WORK HOLDING & TOOL STEEL

DESTACO — CLAMPS

IRWIN — CLAMPS

PONY — CLAMPS

WILTON — CLAMPS & VISES

Adjustable — CLAMPS

PRECISION BRAND — SHIM STOCK, KEY STOCK, FEELER GAGE

Pittsburg — CLAMPS & VISES

CLAMP-RITE — CLAMPS

Jorgensen — CLAMPS

MORTON machine works — JIG FIXTURES

CHICAGO — THREADED ROD

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Clamps - DE-STA-CO® Toggle Lock Plus Clamps

7

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-LR and 210-SR. Spindle assembly and flanged washers supplied with "U" bar Models 207-UR and 210-UR.

Model 207-UR

MODEL NO.	ORDER NO.	OVERALL HEIGHT	HEIGHT UNDER BAR	OVERALL LENGTH	HOLDING CAPACITY LBS.	PRICE EACH
207-UR	4352-078	6-29/32	1-1/4	4-37/64	500	$48.89
210-UR	4352-108	8	1-11/16	6-39/64	750	70.67

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	OVERALL LENGTH	DRAWING MOV'MT	HOLDING CAPACITY LBS.	PRICE EACH
323-R	4353-233	1-3/16	4	1-11/64	360	$31.46
323-RSS	4353-234	1-3/16	4	1-11/64	360	57.93
331-R	4353-311	2-5/64	5-31/32	1-3/4	700	40.35
331-RSS	4353-318	2-1/64	6-11/64	2	700	74.71
341-R	4353-411	2-57/64	7-1/2	2-1/2	2000	59.08
341-RSS	4353-414	2-7/8	8-9/32	2-1/2	2000	126.31
375-R**	4353-751	4-3/16	9-5/8	3-1/2	4000	113.71
385-R**	4353-854	1-3/8	8-3/4	2-3/16	7500	143.73

** Latch plate optional

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	OVERALL LENGTH	DRAWING MOV'MT	HOLDING CAPACITY LBS.	PRICE EACH
603-R	4356-032	3-27/64	31/32	4-11/16	1-1/2	600	$61.67
630-R	4356-301	3-1/16	13/16	7-1/32	2	2500	123.10

Heavy Duty Vertical Hold Down Clamps 1

Features: High strength forged alloy steel clamping arm, Hardended 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 (*)	OVERALL LENGTH	DRAWING MOV'MT	HOLDING CAPACITY LBS.	PRICE EACH
5110-R	4397-939	8.7	3.37	6.33	1150	88.53

Vertical Hold Down Clamps

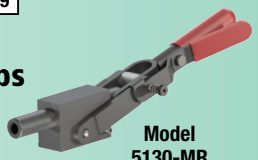
Features: Longer handle with greater hand clearance, Longer clamp arm, Spindle contacts workpiece vertically, Bolts up to legacy model 202

Model 2002-UR

MODEL NO.	ORDER NO.	OVERALL HEIGHT	HEIGHT UNDER BAR	OVERALL LENGTH	HOLDING CAPACITY LBS.	PRICE EACH
2002-UR	4351-902	4.72	0.95	3.29	600	$37.63
2007-UR	4351-905	7.17	1.25	4.82	1000	55.92
2010-UR	4351-908	9.08	1.7	6.09	1400	81.89

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

1

MODEL NO.	ORDER NO.	OVERALL HEIGHT	HEIGHT TO (*)	OVERALL LENGTH	HOLDING DRAWING MOV'MT	CAPACITY LBS.	PRICE EACH
5130-R	4397-947	3.63	1.38	11.11	1.9	5800	$118.77

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	OVERALL LENGTH	HOLDING CAPACITY LBS.	PRICE EACH
225-UR	4352-251	1-59/64	1-21/64	7-9/64	500	$45.29
235-UR	4352-351	2-35/64	1-45/64	10-17/32	750	77.27
305-UR	4353-051	1-7/16	1/2	2-1/4	150	35.34
307-UR	4353-071	2-7/16	7/8	3-39/64	350	48.31

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 (*)	OVERALL LENGTH	DRAWING MOV'MT	HOLDING CAPACITY LBS.	PRICE EACH
351-R	4353-511	3/4	9-7/64	4	375	$40.74

Pull Action Latch Style - Vertical Type

Model 324-R

MODEL NO.	ORDER NO.	OVERALL HEIGHT	OVERALL LENGTH	DRAWING MV'MT.	CAPACITY LBS.	PRICE EACH
324-R	4353-248	2-5/64	3-15/32	1-17/32	500	$46.34
334-R	4353-343	2-35/64	4-1/8	2	1000	57.23
344-R	4353-443	2-25/64	5-49/64	2-1/2	2000	86.87

Heavy Duty Horizontal Hold Down Clamps 1

Model 5310-R

Features: High strength forged alloy steel clamping arm
Hardened steel pivot pins and bushings for long life
Black oxide finish

MODEL NO.	ORDER NO.	OVERALL HEIGHT	HEIGHT UNDER BAR	OVERALL LENGTH	HOLDING CAPACITY LBS.	PRICE EACH
5305-R	4397-975	1.51	1.12	8.36	600	$98.67
5310-R	4397-979	2.00	1.31	11.02	1300	137.44

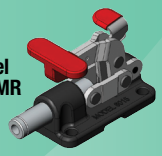
Horizontal Hold Down Clamps

Model 2017-UR

Features: Longer handle with greater hand clearance
Longer clamp arm, Spindle contacts workpiece vertically

MODEL NO.	ORDER NO.	OVERALL HEIGHT	HEIGHT UNDER BAR	OVERALL LENGTH	HOLDING CAPACITY LBS.	PRICE EACH
2013-UR	4351-926	1.3	0.75	5.87	295	$41.32
2017-UR	4351-927	1.95	0.98	8.65	560	54.37
2027-UR	4351-928	2.25	1.32	9.88	840	59.48

Straight Line Action Clamps



Model 6015-MR

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 NO.	ORDER NO.	OVERALL HEIGHT	HEIGHT TO (*)	OVERALL LENGTH	HOLDING DRAWING MOV'MT	CAPACITY LBS.	PRICE EACH
6015-R	4356-114	1-19/32	1/2	2-61/64	45/64	560	$56.51
6015-MR	4356-014	1-39/64	1/2	2-61/64	45/64	560	58.71

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 Clamps

Straight-Line Toggle Clamps

Model 601

Smallest of the straight-line clamps, ideal for electronic applications and similar small fixturing. Model 601 has an 8-32 nylon spindle.

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
601-0	4356-016	1-3/16	1/2	2-55/64	5/8	100	18.65
601-SS	4356-019	1-3/16	1/2	2-5/8	5/8	100	35.92
6001	4356-003	1-17/64	1/2	2-5/8	5/8	150	29.84

Compact Straight-Line Action Clamps

Model 6015

MODEL NO.	ORDER NO.	HEIGHT TO (*)	OVERALL LENGTH	DRAWING MOV'MT	HOLDING CAPACITY LBS.	PRICE EACH
6015	4356-115	0.5	2.96	0.7	560	$42.58
6015-SS	4356-113	0.5	2.96	0.7	630	76.95
6015-M	4356-015	1/2	2-61/64	45/64	560	42.58
6015-MSS	4356-013	1/2	2-61/64	45/64	630	69.96

Heavy Duty Straight Line Action Clamps

Model 5130

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.

[1]

MODEL NO.	ORDER NO.	HEIGHT TO (*)	OVERALL LENGTH	DRAWING MOV'MT	HOLDING CAPACITY LBS.	PRICE EACH
5130	4397-940	1.38	11.11	1.9	5800	$69.92
5131	4397-948	1.1	7.37	1.1	2500	55.72
5133	4397-956	1.38	12.89	3.18	4600	78.34

Heavy Duty Straight Line Action Clamps - Square Plunger

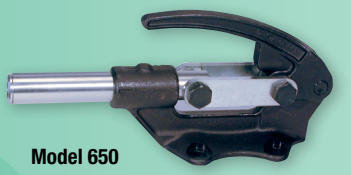
Model 5150

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

[1]

MODEL NO.	ORDER NO.	OVERALL HEIGHT	HEIGHT TO (*)	OVERALL LENGTH	DRAWING MOV'MT	HOLDING CAPACITY LBS.	PRICE EACH
5150	4397-964	3.63	1.38	11.25	1.91	5800	$89.71

Large Capacity Clamps



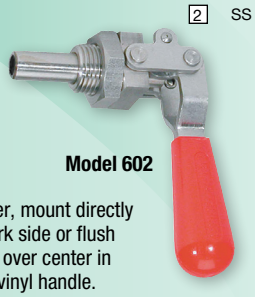
Model 650

Model has the largest capacity of the straight-line action clamps. Forged alloy steel base and handle. Removeable ring pivot pin construction permits easy removal of plunger after mounting. Locks over center in both extended and retracted position.

MODEL NO.	ORDER NO.	OVERALL HEIGHT	HEIGHT TO (℄) OF PLUNGER	OVERALL LENGTH	PLUNGER TRAVEL	HOLDING CAPACITY LBS.	PRICE EACH
650	4356-500	4-7/8	2-1/4	11-1/4	3	16000	$193.79

[2] SS = [7]

Fully Retractable Plunger Clamps

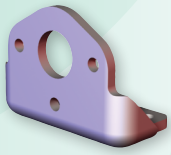


Model 602

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 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	79.21
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	71.60
624	4356-240	5-5/8	6-11/16	2-5/8	700	56.41
624-SS	4356-249	5-5/8	6-11/16	2-5/8	700	151.69

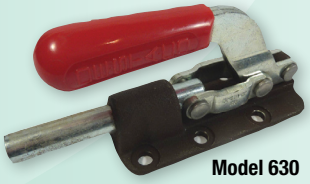
Fully Retractable Plunger Clamp Mounting Brackets



[1]

MODEL NO.	ORDER NO.	USE WITH CLAMP	HT. TO (℄) OF PLUNGER	PRICE EACH
604106	4356-041	604	1/2	$18.20

Low Profile Plunger Clamps

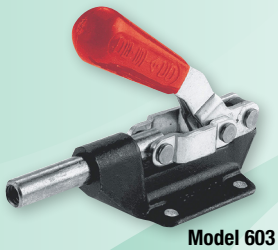


Model 630

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 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
610	4356-100	4-3/8	1-45/64	6-23/32	1-5/8	800	45.45
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



Model 603

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 NO.	ORDER NO.	OVERALL HEIGHT	HUT. BASE TO (℄) OF PLUNGER	OVERALL LENGTH	PLUNGER TRAVEL	HOLDING CAPACITY LBS.	PRICE EACH
603	4356-030	3-9/32	31/32	4-23/32	1-1/4	600	$28.87
603-SS	4356-039	3-9/32	31/32	4-23/32	1-1/4	840	73.14
605	4356-050	3-5/32	31/32	5-7/16	1-1/4	300	23.48
608	4356-080	4-3/64	1-1/4	6-1/8	1-5/8	850	56.32
609	4356-090	3-1/4	31/32	5-7/16	1-1/4	300	29.29

Hold Down Clamps

SS = [7]

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	$24.32
2002-U	4352-002	4.73	0.95	3.29	600	22.18
2002-UB	4352-004	5.07	1.27	3.29	600	25.72
2007-U	4352-007	7.21	1.25	4.82	1000	30.59
2007-UB*	4352-006	7.64	1.68	4.82	1000	33.90
2010-U	4352-001	9.00	1.70	6.09	1400	47.56

*Code = [7]

Hold-Down Action Clamps Vertical Hold-Down Clamps

Model 207-U

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 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	$15.07
201-USS	4352-019	3-1/32	5/8	2-1/64	125	32.99
202	4352-020	4-7/32	15/16	2-5/16	200	15.97
202-SS	4352-029	4-7/32	15/16	2-5/16	250	42.15
202-U	4352-026	4-7/32	15/16	2-47/64	200	15.66
202-UL	4352-120	4-7/32	15/16	3-17/64	200	18.14
202-USS	4352-039	4-7/32	15/16	2-47/64	250	42.35
207-L	4352-084	6-57/64	1-1/4	5-1/64	500	25.40
207-S	4352-080	6-57/64	1-1/4	3-3/4	500	21.59
207-U	4352-070	6-57/64	1-1/4	3-11/16	375	20.47
2002-U207	4352-202	5.01	1-1/4	3.29	600	23.77
207-UL	4352-074	6-57/64	1/14	5-13/32	375	21.52
207-USS	4352-079	5-5/8	1-1/4	4-3/8	450	54.27
210-S	4352-101	8	1-43/64	5-17/32	750	43.04
210-U	4352-100	8	1-43/64	5-17/32	600	31.95
210-USS	4352-109	8	1-43/64	5-17/32	750	80.30
247-S	4352-471	8-11/16	2	6-7/8	1000	57.69
247-U	4352-470	8-11/16	2	6-7/8	1000	48.51
267-U	4352-670	11-7/8	3-5/64	8-59/64	1200	77.92

