.0	MBP-122SS	3163-605	10.95
1/2-13	3/4	.072	.281	3.0	6.0	MBP-126SS	3163-607	12.05
1/2-13	3/4	.072	.281	6.0	12.0	MBP-125SS	3163-606	12.05
1/2-13	3/4	.072	.281	6.0	30.0	MBP-127SS	3163-608	12.05
5/8-11	63/64	.096	.375	4.5	9.0	MBP-131SS	3163-610	14.85
5/8-11	63/64	.096	.375	9.0	18.0	MBP-130SS	3163-609	14.85
5/8-11	63/64	.096	.375	7.0	50.0	MBP-132SS	3163-611	14.85

Spring Plungers - Light Spring Pressures



END PRESSURES							REF. NO.	ORDER NO.	PRICE EACH
A	B	C	D	START	1/2 WAY	FULL			
#6-32	17/32	.062	.046	0.5	1.0	1.5	MSP-21	3160-780	\$6.70
#8-32	5/8	.093	.070	0.7	1.5	2.3	MSP-22	3160-781	5.85
#10-32	3/4	.125	.093	1.3	2.0	2.7	MSP-23	3160-782	5.40
1/4-20	1	.187	.119	1.0	2.5	4.0	MSP-24	3160-783	5.40
1/4-28	1	.187	.119	1.0	2.5	4.0	MSP-25	3160-784	5.40
5/16-18	1	.187	.135	1.5	3.0	4.5	MSP-26	3160-785	5.85
3/8-16	1-1/8	.187	.186	2.8	5.0	7.2	MSP-27	3160-786	6.05
1/2-13	1-1/4	.250	.248	2.7	6.0	9.3	MSP-28	3160-787	6.05
5/8-11	1-1/2	.312	.310	3.5	7.0	10.5	MSP-29	3160-788	7.20
3/4-10	1-3/4	.312	.374	4.0	10.0	16.0	MSP-30	3160-789	10.65
1-8	2-13/32	.500	.499	4.0	17.5	31.0	MSP-31	3160-790	14.85

Spring Plungers - Heavy Pressures



END PRESSURES							REF. NO.	ORDER NO.	PRICE EACH
A	B	C	D	START	1/2 WAY	FULL			
#6-32	17/32	.062	.046	1.5	3.0	4.5	MSP-1	3160-767	\$7.05
#6-32	3/8	.062	.046	1.0	1.3	1.6	MSP-2	3160-768	6.10
#8-32	5/8	.093	.070	2.7	5.0	7.3	MSP-3	3160-769	6.10
#10-32	3/4	.125	.093	2.9	7.0	11.1	MSP-4	3160-770	6.10
1/4-20	1	.187	.119	3.0	8.0	13.0	MSP-5	3160-771	5.35
1/4-28	1	.187	.119	3.0	8.0	13.0	MSP-6	3160-772	5.35
1/4-20	3/4	.125	.119	2.0	5.5	9.0	MSP-7	3160-773	5.35
5/16-18	1	.187	.135	3.0	9.0	15.0	MSP-8	3160-774	6.00
3/8-16	1-1/8	.187	.186	5.5	10.0	14.5	MSP-9	3160-775	7.75
1/2-13	1-1/4	.250	.248	6.6	12.0	17.4	MSP-10	3160-776	7.75
5/8-11	1-1/2	.312	.310	10.5	18.0	25.5	MSP-11	3160-777	8.95
3/4-10	1-3/4	.312	.374	6.7	22.0	37.3	MSP-12	3160-778	12.25
1-8	2-13/32	.500	.499	16.0	42.0	68.0	MSP-13	3160-779	19.95

Metric Ball Plungers

- Steel body, stainless steel ball nose, zinc plated finish.
- All plungers equipped with nylon pellet for positive holding. If you require plungers without the nylon locking element, please specify when ordering.
- Ideal for locating or positioning applications.



END PRESSURES				KILOGRAMS		PART. NO.	ORDER NO.	PRICE EACH
A	B	C	DIAM. D	START	FULL			
M 4 x 0.7	9.00	0.60	2.36	.25	.50	MBP-150	3163-513	\$7.15
M 5 x 0.8	13.00	0.60	2.36	.25	.70	MBP-151	3163-514	7.35
M 5 x 0.8	13.00	0.60	2.36	.70	1.35	MBP-152	3163-515	7.35
M 5 x 0.8	13.00	0.60	2.36	.90	2.25	MBP-153	3163-516	7.35
M 6 x 1.0	13.50	0.90	3.20	.90	1.80	MBP-154	3163-517	7.55
M 6 x 1.0	13.50	0.90	3.20	1.35	3.15	MBP-155	3163-518	7.55
M 6 x 1.0	13.50	0.90	3.20	1.80	5.40	MBP-156	3163-519	7.55
M 8 x 1.25	15.00	1.00	3.96	.90	2.00	MBP-157	3163-520	7.60
M 8 x 1.25	15.00	1.00	3.96	1.80	4.00	MBP-158	3163-521	7.60
M 8 x 1.25	15.00	1.00	3.96	2.70	7.65	MBP-159	3163-522	7.60
M 10 x 1.5	16.00	1.20	4.75	1.13	2.25	MBP-160	3163-523	7.80
M 10 x 1.5	16.00	1.20	4.75	2.25	4.50	MBP-161	3163-524	7.80
M 10 x 1.5	16.00	1.20	4.75	2.70	9.50	MBP-162	3163-525	7.80
M 12 x 1.75	19.00	2.00	7.14	1.35	2.70	MBP-163	3163-526	7.85
M 12 x 1.75	19.00	2.00	7.14	2.70	5.40	MBP-164	3163-527	7.85
M 12 x 1.75	19.00	2.00	7.14	2.70	13.50	MBP-165	3163-528	7.85

Precision Ground Flat Stock - Oil Hardening

2

AISI/SAE Type 0-1

O-1 GROUND FLAT STOCK is an electric furnace melt oil-hardening tool steel supplied with a fully spheroidized structure. A non-shrinking general-purpose tool steel, it has excellent abrasion resistance, toughness and machinability characteristics.

Tolerance:
Thickness ±.001" Width +.000"/.005"

		18" LENGTH		36" LENGTH	
THICK	WIDTH	ORDER NO	PRICE EACH	ORDER NO.	PRICE EACH
1/64	1/2	3190-010	\$127.95	-	-
	3/4	3190-020	133.01	-	-
	1	3190-030	139.81	-	-
	1-1/4	3190-040	146.47	-	-
	1-1/2	3190-050	161.34	-	-
	2	3190-060	200.39	-	-
	2-1/2	3190-070	229.80	-	-
	3	3190-080	275.29	-	-
	4	3190-090	374.12	-	-
1/32	1/2	3190-100	23.24	-	-
	3/4	3190-110	31.34	-	-
	1	3190-120	36.52	-	-
	1-1/4	3190-130	43.31	-	-
	1-1/2	3190-140	50.12	-	-
	2	3190-150	63.31	-	-
	2-1/2	3190-160	76.69	-	-
	3	3190-170	90.45	-	-
	4	3190-180	117.42	-	-
	6	3190-190	208.70	-	-
3/64	1/4	3190-200†	26.74	-	-
	5/16	3190-210†	23.38	-	-
	3/8	3190-220†	14.83	-	-
	1/2	3190-230	20.37	3200-230	\$35.08
	3/4	3190-240	26.31	-	-
	1	3190-250	32.02	3200-250	55.09
	1-1/4	3190-260	37.55	3200-260	64.69
	1-1/2	3190-270	43.32	3200-270	74.67
	2	3190-280	54.88	-	-
	2-1/2	3190-290	66.24	-	-
	3	3190-300	77.71	-	-
	3-1/2	3190-310	89.23	-	-
	4	3190-320	122.93	-	-
	5	3190-325†	34.83	-	-
6	3190-330	147.59	-	-	
1/16	1/4	3190-340	48.18	-	-
	5/16	3190-350†	15.82	-	-
	3/8	3190-360	24.05	-	-
	1/2	3190-370	14.38	3200-370	24.73
	3/4	3190-380	18.19	3200-380	31.29
	1	3190-390	21.88	3200-390	37.74
	1-1/4	3190-400	25.55	3200-400	43.98
	1-1/2	3190-410	29.30	3200-410	50.54
	1-3/4	3190-420	33.05	3200-420	56.89
	2	3190-430	36.76	3200-430	63.36
	2-1/2	3190-440	44.23	3200-440	76.11
	3	3190-450	51.59	3200-450	88.94
	3-1/2	3190-460	59.31	3200-460	102.03
	4	3190-470	67.17	3200-470	115.57
	5	3190-480	82.26	3200-480	141.67
	5-1/2	3190-485†	23.45	-	-
	6	3190-490	97.32	3200-490	167.59
	8	3190-500	145.87	3200-500	251.26
10	3190-510	180.30	3200-510	310.60	
12	-	-	-	-	
5/64	1/2	3190-560	18.74	-	-
	3/4	3190-570	23.31	-	-
	1	3190-580	27.79	-	-
	1-1/2	3190-590	36.71	-	-
	2	3190-600	45.78	-	-
	2-1/2	3190-610	54.37	-	-
	3	3190-620	63.50	-	-
	4	3190-630	82.44	-	-
	6	3190-640	119.27	-	-
3/32	1/4	3190-650	60.69	-	-
	5/16	3190-660†	15.16	-	-
	3/8	3190-670	33.32	-	-
	1/2	3190-680	18.74	3200-680	32.36
	3/4	3190-690	23.31	3200-690	39.98
	1	3190-700	27.79	3200-700	47.89
	1-1/4	3190-710	32.18	3200-710	55.45
	1-1/2	3190-720	36.71	3200-720	63.27

Precision Ground Flat Stock - Oil Hardening

AISI/SAE Type 0-1 Continued from Previous Page

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		18" LENGTH		36" LENGTH	
THICK	WIDTH	ORDER NO	PRICE EACH	ORDER NO.	PRICE EACH
3/8	3-1/2	3192-450	\$141.55	3202-450	\$243.86
	4	3192-460	158.05	3202-460	272.11
	4-1/2	3192-470	174.42	3202-470	300.41
	5	3192-480	190.86	3202-480	328.70
	5-1/2	3192-490†	207.38	3202-490	357.21
	6	3192-500	223.83	3202-500	385.48
	7	3192-510	293.48	3202-510	505.46
	8	3192-520	331.58	3202-520	571.17
	10	3192-540	407.08	3202-540	701.08
	12	3192-550	482.92	3202-550	831.73
7/16	7/16	3192-560	56.36	3202-560	97.05
	1/2	3192-570	50.99	3202-570	87.72
	3/4	3192-580	60.37	3202-580	103.97
	1	3192-590	69.80	3202-590	120.16
	1-1/4	3192-600	78.53	3202-600	135.18
	1-1/2	3192-610	87.93	3202-610	151.40
	2	3192-620	106.76	3202-620	183.88
	2-1/2	3192-630	125.64	3202-630	216.38
	3	3192-640	144.48	3202-640	248.86
	4	3192-650	177.62	3202-650	305.94
	6	3192-660	257.66	3202-660	443.79
1/2	1/2	3192-670	54.10	3202-670	93.16
	5/8	3192-680	59.09	3202-680	101.83
	3/4	3192-690	64.20	3202-690	110.51
	1	3192-700	74.22	3202-700	127.84
	1-1/4	3192-710	83.95	3202-710	144.59
	1-1/2	3192-720	93.97	3202-720	161.85
	1-3/4	3192-730	104.37	3202-730	179.75
	2	3192-740	114.13	3202-740	196.66
	2-1/2	3192-750	134.35	3202-750	231.42
	3	3192-760	154.53	3202-760	266.14
	3-1/2	3192-770	174.63	3202-770	300.82
	4	3192-780	194.88	3202-780	335.63
	4-1/2	3192-790	215.08	3202-790	370.46
	5	3192-800	236.66	3202-800	407.53
	6	3192-810	289.98	3202-810	499.44
	7	3192-820	366.74	3202-820	631.63
	8	3192-830	414.16	3202-830	713.36
	10	3192-850	498.51	3202-850	858.64
	12	3192-860	581.98	-	-
	14	3192-870†	265.18	-	-

Upsize Available Upon Request

		18" LENGTH		36" LENGTH	
THICK	WIDTH	ORDER NO	PRICE EACH	ORDER NO.	PRICE EACH
9/16	9/16	3192-880	\$64.91	3202-880	\$111.77
	3/4	3192-890	73.16	3202-890	126.03
	1	3192-900	84.29	3202-900	145.26
	1-1/4	3192-910	95.33	3202-910	164.18
	1-1/2	3192-920	106.51	3202-920	183.40
	2	3192-930	128.94	3202-930	222.05
5/8	5/8	3192-940	70.77	3202-940	122.01
	3/4	3192-950	76.69	3202-950	132.05
	1	3192-960	88.27	3202-960	151.98
	1-1/4	3192-970	99.45	3202-970	171.27
	1-1/2	3192-980	111.06	3202-980	191.18
	2	3192-990	134.17	3202-990	231.15
	2-1/2	3193-000	157.30	3203-000	271.04
	3	3193-010	180.55	3203-010	310.92
	3-1/2	3193-020	203.74	3203-020	350.90
	4	3193-030	226.90	3203-030	390.81
	5	3193-040	274.72	3203-040	473.14
	6	3193-050	321.05	3203-050	552.98
3/4	7	3193-060†	161.66	-	-
	8	3193-070†	199.26	3203-070†	332.64
	10	3193-090†	230.83	3203-090†	400.68
7/8	3/4	3193-110	91.17	3203-110	157.02
	1	3193-120	104.75	3203-120	180.39
	1-1/4	3193-130	117.55	3203-130	202.40
	1-1/2	3193-140	131.02	3203-140	225.60
	1-3/4	3193-150	144.48	3203-150	248.91
	2	3193-160	157.98	3203-160	272.09
	2-1/2	3193-170	184.89	3203-170	318.48
	3	3193-180	211.97	3203-180	365.16
	3-1/2	3193-190	238.92	3203-190	411.54
	4	3193-200	265.94	3203-200	458.03
	4-1/2	3193-210	292.98	3203-210	504.52
	5	3193-220	321.50	3203-220	553.64
	5-1/2	3193-225†	123.73	-	-
	6	3193-230	375.42	3203-230	646.64
	8	3193-250	549.25	3203-250	946.04
	10	3193-270	662.46	3203-270	1140.94
	12	3193-280	775.73	3203-280	1336.05
	7/8	3193-290	114.22	3203-290	196.73
	1	3193-300	121.92	3203-300	209.98
	1-1/4	3193-310	136.36	3203-310	234.87
	1-1/2	3193-320	151.70	3203-320	261.30
	2	3193-330	182.26	3203-330	313.92
	2-1/2	3193-340†	85.69	3203-340†	151.24
	3	3193-350	243.68	3203-350	419.76
	4	3193-370	305.09	3203-370	525.45
	6	3193-390	429.32	3203-390	739.35

		18" LENGTH		36" LENGTH	
THICK	WIDTH	ORDER NO	PRICE EACH	ORDER NO.	PRICE EACH
1	1	3193-450	\$ 131.15	3203-450	\$225.82
	1-1/4	3193-460	146.17	3203-460	251.70
	1-1/2	3193-470	162.31	3203-470	279.52
	1-3/4	3193-480	178.33	3203-480	307.24
	2	3193-490	194.46	3203-490	334.97
	2-1/2	3193-500	226.69	3203-500	390.51
	3	3193-510	258.78	3203-510	445.68
	3-1/2	3193-520	291.03	3203-520	501.20
	4	3193-530	323.13	3203-530	556.63
	4-1/2	3193-540†	145.96	3203-540†	252.27
	5	3193-550	389.05	3203-550	670.07
	6	3193-560	453.46	3203-560	780.99
1-1/8	8	3193-580	661.23	3203-580	1138.88
	10	3193-600	798.07	3203-600	1374.61
	12	3193-610	934.80	3203-610	1610.15
	1-1/2	3193-620	194.65	-	-
	2	3193-630	231.56	3203-630	398.81
	2-1/2	3193-635	94.45	-	-
1-1/4	3	3193-640	305.14	3203-640	525.64
	4	3193-650	378.87	3203-650	652.58
	6	3193-660	527.81	3203-660	909.08
	1-1/4	3193-670	184.61	3203-670	317.96
	1-1/2	3193-680	204.46	3203-680	352.22
	2	3193-690	244.41	3203-690	421.02
1-1/2	2-1/2	3193-700	284.18	3203-700	489.43
	3	3193-710	323.84	3203-710	557.77
	4	3193-730	403.40	3203-730	694.80
	5	3193-740	484.61	3203-740	834.62
	6	3193-750	564.17	3203-750	971.71
	8	3193-770†	324.24	3203-770†	549.57
	10	-	-	3203-790†	663.78
	1-1/2	3193-830	238.58	3203-830	410.94
	2	3193-840	284.22	3203-840	489.52
	2-1/2	3193-850	329.91	3203-850	568.11
2	3	3193-860	375.54	3203-860	646.89
	3-1/2	3193-870†	170.03	3203-870†	292.52
	4	3193-880	466.85	3203-880	804.10
	5	-	-	3203-890†	388.77
	6	3193-900	658.96	3203-900	1134.97
	8	3193-920	912.08	3203-920	1570.92
	10	3193-940†	456.97	3203-940†	765.57
	2	3193-980	364.13	3203-980	627.10
	3	3193-990	478.85	3203-990	824.79
	4	3194-000	593.77	3204-000	1022.66
	6	3194-010	790.52	3204-010	1361.47

Precision Ground Flat Stock - Low Carbon

AISI/SAE Type C-1018

Tolerance:

Thickness ±.001" Width +.000"/.005"

LOW CARBON GROUND FLAT STOCK is a fine-grained, vacuum-degassed carbon steel. It is easily machined, has excellent weldability, and responds uniformly to case hardening. The manganese content provides greater strength and hardness compared to many other carbon steels. It is often used in its natural state for such applications as back-up plate, stripper plates, punch pads, and machine parts. As a case-hardened material, it is used for jigs, fixtures, cams and patterns.

Also Available:
• S-7 • D-2
• A-6 • Nutec 42

		24" LENGTH	
THICK.	WIDTH	ORDER NO.	PRICE EACH
1/16	3/4	3210-380	\$18.54
	1	3210-390	22.08
	1-1/4	3210-400	25.58
	1-1/2	3210-410	28.98
	2	3210-430	37.37
	2-1/2	3210-440	45.30
	3	3210-450	51.88
	3-1/2	3210-460	59.08
	4	3210-470	66.15
	5	3210-480	79.88
	6	3210-490	96.20
	8	3210-500	127.95
3/32	10	3210-510	154.54
	12	3210-520	185.78
	1/2	3210-680	19.06
	3/4	3210-690	23.43
	1	3210-700	27.52
	1-1/4	3210-710	31.11
	1-1/2	3210-720	35.32
	2	3210-740	43.66
	2-1/2	3210-750	51.82
	3	3210-760	60.09
	3-1/2	3210-770	68.68
	4	3210-780	76.00

		24" LENGTH	
THICK.	WIDTH	ORDER NO.	PRICE EACH
3/32	5	3210-790	\$89.03
	6	3210-800	109.87
	10	3210-820	176.18
	12	3210-830	209.92
1/8	1/2	3210-970	18.45
	3/4	3210-990	22.08
	1	3211-000	25.92
	1-1/4	3211-010	28.69
	1-1/2	3211-020	34.24
	2	3211-040	39.64
	2-1/2	3211-050	46.92
	3	3211-060	53.01
	3-1/2	3211-070	60.48
	4	3211-080	66.06
	5	3211-100	80.14

Precision Ground Flat Stock - Low Carbon

AISI/SAE Type C-1018

Continued from Previous Page

Upsize Available Upon Request

24" LENGTH			
THICK.	WIDTH	ORDER NO.	PRICE EACH
5/16	4	3212-260	\$114.79
	5	3212-280	136.46
	6	3212-290	160.96
	7	3212-300	187.98
	8	3212-310	208.80
	10	3212-330	251.68
3/8	12	3212-340	289.39
	3/8	3212-350	36.85
	1/2	3212-360	40.39
	3/4	3212-370	44.53
	1	3212-380	52.39
	1-1/4	3212-390	57.51
	1-1/2	3212-400	62.21
	2	3212-420	73.78
	2-1/2	3212-430	88.46
	3	3212-440	94.83
	3-1/2	3212-450	111.06
	4	3212-460	120.45
1/2	5	3212-480	148.09
	6	3212-500	173.21
	7	3212-510	197.34
	8	3212-520	219.47
	9	3212-530	243.08
	10	3212-540	266.53
	1/2	3212-670	46.95
	3/4	3212-690	52.85
	1	3212-700	61.10
	1-1/4	3212-710	67.79
3/4	1-1/2	3212-720	74.54
	2	3212-740	86.28
	2-1/2	3212-750	99.36
	3	3212-760	111.17

24" LENGTH			
THICK.	WIDTH	ORDER NO.	PRICE EACH
1/2	3-1/2	3212-770	\$126.38
	4	3212-780	137.90
	5	3212-800	165.98
	6	3212-810	192.38
	7	3212-820	210.17
	8	3212-830	243.08
	10	3212-850	291.75
	12	3212-860	334.67
	5/8	3212-940	56.07
	3/4	3212-950	60.14
	1	3212-960	68.96
	1-1/4	3212-970	78.51
5/8	1-1/2	3212-980	85.58
	2	3212-990	100.62
	2-1/2	3213-000	113.60
	3	3213-010	128.87
	3-1/2	3213-020	141.89
	4	3213-030	156.41
	5	3213-040	188.27
	6	3213-050	215.11
	7	3213-060	242.53
	9	3213-080	305.59
	10	3213-090	328.00
	12	3213-100	381.28
3/4	3/4	3213-110	66.08
	1	3213-120	81.87
	1-1/4	3213-130	88.94
	1-1/2	3213-140	97.87
	2	3213-160	114.08
	2-1/2	3213-170	129.67
	3	3213-180	146.90
	3-1/2	3213-190	163.01

24" LENGTH			
THICK.	WIDTH	ORDER NO.	PRICE EACH
3/4	4	3213-200	\$177.92
	5	3213-220	210.05
	6	3213-230	243.83
	7	3213-240	275.03
	8	3213-250	310.47
	9	3213-260	337.02
	10	3213-270	365.59
	12	3213-280	422.99
	7/8	3213-290	88.00
	1	3213-300	93.07
	1-1/4	3213-310	101.46
	1-1/2	3213-320	109.49
7/8	2	3213-330	129.35
	2-1/2	3213-340	145.09
	3	3213-350	160.68
	3-1/2	3213-360	178.62
	4	3213-370	196.68
	5	3213-380	241.83
	7	3213-400	309.96
	8	3213-410	348.63
	9	3213-420	389.91
	10	3213-430	421.78
	1	3213-450	98.38
1	1-1/4	3213-460	111.13
	1-1/2	3213-470	120.89
	2	3213-490	139.98
	2-1/2	3213-500	157.55
	3	3213-510	175.06
	3-1/2	3213-520	194.92
	4	3213-530	209.90
	6	3213-560	277.71
	8	3213-580	357.00

24" LENGTH			
THICK.	WIDTH	ORDER NO.	PRICE EACH
1	9	3213-590	\$399.22
	10	3213-600	430.55
	12	3213-610	483.83
1-1/4	1-1/4	3213-670	132.20
	1-1/2	3213-680	147.70
	2	3213-690	168.59
	2-1/2	3213-700	191.84
	3	3213-710	212.29
	3-1/2	3213-720	233.23
	4	3213-730	255.35
	5	3213-740	304.31
	6	3213-750	337.44
	7	3213-760	400.54
	8	3213-770	437.32
	9	3213-780	477.77
1-1/2	10	3213-790	518.09
	12	3213-800	592.20
	1-1/2	3213-830	171.86
	2	3213-840	198.79
	2-1/2	3213-850	223.95
	3-1/2	3213-870	273.32
	7	3213-910	466.32
	8	3213-920	501.48
	9	3213-930	551.56
	10	3213-940	595.51
	12	3213-950	741.70

Precision Ground Flat Stock - Air Hardening

AISI/SAE

Type A-2

Tolerances:

Thickness $\pm .001"$

Width $+.000"/.005"$

A-2 GROUND FLAT STOCK is made from fine grain, electric furnace air hardening, 5% chrome tool steel. It is a superior quality steel which has excellent wear and abrasion resistance properties. AIR-TRUE is furnished with a fully spheroidized structure and is 100% free of decarb and other imperfections. AIR-TRUE's low sulphur content makes it non-freemachining.

		18" LENGTH		36" LENGTH	
THICK	WIDTH	ORDER NO.	PRICE EACH	ORDER NO.	PRICE EACH
1/16	1/2	5330-010	\$17.81	5340-010	\$32.12
	3/4	5330-020	24.05	5340-020	43.22
	1	5330-030	27.56	5340-030	49.60
	1-1/4	5330-040	32.20	5340-040	57.96
	1-1/2	5330-050	37.08	5340-050	66.74
	2	5330-060	46.65	5340-060	83.97
	2-1/2	5330-070	56.43	5340-070	101.55
	3	5330-080	59.81	5340-080	107.65
	4	5330-090	87.22	5340-090	157.03
	1/2	5330-100	23.52	5340-100	42.47
	3/4	5330-110	29.56	5340-110	53.23
	1	5330-120	35.61	5340-120	64.07
3/32	1-1/4	5330-130	41.42	5340-130	74.58
	1-1/2	5330-140	47.50	5340-140	85.44
	2	5330-150	59.52	5340-150	107.18
	2-1/2	5330-160	71.66	5340-160	129.03
	3	5330-170	83.70	5340-170	150.72
	4	5330-180	110.08	5340-180	198.10
	1/2	5330-190	20.43	5340-190	36.68
	5/8	5330-200	22.72	5340-200	40.92
	3/4	5330-210	25.00	5340-210	45.05
	1	5330-220	29.67	5340-220	53.35
	1-1/4	5330-230	34.01	5340-230	61.12
	1-1/2	5330-240	38.61	5340-240	69.46
1/8	1-3/4	5330-250	43.24	5340-250	77.89
	2	5330-260	47.91	5340-260	86.22
	2-1/2	5330-270	57.12	5340-270	102.81
	3	5330-280	66.40	5340-280	119.52
	3-1/2	5330-290	77.17	5340-290	138.97
	4	5330-300	86.67	5340-300	156.00
	5	5330-310	105.49	5340-310	189.98
	6	5330-320	124.36	5340-320	224.00
	7	5330-330	169.14	5340-330	304.57
	8	5330-340	191.68	5340-340	345.20
	10	5330-350	236.52	5340-350	425.87
	12	5330-360	281.39	5340-360	506.66
5/32	1/2	5330-370	26.19	5340-370	47.13
	3/4	5330-380	32.12	5340-380	57.87
	1	5330-390	38.20	5340-390	68.82
	1-1/4	5330-400	43.89	5340-400	79.11
	1-1/2	5330-410	49.81	5340-410	89.71
	1-3/4	5330-420	55.89	5340-420	100.59
	2	5330-430	61.92	5340-430	111.50
	2-1/2	5330-440	73.89	5340-440	133.09
	3	5330-450	85.99	5340-450	154.83
	3-1/2	5330-460	98.05	5340-460	176.43
	4	5330-470	112.21	5340-470	202.05
	5	5330-480	136.77	5340-480	246.21
3/16	6	5330-490	161.23	5340-490	290.31
	8	5330-500	265.85	5340-500	478.58
	3/16	5330-510	46.72	5340-510	84.20
	1/2	5330-520	27.61	5340-520	49.71

		18" LENGTH		36" LENGTH	
THICK	WIDTH	ORDER NO.	PRICE EACH	ORDER NO.	PRICE EACH
3/16	3/4	5330-530	33.44	5340-530	\$60.21
	1	5330-540	39.48	5340-540	71.11
	1-1/4	5330-550	45.03	5340-550	81.03
	1-1/2	5330-560	50.93	5340-560	91.72
	1-3/4	5330-570	56.93	5340-570	102.45
	2	5330-580	62.93	5340-580	113.30
	2-1/2	5330-590	74.85	5340-590	134.74
	3	5330-600	86.76	5340-600	156.20
	3-1/2	5330-610	100.23	5340-610	180.45
	4	5330-620	112.82	5340-620	203.17
	5	5330-630	137.19	5340-630	247.04
	6	5330-640	161.53	5340-640	290.81
1/4	7	5330-650	208.16	5340-650	374.85
	8	5330-660	249.48	5340-660	449.20
	1/4	5330-670	46.56	5340-670	83.86
	1/2	5330-680	34.28	5340-680	61.62
	3/4	5330-690	41.39	5340-690	74.51
	1	5330-700	48.68	5340-700	87.65
	1-1/4	5330-710	55.18	5340-710	99.38
	1-1/2	5330-720	62.45	5340-720	112.46
	1-3/4	5330-730	69.69	5340-730	125.41
	2	5330-740	76.82	5340-740	138.30
	2-1/2	5330-750	91.17	5340-750	164.18
	3	5330-760	105.49	5340-760	190.01
5/16	3-1/2	5330-770	119.35	5340-770	215.93

Drill Rod - 36" Length

2

Oil Hardening - AISI/SAE Type 0-1 & Water Hardening - AISI/SAE Type W-1



Fractional Sizes

OIL HARDENING			WATER HARDENING	
FRACTIONAL SIZES	ORDER NO.	PRICE EACH	ORDER NO.	PRICE EACH
3/64	3220-003	\$1.32	-	-
1/16	3220-004	3.24	3223-004	\$1.71
5/64	3220-005	5.33	3223-005	2.90
3/32	3220-006	3.68	3223-006	3.11
7/64	3220-007	5.33	3223-007	4.50
1/8	3220-008	4.91	3223-008	3.45
9/64	3220-009	6.54	3223-009	4.64
5/32	3220-010	6.12	3223-010	4.36
11/64	3220-011	7.96	3223-011	5.81
3/16	3220-012	7.06	3223-012	5.12
13/64	3220-013	8.89	3223-013	6.54
7/32	3220-014	8.43	3223-014	6.35
15/64	3220-015	10.44	3223-015	7.98
1/4	3220-016	8.00	3223-016	6.28
17/64	3220-017	9.71	3223-017	7.16
9/32	3220-018	10.06	3223-018	7.32
19/64	3220-019	12.05	3223-019	8.91
5/16	3220-020	10.06	3223-020	8.18
21/64	3220-021	13.17	3223-021	10.77
11/32	3220-022	13.37	3223-022	10.90
23/64	3220-023	15.79	3223-023	12.96
3/8	3220-024	14.20	3223-024	10.90
25/64	3220-025	18.17	3223-025	14.22
13/32	3220-026	18.42	3223-026	14.17
27/64	3220-027	21.16	3223-027	16.68
7/16	3220-028	19.25	3223-028	14.81
29/64	3220-029	24.46	3223-029	19.22
15/32	3220-030	24.36	3223-030	18.72
31/64	3220-031	27.91	3223-031	21.83
1/2	3220-032	23.63	3223-032	17.87
33/64	3220-033	29.78	3223-033	22.84
17/32	3220-034	30.74	3223-034	23.16
35/64	3220-035	33.48	3223-035	25.55
9/16	3220-036	33.01	3223-036	24.80
37/64	3220-037	37.48	3223-037	28.62
19/32	3220-038	38.52	3223-038	28.91
39/64	3220-039	41.07	3223-039	31.80
5/8	3220-040	36.52	3223-040	25.17
41/64	3220-041	45.35	3223-041	31.88
21/32	3220-042	46.38	3223-042	32.04
43/64	3220-043	49.89	3223-043	35.00
11/16	3220-044	48.73	3223-044	33.56
45/64	3220-045	54.67	3223-045	38.45
23/32	3220-046	55.66	3223-046	38.45
47/64	3220-047	59.59	3223-047	41.87
3/4	3220-048	50.42	3223-048	34.90
49/64	3220-049	62.24	3223-049	43.79
25/32	3220-050	63.15	3223-050	43.73
51/64	3220-051	67.36	3223-051	47.41
13/16	3220-052	65.21	3223-052	45.10
53/64	3220-053	72.82	3223-053	51.29
27/32	3220-054	73.65	3223-054	51.02
55/64	3220-055	78.31	3223-055	55.17

OIL HARDENING			WATER HARDENING	
FRACTIONAL SIZES	ORDER NO.	PRICE EACH	ORDER NO.	PRICE EACH
7/8	3220-056	\$75.54	3223-056	\$52.36
57/64	3220-057	84.18	3223-057	59.22
29/32	3220-058	84.98	3223-058	58.86
59/64	3220-059	90.19	3223-059	63.50
15/16	3220-060	90.83	3223-060	62.90
61/64	3220-061	96.37	3223-061	67.88
31/32	3220-062	97.10	3223-062	67.13
63/64	3220-063	102.77	3223-063	72.41
1	3220-064	85.30	3223-064	60.91
1-1/64	3220-065	104.07	3223-065	75.49
1-1/32	3220-066	104.57	3223-066	74.58
1-3/64	3220-067	110.58	3223-067	80.25
1-1/16	3220-068	111.02	3223-068	79.29
1-5/64	3220-069	117.23	3223-069	85.03
1-3/32	3220-070	117.09	3223-070	83.95
1-7/64	3220-071	124.16	3223-071	90.10
1-1/8	3220-072	118.86	3223-072	84.80
1-9/64	3220-073	131.24	3223-073	95.20
1-5/32	3220-074	132.21	3223-074	94.31
1-11/64	3220-075	138.60	3223-075	100.52
1-3/16	3220-076	138.70	3223-076	99.09
1-13/64	3220-077	146.05	3223-077	105.94
1-7/32	3220-078	146.10	3223-078	104.20
1-15/64	3220-079	153.74	3223-079	111.49
1-1/4	3220-080	125.00	3223-080	92.64
1-17/64	3220-081	137.92	3223-081	104.04
1-9/32	3220-082	137.48	3223-082	101.96
1-19/64	3220-083	144.55	3223-083	109.00
1-5/16	3220-084	144.32	3223-084	107.06
1-21/64	3220-085	151.59	3223-085	114.31
1-11/32	3220-086	151.22	3223-086	112.16
1-23/64	3220-087	158.74	3223-087	119.79
1-3/8	3220-088	151.22	3223-088	112.16
1-25/64	3220-089	166.19	3223-089	125.37
1-13/32	3220-090	165.69	3223-090	122.74
1-27/64	3220-091	173.76	3223-091	131.01
1-7/16	3220-092	173.23	3223-092	128.39
1-29/64	3220-093	181.50	3223-093	136.80
1-15/32	3220-094	180.75	3223-094	133.98
1-31/64	3220-095	189.37	3223-095	142.81
1-1/2	3220-096	178.21	3223-096	122.54
1-9/16	3220-100	192.16	3223-100	132.20
1-5/8	3220-104	219.02	3223-104	150.70
1-11/16	3220-108	236.22	3223-108	162.51
1-3/4	3220-112	242.62	3223-112	167.04
1-13/16	3220-116	272.52	3223-116	187.45
1-7/8	3220-120	291.68	3223-120	200.62
1-15/16	3220-124	311.40	3223-124	214.30
2	3220-128	314.26	3223-128	216.64

Also Available
• Metric Sizes
• Special Diameters
• Special Lengths

Fractional Sizes

Air Hardening -

AISI/SAE Type A-2

FRACTIONAL SIZES	DEC. EQUIV.	ORDER NO.	PRICE EACH
1/16	.0625	3225-100	\$ 4.60
5/64	.0781	3225-101	7.88
3/32	.0937	3225-102	7.41
7/64	.1093	3225-104	8.85
1/8	.1250	3225-105	8.09
9/64	.1406	3225-106	11.40
5/32	.1562	3225-107	11.56
11/64	.1718	3225-108	13.96
3/16	.1875	3225-109	12.30
13/64	.2031	3225-110	15.89
7/32	.2187	3225-111	17.16
15/64	.2343	3225-112	19.68
1/4	.2500	3225-113	16.87
17/64	.2656	3225-114	18.77
9/32	.2812	3225-115	21.08
19/64	.2968	3225-116	23.59
5/16	.3125	3225-117	21.76
21/64	.3281	3225-118	26.49
11/32	.3437	3225-119	29.01
23/64	.3593	3225-120	31.73
3/8	.3750	3225-121	30.93
25/64	.3906	3225-122	37.03
13/32	.4062	3225-123	40.09
27/64	.4218	3225-124	43.25
7/16	.4375	3225-125	42.10
29/64	.4531	3225-126	49.83
15/32	.4687	3225-127	53.42
31/64	.4843	3225-128	57.01
1/2	.5000	3225-129	52.73
17/32	.5312	3225-130	66.85
9/16	.5625	3225-131	66.70
19/32	.5937	3225-132	82.06
5/8	.6250	3225-133	81.41
21/32	.6562	3225-134	99.18
11/16	.6875	3225-135	98.53
23/32	.7187	3225-136	119.04
3/4	.7500	3225-137	114.10
13/16	.8125	3225-138	133.90
7/8	.8750	3225-139	155.29
1	1.0000	3225-140	201.60
1-1/16	1.0625	3225-141	227.59
1-1/8	1.1250	3225-142	255.15
1-1/4	1.2500	3225-143	264.66
1-3/8	1.3750	3225-144	320.32
1-1/2	1.5000	3225-145	377.98
1-3/4	1.7500	3225-146	514.37
2	2.0000	3225-147	666.73

Drill Rod - 36" Length

2

Wire Gage Sizes

Oil Hardening - AISI/SAE Type 0-1

Water Hardening - AISI/SAE Type W-1



WIRE GAGE	OIL HARDENING		WATER HARDENING	
	ORDER NO.	PRICE EACH	ORDER NO.	PRICE EACH
1	3221-001	\$ 9.78	3224-001	\$7.47
2	3221-002	9.16	3224-002	6.88
3	3221-003	9.71	3224-003	7.09
4	3221-004	9.21	3224-004	6.76
5	3221-005	9.03	3224-005	6.54
6	3221-006	8.73	3224-006	6.44
7	3221-007	8.52	3224-007	6.28
8	3221-008	8.43	3224-008	6.10
9	3221-009	8.20	3224-009	5.97
10	3221-010	7.86	3224-010	5.80
11	3221-011	7.64	3224-011	5.72
12	3221-012	9.24	3224-012	6.70
13	3221-013	8.89	3224-013	6.47
14	3221-014	8.78	3224-014	6.35
15	3221-015	8.55	3224-015	6.24
16	3221-016	8.25	3224-016	5.97
17	3221-017	8.00	3224-017	5.81
18	3221-018	7.64	3224-018	5.26
19	3221-019	7.25	3224-019	5.01
20	3221-020	7.06	3224-020	5.10
21	3221-021	6.68	3224-021	4.84
22	3221-022	7.86	3224-022	5.80
23	3221-023	7.80	3224-023	5.72
24	3221-024	7.52	3224-024	5.49
25	3221-025	7.25	3224-025	5.26
26	3221-026	7.06	3224-026	5.10
27	3221-027	6.79	3224-027	4.84
28	3221-028	6.40	3224-028	4.59
29	3221-029	5.94	3224-029	4.27
30	3221-030	5.33	3224-030	3.80
31	3221-031	6.40	3224-031	5.49
32	3221-032	5.94	3224-032	5.05
33	3221-033	5.53	3224-033	4.69
34	3221-034	5.39	3224-034	4.59
35	3221-035	5.24	3224-035	4.44
36	3221-036	5.05	3224-036	4.27
37	3221-037	4.73	3224-037	4.04
38	3221-038	4.68	3224-038	3.84
39	3221-039	4.39	3224-039	3.73
40	3221-040	4.14	3224-040	3.68
41	3221-041	4.04	3224-041	3.52
42	3221-042	7.43	3224-042	4.04
43	3221-043	6.76	3224-043	3.73
44	3221-044	6.20	3224-044	3.52
45	3221-045	5.74	3224-045	3.11
46	3221-046	5.44	3224-046	2.92
47	3221-047	5.24	3224-047	2.83
48	3221-048	4.91	3224-048	2.70
49	3221-049	4.53	3224-049	2.45
50	3221-050	4.09	3224-050	2.26
51	3221-051	3.82	3224-051	2.13
52	3221-052	3.48	3224-052	1.97

Letter Sizes

Oil Hardening - AISI/SAE Type 0-1

Water Hardening - AISI/SAE Type W-1



LETTER SIZES	OIL HARDENING		WATER HARDENING	
	ORDER NO.	PRICE EACH	ORDER NO.	PRICE EACH
A	3222-001	\$ 10.40	3225-001	\$7.98
B	3222-002	10.83	3225-002	8.18
C	3222-003	11.09	3225-003	8.34
D	3222-004	11.45	3225-004	8.78
E	3222-005	POA	3225-005	POA
F	3222-006	9.03	3225-006	6.65
G	3222-007	9.33	3225-007	6.88
H	3222-008	9.71	3225-008	7.25
I	3222-009	10.17	3225-009	7.54
J	3222-010	10.52	3225-010	7.80
K	3222-011	10.86	3225-011	8.00
L	3222-012	11.48	3225-012	8.57
M	3222-013	11.95	3225-013	8.84
N	3222-014	12.52	3225-014	9.28
O	3222-015	12.28	3225-015	10.13
P	3222-016	12.71	3225-016	10.49
Q	3222-017	13.44	3225-017	11.08
R	3222-018	14.08	3225-018	11.54
S	3222-019	14.76	3225-019	12.20
T	3222-020	15.61	3225-020	12.89
U	3222-021	16.53	3225-021	13.65
V	3222-022	16.94	3225-022	13.26
W	3222-023	17.78	3225-023	13.85
X	3222-024	18.83	3225-024	14.70
Y	3222-025	19.48	3225-025	15.16
Z	3222-026	20.30	3225-026	15.88

Threaded Rod 36" Length



SIZE	PLAIN OIL FINISH		ZINC PLATED	
	ORDER NO.	PRICE EACH	ORDER NO.	PRICE EACH
6-36	3215-806	\$2.74	3215-906	\$3.48
8-32	3215-808	2.74	3215-908	3.48
10-21	3215-810	2.74	3215-910	3.48
10-32	3215-811	3.01	3215-911	3.83
12-24	3215-812	3.00	3215-912	3.80
1/4-20	3215-816	3.00	3215-916	3.80
1/4-28	3215-817	3.30	3215-917	4.18
5/16-18	3215-820	3.86	3215-920	4.78
5/16-24	3215-821	4.24	3215-921	5.26
3/8-16	3215-824	4.59	3215-924	5.58
3/8-24	3215-825	5.05	3215-925	6.14
7/16-14	3215-828	5.37	3215-928	6.61
7/16-20	3215-829	5.91	3215-929	7.27
1/2-13	3215-832	6.38	3215-932	8.00
1/2-20	3215-833	7.02	3215-933	8.80
9/16-12	3215-836	8.84	3215-936	10.95
9/16-18	3215-837	9.72	3215-937	12.05
5/8-11	3215-840	8.84	3215-940	10.95
5/8-18	3215-841	9.72	3215-941	12.05
3/4-10	3215-848	15.89	3215-948	18.97
3/4-16	3215-849	17.48	3215-949	20.87
7/8-9	3215-856	19.66	3215-956	23.93
7/8-14	3215-857	21.63	3215-957	26.32
1-8	3215-864	24.53	3215-964	29.71
1-14	3215-866	26.99	3215-966	32.68
1-1/8-7	3215-872	40.92	3215-972	54.22
1-1/8-12	3215-873	45.02	3215-973	59.64
1-1/4-7	3215-880	48.69	3215-980	64.18
1-1/4-12	3215-881	53.56	3215-981	70.60
1-3/8-6	3215-888	64.91	3215-988	85.49
1-3/8-12	3215-889	71.40	3215-989	94.04
1-1/2-6	3215-896	79.66	3215-996	102.35
1-1/2-12	3215-897	87.63	3215-997	112.58

Shim Stock

Brass Shim Stock

The unique quality about Precision Brand's Branded Shim® is that everything the user needs to know is clearly marked right on the material:

- Material type, • Material thickness,
- Lot # for full traceability.

Whether in the field or on the shop floor, this clearly marked information is at your fingertips. It eliminates the need for a micrometer, and aids in keeping tool cribs organized, saving time and money.



6" x 100" ROLLS 6" x 180" ROLLS			
THICK.	ORDER NO.	PRICE EACH	ORDER NO.
.0010	3226-010	\$35.86	3226-401
.0015	3226-015	36.06	3226-400
.0020	3226-020	37.20	3226-402
.0030	3226-030	38.37	3226-403
.0040	3226-040	40.44	3226-404
.0050	3226-050	41.87	3226-405
.0060	3226-060	43.13	3226-406
.0070	3226-070	45.19	3226-407
.0080	3226-080	47.69	3226-408
.0090	3226-090	51.22	3226-409
.0100	3226-100	55.73	3226-410
.0120	3226-120	60.37	3226-412
.0150	3226-150	69.70	3226-415
.0200	3226-200	78.78	3226-420
.0250	3226-250	94.14	3226-425
.0310	3226-310	111.41	3226-431

Brass Shim Assortments

12 PAK -
.001", .0015", .002", .003", .004",
.005", .006", .007", .008", .010", .012",
.015"
15 PAK -
.001", .0015", .002", .003", .004", .005",
.006", .007", .008", .010", .012", .015",
.020", .025", .031"

DESCRIPTION	ORDER NO.	PRICE EACH
12 pc. 6" x 12"	3226-359	\$72.82
15 pc. 6" x 12"	3226-360	99.09
12 pc. 6" x 18"	3226-361	140.67
15 pc. 6" x 18"	3226-362	208.50



Blue Tempered Spring Steel Shim Stock

- High carbon 1095 hardened and tempered spring steel.
- Meets AMS 5122, SAE 1095, AISI 1095 specifications.
- Rockwell hardness C48-51. • Tensile Strength: 230,000 p.s.i.

TYPICAL ANALYSIS: C .90-1.04, Mn .30-.50, P .040 max, S .050 max, Si .10-.30

3" x 50" ROLLS			6" x 50" ROLLS		6" x 60" ROLLS	
THICK.	ORDER NO.	PRICE EACH	ORDER NO.	PRICE EACH	ORDER NO.	PRICE EACH
.0020	3229-502	\$57.04	-	-	-	-
.0030	3229-503	59.98	-	-	-	-
.0040	-	-	3229-504*	\$64.56	-	-
.0050	-	-	3229-505	58.00	3229-605†	\$ 20.38
.0060	-	-	3229-506	57.42	-	-
.0070	-	-	3229-507	58.93	-	-
.0250	-	-	-	-	3229-625†	31.27
.0300	-	-	-	-	3229-630†	34.35

* 5" x 50"

† Limited Quantities

Blue Tempered Assortment

Contains one 6" x 12" of each of the following:
.005", .010", .015",
.020", .025", .032"

DESCRIPTION	ORDER NO.	PRICE EACH
6 pc. 6" x 12"	3229-553	\$110.30

Flat Packs

(2 pcs./ 6" x 25")

Brass

THICK.	ORDER NO.	PRICE EACH
.012	3229-012	\$22.68
.015	3229-015	26.09
.020	3229-020	29.60
.025	3229-025	35.28
.031	3229-031	41.77
.032	3229-032†	47.36

† Limited Quantities

Steel Flat Pak

THICK.	ORDER NO.	PRICE EACH
.012	3229-112	\$11.37
.015	3229-115	10.62
.020	3229-120	11.93
.025	3229-125	12.77
.031	3229-131	13.41
.032	3229-132†	10.75

Steel Shim Stock

- Made from full hard, cold rolled, low carbon C1008/C1010
- Rockwell hardness:
<.069 RB 90 MIN., >.070 RB 84 MIN.
- Meets AISI C-1010 and ASTM A-109 specifications.
- Tensile Strength: N/A
- #2 Bright Finish

TYPICAL C .13 max, Mn .30-.60,
ANALYSIS: P .04 max, S .05 max



6" x 100" ROLLS			6" x 180" ROLLS		12" x 120" ROLLS	
THICK.	ORDER NO.	PRICE EACH	ORDER NO.	PRICE EACH	ORDER NO.	PRICE EACH
.0010	3227-010	\$30.21	3227-401	\$61.94	3227-501	\$113.46
.0015	3227-015	35.89	3227-400	61.94	-	-
.0020	3227-020	20.68	3227-402	39.94	3227-502	68.65
.0025	3227-025	36.52	3227-435	79.73	-	-
.0030	3227-030	22.33	3227-403	33.85	3227-503	71.71
.0040	3227-040	22.47	3227-404	37.10	3227-504	69.68
.0050	3227-050	19.66	3227-405	36.02	3227-505	62.32
.0060	3227-060	19.26	3227-406	39.98	3227-506	63.70
.0070	3227-070	23.02	3227-407	49.41	3227-507	72.39
.0080	3227-080	23.55	3227-408	48.36	3227-508	81.50
.0090	3227-090	42.73	3227-409	87.51	3227-509	119.89
.0100	3227-100	20.26	3227-410	41.30	3227-510	71.35
.0120	3227-112	20.75	3227-412	43.76	3227-512	71.09
.0150	3227-150	18.81	3227-415	41.78	3227-515	64.87
.0180	3227-180	52.48	3227-418	62.84	3227-518	142.57
.0200	3227-200	21.29	3227-420	49.49	3227-520	74.51
.0220	3227-220	164.86	3227-422	497.04	-	-
.0250	3227-250	22.77	3227-425	50.68	3227-525	78.99
.0310	3227-310	23.95	3227-431	54.22	3227-531	87.66

Steel Shim Flat Sheet Assortments

12 PAK -
.001", .0015", .002", .003", .004", .005",
.006", .007", .008", .010", .012", .015"
15 PAK - one each 6" x 18"
.001", .0015", .002", .003", .004", .005",
.006", .007", .008", .010", .012", .015",
.020", .025", .031"

DESCRIPTION	ORDER NO.	PRICE EACH
12 pc. 6" x 12"	3227-364	\$73.48
15 pc. 6" x 12"	3227-365	88.57
12 pc. 6" x 18"	3227-361	109.10
15 pc. 6" x 18"	3227-362	131.52



Stainless Steel Shim Stock

- Full hard, cold rolled, type 302
- Rockwell hardness C45 (maximum).
- Meets SAE 30302, AISI-T302, ASTM A-666
- Ultimate tensile strength: 185,000 p.s.i. min.

TYPICAL ANALYSIS:
C .15 max, Mn 2.00 max,
P .045 max, S .030 max,
Si .75 max, Ni 8.00-10.00,
Cr 17.00-19.00, N .10 max

Stainless Steel Assortment

Contains one 6" x 12" of each of the following:
.001", .002", .003", .005", .008", .010",
.015", .020"

DESCRIPTION	ORDER NO.	PRICE EACH
8 pc. 6" x 12"	3228-361	\$174.25

6" x 50" ROLLS			6" x 60" ROLLS	
THICK.	ORDER NO.	PRICE EACH	ORDER NO.	PRICE EACH
.0005	3228-005	\$154.71	3228-400	\$222.75
.0010	3228-010	74.61	3228-401	107.43
.0015	3228-015	68.34	3228-435	68.24
.0020	3228-020	47.36	3228-402	65.31
.0030	3228-030	45.42	3228-403	63.68
.0040	3228-040	44.24	3228-404	73.32
.0050	3228-050	50.94	3228-405	73.19
.0060	3228-060	50.87	3228-406	75.53
.0070	3228-070	52.42	3228-407	76.70
.0080	3228-080	53.29	3228-408	86.43
.0090	3228-090	59.98	3228-409	79.60
.0100	3228-100	55.31	3228-410	83.21
.0120	3228-120	57.79	3228-412	90.01
.0150	3228-150	62.54	3228-415	106.91
.0200	3228-200	74.21	3228-420	125.23
.0250	3228-250	87.00	3228-425	142.73
.0310	3228-310	99.11	3228-431	147.88

Shim Stock

Slotted Shims

- Each shim marked with thickness in decimal and/or metric • Eliminates misalignment of machinery
- .001"-.010" and .025-.25mm permanently etched; .015"-.125" and .040-2mm permanent stamp
- Shim thickness tolerances meet industry standards; conform to standard bolt/stud sizes

THICK.	PCS./PKG.	"A" 2 x 2 x 5/8		"B" 3 x 3 x 3/4		"C" 4 x 4 x 1-1/4	
		ORDER NO.	PRICE/ PKG.	ORDER NO.	PRICE/ PKG.	ORDER NO.	PRICE/ PKG.
.001	20	3229-900	\$3.83	3229-920	\$4.59	3229-940	\$6.04
.002	20	3229-901	3.83	3229-921	4.59	3229-941	6.04
.003	20	3229-902	3.83	3229-922	4.59	3229-942	6.04
.004	20	3229-903	3.83	3229-923	4.59	3229-943	6.04
.005	20	3229-904	3.83	3229-924	4.59	3229-944	6.04
.010	20	3229-905	3.83	3229-925	4.59	3229-945	6.04
.015	10	3229-906	3.83	3229-926	4.59	3229-946	6.04
.020	10	3229-907	4.28	3229-927	4.59	3229-947	6.50
.025	10	3229-908	4.28	3229-928	4.59	3229-948	6.50
.050	5	3229-909	4.60	3229-929	5.74	3229-949	8.04
.075	5	3229-910	5.20	3229-930	7.65	3229-950	11.08
.100	5	3229-911	6.13	3229-931	8.62	3229-951	14.53
.125	5	3229-912	6.73	3229-932	9.57	3229-952	16.45



Std. Assortments

20 pcs.: one each of sizes from .001" to .125". 260 pc. assortment includes metal case

STYLE	ORDER NO.	PRICE EACH
A	3229-914	\$1159.85
B	3229-934	1457.37
C	3229-954	2109.94



Mini Assortments

10 pcs.: one each of sizes from .001" to .125"
130 pc. assortment includes metal case

STYLE	ORDER NO.	PRICE EACH
A	3229-915	\$663.97
B	3229-935	811.54
C	3229-955	1156.21

Key Stock- 12" Length- Zinc-Plated & Stainless Steel-



Used to provide driving torque between shafts and pulleys, gears, sprockets, etc.

ZINC-PLATED			STAINLESS STEEL		
SQ. SIZE	ORDER NO.	PRICE EACH	ORDER NO.	PRICE EACH	
1/8	3229-800	\$2.08	3229-454	\$6.75	
5/32	3229-804	2.79	-	-	
3/16*	3229-808	1.94	3229-456	6.78	
7/32	3229-812	3.05	-	-	
1/4*	3229-816	2.39	3229-458	9.71	
9/32	3229-820	3.70	-	-	
5/16*	3229-824	3.18	3229-460	19.85	
3/8*	3229-828	4.81	3229-462	22.04	
7/16*	3229-832	5.05	3229-464	30.78	
1/2*	3229-836	6.69	3229-466	40.39	
9/16	3229-840	12.09	-	-	
5/8	3229-844	10.19	3229-470	64.89	
11/16	3229-848	17.64	-	-	
3/4	3229-852	13.27	3229-474	80.48	
13/16	3229-856	25.92	-	-	
7/8	3229-860	17.70	3229-478	115.33	
1	3229-864	21.57	3229-482	147.09	
1-1/8	3229-868	39.20	-	-	
1-3/16	3229-872	62.81	-	-	
1-1/4	3229-876	50.61	-	-	
1-3/8	3229-880	56.97	-	-	
1-1/2	3229-884	67.93	-	-	
1-3/4	3229-888	93.67	-	-	
2	3229-892	133.46	-	-	
asst.*	3229-895	137.30	3229-498	495.75	

*Assortment contains one bundle of each size indicated

Metric Gold Dichromate plating on most sizes for clear identification

(MM) SIZE	ORDER NO.	PRICE EACH	SQ. SIZE	ORDER NO.	PRICE EACH
3MM*	3229-753	\$6.58	14MM	3229-764	\$24.25
4MM	3229-754	3.74	16MM	3229-766	24.52
5MM	3229-755	3.96	18MM	3229-768	30.31
6MM	3229-756	4.44	20MM	3229-770	37.76
7MM	3229-757	11.00	22MM	3229-772	87.99
8MM	3229-758	6.40	25MM*	3229-775	49.95
10MM	3229-760	9.27			
12MM	3229-762	14.17			

*Available in plain finish only.

Tool Wrap

- Type 321 soft annealed stainless steel
- Helps protect from scale and oxide buildup
- Eliminates decarburization buildup
- Resistant to chromium carbide precipitation
- Protects the surface of air hardening tool steels
- Can use in furnaces up to 1850°F
- Approx. 24" wide, .002" thick, in 50 and 100 ft. lengths



QTY.	ORDER NO.	PRICE EACH
100 sq. ft.	3229-990	\$955.05
50 sq. ft.	3229-989	502.71

Feeler Gage

- Made from 1/2" wide spring steel stock, close grain, C1095 high carbon steel
- Thicknesses clearly etched every 6" in decimal and metric. • Hardened and tempered to RC 48-62
- Used in manufacturing and maintenance operations requiring the setting of close spacing, or checking very tight tolerances



Strips 1/2" x 12"
12 Pcs. Per Package

1/2" x 12" STRIPS				1/2" x 25" COILS			
SIZE	ORDER NO.	PRICE EACH		ORDER NO.	PRICE EACH		
.001	3225-801	\$8.39		3225-851	\$186.08		
.0015	3225-845	4.48		3225-895	91.13		
.002	3225-802	4.48		3225-852	91.13		
.003	3225-803	4.48		3225-853	91.13		
.004	3225-804	3.64		3225-854	65.57		
.005	3225-805	3.64		3225-855	65.57		
.006	3225-806	3.64		3225-856	65.57		
.007	3225-807	3.22		3225-857	54.13		
.008	3225-808	3.22		3225-858	54.13		
.009	3225-809	3.22		3225-859	54.13		
.010	3225-810	3.22		3225-860	54.13		
.011	3225-811	3.22		3225-861	54.13		
.012	3225-812	3.22		3225-862	54.13		
.013	3225-813	3.22		3225-863	54.13		
.014	3225-814	3.22		3225-864	54.13		
.015	3225-815	3.22		3225-865	54.13		
.016	3225-816	3.22		3225-866	54.13		

1/2" x 12" STRIPS				1/2" x 25" COILS			
SIZE	ORDER NO.	PRICE EACH		ORDER NO.	PRICE EACH		
.017	3225-817	\$3.22		3225-867	\$54.13		
.018	3225-818	3.22		3225-868	54.13		
.019	3225-819	3.22		3225-869	54.13		
.020	3225-820	3.22		3225-870	54.13		
.021	3225-821	3.22		3225-871	54.13		
.022	3225-822	3.22		3225-872	54.13		
.023	3225-823	3.22		3225-873	54.13		
.024	3225-824	3.22		3225-874	54.13		
.025	3225-825	3.22		3225-875	54.13		
.028	3225-828	3.22		3225-878	54.13		
.030	3225-830	3.22		3225-880	54.13		
.031	3225-831	3.35		3225-881	61.41		
.032	3225-832	3.35		3225-882	61.41		
.034	3225-834	3.35		3225-884	61.41		
.040	3225-840	3.35		-	-		
.050	3225-842	19.89		-	-		

FEELER GAGE ASSORTMENTS				1/2" X 12" STRIPS		1/2" X 5" STRIPS		
SIZES INCLUDED				NO. OF PCS.	ORDER NO.	PRICE EACH	ORDER NO.	PRICE EACH
.001, .0015, .002, .003, .004, .005, .006, .007, .008, .009, .010, .012, .014, .015, .016, .018, .020, .022, .025, .030				20	3225-849	\$117.67	3225-850	\$50.89
							(NEW Poc-Kit® Asst.)	

Metric Feeler Gage Kit

- Made of C1095 close grain, high carbon spring steel
- Rockwell Hardness: C Scale 46-62
- Each blade is clearly etched with thickness
- Ends are rounded and edges are smooth for safety



Assortment contains: twenty 12.7mm (1/2") wide x 127mm (5") long blades

Sizes: .05mm, .10mm, .15mm, .20mm, .25mm, .30mm, .35mm, .40mm, .45mm, .50mm, .55mm, .60mm, .65mm, .70mm, .75mm, .80mm, .85mm, .90mm, .95mm, 1.00mm

Order No.: 3225-899 Price Each: \$81.64

Woodruff Key Set - 250 pcs.

Our Woodruff Keys are made of Zinc Plated Steel.

Kits contain the following sizes:

- | | | |
|--------------------|--------------------|-------------------|
| (10) 1/16" x 3/8", | (10) 3/32" x 5/8", | (5) 3/16" x 5/8", |
| (20) 3/32" x 3/8", | (30) 1/8" x 5/8", | (5) 5/32" x 7/8", |
| (10) 1/8" x 3/8", | (50) 5/32" x 5/8", | (5) 3/16" x 7/8", |
| (10) 1/16" x 1/2", | (20) 1/8" x 3/4", | (5) 7/32" x 7/8", |
| (15) 3/32" x 1/2", | (10) 5/32" x 3/4", | (5) 1/4" x 7/8", |
| (15) 1/8" x 1/2", | (20) 3/16" x 3/4", | (5) 1/4" x 3/4", |

Order No.: 3237-640 Price Each: \$89.54



FLUIDS & MARKERS

Hazardous materials shipments are subject to governmental regulation and must comply with the Department of Transportation Hazardous Materials Regulations, Title 49 of the Code of Federal Regulations and United Parcel Service Hazardous Materials Service rules. All shipments of chemicals and fluids are subject to these regulations.

The Shipping Code identifies the shipping methods allowed and if surcharges are applicable. Surcharges are in addition to UPS freight charges and are subject to change. Hazardous materials cannot be shipped in the same container with non-hazardous materials and cartons cannot be bound together. Hazardous materials will not be shipped via air. All small package shipments of chemicals and fluids with a shipping code will be shipped via UPS prepaid and add, collect, or third party.

Shipping Codes

- 1 UPS Ground - Hazmat Surcharge applies per box - No Air Shipments
- 2 UPS Ground - No Surcharge - No Air Shipments
- 3 Commercial Truck Only, Call for Charges
- 4 UPS Ground - Add'l. Charges Apply - No Air Shipments



LUBRICANTS & PENETRANTS



INDUSTRIAL CLEANERS/DEGREASERS



CLEANERS, LUBRICANTS & PROTECTANTS



Anti-Seize	503
Cleaners	490-493
Coatings	488, 506-507
Coolants	505
Corrosion Preventatives	495
Cutting Fluids	504
Degreasers	494
Etching Kits	488
Fault Finder	489
Grease	499
Layout Fluids & Stains	489
Lubricants	497-499
Markers	485-487
Oils	500
Paint	508
Penetrants	496-497
Pipe Compound & Tape	501
Sealants	501
Threadlockers	502

Markers

Brite-Mark® Paint Markers



- Permanently marks on metal, rubber, plastic, glass, concrete, stone, vinyl, & more
- Valve action mechanism prevents paint in barrel from drying when cap is left off
- Replaceable felt tips assure complete use of paint in each marker
- Ideal for color coding • Drying time: 25-35 seconds • Case quantity: 24 Shipping Code: 2

COLOR	MEDIUM TIP ORDER NO.	PRICE EACH	44 TIP ORDER NO.	PRICE EACH
Black	9520-616	\$6.38	9522-003	\$7.34
White	9520-617	6.38	9522-006	7.34
Blue	9520-615	6.38	9522-001	7.34
Light Blue	9520-635	6.38	-	-
Yellow	9520-618	6.38	9522-005	7.34
Orange	9520-619	6.38	9522-007	7.34
Red	9520-620	6.38	9522-002	7.34
Green	9520-621	6.38	9522-004	7.34
Pink	9520-636	6.38	-	-
Violet	9520-637	6.38	-	-
Silver	9520-638	6.38	-	-
Gold	9520-639	6.38	-	-
Brown	9520-640	6.38	-	-

Rinz-Off® & Sudz-Off® Removable Markers



- Rinz-Off® marks rinse off of untreated metal with water
- Sudz-Off® marks are removable with a detergent of pH 10 or higher
- No ghosting or bleed-through of removed mark when painted over
- Ideal for quality control, part assembly, identification, site inspection
- Drying time: 45 seconds-1 minute • Will not react with paint systems Shipping Code: 2

COLOR	RINZ-OFF ORDER NO.	PRICE EACH	SUDZ REG. ORDER NO.	PRICE EACH	SUDZ BROAD ORDER NO.	PRICE EACH
Blue	9522-265	\$8.25	9522-278	\$6.96	9522-249	\$8.25
Red	9522-266	8.25	9522-279	6.96	9522-250	8.25
Green	9522-267	8.25	9522-276	6.96	9522-247	8.25
Black	-	-	9522-280	6.96	9522-251	8.25
White	-	-	9522-275	6.96	9522-246	8.25
Yellow	-	-	9522-277	6.96	-	-

Texpen® & Dalo® Markers



- Marker will easily mark through oil and grease
- Paint flow is controlled by the bulb at the end of the barrel
- Drying Time: 25-35 minutes Shipping Code: 2

Texpen®

COLOR	MEDIUM TIP ORDER NO.	PRICE EACH	FINE TIP ORDER NO.	PRICE EACH
Blue	9522-025	\$9.56	-	-
Red	9522-026	9.56	-	-
Black	9522-027	9.56	-	-
Green	9522-028	9.56	-	-
Yellow	9522-029	9.56	9522-019	\$9.56
White	9522-030	9.56	9522-020	9.56
Orange	9522-031	9.56	-	-

Dalo® - Extra Large Capacity



- Writes through oil, grease and underwater without losing legibility or brightness.
- Write on any surface including metal, plastic, glass, concrete, rubber and more
- Drying Time: 25-35 minutes Shipping Code: 2

COLOR	MEDIUM TIP ORDER NO.	PRICE EACH
Blue	9522-055	\$12.10
Red	9522-056	12.10
Black	9522-057	12.10
Green	9522-058	12.10
Yellow	9522-059	12.10
White	9522-060	12.10

High Temperature Action Markers®



- High Temp. Action Markers use a pigmented, oil-based fiber tip that are specially formulated for non-porous surfaces that can reach temperatures of up to 2000°F/1093°C.
- Marks become permanent and fused when heated. Shipping Code: 2

COLOR	TEMP. RANGE	AM 44 ORDER NO.	PRICE EACH
Blue	2000°F	9522-241	\$11.73
White	1550-1650°F	9522-242	11.73
Black	2000°F	9522-243	11.73
Green	1800°F	9522-244	11.73
Yellow	800-900°F	9522-245	11.73

High Purity Texpen® & Action Markers



The DYKEM® High Purity TEXPEN® contains trace amounts of halogens, low melting metals and very low in chlorides. Therefore, its stainless steel-ball valve action tip can be used on surfaces where degradation, contamination or adverse effects are not desired.

DYKEM® High Purity Action Markers use dye and pigment-based ink with a valve action fiber tip that will write on smooth surfaces. Shipping Code: 2

COLOR	TXP MED. TIP ORDER NO.	PRICE EACH	AM 44 ORDER NO.	PRICE EACH
Red	-	-	9522-236	\$13.25
Yellow	-	-	9522-240	13.25
Blue	-	-	9522-238	13.25
White	9522-100	\$14.61	9522-239	13.25
Black	-	-	9522-237	13.25

Markers

Markal® 6

Valve Action® Paint Marker



- Paint formulated for industrial applications.
- Dries in minutes, weather-resistant marks.
- Lead-free.
- Ideal for all surfaces: metal, glass, wood, rubber, plastic, cardboard, and paper.
- Replaceable valve-action fiber tip assures full use of marker.
- Available in 14 vivid colors for color coding.
- Typical uses: metal and PVC pipe, sheet metal, cartons, lumber, signs, and tires.
- Marking range: -50°F. to 150°F.

PACKAGE QUANTITY: 1 CASE QUANTITY: 48
SHIPPING CODE: 2

COLOR	ORDER NO.	PRICE EACH
White	6496-820	\$3.71
Yellow	6496-821	3.71
Red	6496-822	3.71
Black	6496-823	3.71
Orange	6496-824	3.71
Blue	6496-825	3.71
Green	6496-826	3.71
Aluminum	6496-832	3.31
Lt. Blue	6496-835	3.71
Purple	6496-817	3.71
Brown	6496-809	3.71
Gold	6496-827	3.31
Flr. Yellow	6497-050	3.31
Flr. Green	6497-051	3.31
Flr. Orange	6497-052	3.31
Flr. Pink	6497-053	3.31
Inv. Blue	6497-054	3.31
Lt. Green	6496-828	3.71
Pink	6496-830	3.71

PRO-LINE® Paint Marker



- Available in Fine (2mm) & Micro (1mm) tip sizes for ultimate precision.
- Ideal for metal, also suitable for wood, glass, plastic, rubber, and other surfaces.
- High-Strength, lightweight barrel for industrial use.
- Xylene-free for less odor.
- Self-storing cap with integrated pocket clip.
- Ergonomic design for comfortable extended use.

SHIPPING CODE: 2
PACKAGE QUANTITY: 1
CASE QUANTITY: 48

Micro Line (1mm)

COLOR	ORDER NO.	PRICE EACH
White	6496-888	\$2.12
Black	6496-890	2.12
Red	6496-891	2.12

Fine Line (2mm)

COLOR	ORDER NO.	PRICE EACH
White	6496-871	\$3.93
Yellow	6496-872	3.93
Black	6496-873	3.93
Red	6496-874	3.93
Blue	6496-875	3.93
Green	6496-876	3.93
Orange	6496-877	3.93
Pink	6496-878	3.32
Lt. Green	6496-879	3.32

PRO-MAX® Paint Marker



- Super-sized 1/2" nib for highly visible marks.
 - High strength, lightweight barrel for industrial use.
 - Ideal for identification, fill-in marking, signage, safety marking on any surface.
 - Xylene-free for less odor.
- PACKAGE QUANTITY: 1 CASE QUANTITY: 24
Shipping Code: 2



1/2" NIB

COLOR	ORDER NO.	PRICE EACH
White	6490-900	\$8.59
Yellow	6490-901	8.59
Red	6490-902	8.59
Black	6490-903	8.59
Orange	6490-904	8.59
Blue	6490-905	8.59

PRO-LINE® XT



- Mark Size: 1/8" (3 mm)
- Engineered for continuous and highly-visible marking on rough, rusty, and dirty surfaces
- Enamel paint for extreme durability and enhanced wear/weather/chemical-resistance
- Xylene-free paint reduces user health risks and eliminates California Proposition 65, EPS HAPS, and SARA 313 concerns in the U.S.A.
- Marking range: -50°F to 150°F (-46°C to 66°C)

Shipping Code: 2

PACKAGE QUANTITY: 1
CASE QUANTITY: 48

COLOR	ORDER NO.	PRICE EACH
White	6497-250	\$3.47
Yellow	6497-251	3.47
Red	6497-252	3.47
Black	6497-253	3.47

DURA-INK® #55 Med. Taper Chisel



- Ergonomic design for extended use Mark Size: Thin Side 1/16" Broad Side 3/16"
- Ink formulated for industrial strength usage
- Versatile tapered chisel tip for 1/16" and 3/16" marks
- Long mileage, economical
- Smear-resistant, water-resistant, fast drying
- Marks on cardboard, ceramics, paper, lumber, cloth, glass, rubber, and steel
- Durable cap w/pocket clip and plastic barrel for industrial use

PACKAGE QUANTITY: 1 CASE QUANTITY: 48

COLOR	ORDER NO.	PRICE EACH
Red	6496-528	\$1.88
Black	6496-529	1.88
Blue	6496-530	1.88
Green	6496-531	1.88

DURA-INK® #200 Broad Chisel Tip



- Extra wide chisel tip for 5/8" and 3/8" marks Mark Size: Thin Side 3/8" Broad Side 5/8"
- Jumbo ink supply for greater mileage
- Use on cardboard, wood, metal, paper, ceramics, glass, and leather.
- For identification of equipment, signs, and marking shipping cartons
- Durable cap and barrel for heavy-duty use

PACKAGE QUANTITY: 1 CASE QUANTITY: 24

COLOR	ORDER NO.	PRICE EACH
Green	6496-914	\$4.88
Blue	6496-915	4.88
Red	6496-916	4.88
Black	6496-917	4.88

DURA-INK® #15 Fine Bullet Tip

- Ideal for fine line marking.
- Extra tough tip, won't spread or mush.
- Smear-resistant, water-resistant, fast drying.
- Marks on metal, wood, cardboard, paper, plastic, glass, etc.
- For identification of parts, layout work, and marking cartons and crates.
- Available on blister card for point-of-purchase display.
- Meets U.S. Fed. Spec. TT-1-544

PACKAGE QTY.: 1 CASE QTY.: 12



COLOR	ORDER NO.	PRICE EACH
Red	6496-022	\$1.35
Black	6496-023	1.35

COLOR	ORDER NO.	PRICE EACH
Blue	6496-025	\$1.35
Green	6496-026	1.35

DURA-INK® #20 Bullet Tip



- Mark Size: 1/16" (1.5 mm)
- Xylene-free formula for safe use Mark Size: 1/16"
- One-handed, push button operation eliminates lost caps and prevents ink dryout
- Fast-drying, wear and water-resistant formula for long-lasting marks
- Industrial-grade fine bullet tip will not spread or mush
- Auto-storing clip instantly retracts tip to reduce mess or tip damage

PACKAGE QTY.: 1 CASE QTY.: 12

COLOR	ORDER NO.	PRICE EACH
Black	6496-575	\$2.28
Red	6496-576	2.28

DURA-INK® #25 Medium Chisel Tip



- Broad tip for bold marks.
- Extra large ink supply for greater mileage.
- Use on cardboard, wood, metal, paper, ceramics, glass, and leather.
- For identification of equipment, marking shipping cartons, and sign making.
- Heavy-duty metal barrel.
- Meets Fed. Spec. TT-1-544.

PACKAGE QTY.: 1 CASE QTY.: 48

Mark Size:
Thin Side 1/16"
Broad Side 5/16"

COLOR	ORDER NO.	PRICE EACH
Red	6496-222	\$3.38
Black	6496-223	3.38

Markers

H[®] Paintstik[®]

- Highly visible marking for hot surfaces.
- Mark hot coils, slabs, billets, bars, ingots, etc.
- Marks will not run, char, discolor, peel or crack.
- Long-lasting, weather-resistant, fade-resistant.
- Unit packaging: 144 of a single color to a case. Plus 1-#100 holder.
- Marking range: 150°F. to 1200°F.

COLOR	ORDER NO.	PRICE/ PKG.
White	6481-020C	\$241.41

CASE QUANTITY: 144
SOLD IN CASE QTY. ONLY

HT[®] Paintstik[®]

- Ideal for hot coils, slabs, billets, castings or other metals under higher temperature marking conditions.
- The marks will not run, char, discolor, peel or crack.
- Long-lasting, weather-resistant, fade-resistant.
- Unit packaging: 144 of a single color to a case. Plus 1-#100 holder.
- Marking range: 250°F. to 1600°F.

3/8" x 4-1/2"

COLOR	ORDER NO.	PRICE/ PKG.
White	6481-220C	\$258.35

CASE QUANTITY: 144
SOLD IN CASE QTY. ONLY

Paintstik[®] Holder

- For use with Markal H[®] and HT[®] hot surface solid paint markers.
- Durable holder prevents breakage, protects marker during use and ensures long marking life

4" Wooden Holder #100 Order No. 6485-500 Price Each \$3.50

M[®] Paintstik[®]

- Marks withstand quenching in water or oil.
- For welds, ingots, castings, forging, annealed parts.
- Unit packaging: 12 of one color to a box.
- Marking at room temperature withstands 1600°F.



11/16" x 4-3/4"

COLOR	ORDER NO.	PRICE/ PKG.	COLOR	ORDER NO.	PRICE/ PKG.
White	6481-920	\$32.29	Red	6481-922	\$32.29
Yellow	6481-921	32.29	Black	6481-923	32.29

PACKAGE QUANTITY: 12 CASE QUANTITY: 144

WS-3/8"[®] Paintstik[®]

- Temporary cold marking-water soluble for easy removal.
- Small diameter for finer marking.
- Mark acrylic plastic plotting boards, plastic parts, glass, painted metal, sheet steel, polished aluminum, car bumpers and exotic metals.
- Unit packaging: 36 of one color to a box.
- Marking range: -50°F. to 150° F.



3/8" x 4-1/4"

COLOR	ORDER NO.	PRICE/ PKG.
White	6482-420	\$28.59
Yellow	6482-421	28.59
Red	6482-422	28.59
Black	6482-423	28.59

PACKAGE QUANTITY: 12 CASE QUANTITY: 144

PRO-EX[®]

Lumber Crayons

- The clay-based "feel" that high-volume users prefer
- Superior performance on wet wood
- Stronger formula for reduced breakage
- Standard 1/2" hex shape fits the #109 Peterson holder, also #106 & #108 holders • Marking range: -20°F to 130°

PACKAGE QUANTITY: 12 CASE QUANTITY: 144



COLOR	ORDER NO.	PRICE/ PKG.
Yellow	6480-381	\$13.59
Red	6480-382	13.59
Black	6480-383	13.59
Blue	6480-385	13.59

Lumber Crayon Holders

6" Heavy-Duty Metal Holder #108
Order No. 6485-400 Price Each \$19.49

5" Double End Locking Holder #106
Order No. 6485-401 Price Each \$22.26



Carpenter's Pencils

Markal medium carpenter pencils are premium quality wood-cased pencils ideal for marking wood, concrete, and other surfaces.
Order No. 6496-928 Price Each \$1.00



B[®] Paintstik[®]

- All-purpose, cold surface marker.
- Real paint in stick form, dries overnight.
- Marks on any surface or material.
- Marks through oil and water film.
- Weather-resistant and fade-resistant.
- Ideal for layout, inspection or fabrication.
- Lead-free.

11/16" x 4-3/4"

- Marks on metal, wood, plastic, concrete, rubber, glass, cardboard and paper.
- Unit packaging: 12 of one color to a box.
- Marking range: -50°F. to 150° F.

COLOR	ORDER NO.	PRICE/ PKG.
White	6480-220	\$17.29
Black	6480-223	17.29
Yellow	6480-221	17.29
Red	6480-222	17.29
Orange	6480-224	17.29

COLOR	ORDER NO.	PRICE/ PKG.
Blue	6480-225	\$17.29
Green	6480-226	17.29
Pink	6480-227	17.29
Purple	6480-228	17.29
Brown	6480-229	17.29

COLOR	ORDER NO.	PRICE/ PKG.
Gray	6480-230	\$17.29
Gold	6480-231	28.24
Aluminum	6480-232	33.35
Silver	6480-233	33.35

PACKAGE QUANTITY: 12

CASE QUANTITY: 144

Quik Stik[®] & Quik Stik[®] Mini



- Fast-drying, vibrant paint marks dry in 5 to 7 minutes
- Marks on virtually any surface: wet, smooth, rough, or hot
- Airtight, self-storing cap keeps the marker clean and fresh between uses
- Weather & UV-resistant paint for long-lasting mark
- Solid paint marker advances and retracts by turning twist-up knob
- Marking range: 0°F to 392°F (-18°C to 200°C)

Quik Stik[®]

COLOR	ORDER NO.	PRICE EACH
White	6461-051	\$6.54
Yellow	6461-053	6.54
Red	6461-049	6.54
Black	6461-050	6.54

PACKAGE QUANTITY: 1
CASE QUANTITY: 72

Quik Stik[®] Mini

COLOR	ORDER NO.	PRICE/ EACH
White	6461-126	\$3.37
Yellow	6461-127	3.37
Red	6461-128	3.37
Black	6461-129	3.37

PACKAGE QUANTITY: 1
CASE QUANTITY: 48

Railroad Chalk

- Ideal for making temporary marks on most surfaces.
- Marks on metal, wood, concrete, cardboard, rubber, plastic, etc.
- Easy-to-hold 4" x 1" tapered shape makes broad, easy-to-read marks.

COLOR	ORDER NO.	PRICE/ PKG.
White	6480-500	\$55.06
Yellow	6480-501	55.06
Red	6480-502	55.06
Blue	6480-505	55.06
Green	6480-506	55.06

PACKAGE QUANTITY: 144 CASE QUANTITY: 576

Soapstone Markers

- For temporary marking of metal surfaces during fabrication operations.
- Made of all natural soapstone for superior marking.
- Marks will not contaminate welds and are easily removed.
- Available in flat, round and square shapes.
- Holders available for the flat and round sizes.



SOAPSTONE MARKERS

SIZE	ORDER NO.	PRICE/ PKG.
5 x 1/2 x 3/16 Flat	6480-129	\$52.94
5 x 1/4 Round	6480-130	52.94

PACKAGE QTY: 144 CASE QTY: 432

HOLDERS FOR SOAPSTONE MARKERS

SIZE	ORDER NO.	PRICE EACH
5 x 1/2 x 3/16 Flat	6480-140	\$8.50
5 x 1/4 Round	6480-141	8.50

PACKAGE QTY: 1 CASE QTY: 12

Thermomelt[®] HEAT STIK

- Accurate to ±1% rated temperature.
- Meets ANSI/ASME Code B32.1, B31.3, AWS D1.1, ASME Code Sec. I, II, III, & VII, NIST traceable.
- 33" bigger and stronger, same proven reliability. Industry's longest-lasting heat stick by design.
- Gravity advance holder protects stick, and prevents slipping back inside.
- Melts instantly when surface reaches rated temps.
- Other temps available in package quantities.



TEMPERATURE °F	°C	ORDER NO.	PRICE EACH
200	93	6486-517	\$13.60
250	121	6486-562	13.60
300	149	6486-625	13.60
350	177	6486-697	14.00
400	204	6486-733	14.00
500	260	6486-805	14.71

PACKAGE QTY: 1 CASE QTY: 12

Coatings & Marking Kits



ABC Blackener® [2]

- A cosmetic blackener for most non-ferrous metals
- Works on aluminum, brass, and copper
- One quart covers 30-40 sq. ft., depending on application technique
- May be applied by immersion, or brush-on technique
- No special ventilating system required
- Apply at room temperature
- Single cans available

• ABC Blackener® cannot be shipped via air transportation
Shipping code: 2

Complete kit contains:

- (1) 1-quart bottle of ABC Blackener®
(1) 1-quart bottle of ABC Sealant®



DESCRIPTION	CASE QTY.	ORDER NUMBER	PRICE EACH
One Complete ABC Blackener Kit (1 each: 1 qt. ABC Blackener & ABC Sealant)	1 Kit	3234-005	\$ 244.27
One qt. ABC Blackener	6 bottles	3234-007	122.32
One qt. ABC Sealant	6 bottles	3234-008	104.41

Tool Black® Liquid [2]

- Fast, inexpensive alternative to black oxide
- Imparts a tough, dull black protective finish to most ferrous metal parts (not stainless steel)
- Ideal for prototypes, repair parts and general machine work
- Liquid solution used on small immersible parts
- One pint of Tool Black® Liquid has the capacity to blacken 25-35 square feet of surface area, coverage varies with application technique
- Apply at room temp. as a cold application

Complete kit consists of:
1 pt. Metal Polish/Cleanser
1 pt. Tool Black® Liquid
1 pt. Prevent®



DESCRIPTION	CASE QTY.	ORDER NUMBER	PRICE EACH
1 Complete Tool Black Liquid Kit (1 each: Tool Black, Prevent, & Metal Polish/Cleanser)	1 Kit	3234-013	\$174.65
One qt. Cleaner-Degreaser	6 btls.	3234-000†	100.63
One qt. Tool Black Liquid	6 btls.	3234-001	100.63
One Pint Tool Black Liquid	6 btls.	3234-011	63.93
One Pint Prevent	6 btls.	3234-012	97.50
One Pint Metal Polish/Cleanser	6 btls.	3234-010	32.74

† Discontinued, Limited Quantities

Hot Melt Coating [2]

- Hot Melt Strippable Protective coating protects tools, gauges, and metal parts from nicks, corrosion, and abrasions during storage and shipping
- Packed in convenient 5 lb. bags
- Five transparent colors: amber, clear, red, green, and blue
- Poly bag packing for easy handling and storage
- Easy to use, coating is pre-sliced into manageable pieces
- Other colors & types available on special order
- Set time is less than 60 seconds
- To remove, coating peels right off



5 LB. BAG		
COLOR	ORDER NO.	PRICE EACH
Amber	3236-600	\$108.38
Clear	3236-601	108.38
Red	3236-602	108.38
Green	3236-603	108.38
Blue	3236-604	108.38

Etch-O-Matic

SUPER INDUSTRIAL KIT

**Everything You Need
To Etch Any Metal**



Each Kit Contains: a Super and a Regular Etch-O-Matic along with: an Adapter Clip for deep etch marking, ground plate, 8 oz. of General Purpose & Stainless Steel electrolyte, 2 - 100 pk stencils, 4 oz. of Aluminum, Black Oxide, and Brass, Copper, Bronze electrolyte, lg. 2 x 4" grid, pk of lg. felt pads, pk of 25 lg. Stencils 8 oz. Neutralizer, 2 Neutralizer Pwd pks, 1 reg. grid and instructions.

Order No. 3257-032

Price Each: \$382.95 [1]

ETCH-O-MATIC SUPPLIES	ORDER NO.	PRICE EACH
16 oz. Bottle Electrolyte - Aluminum	3257-022	\$16.45
16 oz. Bottle Electrolyte - Brass & Copper	3257-023	14.45
16 oz. Bottle Electrolyte - Black Oxide	3257-024	14.45
16 oz. Bottle Electrolyte - General Purpose	3257-025	14.45
16 oz. Bottle Electrolyte - Stainless Steel	3257-026	14.45
16 oz. Bottle Neutralizer - Cleaner	3257-028	12.45
Powder Pak Neutralizer - Cleaner	3257-029	8.95
Regular Pad Refill Kit	3257-004	12.95
Stencils 3" x 2-1/4" 50 p/pk	3257-005	16.95
Stencils 3" x 2-1/4" 100 p/pk	3257-006	21.95
Stainless Steel Grid Plate w/Screws	3257-008	12.95

Etch-O-Matic

STARTER KIT

**Lowest Priced Kit Available Anywhere!
YET IT DOES THE JOB**



Each Kit Contains: an ETCH-O-MATIC Marker, (Note - standard marker head size 7/8" x 1-3/4") with electrical cord, ground plate, 2 oz. electrolyte solution in plastic bottle, 10 special stencils, neutralizer and deep etching Adapter Clip. Each kit will mark approximately 1,000 tools.

Order No. 3257-002

Price Each: \$98.95 [1]

10 Volts -
2 Amps

Etch-O-Matic

HEAVY DUTY- INDUSTRIAL SUPER ETCH-O-MATIC KIT

**Best Value
on the Market Today!**



15 Volts - 10 Amps
7 TIMES MORE POWER

Use on Production lines for Continuous Duty Fast Marking - for Deep Etch Marking down to .003" - for Large Marks up to 2" x 4" - (even Trademarks) for Black Oxide coatings and for all in-plant marking.

Each Kit Contains: 1 - 15 volt - 10 amp Marker unit with transformer, Adapter Clip for deep etch marking, ground plate, 8 oz. General Purpose electrolyte, 8 oz. Neutralizer, pak. felt pads, 100 special stencils and Plastic Carrying Case.

Order No. 3257-000

Price Each: \$282.95 [1]

Layout Dyes, Stains, & Removers

12

DYKEM® Layout Fluids

DYKEM Steel Blue® is the world's leading and best-known layout fluid. Additional colors provide you with the layout fluid that is most effective for your application.

- Prevents glare with a uniform, deep color.
- Dries in two to four minutes.
- Lets you scribe sharp, clear precise lines.
- Reduces eyestrain.
- Translucent.

Shipping Code: 2



PRODUCT	DESCRIPTION	CONTAINER SIZE	CASE QTY.	ORDER NO.	PRICE EACH
Steel Blue	Aerosol Spray	16 oz.	12	9520-500	\$23.78
Steel Blue	Felt Tip Applicator Fluid	2 oz.	12	9520-501	12.70
Steel Blue	Brush-In-Cap Fluid	4 oz.	12	9520-502	15.28
Steel Blue	Brush-In-Cap Fluid	8 oz.	12	9520-503	21.15
Steel Blue	Fluid	930 ml.	12	9520-505	37.72

PRODUCT	DESCRIPTION	CONTAINER SIZE	CASE QTY.	ORDER NO.	PRICE EACH
Steel Red	Aerosol Spray	16 oz.	12	9520-510	\$25.45
Steel Red	Felt Tip Applicator Fluid	2 oz.	12	9520-511	12.70
Steel Red	Brush-In-Cap Fluid	4 oz.	12	9520-512	15.28
Steel Red	Brush-In-Cap Fluid	8 oz.	12	9520-513	21.15
Steel Red	Fluid	930 ml.	12	9520-515	37.72

CROWN® Toolmaker's Ink

- Precise Scribing without Chipping
- Produces quick-drying film that won't peel, flake or rub off.
- Contains no acids and resists heat.
- Dries Quickly - Leaves No Residue
- Suggested for dies, templates, tools and machined parts.
- Excellent adhesion to metal, glass and plastic.

Shipping Code: 2

MFG. NO.	DESC.	CASE QTY.	ORDER NO.	PRICE EACH
6001	12 av. oz. aerosol can	12	9516-001	\$7.37



CROWN® Toolmaker's Ink Remover

Dissolves All Layout Fluids

Special solvents remove inks without bothersome residues. Can also be used as a paint stripper. Safe and convenient aerosol application. Also available in non-aerosol bulk.

Shipping Code: 2

MFG. NO.	DESC.	CASE QTY.	ORDER NO.	PRICE EACH
6095	14 av. oz. aerosol can	12	9516-095	\$6.79



DYKEM® Remover & Thinner™

Ideal for surface preparation, as well as removing layout fluids and staining colors. May also be used to dilute staining colors.

- Thoroughly cleans and prepares metal surfaces.
- Removes dirt, grease & oil from metals, most plastics and glass.
- Does not contain 1,1,1-trichloroethane.



SHIP CODE	DESC.	CASE QTY.	ORDER NO.	PRICE EA.
2	16 oz. Aerosol	12	9520-535	\$23.36
2	930 ml (formerly 1 qt.)	12	9520-537	26.89
1	1 gallon	4	9520-538	77.15
1, 4	5 gallon	1	9520-539	334.18
3	55 gallon	1	9520-540	3685.59

DYKEM® Hi-Spot®

The ideal way to identify high spots on bearings and gear surfaces.

- Non-drying.
- Transfers from one surface to another.

DESCRIPTION	SIZE	CASE QTY.	ORDER NO.	PRICE EACH
Blue (Tube)	.55 oz.	36	9520-551	\$14.04



DYKEM® Opaque Stains

- Performs well on light and dark tinted materials
- Provides excellent hiding/coverage properties and opacity
- Thickness can be adjusted by adding DYKEM® Thinner & Remover
- Resists most work related materials such as oils, moisture, grease, cutting fluids, and more
- Easy application: spray, brush, dipping, stamping, or tumbling



COLOR	Shipping Code: 2		Shipping Code: 1	
	BRUSH-IN-CAP 8 OZ.	PRICE EACH	1 GALLON BOTTLE	PRICE EACH
Black	—	—	9520-562	\$166.00
Dark Blue	9520-565	\$32.09	9520-566	189.95
Light Blue	—	—	9520-571	189.95
Lead-Free Dark Green	—	—	9520-480	215.79
Lead-Free Light Green	—	—	9520-483	215.79
Lead-free Orange	9520-485	36.39	9520-486	215.79
Pink	—	—	9520-588	189.95
Purple	—	—	9520-590	189.95
Red	9520-594	36.39	9520-595	215.77
White	9520-602	27.96	9520-604	166.00
Lead-Free Yellow	9520-488	36.39	9520-489	215.79

† Limited Quantities

CROWN® Fault Finder

Group 1 (Inspection Kit #1070)

1. Cleaner #1071 2. Penetrant #1075 3. Developer #1079

Contains No Chlorine or Sulfur-bearing Solvents.

It was developed specifically for testing materials where halogenated safety solvents are not permitted. This system meets the RDT F-3-6T standard as established by the Atomic Energy Commission. You'll see red if this system detects any faults. Conforms to MIL-I-25135. Active ingredients meet chlorine and sulfur requirements of the RDT F-3-6T standard, NAVSHIPS 250-1500, and MIL STD-271.

Shipping Code: 2 12

7.5 av. oz.

Cleaner...Order No. 9511-071...\$8.84

Penetrant...Order No. 9511-072...\$9.89

Developer...Order No. 9511-073...\$8.69

Kit...Order No. 9511-070...\$94.11

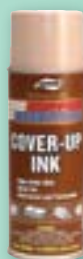


AERVOE® Tan Cover Up Ink

Spray covers old box print and dries quickly; cartons look brand new! Cost Effective: The surface appears to be just like new and can then be re-stenciled or labeled. Great cover capacity; no rub-off. Saves money on miscellaneous packing jobs.

13 oz. aerosol, Shipping Code: 2

Order No.: 9512-811 Price Each: \$ 6.66 12



Cleaners

12

simple green

Concentrated Cleaner/ Degreaser/Deodorizer

- Non-Toxic and Biodegradable
- Non-Abrasive/Non-Flammable
- A4, A8, B2 USDA Ratings
- Mild 9.3-9.5 pH
- Sassafras Scent
- Building/Grounds Maintenance
- Janitorial Cleaning: Floors, Walls, Counters, Doors, Concrete, Tile, Stainless Steel, Etc.
- Clean and Deodorize Grease Filters/Trap
- Surface Prep Before Painting



• Sassafras Scent

SIMPLE GREEN #	DESCRIPTION	CASE QTY.	ORDER NO.	PRICE EACH
13012	24 oz. Trigger Spray Bottle	12	3135-006	\$6.63
13005	1 gal. Bottle	6	3135-008	14.31
13006	5 gal. Pail*	1	3135-012	92.60
13016	15 gal. Drum*	1	3135-016	230.24
13008	55 gal. Drum †	1	3135-020	709.08

* Shipping Code: 4

† Truck shipment only

32 oz. Trigger Spray Dilution Bottle (Empty)

Order No. 3135-001 Price Each: \$2.04

Extreme simple green

Aircraft & Precision Cleaner

- Non-Toxic and Biodegradable • Residue-free rinsing
- Non-Abrasive/Non-Flammable, non-corrosive
- Meets Boeing spec D6-17487 rev. P and Pratt & Whitney PWA 36604 rev. C & D
- Applications: • Engines, aircraft, vehicles
- Metals, plastics, high-tech alloys, part washing
- Janitorial cleaning: floors, walls, counters, doors, concrete, tile, stainless steel, etc.
- Heavy-duty cleaner and degreaser



SIMPLE GREEN #	DESCRIPTION	CASE QTY.	ORDER NO.	PRICE EACH
13405	5 gal. pail*	1	3135-076	\$90.55

* Shipping Code: 4

Crystal simple green

Industrial Strength Cleaner/Degreaser

- Industrial Formulation
- No Color and No Added Scent
- Non-Toxic and Biodegradable
- Non-Abrasive/Non-Flammable
- A4, A8 USDA Ratings
- Mild 9.3-9.5 pH
- Equipment/Machinery Degreasing
- Parts Washers and Dip Tanks
- Mechanized Applicators: Floor Scrubbers, Pressure Washers, Steam Cleaners, Etc.

• Colorless, No Added Scent



SIMPLE GREEN #	DESCRIPTION	CASE QTY.	ORDER NO.	PRICE EACH
19128	1 gal. Bottle	6	3135-038	\$19.17
19005	5 gal. Pail*	1	3135-042	83.84

* Shipping Code: 4

Hand Cleaner Gel

Waterless Formulation, Heavy Duty

- Contains Pumice For Added Cleaning Power
- Added Lanolin for Moisturizing Skin
- Use With or Without Water
- Removes: Grease, Oil, Carbon, Wet Paint, Soot, Tar, Fish or Food Smells, and More
- Great for MRO, Service Bays and Maintenance Shops
- Non-Toxic, Non-Hazardous, Non-Flammable, and Biodegradable



SIMPLE GREEN #	DESCRIPTION	CASE QTY.	ORDER NO.	PRICE EACH
42150	5 oz. Tube	12	3135-062	\$1.51

Cleaners



HydroForce® Foaming Citrus All Purpose Cleaner

- Eliminates dirt, dust, ink, & grime deposits
- Rich foam clings to vertical/inverted surfaces
- Biodegradable, non-corrosive & non-abrasive
- Non-flammable, safe on most plastics

Shipping Code: 2

12

PART. NO.	DESC.	CASE QTY.	ORDER NO.	PRICE EACH
14400	20 oz. aerosol	12	6720-920	\$10.00



HydroForce® Glass Cleaner Professional Strength

- Cuts through dirt, dust, fingerprints & haze
- Streak-free glass cleaning
- Biodegradable, ready to use
- Ammonia-fortified formula

Shipping Code: 2 (aerosol)

12

PART. NO.	DESC.	CASE QTY.	ORDER NO.	PRICE EACH
14412	20 oz. aerosol	12	6721-020	\$5.79



CROWN® Anti-Vandal Spray

A clear spray blend of solvents that removes lipstick, pencil, ink, crayon, and spray paint from a variety of hard surfaces. Safe for use on most hard, unpainted surfaces, including concrete, brick, wood, fiberglass, ceramic tile, Formica, and some plastics. etc.

Shipping Code: 2

12

PART. NO.	DESC.	CASE QTY.	ORDER NO.	PRICE EACH
5062	16 oz. aerosol	12	9515-062	\$8.44



Cleaners

Scrubs-In-A-Bucket®

PATENTED Heavy-duty, Waterless Hand Cleaner Towels, disposable, performance waterless hand cleaner towels that effectively and quickly clean hands of a wide variety of industrial soils and greases. Each self-dispensing, portable canister contains 72-each or perforated 10-1/2" x 12-1/4" disposable heavy-duty Rough Touch® towels. Super-effective, yet gentle-to-skin, heavy-duty cleaning formula-tion. USDA:E-4.

2

PART NO.	SIZE	CASE QTY.	ORDER NO.	CASE PRICE
42272	72 ct. towels	6	3133-911	\$165.10



Scrubs® Medaphene® Plus Wipes

An effective germ-killing disinfectant combined with a strong, quilted wipe make up SCRUBS® MEDAPHENE® Plus Disinfecting Wipes. The textured wipe works quickly to loosen contaminants to ensure a clean and disinfected surface.

Note: SCRUBS® MEDAPHENE® Plus Disinfecting Wipes has demonstrated effectiveness against viruses similar to Coronavirus Disease 2019 (SARS-CoV-2) on hard, non-porous surfaces. Use in accordance with the directions for use against Norovirus on hard, non-porous surfaces. Refer to the CDC website for additional information.

FEATURES: • One-step cleaner/disinfectant/deodorizer
• Portable, safe and easy to use • No spraying or run-off

2

PART NO.	SIZE	CASE QTY.	ORDER NO.	CASE PRICE
96365	73 ct. wipes	6	3133-930	\$86.20



CROWN® All Purpose Cleaner

- Water & ammonia based cleaner provides a low foaming action cleaner for breaking up grime.
- Cuts through grease, cleans & polishes
- Excellent on granite surfaces
- USDA C-1

Uses: For hard to clean spots on wood, metal, tile, porcelain, plastic, chrome, etc.
Shipping Code: 2

12

PART NO.	SIZE	CASE QTY.	ORDER NO.	PRICE EACH
5055	16 oz. aerosol	12	9515-055	\$4.51



Non-Chlorinated Formula Brakleen® Brake Parts Cleaner

- Chlorine-free product
- Cleans fast, dries fast & leaves no residue
- Degreases instantly
- Restricted from sale in CA
- This product is labeled as extremely flammable

Shipping Code: 2

12

PART NO.	DESC.	CASE QTY.	ORDER NO.	PRICE EACH
05084	20 oz. aerosol	12	6709-820	\$9.08





Specialist Electrical Contact Cleaner Spray

- Smart Straw® technology blasts away dirt
 - Quick drying with no messy residue
 - Non-conductive and safe to use on all plastics, rubbers, metals
- Shipping Code: 2

PART. NO.	DESC.	CASE QTY.	ORDER NO.	PRICE EACH
30055	11 oz. aero.	6	3159-335	\$7.76



Contact Cleaner 2000® Precision Cleaner

- Removes dirt, light oils & other contaminants
 - No flash or fire point • Non-conductive & non-corrosive
 - Not recommended for sensitive plastics
- Shipping Code: 2

PART. NO.	DESC.	CASE QTY.	ORDER NO.	PRICE EACH
03150	16 oz. aero	12	6705-016	\$33.78



Off Line Contact Cleaner

- Fast-evaporating, low-odor cleaner for off-line equipment maintenance.
 - Does not leave a film or residue
 - Safe on most plastics and metals
 - Applications: to be used on out-of-service electronic components.
- Shipping Code: 2

PART. NO.	SIZE	CASE QTY.	ORDER NO.	PRICE EACH
8276	16 oz. aerosol	12	9518-276	\$7.85



Degreasers



Industrial Strength Cleaner & Degreaser

This all-new water-based, non-aerosol, industrial degreaser and cleaner is proven to be more powerful, safer, and easier to use than other degreasers. The WD-40® Specialist® Industrial-Strength Cleaner & Degreaser breaks through tough grease and grime on auto parts, tools, floors, machinery, and more.

- Convenient refill port; No funnel needed & no-mess
- Powerful bio-solvent degreasing action with no messy diluting
- Safe on sensitive surfaces like aluminum, copper and glass
- NSF Registered A1, A2, A4, A8, B1

12

PART. NO.	DESCRIPTION	ORDER NO.	PRICE EACH
30036	1 gal. bottle	3159-344	\$15.95



PRECISION BRAND

Metal Cleaner & Degreaser

- Safe and effective, for use on all metals.
- Fast-acting, excellent soak cleaner.

2

PART. NO.	DESCRIPTION	ORDER NO.	PRICE EACH
04105	32 oz. bottle	3234-000 †	\$100.63

† Discontinued, Limited Quantities



Corrosion Preventatives

12



SP-350™ Corrosion Inhibitor

- Protects equipment & parts in storage, shipment & in process for up to 2 years indoors
 - Displaces moisture & protects all metals with a thin, non-drying film
 - Promotes easy equipment start-up
- Shipping Code: 2

PART NO.	DESC.	CASE QTY.	ORDER NO.	PRICE EACH
03262	16 oz aero	12	6706-416	\$16.60



SP-400™ Corrosion Inhibitor

- Long-term protection (up to 2 years outdoors) for all metals during shipment or extended storage
 - Highly resistant to humidity & salt spray
 - Firm, waxy film never becomes brittle
 - This product is labeled as extremely flammable
- Shipping Code: 2

PART NO.	DESC.	CASE QTY.	ORDER NO.	PRICE EACH
03282	16 oz aero	12	6706-516	\$17.99



Galva Bright Premium

- Glistening zinc coating that will restore galvanized steel to the bright look of Hot Dip.
- Galva Bright will stop rust and corrosion on any iron or steel surface.
- Zinc rich formula provides long lasting protection.

Applications

Cosmetic repair of welds, hand rails, rims, highway guard rails, metal chain fences, pipes, TV towers, refinery piping, corrugated metal buildings, heavy equipment, and anywhere the bright look of hot dipped surfaces is preferred. Shipping Code: 2

PART NO.	SIZE	CASE QTY.	ORDER NO.	PRICE EACH
7008	13 av. oz. aerosol	12	9517-008	\$13.24



Cold Galvanizing Compound

- The best long-term rust protection you can buy
 - Equal to hot dip galvanizing
 - Aerosol will not clog or sputter
- Shipping Code: 2

PART NO.	SIZE	CASE QTY.	ORDER NO.	PRICE EACH
7007	13 av. oz. aerosol	12	9517-007	\$12.68



Rust Inhibitor

Contains Fortified Lanolin for Moisture Absorption
Protects and lubricates indoor equipment such as tools, parts, and machinery. Penetrates deep, absorbs moisture, and neutralizes corrosive acids. Waxy, elastic film removes easily with any paint solvent. Lubricants can be applied over the surface without reducing it's effectiveness. Applications: Twist drills, nuts and bolts, plow blades, pumps and machinery. Shipping Code: 2

PART NO.	SIZE	CASE QTY.	ORDER NO.	PRICE EACH
6007	14 av. oz. aerosol	12	9516-007	\$7.75



Tool & Die Saver

Protection in Storage
Protects stored tools and dies from moisture during storage. Formulated with solvents and lanolin for moisture-absorption and lubrication. Heavy, non-oily film is easy to remove when equipment is returned to service. Ideal for long-term storage or long-distance shipments. Applications: Precision measuring tools (calipers and gage blocks) chucks, setup jigs and tools, stored metal molds and seldom used parts. Shipping Code: 2

PART NO.	SIZE	CASE QTY.	ORDER NO.	PRICE EACH
3090	13 av. oz. aerosol	12	9513-090	\$7.88



Penetrants

WD-40® Multi-Use Product



SHIPPING CODE	PART NO.	DESCRIPTION	ORDER NO.	PRICE EA.
2	49000	3 oz. aerosol, regular spray tip	3159-300	\$ 4.63
2	49002	8 oz. aerosol, smart straw	3159-303	8.47
2	49004	11 oz. aerosol, smart straw	3159-306	10.78
2	49005	12 oz. aerosol, smart straw	3159-308	11.44
2	49019	14.4 oz. aerosol, ez-reach flexible straw	3159-311	16.77
2	49008	16 oz. aerosol, regular spray tip	3159-313	11.15
2	49009	18 oz. aerosol, big blast spray tip	3159-314	12.50
2	49010	20 oz. Trigger-Pro, non-aerosol spray	3159-316	17.47
2	49011	1 gallon can	3159-318	41.77
4	49012	5 gallon pail	3159-319	201.00
3	49013	55 gallon drum	3159-320	2122.51
-	10000	empty refillable spray applicator	3159-322	5.73



Specialist Rust Release Penetrant Spray

- Blu Torch™ Technology quickly penetrates rust and frees up even the toughest stuck bolts
- Ideal for use on nuts, bolts, threads and locks

Shipping Code: 2

PART NO.	DESC.	ORDER NO.	PRICE EACH
30000	11 oz. aero.	3159-330	\$8.44



3-36® Multi-Purpose Lubricant & Corrosion Inhibitor

- Cleans, lubricates, penetrates & loosens corrosion
- Prevents corrosion by displacing moisture
- Loosens frozen parts
- Lubricates without leaving a sticky residue
- Cleans light soils & contaminants

SHIPPING CODE	PART NO.	DESC.	CASE QTY.	ORDER NO.	PRICE EACH
2	03005	16 oz. aero	12	6702-616	\$ 8.96
-	03006	1 gal btl.	4	6702-636	55.28



Knock'er Loose® Penetrating Solvent

- Industrial strength, low viscosity lubricant/penetrant designed to loosen/free seized, bound, or frozen fasteners
- Breaks through rust, scale, gum, grease, & corrosion
- Low surface tension formula that creeps into cracks, seams, threads, & joints
- Extreme penetrating action
- Lubricating residue prevents corrosion
- Outperforms the competition

Shipping Code: 2

PART NO.	DESC.	CASE QTY.	ORDER NO.	PRICE EACH
03020	16 oz. aerosol	12	6702-766	\$ 12.37



Penetrants (Continued)

12

CROWN® **Penetrating Oil**

Penetrates Metal Pores; Releases Rust Fast

- Reduces tugging and pounding
- Only a few drops needed
- Effective against salt water corrosion
- Contains no acid
- Pinpoint extension tube included with each aerosol

Shipping Code: 2

PART. NO.	DESC.	CASE QTY.	ORDER NO.	PRICE EACH
6030	16 av. oz. aerosol	12	9516-030	\$7.85



CROWN® **ALL-4**

Moisture Displacing Lubricant
Multi-purpose Problem Solver

- Displaces Moisture • Lubricates
- Cleans and Penetrates
- Silicone Free
- Prevents Rust
- Especially Effective in High Humidity

Shipping Code: 2

PART. NO.	DESC.	CASE QTY.	ORDER NO.	PRICE EACH
7340	16 av. oz. aerosol	12	9517-340	\$7.54



Chain & Wire Rope Lubricant

CROWN® **Moly Open Chain Lube Oil**

Penetrates Deep Between Roller Chain Drive Bushings
Reduces the stress of start-ups and high temperature break-downs.

Provides Critical Lubrication

Solvents drive deep into tight, inaccessible areas.

Provides superior lubrication where high pressure or temperatures cause breakdowns of protective films.

Shipping Code: 2

PART. NO.	SIZE	CASE QTY.	ORDER NO.	PRICE EACH
7043	14 oz. aerosol	12	9517-043	\$8.97



CROWN® **Heavy Duty Open Gear & Wire Rope Lube**

Tough and Pliable with Extra Adhesion

Lubricates As It Waterproofs

Superior mastic and wicking properties. Tough and pliable with superior adhesion. Foaming action insures total coverage.

Weather-Resistant

Withstands extreme temperature and pressure.

Will not become brittle or break down under prolonged use.

Dark color helps determine proper and uniform application.

Shipping Code: 2

PART. NO.	SIZE	CASE QTY.	ORDER NO.	PRICE EACH
7045	14 oz. aerosol	12	9517-045	\$9.73



Belt Dressing

• Extends belt life by reducing slippage, hardening, glazing dirt build-up & friction

• Relieves stress on motors, shafts & wheels

• Colorless -- will not stain finished goods

• Meets FDA Regulation CFR 21-178.3570 for incidental food contact

• This product is labeled as extremely flammable

Shipping Code: 2

PART. NO.	DESC.	CASE QTY.	ORDER NO.	PRICE EACH
03065	16 oz aerosol	12	6703-516	\$15.75



Lubricants



Specialist Water Resistant Silicone Lubricant

- Powerful multi-surface lubricant
- Quick-drying, repels water
- Withstands extreme weather between -100°F to 500°F

Shipping Code: 2

12

PART NO.	DESC.	ORDER NO.	PRICE EACH
30001	11 oz. aero.	3159-331	\$8.53



Specialist Spray & Stay Gel Lubricant

- Thick gel lubricant provides 12x longer lasting lubrication*
- Won't run, drip or make a mess
- Prevent corrosion for up to 1 year

(Results may vary depending on extreme conditions.)

Shipping Code: 2

12

PART NO.	DESC.	ORDER NO.	PRICE EACH
30010	10 oz. aero.	3159-339	\$13.82



Food Grade Silicone Lubricant

- USDA H-1 • 4% silicone • Odorless, colorless, non-staining, dry film
 - Prevents sticking and won't transfer to end parts
 - Will not interfere with carton sealing, bottle capping, or other food preparation applications
 - Will not harm paint, metal, wood surfaces, and most plastics
 - Reduces noise and wear where friction may occur
 - Separates from water even under acid/alkali conditions
 - Waterproofs ignition systems • Dielectric strength of 35kV/mm
- Applications: Metal hinges, plastic rollers, guide rails, slides, or anything that sticks. May be used on air tables and food preparation equipment.

Shipping Code: 2

PART NO.	SIZE	CASE QTY.	ORDER NO.	PRICE EACH
8036	16 oz. aerosol	12	9518-036	\$7.46



BladeCote® - Aerosol Blade/Bit Lubricant

- Prevents resin buildup.
- Reduces blade cleanings, cutting friction and heat.
- Extends overall life of blades and bits
- Contains NO silicone or petroleum oil.
- Will NOT stain wood or interfere with glues or finishes.
- Prolongs equipment life by reducing saw or drill motor drag.
- Increases productivity by less downtime for saw blade changeovers.
- Works equally well on steel or carbide, stellite and diamond-tipped cutting blades.

Shipping Code: 2

1

DESC.	SIZE	CASE QTY.	ORDER NO.	PRICE EACH
BladeCote	10.75 oz. aerosol	12	3159-876	\$22.60



GlideCote® - Aerosol Table/Tool Surface Sealant

- Reduces sliding friction and hang-ups
- Will not build-up even after several applications
- Will not stain or effect finishing of wood
- Contains no petroleum oils or silicone
- Protects all tools and equipment from rust.
- Up to 30% slicker than paste wax.
- Easier, quicker to apply than paste wax, lasts three times longer.
- Perfect for table saw beds, drill presses, lathes, planers, band saws, miters, panel saws, and all hand tools

Shipping Code: 2

1

DESC.	SIZE	CASE QTY.	ORDER NO.	PRICE EACH
GlideCote	10.75 oz. aerosol	12	3159-878	\$20.80



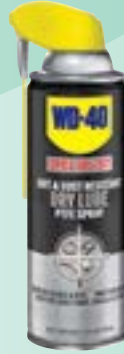
Lubricants & Grease



Specialist Dirt & Dust Resistant Dry Lube PTFE Spray

- Reduces friction and wear
 - Resists dirt, dust and oil
 - Temperature range -50°F to 500°F
- Shipping Code: 2

SHIPPING CODE	PART. NO.	DESC.	ORDER NO.	PRICE EACH
2	30005	10 oz. aero.	3159-334	\$8.90



Specialist Protective White Lithium Grease

- Long-lasting lubrication and protection
 - Won't freeze, melt or run off
 - Metal-to-metal corrosion protection
- Shipping Code: 2

SHIPPING CODE	PART. NO.	DESC.	ORDER NO.	PRICE EACH
2	30024	10 oz. aero.	3159-332	\$6.29



CROWN[®] Dry Film Lubricant

Lubricant & Mold Release Agent (TFE) Clear, Clean, dry Teflon[®] Formula Clean, slippery, dry and invisible when applied. Lubricates without grease. Resistant to dirt and dust. Durable beyond normal lubricant breakdown, works up to 500° F. Use where silicone, oil or wet lubricants cannot be tolerated. Applications: Electrical equipment, precision machines, survey instruments, industrial sewing machines, conveyors and chutes.* Dupont T[®]mrk. Shipping Code: 2

PART. NO.	SIZE	CASE QTY.	ORDER NO.	PRICE EACH
6075	14 av. oz. aerosol	12	9516-075	\$10.26



CROWN[®] Dry Moly Lubricant

Performs at pressures up to 100,000 PSI and temperatures up to 700° F. This dry, molybdenum disulfide product contains no oils or moisture-based diluents. Forms a dry, thin black film imparting anti-friction and anti-seizure properties. Bonds to metal surfaces. Provides long-lasting, noise-reducing protection. Use where a dirt and grime-resistant lubricant is needed. Applications: Grinding mills, crushers, mechanical presses, cams & slides. Shipping Code: 2

PART. NO.	SIZE	CASE QTY.	ORDER NO.	PRICE EACH
6080	16 av. oz. aerosol	12	9516-080	\$8.49



CROWN[®] Dry Graphite Lubricant & Parting Compound

Temperature Range from -100° F to +1000° F
Used throughout the world for extreme temperature lubrication requirements. Coats surfaces with a super-slippery, long-lasting protective film. Stops squeaking and sticking. Use where petroleum products must be avoided. Contains no oils or moisture-based diluents.
Lubricant: bearings, locks, oven parts, pre-assembly of moving parts, sliding windows and doors.
Parting Compound: dies, sand cores, match plates, drawing extrusions, die casting, pewter molding.
Coating Compound: Conductive materials, sealants.
Shipping Code: 2

PART. NO.	SIZE	CASE QTY.	ORDER NO.	PRICE EACH
8078	14 av. oz. aerosol	12	9518-078	\$7.67



White Lithium Grease

- Provides superior lubrication & durability in any weather or temperature
 - Excellent break-in lubricant for bearings
 - Provides general purpose lubrication & corrosion protection of machinery, tools, etc.
 - White colour allows for easy visual inspection of film coverage
 - This product is labeled as extremely flammable
- Shipping Code: 2

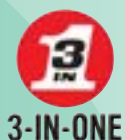
PART. NO.	DESC.	CASE QTY.	ORDER NO.	PRICE EACH
03080*	16 oz. aerosol	12	6703-916	\$ 14.25



Oils

Multi-Purpose Oil

The 3-IN-ONE® brand has been a trusted name since 1894 and has become the product of choice for trade professionals and do-it-yourselfers in a wide variety of specialties.



Food Grade Machine Oil



- Penetrates & loosens rust, scale & corrosion
 - Contains no silicone & is virtually odorless & colorless
 - Will not harm metal, wood, plastic or painted surfaces
 - Meets FDA Regulation CFR 21-178.3570 for incidental food contact
 - This product is labeled as extremely flammable
- Shipping Code: 2

12

PART. NO.	DESC.	CASE QTY.	ORDER NO.	PRICE EACH
03081	16 oz aerosol	12	6704-016	\$11.64

MILTON Air Tool Oil

Extends life and performance of air tools, lubricators, valves and cylinders. Prevents seizure of air tools and pneumatic equipment. Recommended for tools requiring a 10 weight non-detergent lubricant.

Working temperature: 5° F to +350° F.

WARNING: HARMFUL OR FATAL IF SWALLOWED.

2

MILTON PART. NO.	CONTAINER SIZE	CTN. QTY.	ORDER NO.	PRICE EACH
1001-4	4 oz. Flip-Top container	12	3350-546	\$7.24
1001-16	6 oz. Flip-Top container	12	3350-547	13.53
1001-32	32 oz. Flip-Top container	12	3350-548	22.68
1001	1-gal. container	6	3350-549	45.81



1001

MILTON Compressor Oil

Protects against oxidation, corrosion, foaming and wear of metal parts. Protects against sludge and maintains its viscosity in the temperature range of 20° F to 440° F. For centrifugal compressors where the manufacturer specifies a non-detergent 30 weight oil. WARNING: HARMFUL OR FATAL IF SWALLOWED.