Heavy Duty Vertical Handle Hold-Down Clamps [1]

- High strength forged alloy steel clamping arm
- Hardended 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	4397-980	6.75	1.51	4.02	750	$63.27
5905-B	4397-981	6.24	1.27	4.02	750	56.20
5910	4397-982	9.27	1.99	6.02	1600	80.02
5910-B	4397-983	8.72	1.75	6.02	1600	77.91
5915	4397-984	11.25	2.72	7.5	2750	125.38
LARGE CLEARANCE UNDER CLAMPING BAR						
5110	4397-936	8.7	3.37	6.33	1150	64.10

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	$25.30
2017-U	4351-919	1.95	0.98	8.62	560	31.44
2027-U	4351-920	2.20	1.32	9.88	840	34.44

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	$11.71
205-SSS	4352-069	43/64	3/8	2-25/32	75	25.77
205-U	4352-050	43/64	5/16	2-21/32	60	11.54
205-USS	4352-059	43/64	5/16	2-21/32	75	25.25
206-SS	4352-067	1-1/16	13/32	2-3/4	100	38.14
213-U	4352-130	1-25/64	23/32	4-1/8	150	15.14
213-USS	4352-139	1-25/64	23/32	4-1/8	150	35.41
215-U	4352-150	1-17/32	1	5-1/2	200	15.60
215-USS	4352-159	1-17/32	1	5-1/2	250	35.25
217-U	4352-170	1-61/64	31/32	6-9/16	200	20.10
217-USS	4352-179	1-61/64	31/32	6-9/16	250	42.81
225-U	4352-250	1-27/32	1-21/64	6-45/64	500	17.80
225-USS	4352-259	1-27/32	1-21/64	6-45/64	600	48.09
227-U	4352-270	2-7/16	1-19/64	7-9/16	500	22.16
227-USS	4352-279	2-7/16	1-19/64	7-9/16	600	57.24
235-U	4352-350	2-35/64	1-3/4	10-7/8	750	31.28
237-U	4352-370	3-13/64	1-5/8	10-43/64	750	40.20
245-U	4352-450	4-1/4	2-1/4	12-21/64	1000	63.76
305-U	4353-050	1-3/8	1/2	2-7/32	150	14.74
305-USS	4353-059	1-3/8	1/2	2-7/32	200	32.35
307-U	4353-070	2-13/32	7/8	3-39/64	350	24.09
307-USS	4353-079	2-13/32	7/8	3-39/64	350	53.60
309-U*	4353-090	3-35/64	1-19/64	5-3/16	750	42.38

*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	58.82
5310	4397-976	2.00	1.31	11.02	1300	94.70
5310-B	4397-977	1.69	1	11.02	1300	91.18

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	$34.34
317-S	4353-171	5-5/8	2-43/64	6-13/16	375	33.34

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

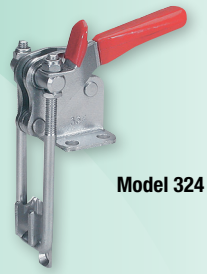
Latch-type pull action clamps are convenient to operate. One hand engages or disengages the latch bar while the other moves the handle. Red vinyl grip for comfortable handling.

Model 311

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

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.	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	52.73
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	62.09
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	105.50

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

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	39.86
351	4353-510	3/4	8-9/16	4	375	16.88
351-B	4353-515	55/64	8-9/16	4	375	21.16
351-SS	4353-519	3/4	8-9/16	4	450	39.24
371	4353-710	750	11.89	5.38	750	46.78
371-SS	4353-719	750	11.89	5.38	750	111.60
381	4353-810	1-27/64	12	5-3/8	750	52.97

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

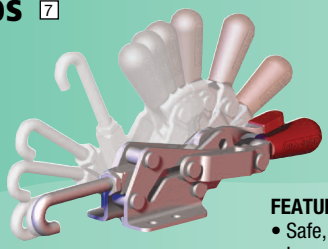
MODEL NO.	ORDER NO.	OVERALL HEIGHT	OVERALL LENGTH	DRAWING MOVEMENT	HOLDING CAPACITY LBS.	PRICE EACH
323	4353-230	1-1/8	4	1-3/16	360	$16.60
323-SS	4353-239	1-1/8	4	1-3/16	360	37.49
331	4353-310	1-31/32	4	2	700	22.07
331-SS	4353-319	1-31/32	5-5/8	2	700	44.53
341	4353-410	2-3/4	7-1/2	2-1/2	2000	35.27
341-SS	4353-419	2-3/4	7-1/2	2-1/2	2000	84.27
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	132.84

† Latch plate not included

Pull-Action Latch Clamps 7

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

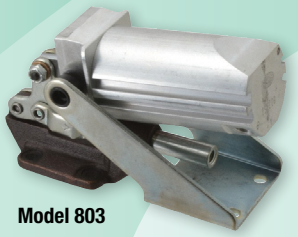
MODEL NO.	ORDER NO.	HEIGHT TO (℄)	OVERALL LENGTH	DRAWING MOVEMENT	HOLDING CAPACITY LBS.	PRICE EACH
3051	4353-052	0.69	8.98	0.75	1500	$55.77
3051-R	4353-063					82.10

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 Straight-Line Action

Air or hydraulic powered straight-line action clamps provide an economical holding device suited to a wide variety of uses.



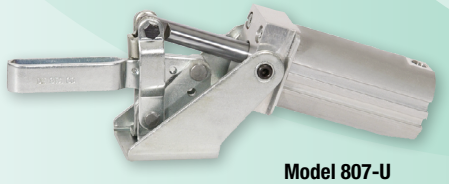
Model 803

7

MODEL NO.	ORDER NO.	OVERALL LENGTH	OVERALL HEIGHT	PLUNGER TRAVEL	HOLDING CAPACITY LBS.	PRICE EACH
803	4358-030	2-23/32	9-53/64	3/4	600	$238.49
830	4358-300	3-17/64	14-5/64	1-1/4	2500	399.98

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	$142.83
802-U	4358-020	2-11/32	1-1/16	7-25/64	200	161.10
807-S	4358-071	3	1-3/8	9-31/32	500	171.91
807-U	4358-070	3	1-3/8	9-7/32	375	171.91
810-S	4358-101	3-51/64	1-51/64	12-1/8	750	308.56
810-U	4358-100	3-51/64	1-51/64	12-9/32	600	277.34
817-S	4358-171	7-27/64	2-11/16	6-3/4	450	211.55
817-U	4358-170	7-27/64	2-11/16	6-3/16	350	202.52
827-S	4358-271	9-21/32	3-7/8	8-41/64	700	361.99
827-U	4358-270	9-21/32	3-7/8	8-3/4	600	358.64
847-U	4358-470	4-11/32	2-1/4	16	800	532.69
858	4358-580	7-1/8	3-27/32	18-3/32	4000	680.62
868	4358-680	14-21/64	4-3/16	10-7/64	4000	797.81

*Model 812-U= 6

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	$408.26
9522-2R	4395-221	0.50	5.22	1.42	34lb.	RH	408.26
9530-2L	4395-300	0.50	6.54	1.81	76lb.	LH	443.95
9530-2R	4395-302	0.50	6.54	1.81	76lb.	RH	443.95
9540-2L	4395-400	0.79	6.73	2.05	123lb.	LH	459.08
9540-2R	4395-402	0.79	6.73	2.05	123lb.	RH	459.08
9550-2L	4395-500	0.79	7.85	2.52	196lb.	LH	582.68
9550-2R	4395-502	0.79	7.85	2.52	196lb.	RH	582.68

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	$ 896.75
871-2	4358-710	11-3/4	2-1/8	90	2000	896.75

Swing Clamps

These versatile pneumatic clamps provide a quick swing-and-clamp movement while exerting just the force your operation requires, without deforming delicate parts. All pneumatic swing clamps are equipped with sensing capabilities as a standard feature. Multiple mounting options allow the clamp to be adapted to the fixture for the best use of space and to minimize installation time.

Model 8015 Model 8115 6

MODEL NO.	ORDER NO.	BODY STYLE	OVERALL HEIGHT	BASE WIDTH	SWING	CLAMPING FORCE @ 80 PSI	PRICE EACH
8015	4358-015	Threaded Body	4-7/8	1 1/8-16	RH	22	$383.68
8016	4358-016	Threaded Body	4-7/8	1 1/8-16	LH	22	383.68
8115	4358-115	Block Style	4-7/8	1-1/4	RH	22	366.47
8116	4358-116	Block Style	4-7/8	1-1/4	LH	22	366.47
8215	4358-215	Threaded Body	6-23/64	2 1/4-12	RH	80	507.68
8216	4358-216	Threaded Body	6-23/64	2 1/4-12	LH	80	507.68
8315	4358-315	Block Style	6-23/64	3	RH	80	498.65
8316	4358-316	Block Style	6-23/64	3	LH	80	498.65
8415	4358-415	Threaded Body	6-9/64	1 3/4-12	RH	62	479.95
8416	4358-416	Threaded Body	6-9/64	1 3/4-12	LH	62	479.95

Miniature

Model
81L20-10100

- 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	$509.14
81L16-10100	4358-132	119	30	16	528	553.03
81L20-10100	4358-134	151	35	20	885	643.73
81L25-10100	4358-136	151	35	25	885	643.73

Pneumatic Lever Clamps - 8700 Series

Model
8725

- 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

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	$429.39
8732	4387-320	6.65	16-30	2.36	64	446.03
8740	4387-400	6.93	19-29	2.35	106	462.67
8750	4387-500	7.87	22-33	2.95	167	495.96

Accessories

1

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
235219	3/8-16	4359-112	2.81

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

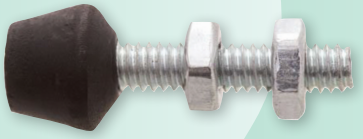
Flanged Washers

MODEL NO.	SIZE	ORDER NO.	PRICE EACH
102111	For No. 10 Spindle	4359-121	$0.55
105106	For No. 8 Spindle	4359-122	0.48
215105	For 1/4 Spindle	4359-123	0.55
235106	For 3/8 Spindle	4359-124	0.82
247109	For 1/2 Spindle	4359-126	1.45
507107	For 5/16 Spindle	4359-125	0.66

Hex Head Spindle Assembly with Locknuts

MODEL NO.	SIZE	ORDER NO.	PRICE EACH
105203	8-32 x 27/32 (Nylon)	4359-301	$2.10
207203	5/16-18 x 2-3/4	4359-304	2.22
210203	3/8-16 x 3	4359-305	2.69

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	2.76
202208	4359-803	1/4-20	1-5/8	3.06
202208-M	4359-825	M6 X 1.0	1-47/64	3.37
205208-M	4359-836	M4 X 0.7	7/8	3.32
215208	4359-805	1/4-20	2-1/8	3.59
215208-M	4359-827	M6 X 1.0	2-1/8	3.73
225208	4359-807	5/16-18	2-3/16	3.59
225208-M	4359-828	M8 X 1.25	2-3/32	3.73
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	$3.88
240208	4359-809	3/8-16	3-1/4	4.83
240208-M	4359-830	M10 X 1.50	3-7/64	5.16
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	10.22
307208-M	4359-839	M8 X 1.25	1-9/64	3.69
305208-M	4359-838	M5 X 0.8	1-11/16	3.17

Swing Clamp Arms

6

MODEL NO.	ORDER NO.	USE WITH CLAMP	OVERALL LENGTH	SPINDLE SIZE	PRICE EACH
9522150	4395-222	9522-2	1.77	M6	$42.54
9522153	4395-223	9522-2	2.56	M6	54.28
9540150	4395-404	9530-2/9540-2	1.97	M8	46.18
9540153	4395-405	9530-2/9540-2	3.15	M8	59.95
9550150	4395-504	9550-2	2.56	M10	47.80
9550153	4395-505	9550-2	3.54	M10	67.58

Sensors

These sensors are used along with pneumatic clamps to sense position of the cylinder piston.