2

MILTON PART. NO.	CONTAINER SIZE	CTN. QTY.	ORDER NO.	PRICE EACH
1002-32	32 oz. Flip-Top container	12	3350-550	\$20.57
1002	1-gal. container	6	3350-551	43.44



1002-32

RELTON

TCO-14 & TCO-16 Cutting Oils

Dark & Light Thread Cutting Oils

- Leaves clean, smooth threads
- Ready to use on all pipe materials



12

SIZE	CASE QTY.	(DARK) TCO-14 ORDER NUMBER	(LIGHT) TCO-16 ORDER NUMBER	PRICE EACH
16 oz.	12	3159-490†	—	\$ 5.45
1 GAL.	4	3159-495*	3159-515	25.15
5 GAL.	1	3159-500	3159-520	112.90
55 GAL.	1	3159-505	3159-525	920.00

† Limited Quantities

RELTON

Air-Flo™ Air Tool Oil

- Protects against rust, gums, sludges, etc.
- Provides positive lubrication of piston-driven and rotary air tools.
- Prolongs tool life
- Increases RPM's and torque
- Effective in a wide variety of tools, applications and temperature ranges



12

SIZE	CASE QTY.	PART NO.	PRICE EA.
Pint	12	3159-530*	\$ 11.00
1 gal.	4	3159-535*	56.45
55 gal. drum	—	3159-540	1400.00

RELTON

Rel-Saw™ Bandsaw Fluid

- Improves blade life
- Remains stable over a wide variety of water conditions
- Promotes cleaner-running machines compared to soluble oils
- Semi-synthetic formula



12

SIZE	CASE QTY.	PART NO.	PRICE EA.
1 gal. bottle	4	3159-582*	\$ 35.65
5 gal. pail	1	3159-583	154.00
55 gal. drum	—	3159-584	1570.00

Pipe Compound & Tape

LA·CO®

Slic-tite® Paste with PTFE

Heavy-duty thread sealing compound

- Contains more PTFE than other national brands
- Use on metal, PVC, CPVC, and ABS plastic pipe threads
- For sealing water, air, steam, natural gas, LP gas, refrigerant, ammonia, gasoline and oil. See Application chart for other service uses
- Sealing temperature: -50°F to 500°F (-46°C to 260°C)
- Pressures: 3,000 PSI (204 BAR) for gas, 10,000 PSI (680 BAR) for liquid
- USDA approved for use in federally inspected meat and poultry plants
- FGG/BM® System Compatible
- Non-toxic, non-drying, washes off easily



6

SIZE	PACK QTY.	CASE QTY.	ORDER NO.	PRICE EACH
1/2 pint	1	24	6442-019	\$17.71

LA·CO®

Slic-tite® PTFE Thread Tape

- Packed with PTFE, Slic-tite Tape provides a highly resistant seal on pipe threads for all types of service. This high-density tape works with several types of systems, and it permits easy disassembly, even after many years of service.
- Pressure: to 2,000 PSI (136 BAR)
- Sealing temperature: -450°F to 550°F (-268°C to 288°C)
- 4 mils thick and made with PTFE for greater sealing power
- Non-toxic



6

PART NO.	DESCRIPTION	ORDER NO.	PRICE EACH
44082	1/2" x 300"	6444-082	\$3.71
44082	1/2" x 600"	6444-083	4.44

LA·CO®

Pipe Thread Tape Of PTFE

- Provides a highly resistant seal on pipe threads for all types of service. This economy-grade tape works with several types of systems, allows easy disassembly, even after many years of service.
- Pressure: to 10,000 PSI (136 BAR)
- Sealing temperature: -450°F to 550°F (-268°C to 288°C)
- 3 mils thick and made with PTFE for effective sealing power
- Non-toxic



6

PART NO.	DESCRIPTION	ORDER NO.	PRICE EACH
44071	1/2" x 260"	6444-071	\$0.93
44072	1/2" x 520"	6444-072	1.25

Anti-Seize

CRC Copper Anti-Seize

- Prevents seizing & galling caused by high temps, heavy loads, vibrations & corrosion
- Excellent choice for closely fitted parts needing extreme lubrication
- Copper-based, safe for use on ferrous/non-ferrous metals

SHIPPING CODE	PART. NO.	DESC.	CASE QTY.	ORDER NO.	PRICE EACH
2	14095*	16 oz. aero.	12	6718-116	\$34.20

*This product is labeled extremely flammable.



LA-CO EZ BREAK® Nickel Grade®

Anti-seize & lubricating compound

- Contains fine particles of nickel and other additives.
- Contains no copper.
- Resists rust and corrosion.
- Makes disassembly easy, even after years of service.
- Temperature: to 2600°F. PACKAGE QTY.: 1 CASE QTY.: 24

SIZE	ORDER NO.	PRICE EACH
9 oz.	6408-971	\$24.91



NEVER-SEEZ® Anti-Seize & Lubricating Compound

Pure Nickel Special

- Formulated to protect up to 2400°F against seizure and galling, galvanic and severe environmental corrosion.
- It contains flake particles of pure nickel, graphite and other additives
- Recommended for use when applications prohibit the presence of copper, especially when resistance to corrosive acidic and caustic solutions is required.
- Meets Boeing BAC 5008, Ford ESE-M12A4-A, Garrett Engine Div. PCS5721, GE Aircraft A50TF198 Class A, General Motors 14001899, Pratt & Whitney PWA 36053-1 and is tested to MIL-PRF-907E.

PART NO.	DESC.	CASE QTY.	ORDER NO.	PRICE EACH
NSN-165	16 oz. Flat Top	12	3159-819	\$70.70
NSBT-8N	8 oz. Brush Top	12	3159-821	43.80
NSBT-16N	16 oz. Brush Top	12	3159-822	75.70



LA-CO®

EZ BREAK® Copper Grade®

Anti-seize & lubricating compound

- Recommended for coating nuts, bolts, valves, flanges, splines, for easy breakout after years of service.
- Copper-based anti-seize and lubricating compound.
- Resists rust and corrosion.
- Meets Mil. Spec. Mil-A-907D.
- Temperature to 1800°F. PACKAGE QTY.: 1 CASE QTY.: 24

SIZE	ORDER NO.	PRICE EACH
10 oz.	6408-910	\$18.53



NEVER-SEEZ® Anti-Seize & Lubricating Compound

High Temperature Stainless

- A stainless steel, graphite, aluminum based anti-seize compound formulated to protect up to 2200°F against seizure and galling, galvanic and severe environmental corrosion.
- Specifically designed for applications that cannot use nickel based products.
- Tested to MIL-PRF-907E

PART NO.	DESC.	CASE QTY.	ORDER NO.	PRICE EACH
NSSBT-8	8 oz. Brush Top	12	3159-827	\$18.85



NEVER-SEEZ® Anti-Seize & Lubricating Compound

Mariner's Choice

- Never-Seez Mariner's Choice is a copper-free, heavy duty anti-seize and extreme pressure lubricant formulated to assure absolute parts protection against seizure, galling, and corrosion in fresh/salt water environments.
- Mariner's Choice offers superior resistance to water washout, and the best protection in continuous high moisture environments both above and below water lines.
- Tested to MIL-A-907E.

PART. NO.	DESC.	CASE QTY.	ORDER NO.	PRICE EACH
NMCBT-8	8 oz. Brush Top	12	3159-838	\$29.00



NEVER-SEEZ® Anti-Seize & Lubricating Compound

Regular Grade

The "original" anti-seize compound and extreme pressure lubricant formulated with copper, graphite, aluminum and other ingredients to protect metal parts against rust, corrosion and seizure up to 1800°F. Fine metallic and graphite particles in special grease protect parts even in high heat, high pressure and corrosive environments. Ford ESE-M12A4-A, Garrett Engine Div. PCS5724, Pratt & Whitney PWA 360523-2 and tested to MIL-PRF-907E.



NEVER-SEEZ® Anti-Seize & Lubricating Compound

White Food Grade w/PTFE

Meets FDA and USDA requirements for incidental food contact. Fortified with high load carrying solid lubricants, it lubricates and protects bearings, gears and other moving parts exposed to high temperatures up to 475°F and wash downs. The unique dispersion of FDA authorized PTFE provides additional lubricity especially where a thin film of lubricant is desirable. Never-Seez White Food Grade with PTFE is virtually odorless, colorless, and tasteless. It is a "multi-purpose" lubricant for varied services within a food handling plant.



*Shipping Code: 2

PART. NO.	DESC.	CASE QTY.	ORDER NO.	PRICE EACH
NS-160	16 oz. Flat Top	12	3159-801	\$34.90
NSBT-8	8 oz. Brush Top	12	3159-805	23.90
NSBT-16	16 oz. Brush Top	12	3159-806	36.00
NSA-16	16 fl. oz. Aerosol*	12	3159-803	29.20

MFG. PART. NO.	DESC.	CASE QTY.	ORDER NO.	PRICE EACH
NSWT-14	14 oz. Flat Top	12	3159-855	\$57.50

Cutting Fluids



Aluminum

When the majority of your work is on aluminum, this is the most effective cutting fluid you can use, providing excellent performance for any and all cutting operations.

Shipping Code: 2, 3 (30 gal. & 55 gal.)



Pro Tap

Made especially for projects that require a cutting fluid that's free of all regulated chemicals. TAP MAGIC PRO TAP is completely biodegradable! Highly effective for all cutting operations on all metals.

Shipping Code: 2 (aerosol), 3 (30 gal. & 55 gal.)



EP-Extra™

An ozone-friendly formula that gives you outstanding performance for any cutting operation on any metal. Absolutely without equal on all hard metals and for cuts of extreme pressure or long duration.

Shipping Code: 2 (aerosol), 3 (30 gal. & 55 gal.)



Xtra-Thick™

The extreme performance heavyweight cutting fluid for the hardest metals up to 45 RC. Great for lathe, millwork, and deep hole cuts. Contains EP-X³®.

Shipping Code: 3 (30 gal. & 55 gal.)



Aqueous Formula

A totally biodegradable and non-corrosive water-based fluid that is highly effective for all cuts on metal, excluding magnesium. Contains EP-X³® for a synergistic boost in performance.

Shipping Code: 2 (aerosol) 3 (30 gal. & 55 gal.)



Xtra-Foamy®

A high-visibility foaming action cutting fluid containing EP-X³® for extreme performance on even the hardest-to-machine metals. Ideal for all cuts on all metals - especially high nickel alloys, inconel, stainless, titanium, and other hard metals up to 45 RC!

Shipping Code: 2,
17 oz. can Order No. 2591-282
Price Each: \$21.90



Eco-Oil Formula

Tap Magic Eco-Oil Formula is totally biodegradable and has a natural oil base that's remarkably low in odor and smoke - even on cuts that produce a lot of heat. It contains our EP-X3 additive for a synergistic boost in performance. Highly effective for all cuts on all metals.

Shipping Code: 2 (aerosol), 3 (30 gal. & 55 gal.)



H₂OX™

Get the performance of an oil soluble with the cleanliness of a synthetic! Formulated to provide excellent lubricity while eliminating the sticky messy film associated with heavy oil products. Designed for tool-dulling jobs like grinding, sawing, milling, boring, and reaming hard metals, Tap Magic H2OX can be used with any water-based metal cutting system.

Shipping Code: 3 (55 gal.)



EP-XTRA ALUMINUM AQUEOUS						XTRA-THICK		PRO-TAP		ECO-OIL	H ₂ OX	
SIZE	CASE QTY.	ORDER NO.	ORDER NO.	ORDER NO.	PRICE EACH	ORDER NO.	PRICE EACH	ORDER NO.	ORDER NO.	PRICE EACH	ORDER NO.	PRICE EACH
4 oz.	24	2591-275	2591-261	-	\$4.60	-	-	2591-262	-	\$ 4.70	-	-
12 oz.												
aerosol	12	2591-281	2591-260	-	15.70	-	-	2591-268	2591-305	15.90	-	-
16 oz.	12	2591-276	2591-255	2591-292	14.60	2591-285	\$ 18.00	2591-263	2591-300	14.90	-	-
1 gal.	2	2591-277	2591-256	2591-293	84.50	2591-286	106.20	2591-264	2591-301	86.70	2591-306	\$60.10
5 gal.	1*	2591-278	2591-257	2591-294	363.30	2591-287	453.50	2591-265	2591-302	373.80	2591-307	240.80
30 gal.	1†	2591-279	2591-258	2591-295	1697.40	2591-288	2156.00	2591-266	2591-303	1771.40	-	-
55 gal.	1†	2591-280	2591-259	2591-296	2995.00	2591-289	3497.70	2591-267	2591-304	3118.40	2591-308	2408.90

† FOB Factory *Additional handling UPS charge

RELTON Cutting Fluids

12

Rapid Tap[®] All Metal Cutting Fluid

- The most effective cutting fluid available
- Excels in tough materials
- Contains no 1,1,1-trichloroethane or ozone-depleting chemicals
- Effective on all metals (including aluminum)



SIZE	CASE QTY.	PART NUMBER	PRICE EACH
4 oz.	24	3159-400	\$ 3.30
16 oz.	12	3159-405	10.55
1 gal.	4	3159-410	59.95
5 gal.	1	3159-415	281.75
55 gal.†	-	3159-425	2380.00

† FOB Factory

A-9 Aluminum Cutting Fluid

Ozone-friendly • Saves Time - Tools - Money

Use for all operations on aluminum: milling, broaching, drilling, threading, tapping, reaming, sawing, etc. Contains a scientific blend of chemicals that attach themselves to aluminum surfaces, forming an effective extreme-pressure boundary lubricant between tool and work surface.



SIZE	CASE QTY.	PART NUMBER	PRICE EACH
4 oz.	24	3159-460	\$3.30
16 oz.	12	3159-465	10.55
1 gal.	4	3159-470	59.95
5 gal.	1	3159-475	281.75
55 gal.†	-	3159-485	2380.00

† FOB Factory

Rapid Tap[®] Paste

- Greatly extended tool life
- Super-fine machined finish in operation after operation
- Anti-mist protection for a healthier work environment
- Contains no 1,1,1-trichloroethane or ozone-depleting chemicals
- Excels in tough materials



SIZE	CASE QTY.	PART NO.	PRICE EA.
8 oz. jar	12	3159-426	\$ 12.45

Option 1[®] Metal Cutting Fluid

Option 1[®] is effective in all machining operations on all metals except those that are water-reactive, such as magnesium.

- Ozone-friendly
- Water-based - Biodegradable - No oil
- Disposable down-the-drain
- No 1, 1, 1-trichloroethane (methyl chloroform)
- No sulphur - No toxic chemicals.
- Not reportable under any hazard laws.



SIZE	CASE QTY.	PART NUMBER	PRICE EACH
4 oz.	24	3159-430	\$ 3.30
16 oz.	12	3159-435	10.55
1 gal.	4	3159-440	59.95
5 gal.	1	3159-445	281.75
55 gal.†	-	3159-455	2380.00

† FOB Factory

Stick-Kut[™] Wax Lubricant



- Safe and effective lubricant for grinding wheels, sanding belts, and saw blades
- Eliminates heat build-up and belt loading
- Provides smooth, cool cutting
- Extends wheel life
- Reduces loading, stops binding, and prevents burring

SIZE	CASE QTY.	PART NO.	PRICE EACH
15 oz. stick	12	3159-427	\$ 11.90

CROWN[®] Cutting Fluid

Buttercutt

Cutting/Tapping Compound

- High temperature, high pressure film provides dependable tool point lubrication.
- USDA Certified 98% Biobased Product
- Flash point of 550°F (288°C) • No etch/staining
- For use in manufacturing facilities

Applications:

Stainless steel, nickel, copper alloys, & other metals



SIZE	CASE QTY.	PART NO.	PRICE EA.
16 oz. pint	12	9515-040	\$18.07
1 gallon	2	9515-041	83.01

Misting Systems

Kool Kit-Starter Special – Model 500

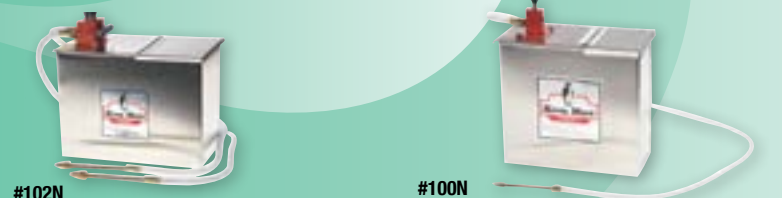
Model 500 includes:

- One Model 100N Mist Coolant System with one gallon stainless steel tank.
- One Adjustable Magnetic Nozzle Positioner
- One Gallon Formula 78 Concentrated Coolant
- One Sample Formula 77 Concentrated Coolant

Formula 77 and 78 Meet Requirements of OSHA • NASA • AEC • EPA

Order No. 9520-205...Price Each: \$367.00

General Purpose Models with Stainless Steel Tanks



TANK MODEL	CAPACITY	NO. OF OUTLETS	ORDER NUMBER	PRICE EACH
100N	1 Gallon	1	9520-100	\$223.00
102N	1 Gallon	2	9520-116	311.00

TANK MODEL	CAPACITY	NO. OF OUTLETS	ORDER NUMBER	PRICE EACH
350N	3 Gallon	1	9520-103	\$255.00
352N	3 Gallon	2	9520-119	352.00

All Models have 4' long Braided Nylon Reinforced Coolant Lines with 6" long Brass Nozzle

Automatic Mist Coolant System Without Tank

Equipped with 4' long braided nylon reinforced coolant line with 6" long brass nozzle. Units have 4' long siphoning line and ball check strainer for use with customer's own tank.

Model 100AP Single Line Unit
Order No. 9520-200 Price Each \$230.00

Mist or Flood Coolants

Safe for people, materials, environment and machines

Formula 77: For tougher service. Is highly recommended for Mist Cooling any metal or alloy where tougher machining condition requires greater lubricity.

Formula 78: For light duty. Is a chemical base Mist Coolant that dissolves in water to a clear solution. Can be used on any metal or alloy.

MODEL	ORDER NO.	PRICE
77-1 1 Gallon	9520-209	\$73.00
77-5 5 Gallon	9520-211	335.00

MODEL	ORDER NO.	PRICE
78-1 1 Gallon	9520-213	\$69.00
78-5 5 Gallon	9520-215	323.00

Replacement Coolant Lines

MODEL NO.	DESCRIPTION	ORDER NO.	PRICE EA.
SCL-2	2 ft. Coolant Line	9520-250	\$44.00
SCL-4	4 ft. Coolant Line	9520-251	49.50
MCL-3	3 ft. Nylon Braid Coolant Line	9520-270	63.00
MCL-4	4 ft. Nylon Braid Coolant Line	9520-272	67.00

Mist Coolant Generator

Just one Model K-75 can handle most cooling jobs in your shop. Hangs on bracket (furnished) or stands anywhere. Volume and spray cone width are adjustable for each line.

- Turret takes up to four coolant lines: one furnished - add others as needed
- All lines ball-checked. No flowback
- See-through drawer shows coolant level
- Can be moved from machine to machine
- Made of hi-strength structural plastics

Model K-75. Order No. 9520-160.....Price Each \$ 196.00

Kit K-75K.... Order No. 9520-161.....Price Each \$ 86.00

Extra Outlet Kit – Contains everything required to add additional outlets to K-75 unit.



Port-a-Mist Kit – Model 560

Model 560 includes:

- One PORT-a-MIST Model 60M Unit including air and coolant hoses, heavy duty magnetic base, simple single knob control, and 12" flexible LOC-LINE® positioner.
- One Gallon Kool Mist Formula 78 Concentrated Coolant
- One Sample Formula 77 Concentrated Coolant (4 oz.)

Order No. 9520-206...Price Each: \$254.00



Port-a-Mist Unit Without Tanks

Model 60MI2: Unit with 12" Flexible LOC-LINE®
Order No. 9520-184.....Price Each: \$168.00

Model 60MI8: Unit with 18" Flexible LOC-LINE®
Order No. 9520-185.....Price Each: \$200.00

FEATURES:

- Single Air/Coolant Control Valve
- Adjustable Spray Nozzle
- Heavy Duty Magnetic Base
- 12" or 18" Flexible LOC-LINE® Nozzle Positioner
- 4 ft. Coolant Hose with Anti Syphon Check Valve
- 4 ft. Air Hose with Male Pipe Thread Fitting
- 1 yr. Warranty and Available Parts



Kool-Kit Lite

Model 580 Includes:

- One Model 80S Mist Coolant System
- One Model 200 Adjustable Magnetic Nozzle Positioner
- One Gallon Formula 78 Concentrated Coolant
- One Sample Formula 77 Concentrated Coolant

Light Duty Models Without Tanks

2' Long Nylon Reinforced Coolant Line with 4' Long Siphon Line
4" Long Brass Nozzle

Order No. 9520-208...Price Each: \$235.00



Nozzle Positioners

Model 205 Order No. 9520-173
Price Each: \$49.00

Magnetic Nozzle, for Portable Use

Model 305 Order No. 9520-172
Price Each: \$43.00

Non-Magnetic Nozzle, for Permanent Mounting



Models For Use with Your Own Tank or Sump

Simplest of the Systems: The controls of these units are mounted permanently to the machine, close to the operator and the cut.

No Coolant Tank Furnished: Coolant mix may be placed in the machine sump, or in any clean container that will not contaminate the coolant. If the sump is used, the conventional flood coolant pump must be made inoperative.

Coaxial Coolant Line: Coolant and compressed air are not mixed until they reach the nozzle. To overcome the need for dual line, Kool Mist has developed a coaxial line, or a hose within a hose. Coolant line exteriors may be nylon braided for normal duty, or metal braided for protection from hot chips and abrasion.

Easy-to-use Control: Output from each nozzle is regulated by a single knob on the control. Mist spray may be turned on or off instantly to coordinate with the cutting cycle, and the spray mix made lean or rich as needed.

MODEL NO.	NOZZLE LENGTH*	COOLANT LINE TYPE & LENGTH	CONTROL MOUNTING	NOZZLE POSITIONER	ORDER NUMBER	PRICE EACH
80S	4" Brass	Nylon Braided 2'	Fixed	Not Incl.	9520-180	\$98.00
80SM	4" Brass	Nylon Braided 2'	Fixed	Magnet	9520-181	157.00

* Straight nozzle is standard. 45° and 90° nozzles are available

1 Gal. Tank Holder Order No. 9520-217 ..Price Each: \$69.00

Plasti Dip

Multi-purpose rubber coating that exhibits excellent moisture, acid, alkaline, and abrasion resistance. Protects against skidding/slipping and corrosion.

Shipping Code: 2 ; 1 (5 gal.)

*Cannot be sold in CA



VLP - Vinyl Repair

A clear, high strength, flexible adhesive designed to mend rips, tears and small holes on most types of flexible vinyl and leather surfaces. Typical applications include: furniture, awnings, tarps, vinyl sheeting, luggage, rain wear, boots, hunting gear, auto seats and dashes.

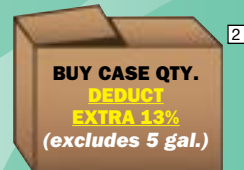


Plastiseam

A tough, clear, flexible resin system that is excellent for sealing out moisture in pin holes in sewn seams. Typical applications include: nylon, canvas, backpacks, tents, awnings, tarps, outdoor and hunting gear.

*Cannot be sold in CA

Shipping Code: 2



MFG #	DESCRIPTION	CASE QTY.	ORDER NO.	PRICE EACH
11201-6	11 oz. aero. Red	6	9520-800	\$13.26
11203-6	11 oz. aero. Black	6	9520-802	13.26
11207-6	11 oz. aero. White	6	9520-804	13.26
11209-6	11 oz. aero. Clear	6	9520-805	13.26
11221-6	11 oz. aero. Gn. Gray	6	9520-806	13.26
11601-6	14.5 oz. Red	6	9520-810	15.80
11602-6	14.5 oz. Yellow	6	9520-811	15.80
11603-6	14.5 oz. Black	6	9520-812	15.80
11604-6	14.5 oz. Blue	6	9520-813	15.80
12213	22 oz. Black	6	9520-818	12.03
12219	22 oz. Clear	6	9520-817	12.03
10101*	1 gal. Red	4	9520-820	57.55
10102*	1 gal. Yellow	4	9520-821	57.55
10103*	1 gal. Black	4	9520-822	57.55
10104*	1 gal. Blue	4	9520-823	57.55
10106*	1 gal. H. Green	4	9520-824	57.55
10107*	1 gal. White	4	9520-825	57.55
10109*	1 gal. Clear	4	9520-826	57.55
10101013	1 gal. Gn. Gray	4	9520-827	57.55
105C1*	5 gal. Red	-	9520-830	226.72
105C161*	5 gal. Yellow	-	9520-831	226.72
105C3*	5 gal. Black	-	9520-832	226.72
105C4*	5 gal. Blue	-	9520-833	226.72
105C444*	5 gal. H. Green	-	9520-834	226.72
105C7*	5 gal. White	-	9520-835	226.72
10509*	5 gal. Clear	-	9520-836	226.72
105C1013	5 gal. Gn. Gray	-	9520-837	226.72

MFG #	SIZE	SHIPPING CODE	CASE QTY.	ORDER NO.	PRICE EACH
61Z09	1 oz.	2	6	9520-920	\$7.38
61Z09*	12 oz.	2	24	9520-921	41.38
60109*	1 gal.	2	4	9520-922	128.02
60509*	5 gal.	1	-	9520-923	586.26

*Cannot be sold in CA

HCF-Hard Coat Finish

Multi-purpose acrylic coating that is non-flammable and has high solids content making this coating an emission control coating system. Exhibits excellent petroleum, chemical, UV, corrosion, and abrasion resistance. Typical applications include: transformers, coils, tools, fixtures, brackets, oil handling equipment, heavy machinery, and chain link fence components.

*Cannot be sold in CA



MFG #	DESCRIPTION	CASE QTY.	ORDER NO.	PRICE EACH
30101	1 gal. Red	4	9520-850	\$97.53
30102	1 gal. Yellow	4	9520-851	97.53
30103	1 gal. Black	4	9520-852	97.53
30104	1 gal. Blue	4	9520-853	97.53
30105	1 gal. Orange	4	9520-854	97.53
30106	1 gal. Green	4	9520-855	97.53
30107	1 gal. White	4	9520-856	97.53
30108	1 gal. Grey	4	9520-857	97.53
305C15	5 gal. Red	-	9520-860	414.93
305C226	5 gal. Yellow	-	9520-861	414.93
305C16	5 gal. Black	-	9520-862	414.93
305C19	5 gal. Blue	-	9520-863	414.93
305C165	5 gal. Orange	-	9520-864	414.93
305C164	5 gal. Green	-	9520-865	414.93
305C468	5 gal. White	-	9520-866	414.93
305C117	5 gal. Gray	-	9520-867	414.93

UV Formula

Shipping Code: 2 ; 1 (5 gal.) *Cannot be sold in CA

MFG #	DESCRIPTION	CASE QTY.	ORDER NO.	PRICE EACH
10101UV	1 gal. Red	4	9521-000	\$58.33
10102UV	1 gal. Yellow	4	9521-001	58.33
10103UV	1 gal. Black	4	9521-002	58.33
10104UV	1 gal. Blue	4	9521-003	58.33
10106UV	1 gal. Hntr. Green	4	9521-004	58.33
10107UV	1 gal. White	4	9521-005	58.33
10109UV	1 gal. Clear	4	9521-006	58.33
10101013UV	1 gal. G. Gray	4	9521-007	58.33
105C1UV	5 gal. Red	-	9520-760	229.37
105C161UV	5 gal. Yellow	-	9520-761	229.37
105C3UV	5 gal. Black	-	9520-762	229.37
105C4UV	5 gal. Blue	-	9520-763	229.37
105C444UV	5 gal. Hntr. Green	-	9520-764	229.37
105C7UV	5 gal. White	-	9520-765	229.37

Standard Formula - Spray

DIY only: DE, IL, IN, MI, WI
Cannot be sold in AK, CA, HI, MA, MD, NJ, Canada
(5 gal: CA, DE, MD)



MFG #	1 GAL. COLOR	CASE QTY.	ORDER NO.	PRICE EACH
10101S	Red	4	9520-780	\$57.55
10102S	Yellow	4	9520-781	57.55
10103S	Black	4	9520-782	57.55
10104S	Blue	4	9520-783	57.55
10106S	Htr. Green	4	9520-784	57.55
10107S	White	4	9520-785	57.55
10109S	Clear	4	9520-786	57.55
10101013S	Gn. Gray	4	9520-787	57.55

MFG #	(5 GAL.) COLOR	ORDER NO.	PRICE EACH
105C01S	Red	9520-770	\$208.88
105C161S	Yellow	9520-771	208.88
105C444S	Htr. Green	9520-774	208.88
105C7S	White	9520-775	208.88
10509S	Clear	9520-776	208.88

Flourescents

Shipping Code: 2 ; 1 (5 gal.)

*Cannot be sold in CA

MFG #	DESCRIPTION	CASE QTY.	ORDER NO.	PRICE EACH
10121	1 gal. Fl. Red	4	9520-720	\$65.04
10122	1 gal. Fl. Yellow	4	9520-721	65.04
101023	1 gal. Fl. Pink	4	9520-722	65.04
10124	1 gal. Blue	4	9520-723	65.04
10125	1 gal. Fl. Orange	4	9520-724	65.04
10126	1 gal. Fl. Green	4	9520-725	65.04
101C174	1 gal. Fl. Purple	4	9520-726	65.04
101C57	1 gal. Phosfl.	4	9520-727	70.94



Super Grip

An air dry, non-yellowing, synthetic rubber coating that bonds to most types of fabrics to prevent skidding and slipping on slick surfaces. Typical applications include: fabric cushions, throw rugs, clothes hangers, athletic grips, table cloths, and placemats.

Shipping Code: 2

*Cannot be sold in CA

MFG #	DESCRIPTION	CASE QTY.	ORDER NO.	PRICE EACH
91209-6*	11.5 oz. aerosol	6	9520-959	\$12.26



ReRack

Vinyl/Dishwasher Rack Repair
• Won't crack, chip, or become brittle
• Resists heat, high water pressure
• Protects against rust
• Easy to use, durable, versatile

Shipping Code: 2

MFG #	DESC.	CASE QTY.	ORDER NO.	PRICE EA.
630076	1 oz. White	6	9520-976	\$9.87



Plasti Dip Camo

- Plasti Dip Camo is a special collection of Plasti Dip colors designed to match the many shades of nature.
 - Specially formulated colors help you blend in with your surroundings.
 - Protects outdoor gear from impact, abrasion, and the elements.
- Shipping Code: 2

MFG #	COLOR	CASE QTY.	ORDER NO.	PRICE EACH
11214-6	Black	6	9520-870	\$12.49
11215-6	Tan	6	9520-871	12.49
11216-6	Brown	6	9520-872	12.49
11217-6	Green	6	9520-873	12.49



Plasti Dip Glossifier

Glossifier: Gives any Plasti Dipped item a glossy, polished look.
Shipping Code: 2

MFG #	DESCRIPTION	CASE QTY.	ORDER NO.	PRICE EACH
11212-6	Glossifier	6	9520-877	\$12.41



Plasti Dip Classic Muscle

- 11 new classic muscle car colors to choose from
- Easy to apply, won't peel or crack or become brittle in extreme weather conditions.
- Excellent for use on wheels, badges and trim!
- Protects coated items against moisture, acids, abrasion, & corrosion
- Easy to remove from most surfaces when ready to return to the original surface. Shipping Code: 2

MFG #	COLOR	CASE QTY.	ORDER NO.	PRICE EACH
11306-6	Tropical Turquoise	6	9521-119	\$21.69
11309-6	Plum Crazy	6	9521-122	21.69



Plasti Dip Blaze

- A unique collection of neon Plasti Dip colors that deliver eye-catching looks for any application.
 - Use anywhere you need bright, easy to see colors
 - Use it to improve visibility for safety concerns
 - Add can't-miss color or for a one-of-a-kind look
 - Peelable easy to remove from most surfaces when ready to remove
 - Protects against moisture, acids, abrasion, corrosion, skidding, and slipping
 - Provides a comfortable, controlled grip
 - Remains flexible and stretchy over time
 - Will not crack or become brittle in extreme weather conditions
- Shipping Code: 2



MFG #	DESCRIPTION	CASE QTY.	ORDER NO.	PRICE EACH
11218-6	Orange	6	9520-880	\$13.41
11219-6	Blue	6	9520-881	13.41
11222-6	Yellow	6	9520-882	13.41
11223-6	Pink	6	9520-883	13.41
11224-6	Green	6	9520-884	13.41

Plasti Dip Metalizer

- Easy to use, gives any Plasti Dipped item a unique look.
- Adds a shimmering, metallic finish while letting the color of the Plasti Dip underneath show through.
- Metalizer colors work only as an addition to original or aerosol Plasti Dip coatings. Shipping Code: 2

MFG #	COLOR	CASE QTY.	ORDER NO.	PRICE EACH
11210-6	Silver	6	9520-875	\$15.78
11211-6	Gold	6	9520-876	7.56
11236-6	Copper	6	9520-878	15.78
11242-6	Blue	6	9520-897	7.56
11244-6	Violet	6	9520-899	7.56
11287-6	Graphite Pearl	6	9520-892	15.78



Plasti Dip Chameleon

- Use over Plasti Dipped items to provide a unique look.
- Creates a color shift appearance on Plastic Dip® coated items!
- Color shifts at different angles in sunlight.
- Air dries to a soft, satin finish. Shipping Code: 2

MFG #	DESCRIPTION	CASE QTY.	ORDER NO.	PRICE EACH
11255-6	Green/Blue	6	9521-109	\$10.67



Plasti Dip Pearlizer

- Gives a pearlescent sheen and subtle white tint to any color of Plasti Dip.
- Adds a one-of-a-kind luster to any dried, cured Plasti Dip coating. Shipping Code: 2

MFG #	DESCRIPTION	CASE QTY.	ORDER NO.	PRICE EACH
11226-6	Spray	6	9520-895	\$14.42



Plasti Dip Smoke

- Special formulation with a translucent, black-gray color
- Protects coated items against moisture, acids and corrosion
- Color darkens gradually as more coats are added. 1-2 coats are light, smoky gray. Each additional coat gives Plasti Dip Smoke a darker hue—from gray to charcoal to black.
- Can be applied to nearly any substrate surface, and creates a soft, rubbery, easy-grip surface. Shipping Code: 2

MFG #	CASE DESCRIPTION	QTY.	ORDER NO.	PRICE EACH
11220-6	11 oz. Aero. Gray/Blk.	6	9520-890	\$12.53



Primer

An air dry, clear acrylic formula specifically developed to increase adhesion of Plasti Dip. Shipping Code: 2, excluding 5 gal: 1

MFG #	CASE DESCRIPTION	QTY.	ORDER NO.	PRICE EACH
41209-6	11 oz. aero.	6	9520-904	\$19.71



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MEASURING INSTRUMENTS

Mitutoyo

DELIVERING
PRACTICAL SOLUTIONS
FOR YOUR PRECISION
MEASUREMENT CHALLENGES

Fowler

QUALITY MEASURING
INSTRUMENTS
& PRECISION TOOLS

Goetz & Schenck

SHAPING THE FUTURE
OF MEASUREMENT

**Vermont
Gage**

GAGES

GENERAL

CALIPERS, PROTRACTORS

HEXAGON
METROLOGY

MEASURING INSTRUMENTS

Pittsburg
ALLEGHANY

GLOBALLY SOURCED
TOOLS PROVIDING A
BALANCE OF QUALITY & PRICE

Huot

DRILL GAGES

TESA

TESA
TECHNOLOGY

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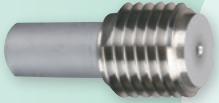
Thread Plug Gages - UNC, UNF, UN & UNEF



Right Hand



Set includes one each:
Go & No Go member with handle



SHORT FORM CERTIFICATION - N/C — LONG FORM - CERTIFIED TO ACTUAL DIMENSIONS - ADDITIONAL CHARGE

SIZE	MEMBERS					HANDLES			SETS		
	UNC UNF UNEF	GO CLASS 1-2-3 1B-2B-3B	NO GO CLASS 2B	NO GO CLASS 3B	PRICE EACH	TAPER LOCK HANDLE SIZE	HANDLE ORDER NO.	PRICE EACH	CLASS 2B SET W/ HANDLE	CLASS 3B SET W/ HANDLE	PRICE EACH SET
0-80	UNF	4000-519	4000-542	4000-536	\$75.65	000	2591-698	\$13.00	4060-005	4060-006	\$ 172.80
1-64	UNC	4000-629	4000-655	4000-648	75.65	000	2591-698	13.00	4060-010	4060-011	172.80
1-72	UNF	4000-640	4000-665	4000-659	75.65	000	2591-698	13.00	4060-015	4060-016	172.80
2-56	UNC	4000-744	4000-772	4000-765	75.65	000	2591-698	13.00	4060-020	4060-021	172.80
2-64	UNF	4000-759	4000-786	4000-779	75.65	000	2591-698	13.00	4060-025	4060-026	172.80
3-48	UNC	4000-855	4000-885	4000-877	66.25	000	2591-698	13.00	4060-030	4060-031	154.05
3-56	UNF	4000-874	4000-902	4000-895	66.25	000	2591-698	13.00	4060-035	4060-036	154.05
4-40	UNC	4000-958	4000-991	4000-982	66.25	00	2591-699	12.00	4060-040	4060-041	152.50
4-48	UNF	4000-985	4001-016	4001-008	66.25	00	2591-699	12.00	4060-045	4060-046	152.50
5-40	UNC	4001-088	4001-121	4001-113	55.00	00	2591-699	12.00	4060-050	4060-051	130.00
5-44	UNF	4001-102	4001-134	4001-126	55.00	00	2591-699	12.00	4060-055	4060-056	130.00
6-32	UNC	4001-177	4001-214	4001-204	55.00	00	2591-699	12.00	4060-060	4060-061	130.00
6-40	UNF	4001-218	4001-252	4001-243	55.00	00	2591-699	12.00	4060-065	4060-066	130.00
8-32	UNC	4001-437	4001-475	4001-465	55.00	0	2591-700	12.00	4060-070	4060-071	130.00
8-36	UNF	4001-460	4001-496	4001-487	55.00	0	2591-700	12.00	4060-075	4060-076	130.00
10-24	UNC	4001-629	4001-672	4001-661	55.00	0	2591-700	12.00	4060-080	4060-081	130.00
10-32	UNF	4001-697	4001-736	4001-726	55.00	0	2591-700	12.00	4060-085	4060-086	130.00
12-24	UNC	4001-889	4001-933	4001-922	55.00	0	2591-700	12.00	4060-090	4060-091	130.00
12-28	UNF	4001-928	4001-970	4001-959	55.00	0	2591-700	12.00	4060-095	4060-096	130.00
12-32	UNEF	4001-957	4001-998	4001-988	72.50	0	2591-700	12.00	4060-100	4060-101	165.00
1/4-20	UNC	4002-175	4002-224	4002-211	52.50	1	2591-701	12.00	4060-105	4060-106	125.00
1/4-28	UNF	4002-268	4002-311	4002-300	52.50	1	2591-701	12.00	4060-110	4060-111	125.00
1/4-32	UNEF	4002-297	4002-339	4002-328	91.25	1	2591-701	12.00	4060-115	4060-116	202.50
5/16-18	UNC	4002-764	4002-817	4002-803	52.50	1	2591-701	12.00	4060-120	4060-121	125.00
5/16-24	UNF	4002-854	4002-902	4002-890	52.50	1	2591-701	12.00	4060-125	4060-126	125.00
5/16-32	UNEF	4002-922	4002-964	4002-953	91.25	1	2591-701	12.00	4060-130	4060-131	202.50
3/8-16	UNC	4003-344	4003-401	4003-387	53.75	2	2591-702	12.00	4060-135	4060-136	127.50
3/8-24	UNF	4003-479	4003-528	4003-516	53.75	2	2591-702	12.00	4060-140	4060-141	127.50
3/8-32	UNEF	4003-547	4003-591	4003-580	102.50	2	2591-702	12.00	4060-145	4060-146	225.00
7/16-14	UNC	4003-911	4003-972	4003-957	53.75	2	2591-702	12.00	4060-150	4060-151	127.50
7/16-20	UNF	4004-050	4004-104	4004-091	53.75	2	2591-702	12.00	4060-155	4060-156	127.50
7/16-28	UNEF	4004-143	4004-189	4004-178	102.50	2	2591-702	12.00	4060-160	4060-161	225.00
1/2-13	UNC	4004-500	4004-565	4004-548	55.00	2	2591-702	12.00	4060-165	4060-166	130.00
1/2-20	UNF	4004-675	4004-731	4004-717	55.00	2	2591-702	12.00	4060-170	4060-171	130.00
1/2-28	UNEF	4004-768	4004-816	4004-804	108.75	2	2591-702	12.00	4060-175	4060-176	237.50
9/16-12	UNC	4005-084	4005-152	4005-135	73.75	3	2591-703	12.00	4060-180	4060-181	167.50
9/16-18	UNF	4005-264	4005-323	4005-308	73.75	3	2591-703	12.00	4060-185	4060-186	167.50
9/16-24	UNEF	4005-354	4005-405	4005-392	117.50	3	2591-703	12.00	4060-190	4060-191	255.00
5/8-11	UNC	4005-660	4005-732	4005-714	75.00	3	2591-703	12.00	4060-195	4060-196	170.00
5/8-18	UNF	4005-889	4005-949	4005-934	75.00	3	2591-703	12.00	4060-200	4060-201	170.00
5/8-24	UNEF	4005-979	4006-031	4006-018	118.75	3	2591-703	12.00	4060-205	4060-206	257.50
11/16-24	UNEF	4006-604	4006-656	4006-643	122.50	3	2591-703	12.00	4060-210	4060-211	265.00
3/4-10	UNC	4006-850	4006-927	4006-907	80.00	3	2591-703	12.00	4060-215	4060-216	180.00
3/4-16	UNF	4007-094	4007-159	4007-143	80.00	3	2591-703	12.00	4060-220	4060-221	180.00
3/4-20	UNEF	4007-175	4007-232	4007-218	118.75	3	2591-703	12.00	4060-225	4060-226	257.50
13/16-20	UNEF	4007-800	4007-857	4007-843	127.50	3	2591-703	12.00	4060-230	4060-231	275.00
7/8-9	UNC	4008-028	4008-110	4008-089	87.50	4	2591-704	13.00	4060-235	4060-236	196.55
7/8-14	UNF	4008-286	4008-356	4008-339	87.50	4	2591-704	13.00	4060-240	4060-241	196.55
7/8-20	UNEF	4008-425	4008-482	4008-468	132.50	4	2591-704	13.00	4060-245	4060-246	286.55
15/16-20	UNEF	4009-050	4009-109	4009-094	135.00	4	2591-704	13.00	4060-250	4060-251	291.55

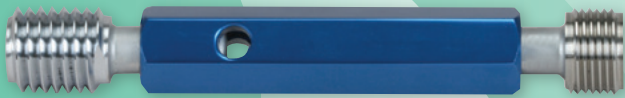
"W" TOLERANCE, CHROME PLATED. MULTIPLE LEADS & OTHER CLASSES - P.O.A.

(Continued)

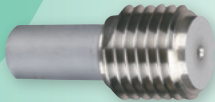
Thread Plug Gages - UNC, UNF, UN & UNEF



Right Hand



**Set includes one each:
Go & No Go member with handle**



SHORT FORM CERTIFICATION - N/C — LONG FORM - CERTIFIED TO ACTUAL DIMENSIONS - ADDITIONAL CHARGE

SIZE	NC NF NEF	GO CLASS 1-2-3 1B-2B-3B	MEMBERS			TAPER LOCK HANDLE SIZE	HANDLES		SETS		
			NO GO CLASS 2B	NO GO CLASS 3B	PRICE EACH		HANDLE ORDER NO.	PRICE EACH	CLASS 2B SET W/ HANDLE	CLASS 3B SET W/ HANDLE	PRICE EACH SET
1-8	UNC	4009-188	4009-276	4009-254	\$102.50	4	2591-704	\$13.00	4060-255	4060-256	\$226.55
1-12	UN	4009-459	4009-535	4009-516	102.50	4	2591-704	13.00	4060-260	4060-261	226.55
1-14	UNS	4009-536	4009-609	4009-590	102.50	4	2591-704	13.00	4060-265	4060-266	226.55
1-20	UNEF	4009-675	4009-734	4009-719	147.50	4	2591-704	13.00	4060-270	4060-271	316.55
11/16-12	UN	4010-084	4010-158	4010-139	176.25	4	2591-704	13.00	4060-275	4060-276	374.05
11/16-18	UNEF	4010-264	4010-326	4010-310	148.75	4	2591-704	13.00	4060-280	4060-281	319.05
1 1/8-7	UNC	4010-322	4010-416	4010-393	126.25	4	2591-704	13.00	4060-285	4060-286	274.05
1 1/8-12	UNF	4010-709	4010-787	4010-768	126.25	4	2591-704	13.00	4060-290	4060-291	274.05
1 1/8-18	UNEF	4010-889	4010-951	4010-935	155.00	4	2591-704	13.00	4060-295	4060-296	331.55
1 3/16-12	UN	4011-334	4011-409	4011-390	176.25	4	2591-704	13.00	4060-300	4060-301	375.65
1 3/16-18	UNEF	4011-514	4011-577	4011-561	155.00	4	2591-704	13.00	4060-305	4060-306	333.15
1 1/4-7	UNC	4011-572	4011-668	4011-644	132.50	5	2591-705	14.00	4060-310	4060-311	288.15
1 1/4-12	UNF	4011-959	4012-039	4012-019	132.50	5	2591-705	14.00	4060-315	4060-316	288.15
1 1/4-18	UNEF	4012-139	4012-202	4012-186	160.00	5	2591-705	14.00	4060-320	4060-321	343.15
1 5/16-12	UN	4012-584	4012-659	4012-640	185.00	5	2591-705	14.00	4060-325	4060-326	393.15
1 5/16-18	UNEF	4012-764	4012-827	4012-811	181.25	5	2591-705	14.00	4060-330	4060-331	385.65
1 3/8-6	UNC	4012-667	4012-771	4012-745	145.00	5	2591-705	14.00	4060-335	4060-336	313.15
1 3/8-12	UNF	4013-209	4013-291	4013-270	145.00	5	2591-705	14.00	4060-340	4060-341	313.15
1 3/8-18	UNEF	4013-389	4013-452	4013-436	188.75	5	2591-705	14.00	4060-345	4060-346	400.65
1 7/16-12	UN	4013-834	4013-910	4013-891	211.25	5	2591-705	14.00	4060-350	4060-351	445.60
1 7/16-18	UNEF	4014-014	4014-079	4014-062	196.25	5	2591-705	14.00	4060-355	4060-356	415.65
1 1/2-6	UNC	4013-917	4014-022	4013-996	168.75	5	2591-705	14.00	4060-360	4060-361	360.65
1 1/2-12	UNF	4014-459	4014-542	4014-522	168.75	5	2591-705	14.00	4060-365	4060-366	360.65
1 1/2-18	UNEF	4014-639	4014-704	4014-687	202.50	5	2591-705	14.00	4060-370	4060-371	428.15

"W" TOLERANCE, CHROME PLATED. MULTIPLE LEADS & OTHER CLASSES – P.O.A.

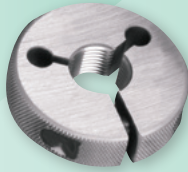
Call For Immediate Delivery From Stock On:



- High Performance
- Standards
- Special Thread
- Acme Thread
- British Thread
- Pipe Thread
- Left Hand

Thread Ring Gages - UNC, UNF, UN & UNEF

Right Hand



SHORT FORM CERTIFICATION - N/C — LONG FORM - CERTIFIED TO ACTUAL DIMENSIONS - ADDITIONAL CHARGE

SIZE	UNC UNF NEF	GO CLASS 2A	GO CLASS 3A	MEMBERS		PRICE EACH	HOLDERS			SETS		PRICE EACH SET
				NO GO CLASS 2A	NO GO CLASS 3A		SIZE	ORDER NO.	PRICE EACH	2A SET	3A SET	
0-80	UNF	4100-514	4100-519	4100-496	4100-506	\$250.00	1TH	2591-781	\$17.50	4070-005	4070-006	\$500.00
1-64	UNC	4100-623	4100-629	4100-603	4100-614	230.00	1TH	2591-781	17.50	4070-010	4070-011	460.00
1-72	UNF	4100-634	4100-640	4100-615	4100-626	230.00	1TH	2591-781	17.50	4070-015	4070-016	460.00
2-56	UNC	4100-738	4100-744A	4100-717	4100-728	183.75	1TH	2591-781	17.50	4070-020	4070-021	367.50
2-64	UNF	4100-753	4100-759	4100-733	4100-744	183.75	1TH	2591-781	17.50	4070-025	4070-026	367.50
3-48	UNC	4100-848	4100-855	4100-825	4100-838	185.00	1TH	2591-781	17.50	4070-030	4070-031	370.00
3-56	UNF	4100-867	4100-874	4100-845	4100-858	185.00	1TH	2591-781	17.50	4070-035	4070-036	370.00
4-40	UNC	4100-950	4100-958	4100-925	4100-939	163.75	1TH	2591-781	17.50	4070-040	4070-041	327.50
4-48	UNF	4100-978	4100-985	4100-954	4100-967	163.75	1TH	2591-781	17.50	4070-045	4070-046	327.50
5-40	UNC	4101-080	4101-088	4101-054	4101-069	148.75	1TH	2591-781	17.50	4070-050	4070-051	297.50
5-44	UNF	4101-095	4101-102	4101-070	4101-083	148.75	1TH	2591-781	17.50	4070-055	4070-056	297.50
6-32	UNC	4101-169	4101-177	4101-141	4101-156	148.75	1TH	2591-781	17.50	4070-060	4070-061	297.50
6-40	UNF	4101-210	4101-218	4101-184	4101-198	148.75	1TH	2591-781	17.50	4070-065	4070-066	297.50
8-32	UNC	4101-428	4101-437	4101-399	4101-415	148.75	1TH	2591-781	17.50	4070-070	4070-071	297.50
8-36	UNF	4101-452	4101-460	4101-424	4101-439	148.75	1TH	2591-781	17.50	4070-075	4070-076	297.50
10-24	UNC	4101-619	4101-629	4101-586	4101-604	148.75	1TH	2591-781	17.50	4070-080	4070-081	297.50
10-32	UNF	4101-688	4101-697	4101-658	4101-674	148.75	1TH	2591-781	17.50	4070-085	4070-086	317.50
12-24	UNC	4101-879	4101-889	4101-845	4101-863	148.75	1TH	2591-781	17.50	4070-090	4070-091	297.50
12-28	UNF	4101-918	4101-928	4101-866	4101-904	148.75	1TH	2591-781	17.50	4070-095	4070-096	297.50
12-32	UNEF	4101-948	4101-957	4101-917	4101-933	192.50	1TH	2591-781	17.50	4070-100	4070-101	385.00
1/4-20	UNC	4102-164	4102-175	4102-127	4102-147	145.00	2TH	2591-782	19.00	4070-105	4070-106	290.00
1/4-28	UNF	4102-258	4102-268	4102-225	4102-243	145.00	2TH	2591-782	19.00	4070-110	4070-111	290.00
1/4-32	UNEF	4102-287	4102-297	4102-255	4102-273	197.50	2TH	2591-782	19.00	4070-115	4070-116	395.00
5/16-18	UNC	4102-752	4102-764	4102-712	4102-734	145.00	2TH	2591-782	19.00	4070-120	4070-121	290.00
5/16-24	UNF	4102-843	4102-854	4102-806	4102-827	145.00	2TH	2591-782	19.00	4070-125	4070-126	290.00
5/16-32	UNEF	4102-912	4102-922	4102-880	4102-898	198.75	2TH	2591-782	19.00	4070-130	4070-131	397.50
3/8-16	UNC	4103-331	4103-344	4103-287	4103-311	156.25	3TH	2591-783	21.00	4070-135	4070-136	312.50
3/8-24	UNF	4103-468	4103-479	4103-430	4103-450	156.25	3TH	2591-783	21.00	4070-140	4070-141	312.50
3/8-32	UNEF	4103-537	4103-547	4103-503	4103-522	201.25	3TH	2591-783	21.00	4070-145	4070-146	402.50
7/16-14	UNC	4103-897	4103-911	4103-850	4103-876	156.25	3TH	2591-783	21.00	4070-150	4070-151	312.50
7/16-20	UNF	4104-037	4104-050	4103-995	4104-019	156.25	3TH	2591-783	21.00	4070-155	4070-156	312.50
7/16-28	UNEF	4104-132	4104-143	4104-096	4104-116	201.25	3TH	2591-783	21.00	4070-160	4070-161	402.50
1/2-13	UNC	4104-485	4104-500	4104-435	4104-463	171.25	3TH	2591-783	21.00	4070-165	4070-166	342.50
1/2-20	UNF	4104-662	4104-675	4104-619	4104-643	171.25	3TH	2591-783	21.00	4070-170	4070-171	342.50
1/2-28	UNEF	4104-757	4104-768	4104-720	4104-740	213.75	3TH	2591-783	21.00	4070-175	4070-176	427.50
9/16-12	UNC	4105-068	4105-084	4105-016	4105-045	188.75	4TH	2591-784	25.00	4070-180	4070-181	377.50
9/16-18	UNF	4105-250	4105-264	4105-205	4105-230	188.75	4TH	2591-784	25.00	4070-185	4070-186	377.50
9/16-24	UNEF	4105-342	4105-354	4105-303	4105-325	223.75	4TH	2591-784	25.00	4070-190	4070-191	447.50
5/8-11	UNC	4105-644	4105-660	4105-589	4105-619	190.00	4TH	2591-784	25.00	4070-195	4070-196	380.00
5/8-18	UNF	4105-875	4105-889	4105-828	4105-854	190.00	4TH	2591-784	25.00	4070-200	4070-201	380.00
5/8-24	UNEF	4105-967	4105-979	4105-927	4105-949	231.25	4TH	2591-784	25.00	4070-205	4070-206	462.50
11/16-24	UNEF	4106-592	4106-604	4106-552	4106-574	257.50	4TH	2591-784	25.00	4070-210	4070-211	515.00
3/4-10	UNC	4106-832	4106-850	4106-773	4106-806	241.25	4TH	2591-784	25.00	4070-215	4070-216	482.50
3/4-16	UNF	4107-079	4107-094	4107-029	4107-056	241.25	4TH	2591-784	25.00	4070-220	4070-221	482.50
3/4-20	UNEF	4107-162	4107-175	4107-118	4107-142	295.00	4TH	2591-784	25.00	4070-225	4070-226	590.00
13/16-20	UNEF	4107-787	4107-800	4107-743	4107-767	306.25	5TH	2591-785	34.00	4070-230	4070-231	612.50
7/8-9	UNC	4108-009	4108-028	4107-946	4107-981	265.00	5TH	2591-785	34.00	4070-235	4070-236	530.00
7/8-14	UNF	4108-270	4108-286	4108-216	4108-245	262.50	5TH	2591-785	34.00	4070-240	4070-241	525.00
7/8-20	UNEF	4108-412	4108-425	4108-368	4108-392	306.25	5TH	2591-785	34.00	4070-245	4070-246	612.50
15/16-20	UNEF	4109-036	4109-050	4108-991	4109-016	318.75	5TH	2591-785	34.00	4070-250	4070-251	637.50
1/8	UNC	4109-168	4109-188	4109-100	4109-137	318.75	5TH	2591-785	34.00	4070-255	4070-256	637.50
1-12	UNF	4109-441	4109-459	4109-382	4109-415	318.75	5TH	2591-785	34.00	4070-260	4070-261	637.50
1-14	UNF	4109-519	4109-536	4109-463	4109-494	318.75	5TH	2591-785	34.00	4070-265	4070-266	637.50
1-20	UNEF	4109-661	4109-675	4109-616	4109-641	356.25	5TH	2591-785	34.00	4070-270	4070-271	712.50
1 1/16-12	UN	4110-067	4110-084	4110-010	4110-042	418.75	5TH	2591-785	34.00	4070-275	4070-276	837.50

"W" TOLERANCE, CHROME PLATED MULTIPLE LEADS & OTHER CLASSES - P.O.A.