14

MODEL NO.	ORDER NO.	MOUNT STYLE	CONNECTOR	FUNCTION	PRICE EACH
810169	4358-188	Round	M8 Male	Reed	$79.24
810173	4358-192	Round	M8 Male	PNP	80.77
810174	4358-193	Round	M8 Male	NPN	80.02
8EA-109-1	4358-195	T-Slot	M8 Male	Reed	124.86
810170	4358-189	T-Slot	M8 Male	Reed	106.11
810151	4358-510	Tie Rod	None, 9ft. cord	Reed	154.68
810155	4358-155	Tie Rod	None, 9ft. cord	Reed	171.53
810158	4358-158	Bnd. Clp.	None, 9ft. cord	Reed	171.53

Extension Cables

14

MODEL NO.	ORDER NO.	CONNECTOR	PRICE EACH
CABL-010	4359-202	M8	$41.58
CABL-013	4359-203	M8	42.88

Side Flange Mounting Kits

6

MODEL NO.	ORDER NO.	WEIGHT	USE WITH CLAMP	PRICE EACH
952260	4395-224	0.14	9522-2	$51.13
953060	4395-304	0.25	9530-2	58.23
954060	4395-406	0.26	9540-2	58.23
955060	4395-506	0.51	9550-2	60.69

Tapped Hole Mounting Kits

6

MODEL NO.	ORDER NO.	WEIGHT (LBS.)	USE WITH CLAMP	PRICE EACH
952261	4395-225	0.09	9522-2	$42.91
953061	4395-305	0.16	9530-2	49.45
954061	4395-407	0.16	9540-2	47.20
955061	4395-507	0.34	9550-2	42.32

Standard Mounting Kits

6

MODEL NO.	ORDER NO.	WEIGHT (LBS.)	BOLT SIZE	USE W/ CLAMP	PRICE EACH
952262	4395-226	0.15	M5 x 100	9522-2	$19.00
953062	4395-306	0.26	M6 x 120	9530-2, 9540-2	15.42

Clamps

NEW ITEM

Squeeze Action Clamps 2

Squeeze Action

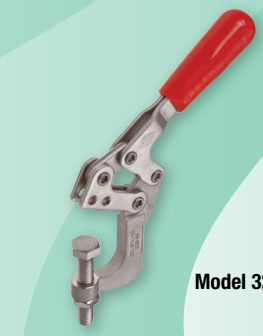
Most models have De-Sta-Co trigger release for easy one hand operation. These clamps are ideal for a wide range of applications for clamping and fixturing, holding and processing, etc.

MODEL 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	103.58
424	4354-240	4-3/4	1	1-5/64	200	27.13
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
463	4354-630	8-1/2	3	2-23/32	700	59.22
482*	4354-820	9-3/16	1-45/64	2-9/16	1200	68.83
484*	4354-840	9-1/16	3-53/64	2-9/16	1200	71.58
486*	4354-860	9-7/32	6	2-9/16	1000	76.77

** SS = 7

* Code = 14

New Models Added Daily
Call for any models not shown

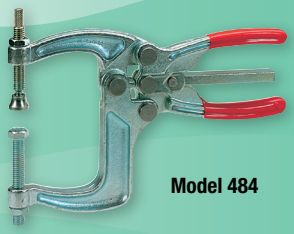

Model 325

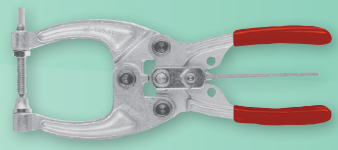
Model 462

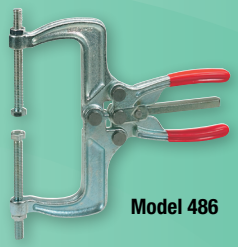
Model 424

Model 463

Model 441


Model 484

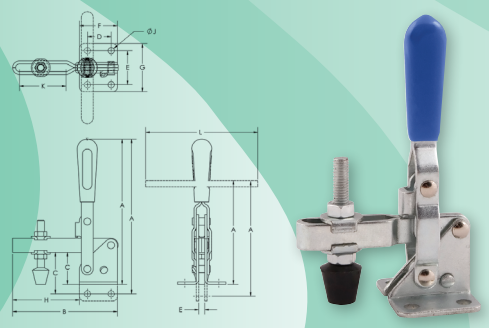

Model 482


Model 486

Vertical Handle Toggle Clamps

Model 11011CR

- Bar Opens: 100º
- Handle Opens: 56º
- Spindle Type: Bonded Neoprene
- Spindle Size: #10-24 x 1.38

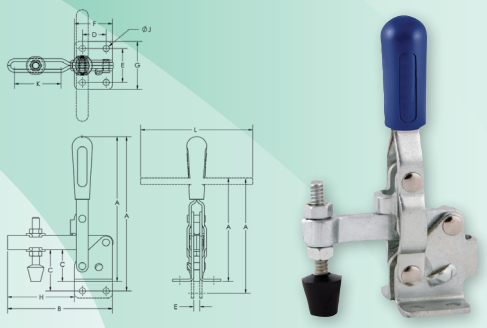


MODEL NO.	DE-STA-CO CROSS-REF. NO.	ORDER NO.	PRICE EACH	HLDG. CPCTY.	WT.	BASE TYPE	BAR TYPE	HANDLE TYPE
11011CR	201-U	4311-011	$7.65	100	.13	Flanged	U-bar	Std.

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 11020CR

- Bar Opens: 100º
- Handle Opens: 60º
- Spindle Type: Bonded Neoprene
- Spindle Size: 1/4-20 x 1.75

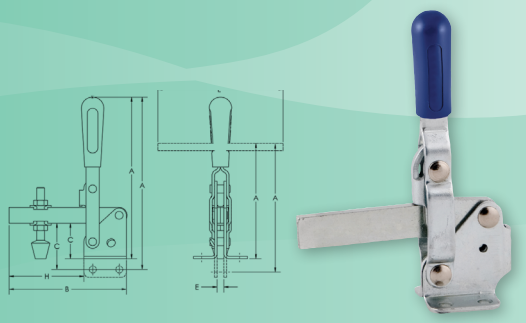


MODEL NO.	DE-STA-CO CROSS-REF. NO.	ORDER NO.	PRICE EACH	HLDG. CPCTY.	WT.	BASE TYPE	BAR TYPE	HANDLE TYPE
11020CR	202	4311-020	$8.35	200	.37	Flanged	Solid	Std.

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: 100º
- Handle Opens: 60º
- Spindle Type: Bonded Neoprene
- Spindle Size: 5/16-18 x 2.50

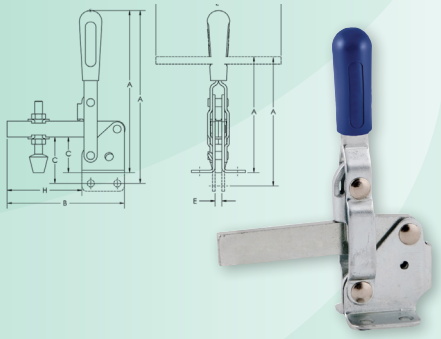


MODEL NO.	DE-STA-CO CROSS-REF. NO.	ORDER NO.	PRICE EACH	HLDG. CPCTY.	WT.	BASE TYPE	BAR TYPE	HANDLE TYPE
11074CR	207-S	4311-074	$10.75	375	.75	Flanged	U-bar	Std.

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 11671CR

- Bar Opens: 140º
- Handle Opens: 60º
- Spindle Type: Hex Head
- Spindle Size: 3/8-16 x 3.50

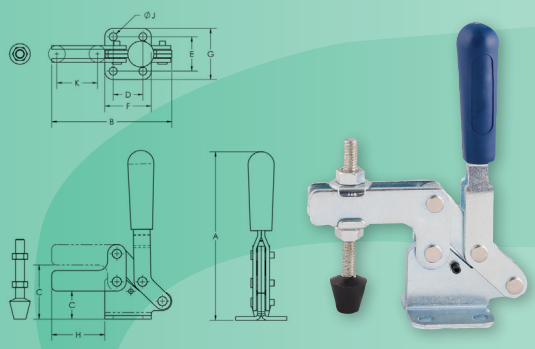


MODEL NO.	DE-STA-CO CROSS-REF. NO.	ORDER NO.	PRICE EACH	HLDG. CPCTY.	WT.	BASE TYPE	BAR TYPE	HANDLE TYPE
11671CR	267-U	4311-671	$34.95	1200	5.6	Flanged	U-bar	Std.

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: 90º
- Handle Opens: 85º
- Spindle Type: Bonded Neoprene
- Spindle Size: 3/8-16 x 3.50

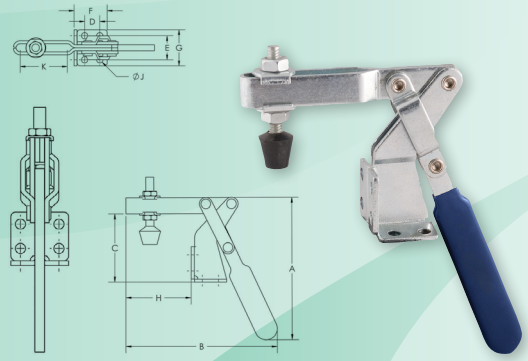


MODEL NO.	DE-STA-CO CROSS-REF. NO.	ORDER NO.	PRICE EACH	HLDG. CPCTY.	WT.	BASE TYPE	BAR TYPE	HANDLE TYPE
11352CR	136-DI	4311-352	$10.85	850	1.32	Flanged	high U-bar	Std.

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 11170CR

- Bar Opens: 185º
- Handle Opens: 60º
- Spindle Type: Bonded Neoprene
- Spindle Size: 5/16-18 x 2.50

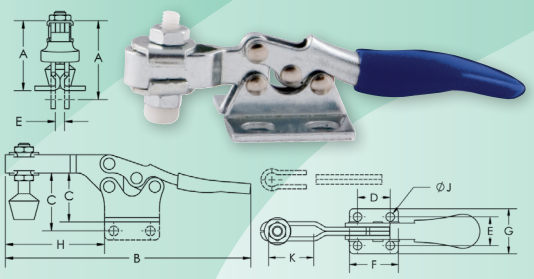


MODEL NO.	DE-STA-CO CROSS-REF. NO.	ORDER NO.	PRICE EACH	HLDG. CPCTY.	WT.	BASE TYPE	BAR TYPE	HANDLE TYPE
11170CR	317-U	4311-170	$14.71	375	.88	Flanged	U-bar	Std.

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

Models 14051CR-14054CR

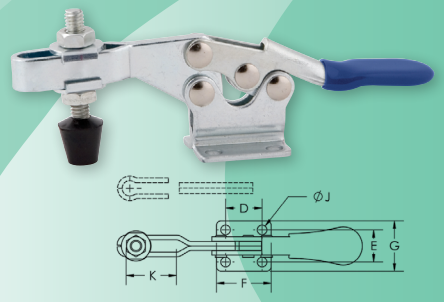


- Bar Opens: 90º
- Handle Opens: 80º
- Spindle Type: Nylon Hex Head
- Spindle Size: #8-32 x .75

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

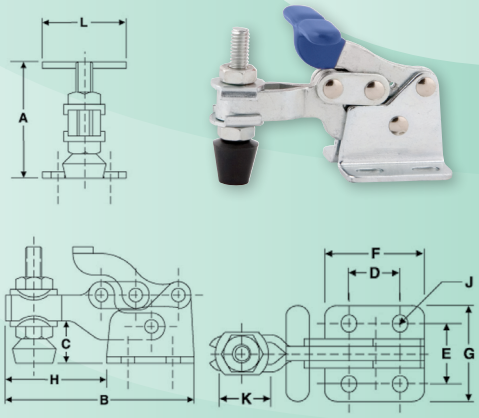


- Bar Opens: 85º
- Handle Opens: 60º
- Spindle Type: Bonded Neoprene
- Spindle Size: 1/4-20 x 2.13

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

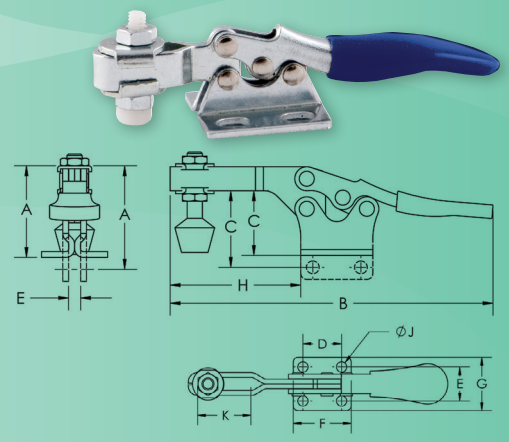


- Bar Opens: 90º
- Handle Opens: 170º
- Spindle Type: Bonded Neoprene
- Spindle Size: #10-24 x 1.38 (16051) 5/16-18 x 2.50 (16071)

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	10.90	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



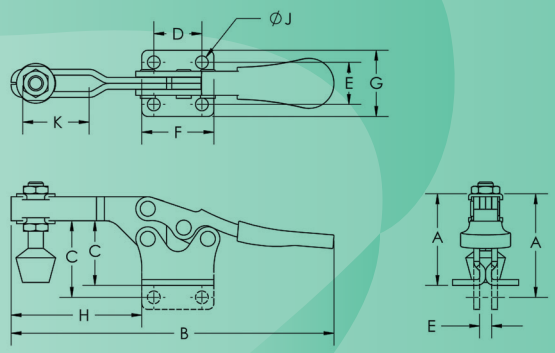
- Bar Opens: 90º
- Handle Opens: 65º
- Spindle Type: Bonded Neoprene
- Spindle Size: 5/16-18 x 3.00

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: 85º
- Handle Opens: 50º
- Spindle Type: Bonded Neoprene
- Spindle Size: 3/8-16 x 3.50



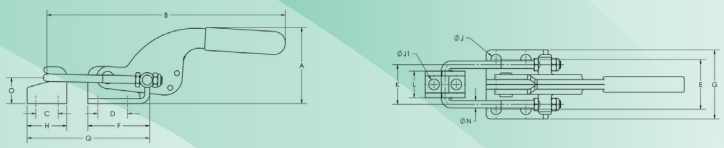
MODEL NO.	DE-STA-CO CROSS-REF. NO.	ORDER NO.	PRICE EACH	HLDG. CPCTY.	WT.	BASE TYPE	BAR TYPE	HANDLE TYPE
14351CR	235-U	4314-351	$15.65	750	1.5	Flanged	U-bar	Std.

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

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

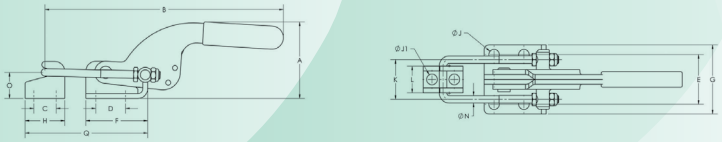


MODEL NO.	DE-STA-CO CROSS-REF. NO.	ORDER NO.	PRICE EACH	HLDG. CPCTY.	WT.	A	B	C	D	E	F
12310CR	331	4312-310	$11.56	700	.50	1.91	6.56	0.48	0.78	1.25	1.52
12410CR	341	4312-410	18.55	2,000	1.5	2.75	8.48	0.76	1.62	1.44	2.39
12410CRSS	341-SS	4312-410SS	41.55	2,000	1.5	2.75	8.48	0.76	1.62	1.44	2.39

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

Model 12750CR

- Drawing Movement: 3.50”
- Spindle Type: U-Hook
- Hook Size: M10
- Base Type: Flanged
- Bar Type: Standard

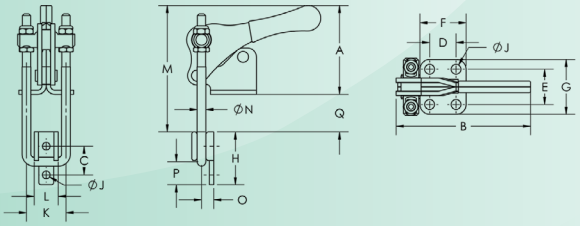


MODEL NO.	DE-STA-CO CROSS-REF. NO.	ORDER NO.	PRICE EACH	HLDG. CPCTY.	WT.	A	B	C	D	E	F
12750CR	375	4312-750	$39.70	4,000	2.78	3.96	11.39	1.37	2.24	2.28	3.42

MODEL NO.	G	H	J	K	L	M	N	O	P	Q MIN	Q MAX
12750CR	3.21	2.32	0.41	1.71	3.14	-	0.39	1.17	-	6.22	7.21

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

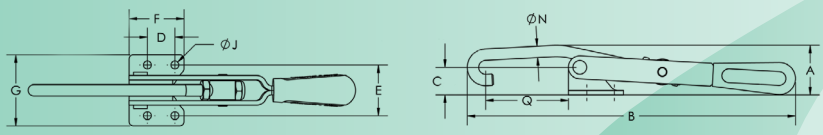


MODEL NO.	DE-STA-CO CROSS-REF. NO.	ORDER NO.	PRICE EACH	HLDG. CPCTY.	WT.	A	B	C	D	E	F
12240CR	324	4312-240	$12.15	500	.25	2.22	3.15	0.57	0.51	0.87	1.02
12340CR	334	4312-340	14.90	1,000	.55	2.86	4.71	0.81	0.75	1.02	1.30

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)

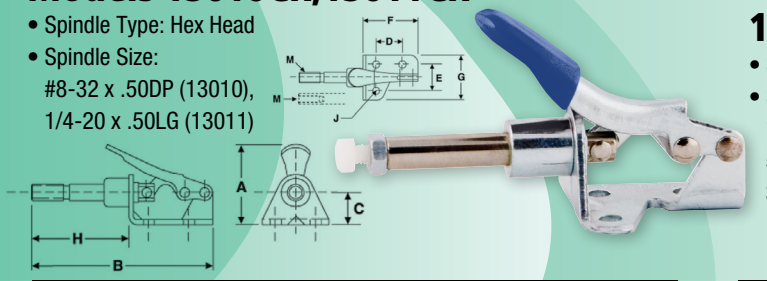


MODEL NO.	DE-STA-CO CROSS-REF. NO.	ORDER NO.	PRICE EACH	HLDG. CPCTY.	WT.	BASE TYPE	HANDLE TYPE
12710CR	371	4312-710	$17.00	750	1.38	Flanged	Std.
12810CR	381	4312-810	18.40	1000	2.49	Flanged	Std.

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

Models 13010CR,13011CR

- Spindle Type: Hex Head
- Spindle Size:
  #8-32 x .50DP (13010),
  1/4-20 x .50LG (13011)

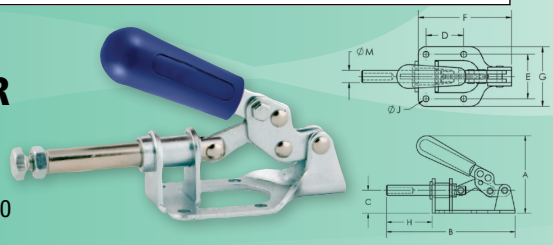


MODEL NO.	DE-STA-CO CROSS-REF. NO.	ORDER NO.	PRICE EACH	HLDG. CPCTY.	WT.	PLNGR TRAVEL	BASE TYPE	HANDLE TYPE	THD.
13010CR	610	4313-010	$8.10	100	.11	0.63	Flng.	Std.	Int.
13011CR	601-O	4313-011	6.42	100	.11	0.63	Flanged	Std.	Ext.

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

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.	WT.	PLNGR. TRAVEL	BASE TYPE	HANDLE TYPE
13050CR	605	4313-050	$11.90	300	.66	1.25	Flng.	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 13090CR

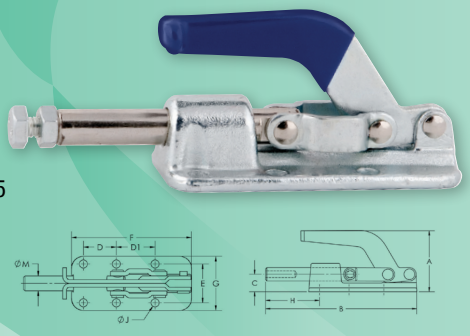
- Spindle Type: Hex Head
- Spindle Size: 5/16-18 x 1.00

MODEL NO.	DE-STA-CO CROSS-REF. NO.	ORDER NO.	PRICE EACH	HLDG. CPCTY.	WT.	PLNGR. TRAVEL	BASE TYPE	HANDLE TYPE
13090CR	609	4313-090	$12.95	300	.76	1.25	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

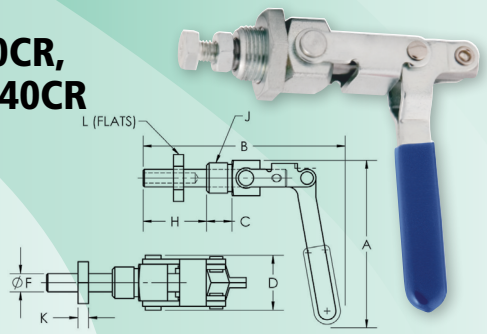
Models 13070CR, 13300CR

- Spindle Type: Hex Head
- Spindle Size: 3/8-16 x 125



Models 13020CR, 13040CR, 13240CR

- 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)

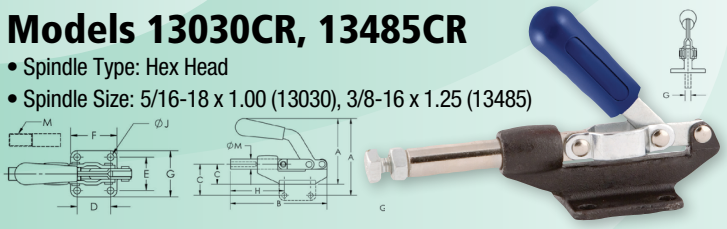


MODEL NO.	DE-STA-CO CROSS-REF. NO.	ORDER NO.	PRICE EACH	HLDG. CPCTY.	WT.	PLNGR TRAVEL	MOUNT TYPE	HANDL TYPE
13020CR	602	4313-020	$11.25	200	.25	0.75	Through-hole	Std.
13040CR	604	4313-040	12.65	300	.60	1.50	Through-hole	Std.
13240CR	624	4313-240	25.30	700	1.54	2.63	Through-hole	Std.

MODEL NO.	A	B	C	D	F	H	J	K	L
13020CR	3.06	2.67	0.48	1.03	0.37	0.81	0.58	0.26	0.94
13040CR	4.16	4.26	0.63	1.28	0.43	1.57	0.73	0.25	1.17
13240CR	5.43	6.73	0.88	1.86	0.63	2.80	1.05	0.35	1.59

Models 13030CR, 13485CR

- Spindle Type: Hex Head
- Spindle Size: 5/16-18 x 1.00 (13030), 3/8-16 x 1.25 (13485)

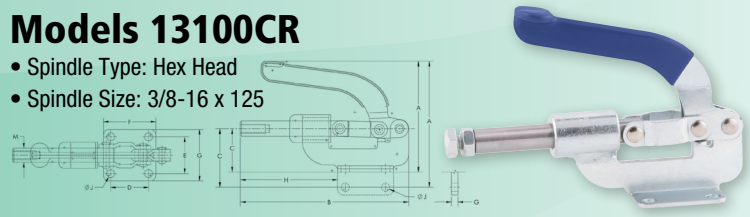


MODEL NO.	DE-STA-CO CROSS-REF. NO.	ORDER NO.	PRICE EACH	HLDG. CPCTY.	WT.	PLNGR TRAVEL	BASE TYPE	HANDLE TYPE	THD. TYPE
13030CR	603	4313-030	$15.55	600	.7	1.25	Flng.	45º	Int.
13485CR	608	4313-485	25.75	850	1.28	1.65	Flng.	45º	Int.

MODEL NO.	A	B	C	D	E	F	G	H	J	M
13030CR	3.34	3.64	0.98	1.44	1.32	2.30	1.85	2.03	0.23	0.43
13485CR	4.19	6.41	1.25	1.62	1.63	2.33	2.25	3.13	0.33	0.63

Models 13100CR

- Spindle Type: Hex Head
- Spindle Size: 3/8-16 x 125



MODEL NO.	DE-STA-CO CROSS-REF. NO.	ORDER NO.	PRICE EACH	HLDG. CPCTY.	WT.	PLNGR. TRAVEL	BASE TYPE	HANDLE TYPE
13100CR	610	4313-100	$19.95	800	1.76	1.63	Flanged	Std.

MODEL NO.	THD.	A	B	C	D	E	F	G	H	J	M
13100CR	Int.	5.04	6.82	1.75	1.63	1.58	2.25	2.20	4.23	0.34	0.62

MODEL NO.	DE-STA-CO CROSS-REF. NO.	ORDER NO.	PRICE EACH	HLDG. CPCTY.	WT.	PLNGR TRAVEL	BASE TYPE	HANDLE TYPE	THD. TYPE
13070CR	607	4313-070	$23.25	800	1.7	1.63	Flanged	Std.	Int.
13300CR	630	4313-300	29.25	2500	2.06	2.00	Flanged	Std.	Int.