(Continued)

Thread Ring Gages - UNC, UNF, UN & UNEF

Right Hand

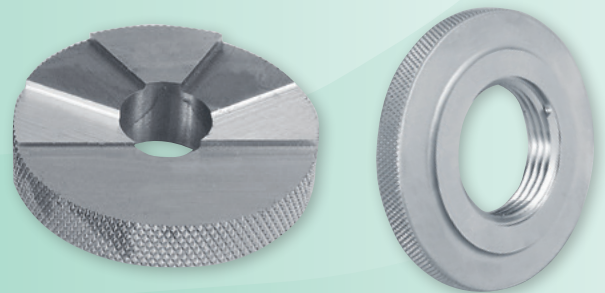


SIZE	UNC UNF NEF	GO CLASS 2A	GO CLASS 3A	MEMBERS		PRICE EACH	HOLDERS			SETS		PRICE EACH SET
				NO GO CLASS 2A	NO GO CLASS 3A		SIZE	ORDER NO.	PRICE EACH	2A SET	3A SET	
1 1/16-18	UNEF	4110-250	4110-264	4110-203	4110-228A	\$376.25	5TH	2591-785	\$34.00	4070-280	4070-281	\$752.50
1 1/8-7	UNC	4110-300	4110-322	4110-228	4110-268	373.75	5TH	2591-785	34.00	4070-285	4070-286	747.50
1 1/8-12	UNF	4110-691	4110-709	4110-631	4110-664	373.75	5TH	2591-785	34.00	4070-290	4070-291	747.50
1 1/8-18	UNEF	4110-875	4110-889	4110-828	4110-853	393.75	5TH	2591-785	34.00	4070-295	4070-296	787.50
1 3/16-12		4111-317	4111-334	4111-259	4111-291	448.75	5TH	2591-785	34.00	4070-300	4070-301	897.50
1 3/16-18	UNEF	4111-499	4111-514	4111-450	4111-478	396.25	5TH	2591-785	34.00	4070-305	4070-306	792.50
1 1/4-7	UNC	4111-550A	4111-572	4111-476	4111-517	410.00	6TH	2591-786	45.00	4070-310	4070-311	820.00
1 1/4-12	UNF	4111-941	4111-959	4111-879	4111-913	410.00	6TH	2591-786	45.00	4070-315	4070-316	820.00
1 1/4-18	UNEF	4112-124	4112-139	4112-075	4112-103	417.50	6TH	2591-786	45.00	4070-320	4070-321	835.00
1 5/16-12	UN	4112-567	4112-584	4112-509	4112-541	450.00	6TH	2591-786	45.00	4070-325	4070-326	900.00
1 5/16-18	UNEF	4112-749	4112-764	4112-700	4112-728	426.25	6TH	2591-786	45.00	4070-330	4070-331	852.50
1 3/8-6	UNC	4112-643	4112-667	4112-563	4112-607	426.25	6TH	2591-786	45.00	4070-335	4070-336	852.50
1 3/8-12	UNF	4113-190	4113-209	4113-127	4113-162	426.25	6TH	2591-786	45.00	4070-340	4070-341	852.50
1 3/8-18	UNEF	4113-374	4113-389	4113-325	4113-353	456.25	6TH	2591-786	45.00	4070-345	4070-346	912.50
1 7/16-12	UN	4113-816	4113-834	4113-757	4113-790	483.75	6TH	2591-786	45.00	4070-350	4070-351	967.50
1 7/16-18	UNEF	4113-999	4114-014	4113-949	4113-977	466.25	6TH	2591-786	45.00	4070-355	4070-356	932.50
1 1/2-6	UNC	4113-893	4113-917	4113-812	4113-856	466.25	6TH	2591-786	45.00	4070-360	4070-361	932.50
1 1/2-12	UNF	4114-440	4114-459	4114-376	4114-411	466.25	6TH	2591-786	45.00	4070-365	4070-366	932.50
1 1/2-18	UNEF	4114-624	4114-639	4114-574	4114-602	487.50	6TH	2591-786	45.00	4070-370	4070-371	975.00

SIZE	NPT L1		NPTF L1		NPTF L2		NPTF 6 STEP	
	ORDER NO.	PRICE EACH	ORDER NO.	PRICE EACH	ORDER NO.	PRICE EACH	ORDER NO.	PRICE EACH
1/16-27	4130-101	\$281.25	4130-201	\$297.50	4130-202	\$418.75	4130-203	\$487.50
1/8-27	4130-106	200.00	4130-206	218.75	4130-207	407.50	4130-208	487.50
1/4-18	4130-111	218.75	4130-211	243.75	4130-212	417.50	4130-213	487.50
3/8-18	4130-116	245.00	4130-216	260.00	4130-217	442.50	4130-218	487.50
1/2-14	4130-121	272.50	4130-221	275.00	4130-222	452.50	4130-223	487.50
3/4-14	4130-126	310.00	4130-226	322.50	4130-227	506.25	4130-228	543.75
1-11 1/2	4130-131	351.25	4130-231	362.50	4130-232	543.75	4130-233	567.50
1 1/4-11 1/2	4130-136	371.25	4130-236	387.50	4130-237	591.25	4130-238	615.00
1 1/2-11 1/2	4130-141	452.50	4130-241	472.50	4130-242	661.25	4130-243	677.50
2-11 1/2	4130-146	543.75	4130-246	567.50	4130-247	760.00	4130-248	781.25
2 1/2-8	4130-151	643.75	4130-251	670.00	4130-252	913.75	4130-253	931.25
3-8	4130-156	781.25	4130-256	843.75	4130-257	1062.50	4130-258	1125.00
3 1/2	4130-161	1097.50						
4-8	4130-166	1268.75						
5-8	4130-171	1493.75						
6-8	4130-176	1793.75						

ANPT ALSO AVAILABLE

Taper Pipe Ring Gages



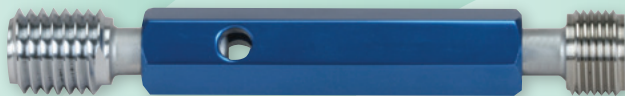
SIZE	NPT L1		NPTF L1		NPTF L3		NPTF 6 STEP		SIZE	HANDLE	
	ORDER NO.	PRICE EACH	ORDER NO.	PRICE EACH	ORDER NO.	PRICE EACH	ORDER NO.	PRICE EACH		ORDER NO.	PRICE EACH
1/16-27	4120-101	\$ 136.55	4120-201	\$ 178.15	4120-202	\$ 178.15	4120-203	\$290.95	1	2591-701	\$12.00
1/8-27	4120-106	106.90	4120-206	136.55	4120-207	136.55	4120-208	290.95	2	2591-702	12.00
1/4-18	4120-111	112.80	4120-211	144.85	4120-212	144.85	4120-213	290.95	3	2591-703	12.00
3/8-18	4120-116	118.75	4120-216	178.15	4120-217	178.15	4120-218	290.95	3	2591-703	12.00
1/2-14	4120-121	136.55	4120-221	204.25	4120-222	204.25	4120-223	294.50	4	2591-704	13.00
3/4-14	4120-126	154.35	4120-226	220.90	4120-227	220.90	4120-228	318.25	4	2591-704	13.00
1-11 1/2	4120-131	178.15	4120-231	251.75	4120-232	251.75	4120-233	338.45	5	2591-705	14.00
1 1/4-11 1/2	4120-136	195.95	4120-236	280.25	4120-237	280.25	4120-238	371.70	5	2591-705	14.00
1 1/2-11 1/2	4120-141	219.70	4120-241	311.15	4120-242	311.15	4120-243	408.50	5	2591-705	14.00
2-11 1/2	4120-146	267.20	4120-246	384.75	4120-247	384.75	4120-248	555.75	5	2591-705	14.00
2 1/2-8	4120-151	320.60	4120-251	555.75	4120-252	555.75	4120-253	831.25	6	2591-760	20.00
3-8	4120-156	397.80	4120-256	629.40	4120-257	629.40	4120-258	914.40	6	2591-760	20.00
3 1/2-8	4120-161	599.70	ANPT ALSO AVAILABLE						7	2591-770	22.00
4-8	4120-166	659.05							7	2591-770	22.00
5-8	4120-171	884.70							7	2591-770	22.00
6-8	4120-176	1104.35							7	2591-770	22.00

ANPT ALSO AVAILABLE

Taper Pipe Plug Gages



Metric Plug & Ring Gages - Right Hand



**Plugs - 6H Tolerance
Rings - 6G Tolerance**

PLUG MEMBER				HANDLE - TAPER LOCK			RING MEMBER			HOLDERS		
SIZE	GO ORDER NO.	NO GO ORDER NO.	PRICE EACH	SIZE	ORDER NO.	PRICE EACH	GO ORDER NO.	NO GO ORDER NO.	PRICE EACH	SIZE	ORDER NO.	PRICE EACH
M 1.6 x 0.35	4700-541	4700-574	\$87.50	000	2591-698	\$ 13.00	4600-533	4600-509	\$288.75	1 TH	2591-781	\$17.50
M 1.8 x 0.35	4700-620	4700-622	87.50	000	2591-698	13.00	4600-611	4600-588	288.75	1 TH	2591-781	17.50
M 2.0 x 0.40	4700-686	4700-720	87.50	000	2591-698	13.00	4600-677	4600-652	232.50	1 TH	2591-781	17.50
M 2.2 x 0.45	4700-752	4700-788	87.50	000	2591-698	13.00	4600-743	4600-716	232.50	1 TH	2591-781	17.50
M 2.5 x 0.45	4700-870	4700-906	80.00	000	2591-698	13.00	4600-861	4600-834	232.50	1 TH	2591-781	17.50
M 3.0 x 0.50	4701-054	4701-092	80.00	00	2591-699	12.00	4601-045	4601-016	201.25	1 TH	2591-781	17.50
M 3.5 x 0.60	4701-225	4701-268	72.50	00	2591-699	12.00	4601-216	4601-183	200.00	1 TH	2591-781	17.50
M 4.0 x 0.70	4701-396	4701-442	72.50	00	2591-699	12.00	4601-387	4601-352	200.00	1 TH	2591-781	17.50
M 4.5 x 0.75	4701-580	4701-626	72.50	00	2591-699	12.00	4601-571	4601-536	200.00	1 TH	2591-781	17.50
M 5.0 x 0.80	4701-764	4701-812	72.50	0	2591-700	12.00	4601-754	4601-717	200.00	1 TH	2591-781	17.50
M 6.0 x 1.00	4702-107	4702-165	55.00	1	2591-701	12.00	4602-096	4602-052	173.75	1 TH	2591-781	17.50
M 7.0 x 1.00	4702-500	4702-559	55.00	1	2591-701	12.00	4602-489	4602-446	173.75	1 TH	2591-781	17.50
M 8.0 x 1.25	4702-830	4702-892	55.00	1	2591-701	12.00	4602-818	4602-773	173.75	2 TH	2591-782	19.00
M 8.0 x 1.00	4702-894	4702-952	55.00	1	2591-701	12.00	4602-883	4602-840	173.75	2 TH	2591-782	19.00
M 10.0 x 1.25	4703-618	4703-680	63.75	2	2591-702	12.00	4603-506	4603-560	190.00	3 TH	2591-783	21.00
M 10.0 x 1.50	4703-554	4703-624	63.75	2	2591-702	12.00	4603-540	4603-489	190.00	3 TH	2591-783	21.00
M 12.0 x 1.75	4704-277	4704-355	66.25	2	2591-702	12.00	4604-263	4604-205	203.75	3 TH	2591-783	21.00
M 12.0 x 1.25	4704-405	4704-475	66.25	2	2591-702	12.00	4604-393	4604-342	203.75	3 TH	2591-783	21.00
M 14.0 x 2.00	4705-001	4705-083	73.75	3	2591-703	12.00	4604-985	4604-923	211.25	3 TH	2591-783	21.00
M 14.0 x 1.50	4705-129	4705-203	73.75	3	2591-703	12.00	4605-115	4605-061	211.25	3 TH	2591-783	21.00
M 16.0 x 2.00	4705-788	4705-871	75.00	3	2591-703	12.00	4605-772	4605-710	211.25	4 TH	2591-784	25.00
M 16.0 x 1.50	4705-916	4705-990	75.00	3	2591-703	12.00	4605-903	4605-849	211.25	4 TH	2591-784	25.00
M 18.0 x 2.50	4706-448	4706-535	85.00	3	2591-703	12.00	4606-430	4605-364	300.00	4 TH	2591-784	25.00
M 18.0 x 1.50	4706-704	4706-777	85.00	3	2591-703	12.00	4606-690	4606-636	300.00	4 TH	2591-784	25.00
M 20.0 x 2.50	4707-235	4707-322	96.25	3	2591-703	12.00	4607-218	4607-152	367.50	4 TH	2591-784	25.00
M 20.0 x 1.50	4707-491	4707-565	96.25	3	2591-703	12.00	4607-477	4607-423	367.50	4 TH	2591-784	25.00
M 22.0 x 2.50	4708-023	4708-110	98.75	4	2591-704	13.00	4608-005	4607-939	377.50	4 TH	2591-784	25.00
M 22.0 x 1.50	4708-278	4708-352	98.75	4	2591-704	13.00	4608-265	4608-211	377.50	4 TH	2591-784	25.00
M 24.0 x 3.00	4708-682	4708-785	105.00	4	2591-704	13.00	4608-662	4608-584	427.50	5 TH	2591-785	34.00
M 24.0 x 2.00	4708-938	4709-025	105.00	4	2591-704	13.00	4608-922	4608-856	427.50	5 TH	2591-785	34.00
M 27.0 x 3.00	4709-863	4709-966	145.00	4	2591-704	13.00	4609-843	4609-765	417.50	5 TH	2591-785	34.00
M 27.0 x 2.00	4710-119	4710-206	145.00	4	2591-704	13.00	4610-103	4610-037	417.50	5 TH	2591-785	34.00
M 30.0 x 3.50	4710-917	4711-026	218.75	5	2591-705	14.00	4610-895	4610-812	533.75	5 TH	2591-785	34.00
M 30.0 x 2.00	4711-300	4711-387	176.25	5	2591-705	14.00	4611-284	4613-218	446.25	5 TH	2591-785	34.00
M 33.0 x 3.50	4712-098	4712-207	185.00	5	2591-705	14.00	4612-076	4611-993	507.50	6 TH	2591-786	45.00
M 33.0 x 2.00	4712-481	4712-508	185.00	5	2591-705	14.00	4612-465	4612-399	467.50	6 TH	2591-786	45.00
M 36.0 x 4.00	4713-151	4713-268	238.75	5	2591-705	14.00	4613-126	4613-039	561.25	6 TH	2591-786	45.00
M 36.0 x 3.00	4713-406	4713-510	210.00	5	2591-705	14.00	4613-386	4613-309	507.50	6 TH	2591-786	45.00
M 39.0 x 4.00	4714-332	4714-449	300.00	5-1/2	2591-755	18.00	4614-307	4614-220	573.75	6 TH	2591-786	45.00
M 39.0 x 3.00	4714-587	4714-691	261.25	5-1/2	2591-755	18.00	4614-568	4614-490	547.50	6 TH	2591-786	45.00

"W" TOLERANCE, CHROME PLATED MULTIPLE LEADS & OTHER CLASSES - P.O.A.

IN STOCK!

- Special Threads • NC & NF Left Hand •
- Setting Plugs • All Made In The U.S.A. •

Pin Gages

Class ZZ Pin Sets

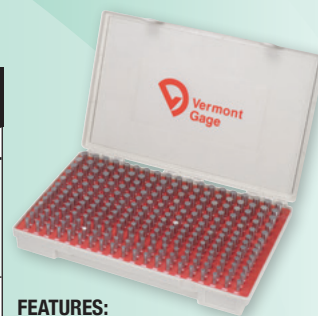
NEW ITEM



Make quick and accurate measurements with Vermont Gage pin gages. Measure hole sizes. Calculate distances between holes. Gage slot widths. Check locations. Use for Go/No-Go gaging. Size in micrometers and snap gages. These economical gages are a must for anyone making frequent and varied measurements.

RANGE	NO. OF GAGES	ORDER NO. (PLUS)	ORDER NO. (MINUS)	PRICE EACH
INCH SETS (.001 INCREMENTS)				
.0060" to .0600"	55	3862-030	3862-031	\$161.00
.0065" to .0605"	55	3862-032	3862-033	161.00
.0110" to .0600"	50	3862-000	3862-001	126.50
.0115" to .0605"	50	3862-002	3862-003	126.50
.0110" to .2500"	240	3862-034	3862-035	362.25
.0115" to .2505"	240	3862-036	3862-037	362.25
.0610" to .2500"	190	3862-006	3862-007	258.75
.0615" to .2505"	190	3862-008	3862-009	258.75
.2510" to .5000"	250	3862-012	3862-013	385.25
.2515" to .5005"	250	3862-014	3862-015	385.25
.5010" to .6250"	125	3862-018	3862-019	471.50
.5015" to .6255"	125	3862-038	3862-039	471.50
.6260" to .7500"	125	3862-022	3862-023	494.50
.6265" to .7505"	125	3862-040	3862-041	494.50
.7510" to .8320"	82	3862-024	3862-025	862.50
.7515" to .8325"	82	3862-042	3862-043	862.50
.8330" to .9160"	84	3862-026	3862-027	1012.00
.8335" to .9165"	84	3862-044	3862-045	1012.00
.9170" to 1.0000"	84	3862-028	3862-029	1052.25
.9175" to 1.0005"	84	3862-046	3862-047	1052.25

RANGE	NO. OF GAGES	ORDER NO. (PLUS)	ORDER NO. (MINUS)	PRICE EACH
METRIC SETS (.05MM INCREMENTS)				
0.20mm to 1.28mm	55	3862-048	3862-049	\$143.75
0.21mm to 1.29mm	55	3862-050	3862-051	143.75
1.30mm to 4.98mm	185	3862-052	3862-053	310.50
1.31mm to 4.99mm	185	3862-054	3862-055	310.50
5.00mm to 9.98mm	250	3862-056	3862-057	483.00
5.01mm to 9.99mm	250	3862-058	3862-059	483.00
10.00mm to 13.98mm	200	3862-060	3862-061	419.75
10.01mm to 13.99mm	200	3862-062	3862-063	419.75
14.00mm to 16.48mm	125	3862-064	3862-065	534.75
14.01mm to 16.49mm	125	3862-066	3862-067	534.75
16.50mm to 18.98mm	125	3862-068	3862-069	690.00
16.51mm to 18.99mm	125	3862-070	3862-071	690.00
19.00mm to 20.98mm	100	3862-072	3862-073	1178.75
19.01mm to 20.99mm	100	3862-074	3862-075	1178.75
21.00mm to 22.48mm	75	3862-076	3862-077	1012.00
21.01mm to 22.49mm	75	3862-078	3862-079	1012.00
22.50mm to 23.98mm	75	3862-080	3862-081	1052.25
22.51mm to 23.99mm	75	3862-082	3862-083	1052.25
24.00mm to 25.48mm	75	3862-084	3862-085	1104.00
24.01mm to 25.49mm	75	3862-086	3862-087	1104.00



FEATURES:

- Class ZZ (.0002" or .005mm tolerance)
- Go (Plus) or NoGo (Minus)
- NIST traceable
- .0005", or .02mm sizes
- .001" or .02mm set increments
- 52100 tool steel; 60/62 Rc
- 2" long
- 10 microinch finish or better
- within .0001" round
- marked with size and direction of tolerance on gages over .060"
- Certificate of Accuracy included

Black Guard™ Pin Sets

BLACK GUARD™ black oxide treatment typically penetrates .00004" to .00006" deep, which will visually reveal wear patterns allowing the inspector to calibrate or replace gage pins more effectively. BLACK GUARD™ treatment will help prevent rust & corrosion, which will extend the useful life of the gage.

- PREVENTS RUST & CORROSION
- BRIGHT CLEAR MARKING
- VISIBLE WEAR INDICATION
- LONGER GAGE LIFE

RANGE	NO. OF GAGES	ORDER NO. (PLUS)	ORDER NO. (MINUS)	PRICE EACH
BLACK GUARD SETS				
.0060" to .0600"	55	3865-027	3865-028	\$161.00
.0065" to .0605"	55	3865-029	3865-030	161.00
.0110" to .0600"	50	3865-005	3865-006	126.50
.0115" to .0605"	50	3865-007	3865-008	126.50
.0110" to .2500"	240	3865-031	3865-032	362.25
.0115" to .2505"	240	3865-033	3865-034	362.25
.0610" to .2500"	190	3865-009	3865-010	258.75
.0615" to .2505"	190	3865-011	3865-012	258.75
.2510" to .5000"	250	3865-013	3865-014	385.25
.5010" to .6250"	125	3865-017	3865-018	471.50



FEATURES:

- Class ZZ (.0002" or .005mm tolerance)
- Go (Plus) or NoGo (Minus)
- NIST traceable
- .0005", or .02mm sizes
- .001" or .02mm set increments
- 52100 tool steel; 60/62 Rc
- 2" long
- 10 microinch finish or better
- within .0001" round
- marked with size and direction of tolerance on gages over .060"
- Certificate of Accuracy included
- Registered ISO 9002

Class ZZ Replacement Pins

Keep old sets in compliance!

Replace missing, damaged, or worn-out Class ZZ gages from your existing sets and libraries. These replacement pins are perfect for updating your old sets, and bringing them back into compliance. Each pin is individually marked with size and direction of tolerance. Packaged with a rust preventative, these pins maintain an indefinite shelf life; so keep several of your most used sizes on hand! Each pin is NIST traceable, and includes a Certificate of Accuracy.

FEATURES:

- Class ZZ (.0002" or .005mm tolerance)
- Go (Plus) or NoGo (Minus)
- NIST traceable
- .0005", or .02mm sizes
- .001" or .02mm set increments
- 52100 tool steel; 60/62 Rc
- 2" long
- 10 microinch finish or better
- Within .0001" round
- Marked with size and direction of tolerance on gages over .060"
- Certificate of Accuracy included
- Registered ISO 9002



Pittsburg® Economy Steel Gage Pin Sets

FEATURES:

- .0002 Accuracy – Specify Plus or Minus tolerances
- Centerless lapped with a 10 Micro finish or better
- Size etched on each member
- Comes standard with attractive hardwood case

2



SIZE	RANGE	MEMBERS IN SET	PLUS .0002 IN	MINUS .0002 IN	PRICE EACH SET
H1	.061 to .250	190	3100-596	3100-595	\$ 72.50
H2	.251 to .500	250	3100-598	3100-597	146.10
H3	.501 to .625	125	3100-600	3100-599	130.00
H4	.626 to .750	125	3100-602	3100-601	145.00
H5	.751 to .832	82	3100-604	3100-603	250.00
H6	.833 to .916	84	3100-606	3100-605	300.00
H7	.917 to 1.000	84	3100-608	3100-607	315.00

PLUS ORDER RANGE		TO ORDER NO.	
RANGE (INCH)	ORDER NO.		
.0040 to .0105"	3860-004	\$ 10.06	3860-0105 \$ 10.06
.0110 to .0605"	3860-011	4.89	3860-0605 4.89
.0610 to .5005"	3860-061	4.60	3860-5005 4.60
.5010 to .6255"	3860-501	5.75	3860-6255 5.75
.6260 to .7505"	3860-626	8.63	3860-7505 8.63
.7510 to .8325"	3860-751	12.08	3860-8325 12.08
.8330 to .9165"	3860-833	13.80	3860-9165 13.80
.9170 to 1.0005"	3860-917	14.38	3860-9999 14.38
MINUS ORDER RANGE		TO ORDER NO.	
RANGE (INCH)	ORDER NO.		
.0040 to .0105"	3861-004	\$ 10.06	3861-0105 \$ 10.06
.0110 to .0605"	3861-011	4.89	3861-0605 4.89
.0610 to .5005"	3861-061	4.60	3861-5005 4.60
.5010 to .6255"	3861-501	5.75	3861-6255 5.75
.6260 to .7505"	3861-626	8.63	3861-7505 8.63
.7510 to .8325"	3861-751	12.08	3861-8325 12.08
.8330 to .9165"	3861-833	13.80	3861-9165 13.80
.9170 to 1.0005"	3861-917	14.38	3861-9999 14.38

BLACK GUARD™ PINS — ALSO AVAILABLE

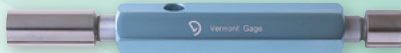
Plug & Ring Gages

Reversible Gage Handles & Bushings

*Inch Handles - Light Blue / Metric Handles - Yellow

SINGLE-END HANDLE			DOUBLE-END HANDLE		
RANGE	HANDLE NO.	ORDER NO.	PRICE EACH	HANDLE NO.	ORDER NO.
INCH					
.0040" to .0750"	1WSE	3865-101	\$12.50	1WDE	3865-111
.0751" to .1800"	2WSE	3865-102	12.50	2WDE	3865-112
.1801" to .2810"	3WSE	3865-103	15.00	3WDE	3865-113
.2811" to .4060"	4WSE	3865-104	16.25	4WDE	3865-114
.4061" to .5100"	5WSE	3865-105	20.00	5WDE	3865-115
.5101" to .6350"	6WSE	3865-106	23.75	6WDE	3865-116
.6351" to .7600"	7WSE	3865-107	26.25	7WDE	3865-117
.7601" to 1.0100"	8WSE	3865-108	37.50	8WDE	3865-118
METRIC (mm)					
10mm to 1.90mm	1WSE	3865-121	\$12.50	1WDE	3865-131
1.91 to 4.56	2WSE	3865-122	12.50	2WDE	3865-132
4.57 to 7.14	3WSE	3865-123	15.00	3WDE	3865-133
7.15 to 10.30	4WSE	3865-124	16.25	4WDE	3865-134
10.31 to 12.94	5WSE	3865-125	20.00	5WDE	3865-135
12.95 to 16.12	6WSE	3865-126	23.75	6WDE	3865-136
16.13 to 19.30	7WSE	3865-127	26.25	7WDE	3865-137
19.31 to 25.64	8WSE	3865-128	37.50	8WDE	3865-138

Custom Taperlocks



Change gage members quickly. When you need to gage larger diameters, and need to change or replace gage members often, Taperlock plug gages are the perfect choice. To change gage members, simply pop-out existing members and press fit new members in your Taperlock handle. Each Taperlock handle size covers a wide range of gage sizes. Custom plug gage assemblies can be marked with your tool number. Go/NoGo assemblies include one line (up to 15 characters) of custom marking. These Taperlock plug gages are available up to 1.5" in all class tolerances and materials to meet unique requirements.

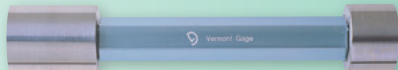
P.O.A.

SIZE RANGE
.1050 to .1500" (2.67 to 3.81mm)
.1501 to .2300" (3.82 to 5.84mm)
.2301 to .3650" (5.85 to 9.27mm)
.3651 to .5100" (9.28 to 12.95mm)
.5101 to .8250" (12.96 to 20.95mm)
.8251 to 1.1350" (20.96 to 28.83mm)
1.1351 to 1.5100" (28.84 to 38.35mm)

FEATURES:

- Class XX, X, Y, Z, or ZZ
- Go, NoGo tolerances
- NIST traceable
- Tool Steel; 60/62 Rc (Cold Stabilized)
- Chrome Plated Tool Steel; 70.72 Rc
- 2 microinch finish or better on Class XX, X
- Handles custom marked (1 line, up to 15 characters)
- Inch Handles: Light Blue, Metric: Yellow
- Certificate of Accuracy included

Custom Trilocks



For large dimensions. When you need to inspect large diameters, Trilock plug gages are the best solution. Much like Reversible plug gages, when one end wears out, simply turn the member around and continue gaging. This significantly increases the gaging life of your gage. Members are securely attached to your Trilock handle with mounting bolts. Custom plug gage assemblies can be marked with your tool number. Go/NoGo assemblies include one line (up to 15 characters) of custom marking. These Trilock plug gages are available up to 4" in all class tolerances and materials to meet unique requirements.

P.O.A.

SIZE RANGE
.7600 to .9470" (19.30 to 24.05mm)
.9471 to 1.1350" (24.06 to 28.83mm)
1.1351 to 1.5100" (28.84 to 38.35mm)
1.5101 to 2.0100" (38.36 to 51.05mm)
2.0101 to 2.5100" (51.06 to 63.75mm)
2.5101 to 3.0100" (63.76 to 76.45mm)
3.0101 to 3.5100" (76.46 to 89.15mm)
3.5101 to 4.0100" (89.16 to 101.85mm)
4.0101 to 4.5100" (101.86 to 114.55mm)
4.5101 to 5.0100" (114.56 to 127.25mm)
5.0101 to 5.5100" (127.26 to 139.95mm)
5.5101 to 6.0100" (139.96 to 152.65mm)

FEATURES:

- Class XX, X, Y, Z, or ZZ
- Go, NoGo tolerances
- NIST traceable
- Tool Steel; 60/62 Rc (Cold Stabilized)
- Chrome Plated Tool Steel; 70.72 Rc
- 2 microinch finish or better on Class XX, X
- Handles custom marked (1 line, up to 15 characters)
- Inch Handles: Light Blue, Metric: Yellow
- Certificate of Accuracy included

NEW ITEM

Vermont Gage

BUSHING PRICES

Up to .5100" — \$ 5.00
.5101" and Up — \$ 6.88

Bushings for Reversible Handles

RANGE	ORDER NO.	RANGE	ORDER NO.	RANGE	ORDER NO.
.0040" to .0060"	3865-201	.1661" to .1730"	3865-230	.4501" to .4650"	3865-259
.0061" to .0065"	3865-202	.1731" to .1800"	3865-231	.4651" to .4800"	3865-260
.0101" to .0130"	3865-203	.1801" to .1880"	3865-232	.4801" to .4950"	3865-261
.0131" to .0150"	3865-204	.1881" to .1960"	3865-233	.4951" to .5100"	3865-262
.0151" to .0200"	3865-205	.1961" to .2040"	3865-234	.5101" to .5320"	3865-263
.0201" to .0250"	3865-206	.2041" to .2120"	3865-235	.5321" to .5470"	3865-264
.0251" to .0300"	3865-207	.2121" to .2200"	3865-236	.5471" to .5630"	3865-265
.0301" to .0350"	3865-208	.2201" to .2280"	3865-237	.5631" to .5790"	3865-266
.0351" to .0400"	3865-209	.2281" to .2360"	3865-238	.5791" to .5940"	3865-267
.0401" to .0450"	3865-210	.2361" to .2440"	3865-239	.5941" to .6100"	3865-268
.0451" to .0500"	3865-211	.2441" to .2520"	3865-240	.6101" to .6250"	3865-269
.0501" to .0550"	3865-212	.2521" to .2610"	3865-241	.6251" to .6350"	3865-270
.0551" to .0600"	3865-213	.2611" to .2710"	3865-242	.6351" to .6560"	3865-271
.0601" to .0650"	3865-214	.2711" to .2810"	3865-243	.6561" to .6720"	3865-272
.0651" to .0700"	3865-215	.2811" to .2910"	3865-244	.6721" to .6880"	3865-273
.0700" to .0750"	3865-216	.2911" to .3010"	3865-245	.6881" to .7040"	3865-274
.0751" to .0820"	3865-217	.3011" to .3110"	3865-246	.7041" to .7190"	3865-275
.0821" to .0890"	3865-218	.3111" to .3210"	3865-247	.7191" to .7350"	3865-276
.0891" to .0960"	3865-219	.3211" to .3310"	3865-248	.7351" to .7500"	3865-277
.0961" to .1030"	3865-220	.3311" to .3410"	3865-249	.7501" to .7600"	3865-278
.1031" to .1100"	3865-221	.3411" to .3510"	3865-250	.7601" to .7810"	3865-279
.1101" to .1170"	3865-222	.3511" to .3610"	3865-251	.7811" to .8120"	3865-280
.1171" to .1240"	3865-223	.3611" to .3710"	3865-252	.8121" to .8430"	3865-281
.1241" to .1310"	3865-224	.3711" to .3820"	3865-253	.8431" to .8750"	3865-282
.1311" to .1380"	3865-225	.3821" to .3940"	3865-254	.8751" to .9060"	3865-283
.1380" to .1450"	3865-226	.3941" to .4060"	3865-255	.9061" to .9370"	3865-284
.1451" to .1520"	3865-227	.4061" to .4200"	3865-256	.9371" to .9680"	3865-285
.1521" to .1590"	3865-228	.4201" to .4350"	3865-257	.9681" to 1.0000"	3865-286
.1591" to .1660"	3865-229	.4351" to .4500"	3865-258		

Standard Class X-Plus Plug Gages

Sizes up to 1". Use as masters to calibrate measuring equipment or to gage parts directly. Either way, these Class X (+.00004", -.0000") plug gages are accurate, cost effective measurement standards, perfect for both the shop floor and Metrology Laboratory. Included with Certificate of Accuracy. Available with Certificate of Calibration traceable to NIST.

FEATURES:

- Class X • 2" long • NIST traceable
- Single (G0) tolerance (+.00004, -.00000)
- .0005", or .02mm sizes
- Sizes available every .0001", to 1.0000"
- Tool Steel; 60/62 Rc (Cold Stabilized)
- 2 microinch finish or better
- Within .00002" round
- Certificate of Accuracy included

RANGE (INCH)	1 PIECE PRICE	2 PIECE PRICE	10 PIECE PRICE
.0040-.0250	\$23.00	\$22.00	\$20.50
.0251-.0750	19.25	18.25	16.75
.0751-.2810	15.00	14.00	12.50
.2811-.4060	15.25	14.25	12.75
.4061-.5100	16.00	15.00	13.50
.5101-.6350	17.50	16.50	15.00
.6351-.7600	22.00	21.00	19.50
.7601-1.0000	24.25	23.25	21.75

Ring Gages

For Masters and Go/NoGo gaging. Use Vermont Gage ring gages to efficiently inspect external dimensions of manufactured parts. With a Go and NoGo ring, an inspector can quickly pass/fail without taking time-consuming readings from an indicator. These ring gages are also perfect for use as masters for bore gages and internal micrometers. By using the same size master ring gage, you eliminate lead error when making measurements. A Certificate of Accuracy accompanies every gage, assuring size.



P.O.A.

FEATURES:

- Steel or Chrome
- Class XX, X, Y, Z, or ZZ
- Go, NoGo tolerances
- NIST traceable
- Tool Steel; 60/62 Rc (Cold Stabilized)
- Chrome Plated Tool Steel; 70.72 Rc
- 2 microinch finish or better on Class XX, X
- Handles custom marked (1 line, up to 15 characters)
- Inch Handles: Light Blue, Metric: Yellow
- Certificate of Accuracy included

SIZE RANGE

.0150 to .0250" (0.38 to 0.64mm)
.0251 to .0400" (0.65 to 1.02mm)
.0401 to .0700" (1.03 to 1.78mm)
.0701 to .1500" (1.79 to 3.81mm)
.1501 to .2300" (3.82 to 5.84mm)
.2301 to .3650" (5.85 to 9.27mm)
.3651 to .5100" (9.28 to 12.95mm)
.5101 to .8250" (12.96 to 20.95mm)
.8251 to 1.1350" (20.96 to 28.83mm)
1.1351 to 1.5100" (28.84 to 38.35mm)
1.5101 to 2.0100" (38.36 to 51.05mm)
2.0101 to 2.5100" (51.06 to 63.75mm)
2.5101 to 3.0100" (63.76 to 76.45mm)
3.0101 to 3.5100" (76.46 to 89.15mm)
3.5101 to 4.0100" (89.16 to 101.85mm)
4.0101 to 4.7600" (101.86 to 120.90mm)
4.7601 to 5.5100" (120.91 to 139.85mm)
5.5101 to 6.2600" (139.86 to 159.00mm)
6.2601 to 7.0100" (159.01 to 178.05mm)
7.0101 to 7.7600" (178.06 to 197.10mm)
7.7601 to 8.5100" (197.11 to 216.15mm)
8.5101 to 9.2600" (216.16 to 235.20mm)
9.2601 to 10.0100" (235.21 to 254.25mm)
10.0101 to 10.7600" (254.26 to 273.30mm)
10.7601 to 11.5100" (273.31 to 292.35mm)

Measuring Instruments



Outside Micrometers

Made in China

- Light, smooth operation for convenient single hand operation
- Flatness: .00003" Parallelism: 0.00005" for 1" model
- Carbide tipped with ratchet stop and locking lever
- Spindle and anvil fully hardened and precision ground
- Clear graduations on hard chrome satin finish sleeve and thimble
- Standards included for 1-2" and above, and in sets
- Supplied in specially fitted case, with spanner wrench
- Heat insulated grip up to 4", lightweight tubular frame 5" and above



Inch Sizes

RANGE	GRAD.	ORDER NO.	PRICE
0-1"	.0001"	3100-330	\$30.05
1-2"	.0001"	3100-331	33.05
2-3"	.0001"	3100-332	36.75
3-4"	.0001"	3100-333	52.80
4-5"	.0001"	3100-334	54.45
5-6"	.0001"	3100-335	62.70
6-7"	.0001"	3100-336	91.45
7-8"	.0001"	3100-337	97.05
8-9"	.0001"	3100-338	106.85
9-10"	.0001"	3100-339	120.75
10-11"	.0001"	3100-340	130.50
11-12"	.0001"	3100-341	142.10

[2]



Inch Sets

RANGE	GRAD.	ORDER NO.	PRICE
0-3"	.0001"	3100-342	\$ 72.00
0-4"	.0001"	3100-343	69.00
0-6"	.0001"	3100-344	195.00
6-12"	.0001"	3100-345	425.00
0-12"	.0001"	3100-346	580.00



Outside Micrometers w/ Insulated Frames

FEATURES:

- Complete in "Shop Hardened" molded case
- Sizes over 1" supplied with standards
- Reading: .0001"
- Carbide tipped measuring faces.
- Ratchet thimble and locking nut.
- Microfine graduations.
- Meets or exceeds federal specs.



[2]

ORDER NUMBER	DESCRIPTION	PRICE
52-229-201-0	0-1" Outside Micrometer	\$ 59.42
52-229-213-0	0-3" Outside Micrometer Set	214.25



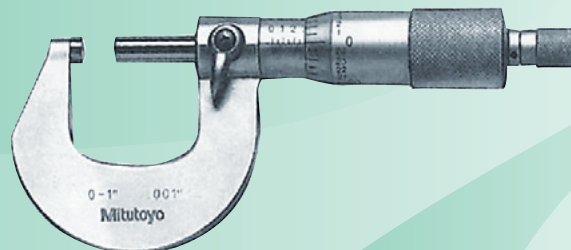
Outside Micrometers - Series 101 & 102

ACCURACY

- Flatness: .000024"/0.6μm.
- Parallelism: .00005" for up to .59"/1.3μm for up to 15mm, .00008" for up to 3"/2μm for up to 75mm .00012" for up to 4"/3μm for up to 100mm.
- Designed to be operated efficiently with one hand.

FEATURES

- Satin-finished chrome frame, tapered (on the anvil side) for hard-to-reach places.
- Carbide-tipped measuring faces.
- Supplied in fitted case



[2]

Inch

ORDER NO.	RANGE	GRAD- UATION	ACCURACY	REMARKS	LIST PRICE
102-327-10	0-1"	.0001"	±.0001"	Ratchet Stop	\$166.00
101-114	1-2"	.0001"	±.0001"	Ratchet Stop with Standard	192.00
101-119	2-3"	.0001"	±.0001"	Ratchet Stop with Standard	220.00
101-120	3-4"	.0001"	±.00015"	Ratchet Stop with Standard	258.00
102-329-10	0-1"	.0001"	±.0001"	Friction Thimble	166.00
101-118	1-2"	.0001"	±.0001"	Friction Thimble w/ Standard	192.00

Metric

ORDER NO.	(MM) RANGE	(MM) GRADUATION	ACCURACY	REMARKS	LIST PRICE
102-301	0-25	0.01	±2μm	Ratchet Stop	\$144.00
102-302	25-50	.0001"	±2μm	Ratchet Stop	178.00
102-303	50-75	.0001"	±2μm	Ratchet Stop	192.00
102-304	75-100	.0001"	±3μm	Ratchet Stop	229.00

Quick Micrometers – Series 293

ACCURACY

The Quickmike provides a speedy spindle feed of 10 mm per thimble rotation that enables widely differently sized features to be measured quickly. Also, 1-2"/30 mm of wide measuring range, which is .2"/5 mm longer than the standard type, allows measurement of multiple workpieces.

Inch/Metric

ORDER NO.	RANGE (IN.)	ACCURACY (IN.)	FLATNESS (IN.)	PARALLELISM (IN.)	MASS (g.)	LIST PRICE
293-676-20	0 - 1.2	±0.0001	0.000012	0.00008	275	\$700.00
293-677-20	0 - 2.2	±0.0001	0.000012	0.00008	340	764.00
293-678-20	0 - 3.2	±0.00015	0.000012	0.00008	480	915.00
293-679-20	0 - 4.2	±0.00015	0.000012	0.000012	585	908.00



Adjustable Low Force Micrometers – Series 227

Constant and low measuring force mechanism in the thimble. Digimatic micrometer dedicated to applications requiring a constant/low measuring force such as measuring wire, paper, and plastic/rubber parts.

- Speedy spindle feed of 10 mm per thimble rotation that enables widely differently sized features to be measured quickly.
- 20x faster feed rate compared to standard micrometers (0.5 mm per revolution).
- Extended battery life (5 Years). Low-power electronics have extended the battery life to 5 years in normal use.
- Absolute scale - The ABS (absolute) linear scale eliminates the need for setting the origin point every time the micrometer is powered-on and achieves high reliability while being free from overspeed error.
- Function lock enhances usability by preventing the origin from being accidentally changed during measurement.
- Connectable to MeasurLink or spreadsheets, when using optional adapters. Connected to MeasurLink, "visualization of quality" can be achieved by enabling real-time data collection, global control and statistical analysis.



Inch/Metric

ORDER NO.	RANGE	MEASURING FORCE ADJUSTABLE RANGE	RESOLUTION	ACCURACY	MEASURING FORCE	REPEATABILITY	MASS	LIST PRICE
227-211-20	0 - 0.6 in	0.5 - 2.5 N	0.00005 in / 0.001 mm	±0.0001 in	0.5, 1.0, 1.5, 2.0, 2.5 N	within 0.1 N	300 g	\$1010.00
227-213-20	0.6 - 1.2 in	0.5 - 2.5 N	0.00005 in / 0.001 mm	±0.0001 in	0.5, 1.0, 1.5, 2.0, 2.5 N	within 0.1 N	380 g	1060.00
227-215-20	0 - 0.4 in	2 - 10 N	0.00005 in / 0.001 mm	±0.0001 in	2, 4, 6, 8, 10 N	within 0.4 N	345 g	957.00
227-216-20	0.4 - 0.8 in	2 - 10 N	0.00005 in / 0.001 mm	±0.0001 in	2, 4, 6, 8, 10 N	within 0.4 N	425 g	999.00
227-217-20	0.8 - 1.2 in	2 - 10 N	0.00005 in / 0.001 mm	±0.0001 in	2, 4, 6, 8, 10 N	within 0.4 N	415 g	1030.00

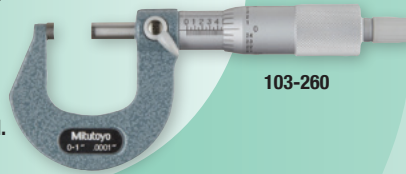
Outside Micrometers – Series 103

FEATURES

- Carbide faces.
- Positive locking clamp.
- Ratchet stop or Friction Thimble for exact readings.
- Baked-enamel-finished frame.
- Clear graduations on satin-chrome finish.
- Complete with fitted carrying case.
- Inspection certificate provided.



103-135



103-260



103-907-40

Inch

ORDER NO.	RANGE	GRADUATION	ACCURACY	REMARKS	LIST PRICE
103-131	0–1"	.0001"	±.0001"	Ratchet Stop type	\$153.00
103-132	1–2"	.0001"	±.0001"	Ratchet Stop with Standard	160.00
103-135	0–1"	.0001"	±.0001"	Friction Thimble type	154.00
103-136	1–2"	.0001"	±.0001"	Friction Thimble type with Standard	182.00
103-259	0–1"	.001"	±.0001"	Ratchet Stop type, tapered frame	142.00
103-177	0–1"	.001"	±.0001"	Ratchet Stop type	142.00
103-178	1–2"	.001"	±.0001"	Ratchet Stop type with Standard	164.00
103-179	2–3"	.001"	±.0001"	Ratchet Stop type with Standard	190.00
103-180	3–4"	.001"	±.00015"	Ratchet Stop type with Standard	220.00
103-181	4–5"	.001"	±.00015"	Ratchet Stop type with Standard	244.00
103-182	5–6"	.001"	±.00015"	Ratchet Stop type with Standard	264.00
103-183	6–7"	.001"	±.0002"	Ratchet Stop type with Standard	299.00
103-184	7–8"	.001"	±.0002"	Ratchet Stop type with Standard	321.00
103-185	8–9"	.001"	±.0002"	Ratchet Stop type with Standard	347.00
103-186	9–10"	.001"	±.00025"	Ratchet Stop type with Standard	365.00
103-187	10–11"	.001"	±.00025"	Ratchet Stop type with Standard	380.00
103-188	11–12"	.001"	±.00025"	Ratchet Stop type with Standard	397.00
103-189	12–13"	.001"	±.0003"	Ratchet Stop type with Standard	476.00
103-190	13–14"	.001"	±.0003"	Ratchet Stop type with Standard	527.00
103-191	14–15"	.001"	±.0003"	Ratchet Stop type with Standard	583.00
103-192	15–16"	.001"	±.00035"	Ratchet Stop type with Standard	634.00
103-193	16–17"	.001"	±.00035"	Ratchet Stop type with Standard	671.00
103-194	17–18"	.001"	±.00035"	Ratchet Stop type with Standard	722.00
103-195	18–19"	.001"	±.0004"	Ratchet Stop type with Standard	769.00
103-196	19–20"	.001"	±.0004"	Ratchet Stop type with Standard	806.00
103-197	20–21"	.001"	±.0004"	Ratchet Stop type with Standard	858.00
103-198	21–22"	.001"	±.00045"	Ratchet Stop type with Standard	906.00
103-199	22–23"	.001"	±.00045"	Ratchet Stop type with Standard	955.00
103-200	23–24"	.001"	±.00045"	Ratchet Stop type with Standard	1010.00
103-201	24–25"	.001"	±.0005"	Ratchet Stop type with Standard	1060.00
103-202	25–26"	.001"	±.0005"	Ratchet Stop type with Standard	1110.00
103-203	26–27"	.001"	±.0005"	Ratchet Stop type with Standard	1350.00
103-204	27–28"	.001"	±.00055"	Ratchet Stop type with Standard	1280.00
103-205	28–29"	.001"	±.00055"	Ratchet Stop type with Standard	1330.00
103-206	29–30"	.001"	±.00055"	Ratchet Stop type with Standard	1520.00
103-207	30–31"	.001"	±.0006"	Ratchet Stop type with Standard	1460.00
103-208	31–32"	.001"	±.0006"	Ratchet Stop type with Standard	1710.00
103-209	32–33"	.001"	±.0006"	Ratchet Stop type with Standard	1770.00
103-210	33–34"	.001"	±.00065"	Ratchet Stop type with Standard	1830.00
103-211	34–35"	.001"	±.00065"	Ratchet Stop type with Standard	1870.00
103-212	35–36"	.001"	±.00065"	Ratchet Stop type with Standard	1970.00
103-213	36–37"	.001"	±.0007"	Ratchet Stop type with Standard	2090.00
103-214	37–38"	.001"	±.0007"	Ratchet Stop type with Standard	2160.00
103-215	38–39"	.001"	±.0007"	Ratchet Stop type with Standard	2220.00
103-216	39–40"	.001"	±.00075"	Ratchet Stop type with Standard	2330.00
103-260	0–1"	.0001"	±.0001"	Ratchet Stop type, tapered frame	153.00
103-262	1–2"	.0001"	±.0001"	Ratchet Stop type with Standard	179.00
103-217	2–3"	.0001"	±.0001"	Ratchet Stop type with Standard	200.00
103-218	3–4"	.0001"	±.00015"	Ratchet Stop type with Standard	230.00
103-219	4–5"	.0001"	±.00015"	Ratchet Stop type with Standard	250.00
103-220	5–6"	.0001"	±.00015"	Ratchet Stop type with Standard	276.00
103-221	6–7"	.0001"	±.0002"	Ratchet Stop type with Standard	312.00
103-222	7–8"	.0001"	±.0002"	Ratchet Stop type with Standard	331.00
103-223	8–9"	.0001"	±.0002"	Ratchet Stop type with Standard	365.00
103-224	9–10"	.0001"	±.00025"	Ratchet Stop type with Standard	380.00
103-225	10–11"	.0001"	±.00025"	Ratchet Stop type with Standard	397.00
103-226	11–12"	.0001"	±.00025"	Ratchet Stop type with Standard	414.00

ORDER No. 103-929 (0–3" Set)

List Price \$508.00

ORDER NO.	RANGE	GRADUATION	REMARKS	LIST PRICE
103-177	0–1"	.001"	Ratchet Stop type with Standards	\$142.00
103-178	1–2"	.001"		164.00
103-179	2–3"	.001"		190.00

ORDER No. 103-904-10 (0–6" Set)

List Price \$1310.00

ORDER NO.	RANGE	GRADUATION	REMARKS	LIST PRICE
103-177	0–1"	.001"	Ratchet Stop type with 5 Standards	\$142.00
103-178	1–2"	.001"		164.00
103-179	2–3"	.001"		190.00
103-180	3–4"	.001"		220.00
103-181	4–5"	.001"		244.00
103-182	5–6"	.001"		264.00

ORDER No. 103-922 (0–3" Set)

List Price . . . \$560.00

ORDER NO.	RANGE	GRADUATION	REMARKS	LIST PRICE
103-135	0–1"	.0001"	Friction Thimble type	\$154.00
103-136	1–2"	.0001"		182.00
103-217	2–3"	.0001"	Ratchet Stop type with Standards	200.00

ORDER No. 103-907-40 (0–6" Set)

List Price \$1130.00

ORDER NO.	RANGE	GRADUATION	REMARKS	LIST PRICE
103-135	0–1"	.0001"	Friction Thimble type	\$154.00
103-136	1–2"	.0001"		182.00
103-217	2–3"	.0001"	Ratchet Stop type with Standards	200.00
103-218	3–4"	.0001"		230.00
103-219	4–5"	.0001"		250.00
103-220	5–6"	.0001"		276.00

ORDER No. 103-909 (6"–12" Set)

List Price \$2280.00

ORDER NO.	RANGE	GRADUATION	REMARKS	LIST PRICE
103-221	6–7"	.0001"	Ratchet Stop type with Standards	\$312.00
103-222	7–8"	.0001"		331.00
103-223	8–9"	.0001"		365.00
103-224	9–10"	.0001"		380.00
103-225	10–11"	.0001"		397.00
103-226	11–12"	.0001"		414.00

ORDER No. 103-908-40 (0–12" Set)

List Price \$3140.00

ORDER NO.	RANGE	GRADUATION	REMARKS	LIST PRICE
103-135	0–1"	.0001"	Friction Thimble type	\$154.00
103-136	1–2"	.0001"		182.00
103-217	2–3"	.0001"	Ratchet Stop type with Standards	200.00
103-218	3–4"	.0001"		230.00
103-219	4–5"	.0001"		250.00
103-220	5–6"	.0001"		276.00
103-221	6–7"	.0001"		312.00
103-222	7–8"	.0001"		331.00
103-223	8–9"	.0001"		365.00
103-224	9–10"	.0001"		380.00
103-225	10–11"	.0001"		397.00
103-226	11–12"	.0001"		414.00

Measuring Instruments

Mitutoyo

Digimatic Micrometers Series 293 – IP65

FEATURES:

- IP65 protection level, enabling use in environments exposed to cutting oil, etc*.
- *Anti-corrosion treatment is required after use.

Inch/Metric

ORDER NO.	RANGE	LCD RESOLUTION	ACCURACY	REMARKS	LIST PRICE
293-330-30	0-1"	.00005"	±.00005"	with SPC output Ratchet Stop	\$311.00
293-331-30	0-25.4mm	0.001mm	±.00005"	w/ SPC output and Std. Ratchet Stop	366.00
293-332-30	1-2"	.00005"	±.00005"	w/ SPC output and Std. Ratchet Stop	453.00
293-333-30	25.4-50.8mm	0.001mm	±.00005"	w/ SPC output and Std. Ratchet Stop	488.00
293-334-30	2-3"	.00005"	±.0001"	w/ SPC output and Std. Ratchet Stop	601.00
293-335-30	50.8-76.2mm	0.001mm	±.0001"	w/ SPC output and Std. Ratchet Stop	625.00
293-336-30	3-4"	.00005"	±.0001"	w/ SPC output and Std. Ratchet Stop	638.00
293-337-30	76.2-101.6mm	0.001mm	±.00015"	w/ SPC output and Std. Ratchet Stop	685.00
293-338-30	4-5"	0.0001"	±.0001"	w/ SPC output and Std. Ratchet Stop	
293-339-30	101.6-127.0mm	0.001mm	±.0001"	w/ SPC output and Std. Ratchet Stop	
293-340-30	5-6"	0.0001"	±.0001"	w/ SPC output and Std. Ratchet Stop	
293-341-30	127.0-152.4mm	0.001mm	±.0001"	w/ SPC output and Std. Ratchet Stop	
293-342-30	6-7"	0.0001"	±.00015"	w/ SPC output and Std. Ratchet Stop	
293-343-30	152.4-177.8mm	0.001mm	±.00015"	w/ SPC output and Std. Ratchet Stop	
293-344-30	7-8"	0.0001"	±.00015"	w/ SPC output and Std. Ratchet Stop	
293-345-30	177.8-203.2mm	0.001mm	±.00015"	w/ SPC output and Std. Ratchet Stop	

- Measurement data output function is available with a water-resistant connection cable.
- Auto power ON/OFF function.
- A nonslip surface with raised dots is employed for the frame cover and surface panel to achieve stable handheld measurement
- Certificate of inspection* is included. (2" /50mm or less range models)
- *Not the type used to obtain calibration certificates.
- With a standard bar except for 0-1"/0-25mm model.
- Supplied in fitted case. Plastic case up to 6"/150mm, wooden box over 6"/150mm

FUNCTIONS AVAILABLE:

- Origin setting
- Inch/mm selection
- Zero-setting
- Error alarm
- Data Hold only with SPC Models
- Auto-sleep
- Data output
- Can be linked to the SPC system
- Carbide-tipped measuring faces.



293-348-30
Standard
Friction
Thimble

ORDER NO.	RANGE	LCD RESOLUTION	ACCURACY	REMARKS	LIST PRICE
293-354-30	8-9"	0.0001"	±.00015"	w/ SPC output and Std. Ratchet Stop	\$710.00
293-355-30	203.2-228.6mm	0.001mm	±.0002"	w/ SPC output and Std. Ratchet Stop	741.00
293-356-30	9-10"	0.0001"	±.0002"	w/ SPC output and Std. Ratchet Stop	747.00
293-357-30	10-11"	0.0001"	±.0002"	w/ SPC output and Std. Ratchet Stop	769.00
293-358-30	11-12"	0.0001"	±.0002"	w/ SPC output and Std. Ratchet Stop	
293-340-30	0-1"	.00005"	±.00005"	without SPC output Ratchet Stop	286.00
293-341-30	0-25.4mm	0.001mm	±.00005"	without SPC output Ratchet-Friction Thimble	286.00
293-342-30	0-1"	.00005"	±.00005"	without SPC output Friction Thimble	286.00
293-343-30	0-25.4mm	0.001mm	±.00005"	without SPC output Ratchet-Friction Thimble	286.00
293-344-30	0-1"	.0001"	±.00005"	without SPC output Ratchet-Friction Thimble	
293-345-30	0-25.4mm	0.001mm	±.00005"	without SPC output Ratchet-Friction Thimble	

Replacement Battery: 938882 (1 pc). SPC Cable: 05CZA662 (1m) or 05CZA663 (2m)

Fowler

XTRA-VALUE II

Electronic Micrometers

FEATURES:

- Jet black, grey enamel finish
- Large LCD display, 8.5mm
- Resolution: .00005"/.001mm
- Accuracy: ±.00016"/.004mm (up to 2")
- Ratchet thimble
- Carbide measuring faces.
- Absolute and incremental modes
- Includes shop hardened case



ORDER NUMBER	RANGE/ DESCRIPTION	PRICE EACH
54-870-001-0	0-1"/0-25mm Elec. Micrometer	\$106.00
54-870-002-0	1-2"/0-50mm Elec. Micrometer	141.00
54-870-003-0	2-3"/0-75mm Elec. Micrometer	172.00
54-870-103-0	0-3"/0-75mm Elec. Micrometer Set	415.00

Fowler



LIFETIME WARRANTY

Rapid-Mic Quick-Displacement Electronic Micrometer



FEATURES:

- Auto On/Off
- Position recall
- IP67 with or without data cable.
- Delrin quick displacement thimble
- Adjustable measuring force, 5N/10N
- Menu customizable with free software
- Non-rotating spindle, 12mm/spindle rotation
- USB output
- Carbide anvils
- Extended Range 0-30mm, 30-66mm and 66-102mm
- Blade anvils and speciality mics are available, contact Fowler Technical Department

ORDER NO.	DESCRIPTION	MAX ERROR	PRICE
54-815-030-0	0-1.18"/0-30mm	0.00012"/.003mm	\$850.00

Measuring Instruments

Pittsburg[®] Digital Electronic Outside Micrometer

[2]

RANGE	RESOLUTION	ORDER NO.	PRICE
0-1"/0-25mm	.00005"/.001mm	3100-590	\$89.00

- Large, easy to read LCD display
- Set zero at any point along spindle
- Automatic power off
- Carbide tipped with ratchet stop and locking lever
- Hardened and precision ground anvil and spindle
- Hard chrome satin finish sleeve and thimble
- Supplied in specially fitted case



Fowler IP54 Electronic Micrometers

[6]

ORDER NUMBER	DESCRIPTION	PRICE
54-860-001-1	0—1" Electronic Micrometer	\$197.00
54-860-002-1	1—2" Electronic Micrometer	211.00
54-860-003-1	2—3" Electronic Micrometer	221.00
54-860-103-1	0—3" Electronic Micrometer Set	599.00

Water, oil and fluid
resistant
to **IP54**

- Protecte to IP54 specification.
- Large LCD display.
- Automatic switch off.
- Resolution: .00005"/.001mm.
- Direct RS232 output.
- Complete with case
- Sizes over 1" supplied with standards.



Mitutoyo Wide Range Outside Micrometers – Series 104 & 340 – IP65

FEATURES

- Wide measuring range with interchangeable anvils
- Carbide-tipped spindle.
- Provided with Ratchet Stop for constant force.

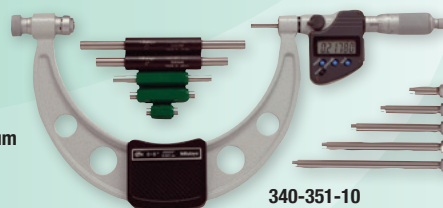
DIGIMATIC FUNCTIONS

340 Series - IP65

- Inch/mm • Preset
- Zero/ABS • Data Send/Hold

ACCURACY

- Flatness: within .000024"/0.6µm for up to 12"/300mm
within .00004"/1µm for up to 40"/1000mm.
- Parallelism: .00008" + .00004" x (L*/4") / (2 + L/100)µm
(*truncated after decimal pt.)
- Measuring Accuracy: ± (.0002" + .00005" x L*/3")" / ± (4 + L/75)µm
(*truncated after decimal pt.), L = maximum measuring length.



340-351-10

Digimatic Wide Range Outside Micrometers

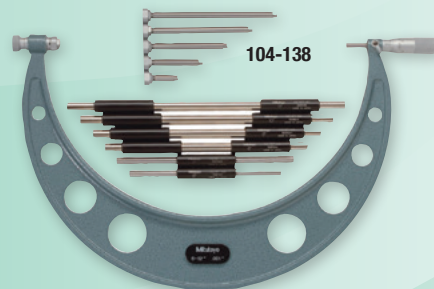
[7]

ORDER NO.	RANGE	LCD RESOLUTION	REMARKS	LIST PRICE
340-351-30	0-6" 0-152.4mm	.00005" 0.001mm	with 6 Anvils & 5 Standards with SPC output	\$864.00
340-352-30	6-12" 152.4-304.8mm	.00005" 0.001mm	with 6 Anvils & 6 Standards with SPC output	1060.00

Wide Range Outside Micrometers

[12]

ORDER NO.	RANGE	GRADUATION	REMARKS	LIST PRICE
104-137	0-6"	.001"	with 6 Anvils & 5 Standards	\$ 503.00
104-138	6-12"	.001"	with 6 Anvils & 6 Standards	906.00
104-203	24-30"	.001"	with 6 Anvils & 6 Standards	1910.00
104-204	30-36"	.001"	with 6 Anvils & 6 Standards	2100.00
104-205	36-42"	.001"	with 6 Anvils & 6 Standards	2090.00
104-152	12-16"	.001"	with 4 Anvils & 4 Standards	1010.00
104-153	16-20"	.001"	with 4 Anvils & 4 Standards	1240.00
104-154	20-24"	.001"	with 4 Anvils & 4 Standards	1350.00



104-138

Mitutoyo Deep Throat Micrometers – Series 118

FEATURES

- Measures thickness of sheet metal, paper, plastic, and rubber parts.
- Carbide-tipped measuring faces.
- Provided with Ratchet Stop for constant force.

Inch

[12]

ORDER NO.	RANGE	RESOLUTION	ACCURACY	REMARKS	LIST PRICE
118-129	0-1"	.0001"	±.0002"	Depth of Throat: 6"	\$311.00
118-107	0-1"	.001"	±.00025"	Depth of Throat: 12"	517.00

Special modifications to spindle/anvil tips available upon request.



Measuring Instruments

Pittsburg[®] Digital Outside Micrometer

[2]

RANGE	GRAD.	ORDER NO.	PRICE
0-1"	.0001"	3100-575	\$45.00
1-2"	.0001"	3100-576	49.00
2-3"	.0001"	3100-577	55.00
0-3" Set	.0001"	3100-582	129.00

- Rapid and simple reading. Fast zero adjustment
- .0001" graduations on vernier scale, .001" on digital counter
- Flatness: .00003" Parallelism: 0.00005" for 1" model
- Carbide tipped with ratchet stop and locking nut
- Hardened and precision ground anvil and spindle
- Crisp, clear graduations on hard chrome satin finish sleeve and thimble
- Standards included for 1-2" and above, and in sets
- Supplied in specially fitted case, with spanner wrench
- Heat insulated grip plates



Mitutoyo Digital Outside Micrometers – Series 193

Mechanical Digit Counter Readout

FEATURES

- Mechanical counter for quick and error-free reading.
- Direct readout on the counter to .001"/0.01mm.
- Carbide-tipped measuring faces.

Note: 0-1" and 1-2" models have Friction Thimbles. All others have Ratchet Stop. Metric available on request.

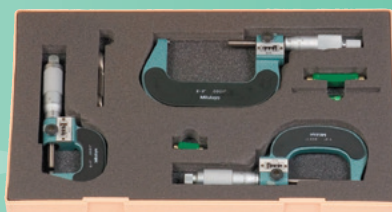


193-211

[2]

ACCURACY

- Flatness: Inch models .000024" for models up to 12". Metric models 0.6µm for models up to 300mm.
- Parallelism: Inch models .00008" + .00004" x (L/4") (*truncated after decimal pt.) Metric models (2 + L/100)µm.



Inch

ORDER NO.	RANGE	GRADUATION	ACCURACY	REMARKS	LIST PRICE
193-211	0-1"	.0001"	±.0001"	Friction Thimble	\$242.00
193-212	1-2"	.0001"	±.0001"	with standard, Friction Thimble	285.00
193-213	2-3"	.0001"	±.0001"	with standard, Ratchet Stop	317.00
193-214	3-4"	.0001"	±.00015"	with standard, Ratchet Stop	351.00

Digital Micrometer Set

[2]

ORDER NO.	RANGE	GRADUATION	ACCURACY	REMARKS	LIST PRICE
193-923	0-3"	.0001"	±.0001"	with standard	\$846.00

Fowler Digit Counter Micrometers

[2]

ORDER NUMBER	DESCRIPTION	PRICE
52-224-001-1	0-1" Outside Micrometer	\$154.00
52-224-002-0	1-2" Outside Micrometer	199.00
52-224-003-0	2-3" Outside Micrometer	227.00
52-224-103-0	0-3" Outside Micrometer Set	459.00

- Digital counter
- Resolution: .0001",
- Microfine graduations on satin chrome finish
- Carbide tipped measuring faces
- Positive locking nut on spindle
- Sizes over 1" supplied with standards



Mitutoyo Uni-Mike – Series 117 & 317 - IP65 Interchangeable Anvil Type

[7]

Inch/Metric

ORDER NO.	RANGE	LCD RESOLUTION	ACCURACY	REMARKS	LIST PRICE
317-351-30	0-1"	.00005"-0.001mm	±.0002"	Friction Thimble w/Flat & Rod Anvils	\$625.00
317-352-30	1-2"	.00005"-0.001mm	±.0002"	Friction Thimble w/Flat & Rod Anvils plus Standard	635.00

* For SPC output order connecting cable 05CZA662 (1m) or 05CZA663 (2m). Replacement Battery: 938882.