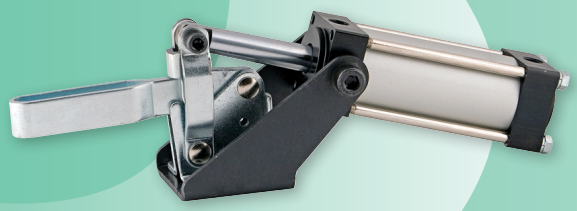
MODEL NO.	A	B	C	D	E	F	G	H	J	M
13070CR	3.28	6.10	0.68	1.38	1.62	4.30	2.18	1.86	0.28	0.51
13300CR	2.93	7.06	0.88	1.39	1.63	5.25	2.24	1.82	0.35	0.63

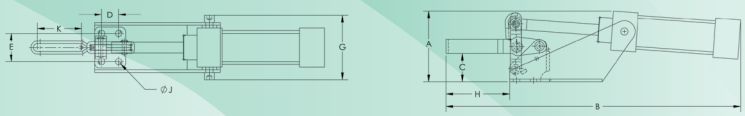
Pneumatic Hold-Down Clamps

4 CLAMP-RITE

Models 17018CR, 17101CR

- Spindle Type: Bonded Neoprene
- Spindle Size: 5/16-18 x 2.50 (17018)
  3/8-16 x 3.50 (17101)



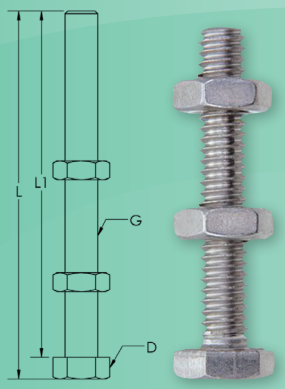


MODEL NO.	DE-STA-CO CROSS-REF. NO.	ORDER NO.	PRICE EACH	HLDG. CPCTY.	WT.	PORT SIZE	TYPE	BAR TYPE
17101CR	810-U	4317-101	$120.16	600	4.00	1/8 NPT	Horizontal	Adj. Hold-Down
17121CR	812-U	4317-121	57.62	150	.46	10-32 NF	Horizontal	Adj. Hold-Down

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
17121CR	1.60	6.63	0.69	0.63	0.94	3.00	0.94	0.13	0.77

Clamp Accessories

Hex Head Spindle



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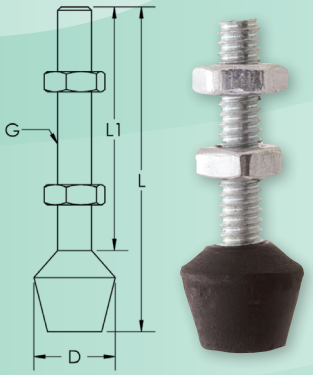
MODEL NO.	ORDER NO.	PRICE EACH	D	G	L	L1
19112CR	4319-112	$0.82	0.43	1/4-20	1.65	1.50
19212CR	4319-212	0.89	0.49	5/16-18	2.71	2.50
19338CR	4319-338	1.02	0.55	3/8-16	3.23	3.00
19310CR	4319-310	1.82	0.74	1/2-13	3.31	3.00

Bonded Neoprene Spindle



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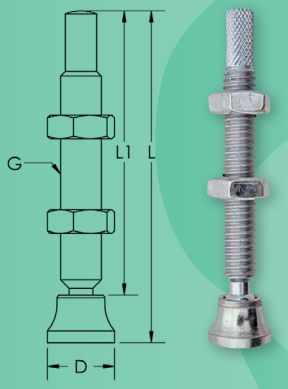
MODEL NO.	ORDER NO.	PRICE EACH	D	G	L	L1
19218	4319-218	$1.34	0.59	1/4-20	2.17	1.59
19312	4319-312	2.00	0.88	3/8-16	3.44	2.60

Swivel Foot Spindle



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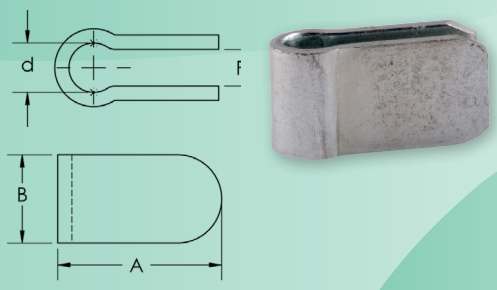
MODEL NO.	ORDER NO.	PRICE EACH	D	G	L	L1
19214	4319-214	$2.10	0.43	1/4-20	3.20	2.80
19234	4319-234	2.25	0.47	5/16-18	2.72	2.44
19300	4319-300	2.58	0.63	3/8-16	2.91	2.56

Bolt Retainer



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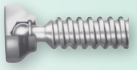
MODEL NO.	ORDER NO.	PRICE EACH	BOLT SIZE	A	B	F1	d
19516	4319-516	$0.90	5/16, M8	1.20	0.64	0.25	0.32
19380	4319-380	1.25	3/8, M10	1.47	0.74	0.33	0.41
19120	4319-120	1.35	1/2, M12	1.70	1.19	0.38	0.67

Pony, Adjustable, & Jorgensen products are subject to availability. 2

Clamps

WILTON Series 400 Deep Throat Clamps



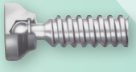
Wilton's exclusive Perma-Pad® Design.

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 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	$29.80
403	0 - 3	2-1/2	9/16	3500	3	9540-465	36.40
404	0 - 4-1/4	3-1/4	3/4	6200	4	9540-466	54.60
406	0 - 6-1/16	4-1/8	3/4	6600	6	9540-467	82.70
408	0 - 8-1/4	5	3/4	6900	7	9540-468	107.50
410	2 - 10-1/8	6	3/4	8000	11	9540-469	142.20
412	2 - 12-1/4	6-5/16	7/8	9300	15	9540-470	228.20
400 SERIES HI-VISIBILITY							
402SF	0 - 2-1/8"	2-1/4"	9/16"	3500	2	9540-477	$28.10
403SF	0 - 3	2-1/2	9/16	3500	3	9540-478	36.40
404SF	0 - 4-1/4	3-1/4	3/4	6200	4	9540-479	54.60
406SF	0 - 6-1/16	4-1/8	3/4	6600	6	9540-480	86.00
408SF	0 - 8-1/4	5	3/4	6900	7	9540-481	109.10
410SF	2 - 10-1/8	6	3/4	8000	11	9540-482	147.20
412SF	2 - 12-1/4	6-5/16	7/8	9300	15	9540-483	241.40
400 SERIES SPARK DUTY (COPPER PLATED SPINDLE)							
402P	0 - 2-1/8"	2-5/8"	9/16"	3500	2	9540-536	$29.80
403P	0 - 3	2-1/2	5/8	3500	3	9540-537	39.70
404P	0 - 4-1/4	3-1/4	3/4	6200	4	9540-538	56.20
406P	0 - 6-1/16	4-1/8	3/4	6600	6	9540-539	89.30
408P	0 - 8-1/4	5	3/4	6900	7	9540-540	109.10
410P	2 - 10-1/8	6	3/4	8000	11	9540-541	153.80
412P	2 - 12-1/4	6-5/16	7/8	9300	15	9540-542	249.70

WILTON Series 800 Standard Throat Clamps



Wilton's exclusive Perma-Pad® Design.

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 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	$34.70
804	0 - 4	2-5/16	5/8	3700	2-7/8	9540-517	48.00
806	0 - 6	2-15/16	5/8	4500	3-7/8	9540-518	79.40
808	0 - 8	3-7/16	3/4	5200	6-3/4	9540-519	89.30

Pittsburg® ALLEGHANY 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	124.00
104	0 - 4	2-3/8	5/8	8750	9540-510	140.60
106	2 - 6	2-1/2	5/8	8750	9540-511	196.80
108	4 - 8	2-5/8	5/8	8750	9540-512	254.60

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.

2

WILTON CAT. NO.	CAPACITY	THROAT DEPTH	SPINDLE DIA.	ORDER NO.	PRICE EACH
540A-4	0 - 4	2-1/8	5/8	9540-645	$36.40
540A-6	0 - 6	2-3/4	5/8	9540-647	54.60
540A-8	0 - 8	3-11/32	3/4	9540-648	71.10

WILTON Super-Junior® Forged C-Clamps

2

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	$8.30
51	0 - 1	1-1/2	9540-627	8.30
52	0 - 1-1/4	1-1/4	9540-628	8.30

IRWIN QUICK-GRIP Medium-Duty One-Handed Bar Clamps

2

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

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	$24.30
1964718	12"	7-7/8" - 19-3/8"	3-3/16"	3255-451	27.01
1964719	18"	7-7/8" - 25-3/8"	3-3/16"	3255-452	31.06
1964720	24"	7-7/8" - 31-3/8"	3-3/16"	3255-453	33.76
1964741	36"	7-7/8" - 43-3/8"	3-3/16"	3255-454	40.50

IRWIN QUICK-GRIP Heavy-Duty One-Handed Bar Clamps

2

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

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	$31.21
1974712	12"	9-1/4"-20-7/8"	3-5/8"	3255-461	34.81
1974713	18"	9-1/4"-26-7/8"	3-5/8"	3255-462	38.66
1974714	24"	9-1/4"-32-7/8"	3-5/8"	3255-463	43.21
1974715	36"	9-1/4"-44-7/8"	3-5/8"	3255-464	51.62

Pittsburg® ALLEGHANY Bar Clamps

- Sliding Quick Release Precision Steel Jaw,
- Steel Bar, Protective Clamp Pad

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

Clamps

Pittsburg® 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

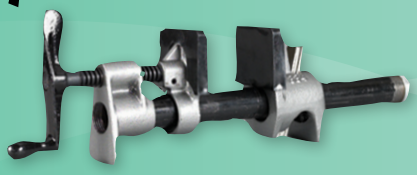
Pittsburg® Tool Maker’s Parallel Clamps

- 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

Pittsburg® Pipe Clamps

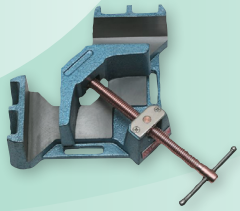


- Malleable Iron Bodies, Extra Wide Base
- Quick Release Clutch Mechanism
- Pipe not included

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		

WILTON 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	$244.70

WILTON Vise Jaws

Magnefix Vise Jaw Caps

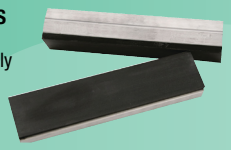
MODEL A-ALUMINUM MAGNEFIX JAW CAPS

- 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

2

WILTON NO.	JAW WIDTH	ORDER NO.	PRICE EA.
A-3.5	3-1/2	9540-399	$30.25
A-4	4	9540-400	51.30
A-4.5	4-1/2	9540-401	52.90
A-5	5	9540-402	54.60
A-5.5	5-1/2	9540-403	59.50
A-6	6	9540-404	59.50
A-6.5	6-1/2	9540-405	62.80

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

WILTON NO.	JAW WIDTH	ORDER NO.	PRICE EA.
R-3.5	3-1/2	9540-423	$33.15
R-4	4	9540-424	51.30
R-4.5	4-1/2	9540-425	54.60
R-5	5	9540-426	54.60
R-5.5	5-1/2	9540-427	59.50
R-6	6	9540-428	59.50
R-6.5	6-1/2	9540-429	61.20

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

WILTON NO.	JAW WIDTH	ORDER NO.	PRICE EA.
P-3.5	3-1/2	9540-415	$33.15
P-4	4	9540-416	56.20
P-4.5	4-1/2	9540-417	61.20
P-5	5	9540-418	61.20
P-5.5	5-1/2	9540-419	64.50
P-6	6	9540-420	62.80
P-6.5	6-1/2	9540-421	66.10

WILTON 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	$ 56.20
404-3-1/2	3-1/2	9540-390	74.40
404-4	4”	9540-391	77.70
404-4-1/2	4-1/2	9540-392	79.40
404-5	5”	9540-393	112.40
404-5-1/2	5-1/2	9540-394	137.20
404-6	6”	9540-395	160.40
404-6-1/2	6-1/2	9540-396	188.50

Clamps

Pony & Jorgensen products are subject to availability.

Carriage Clamps

Made in USA

- 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.	OPENING 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

Made in USA

- 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

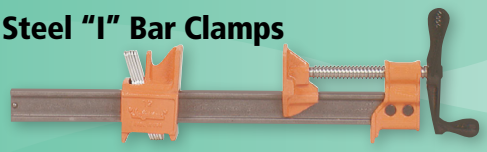
MFG. NO.	OPENING	DEPTH	NORMAL LOAD LIMIT	ORDER NO.	PRICE EACH
1413	1"	3"	400 lbs.	9545-251	$ 4.16
1415	1-1/2"	1-1/2"	400 lbs.	9545-252	3.02
1422	2-1/2"	1-3/8"	600 lbs.	9545-254	4.21
1423	2"	3-1/2"	400 lbs.	9545-255	5.91
1425	2-1/2"	2-1/2"	600 lbs.	9545-256	4.87
1430	3"	2"	800 lbs.	9545-257	5.10
1480	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

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

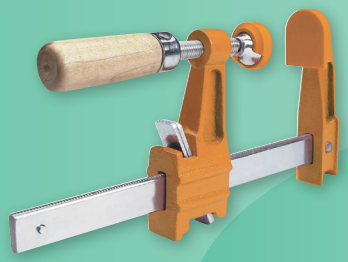
Bar Clamps ISD™

- 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

Steel Bar Clamps and Pads



Made in USA

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.

2

MFG. NO.	MAX. OPENING CAPACITY	NORMAL LOAD LIMIT	ORDER NO.	PRICE EACH
LIGHT DUTY				
3704-LD	4"	300 lbs.	9545-560	$7.76
3706-LD	6"	300 lbs.	9545-561	7.97
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
3718	18"	600 lbs.	9545-572	13.34
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

Cabinet Master 90° Parallel Steel Bar Clamps

Made in USA

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

Clamps

Pony & Jorgensen products are subject to availability.

PONY

Spring Clamps

Made in USA

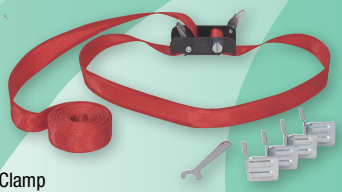
FEATURES:
- Jaws- light-weight, nickel-plated steel.
- Spring- heavy-duty tempered steel for maximum strength
- Handles- designed for optimum comfort with minimized spread.
- Poly-vinyl handles and jaw tips.

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

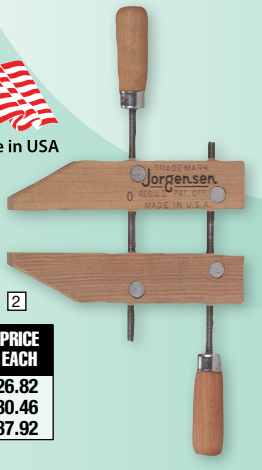
MFG. NO.	LOAD LIMIT	ORDER NO.	PRICE EACH
1215	1,000 lbs.	9545-240	$15.04

Jorgensen

MASTER-QUALITY CLAMPS

Adjustable Handscrews

Made in USA



FEATURES:
- The jaws hold odd shapes easily, are capable of overlapping.
- Provide protection against marring of finished surfaces.
- Seasoned hard maple.

2

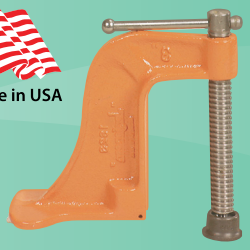
MFG. NO.	JAW IN.	MAX OPENING IN.	REACH IN.	ORDER NO.	PRICE EACH
0	8”	4-1/2”	4”	9545-004	$26.82
1	10”	6”	5”	9545-005	30.46
2	12”	8-1/2”	6”	9545-006	37.92

Jorgensen

MASTER-QUALITY CLAMPS

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

Bench Vises

Utility Workshop Vises

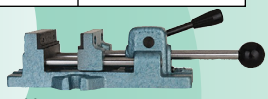
Versatile, all-around vise recommended for the professional craftsman or home workshop enthusiast.

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	$ 201.70
675U	5-1/2	5	1/8 - 2-1/2	4	29	9540-347	248.00
676U	6-1/2	5-1/2	1/8 - 2-1/2	5	41	9540-348	337.30
656UHD	6	6	1/8 - 3	6	63	9540-368	451.40
648UHD	8	7-1/2	1/8 - 3	8	79	9540-367	633.30

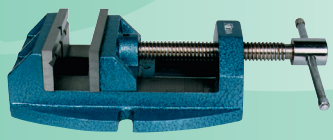
Cam Action Drill Press Vises



- 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 piece. 2

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	$277.80
1206	6	6-3/16	1-13/16	3-3/4	35	9540-440	482.80
1208	8	8-3/16	2	4-7/16	53	9540-441	601.90

Drill Press Vises



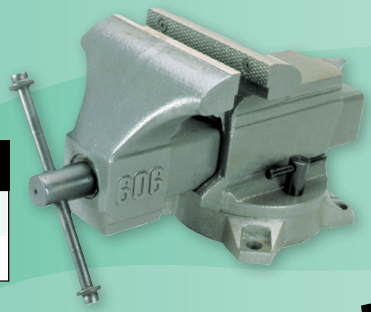
FEATURES:
- The 1300 series is made of graded cast irons and offers a ground vise bed for a smooth, consistent jaw movement and hardened top u-groove jaws.
- The 1400 series is made of graded cast iron and features precision 90° machining of the vise's side bodies, which allows them to be used additionally 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. 2

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	$127.30
1345	4	2-1/8	3-3/4	12	9540-443	183.50
1360	5	2-1/8	4-7/8	24	9540-444	261.30
	SERIES 1400					
1445	4-1/2	1-7/8	4-3/4	15	9540-446	292.70
1460	6	2-1/8	6-3/4	38	9540-447	408.40

Pittsburg® Mechanics' Bench Vises

- 30,000 PSI Castings, Heavy Duty Construction
- Chrome Plated Spindle/Handle
- Hardened Steel Replaceable Jaw Faces
- 270º Swivel Base, 4 Lug Reinforcement

3

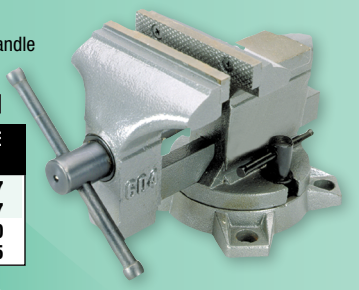


DIMENSIONS	ORDER NO.	PRICE EACH
4"	7738-614	$ 105.17
5"	7738-615	145.98
6"	7738-616	210.47
7"	7738-617	243.38

Pittsburg® Workshop Series Bench Vises

- 20,000 PSI Castings, Black Oxide Spindle/Handle
- Hardened Steel Replaceable Jaw Faces
- 270º Swivel Base, 4 Lug Reinforcement

3



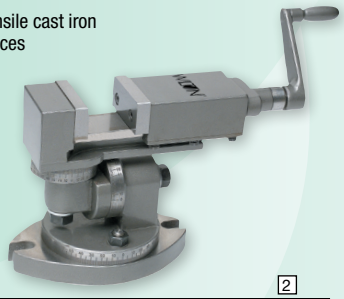
DIMENSIONS	ORDER NO.	PRICE EACH
3"	7738-603	$ 30.07
4"	7738-604	61.07
5"	7738-605	111.10
6"	7738-606	155.85

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 2

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	$514.30
TLT/SP-75	3	3	1-15/16	24	9541-160	849.90

Super Precision 2-Way Angular Machine Vise

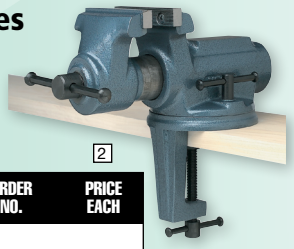


FEATURES:
- Manufactured from close grained high tensile cast iron
- All ground surfaces made to close tolerances
- Jaw plates, hardened and ground
- Perfect vise for grinding, jig boring, and shaping jobs
- No jaw tilt
- Hardness of jaws - 55 ±3 HRC
- 90° vertical and 180° horizontal indexing
- 360° swivel base
- 90° tilting range
- Perfectly indexed for angular work

2

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	$603.50
AMV/SP-100	4	4	1-9/16	38	9541-164	740.80

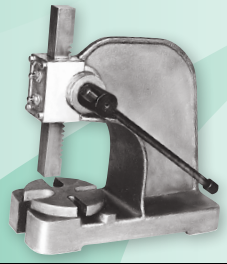
Super Junior Vises



FEATURES:
- Clamp-on models are portable.
- Top jaws are grooved and replaceable.
- Spindle is fully enclosed.
- Double lockdowns ensure stability. 2

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	$157.10
CBV-100	4	4	15	9540-377	186.90
SWIVEL BASE					
SBV-65	2-1/2	2-1/2	8	9540-380	135.60
SBV-100	4	4	14	9540-379	150.50

Pittsburg® Arbor Presses



3

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

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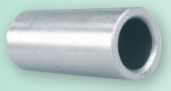
Drill Bushings

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.

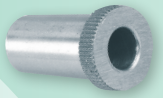
Quantity Discounts:

1-5 pcs.....List	24-49 pcs. .....–34%	200-499 pcs. ..–51%
6-11 pcs. .....–18%	50-99 pcs. .....–43%	500 pcs. up.....–52%
12-23 pcs.....–29%	100-199 pcs. ..–47%	Same Size – No Mix

ANSI Tolerances – Sizes Not Listed Available on Request



TYPE "P"



TYPE "H"

TYPE "SF"

Headless Press Fit

I.D. RANGE (STD. DRILL SIZE)		O.D.			BODY LENGTH – LIST PRICE – UNGROUND BUSHINGS ARE AVAILABLE													
				ANSI	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	NOM.	ACTUAL	SYMBOL	-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	–	–	–	–	–	–	–	–
3/16–0	.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

I.D. RANGE (STD. DRILL SIZE)		O.D.			BODY LENGTH – LIST PRICE – UNGROUND BUSHINGS ARE AVAILABLE													
				ANSI	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	NOM.	ACTUAL	SYMBOL	-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	–	–	–	–	–	–	–	–
3/16–0	.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

I.D. RANGE (STD. DRILL SIZE)		O.D.			BODY LENGTH – LIST PRICE – UNGROUND BUSHINGS ARE AVAILABLE													
				ANSI	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	NOM.	ACTUAL	SYMBOL	-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

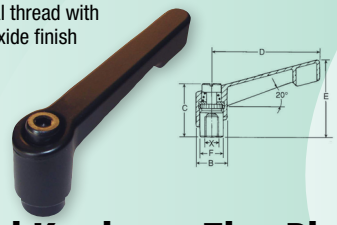
Boxed prices indicate counterbored bushings.