Inch

117-107*	0-1"	.0001"	±.0002"	w/Flat & Rod Anvils	\$295.00
117-108*	1-2"	.0001"	±.0002"	w/Flat & Rod Anvils plus Standard	316.00

* 117-107 and 117-108 with Friction Thimble. Replacement Anvils: Rod Anvil 201217; Flat Anvil 201216; Optional V-Anvil 201218; Optional 1" Disc Anvil 950758.



317-351-30



117 Series

FEATURES

- Measures tube thickness, shoulder-edge distance rivet head height, etc. with interchangeable anvils (flat anvil, rod anvil, V-anvil).
- The 317 series provides digital readout to .00005"/0.001mm and can be linked to the SPC system.

ACCURACY

- Flatness: Measuring face of spindle: .000024"/0.6µm. Bottom of base: .00008"/2µm.
- Parallelism: .00012"/3µm.

Measuring Instruments

Mitutoyo

Screw Thread Micrometers – Series 126 & 326

Digimatic Screw Thread Micrometers

Inch/Metric (No Anvils)

ORDER NO.	RANGE	LCD RESOLUTION	ACCURACY	REMARKS	LIST PRICE
326-351-30	0–1"–0–25.4mm	.00005"–0.001mm	±.0002"	—	\$786.00
326-352-30	1–2"–25.4–50.8mm	.00005"–0.001mm	±.0002"	with Standard	832.00

For SPC output order connecting cable 05CZA662 (1m) or 05CZA663 (2m).
Replacement Battery: 938882.

Screw Thread Micrometers

Inch (No Anvils)

ORDER NO.	RANGE	GRADUATION	*ACCURACY	REMARKS	LIST PRICE
126-137	0–1"	.001"	±.0002"	—	\$583.00
126-138	1–2"	.001"	±.0002"	with Standard	697.00

Inch (With Anvil Set)

126-901	0–1"	.001"	±.0002"	with Anvil Set (126-800)	\$1190.00
126-902	1–2"	.001"	±.0002"	with Anvil Set (126-800) with Standard	1320.00

* Read Screw only. Sizes available up to 7".

Anvils (Accessories – Must select at least one pair)

ORDER NO.	THREADS (PER INCH)	PITCH (INCH/MM)	REMARKS	LIST PRICE
126-801	64–48 (M1)	.016–.019"/0.4–0.5mm	1 Pair	\$98.84
126-802	44–28 (M2)	.024–.035"/0.6–0.9mm	1 Pair	98.84
126-803	24–14 (M3)	.04–.068"/1.0–1.75mm	1 Pair	98.84
126-804	13–9 (M4)	.079–.118"/2.0–3.0mm	1 Pair	98.84
126-805	8–5 (M5)	.138–.196"/3.5–5.0mm	1 Pair	98.84
126-806	4.5–3.5 (M6)	.217–.275"/5.5–7.0mm	1 Pair	98.84
126-800	64–3.5	.016–.275"/0.4–7.0mm	Set	592.00

Pittsburg[®] ALLEGHANY Screw Thread Micrometers

- Every thousandth is numbered for easy reading
- Deluxe heat-insulator on satin chrome finished forged steel frame, tapered for hard to get at places
- Ratchet stop with positive locking clamp
- Micro-fine graduations on satin chrome finish
- V-Anvil and a conical spindle made of high grade steel, hardened and precision ground
- Includes fitted case, with standard supplied for 1-2"

RANGE	GRAD.	ANVILS	ORDER NO.	PRICE
0–1"	.001"	1-5	3100-180	\$217.70
1–2"	.001"	2-6	3100-181	235.95



Anvils – UST 60 Deg .0001"

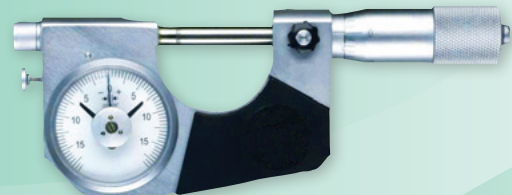
ANVIL NO.	RANGE	ORDER NO.	PRICE
1	64–48	3100-184†	\$19.05
5	8–5	3100-188†	19.05
6	4.5–3	3100-189†	21.25
Anvil Set		3100-179	167.30

† Limited Quantities

Pittsburg[®] ALLEGHANY Indicating Micrometers

- Every thousandth is numbered for easy setting
- Quick and easy zero adjustment
- Retracting button convenient to operator's thumb
- Tolerance hands can be set as desired
- Microlapped finish carbide measuring faces
- Jeweled bearings
- Hardened and precision ground anvil and spindle
- Hard chrome satin finish sleeve and thimble
- Supplied in specially fitted case

RANGE	GRAD.	ORDER NO.	PRICE
0–1"	.0001"	3100-234	\$384.00
1–2"	.0001"	3100-236	420.00



Mitutoyo Indicating Micrometer – Series 510

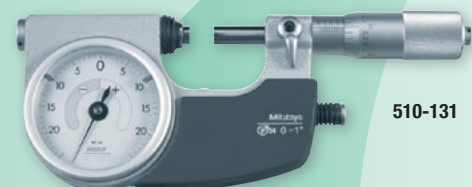
FEATURES

- User-friendly, improved durability, accuracy
- Waterproof structure conforms to IP-54
- Scratch-resistant hard coated crystal
- Easy-to-read large dial graduations
- Zero-adjustment screw on backside

Inch

ORDER NO.	RANGE	GRADUATION OF INDICATOR	RANGE OF INDICATOR	TOTAL ACCURACY	LIST PRICE
510-131*	0–1"	.00005"	± .0023"	± .0001"	\$1100.00
510-132	1–2"	.00005"	± .0023"	± .0001"	1190.00
510-133	2–3"	.00005"	± .0023"	± .0001"	1330.00
510-134	3–4"	.00005"	± .0023"	± .0001"	1440.00

*Retractable anvil button on the right side (510-131).



Measuring Instruments

Mitutoyo

Blade Micrometers - Series 122 & 422 Non-Rotating Spindle

FEATURES

- The anvil and the spindle have a blade for measuring the groove diameter of shafts, keyways, and other hard-to-reach portions.
- The 422 series provides digital readout to .00005"/0.001mm and can be linked to the SPC system.
- All Digimatic models provide SPC output
- Non-rotating spindle.

ACCURACY

- Parallelism: .00012" for models up to 2", .00012" + .00004" x (L*/4") for over 2", 3µm models for up to 50mm, (3 + L/100)µm for models over 50mm.
(*truncated after decimal point).
- L = maximum measuring length.

Digimatic Blade Micrometer

Inch/Metric

ORDER NO.	RANGE	LCD RESOLUTION	ACCURACY	BLADE DIMENSION	LIST PRICE
422-330-30	0-1"	.00005"	±.00015"	.030"	\$1010.00
422-331-30	0-25.4mm	0.001mm	±.00015"	.030"	986.00
	1-2"	.00005"			
	25.4-50.8mm	0.001mm			

* For SPC output order connecting cable 05CZA662 (1m) or 05CZA663 (2m).
Special Oversized models up to 12" available upon request
(Based on models 422-330-30 & 122-125).



422-330-30

7

Blade Micrometer

Inch

ORDER NO.	RANGE	GRADUATION	ACCURACY	BLADE DIMENSION	LIST PRICE
122-125	0-1"	.0001"	±.00015"	.030"	\$310.00
122-126	1-2"	.0001"	±.00015"	.030"	324.00
122-127	2-3"	.0001"	±.00015"	.030"	341.00
122-128	3-4"	.0001"	±.0002"	.030"	364.00



122-125

12

Mitutoyo

Spherical Face Micrometers Series 115 & 395-IP65

Digimatic Spherical Face Micrometers

Inch/Metric

ORDER NO.	RANGE	LCD RESOLUTION	ACCURACY	REMARKS	LIST PRICE
395-351-30	0-1"	.00005"	±.0001"	Spherical anvil type	\$468.00
	0-25.4mm	0.001mm			
395-352-30	1-2"	.00005"	±.0001"	Spherical anvil type w/Standard	552.00
	25.4-50.8mm	0.001mm			
395-371-30	0-1"	.00005"	±.0001"	Spherical anvil & spindle type	484.00
	0-25.4mm	0.001mm			
395-372-30	1-2"	.00005"	±.0001"	Spherical anvil & spindle type with Standard	513.00
	25.4-50.8mm	0.001mm			

For SPC output order connecting cable 05CZA662 (1m) or 05CZA663 (2m).
Replacement Battery: 938882.

FEATURES

- Spherical Anvil Micrometers are especially useful in measuring the wall thickness of small parts such as sleeves, collars, tubings and various cylindrical workpieces. They are also used to measure dimensions from the inside of holes to outside edges. The spherical anvil contacts the inside curved surface providing a single point contact and permitting accurate gaging of the wall thickness to .0001".
- Ratchet thimble for constant force.
- Carbide-tipped measuring faces.
- The 395 series can be linked to the SPC system.
- Provided with a constant-force device.
- Digimatic functions same as the Digimatic Outside Micrometers series 293 at the first pages of this section.



395-371-30



115-153

Spherical Face Micrometers

ORDER NO.	RANGE	GRADUATION	ACCURACY	REMARKS	LIST PRICE
115-153	0-1"	.0001"	±.00015"	Spherical anvil type	\$ 174.00
115-253	0-1"	.0001"	±.00015"	Spherical anvil & spindle type	190.00

Measuring Instruments

Mitutoyo

Point Micrometers – Series 112 & 342-IP65

FEATURES

- Pointed spindle and anvil for measuring the web thickness of drills, small grooves, and other hard-to-reach dimensions.
- Radius of curvature of measuring points: .012" (0.3mm).
- The 342 series provides digital readout to .00005"/0.001mm and can be linked to the SPC system.
- Provided with Ratchet Stop for constant force.

Inch/Metric

ORDER NO.	RANGE	LCD RESOLUTION	ACCURACY	REMARKS	LIST PRICE
342-351-30	0-1" 0-25.4mm	.00005" 0.001mm	±.0001"	w/SPC output & Carbide points. A=15°, L=.394"	\$546.00
342-352-30	1-2" 25.4-50.8mm	.00005" 0.001mm	±.0001"	w/SPC output & Standard with Carbide points. A=15°, L=.394"	607.00
342-361-30	0-1" 0-25.4mm	.00005" 0.001mm	±.0001"	w/SPC output & Carbide points. A=30°, L=.430"	601.00
342-362-30	1-2" 25.4-50.8mm	.00005" 0.001mm	±.0001"	w/SPC output & Standard with Carbide points. A=30°, L=.430"	595.00

For SPC output, order Connecting Cable 05CZA662 (1m) or 05CZA663 (2m). Replacement Battery: 938882.

Inch/Metric

ORDER NO.	RANGE	LCD RESOLUTION	ACCURACY	REMARKS	LIST PRICE
112-177	0-1"	.001"	±.00015"	without Carbide points A=15°, L=.394"	292.00
112-225	0-1"	.001"	±.00015"	without Carbide points A=30°, L=.430"	220.00



342-361-30



112 Series

Mitutoyo Tubing Micrometers - Series 115 & 395-IP65

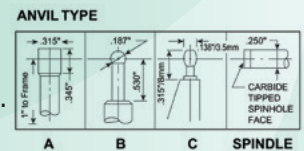
ORDER NO.	RANGE	LCD RESOLUTION	ACCURACY	REMARKS	LIST PRICE
395-363-30	0-1" 0-25.4mm	.00005" 0.001mm	±.00015"	Anvil type: B	\$587.00
395-364-30	0-1" 0-25.4mm	.00005" 0.001mm	±.00015"	Anvil type: A	534.00

For SPC output order connecting cable 05CZA662 (1m) or 05CZA663 (2m). Replacement Battery: 938882 (1 pc).

ORDER NO.	RANGE	GRADUATION	ACCURACY	ANVIL DIA.	LIST PRICE
115-313	0-1"	.0001"	±.00015"	.187"	\$191.00

FEATURES

- The 395 series can be linked to the SPC system.
- Provided with a constant-force device.



115-313



395-363-30

Mitutoyo Disc Micrometers– Series 123, 223, 323 -IP65

Rotating Spindle Type

Digital Disc Micrometers – (Mechanical)

Inch

ORDER NO.	RANGE	GRAD.	ACCURACY	REMARKS	LIST PRICE
223-125	0-1"	.001"	±.0002"	Disc Diam.: .79"	\$407.00

FEATURES

- Measures root tangent length of spur & helical gears
- The 323 series can be linked to the SPC system.
- .03" edge thickness to enter narrow recesses.
- With heat-insulating grip cover on frame.
- Supplied with fitted carrying case.



323-350-30



123-125

Disc Micrometers

Inch

ORDER NO.	RANGE	GRADUATION	ACCURACY	REMARKS	LIST PRICE
123-125	0-1"	.001"	±.0002"	Disc Diameter: .79"	\$316.00
123-126	1-2"	.001"	±.0002"	Disc Diameter: .79" w/Standard	349.00
123-127	2-3"	.001"	±.0003"	Disc Diameter: .79" w/Standard	371.00
123-128	3-4"	.001"	±.0003"	Disc Diameter: .79" w/Standard	404.00

Inch/Metric

ORDER NO.	RANGE	RESOLUTION	ACCURACY	REMARKS	LIST PRICE
323-350-30	0-1" 0-25.4mm	.00005" 0.001mm	±.0002"	Disc diam. .79"	\$590.00
323-351-30	1-2" 25.4-50.8mm	.00005" 0.001mm	±.0002"	Disc diam. .79" with Standard	660.00

For SPC output order connecting cable 05CZA662 (1m) or 05CZA663 (2m). Replacement Battery: 938882.

Measuring Instruments

Mitutoyo V-Anvil Micrometers – Series 114, 314 3 Flutes and 5 Flutes

FEATURES

- Measures the outside diameter of cutting heads (such as taps, reamers, end mills) with an odd number of flutes.
- The 314 series provides digital readout to .00005"/0.001mm and can be linked to the SPC system.

- Provided with a constant-force device.
 - Carbide-tipped spindle.
 - Supplied with Standard.
- ACCURACY • Flatness: .000024"/0.6µm.

Digimatic V-Anvil Micrometers

Inch/Metric



7

ORDER NO.	RANGE	LCD RESOLUTION	ACCURACY	REMARKS	LIST PRICE
314-351-30	.05"–.6" 1.27–15.24mm	.00005" 0.001mm	±.0002"	Anvil has no Groove	\$880.00
314-352-30	.4"–1.0" 10.16–25.4mm	.00005" 0.001mm	±.0002"	Anvil has no Groove	829.00

For SPC output order connecting cable 05CZA662 (1m) or 05CZA663 (2m). Replacement Battery: 938882.

V-Anvil Micrometers

Inch



114-135

12

ORDER NO.	RANGE	GRADUATION	FLUTES	ACCURACY	REMARKS	LIST PRICE
114-135	.093–1.0"	.0001"	5	±.0002"	Carbide Tipped Anvil	\$668.00
114-202	.093–1.0"	.0001"	3	±.0002"	Carbide Tipped Anvil	668.00

Mitutoyo

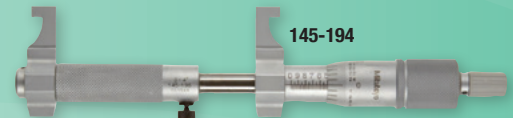
Inside Micrometers – Series 145

FEATURES

- Accuracy to .0002" with graduations of .001".
- Easy zero adjustment.
- Clear graduations on satin-chrome finish.
- Caliper type jaws are made of high-grade, tool steel. They are satin-chrome finished.
- Locking clamp for positive locking of spindle.
- With ratchet thimble for constant force.
- Every thousandth is numbered for easy reading.
- Easily adjusted for slide movement of jaw (Exclusive).
- Supplier wrench is supplied with every micrometer.
- Complete with fitted carrying case.



145-193



145-194

Inch

12

ORDER NO.	RANGE	GRADUATION	ACCURACY	REMARKS	LIST PRICE
145-193	.2"–1.18"	.001"	±.0002"	—	\$316.00
145-194	1.0"–2.0"	.001"	±.00025"	—	340.00

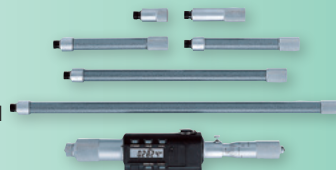
Mitutoyo

Tubular Inside Micrometers – Series 337

Extension Type

FEATURES

- Wide range of ID measurements by combining extension rods with the micrometer head. The rod is accurately finished and incorporated in a pipe for shop-floor use.
- The 337 series provides digital readout to .0001"/0.001mm and can be linked to the SPC System.



Digimatic Inside Micrometers – Inch/Metric

7

ORDER NO.	RANGE	LCD RESOLUTION	HEAD TRAVEL	HEAD ACCURACY	DIAM. OF RODS	REMARKS	LIST PRICE
337-303	8–40"	.0001" 0.001mm	1.0"	±.0001"	.50"	Includes Micrometer Head and 6 pcs Rods. w/SPC output	\$1490.00
337-304	8–60"	.0001" 0.001mm	1.0"	±.0001"	.50"	Includes Micrometer Head and 7 pcs Rods. w/SPC output	1670.00

For SPC output order connecting cable 937387 (1m) or 965013 (2m).

Measuring Instruments



Electronic Inside Micrometer

- Water Resistant to IP54 specifications.
- True inch/metric conversion. • Resolution: .00005"/.001mm.
- Measuring jaws & faces fully hardened and microlapped for accuracy.
- Each gage includes appropriate setting ring.
- Direct RS232 output. • Supplied in fitted case.

Water, oil and fluid
resistant
to **IP54**



Inside Micrometer

- For small internal measurements
- Satin chrome no-glare finish
- Measuring faces fully hardened and ground
- Ratchet stop, locking clamp
- Complete with fitted case



RANGE	GRAD.	ORDER NO.	PRICE
.2-1.2"	.001"	3100-920	\$40.00
1-2"	.001"	3100-922	51.00



XTRA-VALUE Depth Gage

ORDER NUMBER	DESCRIPTION	PRICE
54-225-555-0	0—22"/550mm	\$72.00

- Spring loaded and hold measurement button for ease-of-use
- Resolution: .0005"/.01mm (fractions in 1/64" increments)
- Travel: 0-1"/25mm
- Supplied in shop-hardened case
- Super large display



Electronic Depth Micrometer

ORDER NUMBER	DESCRIPTION	PRICE
54-225-456-0	0—6"/150mm	\$287.00

- Range: 0-6"/150mm
- 4" Base: Hardened tool steel, precision ground & microlapped
- Protected to IP54 Standards • Resolution: .00005"/.001mm
- Direct RS232 output • Automatic switch off
- Large LCD display

Water, oil and fluid
resistant
to **IP54**



Digimatic Depth Gages – Series 571 With SPC Output

FEATURES

- No rack, no pinion, no glass scale.
 - Linear Scale is safely embedded in the hardened stainless steel blade.
 - Sliding LCD unit offers push button control for in/mm selection, absolute zero setting, and turning the display on/off.
 - Battery life is approximately two years with normal use.
 - LCD unit displays "E-05" for movement error and "B" for battery replacement.
- Note: sliding unit can be moved as fast as 40" per second.
- 1", 6", and 8" models IP67 rated



571-262-10

Inch/Metric

ORDER NO.	RANGE	LCD RESOLUTION	ACCURACY	REMARKS	LIST PRICE
571-261-20	0-6" / 0-150mm	.0005" / 0.01mm	±.001"	Absolute Function Type	\$641.00
571-262-20	0-8" / 0-200mm	.0005" / 0.01mm	±.001"	Absolute Function Type	711.00
571-213-10	0-12" / 0-300mm	.0005" / 0.01mm	±.0015"	Absolute Function Type	507.00
571-214-10	0-18" / 0-450mm	.0005" / 0.01mm	±.002"	Absolute Function Type	1050.00
571-215-10	0-24" / 0-600mm	.0005" / 0.01mm	±.002"	Absolute Function Type	1130.00

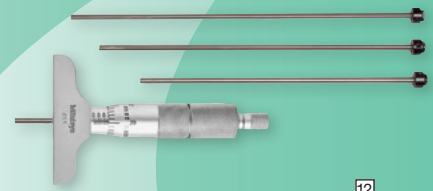
For SPC output order connecting cable (for 6" & 8" only) 05CZA624 (1m) or 05CZA625 (2m).

Measuring Instruments

Mitutoyo Depth Micrometers – Series 129

FEATURES

- Ratchet stop for consistent and repetitive measurements.
- .157" DIA. interchangeable rods, with lapped measuring end, are calibrated and tested at the factory. The rod length can be adjusted, to compensate wear on the measuring tip, with two supplied wrenches.
- Satin-chromed finished throughout. • Complete with fitted carrying case.
- Crisp clear graduations on the thimble.



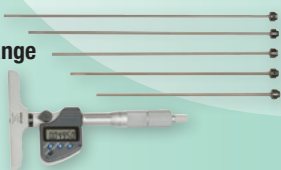
Metric 12				
ORDER NO.	RANGE	GRADUATION	REMARKS	LIST PRICE
129-111	0-100mm	0.01mm	with Interchangeable Rods: 4 pcs. Base Length: 63.5mm	\$244.00
129-112	0-150mm	0.01mm	with Interchangeable Rods: 6 pcs. Base Length: 63.5mm	294.00
129-115	0-100mm	0.01mm	with Interchangeable Rods: 4 pcs. Base Length: 101.6mm	267.00
129-116	0-150mm	0.01mm	with Interchangeable Rods: 6 pcs. Base Length: 101.6mm	314.00

Inch 12				
ORDER NO.	RANGE	GRADUATION	REMARKS	LIST PRICE
129-127	0-4"	.001"	with Interchangeable Rods: 4 pcs. Base Length: 2.5"	\$268.00
129-128	0-6"	.001"	with Interchangeable Rods: 6 pcs. Base Length: 2.5"	323.00
129-149	0-12"	.001"	with Interchangeable Rods: 12 pcs. Base Length: 2.5"	569.00
129-131	0-4"	.001"	with Interchangeable Rods: 4 pcs. Base Length: 4.0"	267.00
129-132	0-6"	.001"	with Interchangeable Rods: 6 pcs. Base Length: 4.0"	345.00
129-150	0-12"	.001"	with Interchangeable Rods: 12 pcs. Base Length: 4.0"	594.00

Mitutoyo Digit Depth Micrometers – Series 329, Interchangeable Rod Type

FEATURES

- ø4mm interchangeable rods, with lapped measuring end, provide a wide measuring range
- The rod length can be adjusted in 1" or 25mm increments
- With ratchet stop for constant force, measuring rod clamp, SPC output
- Supplied in fitted plastic case.



Inch/Metric 7				
ORDER NO.	RANGE	RESOLUTION	REMARKS	LIST PRICE
329-350-30	0-6" / 0-152.4mm	.00005" / 0.001mm	with SPC output with Interchangeable Rods: 6 pcs.	\$697.00
329-351-30	0-12" / 0-304.8mm	.00005" / 0.001mm	with SPC output with Interchangeable Rods: 12 pcs.	944.00

Metric available upon request. For SPC output order Connecting Cable 05CZA662 (1m) or 05CZA663 (2m). Replacement Battery: 938882.



Depth Micrometer



FEATURES

- Precision ground hardened base
- Satin chrome no-glare finish
- Ratchet stop for consistent and repetitive measurements
- Complete with fitted case

RANGE	GRAD.	BASE	NO. RODS	ORDER NO.	LIST PRICE
0-4"	.001"	2-1/2"	4	3100-900	\$143.20
0-6"	.001"	2-1/2"	6	3100-902	70.00
0-4"	.001"	4"	4	3100-904	167.75
0-6"	.001"	4"	6	3100-906	195.50

Mitutoyo

Digimatic/Dial Depth Gages

For Rapid, Direct Reading Measurements of Hole Depth

DIGIMATIC DEPTH GAGE FEATURES:

- ABSOLUTE Digimatic Depth Gage can keep track of the origin point once set for the entire life of the battery.
- Wide probing range is available with 4 supplied extension rods.
- Bottom surface of the base is hardened, ground and lapped for highest degree of flatness. • With SPC data output.

547-217S



Digimatic - Inch/Metric 7

ORDER NO.	RANGE	RESOLUTION	SPINDLE STROKE	REMARKS	LIST PRICE
547-217S	0-8"	.0005" / 0.01mm	0.5"	Accuracy: ±.001" Base W x Thk.: 2.5 x .63"	\$508.00
547-218S	0-200mm	.0005" / 0.01mm	0.5"	Accuracy: ±.001" Base W x Thk.: 4 x .63"	516.00
547-257S	0-8"	.00005" / 0.001mm	0.5"	Accuracy: ±.0003" Base W x Thk.: 2.5 x .63"	625.00
547-258S	0-200mm	.00005" / 0.001mm	0.5"	Accuracy: ±.0003" Base W x Thk.: 4 x .63"	634.00

DIAL DEPTH GAGE FEATURES:

- The Dial Indicator has a precision-ground, hard-chrome-plated stem with standard AGD 3/8" diameter. Contact point is hardened, ground and chrome-plated steel. Spindle rack, pinions and pivots are hardened stainless steel to insure long wear and continuing accuracy. Bezel is cleanly knurled and smoothly adjustable with a clamping screw for positive settings. Accuracy of the Dial Indicator exceeds Federal Specifications.
- Spindle lifting lever for raising and lowering and spindle is maintained under spring pressure.
- Rods are available in 1", 2" and 4" lengths and may be connected for depths up to 8". (1" on Dial Indicator + 1" rod + 2" rod + 4" rod = 8") 10, 20, 30 and 100mm rods for Metric model.
- Bottom surface of the base is hardened, ground and lapped for highest degree of flatness.
- Complete with fitted carrying case.
- Dial Indicator is attached to the base by a clamping screw & interchangeable with any other standard AGD dial indicator.

7217S



Inch 12

ORDER NO.	RANGE	GRADUATION	SPINDLE STROKE	REMARKS	LIST PRICE
7217S	0-8"	.001"	1.0"	Accuracy: ±.002" Base Length: 2.5"	\$350.00
7218S	0-8"	.001"	1.0"	Accuracy: ±.002" Base Length: 4.0"	378.00

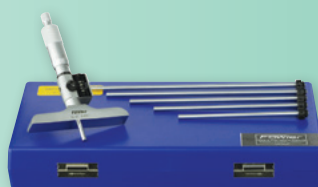
STANDARD ACCESSORIES 5

Inch					
ORDER NO.	DESCRIPTION	LIST PRICE	ORDER NO.	DESCRIPTION	LIST PRICE
301655	1" Rod	\$10.29	301659	4" Rod	\$31.13
301657	2" Rod	15.95	21JZA242	Contact Point	12.76



Digit Reading Depth Micrometer 2

ORDER NUMBER	DESCRIPTION	PRICE
52-225-226-0	0-6"	\$374.00



- Range: 0-6"
- Easy-to-read digit counter
- .001" graduation
- 4" base, hardened and ground
- Satin chrome finish
- Locking Clamp
- Furnished with shop hardened case

Measuring Instruments

Mitutoyo Tool Kits

12



INCLUDES:	DESCRIPTION
293-340-30	Digimatic micrometer (Ratchet Stop Type) (Range: 0-1", LCD Resolution: .00005")
500-196-30	Digimatic Caliper (Range: 0-6", LCD Resolution: .00005")
64PPP932	Mahogany Case

Order No. 64PKA076B
(Digimatic Tool Kit)
List Price \$515.00



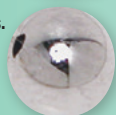
INCLUDES:	DESCRIPTION
293-348-30	Digimatic micrometer (Friction Thimble Type) (Range: 0-1", LCD Resolution: .00005")
500-196-30	Digimatic Caliper (Range: 0-6", LCD Resolution: .00005")
64PPP932	Mahogany Case

Order No. 64PKA077B
(Digimatic Tool Kit)
List Price \$515.00

Pittsburg[®] ALLEGHANY Ball Attachment

The most commonly used Micrometer accessory.

- Allows measurement of cylindrical wall thickness and single point contact on round parts
- Fits .235, .250, & .270 diameter spindles.
- Chrome Alloy Ball, 0.200" diameter.
- Comes with attachment boot and 2 balls.
- Made in U.S.A..



2

ORDER NO.	PRICE EACH
3100-438	\$6.50

Pittsburg[®] ALLEGHANY Multi-Mike Micrometer Anvil Attachment Kit

Turns your Micrometer into 7 different Tools!

Micrometer not included.

- Each Anvil Attachment is held on with its own reinforced Neoprene Boot.
- Fits any 1-12" Micrometer, English or Metric, and all brands too!
- All 7 anvils come packaged in protective hinged case.
- Can be used singly or in pairs.

Kit includes:

Spline, knife, super spline, blade, comparator, discs & ball attachments



2

ORDER NO.	PRICE EACH
3100-437	\$27.10

Pittsburg[®] ALLEGHANY Micrometer Stand

- A heavy, finely finished stand, made of cast iron that can be adjusted to any position
- Provides desirable measuring position and angle for Inside & Outside Micrometers, plus many other instruments



2

ORDER NO.	PRICE
3100-150	\$25.95

Mitutoyo

Micrometer Stand – Series 156

FEATURES

- These stands are designed to allow bench-top use with hand micrometers or other gages which have frame area sufficient to grab onto.
- Stand only – tool not included.

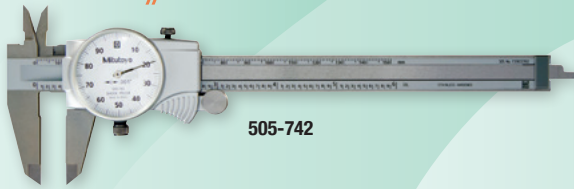


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ORDER NO.	DESCRIPTION	LIST PRICE
156-101-10	For .5" thru 4" micrometers	\$143.00

Measuring Instruments

Mitutoyo Dial Calipers – Series 505 ¹³



505-742



505-749

FEATURES

- New designed dial movement for ultra smooth sliding and high shock protection.
- Improved finish on sliding surfaces for longevity.
- New face for easier readability.
- Removal of TiN coating on sliding surfaces without sacrificing wear life.
- Lock screw for dial bezel and for holding the sliding jaw position.
- Can measure OD, ID, depth, and steps.
- Models available with carbide-tipped OD and ID jaws.
- Supplied in fitted plastic case.

Inch

DIAL READING - .1" PER ONE REVOLUTION					
ORDER NO.	RANGE	GRADUATION	DESC.	ACCURACY	LIST PRICE
505-738	0-6"	.001"	Carbide-Tipped Jaws	±.001"	\$ 294.00
505-743J	0-8"	.001"	-	±.001"	239.00
505-746	0-12"	.001"	-	±.002"	364.00
.2" PER ONE REVOLUTION					
505-741J	0-8"	.001"	-	±.002"	174.00
505-749	0-12"	.001"	-	±.002"	340.00

Pittsburg[®] ALLEGHANY Dial Calipers

- Outside, inside, depth and step measurement
- Made of hardened stainless steel, with satin chrome finish
- Measuring faces ground and micro-lapped for accuracy
- Covered rack keeps out dust and dirt, for longer caliper life
- Supplied with fitted case ²

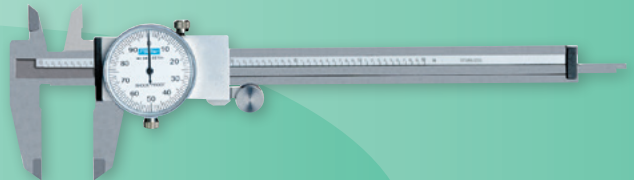
RANGE	RES.	RANGE/REV.	FACE	ORDER NO.	PRICE
0-4"	.001"	.100"	White	3100-550	\$31.00
0-4"	.001"	.100"	Black	3100-551	27.50
0-6"	.001"	.100"	White	3100-555	31.00
0-6"	.001"	.100"	Black	3100-556	47.85
0-8"	.001"	.100"	White	3100-557	56.50
0-8"	.001"	.100"	Black	3100-558	71.85
0-12"	.001"	.100"	White	3100-560	76.20
0-12"	.001"	.100"	Black	3100-561	108.85
0-150mm	.02mm	2.0mm	White	3100-553	37.00



Fowler Economy Dial Calipers

- 4-way measuring function
- Covered depth rod.
- .100" range per revolution.
- Dial Graduation: .001"
- Accuracy: .001"
- Hardened stainless steel rack.
- Supplied in molded case. ²

ORDER NUMBER	DESCRIPTION	PRICE
52-008-007-1	0-6" White	\$85.00
52-008-005-1	0-6" Black	85.00
52-008-008-1	0-8" White	100.00
52-008-012-1	0-12" White	150.00



Fowler Long Range Dial Calipers

- Graduation: .001"
- Satin chrome finish.
- Stainless steel construction.
- Thumblock.
- Depth rod.
- Jaw depth: 3.125". ²

ORDER NUMBER	DESCRIPTION	PRICE
52-008-018-0	0-18"	\$268.00
52-008-024-0	0-24"	383.00



Measuring Instruments

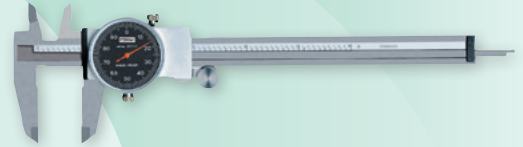
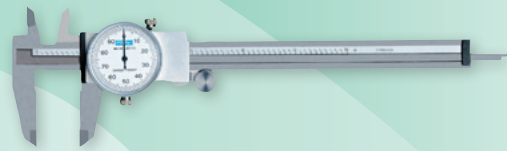


Premium Brand Shockproof Dial Calipers with Thumbroll

[2]

ORDER NUMBER	DESCRIPTION	PRICE
52-008-706-0	0—6" White	\$96.00
52-008-707-0	0—6" Black	102.74
52-008-708-0	0—8" White	145.00
52-008-712-0	0—12" White	212.00

- 4-way jaws.
- Stainless steel construction.
- Silky smooth movement throughout.
- .100" range per revolution.
- .001" reading dial face.
- Shockproof design.
- Supplied in molded case.



TESA
TECHNOLOGY

wood brown & sharpe.

Dial-Cal® Dial Calipers

- Tough - Anti-backlash, shock proof design
- Durable - Covered stainless steel rack
- Versatile - Measures inside, outside, depth & step
- Precise - .100"/2mm per revolution
- Reliable - Adjustable zero set and slide lock
- Easy-To-Read - 1.25" diameter rotating dial w/lock



599-579-4



599-579-5

Select Traditional White Dial Face or
New High Visibility "Jet-Console" Black Dial Face

[7]

ORDER NO.	RANGE	GRAD.	RANGE PER REV.	DESCRIPTION	JAW LENGTH EXTERNAL	B&S NO.	PRICE
7151-774	6"	.001	.100	w/ Silver Face	1.5"	599-579-4	\$220.80
7151-879	6"	.001	.100	w/ Jet Console, Blk. Face, Orange Hand	1.5"	599-579-5	220.80
7127-594	8"	.001	.100	w/ Silver Face	1.9"	599-579-8-1	385.25
7127-593	8"	.001	.100	w/ Jet Console, Blk. Face, Orange Hand	1.9"	599-579-8-5-1	385.25
7127-592	12"	.001	.100	w/ Silver Face	2.5"	599-579-12-1	489.90
7127-591	12"	.001	.100	w/ Jet Console, Blk. Face, Orange Hand	2.5"	599-579-12-5-1	489.90
7144-297	Wood Case for 6" Dial Caliper					599-578-9999	32.00



T-Bar Base Attachment (Fits All B&S Dial-Cals)

Makes depth measurement of large (up to 3" diameter) holes easy and accurate.

[7]

ORDER NO.	B&S NO.	PRICE
7142-534	05.60013	\$58.08

Plastic Direct Reading Inch Dial Caliper



- State of art reinforced plastic gives precision capabilities at an economical price.
- Measuring capacity 0 to 6".
- Contrasting color coded dial is graduated in .01 and 64ths with inch and mm on bar scale.
- Measures 4 ways: inside, outside, depth and step readings.
- No-glare easy to read dial with adjustable bezel.
- Free wheeling friction roller for repetitive and accurate readings.
- Fractional conversion table on back.
- Packed in reusable plastic hang-up case.

[8]

MODEL	ORDER NO.	PRICE
142	6944-145	\$43.87

4 Inch Slide Caliper



- Stainless steel caliper
- Inside and outside readings in 16ths and 32nds
- Decimal equivalents table on back
- 4" capacity.

[8]

MODEL	GRADS	ORDER NO.	PRICE
729	16ths and 32nds	6942-581	\$15.36

Measuring Instruments

Fowler Poly-Cal™ Electronic Caliper



- English/Metric/Fraction • Range 6"/150mm • Polycarbonate Frame. • 4 way measuring.
- Large easy-to-read display. • Resolution .001"/.01mm, fractions by 1/64 increments
- Absolute/Incremental Measurement. • Direct inch/metric conversion.
- Accuracy +/- .008"
- Supplied with vinyl pouch.

ORDER NUMBER	DESCRIPTION	PRICE
54-101-175-0	0-6"/150mm Poly-Cal	\$30.00

Fowler Euro-Cal™ Electronic Caliper

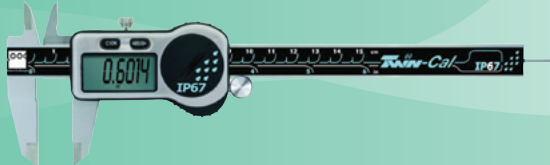


- Range 6"/150mm • Reads in inch, metric, & fractions
- Direct inch/metric conversion. • Absolute/Incremental Measurement.
- Water resistant to IP54 standards. • Resolution: .0005"/.01mm, (fractions in 1/64 increments).

ORDER NO.	PRICE EACH
54-100-330-1	\$143.05



Digital Electronic Calipers - TWIN-CAL IP67

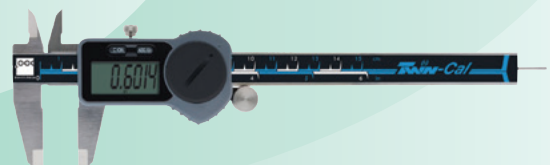


- Upgradeable instrument thanks to integrated modular connection via TLC (TESA Link Connector)
- Highest degree of protection ever offered: IP67.
- Housing w/ metallic protection plate; "soft touch" feel.
- Two patents for a unique caliper.

ORDER NO.	B&S NO.	DEPTH ROD	THUMB WHEEL	RANGE	PRICE EA.
7147-237	00590303	Square	Y	6"/150mm	\$191.00



Digital Electronic Calipers - TWIN-CAL IP40



- Upgradeable instrument thanks to integrated modular connection via TLC (TESA Link Connector)
- Highest degree of protection against dust.

ORDER NO.	B&S NO.	DEPTH ROD	THUMB WHEEL	RANGE	PRICE EA.
7147-473	00590092	Round	Y	6"/150mm	\$129.00

Pittsburg® Electronic Caliper

- Resolution to .0005"/.01mm for error-free reading.
- Three-key type: On/Off, Inch/mm & Zero.
- Made of hardened stainless steel. • 4-way measurement: outside, inside, depth and step.
- Thumb roller for moving the slider in small and smooth increments.
- Battery life: 18 months under normal use. • Power supply: One button battery SR 44, 1.55v.



RANGE	ACCURACY	ORDER NO.	PRICE EA.
6"/150mm	+/- .001"/.02mm	3100-546	\$32.95

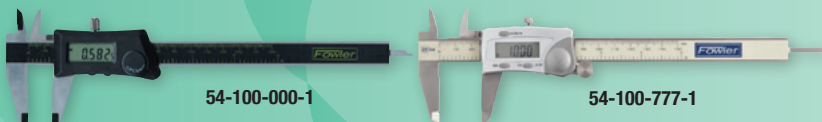
Fowler Electronic Calipers

- Resolution: .0005"/.01mm
- Stainless steel frame.
- Large easy-to-read display.
- Absolute/incremental measurement.
- Direct inch/metric conversion.
- 4 way measuring.
- Complete in case.



ORDER NUMBER	DESCRIPTION	PRICE
54-101-150-2	0-6"/150mm	\$70.00
54-101-300-1	0-12"/300mm	200.00

Fowler Electronic Calipers



- Direct inch/metric conversion.
- Resolution: .0005"/.01mm
- Accuracy: 4" & 6" models: .001"/.02mm; 8" & 12" models: .0015"/.03mm
- Large easy-to-read LCD display.
- Includes shop hardened case.

ORDER NO.	DESCRIPTION	PRICE
54-100-004-2	0-4"	\$143.24
54-100-000-2	0-6"	161.96
54-100-008-2	0-8"	164.57
54-100-112-2	0-12"	226.48



Digital Calipers - VALUELINE IP67



- TESA know-how at an affordable price.
- High degree of protection, IP67 for the most demanding users.

ORDER NO.	B&S NO.	DEPTH ROD	THUMB WHEEL	RANGE	PRICE EA.
7145-601	00599390	Square	Y	6"/150mm	\$154.80
7145-602	00599392	Square	Y	8"/200mm	222.00

Mitutoyo

Mitutoyo

Digimatic Calipers w/Exclusive AOS Sensor Technology – Series 500 – without SPC output

Introducing a new Digimatic Caliper line with exclusive AOS Sensor Technology. This patented Advanced Onsite Sensor (AOS) offers improved measurement dependability by increasing resistance to harsh workshop conditions. The new electromagnetic inductive sensor repels dirt, oil and water that can cause false readings. The Absolute (ABS) sensor eliminates the necessity of setting the reference when the tool is powered. An ergonomic slider design and increased battery life (3.5 years under normal operations) rounds out the new features of this line.

Inch/Metric (Non-SPC Output Models)

ORDER NO.	MEASURING RANGE	ACCURACY (20°C)	REMARKS	LIST PRICE
500-195-30	0-4", 0-100mm	±.001"	AOS w/.075" Round Depth Bar	\$187.00
500-196-30	0-6", 0-150mm	±.001"	AOS Technology	202.00
500-197-30	0-8", 0-200mm	±.001"	AOS Technology	265.00
500-193-30	0-12", 0-300mm	±.0015"		585.00
CARBIDE JAW MODELS				
500-159-30	0-6", 0-150mm	±.001"	AOS w/ OD Carbide Jaw	314.00
500-160-30	0-6", 0-150mm	±.001"	AOS w/ OD, ID Carbide Jaw	405.00
500-163-30	0-8", 0-200mm	±.001"	AOS w/ OD Carbide Jaw	383.00
500-164-30	0-8", 0-200mm	±.001"	AOS w/ OD, ID Carbide Jaw	506.00
500-165-30	0-12", 0-300mm	±.0015"	with OD Carbide Jaw	620.00
500-166-30	0-12", 0-300mm	±.0015"	with OD, ID Carbide Jaw	767.00

Replacement Battery: 938882 (1 pc.)

FEATURES

- Large and clear LCD readout.
- The ZERO/ABS key allows the display to be Zero-Set at any slider position along the scale for incremental comparison measurements. This switch will also allow return to the absolute (ABS) coordinate and display of the true position from the origin point (usually jaws-closed point).
- Data Hold Unit (959143) is optional.
- Carbide-tipped jaw type calipers are also available.
- With thumb roller.
- Supplied in fitted plastic case. Except 1000mm / 40" supplied in wooden case.

SPECIFICATIONS

Resolution: 0.01mm or .0005"/0.01mm
Repeatability: 0.01mm / .0005"
Display: LCD
Length standard: ABSOLUTE electrostatic capacitance type linear encoder
Max. response speed: Unlimited
Battery: SR44 (1 pc.), 938882
Battery life:
Approx. 3.5 years under normal use

FUNCTION

Origin-set, Zero-setting, Data output, inch/mm conversion (inch/mm models ONLY)
Alarm: Low voltage, Counting value composition error



500-196-30

Mitutoyo Digimatic Calipers w/Exclusive AOS Sensor Technology – Series 500 – w/SPC output

Inch/Metric (SPC Output Models)

ORDER NO.	RANGE	LCD RESOLUTION	ACCURACY	REMARKS	LIST PRICE
500-170-30	0-4", 0-100mm	.0005", 0.01mm	±.001"	AOS w/.075" Round Depth Bar	\$203.00
500-171-30	0-6", 0-150mm	.0005", 0.01mm	±.001"	AOS Technology	237.00
500-174-30	0-6" 0-150mm	.0005" 0.01mm	±.001"	AOS w/ OD Carbide Jaw, Absolute Function Type	455.00
500-175-30	0-6" 0-150mm	.0005" 0.01mm	±.001"	AOS w/ OD, ID Carbide Jaw, Absolute Function Type	486.00
500-172-30	0-8", 0-200mm	.0005", 0.01mm	±.001"	AOS Technology	312.00
500-176-30	0-8" 0-200mm	.0005" 0.01mm	±.001"	AOS w/ OD Carbide Jaw, Absolute Function Type	506.00
500-177-30	0-8" 0-200mm	.0005" 0.01mm	±.001"	AOS w/ OD, ID Carbide Jaw, Absolute Function Type	535.00
500-167-30	0-12" 0-300mm	.0005" 0.01mm	±.0015"	with OD Carbide Jaw	670.00
500-168-30	0-12", 0-300mm	.0005", 0.01mm	±.0015"	with OD, ID Carbide Jaw	989.00
500-173-30	0-12", 0-300mm	.0005", 0.01mm	±.0015"		683.00
500-505-10	0-18" 0-450mm	.0005" 0.01mm	±.002"	without Depth Bar, Absolute Function Type	1060.00
500-506-10	0-24" 0-600mm	.0005" 0.01mm	±.002"	without Depth Bar, Absolute Function Type	1170.00
500-507-10	0-40" 0-1,000mm	.0005" 0.01mm	±.003"	without Depth Bar, Absolute Function Type	2260.00

Mitutoyo's new Digimatic Caliper with exclusive AOS Sensor Technology eliminates the necessity of setting the reference when the tool is powered. It also improves measurement dependability by increasing resistance to harsh workshop conditions.

FEATURES

- Large and clear LCD readout.
- The ZERO/ABS key allows the display to be Zero-Set at any slider position along the scale for incremental comparison measurements. This switch will also allow return to the absolute (ABS) coordinate and display of the true position from the origin point (usually jaws-closed point).
- Data Hold Unit (959143) is optional.
- Carbide-tipped jaw type calipers are also available.
- With thumb roller.
- Supplied in fitted plastic case. Except 1000mm / 40" supplied in wooden case.

SPECIFICATIONS

Resolution: 0.01mm or .0005"/0.01mm
Repeatability: 0.01mm / .0005"
Display: LCD
Length standard: ABSOLUTE electrostatic capacitance type linear encoder
Max. response speed: Unlimited
Battery: SR44 (1 pc.), 938882
Battery life:
Approx. 3.5 years under normal use

FUNCTION

Origin-set, Zero-setting, Data output, inch/mm conversion (inch/mm models ONLY)
Alarm: Low voltage, Counting value composition error

For SPC output order Connecting Cable 959149 (1m) or 959150 (2m).
Replacement Battery: 938882 (1pc), Data Hold Unit: 959143

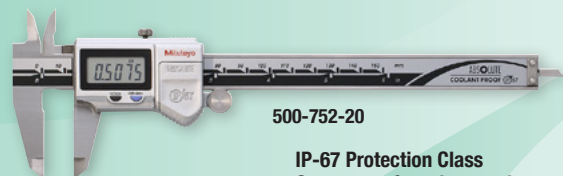


500-171-30

Mitutoyo Coolant Proof Digimatic Caliper with Absolute Encoder

Introducing Mitutoyo's coolant-proof caliper, the world's first digital caliper sealed against fluids and contaminants! The toughest digital caliper in the world– the first that's IP-67 rated: coolant-proof, dust-proof, chip-proof. Use it anywhere in the shop. It also includes Mitutoyo's patented absolute encoder technology, the "Set-n-Forget" origin set-up feature. Now you can take digital measurements in places you never could before! Models available with SPC output.

Technical Data:	
Measuring Ranges	0-6"/0-150mm, 0-8"/0-200mm, 0-12"/0-300mm
Resolution	.0005" / 0.01mm
Accuracy	±.001" / ±0.02mm, (12" is ±.0015")
Repeatability	.0005" / 0.01mm
Dust/Water protection level	IP-67 (IEC 60529)
Display	LCD, Character height: .3" (7.5mm)
Functions	Origin setting, inch/mm conversion, automatic power On/Off
Battery	SR44 (1 piece) up to 8" (2 piece) for 12"
Battery life	(0-6") Approx. 3-yr. (0-12") Approx. 1-yr. under normal use
Measuring system	Electromagnetic induction type absolute linear encoder
Response speed	Unlimited



500-752-20

Protection against water

Level 5: Protection against water spray.

Definition: Protect the equipment against water spray* from any direction.

* Condition: Using a nozzle with a 6.3mm ID and splash water with 30Kpa water pressure (approx. 12.5 l/min) on the equipment from a distance of three meters for three minutes or over (1 minute per 1m² superficial area).

IP-67 Protection Class

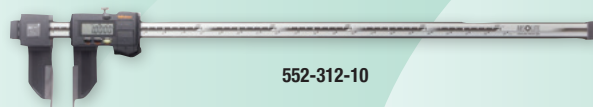
Operator-safe and protection against foreign matter
Level 6: Protection against dust.
Definition: Protect the equipment against dust not to penetrate.

ORDER NO.	RANGE	LCD RESOLUTION	ACCURACY	REMARKS	LIST PRICE
500-752-20	0-6", 0-150mm	.0005", 0.01mm	±.001"	IP-67, no SPC	\$271.00
500-753-20	0-8"/0-200mm	.0005", 0.01mm	±.001"	IP-67, no SPC	363.00
500-754-20	0-12"/0-300mm	.0005", 0.01mm	±.0015"	IP-66, no SPC	628.00
500-762-20	0-6", 0-150mm	.0005", 0.01mm	±.001"	IP-67, w/SPC	321.00
500-763-20	0-10"/0-200mm	.0005", 0.01mm	±.001"	IP-67, w/SPC	405.00
500-764-20	0-12", 0-300mm	.0005", 0.01mm	±.0015"	IP-66, w/SPC	697.00

Measuring Instruments

Mitutoyo

Digimatic Carbon Fiber Calipers - Series 552



552-312-10

These large Digimatic Calipers have a beam constructed of a strong carbon fiber which makes them both durable and easy to handle.

FEATURES

- Lightweight Digimatic caliper that employs CFRP (Carbon Fiber Reinforced Plastics) in the beam & jaws.
- Display: 6-digit LCD with a minus sign (-).
- Power supply: One SR44 (938882).
- Functions include: Preset of desired starting point inch/mm conversion, Zero-setting, Data hold, Error alarm, Low battery alarm, Data output.
- Battery life: Approx. two years under normal use (Approx. one year in continuous operation).
- Provided with a data output port for connection with the SPC system.

7

ORDER NO.	RANGE	ACCURACY	LCD RESOLUTION	LIST PRICE
552-312-10	0(.5")-18"	+/- .002"	.0005"/0.01mm	\$1220.00
552-313-10	0(.5")-24"	+/- .002"	.0005"/0.01mm	1380.00
552-314-10	0(1")-40"	+/- .002"	.0005"/0.01mm	2460.00
552-315-10	0(1")-60"	+/- .004"	.0005"/0.01mm	2940.00
552-316-10	0(1")-80"	+/- .005"	.0005"/0.01mm	4600.00

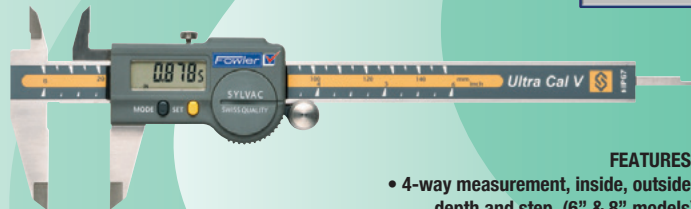
For SPC output order Connecting Cable 05CZA624 (1m) or 05CZA625 (2m).

*(): Minimum dimension in ID measurement.

Fowler
LIFETIME WARRANTY

Ultra-Cal V Electronic Calipers

IP67



FEATURES:

- 4-way measurement, inside, outside, depth and step. (6" & 8" models)
- Resolution: .0005"/.01mm • Repeatability: .0005"/.01mm • Hold function
- Direct inch/metric conversion • Temperature range 5 to 40°C working; -20to 60°C in storage
- Hardened stainless steel construction • Direct RS-232 output • Thumbroll (6" model only)
- Features Absolute/Relative Measuring Modes • Includes case • Bluetooth models available

ORDER NO.	DESCRIPTION	ACCURACY	RESOLUTION	PRICE EACH
54-100-067-1	6"/150mm	0.0008"/20µm	0.0005"/.01mm	\$145.60
54-100-068-1	8"/200mm	0.0012"/30µm	0.0005"/.01mm	480.70
54-100-069-1	12"/300mm	0.0012"/30µm	0.0005"/.01mm	511.06

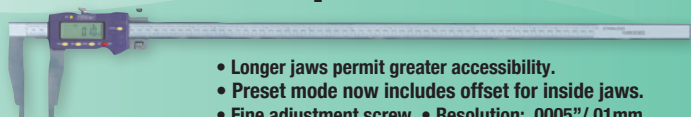
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14

Fowler

Electronic Calipers

XTRA-RANGE®



- RS232C Direct output
- Full size .0005" digital display
- Hold feature

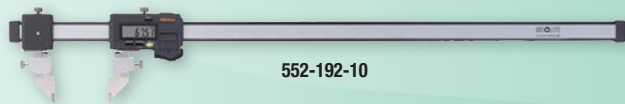
- Longer jaws permit greater accessibility.
- Preset mode now includes offset for inside jaws.
- Fine adjustment screw • Resolution: .0005"/.01mm
- Direct inch/metric conversion. • Includes wooden case.

ORDER NUMBER	DESCRIPTION	PRICE
54-100-312-0	0-12"	\$315.00
54-100-024-1	0-24"	515.00
54-100-042-1	0-40"	1271.00

6

Mitutoyo

Digimatic Carbon Fiber Calipers - Series 552 - Interchangeable Jaws



552-192-10

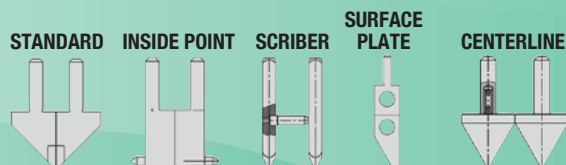
FEATURES

- The range of applications can be expanded by using interchangeable jaws (optional).
- Quick and easy exchanging of jaws due to the unique clamping mechanism. (A pair of clamping wheels is a standard accessory.) • SPC data output.
- Preset function for setting a desired starting point, which allows direct readout of offset measurements.

7

ORDER NO.	RANGE	ACCURACY	MASS (g)	LIST PRICE
552-191-10	0-18" / 0-450mm	±.002"	650	\$1180.00
552-192-10	0-24" / 0-600mm	±.002"	725	1220.00
552-193-10	0-40" / 0-1000mm	±.002"	1480	1970.00
552-194-10	0-60" / 0-1500mm	±.004"	1880	3170.00
552-195-10	0-80" / 0-2000mm	±.005"	2280	4460.00

For SPC output order Connecting Cable 05CZA624 (1m), 05CZA625 (2m), 02AZD790A: (160mm). Battery: SR44 (1 pc.) 938882. Standard accessory: Jaw clamps (2 pcs.) 05GZA033



OPTIONAL JAWS (2 pcs.)

1

ORDER NUMBER	DESCRIPTION	PRICE
07CZA056	Standard Type	\$389.00
07CZA058	Inside Point Type (Metric)	399.00
07CZA059	Inside Point Type (Inch)	431.00
07CZA055	Scriber Type (Metric)	422.00
07CZA061	Scriber Type (Inch)	431.00
07CZA044	Surface Plate Type	338.00
07CZA057	Centerline Type (Metric)	431.00
07CZA060	Centerline Type (Inch)	399.00

Measuring Instruments

Mitutoyo Vernier Caliper (with Thumb Clamp)



Metric/Inch Dual Scale

12

ORDER NO.	RANGE		VERNIER GRADUATION		ACCURACY	LIST PRICE
	LOWER SCALE	UPPER SCALE	LOWER SCALE	UPPER SCALE		
531-128	0-150mm	0-6"	0.02mm	.001"	±0.03mm	\$141.00
531-108	0-200mm	0-8"	0.05mm	1/128"	±0.05mm	174.00
531-129	0-200mm	0-8"	0.02mm	.001"	±0.03mm	174.00

Mitutoyo Vernier Calipers



- Available with a fine-adjustment carriage to fine-feed the slider.
- Long jaws for measuring hard-to-reach portions.
- With a fine-adjustment carriage to fine-feed the slider.

Inch

12

ORDER NO.	RANGE		VERNIER GRADUATION		ACCURACY	LIST PRICE
	LOWER SCALE	UPPER SCALE	LOWER SCALE	UPPER SCALE		
530-105	0-6"	0-6"	.001"	1/128"	±.0015"	\$136.00
530-116	0-8"	0-8"	.001"	1/128"	±.0015"	162.00

Metric/Inch

530-104	0-150mm	0-6"	0.05mm	1/128"	±0.05mm	\$98.73
530-312	0-150mm	0-6"	0.02mm	.001"	±0.03mm	136.00
530-118	0-200mm	0-8"	0.02mm	.001"	±0.03mm	162.00
530-101	0-150mm	—	0.05mm	—	±0.05mm	136.00

Mitutoyo Depth Base Attachment

FEATURES

- For 4", 6", 8", and 12" Mitutoyo Vernier and Dial Calipers.
- Choice of 3" or 4" base length for 6" and 8" models.
- Finely ground base surface and secure locking clamp.

ORDER NO.	LENGTH	DESCRIPTION	LIST PRICE
050083-10	3"	For 4", 6" & 8" models	\$62.76
050084-10	4"	For 4", 6" & 8" models	75.24
050085-10	5"	For 12" models only	88.17

050083-10



Pittsburg® Depth Base Attachment

- Fits all brands of 4", 6", 8" Calipers.
- Precision Ground Base.
- Screw Locking Clamp.
- Each unit hand inspected.

ORDER NO.	DESCRIPTION	PRICE EA.
3100-395	3" Base - Fits 6" Calipers	\$26.00
3100-396	4" Base - Fits 8" Calipers	29.70
3100-397	5" Base - Fits 12" Calipers	35.10

2

Centerline Gages

Quickly measures hole to hole centers

FEATURES

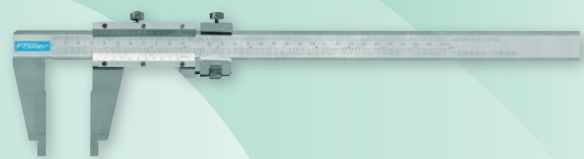
- Fits 4", 6", and 8" Calipers 0.375" Diameter x 2.20" Long.
- Read centerline distances directly without conversions.
- 60 Degree Conical Points. • Made in U.S.A.
- Hardened Steel with Black Oxide finish.