Jig Fixtures & Components

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



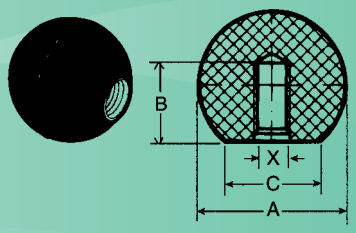
						PLASTIC HANDLE			DIE-CAST HANDLE		
X THREAD	B	C	D	E	F	REF. NO.	ORDER NO.	PRICE EACH	REF. NO.	ORDER NO.	PRICE EACH
#10-24	.55	.95	1.65	1.30	.39	AH-101	3161-968	$ 4.85	MH-101	3163-658	$6.30
#10-32	.55	.95	1.65	1.30	.39	AH-102	3161-969	4.85	MH-102	3163-659	6.30
#1/4”-20	.55	.95	1.65	1.30	.39	AH-103	3161-970	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

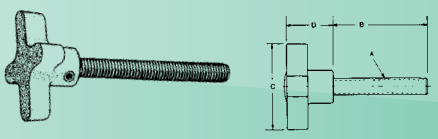
Plastic Ball Knobs



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			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	2-1/2	1-1/2	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

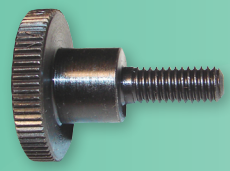
Adjustable Clamping Levers

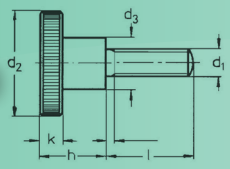
Plastic Handle w/ Stud and Die-Cast Zinc Handle w/ Stud

- 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

							PLASTIC HANDLE			DIE-CAST HANDLE		
X THREAD	L	B	C	D	E	F	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

						STEEL			STAINLESS STEEL		
d^2	THREAD	THREAD LGTH	d^3	h	k	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

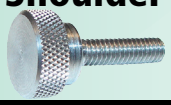
Metric Thumb Screws

- 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

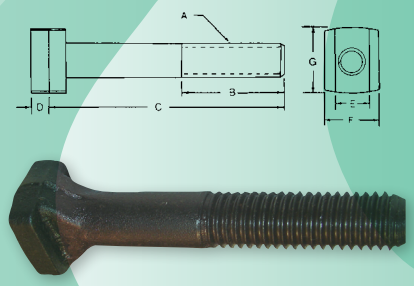


						STEEL			STAINLESS STEEL		
A THREAD	B	C	D	E	F	PART NO.	ORDER NO.	PRICE EACH	PART NO.	ORDER NO.	PRICE EACH
4-40	3/8	1/4	1/4	3/16	3/32	3101	3164-619	$2.45	-	-	-
4-40	3/8	1/4	1/4	3/16	3/32	3102	3164-620	2.45	-	-	-
6-32	7/16	3/8	7/6	5/16	3/32	3202	3164-621	2.55	4202	3164-853	$3.25
6-32	7/16	3/8	9/16	5/16	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

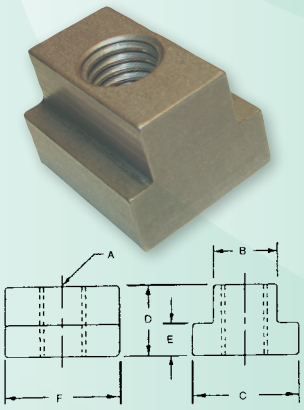
Jig Fixtures & Components

T-Slot Bolts

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 Nuts

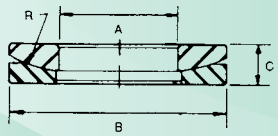


A TAP	B	C	D	E	F	CARBON STEEL REF. NO.	CARBON STEEL ORDER NO.	CARBON STEEL PRICE EACH	STAINLESS STEEL REF. NO.	STAINLESS STEEL ORDER NO.	STAINLESS STEEL PRICE EACH
5/16-18	.343	5/8	13/32	7/32	3/4	TN 0	3161-129	$4.15	TN 0SS	3170-365	$7.30
5/16-18	.418	11/16	3/8	1/4	11/16	TN 00	3161-130	3.90	TN 00SS	3170-366	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

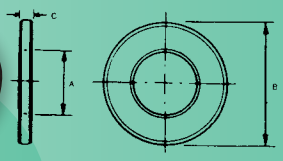
Carbon steel is case hardened. Black oxide finish.



BOLT SIZE	A	B	C	R	CARBON STEEL REF. NO.	CARBON STEEL ORDER NO.	CARBON STEEL PRICE EACH	STAINLESS STEEL REF. NO.	STAINLESS STEEL ORDER NO.	STAINLESS STEEL PRICE EACH
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

Precision Flat Washers

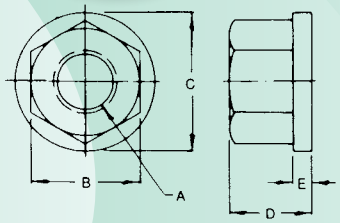
Carbon steel is case hardened.
Black oxide finish.



BOLT SIZE	A	B	C	CARBON STEEL REF. NO.	CARBON STEEL ORDER NO.	CARBON STEEL PRICE EACH	STAINLESS STEEL REF. NO.	STAINLESS STEEL ORDER NO.	STAINLESS STEEL 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	REF. NO.	ORDER NO.	PRICE EACH
1/4-20	1/2	5/8	5/16	3/32	CN 0	3160-298	$ 3.10	CN 0SS	3170-045	$ 5.30
5/16-18	9/16	3/4	3/8	3/32	CN 00	3160-299	3.60	CN 00SS	3170-046	5.50
3/8-16	11/16	7/8	1/2	1/8	CN 10	3160-300	3.65	CN 10SS	3170-047	5.90
7/16-14	3/4	1	9/16	5/32	CN 15	3160-301	3.85	CN 15SS	3170-048	6.90
1/2-13	7/8	1-1/8	11/16	5/32	CN 20	3160-302	4.50	CN 20SS	3170-049	7.90
5/8-11	1-1/16	1-3/8	13/16	3/16	CN 30	3160-303	5.20	CN 30SS	3170-050	9.90
3/4-10	1-1/4	1-5/8	1	1/4	CN 40	3160-304	7.85	CN 40SS	3170-051	13.80
7/8-9	1-7/16	1-3/4	1-1/8	1/4	CN 50	3160-305	10.75	CN 50SS	3170-052	21.30
1-8	1-5/8	2	1-1/4	1/4	CN 60	3160-306	12.85	CN 60SS	3170-053	25.75
1-1/8-7	1-13/16	2-1/4	1-1/4	1/4	CN 70	3160-307	20.10	CN 70SS	3170-054	47.00
1-1/4-7	1-13/16	2-1/4	1-1/4	1/4	CN 80	3160-308	24.95	CN 80SS	3170-055	63.00
1/4-28	1/2	5/8	5/16	3/32	CN 100	3160-310	3.15	CN 100SS	3170-056	5.45
5/16-24	9/16	3/4	3/8	3/32	CN 105	3160-309	3.65	CN 105SS	3170-057	5.75
3/8-24	11/16	7/8	1/2	1/8	CN 110	3160-311	3.75	CN 110SS	3170-058	6.20
7/16-20	3/4	1	9/16	5/32	CN 115	3160-312	3.85	CN 115SS	3170-059	7.10
1/2-20	7/8	1-1/8	11/16	5/32	CN 120	3160-313	4.60	CN 120SS	3170-060	8.55
5/8-18	1-1/16	1-3/8	13/16	3/16	CN 130	3160-314	5.55	CN 130SS	3170-061	10.15
3/4-16	1-1/4	1-5/8	1	1/4	CN 140	3160-315	8.45	CN 140SS	3170-062	14.20
7/8-14	1-7/16	1-3/4	1-1/8	1/4	CN 150	3160-316	10.95	CN 150SS	3170-063	21.60
1-14	1-5/8	2	1-1/4	1/4	CN 160	3160-317	13.10	CN 160SS	3170-064	26.00
1-1/8-12	1-13/16	2-1/4	1-1/4	1/4	CN 170	3160-318	20.50	CN 170SS	3170-065	48.25
1-1/4-12	1-13/16	2-1/4	1-1/4	1/4	CN 180	3160-319	25.50	CN 180SS	3170-066	64.50

CARBON STEEL IS CASE HARDENED AND BLACK OXIDE FINISHED.

Acorn Nuts

- Available in case hardened steel or stainless steel
- Excellent for protecting exposed threads

			LOW CARBON STEEL		
A THREAD	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

			STAINLESS STEEL		
A THREAD	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

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.

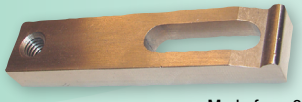
							STEEL			STAINLESS STEEL		
A THREAD	B	C	D	E	F	G	PART NO.	ORDER NO.	PRICE EACH	PART NO.	ORDER NO.	PRICE EACH
1/4-20	1/4	3/4	1-3/16	1-1/2	1/2	5/16	SWB-01	3161-119	$ 7.85	SWB-01SS	3170-350	$ 13.80
1/4-20	1/4	1-1/4	2-3/16	2-1/2	1/2	5/16	SWB-02	3161-120	9.55	SWB-02SS	3170-351	16.75
5/16-18	5/16	1	1-5/8	2	5/8	3/8	SWB-03	3161-121	9.50	SWB-03SS	3170-352	17.35
5/16-18	5/16	1-3/8	2-5/8	3	5/8	3/8	SWB-04	3161-122	10.30	SWB-04SS	3170-353	19.90
3/8-16	3/8	1-3/8	2-5/8	3	5/8	3/8	SWB-1	3161-123	12.40	SWB-1SS	3170-354	23.40
3/8-16	3/8	2	3	3-1/2	3/4	1/2	SWB-10	3161-126	13.00	SWB-10SS	3170-357	27.30
1/2-13	1/2	1-5/8	2-1/2	3-1/8	1	5/8	SWB-2	3161-124	13.60	SWB-2SS	3170-355	33.30
1/2-13	1/2	2-1/2	3-1/2	4-1/8	1	5/8	SWB-20	3161-127	17.65	SWB-20SS	3170-358	39.50
5/8-11	5/8	1/58	2-3/4	3-1/2	1-1/4	3/4	SWB-3	3161-125	25.70	SWB-3SS	3170-356	47.50
5/8-11	5/8	2-1/2	4	4-3/4	1-1/4	3/4	SWB-30	3161-128	29.80	SWB-30SS	3170-359	52.00

Tapped End Clamp Straps

- Case hardened, black oxide finish
- Machined from carbon 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

Stainless Steel Clamp Straps



- Made from 300 series stainless steel

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

Stainless Steel Available Upon Request

Set-Up Studs

SIZE	LENGTH	STEEL ORDER NO.	STEEL 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

SIZE	LENGTH	STEEL ORDER NO.	STEEL 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

SIZE	LENGTH	STEEL ORDER NO.	STEEL 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

SIZE	LENGTH	STEEL ORDER NO.	STEEL 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

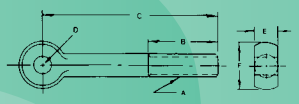
† Limited Quantities

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

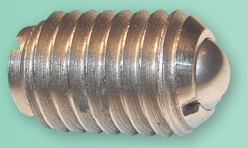
Steel Ball Plungers

- 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.

A	B	C	DIAM. D	END PRESSURES LBS. START	FULL	PART. NO.	ORDER NO.	PRICE EACH
#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	.125	3.0	7.0	MBP-110	3160-753	4.95
1/4-20	17/32	.035	.125	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	63/54	.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

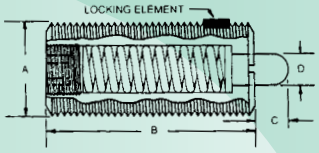
Stainless Steel Ball Plungers

- 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.



A	B	C	DIAM. D	END PRESSURES LBS. START	FULL	PART. NO.	ORDER NO.	PRICE EACH
#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	.125	3.0	7.0	MBP-110SS	3163-597	6.20
1/4-20	17/32	.035	.125	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	63/54	.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



A	B	C	D	END PRESSURES START	1/2 WAY	FULL	REF. NO.	ORDER NO.	PRICE EACH
#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

A	B	C	D	END PRESSURES START	1/2 WAY	FULL	REF. NO.	ORDER NO.	PRICE EACH
#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.

A	B	C	DIAM. D	END PRESSURES KILOGRAMS START	FULL	PART. NO.	ORDER NO.	PRICE EACH
M 4x 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

AISI/SAE Type 0-1

0-1 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	$ 113.94	-	-
	3/4	3190-020	118.45	-	-
	1	3190-030	124.50	-	-
	1-1/4	3190-040	130.44	-	-
	1-1/2	3190-050	143.66	-	-
	2	3190-060	178.46	-	-
	2-1/2	3190-070	204.62	-	-
	3	3190-080	245.14	-	-
	4	3190-090	330.10	-	-
1/32	1/2	3190-100	20.69	-	-
	3/4	3190-110	27.91	-	-
	1	3190-120	32.52	-	-
	1-1/4	3190-130	38.56	-	-
	1-1/2	3190-140	44.62	-	-
	2	3190-150	56.37	-	-
	2-1/2	3190-160	68.30	-	-
	3	3190-170	80.53	-	-
	4	3190-180	103.61	-	-
	6	3190-190	184.14	-	-
3/64	1/4	3190-200†	26.74	-	-
	5/16	3190-210†	23.38	-	-
	3/8	3190-220†	14.83	-	-
	1/2	3190-230	18.13	3200-230	$31.24
	3/4	3190-240	23.43	-	-
	1	3190-250	28.52	3200-250	49.05
	1-1/4	3190-260	33.44	3200-260	57.62
	1-1/2	3190-270	38.58	3200-270	66.49
	2	3190-280	48.87	-	-
	2-1/2	3190-290	58.99	-	-
	3	3190-300	69.21	-	-
	3-1/2	3190-310	79.47	-	-
	4	3190-320	108.46	-	-
	5	3190-325†	34.83	-	-
	6	3190-330	130.24	-	-
1/16	1/4	3190-340	42.92	-	-
	5/16	3190-350†	15.82	-	-
	3/8	3190-360	21.42	-	-
	1/2	3190-370	12.82	3200-370	22.03
	3/4	3190-380	16.20	3200-380	27.86
	1	3190-390	19.50	3200-390	33.62
	1-1/4	3190-400	22.74	3200-400	39.16
	1-1/2	3190-410	26.10	3200-410	45.00
	1-3/4	3190-420	29.42	3200-420	50.65
	2	3190-430	32.75	3200-430	56.43
	2-1/2	3190-440	39.38	3200-440	67.79
	3	3190-450	45.96	3200-450	79.20
	3-1/2	3190-460	52.82	3200-460	90.85
	4	3190-470	59.25	3200-470	101.97
	4-1/2	3190-475†	19.48	-	-
	5	3190-480	72.59	3200-480	125.01
	5-1/2	3190-485†	23.45	-	-
	6	3190-490	85.87	3200-490	147.88
	8	3190-500	128.71	3200-500	221.71
	10	3190-510	159.10	3200-510	274.05
	12	-	-	-	-
5/64	3/8	3190-550†	9.69	-	-
	1/2	3190-560	16.68	-	-
	3/4	3190-570	20.75	-	-
	1	3190-580	24.75	-	-
	1-1/2	3190-590	32.69	-	-
	2	3190-600	40.76	-	-
	2-1/2	3190-610	48.41	-	-
	3	3190-620	56.55	-	-
	4	3190-630	72.75	-	-
	6	3190-640	105.25	-	-
3/32	1/4	3190-650	54.06	-	-
	5/16	3190-660†	15.16	-	-
	3/8	3190-670	29.67	-	-
	1/2	3190-680	16.68	3200-680	28.80
	3/4	3190-690	20.75	3200-690	35.61
	1	3190-700	24.75	3200-700	42.65
	1-1/4	3190-710	28.66	3200-710	49.39
	1-1/2	3190-720	32.69	3200-720	56.34