ORDER NO.	PRICE EACH
3100-465	\$12.10

2



Fowler® Master Vernier Calipers

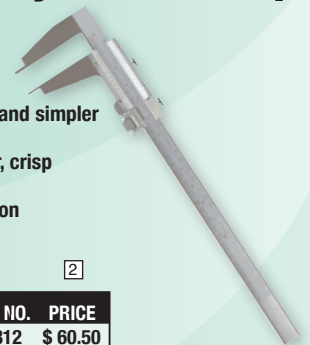


- Machine engraved from master. • Slide type fine adjust thumbwheel.
- Nib design measures both inside & outside dimensions. • Satin chrome finish.
- Graduation: .001"/.02mm • Price includes fitted case.

ORDER NUMBER	DESCRIPTION	PRICE
52-085-012-0	0-12"/300mm	\$135.40
52-085-024-0	0-24"/600mm	208.85
52-085-040-0	0-40"/1200mm	795.22

2

Pittsburg® Heavy Duty Vernier Calipers



- Longer jaws for greater accessibility and simpler measurement of large work pieces
- Easy to read Vernier scales with clear, crisp black engraved graduations
- Fine quality stainless steel construction
- Satin chrome finish
- Supplied with fitted case

2

RANGE	GRAD.	ORDER NO.	PRICE
0-12"/300mm	.001"/.02mm	3100-312	\$ 60.50
0-18"/450mm	.001"/.02mm	3100-318	95.00
0-24"/600mm	.001"/.02mm	3100-320	149.00
0-40"/1000mm	.001"/.02mm	3100-322	280.00
0-60"/1500mm	.001"/.02mm	3100-324	535.00

Pittsburg® Precision Vernier Caliper

- For outside, inside and depth measurement
- Made of fully hardened stainless steel
- Satin chrome finish
- Supplied with fitted case

2

RANGE	GRAD.	ORDER NO.	PRICE
0-6"/150mm	.001"/.02mm	3100-305	\$23.00
0-8"/200mm	.001"/.02mm	3100-306	32.00
0-12"/300mm	.001"/.02mm	3100-307	51.50



Pittsburg® Universal Caliper Accessory Kit



- Outfits any 4-6-8" Caliper.
- Made in U.S.A.
- Measures slots, grooves, webs, shoulders, holes, pockets.

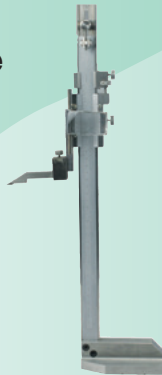
ORDER NO.	PRICE EACH
3100-402	\$23.80

Measuring Instruments

Pittsburg[®] Vernier Height Gage

- Stainless steel beam and measuring slide
- Supplied with scribes, holder and fitted case
- Adjusting slide scale for fine adjustment
- Dial test indicator (ordered separately) can replace scriber
- Satin chrome finish with micro-fine engraved graduations

RANGE	GRAD.	ORDER NO.	PRICE
12"/300mm	.001"/.02mm	3100-212	\$ 132.50
18"/450mm	.001"/.02mm	3100-218	139.00
24"/600mm	.001"/.02mm	3100-224	172.50



Double-Beam Digital Counter Dial Height Gage

- Carbide tipped scriber
- Chrome plated double beams by depressing zero-reset button
- Large feed wheel for coarse and fine vertical adjustments
- Bottom of base is hardened, grounded and lapped for maximum flatness
- Dual directional counter can be zero set at any height within range
- Easy to read Dial Indicator and Digital Counter: .1" Reading

RANGE	GRAD.	ORDER NO.	PRICE
12"	.001"	3100-952	\$185.00
18"	.001"	3100-954	230.00
24"	.001"	3100-956	300.00



Mitutoyo

Digital Counter Type Height Gages - Series 192

FEATURES

- Easy error-free reading with both up and down digital counters as well as a dial.
- The counters and dial can be zero-set at any scriber position.
- Provided with a feed wheel for easy coarse feeding.
- Standard carbide-tipped scriber.



Inch

ORDER NO.	RANGE	DIAL GRADUATION	DIGITAL COUNTER GRADUATION	MASS (lbs.)	LIST PRICE
192-150	0-12"	.001"	.1" (Dual Reading)	±.0015"	9.26 \$ 1320.00
192-151	0-18"	.001"	.1" (Dual Reading)	±.002"	20.28 1820.00
192-152	0-24"	.001"	.1" (Dual Reading)	±.002"	21.60 2350.00
192-153	0-40"	.001"	.1" (Dual Reading)	±.003"	37.5 5180.00

Standard Accessories: Scriber (900258) & Scriber Clamp (901385)

Inch/Metric

ORDER NO.	570-412	570-413	570-414
Max. permissible error EMPE	±0.0015 in/±0.03 mm	±0.0020 in/±0.05 mm	±0.0020 in/±0.05 mm
Measuring Range	0-12" 0-300mm	0-18" 0-450mm	0-24" 0-600mm
Resolution	0.0005 in/0.01 mm		
Functions	ON/OFF, ORIGIN, ZERO/ABS, HOLD/DATA, inch/mm conversion*		
Drive method	Slider-feed wheel (manual)		
Data output	DIGIMATIC d1		
Max. response speed	Unlimited		
LCD character height	12 mm		
Battery life	Approx. 20,000 hours with continuous use, 5 years under normal use		
LIST PRICE	570-412	570-413	570-414

Digimatic Gage/PC Data Input Device, USB Direct Input Tool No. 06AFM380F

Mitutoyo

Absolute Digimatic Height Gages - Series 570

FEATURES

- Larger DATA button with redesigned layout to improve operability.
- Integrated with the "U-WAVE" wireless measurement data communication system, easier to use where measurement data output is essential.
- Slider handle enables smooth vertical movement.
- Highly rigid pillars/large clamp levers provide smooth and reliable workability.
- Supports smooth and reliable measurement operations.
- Larger LCD panel, improved 3-button operation consistent with other devices.
- Contributes to reliable, accurate and repeatable measurements.
- Hardware design with emphasis on operability.



Mitutoyo

Digimatic Height Gages - Series 192

Self-contained Electronic Inch/Metric Display

FEATURES

- Easy-to-use standard type.
- Carbide-tipped scriber is provided.
- Double-column structure ensures high measuring accuracy.
- Functions include: Coarse/Fine Feed switching, switchable resolution, Two preset reference height, zero setting, ABS/INC switching, two presets, probe tip dia. compensation, +/- switching, Power ON/OFF, Data Hold, no output, inch/mm conversion, alarm: low voltage, counting value composition error



ORDER NO.	192-630-10	192-631-10	192-632-10	192-633-10
Measuring Range	0-12" 0-300mm	0-18" 0-450mm	0-24" 0-600mm	0-40" 0-1000mm
Resolution	.0005" (0.01mm), (.0002" (0.005mm) Switchable)			
Accuracy (20° C)	±.001" ±.002"			
Display	LCD, 7 digit, character height 11mm			
Response Speed	500mm/s			
Battery	SR44 (938882)			
Mass (kg)	4.7	7.5	8.3	15.7
Standard Accessories:	Carbide Tipped Scriber (905258) Scriber Clamp (901385)			
LIST PRICE	\$2000.00	\$2740.00	\$3490.00	\$6590.00

Pittsburg[®] Double-Beam Electronic Height Gage

- On.Off switch, Plus/Minus preset button, Metric/Inch conversion button, Zero Preset and Function button
- Switchable rapid/fine adjustment with large feed wheel
- Stainless steel frame
- Carbide tipped scriber



RANGE	GRAD.	ORDER NO.	PRICE
12"/300mm	.001"/.02mm	3100-960	\$295.00
18"/450mm	.001"/.02mm	3100-962	379.00
24"/600mm	.001"/.02mm	3100-964	499.00

Measuring Instruments

Mitutoyo Digimatic Height Gages - Series 192 Heavy Duty Type

FEATURES

- Highly versatile multi-function type. • Carbide tipped long scriber is provided.
- Rigid construction ensures repeatable measurement.
- Switchable resolution. • Coarse/Fine Feed switching.
- Bi-directional touch signal probe is an optional accessory. It can quickly and accurately measure steps, inside width, and outside width.
- With SPC data output. • Two preset reference height.
- Functions: Zero-setting, ABS/INC switching, 2 presets, probe tip diameter compensation, +/- switching, power ON/OFF, data hold, data output, inch/mm conversion
- Alarm: low voltage, counting value composition error



192-670-10
Probe Optional

Inch/Metric

7

ORDER NO.	192-670-10	192-671-10	192-672-10	192-673-10
Measuring Range	0-12" 0-300mm	0-18" 0-450mm	0-24" 0-600mm	0-40" 0-1000mm
Resolution	.0005" (0.01mm), (.0002" (0.005mm) Switchable)			
Accuracy	±.001" ±.0015" ±.0025"			
Display	LCD, 7 digit, character height 11mm			
Response Speed	500mm/s			
Battery	SR44 (938882)			
Mass (kg)	5.7	7.5	8.3	15.7
Standard Accessories:	Carbide Tipped Scriber (905201) Scriber Clamp (901385)			
Data output	SPC output			
Optional Accessories	Two-directional Touch Probe (192-008) Measuring force 0.4N			
LIST PRICE	\$2300.00	\$2960.00	\$3800.00	\$7110.00

For SPC output order Connecting Cable No. 905338 (1m) or 905409 (2m).

Pittsburg[®] ALLEGHANY Electronic Digital Height Gage

- Switchable Inch/Metric high contrast LCD with fine adjustment device
- Non-contact measuring system keeps out chips, oil, dust and dirt
- Ground and hardened stainless steel frame
- Carbide tipped scriber
- Base precision ground and micro-lapped for maximum flatness



2

RANGE	GRAD.	ORDER NO.	PRICE
12"/300mm	.0005"/.01mm	3100-970	\$238.00
18"/450mm	.0005"/.01mm	3100-972	285.00
24"/600mm	.0005"/.01mm	3100-974	340.00

Fowler Z-HEIGHT[®]

Electronic Digital Height Gage

- Direct Inch/Metric Conversion
- Accuracy: 0-12" model: ±.0015"
0-24" model: ±.002"
- Resolution .0005" (.01mm)
- Large, high contrast LCD display
- ABS/INC Measurement
- Hold feature • Positive lock, carbide scriber
- Direct RS232 output • Floating zero
- Includes molded case



6

ORDER NO.	DESCRIPTION	PRICE
54-175-012-0	0-12"/300mm	\$882.00
54-175-024-0	0-24"/600mm	1011.00

Mitutoyo Linear Height - LH-600E High Performance 2D Measurement System

- Excellent accuracy of (1.1+0.6L/600)µm with 0.1µm/0.5µm resolution/repeatability.
- Data entry from a Digimatic tool.
- Guaranteed perpendicularity (frontal) of 5µm and straightness of 4µm.
- Pneumatic full/semi-floating system allows adjustment of air-cushion height.
- Basic statistical functions are provided and, additionally, RS-232C / USB data output provides the option of evaluating measurement data externally with SPC software on a PC.
- One-key operation for running a semi-automatic measurement.



Power Grip model also available.

6

ORDER NO.	518-351A-21	PRICE
Range:	0-38"/0-972mm	\$8690.00
Resolution:	.000001/.00001/.0001/.001" 0.0001/0.001/0.01/0.1mm	
Accuracy:	.000043 + (.000024 x L*/24)" (1.1+0.6L**/600)µm	

Mitutoyo QM Height - High Precision Digital Height Gage

- Newly developed high accuracy and high resolution ABSOLUTE linear encoder for position detection.
- Built-in pneumatic flotation system enables smooth movement along surface plate.
- Possible to measure inside/outside diameter via unique process (detect the circle apex and process by tracing measurement).
- Various optional probes available.
- With SPC and USB output.
- Easy reference icon keys.
- Large size LCD with back light.
- GO/±NG judgment is performed by setting the upper and lower tolerances. If a judgment result is out of tolerance, the display backlighting changes from green to red, so tolerance judgment can be made at a glance.
- Slider elevation knob (for travel) / wheel (for measurement).
- Resolution: .00005" / .0001" 0.001 / 0.0005mm
- Accuracy: ±(2.4+2.1L/600)µm L = Measuring length (mm)

64PKA095A



6

ORDER NO.	RANGE	PERPENDICULARITY	MASS (LBS.)	LIST PRICE
64PKA094B	0-14"/0-350mm	7µm	55.16	\$4400.00
64PKA095B	0-24"/0-600mm	12µm	63.93	4950.00
PNEUMATIC FLOTATION				
64PKA129B	0-14"/0-350mm	7µm	57.32	4950.00
64PKA130B	0-24"/0-600mm	12µm	66.14	5490.00

Measuring Instruments

Fowler XTENDER

Dial Bore Gage Sets

- Carbide anvils
- Graduation: .0005" or .01mm
- Easily adjustable
- Self-centering
- Insulated grip
- Chrome plated handle.
- Includes extension holder and fitted case.



2

ORDER NUMBER	DESCRIPTION	PRICE
52-646-400-0	1.4-6" Xtender Set	\$212.85
52-646-220-0	35-60mm Metric Xtender Set	277.40

Fowler

Bore Gage Setting Master Kit

Includes:
Bore Gage Setting Master
& 36 Gage Block Set
All in a high quality
aluminum case!

Each Set Includes:

- Base anvil 2.750" x .80"
- Adjustable anvil: 2.375" x .375"
- Internal capacity: 6" • Depth capacity: 1"
- Centralizer capacity width: 2.625"
- Quick release holder for fast adjustment.

Economy Gage Block Set:

- 36 piece • Tolerances to .00005"
- Certified calibration to N.I.S.T.

High quality aluminum case!
Bore Gage sold separately.



6

ORDER NUMBER	DESCRIPTION	PRICE
53-646-000-1	Bore Gage Setting Master Set	\$501.00

Pittsburg[®] ALLEGHANY Dial Bore Gages

- Sets supplied complete with anvils & necessary accessories to perform close tolerance I.D. measurements
- Top quality AGD Series 2 Dial Indicator included
- Self-centering • Fitted case



2

RANGE	GRAD.	BORE DEPTH	ANVILS	ORDER NO.	PRICE
0.24-0.4"	.0005"	1.56"	4	3100-980	\$120.00
0.4-0.7"	.0005"	2.4"	9	3100-981	84.50
0.7-1.5"	.0005"	4"	8	3100-982	120.00
1.4-2.4"	.0005"	6"	6	3100-983	120.00
2.0-6.0"	.0005"	6"	11	3100-985	120.00
6.4-10.0"	.0005"	16"	6	3100-987	96.00

Fowler XTENDER-E

1.4" to 6" Electronic Bore Gage Set

Bore Gage Features:

- Range: 1.4"-6"/35mm-150mm • Easily adjustable.
- Self-centering. • Includes extension holder.
- Shop hardened case. • Carbide anvils.

Includes FREE
Instructional CD!



All the same benefits included in the X-Tender Dial Bore Gage are now available with an electronic indicator providing inch/metric reading capability, preset size of master for absolute reading and minimum hold feature to lock on the bore size as the gage is rocked through the bore.

6

ORDER NUMBER	DESCRIPTION	PRICE
54-646-401-1	Xtender-E Bore Gage Set	\$420.79

Indicator Features:

- Dual reading inch/metric electronic indicator.
- Bar graph and numeric digital display.
- Resolution: .00005"/.001mm
- Preset with recall. • Min/Max/Tir
- ABS/INC measurement.

Mitutoyo

Dial Bore Gages - Series 511

511-751

MITUTOYO offers a complete selection of Dial Bore Gages, all with interchangeable anvils and necessary accessories to perform close tolerance I.D. measurements. The smallest range measurement is .24", the largest one is 16". Some of the larger 511 Series Bore Gages are equipped with a unique guiding device which facilitates accurate measurement of the bore because it is self-centering. The supplied AGD Series 2 dial Indicator is fully protected by a rugged cover. The smallest graduation on the dial face is either .0001"/0.001mm or .0005"/0.005mm.



Optional Bore
Gage Zero Setter
Order No.: 515-590
Price Each: \$2460.00

Optional Bore
Gage Stand
Order No.: 215-120-10
Price Each: \$2450.00

12

RANGE	PROBE DEPTH	NUMBER OF ANVILS	NUMBER OF SPACERS	PROBE TYPE	ORDER NO. (WITH INDICATOR)	
					.0005" W/2922AB LIST PRICE	.0001" W/2923AB-10 LIST PRICE
.24-.4"	2"	9	—	A	511-213-20 \$788.00	511-212-20 \$817.00
.7-1.4"	4"	8	3	D	511-741-20 462.00	511-751-20 535.00
1.4-2.5"	6"	6	4	D	511-742-20 462.00	511-752-20 520.00
2.0-6.0"	6"	11+1*	4	D	511-743-20 512.00	511-753-20 569.00
4.0-6.5"	6"	13	4	D	511-744-20 678.00	511-754-20 751.00
6.5-10.0"	10"	6	6	D	511-745-20 768.00	511-755-20 848.00

Mitutoyo Center Master

FEATURES

- Allows quick measurement of center-to-center distance between holes.
- Measurable hole diameters: .04"-1.49".



1

ORDER NO.	DESCRIPTION	REMARKS	LIST PRICE
900581	For Inch Model Height Gages	.25" x .50" Shank	\$290.00

Measuring Instruments

Fowler Dial Bore Gage Sets

- Easy-to-read.
- Economical
- Graduation: .0005"
- Insulated grip.
- Chrome plated handle.
- Includes extension holder and fitted case.
- Complete in shop hardened case.

MODEL NUMBER	DESCRIPTION	PRICE
52-646-100-0	.7"-1.5" Dial Bore Gage Set	\$178.00
52-646-300-0	2-6" Dial Bore Gage Set	167.00



Mitutoyo Borematic - Series 568

FEATURES

- LCD Readout .00005"/0.001mm.
- Carbide tipped contact points ensure long life.
- Efficient measurement using two measurement modes - ABS (absolute) and INC (incremental) modes.
- Can be linked to the M-SPC (Mitutoyo Statistical Process Control) system.
- Rotatable display unit for easy reading at any angle.
- Functions include: Origin setting, Origin restoration, Zero-setting, Presetting, Data hold, Error alarm, Low-battery alarm, Data output.
- Power supply: SR44 (button-type silver oxide cell), 2 pcs.



MEASURING FORCE (per Anvil)	Range	2.75-.5"	4-10N
	Range	.5-4.4"	10-30N

ACCURACY		
Range	.275-.8"	.0002"
Range	.8-4.4"	.00024"

* Quantizing error ± 1 count.

* Quantizing error ± 1 count.

Mitutoyo Digimatic Holtests Interchangeable-Head Sets

Inch/Metric



568-978

Thimble Graduation	.0002"
LCD Readout	
Up to 4"	.0005"/0.001mm
Over 4"	.0001"/0.001mm

Range .8-2"/20.32-50.8mm	Set No. 468-978 \$5190.00
Includes:	
04AZB113 Display & Thimble Unit	
04AZA730 Interchangeable Head	
.8-1"/20.32-25.4mm	
04AZA731 Interchangeable Head	
1-1.2"/25.4-30.48mm	
04AZA739 Interchangeable Head	
1.2-1.6"/30.48-40.64mm	
04AZA740 Interchangeable Head	
1.6-2.0"/40.64-50.8mm	
177-184 Setting Ring 1.000" DIA.	
177-291 Setting Ring 1.600" DIA.	
952622 Extension Rod 5.9" (150mm)	
04GAA858 Spanners (one pair)	
202863 Hex Wrench	
938882 SR44 Battery	

Range .275-.5"/6.985-12.7mm	Set No. 468-976 \$2560.00
Includes:	
04AZB111 Display & Thimble Unit	
04AZB139 Interchangeable Head	
.275-.35"/6.985-8.89mm	
04AZB140 Interchangeable Head	
.35-.425"/8.89-10.795mm	
04AZB141 Interchangeable Head	
.425-.5"/10.795-12.7mm	
177-179 Setting Ring .350" DIA.	
177-283 Setting Ring .425" DIA.	
952322 Extension Rod 3.94" (100mm)	
04GAA857 Spanners (one pair)	
202863 Hex Wrench	
938882 SR44 Battery	

Range 2-4"/50.8-101.6mm	Set No. 468-979 \$5950.00
Includes:	
04AZB114 Display & Thimble Unit	
04AZA754 Interchangeable Head	
2-2.5"/50.8-63.5mm	
04AZA755 Interchangeable Head	
2.5-3.0"/63.5-76.2mm	
04AZA756 Interchangeable Head	
3.0-3.5"/76.2-88.9mm	
04AZA757 Interchangeable Head	
3.5-4.0"/88.9-101.6mm	
177-315 Setting Ring 2.5" DIA.	
177-319 Setting Ring 3.5" DIA.	
952623 Extension Rod 5.9" (150mm)	
04GAA858 Spanners (one pair)	
202863 Hex Wrench	
938882 SR44 Battery	

Range .5-.8"/12.7-20.32mm	Set No. 468-977 \$2080.00
Includes:	
04AZB112 Display & Thimble Unit	
04AZA721 Interchangeable Head	
.5-.65"/12.7-16.51mm	
04AZA722 Interchangeable Head	
.65-.8"/16.51-20.32mm	
177-182 Setting Ring .650" DIA.	
952621 Extension Rod 5.9" (150mm)	
04GAA857 Spanners (one pair)	
202863 Hex Wrench	
938882 SR44 Battery	

Range 4-8"/101.6-203.2mm	Set No. 468-980 \$6990.00
Includes:	
04AZB115 Display & Thimble Unit	
04AZA783 Interchangeable Head	
4-5"/101.6-127mm	
04AZA784 Interchangeable Head	
5-6"/127-152.4mm	
04AZA785 Interchangeable Head	
6-7"/152.4-177.8mm	
04AZA786 Interchangeable Head	
7-8"/177.8-203.2mm	
177-299 Setting Ring 5" DIA.	
177-303 Setting Ring 7" DIA.	
952623 Extension Rod 5.9" (150mm)	
04GAA858 Spanners (one pair)	
202863 Hex Wrench	
938882 SR44 Battery	

For SPC output order connecting cable 05CZA662 (40"/1m) or 05CZA663 (80"/2m).

Borematic Interchangeable-Head Sets

Each set includes one display unit with contact heads of the sizes specified.



568-936

Inch/Metric

SET ORDER NO.	SET RANGE	INDIVIDUAL RANGE	LIST PRICE
568-928	.275"-.5" 6.985-12.7mm	.275"-.35"/6.985-8.89mm .35"-.425"/8.89-10.795mm .425"-.5"/10.795-12.7mm	\$2820.00
568-929	.5"-1.0" 12.7-25.4mm	.5"-.65"/12.7-16.51mm .65"-.8"/16.51-20.32mm .8"-1.0"/20.32-25.4mm	2890.00
568-930	1.0"-2.0" 25.4-50.8mm	1.0"-1.2"/25.4-30.48mm 1.2"-1.6"/30.48-40.64mm 1.6"-2.0"/40.64-50.8mm	3890.00
568-936	2.0"-4.0" 50.8-101.6mm	2.0"-2.5"/50.8-63.5mm 2.5"-3.0"/63.5-76.2mm 3.0"-3.5"/76.2-88.9mm 3.5"-4.0"/88.9-101.6mm	5090.00

*Extra anvils supplied to allow added range.

For SPC output order connecting cable 937387 (40"/1m) or 965013 (80"/2m).

Mitutoyo Digimatic Holtests - Series 468

The Digimatic Holtest is a three-point internal micrometer with digital display(LCD). Functions include: Zero-setting, Preset, Data Hold, Inch/mm conversion, Error alarm, Data output.



FEATURES

- Efficient measurement using two measurement modes - ABS (absolute) and INC (incremental) modes.
- The 468 series provides digital readout to .0001"/0.001mm and can be linked to the M-SPC (Mitutoyo Statistical Process Control) system.
- Battery: SR44 x 1 (938882).
- Measurement can be taken nearly up to the bottom of the bore.
- The display automatically turns off idle for 20 minutes.
- Can measure deep holes with extension rod attachment (optional).
- Carbide tipped contact points.
- All TiN coated

Optional Stand (See page 532)



Optional Mounting Plate For Stand
Order No. 04AZB157
Price Each: \$58.47

ACCURACY

RANGE	
.275-.8"/6-20mm	.00008"/0.002mm
.8-4"/20-100mm	.00012"/0.003mm
4-12"/100-300mm	.0002"/0.005mm

MEASURING FORCE (per Anvil)

RANGE	
.275-.5"/6-20mm	4-20N
.5-4"/12-100mm	15-45N
4-12"/100-300mm	30-75N

*Quantizing error ± 1 count.

Measuring Instruments

Pittsburg[®] ALLEGHANY Dial Indicators

- AGD 2
- Accurate, rugged and production tested
- Hard chrome satin finish
- Interchangeable hardened chrome point (4-48 thread)
- Revolution counter
- Lug back
- Easy to read crisp graduations



RANGE	GRAD.	READING	ORDER NO.	PRICE
1/4"	.001"	0-50-100	3100-563	\$19.25
1/2"	.001"	0-50-100	3100-564	20.05
1"	.001"	0-50-100	3100-565	12.95
1"	.001"	0-50-100 BLK	3100-566	27.15
2"	.001"	0-50-100	3100-568	67.50

Pittsburg[®] ALLEGHANY Dial Centering Indica-

- Designed for centering a workpiece or fixture
- Operates at any angle
- Use vertical or horizontal
- Use internal or external
- While spindle rotates, the centering indicator always faces the operator
- Supplied complete with restraining rod and feelers, in fitted case

SPECIFICATIONS:

Length: 6-7/8"
 Shank: 3/8" diam. x 7/8" long
 Weight: 9-1/2 oz. Net
 Feeler Ball: 1/8" Diameter
 Meas. Range: 250 axis offset
 Capacity: Internal-5/32 to 4-1/4" dia.
 External- 0 to 4-1/4" dia.
 Not to exceed 800 RPM
 Speed:
 Locating accuracy: To within 0.0002" of true center
 Graduation: 0.0005

ORDER NO.	PRICE
3101-010	\$95.00



Mitutoyo Dial Indicators

FEATURES

- 1. Revolution Counter
- 2. Shockproof
- 3. Jeweled Bearings
- 4. Waterproof
- 5. Flat Back
- 6. Lug-On-Center Back
- 7. Reverse Reading



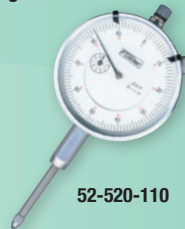
Lug-On-Center
Back Models
(All Except 2804AB-10)

ORDER NO.	TOTAL RANGE	DIAL FACE	GRAD.	RANGE/ REVOLUTION	DIAL DIA.	AGD *FEATURES	LIST PRICE
1803A-10	.025"	0-5-0	.0001"	.01"	1-5/8"	1 3,6	\$220.00
3803A-10	.025"	0-5-0	.0001"	.01"	3	3 3,6	276.00
2804A-10	.050"	0-10	.0001"	.01"	2-1/4"	2 3,6	213.00
2804AB-10	.050"	0-10	.0001"	.01"	2-1/4"	2 3,5	213.00
1506A	.125"	0-50	.0005"	.05"	1-5/8"	1 6	131.00
1410A	.250"	0-100	.001"	.100"	1-5/8"	1 6	151.00
1411A	.250"	0-50-0	.001"	.100"	1-5/8"	1 6	151.00
2414A	.500"	0-100	.001"	.100"	2-1/4"	2 6	143.00
2776A	1.000"	0-50	.0005"	.05"	2-1/4"	2 6	184.00
2416A	1.000"	0-100	.001"	.100"	2-1/4"	2 6	154.00
2416A-10	1.000"	0-100	.001"	.100"	2-1/4"	2 3,6	183.00
2417A	1.000"	0-50-0	.001"	.100"	2-1/4"	2 6	154.00
2904A	1.000"	100-0	.001"	.100"	2-1/4"	2 7	162.00
3416A	1.000"	0-100	.001"	.100"	3	3 6	222.00
2424A-19	2.000"	0-100	.001"	.100"	2-1/4"	2 1,3,6	315.00
4887A-19	3.000"	0-100	.001"	.100"	3-9/16"	4 6	593.00

Fowler AGD Indicators

- 1" Travel.
- Continuous reading: 0-100
- AGD group 2 dial diameter.
- Revolution counter.
- Tolerance markers.
- Lug back mount

MODEL NUMBER	READING	FACE COLOR	PRICE
52-520-110-0	.001	White	\$40.00
52-520-109-0	.001"	Black	40.00
52-520-129-0	.0005"	White	43.00



52-520-110



52-520-109



52-520-129

Pittsburg[®] ALLEGHANY Dial Indicator Depth Base

- Precision ground and hardened.
- Made in U.S.A.



DESCRIPTION	ORDER NO.	PRICE EACH
2-1/2" Long Base	3100-392	\$71.50
4" Long Base	3100-394	83.00

Fowler Electronic Indicator

INDI-X^{blue}

- Direct Inch/Metric Conversion
- 1"/25mm travel
- Auto Off feature
- 2 1/4" dial face
- Lugback and 3/8" stem diameter
- Resolution .0005"/.01mm
- Tolerance indicators
- Absolute/incremental reading
- Floating zero
- Carbide tipped point



A Low Cost,
High Quality,
Multi-Function
Indicator

MODEL NUMBER	DESCRIPTION	PRICE
54-520-250-0	Indi-X Blue Electronic Indicator	\$133.36

Mitutoyo IDU Digimatic Indicator with Absolute Encoder Series 575

FUNCTIONS

- ON/OFF
- Origin Setting
- Data output
- Inch/mm conversion (for Inch/Metric models)
- +/- Direct Changeover
- Error alarm
- Low battery alarm



575-123

Optional Accessories

ORDER NO.	DESCRIPTION	PRICE
905338	Digimatic Cable (1m)	\$69.00
905409	Digimatic Cable (2m)	82.20

FEATURES

- Compact and economical design.
- Provided with a data output port for connection with the SPC system.
- Power supply: One SR-44 battery (938882).
- Operating temperature: 0°C-40°C.
- Membrane sealed face helps keep out contaminants.

ORDER NO.	DESCRIPTION	PRICE
21JZA295	Spindle Lifting cable	\$77.48

ORDER NO.	575-123 (INCH/METRIC MODEL)	575-121 (METRIC MODEL)
Measuring Range	0-1"/0-25.4mm	0-25.4mm
LCD Resolution	.0005"/0.01mm	0.01mm
Accuracy	.0008"	0.02mm
Measuring Force (Downward)		1.8N or less
Stem Diameter	.375 +0/-0.012"	8.0mm +0/-0.009mm
Data output		Digimatic output
Standard Accessories		Silver-oxide cell SR-44 (1 pc.) (938882)
Protection Level		IP-42
Battery Life		20,000 hrs.
PRICE EACH	\$253.00	\$253.00

Measuring Instruments

Fowler

IP54 Shockproof Indicator

Protection Includes:

- Rubber bellows on stem
- O-ring seal on safety cap
- O-ring protection for bezel and rotating dial
- Sealed back plate

Specifications:

- Robust, shockproof design
- Travel: 1" • Reading: .001"
- Continuous reading: 0-100 • Tolerance markers
- AGD Group 2, 2-1/4" dia. • Lugback and carbide point

2

ORDER NUMBER	DESCRIPTION	PRICE
52-520-450-0	IP54 Shockproof Indicator	\$80.00



Fowler

INDI-X blue

Electronic Indicator

Now available in inch, metric, and fraction!

- Direct Inch/Metric/Fraction Conversion
- Auto Off feature
- 2 1/4" dial face
- Lugback and 3/8" stem diameter
- Resolution .0005"/.01mm/64ths
- Tolerance indicators
- Absolute/incremental reading
- Floating zero
- Carbide tipped point

A Low Cost,
High Quality,
Multi-Function
Indicator

6

ORDER NUMBER	DESCRIPTION	PRICE
54-520-260-0	Indi-X Blue Electronic Indicator	\$109.00



Fowler X-PROOF™

Water Resistant Indicator Set

Magnetic Base (52-585-010-0):

- Fine adjustment
- Base dimensions: 2" x 2-11/32" x 1-13/16"
- Mounts test indicators with 1/4" post
- 85 lb. pull • On-Off lever release magnet
- V-base for placing on round surfaces
- Best Value IP54 Shockproof indicator available!

X-Proof Indicator (52-520-450-0):

- Travel: 1" • Reading: .001"
- Continuous reading: 0-100
- Tolerance markers • AGD Group 2, 2-1/4" dia.
- Lugback and carbide point
- Robust, shockproof design
- Rubber bellows on stem • Sealed back plate
- O-ring seal on safety cap, protection for bezel and rotating dial

2

ORDER NUMBER	DESCRIPTION	PRICE
52-585-155-0	Water Resistant Indicator Set	\$129.00



Fowler

Fine Adjust Mag Base Set

With **INDI-X blue** Electronic Indicator

Indi-X Blue Indicator features:

- Direct Inch/Metric Conversion
- 1"/25mm travel • Auto Off feature
- 2 1/4" dial face
- Lugback and 3/8" stem diameter
- Resolution .0005"/.01mm
- Tolerance indicators
- Absolute/incremental reading
- Floating zero • Carbide tipped point

Magnetic Base features:

- 85 lb. pull • Fine adjustment.
- V-bottom base.

Magnetic Indicator Back features:

- Use for positioning the indicator on most metal surfaces.
- Protective coating

All in a shop-hardened case.

6

ORDER NUMBER	DESCRIPTION	PRICE
54-585-075-0	Fine Adjust Mag Base Set	\$161.00



Fowler

Portable Durometers

Fowler's Portable Durometers are just right for testing the hardness of flexible materials such as rubber and plastics. These gages conform to shore scales.

- Manufactured in accordance with DIN, ASTM, ISO and JIS specifications.
- Includes reference test block, operating instructions and fitted case.
- Optional bench stand available.



Applications:

35° blunt taper Durometers are suitable for testing soft and natural rubber products, neoprene, polyesters, soft PVC, leather, thiokol, nitril rubbers, wax, felt and more.

Sharp 30° point Durometers are ideal for testing hard rubber, hard synthetic materials, e.g. acrylics, glass, polystyrol, thermoplastics, printing rolls, vinyl sheets, cellulose acetates, densified wood, etc.

6

ORDER NUMBER	PENETRATOR	SHORE SCALE	GRADUATIONS	PRICE
53-762-101-0	Blunt taper 35°	A	1 Shore	\$429.00
53-762-102-0	Sharp 30°	D	1 Shore	475.00

Measuring Instruments

Mitutoyo Absolute Digimatic Indicator ID-C Series 543 - Standard Type

FEATURES:

- As compact as standard Series 2 dial indicators.
- Large, easy-to-read LCD.
- GO/±NG judgment is performed by setting upper and lower tolerance limits. The judgement result (GO/±NG) can be displayed in full size characters.
- The positive/negative count resulting from the spindle's up/down movement can be toggled.
- Internal calculations using the simple formula of $[F(x) = Ax]$ are available.
- Employing the ABSOLUTE linear encoder, the Signal ID-C always displays the spindle "Absolute Position" from the origin at power-on.
- The ID-C indicator face can be rotated 330° to an appropriate angle for easy reading.
- With SPC data output. Battery: SR44 (1 pc.), 938882

Function:

Origin-set/Presets, Zeroset, GO/±NG judgment, Max/Min/Runout value holding, Counting direction switching, Power ON/OFF, Data output, inch/mm conversion (on inch/metric models only)

Alarm: Low voltage, Counting value composition error, Over-flow error, Tolerance limit setting error



Inch/Metric

7

Stem dia. 3/8", 4-48 Thread

RESOLUTION	RANGE	ORDER NO. (W/LUG, FLAT-BACK)	PRICE EACH	MODEL	ACCURACY	MEASURING FORCE
.0005"/0.01mm*	.5" / 12.7mm	543-701 543-701B	\$551.00	ID-C0512NX	.0001"	1.5N or less
.0005"/0.01mm*	.5" / 12.7mm	543-706 543-706B	783.00	ID-C0512ENXB	.0001"	0.4N - 0.7N (Low force)
.0005"/0.01mm*	1" / 25.4mm	543-721B 543-722B	671.00	ID-C0525ENXB	.0001"	1.8N or less
.0005"/0.01mm*	2" / 50.8mm	543-731B 543-732B	840.00		.0002"	2.3N or less
.0005"/0.01mm	.5" / 12.7mm	543-711B 543-712B	403.00	ID-C1012EX	.001"	0.9N or less
.0005"/0.01mm	.5" / 12.7mm	543-716B 543-717B	501.00	ID-C1012CENX	.001"	0.2N - 0.5N (Low force)
.0005"/0.01mm	1" / 25.4mm	543-726B 543-727B	537.00	ID-C1025EXB	.001"	1.8N or less
.0005"/0.01mm	2" / 50.8mm	543-736B 543-737B	774.00	ID-C1050ENXB	.0016"	2.3N or less

* Switchable Resolution Type

Optional Accessories:

905338: SPC cable (40" / 1m), 905409: SPC cable (80" / 2m)

21EZA198: Spindle lifting lever (ISO/JIS type)*, 21EZA199: Spindle lifting lever (ANSI/AGD type)*

21EZA105: Spindle lifting knob (12.7mm/.5"ISO/JIS type)**

21EZA150: Spindle lifting knob(12.7mm/.5"ANSI/AGD type)**

21EZA197: Spindle lifting knob (25.4mm/1", 50.8mm/2" models)

21EZA200: Spindle lifting knob (50.8mm/2"), 540774: Spindle lifting cable (stroke: (1" / 25.4mm)

02ACA571: Auxiliary spindle spring for 25mm/1" models***

02ACA773: Auxiliary spindle spring for 50mm/2" models***

*Can be used on 12mm/.5" models only. **Not available for low measuring force models.

***Required when orienting gage upside down.

Fowler 
LIFETIME WARRANTY

IP67

Mark VI Electronic Indicators

- FEATURES:**
- Robust construction • Water and coolant resistant
 - Protection class IP-67 • Repeatability: 2µm
 - Output: Proximity/Power - USB/RS232/digimatic/Wireless
 - Battery life: 10,000 hours of operation • Menus customizable with free software • Wide range of functions (MIN/MAX/DELTA, TOL, Factor, Preset, Auto Off, etc)
 - Aluminum housing • Bezel rotates 270° • Includes lug back
 - Large display with LED tolerance indicators



ORDER NO.	DESCRIPTION	MAX ERROR	RESOLUTION	PRICE EACH
54-530-125-0	0-.500"/12.5mm	0.0004"/.01mm	0.0005"/.01mm	\$769.00
54-530-135-0	0-.500"/12.5mm	0.0012"/.003mm	0.0005"/.001mm	1050.00
54-530-145-0	0-1"/25mm	0.0004"/.01mm	0.0005"/.01mm	950.00
54-530-155-0	0-1"/25mm	0.0016"/.004mm	0.0005"/.01mm	1150.00
54-530-175-0	0-2"/50mm	0.0019"/.005mm	0.0005"/.001mm	1950.00

ORDER NO.	DESCRIPTION	MAX ERROR	RESOLUTION	PRICE EACH
54-530-335-0	0-.500"/12.5mm	0.0012"/0.003mm	0.0005"/.001mm	1202.00
54-530-355-0	0-1"/25mm	0.0016"/.004mm	0.0005"/.001mm	1162.00

Mitutoyo

ID-S Digimatic Indicators with Absolute Encoder Series 543 - Simple and Economical Design with Absolute Encoder

These IDS Type Digimatic Indicators incorporate Mitutoyo's Absolute Encoder Technology so all settings are maintained for the life of the battery. The IDS provides clear digital readings in a convenient and compact package which conforms generally to Series 2 dial indicator dimensions.



Inch/Metric 7

ORDER NO.	543-783 (LUG-BACK)	543-793 (LUG-BACK)
	543-783B (FLAT-BACK)	543-793B (FLAT-BACK)
Measuring Range	0-.5"/0-12.7mm	0-.5"/0-12.7mm
LCD Resolution	.0005"/0.01mm	.0001"/0.001mm
Accuracy (20°C)	.0008"/0.02mm	.00012"
Measuring Force	2.0N (200gf) or less	2.0N (200gf) or less
Battery	SR-44 (1 pc.) No. 938882	SR-44 (1 pc.) No. 938882
Battery Life	Approx: 20,000 hours	Approx: 20,000 hours
Protection Level	Conforming to IP-42	Conforming to IP-42
Functions	ORIGIN, ON/OFF, in/mm, +/-	ORIGIN, ON/OFF, in/mm, +/-
Data output*	SPC Digimatic output	SPC Digimatic output
Stem Diameter	.375" +0/-0.012"	.375" +0/-0.012"
Contact Point	.16"dia. carbide-tipped ball (4-48UNF)	.16"dia. carbide-tipped ball (4-48UNF)
Mass	0.27 lbs.	0.27 lbs.
PRICE EACH	543-783 \$187.00 543-783B \$187.00	543-793 \$288.00 543-793B \$288.00

* For SPC output order Connecting Cable 905338 (1m) or 905409 (2m)

OPTIONAL ACCESSORIES

ORDER NO.	DESCRIPTION	PRICE	ORDER NO.	DESCRIPTION	PRICE
21EZA199	Spindle Lifting Lever (ANSI/AGD Type)	\$9.38	101306	Lug-on-Center Back (ANSI/AGD Type)	19.20
540774	Spindle Lifting Cable	32.95	101039	Flat Back	10.05
21EZA150	Lifting Knob	39.53			

Pittsburgh[®] ALLEGHANY Electronic Digital Indicators

Type A

- Error-free digital readings in basic & economical package
- Easy to read LCD
- Battery Powered
- Zero set, Inch/Metric, Auto On/Off
- Reverse readings indicator (-sign)

Type B

- Trim design gets into tight spaces. Only 1-1/2" wide and less than 1" thick
- Easy to read LCD
- Flat back
- Battery powered
- Zero set, Inch/Metric
- Includes lifting lever



RANGE	GRAD.	TYPE	ORDER NO.	PRICE
0-5"/13mm	.0005"/.01mm	A	3100-992	\$66.40
1.0"/25mm	.0005"/.01mm	B	3101-000	150.00

Measuring Instruments

Mitutoyo Absolute Digimatic Indicator ID-H Series 543 – High Accuracy and Functional Type

FEATURES

- This new-generation digital indicator offers the excellent accuracy and functionality expected from this class of indicator. Take advantage of its high accuracy backed up by 0.5lm / .00002" resolution, remote control functionality via a handheld controller (or an RS-232C interface) and easy runout measurements with the well-established analog bar display.
 - The maximum, minimum, or runout value can be displayed during measurement.
 - GO/±NG judgement is performed by setting the upper and lower tolerances. If a judgment result is out of tolerance, the display backlighting changes from green to red, so tolerance judgment can be made at a glance.
 - With SPC data output • With RS-232C input/output
- Standard Accessories
06AGZ369JA: AC Adapter 120v 137693: Lifting Lever

Optional Accessories:

- 936937: SPC cable (40" / 1m), 965014: SPC cable (80" / 2m),
21EAA131: RS-232C cable (80" / 2m)
21EZA099: Remote controller, 540774: Spindle lifting cable (stroke: .4" / 10mm)
21EZA101: Spindle lifting knob, 264-505A: Digimatic Min-processor DP-1VA
543-004A: Digimatic presetter, 21EZA152A: FREE PARAMETER SETTING SOFTWARE
*Required when orienting the indicator upside down.

Technical Data

Accuracy: Refer to the list of specifications
Resolution: 0.0005mm/0.001mm or .00002"/.00005"/.0001" / 0.0005mm/0.001mm
Display: LCD Length standard: Linear encoder
Max. response speed: 1000mm/s
Measuring force: 2.0N/2.5N* or less (*60mm range models)
Power supply: 6V DC (via AC adaptor)

Function
Origin-set/Preset, Zeroset, GO/±NG judgement, Max/Min value hold, Runout measurement, Resolution switching, Counting direction switching, Power ON/OFF, Data output, inch/mm conversion (on inch/metric models only) Alarm: Low voltage, Counting value composition error, Over-flow error, Tolerance limit setting error



Inch/Metric

MODEL NO.	RESOLUTION	RANGE	MODEL	ACCURACY	PRICE
543-562A	.00002", .00005"	1.2" / 30.4mm	ID-H530E	0.0015mm	\$1140.00
543-564A (INCH)	.0001", 0.0005mm, 0.001mm	2.4" / 60.9mm	ID-H560E	0.0025mm	1360.00
543-561A	0.0005mm, 0.001mm	30.4mm	ID-H530	0.0015mm	1140.00
543-563A (METRIC)		60.9mm	ID-H560	0.0025mm	1360.00

Fowler XTEST

Test Indicators Twice the Test for Less!

MODEL NUMBER	GRADUATION	DIAL DIAM.	PRICE
52-562-001-0	.0005"	1.5"	\$170.00
52-562-002-0	.0005"	1"	170.00
52-562-003-0	.001"	1"	159.05
Kit			
52-562-100-0	.0005"	1.5"	301.00
52-562-110-0	.0005"	1"	236.00

X-Test Indicator:

- Range: .060" Graduation: .0005"
- Dial reading: 0—15—0
- Dial diameter: 1-1/2"
- Jewelled movement
- Revolution counter
- Auto-reverse
- 210° Swivel arc
- Tungsten carbide .080" point

Kit includes:

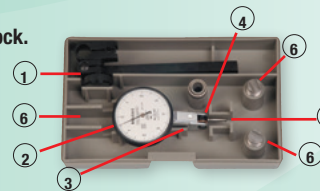
- Dial test indicator
- Axial support
- Height gage bar w/ clamp
- Adaptor sleeve
- Contact point case
- Contact point wrench
- Shop-hardened case.



Mitutoyo "Quick-Set" Test Indicators Series 513 w/ Jeweled Bearings

FEATURES

- ① "O" ring incorporated in new bezel design seals instrument from dust and oil mist.
- ② Enlarged pitch of teeth on crown gear improves ability of indicator to withstand shock.
- ③ Rubber bumpers limit travel of sector gear and prevent damage due to excessive travel.
- ④ Special alloy of sector gear provides greater resistance to wear, and longer distance between pivot points for better protection against shock.
- ⑤ Carbide point, .078" DIA., is standard.
- ⑥ Dovetails, integral with housing, give broad flexibility for mounting of instruments.



513-412-10E

Inch/Metric

ORDER NO. BASIC	LIST PRICE	GRADUATION	RANGE	DIAL READING	ACCURACY	TYPE	REMARKS	ORDER NO. COMPLETE	LIST PRICE
513-406-10E	\$198.00	.0005"	.03"	0-15-0	±.0005"	Horizontal	Combitec Anti-Magnetic	513-406-10T	\$219.00
		0.7mm	0.01mm	0-35-0					

Inch

ORDER NO. BASIC	LIST PRICE	GRADUATION	RANGE	DIAL READING	ACCURACY	TYPE	REMARKS	ORDER NO. COMPLETE	LIST PRICE
513-403-10E	\$219.00	.0001"	.008"	0-4-0	±.0001"	Horizontal	Anti-Magnetic	513-403-10T	\$257.00
513-402-10E	168.00	.0005"	.03"	0-15-0	±.0005"	Horizontal	Anti-Magnetic	513-402-10T	200.00
513-452-10E	219.00	.0005"	.03"	0-15-0	±.0005"	Vertical	—	513-452-10T	242.00
513-482-10A	233.00	.0005"	.03"	0-15-0	±.0005"	Parallel	—	513-482-10T	242.00
513-412-10E	242.00	.0005"	.03"	0-15-0	±.0005"	Horizontal	Long Point Anti-Magnetic	513-412-10T	279.00

The most direct gear train design ever applied to Test Indicators means – higher level of sensitivity, reliability, repeatability and accuracy throughout tool life.



TESA TECHNOLOGY

wood brown & sharpe.

White Face Indicator Sets

Large diameter dials make reading fast and easy. Comes with three carbide contact points: .040", .080" and .120" diameter; two extensions with .0001" to .0005" or (0.01 or 0.002mm on -14 models) dovetails; one point wrench; certificate of accuracy and traceability; all in a durable molded case.

ORDERING NUMBER	RANGE	MARKING	SMALLEST DIVISION	DIAL DIA.	POINT LENGTH	TIP DIA.	B&S NUMBER	PRICE EACH
INCH READING								
7125-925	.030"	0-15-0	.0005"	1"	1/2"	Three	599-7030-6	\$374.90
7125-926	.030"	0-15-0	.0005"	1-1/2"	1/2"	Tips	599-7031-6	385.25
7125-929	.008"	0-4-0	.0001"	1"	1/2"	With	599-7032-6	419.75
7125-923	.008"	0-4-0	.0001"	1-1/2"	1/2"	Each	599-7023-6	462.30
METRIC READING								
7125-927	0.8mm	0-0.4-0	0.01mm	.28mm	12.5mm	Three	599-7030-14	\$385.25
7125-928	0.8mm	0-0.4-0	0.01mm	.38mm	12.5mm	Tips	599-7031-14	391.00
7125-930	0.2mm	0-100-0	0.002mm	.28mm	12.5mm	Each	599-7032-14	423.20



Measuring Instruments



TESA
TECHNOLOGY

look brown & sharpe

Bestest Indicators

Bestest® Indicators meet or exceed federal or DIN specifications. All Bestest Indicators are furnished with a furnished with a certificate of accuracy and traceability. And Bestest Indicators provide all of the following high quality features to ensure fast, accurate and continuously reliable measurement.

- Constant Clockwise Rotation
- Universal Mounting • Automatic Reversal
- Monoblock (Precision Watch) Body Design
- Swivelling Point • Carbide Tip Point
- Anti-Magnetic & Corrosion Resistant
- Price Includes Fitted Case

White Face Indicators

Each BesTest® Indicator set comes complete accessories. End mounted Indicator set comes with one carbide tip contact point: .080" dia., with one 3/8" dia. x 2 1/2" long universal One rectangular bar; One swivel clamp; One mounting attachment in place of rectangular contact point wrench; One fitted wooden case that accommodates additional accessories. End mounted Indicator set comes with one 3/8" dia. x 2 1/2" long universal mounting attachment in place of rectangular bar and swivel clamp.



7

Fowler XTEST

Vertical X-Test Indicators Twice the range of most indicators!

X-Test Indicator:

- Range: .060" • Dial reading: 0—15—0
- Jeweled movement • Revolution counter
- Easy-to-read tilted dial • Automatic Reversal
- 210° Swivel arc • Tungsten carbide .080" point



2

ORDERING NUMBER	RANGE	MARKING	SMALLEST DIVISION	DIAL DIA.	POINT LENGTH	TIP DIA.	B&S NUMBER	PRICE EACH
INCH READING								
7145-977	.030"	0-15-0	.001"	1"	1/2"	.080"	599-7029-3	\$349.60
7145-978	.030"	0-15-0	.0005"	1"	1/2"	.080"	599-7030-3	361.10
7145-979	.030"	0-15-0	.0005"	1-1/2"	1/2"	.080"	599-7031-3	374.90
7145-980	.008"	0-4-0	.0001"	1"	1/2"	.080"	599-7032-3	392.15
7146-400	.008"	0-4-0	.0001"	1-1/2"	1/2"	.080"	599-7023-3	447.35
7145-981	.008"	0-4-0	.00005"	1-1/2"	1/2"	.080"	599-7033-3	453.10
7145-982	.020"	0-10-0	.0005"	1"	1-7/16"	.080"	599-7034-3	466.90
7145-983	.020"	0-10-0	.0005"	1-1/2"	1-7/16"	.080"	599-7035-3	476.10
END MOUNTED								
7150-437	.030"	0-15-0	.0005"	1"	1/2"	.080"	599-7037-3	479.55
7146-406	.008"	0-4-0	.0001"	1-1/2"	1/2"	.080"	599-7024-3	537.05
7150-436	.008"	0-4-0	.00005"	1-1/2"	1/2"	.080"	599-7038-3	537.05
METRIC READING								
7145-984	0.8mm	0-0.4-0	0.01mm	.28mm	12.5mm	2mm	599-7030-13	374.90
7145-985	0.8mm	0-0.4-0	0.01mm	.38mm	12.5mm	2mm	599-7031-13	378.35
7145-986	0.2mm	0-100-0	0.002mm	.28mm	12.5mm	2mm	599-7032-13	409.40
7145-987	0.2mm	0-100-0	0.002mm	.38mm	12.5mm	2mm	599-7033-13	466.90

Pittsburg® Dial Test Indicator

FEATURES:

- Adjustable bezel and dial
- Fully jeweled movement
- Wide face for easy reading
- 3 way Dovetail mounting
- Trigger response to lightest pressure
- Contact point adjustable through 230 Deg.
- Includes 5/32" and 3/8" mounting shanks



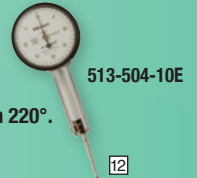
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RANGE	GRAD.	DIAL DIAM.	READING	ORDER NO.	PRICE
0-.030"	.0005"	1.25"	0-15-0	3100-570	\$49.25

Mitutoyo Pocket Test Indicator – Series 513

FEATURES

- Jeweled bearings assure higher sensitivity and accuracy.
- Reversible Measuring Direction. • Two Holding Bars are supplied: One (1/2 x 1/4") is used with lathe tool posts and height gages, the other (.315" DIA.) with drill chucks. (Complete sets only.)
- Fully adjustable bezel/dial face. • Contact point is adjustable within 220°.
- Complete with accessories and compact carrying case.



513-504-10E

12

Inch

ORDER NO. BASIC	LIST PRICE	GRAD.	RANGE	DIAL READING	ACCURACY	REMARKS	ORDER NO. COMPLETE	LIST PRICE
513-504-10E	\$207.00	.0001"	.01"	0-5-0	±.0002"	—	513-504-10T	\$186.00
513-512-10E	197.00	.0005"	.02"	0-10-0	±.0005"	Long point	513-512-10T	192.00
513-518-10E	176.00	.001"	.04"	0-20-0	±.001"	—	513-518-10T	146.00

Mitutoyo Truetest™ Test Indicators Series 513

Mitutoyo introduces three new Series 513 dial indicators, each available in white or black dial face colors. Each indicator features:

- Smooth spindle movement for increased measuring accuracy.
- Water and dust resistant one-piece black bezel and hard coated crystal for improved durability.
- 20° tilted dial face for easy reading.
- Anti-magnetic characteristics.



513-443

513-443-06

Accessories
Swivel Clamp 900322
Square arm 900306
21CAB106 (Stem .157 dia.)
21CAB106 (Stem 3/8 dia.)
.039 Carbide contact point
.079 Carbide contact point
190322 (Nut)

Inch

12

12

ORDER NO. BASIC	LIST PRICE	GRAD.	RANGE PER REV.	DIAL RANGE READING	WIDE RANGE ACCURACY	DIMENSION L	REMARKS	ORDER NO. COMPLETE	LIST PRICE
513-442-10A	\$229.00	.0005"	.03"	.06"	0-15-0 ±.0005"	.78"	White Dial Face	513-442-10T	\$259.00
513-442-16A	229.00	.0005"	.03"	.06"	0-15-0 ±.0005"	.78"	Black Dial Face	513-442-16T	259.00
513-446-10A	306.00	.0005"	.03"	.06"	0-15-0 ±.0005"	1.33"	White Face Longpoint	513-446-10T	344.00
513-446-16A	306.00	.0005"	.03"	.06"	0-15-0 ±.0005"	1.33"	Black Face Longpoint	513-446-16T	344.00
513-443-10A	288.00	.0001"	.008"	.016"	0-4-0 ±.0002"	.59"	White Dial Face	513-443-10T	326.00
513-443-16A	288.00	.0001"	.008"	.016"	0-4-0 ±.0002"	.59"	Black Dial Face	513-443-16T	326.00

Measuring Instruments

Interapid Test Indicators

Double The Range Of Other Test Indicators

FEATURES:

- Magnetic resistant • Extremely low measuring pressure
- Two-way action - no reversing lever • Dovetail & adjustable stem adaptation
- Precise repetitive readings • Ball bearing and jewelled movement
- Carbide contact point swivels 210° • Easy to read tilted dial



Vertical Models

MODEL NO. 312B-1V INTERAPID NO. 74.111377		MODEL NO. 312B-3V INTERAPID NO. 74.111957		MODEL NO. 312B-15V INTERAPID NO. 74.111958	
Ordering No.	7141-685	Ordering No.	7141-714	Ordering No.	7141-715
Range	.060"	Range	.016"	Range	.060"
Graduations	.0005"	Graduations	.0001"	Graduations	.0005"
Dial Diameter	1.5"	Dial Diameter	1.5"	Dial Diameter	1.5"
Dial Reads	0-15-0	Dial Reads	0-4-0	Dial Reads	0-15-0
Price	\$507.38	Price	\$643.50	Price	\$682.00



Horizontal Models

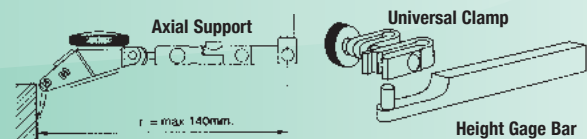
MODEL NO. 312B-1 INTERAPID NO. 74.111370		MODEL NO. 312B-2 INTERAPID NO. 74.111371		MODEL NO. 312B-3 INTERAPID NO. 74.111372		MODEL NO. 312B-4V INTERAPID NO. 74.111373		MODEL NO. 312B-15 INTERAPID NO. 74.111965		MODEL NO. 312B-20 INTERAPID NO. 74.111374	
Ordering No.	7142-775	Ordering No.	7186-150	Ordering No.	7141-680	Ordering No.	7141-681	Ordering No.	7141-716	Ordering No.	7141-682
Range	.060"	Range	.060"	Range	.016"	Range	.016"	Range	.060"	Range	.060"
Graduations	.0005"	Graduations	.0005"	Graduations	.0001"	Graduations	.0001"	Graduations	.0005"	Graduations	.001"
Dial Diameter	1.5"	Dial Diameter	1.0"	Dial Diameter	1.5"	Dial Diameter	1.5"	Dial Diameter	1.5"	Dial Diameter	1.0"
Dial Reads	0-15-0	Dial Reads	0-15-0	Dial Reads	0-4-0	Dial Reads	0-4-0	Dial Reads	0-15-0	Dial Reads	0-15-0
Price	\$474.38	Price	\$474.38	Price	\$584.38	Price	\$600.88	Price	\$682.00	Price	\$488.13

Carbide Contact Points for Interapid Indicators



TIP DIAMETER	LENGTH	INTERAPID NUMBER	ORDERING NUMBER	PRICE EACH
.031"	11/16	74.105998	7141-649	\$37.13
.060"	11/16	74.105997	7141-648	37.13
.080"	11/16	74.105996	7141-647	37.13
.080"	1-3/4	74.111492	7141-698	41.00
.031"	1-3/4	74.111493	7141-699	41.00
.080"	2-3/4	74.111913	7141-713	45.38
.100"	2-3/4	74.111912	7141-712	70.13

Interapid Accessories



DESCRIPTION	INTERAPID NUMBER	ORDERING NUMBER	PRICE EACH
Height Gage Bar w/Clamp	74.106331	7141-651	\$112.75
Universal Clamp	74.108603	7141-663	72.88
Axial Support (Inch)	74.106931	7141-656	151.25



TESA

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Black Face Indicators

Easy to read, satin black, "jet-console" face. BesTest® Indicators with high visibility orange hand. Each BesTest® Indicator set comes complete with one carbide tip contact point, .080" diameter; One 1/2" long x .250" diameter extension with dovetail; One contact point wrench; One durable molded case; certificate of

ORDERING NUMBER	RANGE	MARKING	SMALLEST DIVISION	DIAL DIA.	POINT LENGTH	TIP DIA.	B&S NUMBER	PRICE EACH
7151-732	.030"	0-15-0	.001"	1"	1/2"	.080"	599-7029-5	\$282.90
7151-733	.030"	0-15-0	.0005"	1"	1/2"	.080"	599-7030-5	289.80
7151-734	.030"	0-15-0	.0005"	1-1/2"	1/2"	.080"	599-7031-5	307.05
7151-737	.008"	0-4-0	.0001"	1"	1/2"	.080"	599-7032-5	365.70
7151-738	.008"	0-4-0	.00005"	1-1/2"	1/2"	.080"	599-7033-5	374.90
7151-735	.020"	0-10-0	.0005"	1"	1-7/16"	.080"	599-7034-5	345.00
7151-736	.020"	0-10-0	.0005"	1-1/2"	1-7/16"	.080"	599-7035-5	361.10



Measuring Instruments

Fowler Dial Test Indicators

- Jeweled movement.
- Bi-directional constant clockwise rotation.
- Automatic reversal.
- 3 dovetail mountings.
- 2 dovetail extensions.
- Includes molded case.

.040° .120°
Extra Points



MODEL NUMBER	FACE COLOR	DIAL READING	GRADUATION	DIAL DIA.	POINT LENGTH	PRICE EACH
52-562-778-0	black	0-15-0	.0005"	1"	1/2"	\$111.00
52-563-771-0	black	0-4-0	.0001"	1"	1/2"	158.94
52-563-772-0	black	0-4-0	.0001"	1-1/2"	1/2"	158.94
52-562-782-0	black	0-10-0	.0005"	1"	1-7/16"	163.70
52-562-784-0	black	0-10-0	.0005"	1-1/2"	1-7/16"	163.70

Fowler FLEX MAG SET[®] Chrome

Included Magnetic Indicator Back for mounting to most metal surfaces!
All packed in a Shop-Hardened case!

AGD Indicator features:

- AGD Group 2
- Dial diameter: 2-1/4"
- Travel: 1"
- Reading: .001"
- Continuous reading: .100"
- Carbide tipped point

Flex Arm Mag Base features:

- Corrosion resistant chrome plated flex arm.
- 85 lb. pull magnet
- Holds rigidly in almost any position.
- V-base for mounting on rounded surfaces.

Magnetic Indicator Back features:

- Use for positioning the indicator on most metal surfaces.
- Protective coating

MODEL NO.	DESCRIPTION	PRICE
52-585-500-0	Chrome Flex Mag Set	\$236.00



Fowler XTRA MAG[®] Combos

.030" Range Test Indicator Features:

- Reading: 0-15-0
- Graduation: .0005"
- Auto-reversing
- .080" diameter point

.060" Range X-Test Indicator:

- Range: .060"
- Graduation: .0005"
- Dial reading: 0-15-0
- Dial Diameter: 1-1/2"
- Jewelled movement
- Revolution counter
- Automatic reversal
- 210° Swivel arc
- Tungsten carbide points: .040", .080" and .120"

Xtra Mag Base:

- 2 universal ball sockets
- Microfine adjustment screw
- 3-9/16" extension arm
- Dovetail mounting

Virtually unlimited positioning as a Universal Base!



MODEL NO.	DESCRIPTION	PRICE
52-585-105-0	Xtra Mag Only	\$83.00
52-585-100-0	.030" Range Test Indicator	213.00
52-562-105-0	.060" Range X-Test & Xtra Mag Combo	224.00



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Miti-Mite Magnet Base and Bestest[®] Indicator

This BestTest[®] Indicator set comes complete with one carbide tip contact point: .080" dia.; One contact point wrench; One 3/8" dia. x 2-1/2" long universal mounting attachment. The Miti-Mite has a ball and socket action and joined post to simplify positioning. Compact base has Vee for holding on round or flat iron or steel surfaces. Base dimensions approx. 1-1/4" sq. 1-1/4" high. Height to top of post is approx. 5". Supplied with one each: 7/32" diameter x 1-1/2" long post; 7/32" diameter x 4-3/8" long post; 5/16" diameter x 1-1/2" long post. The kit includes a fitted wooden case that accommodates additional accessories.



Includes:

- 599-7030-3 Indicator
- 599-7761 MITI-MITE Base
- Universal Mount • Wood Case
- Three Separate Posts

ORDERING NUMBER	DESCRIPTION	B&S NUMBER	PRICE EACH
7151-083	MITI-MITE Indicator Set	599-849	\$702.65



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Bestest[®] Universal Test Indicator Kit Back Plunger Indicator - 1-1/2" Dia.

Extremely valuable in the workshop, where many awkward machining situations arise, the back plunger indicator has been designed to ensure that the face of the dial can be seen by the operator. The 1/4" holding rod can be unscrewed if required. Supplied with a ball contact tip.

ORDERING NUMBER	DESCRIPTION	B&S NUMBER	PRICE EACH
7144-892	Universal Indicator Set	599-7739	\$376.00

Inch Indicator Set Includes:

- Universal Test Indicator 599-7039
- Swivel 599-7739-1
- Clamp 599-7739-2
- Hole Attachment w/Indicator Mounting Hole 599-7739-3
- Bar 599-7739-4
- Rod 599-7739-5
- Fitted Case for Indicator and Accessories 599-7739-9999



Measuring Instruments



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Accessories For Bestest Indicators

7



Swivel Clamp
3/8" & 7/32" dia. mounting holes.
Dovetail opposite 3/8" hole.

ORDERING NUMBER	B&S NUMBER	PRICE EACH
7151-853	599-7045-1	\$46.00



Universal Clamp
For mounting on dovetail or stud. 7/32" hole on swivel. Dovetail end has 7/32" hole and 5/32" hole adjacent to the dovetail.

ORDERING NUMBER	B&S NUMBER	PRICE EACH
7141-663	74-108603	\$72.88



Universal Dovetail Attachment
Chrome plated. 1/4" dia. x 2-1/2" long.

ORDERING NUMBER	B&S NUMBER	PRICE EACH
7144-869	599-7054	\$52.90



Lug-Back Bracket
Slot to 1/4".

ORDERING NUMBER	B&S NUMBER	PRICE EACH
7144-740	599-980-10	\$124.00



Combination Bestest Indicator Axial Support
For mounting indicator on dovetail or rod. Hinges allow indicator to be positioned for best to work. Stem is 3/8" (8mm) dia. Tool length is 5-1/4" (133mm).

ORDERING NUMBER	B&S NUMBER	PRICE EACH
7141-656	74-106931	\$151.25



Universal Swivel Clamp
Dovetail opposite 3/8" hole and V-side hole. Clamp screw range: 1/8" to 1/4".

ORDERING NUMBER	B&S NUMBER	PRICE EACH
7144-870	599-7055	\$185.63

Swivel Support (Long)
3/8" dia. x 3-5/8"



ORDERING NUMBER	B&S NUMBER	PRICE EACH
7144-859	599-7044	\$99.00

Rectangular Bar
Comes with all front-mounted Indicators. 1/4" thick x 1/2" high x 3" long with .220"



ORDERING NUMBER	B&S NUMBER	PRICE EACH
7144-862	599-7047	\$34.50

Pittsburg[®] ALLEGHANY Universal Dovetail Indicator Holder



- 1/4" body diameter with 3" reach. • Stainless steel
- Spring loaded holder locks in any of (4) 90 degree quadrants, and allows many variable angles of holding.
- Brass contact will not scar Indicator.

ORDER NO.	PRICE EACH
3100-430	\$29.70

Universal Dovetail Clamp

Mounts indicators equipped with either dovetails or rods

- 1/4" and 1/8" mounting holes, adjustable hole up to 1/4" plus dovetail.



ORDER NO.	PRICE EACH
3100-400	\$26.00

Axial Support Bracket

Used for mounting indicators with dovetails or rods.
• 3/8" diameter body for secure clamping, with 5-1/4" overall reach.
• Made in U.S.A.

ORDER NO.	PRICE EACH
3100-405	\$58.30

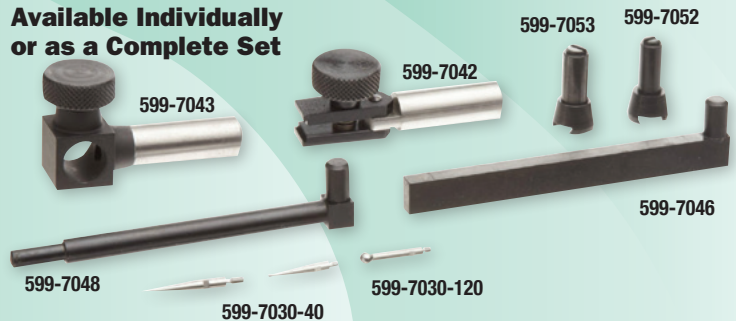


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For Bestest Indicators

Available Individually or as a Complete Set



ORDERING NUMBER	DESCRIPTION	B&S NUMBER	PRICE EACH
7144-861	Rectangular Bar 3/16" thick x 5/16" high x 3" long with .220" dia. stud	599-7046	\$99.00
7144-863	Round Bar 7/32" dia. with .163 stepped end; .220" dia. stud; 2-7/8" long	599-7048	35.75
7144-857	Swivel Support (Short) 3/8" dia. x 1" long	599-7042	99.00
7144-858	Angle Att. 3/8" hole with 3/8" dia. x 1" long	599-7043	145.75
7144-867	Extension with Dovetail .220" dia. x 1/2" long	599-7052	29.33
7144-868	Extension with Dovetail .250" dia. x 1/2" long	599-7053	29.33
7144-827	Carbide Ball Point .040" dia. x 1/2" long	599-7030-40	58.00
7144-829	Carbide Ball Point .120" dia. x 1/2" long	599-7030-120	58.00
COMPLETE SET			
7144-856	Complete Set of All Items Listed Above	599-7041	431.75



ACCESSORIES

2



Universal Clamp

An all purpose Clamp designed for use with all dovetail equipped indicators.

- Fits 5/32" and 7/32" shanks. • Made in USA

ORDER NO.	PRICE EACH
3100-401	\$40.30

Single Jointed Holder

Single Jointed: 1/4" Diameter Body w/ 2-3/4" overall reach.

- Fits all dovetail equipped Indicators.
- Secure clamping. • Made in U.S.A.

ORDER NO.	PRICE EACH
3100-403	\$52.00



Indicator Swivel Joints

- Available with clamping ranges from 5/32" to 1/2".
- Overall length for all sizes is 1-3/4".



ORDER NO.	CLAMP HOLE	END HOLE	PRICE EACH
3100-414	5/16"	5/32"	\$7.00
3100-410	5/16"	1/4"	7.00
3100-416	3/8"	1/4"	7.00
3100-412	1/4"	1/4"	7.00
3100-418	5/16"	5/16"	7.00
3100-420	3/8"	5/16"	7.00
3100-422	3/8"	3/8"	10.00
3100-424	1/2"	3/8"	11.50

Button Contacts

- AGD 4-48 Threads.
- Made in U.S.A.



ORDER NO.	DIA.	PRICE EACH
3100-750	3/8"	\$7.10
3100-751	1/2"	7.40
3100-752	3/4"	11.20

Flat Contacts

- AGD 4-48 Threads.
- Made in U.S.A.



ORDER NO.	DIA.	PRICE EA.
3100-760	1/4"	\$8.90
3100-761	3/8"	8.40
3100-762	1/2"	9.90
3100-763	5/8"	10.30
3100-764	3/4"	13.50
3100-765	1"	22.40
3100-766	1-1/2"	29.50

Tapered Contacts



Button style contact fits all AGD Group 1, 2, 3, 4 Dial Indicators
• AGD 4-48 Threads. • Made in U.S.A.

ORDER NO.	DIA.	PRICE EA.
3100-745	13/32"	\$6.40
3100-746	1"	6.40
3100-747	1-1/2"	6.60
3100-748	2"	7.60

Measuring Instruments

Individual Extension Points

- Made in U.S.A.



ORDER NO.	LENGTH	PRICE EACH
3100-352	0.500"	\$5.00
3100-353	0.750"	7.60
3100-354	1.000"	7.60
3100-355	1.250"	8.40
3100-356	1.500"	8.40
3100-357	1.750"	9.60
3100-358	2.000"	8.70
3100-360	2.500"	9.00
3100-362	3.000"	9.20
3100-366	4.000"	12.20
3100-374	6.000"	15.10

Select-A-Point Kit

The most useful accessory for all dial indicators — a complete set of 22 different points.

- Fits all AGD 1, 2, 3, 4 drop style indicators.
- Made in U.S.A.



ORDER NO.	DESCRIPTION	PRICE EACH
3100-440	22 pc. Point Kit	\$7.60

Special Contacts

Popular specialized Contacts for Dial Indicators. Has 4-48 threads to fit all AGD Groups 1, 2, 3, 4 Indicators. Made in U.S.A.

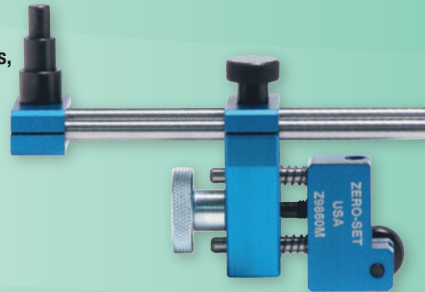


DESCRIPTION	ORDER NO.	PRICE EACH	DESCRIPTION	ORDER NO.	PRICE EACH
Radius Contact	3100-770	\$ 11.70	1/4" Steel Ball	3100-775	\$20.20
Chisel Contact	3100-771	44.80	5/16" Cone Point	3100-776	16.40
Offset Chisel	3100-772	44.80	1/16" Needle Stud	3100-777	16.40
1/8" Steel Ball	3100-773	20.20	Roller Anvil	3100-778	37.80
1/8" Carbide Ball	3100-774	20.20			

Zeroset Indicator Set Up Attachment

Checks the alignment of round materials in relation to the cutting head.

- Equipped with a spindle post with 1/4", 3/8", and 1/2" diameters, and has an effective measuring range of 3/8" thru 9".
- Quick adjustments and fine adjustments.
- Made in U.S.A.



ORDER NO.	PRICE EACH
3100-406	\$83.25

Drop Dial Indicator Contact Tips

Available with Grade 25 Tungsten Carbide or Grade 25 Ruby Ball tips. Made in U.S.A.



TIP LENGTH	BELL SIZE	MATERIAL	THREADS	ORDER NO.	PRICE EACH
1/4"	3MM	Carbide	4-48	3100-780	\$21.60
1/4"	3MM	Carbide	M2.5	3100-781	22.80
1/2"	3MM	Carbide	4-48	3100-782	22.80
3/4"	3MM	Carbide	4-48	3100-783	22.80
1/4"	4MM	Carbide	4-48	3100-784	22.80
1/4"	4MM	Carbide	M2.5	3100-785	22.80
1/2"	4MM	Carbide	4-48	3100-786	24.00
3/4"	4MM	Carbide	4-48	3100-787	24.00
1/4"	3MM	Ruby	4-48	3100-790	24.00
1/4"	3MM	Ruby	M2.5	3100-791	24.00
1/2"	3MM	Ruby	4-48	3100-792	24.00
3/4"	3MM	Ruby	4-48	3100-793	25.20
1/4"	4MM	Ruby	4-48	3100-794	25.20
1/4"	4MM	Ruby	M2.5	3100-795	25.20
1/2"	4MM	Ruby	4-48	3100-796	25.20
3/4"	4MM	Ruby	4-48	3100-797	25.20

Replacement Points For Test Indicators



Mitutoyo (M1.7 x 0.35)

BALL	MATERIAL	TIP LENGTH	CATALOG NO.	PRICE
.040	Carbide	1/2"	3100-857	\$19.20
Fits Mitutoyo Indicator Models: 513-528, 513-504.				
.040	Steel	.700"	3100-847	\$15.60
.080	Steel	.700"	3100-846	15.60
.080	Carbide	.700"	3100-848	19.20
.120	Steel	.700"	3100-849	15.60
Fits Mitutoyo Indicator Models: 513-518.				
.040	Steel	1"	3100-850	\$ 15.60
.080	Steel	1"	3100-851	15.60
.080	Carbide	1"	3100-852	19.20
.120	Steel	1"	3100-853	15.60
Fits Mitutoyo Indicator Models: 513-512.				
.040	Steel	1-1/2"	3100-854	\$15.60
.080	Steel	1-1/2"	3100-855	15.60
.120	Steel	1-1/2"	3100-856	15.60

Fred V. Fowler (M1.6 x 0.35)

BALL	MATERIAL	TIP LENGTH	CATALOG NO.	PRICE
Fits Fowler Indicator Models: 52-560-005, 52-562-252, 52-562-452, 54-568-000				
.080	Steel	.780"	3100-817	\$ 15.60
.040	Carbide	.780"	3100-818	19.20
.080	Carbide	.780"	3100-819	19.20
.120	Carbide	.780"	3100-820	19.20
Fits Fowler Indicator Models: 52-562-253, 52-562-272, 52-562-273, 52-562-453, 52-562-473, 52-563-252, 52-563-253, 52-563-272, 52-563-273, 52-563-452, 52-563-453, 52-563-573				
.040	Carbide	1/2"	3100-821	\$19.20
.080	Carbide	1/2"	3100-822	19.20
.120	Carbide	1/2"	3100-823	32.60
Fits Fowler Indicator Models: 52-562-474, 52-563-474				
.040	Carbide	1-1/2"	3100-824	\$19.20
.080	Carbide	1-1/2"	3100-825	19.20
.120	Carbide	1-1/2"	3100-826	19.20
Fits Fowler Indicator Model: 52-555-022				
.080	Steel	3.077"	3100-827	\$19.20
Fits Fowler Indicator Models: 52-560-010, 52-560-015				
.080	Steel	.416"	3100-829	\$15.60

Measuring Instruments

Replacement Points For Test Indicators

(Continued)

2



TESA
TECHNOLOGY

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Brown & Sharpe (M1.4 x 0.30)

BALL	MATERIAL	TIP LENGTH	CATALOG NO.	PRICE
Fits BesTest Indicator Model: 599-7021-3; 599-7022-3; 599-7023-6; 599-7024-3; 599-7029-3 and -5; 599-7030-3 and -5 and -6 and -13 and -14; 599-7031-3 and -5 and -6 and -13 and -14; 599-7032-3 and -5 and -6 and -13 and -14; 599-7033-3 and -5 and -13; 599-7037-3; 599-7038-3.				
.040	Carbide	1/2"	3100-800	\$19.20
.080	Carbide	1/2"	3100-801	19.20
.080	Steel	1/2"	3100-802	15.60
.120	Carbide	1/2"	3100-803	19.20
.120	Steel	1/2"	3100-804	15.60
Fits BesTest Indicator Model: 599-7034-3 and -5; 599-7035-3 and -5				
.040	Carbide	1-7/16"	3100-805	\$19.20
.080	Carbide	1-7/16"	3100-806	19.20
.080	Steel	1-7/16"	3100-807	15.60
.120	Carbide	1-7/16"	3100-808	19.20



Interapid (M1.7 x 0.35)

BALL	MATERIAL	TIP LENGTH	CATALOG NO.	PRICE
Fits Interapid Indicator Models: 599-7025-4, 599-7026-4, 599-7027-4, 599-7028-4, 312B-1 and -1V; 312B-2 and -2V; 312B-3 and -3V; 312B-4; 312B-20 and -20V 74.111373, 74.111377, 74.111378, 74.111379, 74.111957				
.031	Carbide	11/16"	3100-841	\$19.20
.060	Carbide	11/16"	3100-842	19.20
.080	Carbide	11/16"	3100-843	19.20
Fits Interapid Indicator Models: 74-111958, 74-111965; 312B-15 and -15V				
.080	Carbide	2-3/4"	3100-844	\$19.20
.100	Carbide	2-3/4"	3100-845	19.20



Dial Thickness Gages – Series 7

The Dial Thickness Gages offer a quick and efficient means of inspection with their convenient grip handle, thumb trigger and spring-loaded spindle. The various models cover a wide range of applications.



7326S

Inch

12

ORDER NO.	RANGE	RESOLUTION	DIAL INDICATOR ACCURACY	MEASURING FORCE	LIST PRICE
7304S	0-1.0"	.001"	±.002"	Measuring Force: Less than 2.0N	\$160.00
7322S*	0-1.0"	.001"	±.002"	Measuring Force: Less than 2.0N	188.00
7326S	0-.05"	.0001"	±.0002"	Measuring Force: Less than 1.5N	220.00
7300S	0-.5"	.001"	±.001"	Less than 1.4N	133.00

*Deep Throat



Thickness Gages

- Ideal for measuring thickness of thin gauge material, such as sheet metal
- Spindle of hardened stainless steel
- Measuring faces are hardened, ground and lapped for accuracy
- Easily held in natural grip
- Can be easily adjusted to zero by adjustment screw on frame
- Lightweight



Dial Thickness Gage

2

RANGE	GRAD.	READING	THROAT	ORDER NO.	PRICE
.4"	.0001"	0-10	1.22"	3101-034	\$85.50
.5"	.001"	0-100	1.02"	3101-036	90.00



Digimatic Thickness Gages with Absolute Encoder – Series 547

The Digimatic Thickness Gages incorporate Mitutoyo's new Absolute IDC or IDS Digimatic Indicators to provide error-free LCD readings as well as data output for SPC analysis.

FEATURES: IDC Types

- Zero/ABS • Inch/mm Conversion • +/- Direction Changeover
- Preset • SPC Output • Provide GO/±NG judgment function and the indication of the judgment result • Face Rotates 330°
- Battery life: 5000 Hrs. • Power supply: silver oxide cell (SR-44 1 pc.).

FEATURES: IDS Types

- Origin • ± Direction Changeover • Inch/mm Conversion
- ON/OFF • SPC Output • Battery Life: Approx. 20,000 Hrs.
- Power Supply: Silver oxide cell (SR-44 1 pc.).



547-300S
IDC TYPE

For SPC output:
order Connecting Cable
905338 (1m) or 905409
(2m). Replacement
Battery: 938882 (1 pc.)

Inch/Metric

7

ORDER NO.	TYPE	RANGE	LCD RESOLUTION	ACCURACY	REMARKS	LIST PRICE
Absolute IDS-Type						
547-500S	Flat	0-.47" 0-11.93mm	.0005" 0.01mm	.001"	Measuring Force: Less than 1.5N with SPC output	\$365.00
547-512S	Flat/Spherical Anvil (reversible)	0-.47" 0-11.93mm	.0005" 0.01mm	.001"	Measuring Force: Less than 1.5N with SPC output	306.00
Absolute IDC-Type						
547-300S	Flat	0-.4" 0-10.16mm	.0005" 0.01mm	.001"	Measuring Force: Less than 1.5N with SPC output	474.00
547-312S	Flat/Spherical Anvil (reversible)	0-.4" 0-10.16mm	.0005" 0.01mm	.001"	Measuring Force: Less than 1.5N with SPC output	477.00

Measuring Instruments

Mitutoyo Digital Hand Tachometers - Series 982



Contact Tachometer Order No. 982-551
 Detection: Optical Coupler 20 pulses/rev.
 Accessories Furnished:
 • Four 1.5V AA Batteries.
 • Two Cone Adapters.
 • One Funnel Adapter.
 • One FPM Measuring Wheel (6").

Non-Contact Tachometer Order No. 982-552
 Detection Distance: 2-12".
 Accessories Furnished:
 • Four 1.5V AA Batteries.
 • Thirty-five Reflective Tabs.

ORDER NO.	RANGE	ACCURACY	MASS	DETECTION	LIST PRICE
982-551	*1-25,000 rpm	±1, Range 1-599.9 rpm ±2, Range 600.0-25,000 rpm: ±0.006% and ±0.5 digit	.37 lb.	Optical coupler, 20 pulses per revolution	\$356.00
982-552	-	6-599.9 rpm: ±1rpm, 600.0-99,999 rpm ±0.006% and ±0.5 digit	.35 lb. adapter (.11 lb.)	Laser diode	444.00

* Equivalent surface speeds (FPM, YPM, MPM) obtained with proper adapters.
 + Overscale is indicated by all LCD digits showing decimal points.

Mitutoyo Dial Snap Gages - Series 201 (Without Dial Indicator)



FEATURES

- Designed for quick inspection of diameters of cylinders and shafts in machining processes.
- Available without Dial Indicator.
- Wide (.53" x .47"), flat carbide anvils.
- Both front edges of the anvil are chamfered for easy insertion.
- Accepts all Dial Indicators and Electronic Gages with 375" diameter mounting stem.

Technical Data: Accuracy: Refer to the list of specifications
 Anvil retracting stroke: .078" / 2mm Anvil positioning range: 1" / 25mm
 Anvil flatness: .00004" / 1µm

ORDER NO.	RANGE	LIST PRICE	ORDER NO.	RANGE	LIST PRICE
201-151	0-1"	\$617.00	201-157	6-7"	\$807.00
201-152	1-2"	648.00	201-158	7-8"	837.00
201-153	2-3"	702.00	201-159	8-9"	889.00
201-154	3-4"	715.00	201-160	9-10"	935.00
201-155	4-5"	710.00	201-161	10-11"	983.00
201-156	5-6"	843.00	201-162	11-12"	1020.00



Internal & External Electronic Caliper Gages



Features:

- Robust housing
- Large LCD display
- Reading: .01"/.1mm/1/64ths
- Accuracy: .01"/.3mm/1/64ths
- Battery: CR2032
- Spring loaded with locking nut

ORDER NUMBER	DESCRIPTION	RANGE	PRICE EACH
54-554-630-0	Outside Caliper Gage	0-6"/150mm	\$66.00
54-554-730-0	Inside Caliper Gage	.5-6"/150mm	66.00



Combination Square Set

- Blades are fully hardened & tempered
- 4 piece Combination Set includes Square Head, Center Head, and Protractor Head.
- 3-piece Combination Set includes Square Head and Center Head
- Easy-to-read satin chrome finish blade, with micro-fine gradations
- Double-indexed Protractor is graduated 180° in both directions
- Square Head has level & scriber point



NO. PIECES	SIZE	GRAD.	ORDER NO.	PRICE
3	6"	4R	3101-260	\$68.75
4	12"	4R	3101-270	81.05



TESA TECHNOLOGY



brown & sharpe.

Combination Squares with Hardened Heads



- Square Heads and Protractors are supplied with levels.
- Square Heads also include a hardened steel scriber.
- Sets listed below include hardened Square Heads and Center Heads.
- Sets include a Satin Chrome Blade.
- All blades are graduated in 8ths, 16ths, 32ths and 64ths, inch, metric, or inch/metric reading.
- Combination Squares are also available in complete sets or components.

LENGTH OF BLADE	PIECES IN SET	B&S NUMBER	ORDERING NUMBER	PRICE EACH
12	Sq. Head	599-401-1204-1	7144-169	\$ 142.00
12	Sq. Head, Ctr. Head	599-400-1204-1	7144-159	204.00
12	Sq. Head, Ctr. Head,	599-438-1204-1	7144-193	324.00

Measuring Instruments

Mitutoyo Stereo Microscope - Series 377

Order no. 377-990A is a high-accuracy four-step magnification stereo microscope. With a horizontal changer allowing 6X, 12X, 25X, and 50X magnifications with standard 1X objective and 10X eyepieces, the MSM-465L model has limitless capabilities for electrical small part inspection.

- Superior quality optics provide high-resolution
- Crystal sharp, high color contrast image with excellent depth of field
- Always in sharp focus at all magnifications
- The Parfocal Optical System allows relaxed strain-free viewing
- Long working distance
- Extreme large field of view (23mm diameter)

ORDER NO.	DESCRIPTION	PRICE
377-990A	Binocular Stereo Microscope	\$1940.00

Optional Accessories

ORDER NO.	DESCRIPTION	PRICE
64AAB431	Moticam 5, 5.0 Megapixel -1/2.5", CM05 USB	\$1250.00
377-488	Video Attachment Set (For K400)	340.00
64AAB214	LED Variable Ring Light For TM Series	561.00



Fowler

Deluxe Stereo Microscope

- 20—40x magnification
- Includes 2x and 4x objectives, 10x eyepieces, eyecups and dust cover.
- Sharp image definition
- Rack and pinion focusing.
- Two 3.5" (95mm) stage plates provided: Clear and reversible white/black.
- Top and bottom illumination.
- 15x and 20x eyepieces available



MODEL NUMBER	DESCRIPTION	PRICE
53-640-902-0	Deluxe Stereo Microscope	\$500.00

Fowler 9" Electronic Level

Fowler's 9" Laser Level provides instant 4 x 90° digital inclination display. With embedded magnets on its measuring surface, a beamsplitter projects a 90° laser cross hair for leveling at-a distance. It also includes a 1/4-20 mount for tripod use.

- Measuring range: 4 x 90° • Resolution: .05° • Accuracy: $\pm 2^\circ$ • Repeatability: $\pm 0.05^\circ$
- Standard 9 volt battery (250 hours life) • Dimensions: 9"L x 1"W x 2-1/4"H
- Includes two-way level and plumb vials. • Reversible reading for inverted use



MODEL NUMBER	DESCRIPTION	PRICE
54-440-600-0	9" Electronic Level	\$108.00

Fowler Electronic Protractor

The Digi-Pro 12"/300mm electronic protractor includes embedded magnets for unique measurement areas.

- Magnetic blade edges.
- Measuring range: $\pm 180^\circ$ • Accuracy: $\pm 0.1^\circ$
- Repeatability: $\pm 0.1^\circ$ • Resolution: .01°
- On/Off, Zero, and Hold features
- Voltage: Standard 3V lithium battery



MODEL NUMBER	DESCRIPTION	PRICE
54-440-775-1	Digi-Pro Electronic Protractor	\$141.00

Fowler

Portable Roughness Tester

- Small, compact size • Large LCD display
- 2 selectable parameters: Ra and Rz
- Meets ISO and DIN standards.
- N.I.S.T. traceable specimen included.
- Uses 9V battery (approx. 3000 measurements).
- Includes fitted case.

*Specialty probes and RS232 output available



MODEL NUMBER	DESCRIPTION	PRICE
54-410-500-0	.0004" Probe	\$2808.00
54-410-600-0	.0002" Probe	2808.00

Fowler X-Tread Tire Gage

For tire tread thickness measurement. Reads in inch, metric and fractions.

- Spring-loaded and hold measurement button for ease-of-use.
- Super-large display
- Range: 1"/25mm
- Resolution: .0005"/.01mm, fractions in 1/64" increments.
- Supplied in vinyl holster.
- 2.1" base
- .95" diameter rod



MODEL NUMBER	DESCRIPTION	PRICE
54-225-500-0	X-tread Tire Gage	\$26.00

Fowler

Mini-Mag Protractor

The NEW mini-MAG Protractor provides instant 360° digital inclination display of any angle with the additional unique feature of embedded magnets on both sides and the bottom which make it ideal for a variety of measurements.

- Embedded magnets with 35lb. pull.
- Uses standard 9V battery (250 hrs.)
- Measuring range: 360° (4 x 90°)
- Display inverts. • Resolution: .05°
- Accuracy: $\pm 2^\circ$ • Repeatability: .05°
- Hold feature.



MODEL NUMBER	DESCRIPTION	PRICE
54-422-450-1	Mini-Mag Protractor	\$113.00

Measuring Instruments

Fowler Bevel Protractor

- Magnifier for vernier.
- Includes 6" & 12" blades and an angle attachment.
- Satin chrome finish for easy readings.
- Graduation: 360°
- Reading to 5 minutes.
- Includes fitted case.



MODEL NUMBER	DESCRIPTION	PRICE
52-440-612-0	Bevel Protractor	\$145.00

Pittsburg Economy Universal Bevel Protractor w/Fine Adjustment



- 12" and 6" blades
- Protractor graduated 0-90 full 360°
- Optical magnifier
- Blade and protractor have independent locking provisions to allow maximum control

SIZE	ORDER NO.	PRICE
6", 12" Blade	3101-310	\$75.00

Pittsburg Dial Reading Universal Bevel Protractor



- Advanced design displays digital read-out of ten degrees in dial window
- Indicator pointer shows each degree and five minutes of angle
- Tempered stainless steel
- Accurate ± 5 arc minutes, or 1/12 of a degree

CUSTANITE Steel Protractors

- Preferred by machinists, draftspeople, and mechanics for setting bevels, measuring, and transferring angles.
- Made of ground stainless steel for optimum accuracy.
- Permanently etched graduations from 0 to 180° in opposite directions.
- 3-3/8" x 2" head.
- 6" adjustable protractor arm locks into desired position with knurled thumb nut.
- Also available with satin chrome finish No. CF17.



MODEL	STYLE	ORDER NO.	PRICE
17	Square head	6922-018	\$17.89

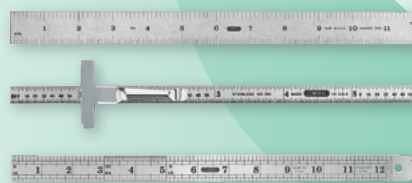
Pittsburg Planer and Shaper Gage

- Makes setting of planer and shaper tools easy
- Set gage with Micrometer, Surface Gage, or caliper and bring cutting tool in contact with it. Also, use in conjunction with Dial Indicator to level large plates for planing, etc.
- Max range 1/4" to 6-1/4" with extension rod



RANGE	ORDER NO.	PRICE
1/4-6-1/4"	3101-315	\$132.85

CUSTANITE Steel Rules



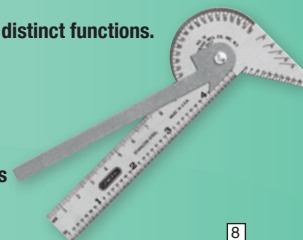
General industrial quality rules are precision made, with etched fine black graduations, on stainless steel or satin chrome finish.

MODEL	SIZE	GRAD TYPE	GRADUATION	SIDE 1	SIDE 2	WIDTH	ORDER NO.	PRICE
INDUSTRIAL - 6" PRECISION STAINLESS STEEL RULES								
616	6" Flex	5R	10, 100	32, 64	15/32"	6932-096	\$6.87	
676	6" Rigid	4R	8, 16	32, 64	3/4"	6932-111	8.20	
678med	6" Rigid	-	mm, .5mm	10, 20, 50, 100, 16, 32, 64	3/4"	6932-114	8.11	
INDUSTRIAL - 12" PRECISION STAINLESS STEEL RULES								
1201me	12" Flex	-	16, 32, 64	8, 16	7/8"	6932-162	\$9.51	
1216	12" Flex	5R	10, 100	32, 64	15/32"	6932-174	11.67	
ECONOMY - 6" PRECISION STAINLESS STEEL RULES								
300/1"	6" Flex	-	32, 64	Dec. Equiv.	15/32"	6932-036	\$3.18	
300me*	6" Flex 150mm	-	mm, 64	Metric Equiv.	15/32"	6932-042	3.40	
301/1"	6" Flex	-	32, 64	-	1/4"	6932-046	2.42	
305me	6" Flex	-	mm, 16	-	15/32"	6932-060	3.00	

* Furnished with pocket clip. † Dimensions are approximate.

CUSTANITE Multi Use Rule and Gages

- One of our most popular pocket tools performs five separate and distinct functions.
- Drill point gage is used for checking 59° angle drill points.
- Bevel protractor is used for measuring and laying out angles.
- Center finder locates centers of shafts or circles.
- Circle divider (up to nine equal parts) is used for dividing circles into sectors, regular polygons, and polygrams.
- Tap and drill table shows popular tap sizes with correct drill sizes for National form of thread.
- Made of long-wearing stainless steel.
- 4" rule has etched graduations in 64ths and millimeters.



MODEL	ORDER NO.	PRICE
16me	6922-015	\$14.07

Pittsburg 6" Stainless Steel Rules



3100-280



3100-281

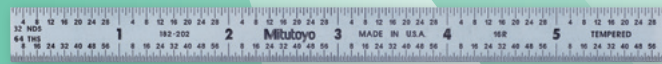


3100-285

DESCRIPTION	ORDER NO.	PRICE
6" Flexible Steel Rule w/Clip Front: 32nd, 64th Back: Decimal Equivalent Chart	3100-281	\$3.10
6"/150mm Flexible Steel Rule w/Clip Front: 32nd, 1.0mm Back: Metric Equivalent Chart	3100-280	1.35
6"/150mm Rigid Steel Rule Front: 16th, 32nd, 64th / 10th, 20th, 50th Back: 0.5mm, 1.0mm	3100-285	1.70

Measuring Instruments

Mitutoyo Steel Rules – Series 182



FEATURES

- Clear Graduations On Satin Chrome Finish. • Tempered Stainless.

Full-Flexible Rules (Thickness 1/64")

ORDER NO.	SIZE	GRADUATIONS					WIDTH	ACCURACY (LENGTH)	LIST PRICE
182-201	6" (4R)	1/8	1/16	1/32	1/64th	1/2"			\$18.04
182-202	6" (16R)	1/32	1/64	1/50	1/100th	1/2"			18.04
182-203	6" (5R)	1/32	1/64	1/10	1/100th	1/2"			18.04
182-204	6" (3R)	1/32	1/64	1/10	1/50th	1/2"			18.04
182-205	6" x 150mm	1/32	1/64	1mm	1/2mm	1/2"		+.004"/-.0002" (+0.1mm/-0.05mm)	18.04
182-206	6" x 150mm	1/50	1/100	1mm	1/2mm	1/2"			18.04
182-207	6" x 150mm	1/10	1/100	1mm	1/2mm	1/2"			18.04
182-211	150mm	1mm	1/2mm	1mm	1/2mm	12mm			28.05
182-221	12" (4R)	1/8	1/16	1/32	1/64th	1/2"			35.59
182-222	12" (16R)	1/32	1/64	1/50	1/100th	1/2"			35.59
182-223	12" (5R)	1/32	1/64	1/10	1/100th	1/2"			35.59
182-224	12" (3R)	1/32	1/64	1/10	1/50th	1/2"			35.59
182-225	12" x 300mm	1/32	1/64	1mm	1/2mm	1/2"		+.005"/-.002" (+0.13mm/-0.05mm)	35.59
182-231	300mm	1mm	1/2mm	1mm	1/2mm	12mm			35.59
182-141	18" (4R)	1/8	1/16	1/32	1/64	3/4"			57.92
182-242	18" (16R)	1/32	1/64	1/50	1/100th	3/4"			57.92
182-243	18" (5R)	1/32	1/64	1/10	1/100th	3/4"			86.52
182-245	18" x 450mm	1/32	1/64	1mm	1/2mm	3/4"			86.52
182-251	450mm	1mm	1/2mm	1mm	1/2mm	18mm			90.64
182-261	24" (4R)	1/8	1/16	1/32	1/64	3/4"			121.00
182-262	24" (16R)	1/32	1/64	1/50	1/100th	3/4"			121.00
182-263	24" (5R)	1/32	1/64	1/10	1/100th	3/4"		+.006"/-.003" (+0.18mm/-0.08mm)	121.00
182-264	24" (3R)	1/32	1/64	1/10	1/50th	3/4"			POA
182-265	24" x 600mm	1/32	1/64	1mm	1/2mm	3/4"			121.00
182-271	600mm	1mm	1/2mm	1mm	1/2mm	18mm			124.00

Pocket Steel Rule – Series 950

With Pocket Clip (thickness 1/64")



FEATURES

- Engraved on frontside only. • Backside: Inch/Metric equivalents.

ORDER NO.	SIZE	GRADUATION		WIDTH	ACCURACY (LENGTH)	LIST PRICE
950-300	6" x 150mm	1mm	1/64ths	1/2"	+.004"/-.002" (+0.1mm/-0.05mm)	\$11.50

Wide Rigid Rules (Thickness 3/64")

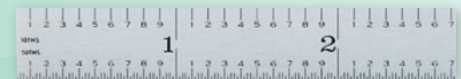
ORDER NO.	SIZE	GRADUATIONS					WIDTH	ACCURACY (LENGTH)	LIST PRICE
182-101	6" (4R)	1/8	1/16	1/32	1/64th	3/4"			\$19.03
182-102	6" (16R)	1/32	1/64	1/50	1/100th	3/4"			19.03
182-103	6" (5R)	1/32	1/64	1/10	1/100th	3/4"			19.03
182-104	6" (3R)	1/32	1/64	1/10	1/50th	3/4"		+.004"/-.002" (+0.1mm/-0.05mm)	19.03
182-105	6" x 150mm	1/32	1/64	1mm	1/2mm	3/4"			19.03
182-107	6" x 150mm	1/10	1/100	1mm	1/2mm	3/4"			19.03
182-111	150mm	1mm	1/2mm	1mm	1/2mm	19mm			19.03
182-121	12" (4R)	1/8	1/16	1/32	1/64th	1"			40.48
182-122	12" (16R)	1/32	1/64	1/50	1/100th	1"		+.005"/-.002" (+0.13mm/-0.05mm)	40.48
182-123	12" (5R)	1/32	1/64	1/10	1/100th	1"			40.48
182-124	12" (3R)	1/32	1/64	1/10	1/50th	1"			40.48
182-125	12" x 300mm	1/32	1/64	1mm	1/2mm	1"			40.48
182-131	300mm	1mm	1/2mm	1mm	1/2mm	25mm			40.48
182-241	18" (4R)	1/8	1/16	1/32	1/64	1-3/16"			49.67
182-142	18" (16R)	1/32	1/64	1/50	1/100th	1-3/16"		+.005"/-.002" (+0.15mm/-0.05mm)	49.67
182-143	18" (5R)	1/32	1/64	1/10	1/100th	1-3/16"			49.67
182-145	8" x 450mm	1/32	1/64	1mm	1/2mm	1-3/16"			49.67
182-151	450mm	1mm	1/2mm	1mm	1/2mm	30mm			49.67
182-161	24" (4R)	1/8	1/16	1/32	1/64	1-3/16"			80.58
182-162	24" (16R)	1/32	1/64	1/50	1/100th	1-3/16"			80.58
182-163	24" (5R)	1/32	1/64	1/10	1/100th	1-3/16"		+.006"/-.002" (+0.18mm/-0.05mm)	80.58
182-165	24" x 600mm	1/32	1/64	1mm	1/2mm	1-3/16"			80.58
182-171	600mm	1mm	1/2mm	1mm	1/2mm	30mm			80.58

... brown & sharpe.

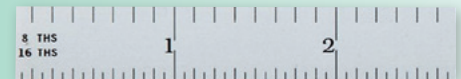
Inch Chrome Finish Tempered Flexible Steel Rules 7

DIMENSIONS			GRADUATIONS/EDGE				B&S NUMBER	ORDERING NUMBER	PRICE EACH
L	W*	T*	1ST	2ND	3RD	4TH			
6"	1/2"	1/64"	1/10††	1/50††	1/32†	1/64†	599-323-603	7144-139	\$22.00
6"	1/2"	1/64"	1/8††	1/16	1/32†	1/64†	599-323-604	7144-140	22.00
6"	1/2"	1/64"	1/10††	1/100††	1/32†	1/64†	599-323-605	7144-141	19.00
6"	1/2"	1/64"	1/50	1/100	1/32	1/64	599-323-616	7150-133	22.00
12"	1/2"	1/64"	1/8	1/16	1/32	1/64	599-323-1204	7145-990	38.00
12"	1/2"	1/64"	1/10††	1/100††	1/32	1/64	599-323-1205	7145-380	38.00
18"	3/4"	1/64"	1/8	1/16	1/32	1/64	599-323-1804	7151-068	63.00
18"	3/4"	1/64"	1/10††	1/100††	1/32	1/64	599-323-1805	7146-483	63.00
24"	3/4"	1/64"	1/8	1/16	1/32	1/64	599-323-2404	7145-992	82.00
24"	3/4"	1/64"	1/10††	1/100††	1/32	1/64	599-323-2405	7145-991	82.00

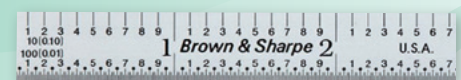
Values for W (width) and T (thickness) are approximate. = Indicates Bull's Eye and numbered graduations.



No. 599-323-603



No. 599-323-604



No. 599-323-605

... brown & sharpe.

Inch Chrome Finish Tempered Hook Rules 7

DIMENSIONS			GRADUATIONS/EDGE				B&S NUMBER	ORDERING NUMBER	PRICE EACH
L	W*	T*	1ST	2ND	3RD	4TH			
6"	3/4"	3/64"	1/8	1/16	1/32†	1/64†	599-314-604-1	7150-134	\$45.00
6"	3/4"	3/64"	1/10	1/100	1/32†	1/64†	599-314-605-1	7146-485	42.00
12"	1"	3/64"	1/8	1/16	1/32†	1/64†	599-314-1204-1	7145-378	59.00
18"	1"	3/64"	1/8	1/16	1/32†	1/64†	599-314-1804-1	7151-072	80.00
24"	1"	3/64"	1/8	1/16	1/32†	1/64†	599-314-2404-1	7151-071	100.00

Values for W (width) and T (thickness) are approximate. = Indicates Bull's Eye and numbered graduations.



No. 599-314-604-1

Measuring Instruments

CUSTANITE Precision

Screw Pitch Gages

- These finely crafted measuring devices are used for gaging V, American National, or U.S. standard 60° threads.
- Gages are notched for measuring inside threads of small holes and nuts as well as external threads.
- Set of 51 screw pitches combines all sizes from 4 to 84, including 11-1/2 and 27 pipe thread sizes.
- Knurled thumb nuts lock the case in an open or closed position.
- Also available in 22 pitch set No. 252



8

MODEL	NO. OF PITCHES	SIZES	ORDER NO.	PRICE
251	51	4 to 84	6931-321	\$60.56

Pittsburg® ALLEGHANY

Screw Pitch Gages

- Use for internal and external screw threads
- Locking device at each end to secure blades for storage or to position individual blades when in use
- Determine correct pitch by matching blade teeth with threads
- Each blade clearly marked with correct thread size



2

THREADS	NO. LEAVES	ORDER NO.	PRICE
4-42	30	3100-191	\$ 9.25
4-84	51	3100-190	21.05
4-42/0.25-6mm	55	3100-195	16.50

Mitutoyo

Pitch Gages - Series 188, 950

FEATURES

- Pitch size is stamped on each gage.

12

ORDER NO.	RANGE	DESCRIPTION	LIST PRICE
188-121	0.4, 0.5, 0.75, 1.0, 1.25, 2.0, 2.5, 3.0, 4.0, 4.5, 5.0, 5.5, 6.0, 6.5, 7.0mm	Metric 60° (18 leaves)	\$33.33
188-151	4-42 TPI inch 0.4-7mm	Unified 60° (30 leaves) Metric 60° (21 leaves)	70.73



Pittsburg® ALLEGHANY Radius Gage Set

- Rust and wear resistant satin chrome finish
- Each gage has five measuring surfaces with both convex and concave radii
- Each gage clearly marked
- A must for machinists, tool & die makers, inspectors, etc.
- Complete with fitted case

2

NO. PIECES	SIZES	ORDER NO.	PRICE
25	1/64-17/64" by 64ths 9/32-1/2" by 32nds	3101-325	\$63.95



Pittsburg® ALLEGHANY Thread Measuring Triangles

Checks for Class of Thread on all 60° threads.

- Made in U.S.A.

ORDER NO.	PRICE EACH
3100-436	\$69.20

2

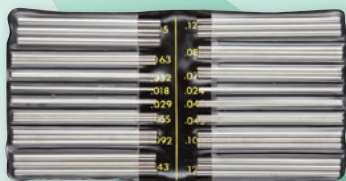


Pittsburg® ALLEGHANY Thread Measuring Wire Set

- Kit contains 48 wires, 16 different sizes
- Measures all 60° threads from 3 to 48 threads per inch
- Metric threads from 0.5mm - 6.0mm
- Thread chart included

2

ORDER NO.	PRICE
3100-435	\$32.45

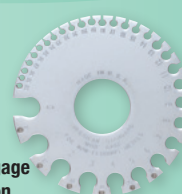


CUSTANITE Precision Wire Gage

- American Standard wire gage 0 to 36 used for gaging non ferrous wire and metals such as copper, brass, and aluminum.
- Chrome finished, heavy gage hardened and tempered tool steel.
- Decimal equivalents of each size are stamped on reverse side.
- 3-1/4" diameter, 3/32" thick.

8

MODEL	ORDER NO.	PRICE
20	6922-036	\$32.07



CUSTANITE Precision Sheet Metal Gage

- For gaging uncoated sheet metal, plate iron, and steel.
- Gage numbers are U.S. Standard 0 to 36, based on weights in ounces per square inch.
- Decimal equivalents of each size are stamped on reverse side.
- Chrome finished, heavy gage tool steel is hardened and tempered.
- 3-1/4" diameter, 3/32" thick.
- Conforms to government specifications GG-G-86b.

8

MODEL	ORDER NO.	PRICE
21	6922-041	\$31.02



Economy Feeler (Thickness) Gages

CUSTANITE Precision

- All of our economy feeler gages have fine quality tempered steel leaves made to exacting tolerances.
- Each leaf is etched with both decimals of an inch and corresponding millimeter sizes.
- Nickel plated case has knurled locking nut for precise positioning.

26 Leaf Economy Gage

- General's best selling feeler gage provides precision accuracy at a reasonable price.
- 26 leaves include the following sizes: .0015, .002, .0025, .003, .004, .005, .006, .007, .008, .009, .010, .011, .012, .013, .014, .015, .016, .017, .018, .019, .020, .021, .022, .023, .024, and .025".
- Metric range from .037 to .635mm.
- 3" x 1/2" leaves.



8

MODEL	ORDER NO.	PRICE
230	6931-311	\$10.84

Pittsburg® ALLEGHANY Thickness Gages

- 26 leaves from .0015" to .025". Each leaf size clearly marked. Overall size: 1/2 x 3"
- Made to close tolerances with high grade tempered steel.
- Edge of each leaf is rounded.



Order No. 3101-320 Price Each...\$16.20

2

CUSTANITE Precision Feeler (Thickness) Gages

- Made of the finest high grade precision gage steel.
- Each leaf is etched w/ size numbers in thousandths for quick identification.
- Knurled lock nut holds the leaves in desired position.
- Gages conform to government specifications GGG-G-17b.

Straight Leaf • 3" leaves are 1/2" wide.

8

MODEL	LEAVES	SIZES	ORDER NO.	PRICE
226	26	.0015" to .025"	6931-306	\$27.60



Measuring Instruments

Huot Drill Gages ²

- Economical gauge made from prime steel and finished.
- For measuring 1/16" to 1/2" by 64ths drill bits.
Dimensions: 6" W x 3" D. ORDER NO. 1919-000...\$9.75
- For measuring #1 to 60 wire gauge drill bits.
Dimensions: 5-1/4" W x 2" D. ORDER NO. 1919-001...\$14.50
- For measuring tools 1/2" to 1" by 64ths.
Dimensions: 13" W x 5" D. ORDER NO. 1919-002...\$35.00



CUSTANITE Reference Table Precision

- Essential tap drill and decimal equivalents reference table for toolmakers, machinists, and mechanics.
- Front has machine screw size tap drill chart for recommended 75% depth thread.
- Back has decimal equivalents table in 64ths from 1/64" to 63/64".
- For National Fine and National Special series of machine screws.
- Convenient 6" rule is graduated in 64ths.

CUSTANITE Hobby Drill Gage Precision



- Heavy gage stainless steel gage conveniently identifies drill bit sizes.
- Etched graduations are filled in black to give high contrast and will not wear off.
- Gage measures 2-3/8" x 6-3/4" overall.
- Stainless steel will not rust.

MODEL	SPECIFICATIONS	ORDER NO.	PRICE
24	Fractional size drills 1/16" to 1/2" x 64ths	6922-011	\$8.89

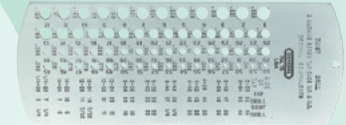


MODEL	ORDER NO.	PRICE
715	6935-015	\$9.36

CUSTANITE Drill Gages Precision



No. 14



No. 15

- General's drill gages are used to quickly and conveniently identify drill bit sizes.
- Made of heavy gage steel, machined and ground to close tolerances.
- Hole sizes and decimal equivalents are permanently etched on the face.
- Nos. 14 & 15 are 6-1/2" x 2-1/2" wide.
- Conforms to government specifications GG-G-86b.

MODEL	SPECIFICATIONS	ORDER NO.	PRICE
14	Fractional size drills 1/16 to 1/2 x 64ths	6922-009	\$16.78
15	Number size drills 1 to 60	6922-012	17.22

Mitutoyo Small Hole Gages - Series 154

FEATURES

- Extra long for gaging deep and shallow holes, slots and similar work.
- Gaging surface is full-round with a flat bottom, and fully hardened to ensure long tool life.
- Supplied set of 4 gages in a fitted case.



154-901

¹²

ORDER NO.	RANGE	DIMENSIONS B C D	REMARKS	LIST PRICE
154-105	.125-.2"	.88" 3.54" .21"	—	\$33.17
154-106	.2-.3"	1.18" 3.84" .21"	—	27.50
154-107	.3-.4"	1.37" 4.04" .33"	—	36.25
154-108	.4-.5"	1.57" 4.25" .33"	—	42.57

Mitutoyo Telescoping Gages Series 155 (5/16"~6")



¹²

ORDER NO.	RANGE	A	B	C	D	REMARKS	LIST PRICE
155-121	.315-.50"	.12"	.16"	4.33"	.20"	—	\$36.25
155-122	.50-.748"	.14"	.20"	4.33"	.22"	—	40.37
155-123	.748-1.26"	.14"	.20"	4.33"	.22"	—	42.57
155-124	1.26-2.126"	.23"	.29"	5.90"	.31"	—	44.99
155-125	2.126-3.54"	.23"	.29"	5.90"	.31"	—	52.25
155-126	3.54-5.90"	.23"	.29"	5.90"	.31"	—	58.69
155-903	.315-.50"					Set of 6 Gages	292.00
155-904	.50-.590"					Set of 5 Gages	233.00
155-907	.315-2.126"					Set of 4 Gages	158.00

Pittsburg[®] Telescoping Gages ALLEGHANY

6 Piece Set

- Plunger or gage expands in hole to be measured, locks in place and gage is removed from hole. Final hole size is obtained by measuring over contacts with a micrometer.
- Rigid handle with self-centering feature
- Constant spring tension for uniform feel
- Uniform contact pressures
- Contact points are of hardened tool steel and precision ground on the end
- Satin chrome finished
- Supplied in fitted carrying case



RANGE	ORDER NO.	PRICE
5/16-6"	3100-936	\$44.75

²

Pittsburg[®] Small Hole Gages - 4 Piece Set ALLEGHANY

- Knurled knob at end of handle adjusts gage to hole size. Reading is obtained by measuring over contact points with a micrometer.
- Full Ball style constructed with a flat bottom, permitting use in smallest of holes, slots, grooves, etc.
- Half Ball construction allows use in shallower applications, not accessible with Full Ball gage
- Gaging surface fully hardened for long life • Supplied in fitted carrying case



²

RANGE	DESC.	ORDER NO.	PRICE
.125"-.500"	Half Ball	3100-940	\$86.55
.125"-.500"	Full Ball	3100-941	86.55



TESA TECHNOLOGY

loos brown & sharpe.

Telescoping Hole Gages

- Satin-chrome finish. Completely assembled with handle. Knurled lock maintains the setting of the measuring arms to permit sizing with a micrometer or caliper.
- The 4 Piece Set covers the range 5/16" diameter to 2-1/8" diameter.
- The 6 Piece Set covers the range 5/16" diameter to 6" diameter

⁷

DESCRIPTION	B&S NUMBER	ORDERING NUMBER	PRICE EACH
4 Piece Set	599-591-10	7145-368	\$ 228.85
6 Piece Set	599-591-20	7145-369	285.20



Measuring Instruments



TESA
TECHNOLOGY

Woods brown & sharpe.

Small Hole Gage Set

Use like a telescoping gage for measuring small diameter holes, slots and grooves. The flat bottom of half-ball gaging surface permits using the gage in even the shallowest recesses. Sensitive knurled knob setting. The entire tool is finished in satin chrome to prevent corrosion. Range .125" to .500" (3.18 to 12.7mm).



7

DESCRIPTION	B&S NUMBER	ORDERING NUMBER	PRICE EACH
Small Hole Gage Set	599-596	7151-885	\$164.45



TESA
TECHNOLOGY

Woods brown & sharpe.

Wiggler Set

Four interchangeable attachments accurately indicate tool-spindle positions relative to ground surfaces, gage blocks, buttons, holes, slots and crossed layout lines. A great convenience in making precise setups. Chrome plated.

7

DESCRIPTION	B&S NUMBER	ORDERING NUMBER	PRICE EACH
Wiggler Set With Case	599-795	7144-597	\$131.00
COMPONENT PARTS DESCRIPTION	B&S NUMBER	ORDERING NUMBER	ORDERING NUMBER
Ball Contact Attachment (.250" dia.)	599-795-11	7144-598	\$ 25.00
Disc Contact Attachment (.100" dia.)	599-795-12	7144-599	22.00
Off-Set Indicator Holder	599-795-13	7144-600	22.00
Needle Point Attachment	599-795-14	7144-601	30.00
Shank	599-795-15	7144-602	30.00



TESA
TECHNOLOGY

Woods brown & sharpe.

Edge Finders

7

DESCRIPTION	DIAMETER	B&S NUMBER	ORDERING NUMBER	PRICE EACH
Single End	.500" dia.	599-792	7144-595	\$22.00
Double End	.200/.500" dia.	599-792-1	7144-596	31.00
Double End	5/10mm dia.	599-792-10	7145-701	40.00



Locate round or flat work easily within .0005". To use, just place in a standard 1/2" diameter collet or chuck. As the collet or chuck rotates and approaches the edge of the work, the head moves sideways about 1/32", and the center of the finder is exactly one half of the head diameter away from the edge of the work.



Edge Finders

- Used to locate work surfaces and edges quickly, easily and accurately: shoulders, grooves, center points and scribed lines
- Time-saving positioning tool for Jig Borers, Milling and other machines
- All parts are hardened and centerless ground to precise tolerances



2

END	TIP	BODY DIAM.	ORDER NO.	PRICE
Single	.500	1/2	3131-755	\$10.80
Double	.200 & .500	1/2	3131-760	4.05
Single	.200	3/8	3131-765	10.80
Double.200 & .500 w/Center Pt.		1/2	3131-770	11.30
Double.200 & .375 w/Center Pt.		3/8	3131-775	4.65
Single	.200	1/2	3131-780	10.80
Single	.375 w/Center Pt.	3/8	3131-785	3.85
Single	.500 w/Center Pt.	1/2	3131-790	4.65



Electronic Edge Finder

- Six equally spaced light ports provide visibility at any angle.
- Edge finder lights instantly when stylus touches work edge.
- Made in the USA
- Read off any electrically conductive metal.
- Repeatability: .0002", .200" point dia.
- Furnished complete with bulb and AAA alkaline battery.



6

MODEL NUMBER	DESCRIPTION	PRICE
54-575-600-0	Electronic Edge Finder	\$77.00



Flat Leg Pattern Dividers and Calipers

8

- Flat leg dividers and caliper legs are forged of special caliper steel.
- Hardened and tempered bow springs and fulcrum spools assure uniform tension without side play.
- Adjusting screw has a self seating washer and nut to permit quick and positive adjustment.
- Dividers have hardened points. • Calipers have hardened measurement faces.
- Meet government specifications GGG-C-95.



DIVIDERS

MODEL	SIZE	ORDER NO.	PRICE
450-6	6"	6931-601	\$20.20



OUTSIDE CALIPERS

MODEL	SIZE	ORDER NO.	PRICE
452-6	6"	6931-618	\$19.47



INSIDE CALIPERS

MODEL	SIZE	ORDER NO.	PRICE
454-6	6"	6931-639	\$21.09

Measuring Instruments

Pittsburg[®] Precision Parallel Sets

3/16" & 1/2" 4 Pair Parallel Sets

- Ideal for layout work, standards and set-ups, these matched pair parallels make machine shop work easier and quicker. The holes are designed for easier handling and set-ups.
- The sides with the holes are ground and matched in pairs
- Accuracy: +/- 0.0003" parallelism on two sides, top and bottom +/- 0.001" on dimensions
- Hardness: 55 to 62 RC on two sides, top and bottom only
- Heights: 1", 1-1/4", 1-1/2", 1-3/4"



# PAIRS	WIDTH(S)	LENGTH	ORDER NO.	PRICE
4	3/16 & 1/2"	6"	3100-200	\$79.60
4	3/16"	6"	3100-201	68.95
4	1/2"	6"	3100-202	97.25

1/4" 9 Pair Parallel Set 1/4" thick - in custom fitted plastic box.

- 9 Pairs in Set.
- Hardened Steel.
- 6" Length x 1/8" Thick.
- Heights: 3/4", 7/8", 1", 1-1/8", 1-1/4", 1-3/8", 1-1/2", 1-5/8", 1-3/4".
- Parallel within +/- 0.0003" each pair.
- Heights matched within +/- 0.001" each pair.



# PAIRS	WIDTH	LENGTH	ORDER NO.	PRICE
9	1/4"	6"	3100-206	\$140.95

1/2" 8 Pair Parallel Set 1/2" thick - in custom fitted plastic box.

- Made from high quality alloy steel, hardened and ground
- All pairs are precision matched
- Heights: 7/8", 1", 1-1/8", 1-1/4", 1-3/8", 1-3/8", 1-1/2", 1-5/8", 1-3/4"
- Accuracy: +/- 0.0003" parallelism +/- 0.001" to size in height



# PAIRS	WIDTH	LENGTH	ORDER NO.	PRICE
8	1/2"	6"	3100-207	\$130.00

Pittsburg[®] Precision Thin Parallel Set 1/8" 10 matched pair

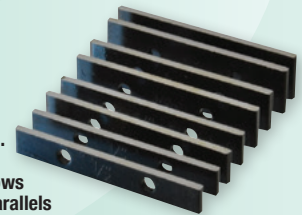
- Made from high quality alloy steel, hardened and ground from 1/8" stock
- 10 pairs with the following heights: 1/2", 5/8", 3/4", 7/8", 1", 1-1/8", 1-1/4", 1-3/8", 1-1/2", 1-5/8"
- Accuracy: +/- 0.0002" parallelism in height +/- 0.001" to size in height



# PAIRS	WIDTH	LENGTH	ORDER NO.	PRICE
10	1/8"	6"	3100-203	\$64.75

Economy Thin Parallel Set

- Precision ground and hardened
- Gun-blued on non-working surfaces
- Set work pieces to needed height in vise jaws in seconds. Two 1/4" holes are provided for mounting.
- Complete set of 4 pairs of parallels 5/32" thick by 3-1/2" long in 1/2", 5/8", 3/4", and 7/8" widths allows drilling through work near edges without hitting parallels
- Packaged in plastic container



# PAIRS	WIDTH	LENGTH	ORDER NO.	PRICE
4	5/32"	3-1/2"	3101-200	\$22.50

Pittsburg[®] Adjustable Parallel Sets

- Precision steel machined to very close tolerances
- Each parallel consists of two ground pieces which slide smoothly on each other and can be locked in position for micrometer measurement
- Ideal for layout work, for gauging and in various set-ups for milling machines and grinders



PCS PER SET	RANGE	ORDER NO.	PRICE
4	3/8" to 1-5/16"	3101-210	\$29.50
6	3/8" to 2-1/4"	3101-212	81.00

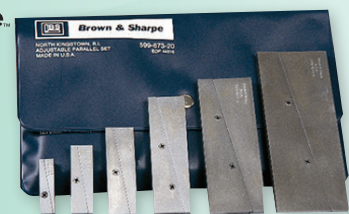


TESA
TECHNOLOGY

wood brown & sharpe

Adjustable Parallel Sets

- Quickly adjusted to size using just a micrometer.
- Clamp screws lock parallels to size.
- Each parallel has a generous range, eliminating the need for stocking many solid parallels.



SET	TOOL RANGE	TOOLS	B&S	ORDERING	PRICE
INCH	METRIC	IN SET	NUMBER	NUMBER	EACH
3/8" to 1-5/16"	(10 - 33mm)	4	599-673-10	7144-515	\$ 238.05
3/8" to 2-1/4"	(13 - 57mm)	6	599-673-20	7144-516	296.70

Fowler

Premium Brand 1/32" Parallel Set

MODEL NUMBER	DESCRIPTION	PRICE
52-437-031-0	Parallel Set	\$234.00



- Made from high-grade alloy steel, hardened and ground from 1/32" stock with 2 holes in each parallel.
- 10 pairs, 6" length, 1/32" width.
- 1/2", 5/8", 3/4", 7/8", 1", 1-1/8", 1-1/4", 1-3/8", 1-1/2" & 1-5/8"
- Height specifications relate to consistency within each pair. Absolute heights are nominal.
- Parallelism: +/- .0001"

Measuring Instruments

Pittsburg[®] Thin Angle Sets

1/2 Degree through 5 Degrees Set –
Bar Size 5/32" x 3-1/2"

Precision ground on working surface. Gun-blue on non-working surfaces. Two 1/4" holes are provided for mounting. By using two angles, the set will span 1/2° through 5-1/2° in half-degree increments, and up to 9 degree in 1 degree increments

6 Degree through 10 Degree Set – Bar Size 5/32" x 3-1/2"

Combine this set with the above set to obtain 1/2 degree through 10-1/2 degree in 1/2 degree increments, or 1 degree through 19 degree can be obtained.

[2]

DESCRIPTION	ORDER NO.	PRICE
1/2 Deg – 5 Deg	3101-201	\$15.80
6 Deg – 10 Deg	3101-202	15.80

Pittsburg[®] Angle Block Sets

- Simple, quick angle set-ups
- Eliminate calculations/errors
- Oil hardened steel, precision ground
- Lightly magnetized for better hold
- 3" long x 1/4" thick; Accuracy: +/- .0001" per inch
- Furnished in 1 degree increments to 5°, and in 5 degree increments to 30 degrees. With the addition of the optional 1/4 degree and 1/2 degree blocks, virtually any conceivable angle to these increments can be obtained.

DESCRIPTION	ORDER NO.	PRICE
10 Piece Set	3101-220	\$78.95
1/4 Deg Block	3101-221	6.95
1/2 Deg Block	3101-222	6.95

[2]

Pittsburg[®] Solid Angle Plates

- Made of hardened steel
- Precision ground angles for convenient set-ups in tooling, production and inspection
- Four holes for easy mounting
- Tolerance: +/- 10 Minutes

[2]

SIZE	ANGLE	ORDER NO.	PRICE
3 x 3 x 5/16	45/45/90	3101-230	\$28.40
3 x 3 x 5/16	30/60/90	3101-232	23.80
2 Piece Set		3101-235	47.40

Pittsburg[®] Universal Angle Block 8-Piece Sets

- No sine vise, sine plate, angle vise, angle vise, angle chart or block gage needed
- The combination of 10, 15 and 30 degree V-Blocks and 5 Angle Plates, 1 to 5 degree, provide fast and easy set-ups at various angles in 1 degree increments
- V-Block Dimensions: 3" L x 1-3/16" W x 1-3/16" H
- Angle Plate Dimensions: 2-3/4" L x 1-3/16" W x 5/64" H at narrow end
- Hardness: 45-50 RC
- Tolerance: +/- 10 Seconds

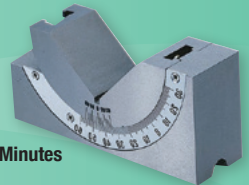


[2]

LENGTH	WIDTH	HEIGHT	ORDER NO.	PRICE
3"	1-3/16	1-3/16	3101-225	\$130.30

Pittsburg[®] 0-60° Precision Angle Block

- 0-60 degree Adjustable angle by locking the hex screw on the bottom
- Squareness: 0.0002"
- Angle accuracy: +/- 10 Minutes
- HRC: 50-55



[2]

DIMENSIONS	V-WIDTH	ORDER NO.	PRICE
7/8 x 1-1/4 x 3	7/8"	3101-240	\$90.75
1-3/16 x 1-7/8 x 4	1-1/8"	3101-242	93.60
1-13/16 x 1-7/8 x 4	1-13/16"	3101-244	99.75

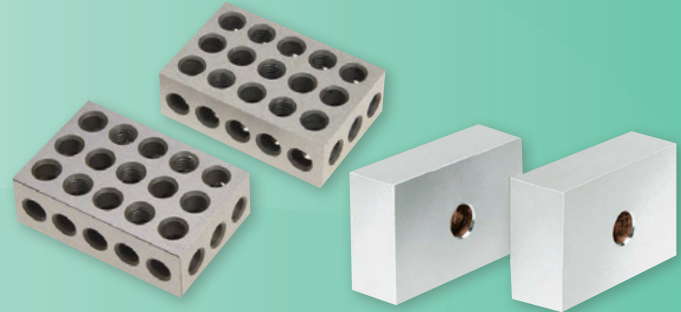
Pittsburg[®] 1-2-3 and 2-4-6 Blocks

- Ideal for mounting work for precision grinding, lay-out work, etc.

[2]

SIZE	DESCRIPTION	ORDER NO.	PRICE
1-2-3	One Hole	3101-250	\$45.00
1-2-3	23 Hole	3101-251	30.75
2-4-6	23 Hole	3101-252	129.50

- Precision ground and hardened to 56-60 RC on all six sides
- 23 Hole blocks have 5 tapped holes for clamping operations and 18 untapped holes
- The cross-drilling design gives minimum weight and maximum strength
- Supplied in matching pairs



Fowler V-Block Set

- 2 each @:
- Dimensions: 1-1/2" L x 1-1/4" W x 1-1/4" H.
 - Work capacity: Approx. 1"
 - 2 clamps

- 2 each @:
- Dimensions: 2" L x 1-1/2" W x 1-1/2" H.
 - Work capacity: 1-1/2"
 - 2 clamps



[2]

- All feature:
- Surfaces are square and parallel within .0005".
 - V-grooves are square and parallel with all surfaces within .0005".
 - Corresponding dimensions for each pair are alike within .0005".
 - All enclosed in shop-hardened case.

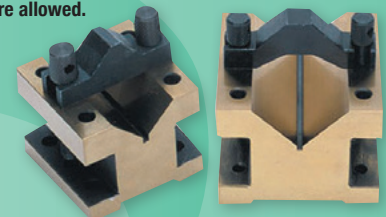
MODEL NUMBER	DESCRIPTION	PRICE
52-475-500-0	X-Blox V-Block Set	\$276.00

Pittsburg[®] Precision V-Block Sets w/ swing away clamp

- Quick accurate and positive means of holding workpieces for layout, machining, grinding or inspection
- One reversible swing-away clamp provided with each V-Block. Combined with unique offset hole pattern in the top of the V-Block, a variety of clamping possibilities are allowed.
- All V-Blocks are parallel, square and centered within 0.0002"

[2]

CAPACITY	HEIGHT	WIDTH	LENGTH	ORDER NO.	PRICE/PR
19/32"	1-3/16"	1-3/8"	1-3/8"	3100-157	\$42.00
1-3/16"	2"	2-3/8"	2-3/8"	3100-158	69.50
2-9/16"	3-1/16"	4-1/8"	4-1/8"	3100-159	165.50



Pittsburg[®] Magnetic Chuck V-Blocks & Parallels

- Holds work in any direction on magnetic chucks
- Selected steel is integrally aluminum cast for highest magnetic transfer
- Precision ground on all surfaces
- Serial numbered in pairs
- V-Blocks have two 90° V's



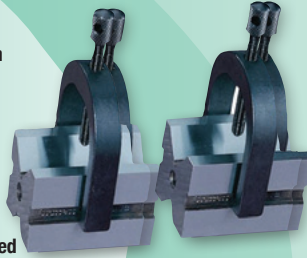
[2]

SIZE	DESCRIPTION	LARGE V	SMALL V	ORDER NO.	PRICE
1-7/8 x 2-3/8 x 2	V-Blk Pair	2" Cap	1/2" Cap	3131-725	\$49.75
1-7/8 x 2-3/8 x 4-3/8	One V-Blk	2" Cap	1/2" Cap	3131-730	49.75
1 x 2 x 4	Paral Pair	—	—	3131-720	39.75
Comb Set - Small V-Block Pair & Parallel Pair				3131-732	79.75

Measuring Instruments

Pittsburg[®] V-Blocks & Clamps

- All sides are ground square and parallel to each other
- Sturdy enough to be used in Machining Operations
- Accurate enough to be used in layouts and surface plate work
- The 1-3/4 x 2-1/2 x 2-3/4 and 2-3/4 x 3-1/2 x 4-7/8 models are designed so that the clamps do not protrude over the sides; thus the tool can be used on its sides
- 90° V's are ground central, parallel, and



CAPACITY	HEIGHT	WIDTH	LENGTH	ORDER NO.	PRICE/PR
Matched accuracy 0.0002"	1-5/8"	1-3/4"	1-5/8"	3100-175	\$27.50
1"	1-3/8"	1-3/4"	1-3/4"	3100-170	36.45
1-1/2"	1-5/8"	1-3/4"	2-3/4"	3100-160	54.95
1-1/2"	1-3/4"	2-1/2"	2-3/4"	3100-165*	74.80
2-1/8"	2-3/4"	3-1/2"	4-7/8"	3100-176*	170.45

*Designed so clamps do not protrude over the sides

Pittsburg[®] Hardened Steel Wide Beam Straight Edge Square

- Length of blade is measured from inner edge of beam to end of tables
- Beams and blades are ground and accurately lapped for straightness and parallelism.
- All squares are fully hardened (55RC) • Accuracy Class N.
- Packed in individual cartons • Beam is grooved at inner corner for clearance of burrs and dirt

BLADE	BEAM	ORDER NO.	PRICE
1-3/8"	1"	3100-060†	\$14.05
2-3/8"	1-3/8"	3100-062	22.89
3-1/8"	2"	3100-064	26.17
5"	3"	3100-066	32.00
6-3/4"	4"	3100-068	29.55
8-1/2"	5-1/8"	3100-070	53.25
10-1/2"	6-3/8"	3100-072	67.20



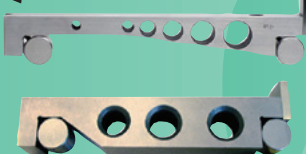
Pittsburg[®] Master Precision Level

- † Limited Quantity
- This is a Master Precision level for accurately checking the work of machinists and toolmakers, the setting up of machinery and other work that requires extreme leveling accuracy
- The main level vial is graduated to 10 Second accuracy (1 division equals .0005" per foot)
- An auxiliary level enables the user to check side declinations
- The body of the level is of cast iron and the base is hand scraped for extreme accuracy
- There are plastic knobs on the frame to insulate the instrument from the heat of the hand
- Includes fitted case

SIZE	ORDER NO.	PRICE
8"	3100-008	\$122.67
12"	3100-012	202.67



Pittsburg[®] Precision Sine Bars



- Both Sine Bar and Rolls are hardened and ground for extreme accuracy
- Top surface is accurate to .0003" per inch of length
- Parallelism 0.004"
- Center to center distance between center of rolls is accurate within .0002"
- There is a flange on the end for resting work
- Tapped holes allowing hold down

DISTANCE BTWN. CENTER OF ROLLS	DESCRIPTION	WIDTH	ORDER NO.	PRICE
5"	Sine Bar	15/16"	3100-135	\$87.35
10"	Sine Bar	1"	3100-136	182.70
5"	Sine Plate	2"	3100-137	114.30



Pittsburg[®] Demagnetizer

- Use to remove residual magnetism from dies, punches, cutters or any other tools that have become magnetized
- Operates on 115V AC with on-off switch

ORDER NO.	PRICE
3101-060	\$56.00

Pittsburg[®] Magnetic Chucks

- High powered Permanent Magnetic Chucks hold work pieces for machining, grinding, etc.
- Solid top and bottom plates assure retained accuracy
- Full loading power over entire plates • Can be switched off to remove work piece
- Pole divisions are arranged for holding small, thin or large pieces

DESCRIPTION	DIMENSIONS	ORDER NO.	PRICE
Rect.	6" x 12"	3131-700	\$280.80
Rect.	6 x 18"	3131-705	381.40
Round	10"	3131-710	184.85
Round	10"	3131-715	358.15



Pittsburg[®] Magnetic V-Block

- Ideal for holding cylindrical workpieces for scribing, grinding, measuring and machining
- Powerful holding force with fixed On/Off switch
- Precision ground finish for use as an inspection device



SIZE	LARGE V	SMALL V	ORDER NO.	PRICE
2-3/4 x 3-3/4 x 4	2" Cap	3/4" Cap	3100-155	\$102.55

Pittsburg[®] Hardened Steel Bevel Edge Square

- Squares have accurate right angles both inside and outside
- Made from a single piece of fully seasoned tool steel
- Beams and blades are ground and accurately lapped for straightness and parallelism. Accuracy Class H. • Beam is grooved at inner corner for clearance of burrs and dirt
- Packed in individual cartons

BLADE	BEAM	ORDER NO.	PRICE
1-3/8"	1"	3100-040†	\$23.25
2-3/8"	1-3/8"	3100-042†	24.75
3-1/8"	2"	3100-044	29.65
5"	3"	3100-046	43.50
6-3/4"	4"	3100-048	48.75
8-1/2"	5-1/8"	3100-050	60.00
10-1/2"	6-3/8"	3100-052	102.00



Pittsburg[®] Cylinder Squares

- Used on surface plates as a 90° reference angle. Used for checking squares, height gauges and many other instruments
- The squares are hardened and the ends are lapped to 90° angular accuracy with the cylinders as follows: 6" square to ± .00010, 12" square to ± .00015
- Includes fitted case



DIAM. SQUARE		HEIGHT	WEIGHT	ORDER NO.	PRICE
3"	6"		15 lbs	3100-130	\$216.00
4"	12"		44 lbs	3100-132	341.00

Fowler[®] Jack Stand Set

- Up to 1000 lbs. • Range: 2.25" to 3.375"
- Jack base diameter: 1.25" • 1" and 2" extension bases
- Extension may be combined

MODEL NO.	DESCRIPTION	PRICE
52-104-000-0	Jack Stand Set	\$54.00



Pittsburg[®] Ratchet Counter

- The counter is incremented by 1 when spring fitted ratchet type lever passes 45 degree threshold
- Reset knob

ORDER NO.	PRICE
3101-065	\$10.15



Measuring Instruments

Mitutoyo ¹²

Rectangular Gage Block Sets – Series 516



516-902-26



516-930-26

Inch					
ORDER NO.	BLOCKS PER SET	BLOCKS INCLUDED IN SET		GRADE	LIST PRICE
STEEL					
516-901-26	81	9 pcs.	.1001-.1009"	Step of .0001"	ASME 00 \$5260.00
516-902-26		49 pcs.	.101-.149"	Step of .001"	ASME 0 2620.00
516-903-26		19 pcs.	.05-.95"	Step of .05"	AS-1 2280.00
516-904-26		4 pcs.	1-4"	Step of 1"	AS-2 2070.00
516-913-26	35	1 pcs.	.10005"		ASME 00 2310.00
516-914-26		9 pcs.	.1001-.1009"	Step of .0001"	ASME 0 1380.00
516-915-26		9 pcs.	.101-.109"	Step of .001"	AS-1 1210.00
516-916-26		10 pcs.	.10-.19"	Step of .01"	AS-2 1030.00
		6 pcs.	.20, .30, .50, 1.0, 2.0 & 4.0"		

Pittsburg[®] ALLEGHANY Gage Block Sets

Steel Sets

Steel sets are produced from a special steel of high carbon and chrome content with a hardness of 65RC which insures hard wear resistance and stability



Premium Series Sets

- These blocks are manufactured in a temperature controlled environment to ensure precise and reliable accuracy. They are made to special standards to resist corrosion and defacement.
- Mirror-polished surface finish provides exceptional wringing characteristics
- All inch blocks meet or exceed Federal Specification GGG-G-15C for flatness, parallelism, and size, and conform to MIL-STD-45662A and US Government spec. ASME B89.1.9.2002.
- All blocks are certified in the U.S. by an ISO 17025 Certified Lab.
- Each block is serialized for easy identification
- A complete certificate of calibration traceable to the National Institute of Standards and Technology (NIST), showing the deviation in millionths of each block. (This is provided with all grades – including Grade B.)
- Deluxe fitted wood case.
- A full one year guarantee against any defects in workmanship.

BLOCKS INCLUDED IN SETS:

81 pc. Sets come with:

- 9 Blocks .1001-.1009 in .0001 steps
- 49 Blocks .101-.149 in .001 steps
- 19 Blocks .050-.950 in .050 steps
- 4 Blocks 1"-4" in 1" steps

36 pc. Sets come with:

- 9 Blocks .1001-.1009 in .0001 steps
- 9 Blocks .101-.109 in .001 steps
- 9 Blocks .110-.190 in .010 steps
- 4 Blocks .200, .300, .400, .500
- 5 Blocks .050, .100, 1", 2", 4"

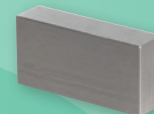
TOLERANCES:
Inch (U.S. Federal Standards),
Millionths

	Grade 0 (A+)	Grade 1 (A & B)	Grade B (Shop)
<1"	+4/-2	+8/-4	+/-50
2"	+8/-4	+16/-8	+/-50
3"	+10/-5	+20/-10	+/-50
4"	+12/-6	+24/-12	+/-50

Steel

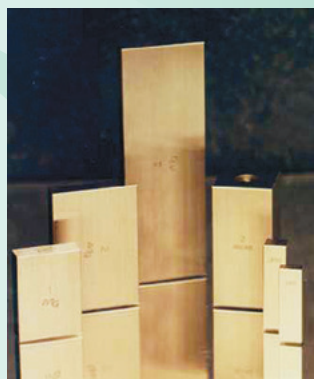
NO.	PCS.	GRADE	TYPE	ORDER NO.	PRICE
81	0*	Rect.		3100-112	\$661.90
81	1	Rect.		3100-113	477.50
81	B	Rect.		3100-114	182.80
36	0*	Rect.		3100-115	403.50
81	1	Rect.		3100-116	279.60
36	B	Rect.		3100-117	136.00
81	0*	Square		3100-118	2036.20
81	1	Square		3100-119	1503.60
81	B	Square		3100-122	1032.10
TUNGSTEN CARBIDE					
81	0	Rect.		3100-126	\$3777.80

* Grade 0 (formerly Grade 2)



Pittsburg[®] ALLEGHANY Individual Gage Blocks

- All individual blocks are rectangular grade 0 (+.000004/-0.000002)
- Each block is supplied with a certificate showing the deviation in millionths



SIZE	ORDER NO.	PRICE	SIZE	ORDER NO.	PRICE	SIZE	ORDER NO.	PRICE	SIZE	ORDER NO.	PRICE
.050	3101-089	\$18.15	.112	3101-112	\$15.05	.134	3101-134	\$15.05	.450	3101-160	\$19.70
.100	3101-090	15.05	.113	3101-113	15.05	.135	3101-135	15.05	.500	3101-161	19.70
.1001	3101-091	15.05	.114	3101-114	15.05	.136	3101-136	15.05	.550	3101-162	19.70
.1002	3101-092	15.05	.115	3101-115	15.05	.137	3101-137	15.05	.600	3101-163	19.70
.1003	3101-093	15.05	.116	3101-116	15.05	.138	3101-138	15.05	.650	3101-164	19.70
.1004	3101-094	15.05	.117	3101-117	15.05	.139	3101-139	15.05	.700	3101-165	19.70
.1005	3101-095	15.05	.118	3101-118	15.05	.140	3101-140	15.05	.750	3101-166	21.80
.1006	3101-096	15.05	.119	3101-119	15.05	.141	3101-141	15.05	.800	3101-167	21.80
.1007	3101-097	15.05	.120	3101-120	15.05	.142	3101-142	15.05	.850	3101-168	21.80
.1008	3101-098	15.05	.121	3101-121	15.05	.143	3101-143	15.05	.900	3101-169	21.80
.1009	3101-099	15.05	.122	3101-122	15.05	.144	3101-144	15.05	.950	3101-170	21.80
.101	3101-101	15.05	.123	3101-123	15.05	.145	3101-145	15.05	1.000	3101-171	28.00
.102	3101-102	15.05	.124	3101-124	15.05	.146	3101-146	15.05	2.000	3101-172	31.65
.103	3101-103	15.05	.125	3101-125	15.05	.147	3101-147	15.05	3.000	3101-173	37.35
.104	3101-104	15.05	.126	3101-126	15.05	.148	3101-148	15.05	4.000	3101-174	52.90
.105	3101-105	15.05	.127	3101-127	15.05	.149	3101-149	15.05			
.106	3101-106	15.05	.128	3101-128	15.05	.150	3101-150	15.05			
.107	3101-107	15.05	.129	3101-129	15.05	.200	3101-155	18.15			
.108	3101-108	15.05	.130	3101-130	15.05	.250	3101-156	18.15			
.109	3101-109	15.05	.131	3101-131	15.05	.300	3101-157	18.15			
.110	3101-110	15.05	.132	3101-132	15.05	.350	3101-158	18.15			
.111	3101-111	15.05	.133	3101-133	15.05	.400	3101-159	18.15			

Measuring Instruments

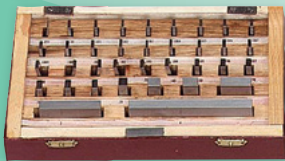


Economy Sets

- Competitively priced B grade set
- Each set is supplied with a certificate guaranteeing that each block is manufactured to meet or exceed Federal Specification GGG-G-15C, and is within the grade B tolerance of $\pm .000050$. This certificate does not show the individual deviation of each block.
- Each set is provided in a fitted wood case



81 pc.



36 pc.

NO. PCS.	GRADE	TYPE	ORDER NO.	PRICE
81	B	Rect.	3100-125	\$133.35
36	B	Rect.	3100-120	166.10



Economy Rectangular Steel Gage Block Sets

- Economy Grade.
- Each block certified to N.I.S.T.
- Tolerances to .00005"
- Complete with fitted wooden case.

MODEL NO.	DESCRIPTION	PRICE
53-672-036-0	36 piece	\$205.00
53-672-081-0	81 piece	295.00



53-672-036



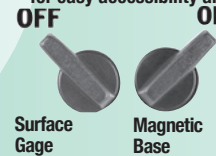
53-672-081



Surface Gage

with Built-In Switchable Magnetic Base

- Set Includes 3-1/8" x 2-1/16" permanent magnetic base with on/off switch, fine adjustment on base and a 5/16" x 9" upright.
- .0005" test indicator (FOW# 52-562-778) with .040", .080" & .120" contact points.
- Swivel Clamp to mount indicator.
- Two dovetail stems: 5/32" & 3/8"
- 4" hardened scriber.
- Form fitted shop-hardened case for easy accessibility and storage.



MODEL NUMBER	DESCRIPTION	PRICE
52-155-747-0	Surface Gage w/ Base	\$315.00

Mitutoyo Dial Gage Stands -

7003 (with Serrated Anvil)

7004 (with Flat Anvil)

The compact and versatile Dial Gage Stands are commonly use general-purpose stands for comparison measurements, 5" maximum-height capacity. Featuring a wide fine-adjusting range for zero-setting gage heads. The stands are designed for AGD type probes with 3/8" DIA. stems, and accommodate all AGD type Dial Indicators.



7001-10

Dial Gage Stands

ORDER NO.	MAX. HEIGHT CAPACITY	FINE ADJUSTMENT	REMARKS	LIST PRICE
7001-10	4.0"	.04"	with Serrated Anvil (No. 101462)	\$940.00
7002-10	4.0"	.04"	with Flat Anvil (No. 101461)	981.00

Mitutoyo

Granite Comparator Stands - Series 215

FEATURES

- Basic building-blocks for the assembly of special-purpose, precision measuring equipment.
- By mounting precision measuring instruments such as Digimatic indicators, Mu-Checker Cartridge Heads, and Linear Gages onto the stands, it is possible to handle all manner of measuring applications.
- The rigid granite base is free from burrs, pileups, rust, and deterioration over time.



ORDER NO.	BASE SIZE	COLUMN TRAVEL	STEM HOLE	REMARKS	LIST PRICE
215-151-10	150 x 200 x 50mm	250mm	ø8mm, ø9.53mm	w/ fine adj. of 1mm range	\$1620.00
215-153-10	200 x 250 x 80mm	260mm	ø8mm, ø9.53mm	w/fine adj. of 1mm range	1790.00
215-156-10	300 x 250 x 80mm	275mm	ø8mm, ø9.53mm, ø20mm	w/fine adj. over the entire travel -	2210.00



Toolmaker's Surface Gages

- Hardened and ground base with V-groove for scribing cylindrical work
- Adjustable spindle arm and scribers can be rigidly locked into any position at any angle
- Recessed front allows for depressing spindle below base level

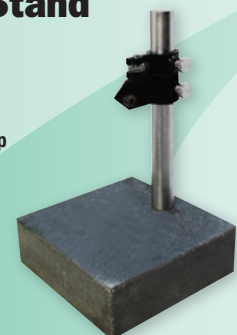


SPINDLES	ORDER NO.	PRICE
4" & 7"	3100-140	\$15.80
9" & 12"	3100-145	23.90



Granite Check Stand

- Top quality ebony granite base
- Extremely stable and durable
- Accepts all AGD indicators
- Fine adjustment knuckle on clamp
- Full 6" Square x 2" Thick Base
- 8" x .990" diam. column
- .00005" flatness



ORDER NO.	PRICE
3100-149	\$42.50

Measuring Instruments

Mitutoyo Magnetic Stands – Series 7

Accepts all AGD-type Dial Indicators, Test Indicators and Probes having 3/8" DIA. shank and/or Lug Back within 1/4" DIA. mounting hole. The On-Off Switch offers instant mounting and dismounting without any adverse effect to the indicators or work surface. [2]

ORDER NO.	DESCRIPTION	CLAMPING FORCE	LIST PRICE
7010S	Magnetic Stand	600N	\$131.00
7012-10	Mag. Flexi-Stand for Dial Test Ind.	600N	357.00
7014E-10	Mini Mag. Stand w/o Magnet ON/OFF	-	155.00
7033B	Universal Mag. Stand w/Mech. Lock Sys.	600N	194.00

Magnetic Stand With Indicator Set

ORDER NO.	MODEL	DIAL INDICATOR	RANGE	GRADUATION	LIST PRICE
64PKA079	7010S	2416S	0-1"	.001"	\$227.00



Flexible Arm Magnetic Base

- Stem flexes nearly 360 degrees
- Locks into exact position with a cam lever-operated cable and tension adjustment.
- Stable rigidity will not diminish with constant use.
- On-Off lever control for magnetic base

DESCRIPTION	ORDER NO.	PRICE	[2]
Standard	3100-026	\$39.95	w/Fine Adjustment
W/ Fine Adj	3100-028	42.95	

Pittsburg Alleghany Flexible Indicator Holder

- Ideal for use in tight areas
- Solderless cable is self-adjustable
- Swivels and rotates – locks in any position
- Has fine adjustment 25 lb. pull
- Height with column 9-3/4"
- Base: 1-3/8" x 1-1/8" high pot magnet
- Stem: 13/64" x 3-1/8"

ORDER NO.	PRICE
3100-524	\$26.00

Pittsburg Alleghany Magnetic Base Indicator Holder

Standard Holder:

- Full magnetic base
- 6" long x 1/4" diameter non-magnetic stainless steel holding rod, set in hardened universal ball socket, allowing universal positioning of the indicator
- Base dimensions: 3-1/2" x 1-1/8" x 1"

Universal Type Magnetic Base Indicator Holder:

- With attachments, this base can accommodate practically all types of dial and test indicators
- Unit has fine precision adjustment controlled by thumb screw allowing minor adjustments without touching work or indicator
- 6" long x 1/4" diameter non-magnetic stainless steel holding rod, set in hardened universal ball socket, allowing universal positioning of the indicator
- Base dimensions: 3-1/2" x 1-1/8" x 1"



	ORDER NO.	PRICE	[2]
Magnetic Base Indicator Holder	3100-036	\$48.50	
Universal Type	3100-038	28.00	



7011BN



64PKA079

Pittsburg Alleghany Magnetic Bases

- Powerful 110 lb. vibration free magnetic pull on Standard and Fine Adjustment models. Holding power for Heavy Duty model is 175 lbs!
- Centered "V" magnet for a strong hold on round or flat surfaces
- On and Off lever control for easy surface removal. Prevents marring or scratching.
- Accepts all AGD Dial Indicators with lug backs
- Quick adjustment clamping [2]

DESCRIPTION	ORDER NO.	PRICE
Standard	3100-020	\$18.15
W/ Fine Adj	3100-022	19.50
Heavy Duty	3100-024	39.95



Standard Fine Adjustment



Universal Dial Test Indicator Holder

- For Bridgeport type machines, milling machines, and jig borers
- Clamping diameter 1-7/8"
- Length from clamping bracket to indicator 4-1/2"
- Suitable for all popular indicators with 5/32" shank or dovetail
- Does not disturb the working tool
- Mounts with single pressure screw directly on the machine quill, bypassing the working tool
- A quicker way of indicating; guaranteed accurate readings

ORDER NO.	PRICE
3100-520	\$18.45



Universal Magnetic Indicator Holder

- Two universal ball sockets permit adjustment to any angle or position, with full 360 degree movement.
- Fine adjustment clamp.
- Dovetail clamp for test indicator.
- 1/4" hole for 1/4" stem indicator.
- All knurled knobs and lock screws.

ORDER NO.	PRICE
3100-522	\$23.65



Magnetic Base

- Five locations for mounting accessories
- 45 lbs holding power
- Zinc die cast housing
- Approximate size: 4-1/2" x 1-1/4"

ORDER NO.	PRICE
3100-034	\$27.00



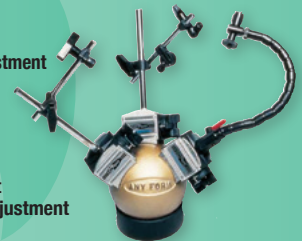
Anyform Magnetic Base

STANDARD ANYFORM FEATURES:

- Powerful, permanent magnet always stays on
- Cam Lock Mechanism easily loosens the segments for contour adjustment
- Available with standard, fine adjust, or flexible arms and clamps
- Made in USA under strict quality control
- One year warranty

ON/OFF ANYFORM FEATURES:

- Rotary knob turns power on or off
- Permanent, powerful magnet
- Cam Lock Mechanism easily loosens the segments for contour adjustment
- Available with standard, fine adjust, or flexible arms and clamps
- Made in USA under strict quality control
- One year warranty



CLOSEOUT ITEM!

STANDARD ANYFORM	ORDER NO.	PRICE
ANYFORM magnetic base with standard arms and clamps	3100-535	\$36.50
ANYFORM magnetic base with fine adjust arms and clamps	3100-536	45.00
ANYFORM magnetic base with flexible arm	3100-537	64.20

ON-OFF ANYFORM	ORDER NO.	PRICE
ON/OFF ANYFORM magnetic base with flexible arm	3100-540	\$77.15

Measuring Instruments

Mitutoyo

Digital Readout/DRO Packages 2-Axis/3-Axis Travels



2 Axis, KA Counter Milling System

Package Includes: • KA Counter • Brackets for Linear Scales
• AT715 Electro-Magnetic Linear Scales • Display Arm Kit

3

X AXIS TRAVEL	Y AXIS TRAVEL			
	12" (539-805)	14" (539-806)	16" (539-806)	18" (539-808)
30" (539-814)	64PKA058A \$POA	64PKA060A \$1710.00		
36" (539-816)	64PKA059A \$1530.00		64PKA062A \$1710.00	
40" (539-817)		64PKA061A \$1710.00	64PKA063A \$1710.00	64PKA064A \$1710.00

3 Axis Milling Package

ORDER NO.	DESCRIPTION - 3 AXIS MILLING PACKAGE	LIST PRICE
64PKA065A	ABS Scales, 12' x 30" x 6", w/3 Axis KA Counter (174-175A)	\$2550.00
64PKA066A	ABS Scales, 12' x 36" x 6", w/3 Axis KA Counter (174-175A)	2550.00
64PKA067A	ABS Scales, 16' x 36" x 6", w/3 Axis KA Counter (174-175A)	2550.00

Mitutoyo

Quill Kit

Easy Installation — Fits Most Vertical Knee Mills

FEATURES

- Easy to read LCD with resolution of .0005"/0.01mm.
- Push button controls for inch/mm, Zero-Set and On/Off.
- Powered by a single SR-44 Battery which lasts about 1 year with normal use.
- SPC output for data transmission to Data Processors or LED Remote Display Box.



3

DESCRIPTION	ORDER NO.	LIST PRICE
Digimatic Quill Kit complete with brackets & scale for Bridgeport Type machines.	053906B	\$534.00

2 Axis Lathe Package

Package Includes: • KA Counter • Mounting Bracket Kit • Counter Tray
• AT116 & AT715 Linear Scale combinations (w/cables) • Additional 2M Extension Cable (60", 72" pkgs.)

Z AXIS TRAVEL	X AXIS TRAVEL (AT 116 SLIM GLASS SCALE)					
	6" (539-272-30)	8" (539-273-30)	10" (539-274-30)	12" (539-275-30)	14" (539-276-30)	16" (539-276-30)
28" (539-813)	64PKA035A \$1660.00					
30" (539-814)	64PKA036A \$1490.00					
36" (539-816)	64PKA037A \$1660.00					
40" (539-817)	64PKA038A \$1660.00	64PKA039A \$1660.00	64PKA042A \$1660.00	64PKA046A \$1660.00	64PKA052A \$1660.00	
44" (539-818)		64PKA040A \$1660.00	64PKA043A \$1660.00	64PKA047A \$1660.00	64PKA053A \$1660.00	
48" (539-819)		64PKA041A \$1660.00	64PKA044A \$1660.00	64PKA048A \$1660.00	64PKA054A \$1660.00	
52" (539-820)				64PKA049A \$1660.00	64PKA055A \$1660.00	
60" (539-822)			64PKA045A \$1890.00	64PKA050A \$1890.00	64PKA056A \$1890.00	64PKA057A \$1890.00
72" (539-825)				64PKA051A \$1890.00		

2 Axis, KA Counter Grinder System

Package Includes: • KA Counter • Mounting Bracket Kit
• AT116 Glass Linear Scales • Display Arm Kit

VERTICAL	CROSS SIDE (AT116 SLIM GLASS SCALE)			
	6" (539-272-30)	8" (539-273-30)	10" (539-274-30)	12" (539-275-30)
12" (539-275-30)	64PKA026A \$1850.00	64PKA028A \$1850.00		
14" (539-276-30)	64PKA027A \$1850.00	64PKA029A \$1850.00		
16" (539-277-30)		64PKA030A \$1660.00		
18" (539-278-30)			64PKA031A \$1850.00	64PKA033A \$1850.00
20" (539-279-30)				64PKA034A \$1850.00
24" (539-281-30)			64PKA032A \$1850.00	

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Tap Drill Sizes

Probable percentage of full thread produced in tapped hole using stock sizes of drill.

TAP	TAP DRILL	DECIMAL EQUIV.	THEO. % OF THRD.	PROBABLE OVERSIZE	PROBABLE HOLE SIZE	% OF THIRD	TAP	TAP DRILL	DECIMAL EQUIV.	THEO. % OF THRD.	PROBABLE OVERSIZE	PROBABLE HOLE SIZE	% OF THIRD												
0-80	56	.0465	83	.0015	.0480	74		8	.1990	79	.0038	.2028	73												
	3/64	.0469	81	.0015	.0484	71		7	.2010	75	.0038	.2048	70												
1-64	54	.0550	89	.0015	.0565	81		13/64	.2031	72	.0038	.2069	66												
	53	.0595	67	.0015	.0610	59	1/4-28	3	.2130	80	.0038	.2168	72												
1-72	53	.0595	75	.0015	.0610	67	5/16-18	F	.2570	77	.0038	.2608	72												
	1/16	.0625	58	.0015	.0640	50		G	.2610	71	.0041	.2651	66												
2-56	51	.0670	82	.0017	.0687	74	5/16-24	H	.2660	86	.0041	.2701	78												
	50	.0700	69	.0017	.0717	62		I	.2720	75	.0041	.2761	67												
2-64	50	.0700	79	.0017	.0717	70	3/8-16	5/16	.3125	77	.0044	.3169	72												
	49	.0730	64	.0017	.0747	56		O	.3160	73	.0044	.3204	68												
3-48	48	.0760	85	.0019	.0779	78	3/8-24	21/64	.3281	87	.0044	.3325	79												
	5/64	.0781	77	.0019	.0800	70		Q	.3320	79	.0044	.3364	71												
	47	.0785	76	.0019	.0804	69	7/16-14	T	.3580	86	.0046	.3626	81												
	46	.0810	67	.0019	.0829	60		23/64	.3594	84	.0046	.3640	79												
	45	.0820	63	.0019	.0839	56		U	.3680	75	.0046	.3726	70												
3-56	46	.0810	78	.0019	.0829	69	7/16-20	W	.3860	79	.0046	.3906	72												
	45	.0820	73	.0019	.0839	65		25/64	.3906	72	.0046	.3952	65												
4-40	44	.0860	80	.0020	.0880	74	1/2-13	27/64	.4219	78	.0047	.4266	73												
	43	.0890	71	.0020	.0910	65	1/2-20	29/64	.4531	72	.0047	.4578	65												
4-48	42	.0935	68	.0020	.0955	61	9/16-12	15/32	.4688	87	.0048	.4736	82												
	3/32	.0938	68	.0020	.0958	60		31/64	.4844	72	.0048	.4892	68												
5-40	40	.0980	83	.0023	.1003	76	9/16-18	1/2	.500	87	.0048	.5048	80												
	39	.0995	79	.0023	.1018	71	5/8-11	17/32	.5313	79	.0049	.5362	75												
	38	.1015	72	.0023	.1038	65	5/8-18	9/16	.5625	87	.0049	.5674	80												
5-44	38	.1015	79	.0023	.1038	72	3/4-10	41/64	.6406	84	.0050	.6456	82												
	37	.1040	71	.0023	.1063	63		21/32	.6563	72	.0050	.6613	68												
6-32	37	.1040	84	.0023	.1063	78	3/4-16	11/16	.6875	77	.0050	.6925	71												
	36	.1065	78	.0023	.1088	72	7/8-9	49/64	.7656	76	.0052	.7708	72												
	7/64	.1094	70	.0023	.1120	64	7/8-14	51/64	.7969	84	.0052	.8021	79												
	35	.1100	69	.0026	.1126	63	1-8	55/64	.8594	87	.0059	.8653	83												
	34	.1110	67	.0026	.1136	60		7/8	.875	77	.0059	.8809	73												
6-40	34	.1110	83	.0026	.1136	75	1-12	29/32	.9063	87	.0059	.9122	81												
	33	.1130	77	.0026	.1156	69		59/64	.9219	72	.0060	.9279	67												
	32	.1160	68	.0026	.1186	60	1-14	59/64	.9219	84	.0060	.9279	78												
8-32	29	.1360	69	.0029	.1389	62	1-1/8-7	31/32	.9688	84	.0062	.9750	81												
8-36	29	.1360	78	.0029	.1389	70		63/64	.9844	76	.0067	.9911	72												
10-24	27	.1140	85	.0032	.1472	79		1-1/64	1.0156	59	.0070	1.0226	55												
	26	.1470	79	.0032	.1502	74	1-1/8-12	1-1/32	1.0313	87	.0071	1.0384	80												
	25	.1495	75	.0032	.1527	69	1-1/4-7	1-3/32	1.0938	84	REAMING RECOMMENDED														
	24	.1520	70	.0032	.1152	64		1-7/64	1.1094	76															
10-32	5/32	.1653	83	.0032	.1595	75	1-1/4-12	1-11/64	1.1719	72															
	22	.1570	81	.0032	.1602	73	1-3/8-6	1-13/64	1.2031	79															
	21	.1590	76	.0032	.1622	68		1-7/32	1.2188	72															
12-24	11/64	.1719	82	.0035	.1754	75	1-3/8-12	1-19/64	1.2969	72															
	17	.1730	79	.0035	.1765	73	1-1/2-6	1-21/64	1.3281	79															
	16	.1770	72	.0035	.1805	66		1-11/32	1.3438	72															
12-28	16	.1770	84	.0035	.1805	77	1-1/2-12	1-27/64	1.4219	72															
	15	.1800	78	.0035	.1835	70																			
1/4-20	14	.1820	73	.0035	.1855	66																			
	9	.1960	83	.0038	.1998	77																			
SUGGESTED PIPE TAP DRILL SIZES						TAP SIZE TAPER PIPE TAP STRAIGHT PIPE TAP						1/16	1/8	1/4	3/8	1/2	3/4	1	1-1/4	1-1/2	2	2-1/2	3		
												C	Q	7/16	9/16	45/64	29/32	1-9/64	1-31/64	1-23/32	2-3/16	2-39/64	3-15/64		
												1/4	11/32	7/16	37/64	23/32	59/64	1-5/32	1-1/2	1-3/4	2-7/32	2-21/32			

* For dryseal straight pipe threads, suggest drill size as shown, except 1/4" pipe, .444 drill size. 578

No Liability is assumed resulting from the use of the information contained herein.

Thread Forming Tap Drill Sizes

TAP SIZE	T.P.I NC NF	75% THREAD NEAREST			65% THREAD NEAREST			55% THREAD NEAREST		
		THEO. HOLE SIZE	DRILL SIZE	DECIMAL EQUIV.	THEO. HOLE SIZE	DRILL SIZE	DECIMAL EQUIV.	THEO. HOLE SIZE	DRILL SIZE	DECIMAL EQUIV.
0	80	.0536	1.35mm	.0531	.0545	54	.0550	.0553	54	.0500
1	64	.0650	1.65mm	.0650	.0661	1.65mm	.0650	.0672	51	.0670
	72	.0659	1.65mm	.0650	.0669	1.7mm	.0669	.0678	51	.0670
2	56	.0769	1.95mm	.0768	.0781	5/64	.0781	.0793	2mm	.0787
	64	.0780	5/64	.0781	.0791	2mm	.0787	.0802	2.05mm	.0807
3	48	.0884	2.25mm	.0886	.0898	43	.0890	.0912	2.3mm	.0906
	56	.0899	43	.0890	.0911	2.3mm	.0906	.0923	2.35mm	.0925
4	40	.0992	39	.0995	.1009	39	.0995	.1026	2.6mm	.1024
	48	.1014	38	.1015	.1028	2.6mm	.1024	.1042	28	.1045
5	40	.1122	34	.1100	.1139	33	.1130	.1156	32	.1160
	44	.1134	33	.1130	.1150	2.9mm	.1142	.1165	32	.1160
6	32	.1221	3.10mm	.1220	.1242	1/8	.1250	.1263	3.2mm	.1260
	40	.1252	1/8	.1250	.1269	3.2mm	.1260	.1288	30	.1285
8	32	.1481	3.75mm	.1476	.1502	3.8mm	.1496	.1523	24	.1520
	36	.1498	25	.1495	.1517	24	.1520	.1536	3.9mm	.1535
10	24	.1687	4.3mm	.1693	.1716	11/64	.1719	.1744	17	.1730
	32	.1741	4.4mm	.1732	.1762	16	.1770	.1783	15	.1800
12	24	.1947	10	.1935	.1976	5mm	.1968	.2004	5.1mm	.2008
	28	.1978	5mm	.1968	.2002	8	.1990	.2026	13/64	.2031
1/4	20	.2245	5.7mm	.2244	.2279	1	.2280	.2313	5.9mm	.2323
	28	.2318	5.8mm	.2323	.2342	A	.2340	.2366	6mm	.2362
5/16	18	.2842	7.2mm	.2835	.2879	7.3mm	.2874	.2917	7.4mm	.2913
	24	.2912	7.4mm	.2913	.2941	M	.2950	.2969	19/64	.2969
3/8	16	.3431	8.7mm	.3425	.3474	S	.3480	.3516	8.9mm	.3504
	24	.3537	9mm	.3543	.3566	9mm	.3543	.3594	23/64	.3594
7/16	14	.4011	X	.3970	.4059	Y	.4040	.4108	13/32	.4062
	20	.4120	Z	.4130	.4154	10.5mm	.4134	.4188	-	-
1/2	13	.4608	-	-	.4660	-	-	.4712	15/32	.4688
	20	.4745	12mm	.4724	.4779	-	-	.4813	-	-
9/16	12	.5200	33/64	.5156	.5257	-	-	.5313	17/32	.5312
	18	.5342	13.5mm	.5315	.5379	-	-	.5417	-	-
5/8	11	.5786	37/64	.5781	.5848	-	-	.5910	15mm	.5906
	18	.5967	19/32	.5938	.6004	-	-	.6042	-	-
3/4	10	.6990	-	-	.7058	45/64	.7031	.7126	-	-
	16	.7181	23/32	.7188	.7224	-	-	.7266	-	-

Tap Drill Sizes– Metric

NOMINAL SIZE	PITCH	TAP DRILL SIZE	DEC. EQUIV.	THEO. % OF THIRD	PROB. OVER. INCHES	PROB. HOLE SIZE	PROB. % OF THIRD	NOMINAL SIZE	PITCH	TAP DRILL SIZE	DECIMAL EQUIV.	THEO. % OF THIRD	PROB. OVER. INCHES	PROB. HOLE SIZE	PROB. % OF THIRD
MM	MM	MM				MM		MM	MM	MM				MM	
1.6	.035	1.20mm	.0472	88	.0014	.0486	80	7	1	"A"	.2340	81	.0038	.2378	74
		1.25mm	.0492	77	.0014	.0506	69			6mm	.2362	77	.0038	.2400	70
2	0.4	1/16	.0625	79	.0015	.0640	72	8	1.25	"B"	.2380	74	.0038	.2418	66
		1.60mm	.0630	77	.0017	.0647	69			6.7mm	.2638	80	.0041	.2679	74
		#52	.0635	74	.0017	.0652	66			17/64	.2656	77	.0041	.2697	71
2.5	0.45	2.05mm	.0807	77	.0019	.0826	69	10	1.5	"H"	.2660	77	.0041	.2701	70
		#46	.0810	76	.0019	.0829	67			6.8mm	.2677	74	.0041	.2718	68
		#45	.0820	71	.0019	.0839	63			8.4mm	.3307	82	.0044	.3351	76
3	0.5	#40	.0980	79	.0023	.1003	70	12	1.75	"Q"	.3320	80	.0044	.3364	75
		2.5mm	.0984	77	.0023	.1007	68			8.5mm	.3346	77	.0044	.3390	71
		#39	.0995	73	.0023	.1018	64			10.25mm	.2035	77	.0047	.4082	72
3.5	0.6	#33	.1130	81	.0026	.1156	72	14	2	"Y"	.4040	76	.0047	.4087	71
		2.9mm	.1142	77	.0026	.1168	68			13/32	.4062	74	.0047	.4109	69
		#32	.1160	71	.0026	.1186	63			15/32	.4688	81	.0048	.4736	76
4	0.7	3.2mm	.1280	82	.0029	.1309	74	16	2	12mm	.4724	77	.0048	.4772	72
		#30	.1285	81	.0029	.1314	73			35/64	.5469	81	.0049	.5518	76
		3.3mm	.1299	77	.0029	.1328	69			14mm	.5512	77	.0049	.5561	72
4.5	0.75	3.7mm	.1457	82	.0032	.1489	74	20	2.5	11/16	.6875	78	.0050	.6925	74
		#26	.1470	79	.0032	.1502	70			17.5mm	.6890	77	.0052	.6942	73
		#25	.1495	72	.0032	.1527	64			13/16	.8125	86	.0052	.8177	82
5	.08	4.2mm	.1654	77	.0032	.1686	69	24	3	21mm	.8268	77	.0059	.8327	73
		#19	.1660	75	.0032	.1692	68			53/64	.8281	76	.0059	.8340	72
6	1	#10	.1935	84	.0038	.1973	76	30	3.5	1-1/32	1.0312	83	.0071	1.0383	80
		#9	.1960	79	.0038	.1998	71			26.5mm	1.0433	77	.0071	1.0504	73
		5mm	.1968	77	.0038	.2006	70			1-3/64	1.0469	75	.0072	1.0541	70
		#8	.1990	73	.0038	.2028	65			1-17/64	1.2656	74	REAMING RECOMMENDED		

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DECIMAL EQUIVALENTS

SIZES	DECIMAL INCHES	SIZES	DECIMAL INCHES	SIZES	DECIMAL INCHES	SIZES	DECIMAL INCHES	SIZES	DECIMAL INCHES	SIZES	DECIMAL INCHES
97	.0059	57	.0430	2.9mm	.1142	5.3mm	.2087	8.3mm	.3268	41/64	.6406
96	.0063	1.1mm	.0433	32	.1160	4	.2090	21/64	.3281	16.5mm	.6496
95	.0067	1.15mm	.0453	3mm	.1181	5.4mm	.2126	8.4mm	.3307	21/32	.6562
94	.0071	56	.0465	31	.1200	3	.2130	0	.3320	17mm	.6693
93	.0075	3/64	.0469	3.1mm	.1220	5.5mm	.2165	8.5mm	.3346	43/64	.6719
92	.0079	1.2mm	.0472	1/8	.1250	7/32	.2188	8.6mm	.3386	11/16	.6875
.2mm	.0079	1.25mm	.0492	3.2mm	.1260	5.6mm	.2205	R	.3390	17.5mm	.6890
91	.0083	1.3mm	.0512	3.25mm	.1280	2	.2210	8.7mm	.3425	45/64	.7031
90	.0087	55	.0520	30	.1285	5.7mm	.2244	11/32	.3438	18mm	.7087
.22mm	.0087	1.35mm	.0531	3.3mm	.1299	5.75mm	.2264	8.75mm	.3445	23/32	.7188
89	.0091	54	.0550	3.4mm	.1339	1	.2280	8.8mm	.3465	18.5mm	.7283
88	.0095	1.4mm	.0551	29	.1360	5.8mm	.2283	S	.3480	47/64	.7344
.25mm	.0098	1.45mm	.0571	3.5mm	.1378	5.9mm	.2323	8.9mm	.3504	19mm	.7480
87	.0100	1.5mm	.0591	28	.1405	A	.2340	9mm	.3543	3/4	.7500
86	.0105	53	.0595	9/64	.1406	15/64	.2344	T	.3580	49/64	.7656
85	.0110	1.55mm	.0610	3.6mm	.1417	6mm	.2362	9.1mm	.3583	19.5mm	.7677
.28mm	.0110	1/16	.0625	27	.1440	B	.2380	23/64	.3594	25/32	.7812
84	.0115	1.6mm	.0630	3.7mm	.1457	6.1mm	.2402	9.2mm	.3622	20mm	.7874
.3mm	.0118	52	.0635	26	.1470	C	.2420	9.25mm	.3642	51/64	.7969
83	.0120	1.65mm	.0650	3.75mm	.1476	6.2mm	.2441	9.3mm	.3661	20.5mm	.8071
82	.0125	1.7mm	.0669	25	.1495	D	.2460	U	.3680	13/16	.8125
.32mm	.0126	51	.0670	3.8mm	.1496	6.25mm	.2461	9.4mm	.3701	21mm	.8268
81	.0130	1.75mm	.0689	24	.1520	6.3mm	.2480	9.5mm	.3740	53/64	.8281
80	.0135	50	.0700	3.9mm	.1535	E	.2500	3/8	.3750	27/32	.8438
.35mm	.0138	1.8mm	.0709	23	.1540	1/4	.2500	V	.3770	21.5mm	.8465
79	.0145	1.85mm	.0728	5/32	.1562	6.4mm	.2520	9.6mm	.3780	55/64	.8594
1/64	.0156	49	.0730	22	.1570	6.5mm	.2559	9.7mm	.3819	22mm	.8661
.4mm	.0157	1.9mm	.0748	4mm	.1575	F	.2570	9.75mm	.3839	7/8	.8750
78	.0160	48	.0760	21	.1590	6.6mm	.2598	9.8mm	.3858	22.5mm	.8858
.45mm	.0177	1.95mm	.0768	20	.1610	G	.2610	W	.3860	57/64	.8906
77	.0180	5/64	.0781	4.1mm	.1614	6.7mm	.2638	9.9mm	.3898	23mm	.9055
.5mm	.0197	47	.0785	4.2mm	.1654	17/64	.2656	25/64	.3906	29/32	.9062
76	.0200	2mm	.0787	19	.1660	6.75mm	.2657	10mm	.3937	59/64	.9219
75	.0210	2.05mm	.0807	4.25mm	.1673	H	.2660	X	.3970	23.5mm	.9252
.55mm	.0217	46	.0810	4.3mm	.1693	6.8mm	.2677	Y	.4040	15/16	.9375
74	.0225	45	.0820	18	.1695	6.9mm	.2717	13/32	.4062	24mm	.9449
.6mm	.0236	2.1mm	.0827	11/64	.1719	I	.2720	Z	.4130	61/64	.9531
73	.0240	2.15mm	.0846	17	.1730	7mm	.2756	10.5mm	.4134	24.5mm	.9646
72	.0250	44	.0860	4.4mm	.1732	J	.2770	27/64	.4219	31/32	.9688
.65mm	.0256	2.2mm	.0866	16	.1770	7.1mm	.2795	11mm	.4331	25mm	.9843
71	.0260	2.25mm	.0886	4.5mm	.1772	K	.2810	7/16	.4375	63/64	.9844
.7mm	.0276	43	.0890	15	.1800	9/32	.2812	11.5mm	.4528	1	1.0000
70	.0280	2.3mm	.0906	4.6mm	.1811	7.2mm	.2835	29/64	.4531		
69	.0292	2.35mm	.0925	14	.1820	7.25mm	.2854	15/32	.4688		
.75mm	.0295	42	.0935	13	.1850	7.3mm	.2874	12mm	.4724		
68	.0310	3/32	.0938	4.7mm	.1850	L	.2900	31/64	.4844		
1/32	.0312	2.4mm	.0945	4.75mm	.1870	7.4mm	.2913	12.5mm	.4921		
.8mm	.0315	41	.0960	3/16	.1875	M	.2950	1/2	.5000		
67	.0320	2.45mm	.0965	4.8mm	.1890	7.5mm	.2953	13mm	.5118		
66	.0330	40	.0980	12	.1890	19/64	.2969	33/64	.5156		
.85mm	.0335	2.5mm	.0984	11	.1910	7.6mm	.2992	17/32	.5312		
65	.0350	39	.0995	4.9mm	.1929	N	.3020	13.5mm	.5315		
.9mm	.0354	38	.1015	10	.1935	7.7mm	.3031	35/64	.5469		
64	.0360	2.6mm	.1024	9	.1960	7.75mm	.3051	14mm	.5512		
63	.0370	37	.1040	5mm	.1969	7.8mm	.3071	9/16	.5625		
.95mm	.0374	2.7mm	.1063	8	.1990	7.9mm	.3110	14.5mm	.5709		
62	.0380	36	.1065	5.	.2008	5/16	.3125	37/64	.5781		
61	.0390	2.75mm	.1083	7	.2010	8mm	.3150	15mm	.5906		
.00mm	.0394	7/64	.1094	13/64	.2031	O	.3160	19/32	.5938		
60	.0400	35	.1100	6	.2040	8.1mm	.3189	39/64	.6094		
59	.0410	2.8mm	.1102	5.2mm	.2047	8.2mm	.3228	15.5mm	.6102		
1.05m	.0413	34	.1110	5	.2055	P	.3230	5/8	.6250		
58	.0420	33	.1130	5.25mm	.2067	8.25mm	.3248	16mm	.6299		

No Liability is assumed resulting from the use of the information contained herein.

Notes