		18" LENGTH		36" LENGTH	
THICK	WIDTH	ORDER NO.	PRICE EACH	ORDER NO.	PRICE EACH
3/32	1-3/4	3190-730	$36.69	3200-730	$63.27
	2	3190-740	40.76	3200-740	70.17
	2-1/2	3190-750	48.84	3200-750	84.14
	3	3190-760	56.93	3200-760	98.10
	3-1/2	3190-770†	19.40	-	-
	4	3190-780	73.03	3200-780	125.73
	5	3190-790	89.10	3200-790	153.46
	6	3190-800	105.21	3200-800	181.19
	8	3190-810	157.34	3200-810	270.97
	10	3190-820	207.15	3200-820	356.82
7/64	1/2	3190-840	19.89	-	-
	3/4	3190-850	24.68	-	-
	1	3190-860	29.35	-	-
	1-1/4	3190-870	33.97	-	-
	1-1/2	3190-880	38.72	-	-
	2	3190-890	48.27	-	-
	2-1/2	3190-900	60.43	-	-
	3	3190-910	67.24	-	-
	4	3190-920	86.13	-	-
1/8	1/8	3190-930	36.84	-	-
	1/4	3190-940	13.23	-	-
	5/16	3190-950	14.47	-	-
	3/8	3190-960	15.27	-	-
	1/2	3190-970	16.87	3200-970	29.03
	5/8	3190-980	18.74	3200-980	32.30
	3/4	3190-990	20.75	3200-990	35.61
	1	3191-000	24.50	3201-000	42.15
	1-1/4	3191-010	28.09	3201-010	48.25
	1-1/2	3191-020	31.82	3201-020	54.79
	1-3/4	3191-030	35.63	3201-030	61.39
	2	3191-040	39.43	3201-040	67.89
	2-1/2	3191-050	46.97	3201-050	80.80
	3	3191-060	54.54	3201-060	93.92
	3-1/2	3191-070	62.13	3201-070	106.97
	4	3191-080	69.67	3201-080	120.02
	4-1/2	-	-	3201-090†	56.82
	5	3191-100	84.78	3201-100	146.05
	6	3191-110	99.89	3201-110	172.02
	7	3191-120	131.97	3201-120	227.24
	8	3191-130	149.57	3201-130	257.53
	10	3191-140	184.36	3201-140	317.50
	12	3191-150	219.34	3201-150	377.82
	14	3191-160	253.30	3201-160	436.33
9/64	9/64	3191-170†	13.28	-	-
	1/2	3191-180	20.91	-	-
	3/4	3191-190	23.82	-	-
	1	3191-200	28.25	-	-
	1-1/4	3191-210	33.99	-	-
	1-1/2	3191-220	36.64	-	-
	2	3191-230	45.37	-	-
	3	3191-240	62.70	-	-
	4	3191-250	80.00	-	-
5/32	5/32	3191-260	34.15	-	-
	1/4	3191-270	51.13	-	-
	5/16	3191-280†	16.98	-	-
	3/8	3191-290	29.67	-	-
	1/2	3191-300	20.76	3201-300	35.72
	3/4	3191-310	25.42	3201-310	43.77
	1	3191-320	30.06	3201-320	51.79
	1-1/4	3191-330	34.44	3201-330	59.24
	1-1/2	3191-340	38.93	3201-340	67.02
	1-3/4	3191-350	43.52	3201-350	75.02
	2	3191-360	48.25	3201-360	83.04
	2-1/2	3191-370	57.35	3201-370	98.74
	3	3191-380	66.58	3201-380	114.70
	3-1/2	3191-390	75.82	3201-390	130.60
	4	3191-400	85.03	3201-400	146.42
	5	3191-410	103.49	3201-410	178.21
	6	3191-420	121.83	3201-420	209.87
	8	3191-430	181.69	3201-430	312.93
3/16	3/16	3191-460	32.02	-	-
	1/4	3191-470	17.65	-	-
	5/16	3191-480	19.15	-	-
	3/8	3191-490	20.00	-	-
	1/2	3191-500	22.03	3201-500	37.88
	3/4	3191-510	26.38	3201-510	45.44
	1	3191-520	30.92	3201-520	53.21
	1-1/4	3191-530	35.06	3201-530	60.48
	1-1/2	3191-540	39.59	3201-540	68.23
	1-3/4	3191-550	44.05	3201-550	75.97
	2	3191-560	48.62	3201-560	83.72
	2-1/2	3191-570	57.58	3201-570	99.17
	3	3191-580	66.63	3201-580	114.74

		18" LENGTH		36" LENGTH	
THICK	WIDTH	ORDER NO.	PRICE EACH	ORDER NO.	PRICE EACH
3/16	3-1/2	3191-590	$75.66	3201-590	$130.37
	4	3191-600	84.52	3201-600	145.64
	4-1/2	3191-605†	34.13	-	-
	5	3191-610	102.60	3201-610	176.66
	6	3191-620	120.61	3201-620	207.70
	8	3191-630	179.29	3201-630	308.80
	10	3191-640	220.45	3201-640	379.79
	12	3191-650	262.10	-	-
7/32	7/32	3191-660	30.72	-	-
	5/16	3191-670†	19.02	-	-
	3/8	3191-680†	14.99	-	-
	1/2	3191-690	26.35	3201-690	45.35
	3/4	3191-700	31.73	3201-700	54.60
	1	3191-710	37.14	3201-710	63.89
	1-1/4	3191-720	42.15	3201-720	72.69
	1-1/2	3191-730	47.54	3201-730	81.85
	2	3191-740	58.31	3201-740	100.34
	2-1/2	3191-750	69.53	3201-750	119.77
	3	3191-760	79.81	3201-760	137.34
	4	3191-770	101.16	3201-770	174.22
	6	3191-780	144.06	3201-780	248.15
1/4	1/4	3191-790	30.76	3201-790	52.94
	5/16	3191-800	47.04	-	-
	3/8	3191-810	24.05	-	-
	1/2	3191-820	26.22	3201-820	45.16
	3/4	3191-830	31.25	3201-830	53.85
	1	3191-840	36.44	3201-840	62.76
	1-1/8	3191-845†	14.40	-	-
	1-1/4	3191-850	41.12	3201-850	70.86
	1-1/2	3191-860	46.31	3201-860	79.77
	1-3/4	3191-870	51.06	3201-870	87.93
	2	3191-880	56.57	3201-880	97.39
	2-1/2	3191-890	66.70	3201-890	114.92
	3	3191-900	76.94	3201-900	132.55
	3-1/2	3191-910	87.22	3201-910	150.14
	4	3191-920	97.46	3201-920	167.81
	4-1/2	3191-930	107.61	3201-930	185.35
	5	3191-940	117.83	3201-940	202.94
	5-1/2	3191-950	128.11	3201-950	220.61
	6	3191-960	143.88	3201-960	247.79
	7	3191-970	181.96	3201-970	313.41
	8	3191-980	205.82	3201-980	354.58
	10	3191-990	252.84	3201-990	435.49
	12	3192-000	300.13	3202-000	516.97
	14	3192-010	345.96	3202-010	595.92
9/32	9/32	3192-020	31.96	-	-
	1/2	3192-030	30.26	-	-
	3/4	3192-040	36.02	-	-
	1	3192-050	41.92	-	-
	1-1/4	3192-060	47.18	-	-
	1-1/2	3192-070	53.09	-	-
	1-3/4	3192-080†	25.39	-	-
	2	3192-090	64.62	-	-
	2-1/2	3192-100†	33.14	-	-
	3	3192-110	87.81	-	-
	4	3192-120	110.93	-	-
	6	3192-130	157.14	-	-
5/16	5/16	3192-140	33.17	3202-140	57.19
	3/8	3192-150	28.92	-	-
	1/2	3192-160	31.40	3202-160	54.03
	3/4	3192-170	37.37	3202-170	64.43
	1	3192-180	43.45	3202-180	74.83
	1-1/4	3192-190	48.91	3202-190	84.25
	1-1/2	3192-200	55.02	3202-200	94.76
	1-3/4	3192-210	60.98	3202-210	105.05
	2	3192-220	67.04	3202-220	115.41
	2-1/2	3192-230	79.13	3202-230	136.23
	3	3192-240	91.06	3202-240	156.89
	3-1/2	3192-250	103.09	3202-250	177.57
	4	3192-260	115.18	3202-260	198.37
	4-1/2	3192-270†	56.14	3202-270†	100.11
	5	3192-280	138.99	3202-280	239.31
	6	3192-290	169.32	3202-290	291.61
	8	3192-310	242.05	3202-310	416.88
3/8	3/8	3192-350	41.80	3202-350	72.02
	1/2	3192-360	38.26	3202-360	65.83
	3/4	3192-370	45.64	3202-370	78.53
	1	3192-380	52.84	3202-380	90.97
	1-1/8	3192-385†	20.91	-	-
	1-1/4	3192-390	59.49	3202-390	102.44
	1-1/2	3192-400	66.77	3202-400	114.99
	1-3/4	3192-410	76.20	3202-410	131.24
	2	3192-420	81.30	3202-420	140.13
	2-1/2	3192-430	95.75	3202-430	164.98
	3	3192-440	110.37	3202-440	190.06

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Precision Ground Flat Stock - Oil Hardening

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AISI/SAE Type 0-1

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THICK	WIDTH	18" LENGTH ORDER NO	18" LENGTH PRICE EACH	36" LENGTH ORDER NO.	36" LENGTH PRICE EACH
3/8	3-1/2	3192-450	$124.89	3202-450	$215.17
	4	3192-460	139.45	3202-460	240.09
	4-1/2	3192-470	153.90	3202-470	265.07
	5	3192-480	168.41	3202-480	290.03
	5-1/2	3192-490†	182.99	3202-490	315.19
	6	3192-500	197.50	3202-500	340.13
	7	3192-510	258.95	3202-510	446.00
	8	3192-520	292.57	3202-520	503.99
	10	3192-540	359.19	3202-540	618.60
	12	3192-550	426.10	3202-550	733.88
7/16	7/16	3192-560	49.73	3202-560	85.62
	1/2	3192-570	44.98	3202-570	77.41
	3/4	3192-580	53.26	3202-580	91.73
	1	3192-590	61.58	3202-590	106.03
	1-1/4	3192-600	69.30	3202-600	119.27
	1-1/2	3192-610	77.58	3202-610	133.58
	2	3192-620	94.21	3202-620	162.26
	2-1/2	3192-630	110.86	3202-630	190.92
	3	3192-640	127.49	3202-640	219.59
	4	3192-650	156.71	3202-650	269.96
	6	3192-660	227.35	3202-660	391.58
1/2	1/2	3192-670	47.73	3202-670	82.19
	5/8	3192-680	52.14	3202-680	89.85
	3/4	3192-690	56.64	3202-690	97.51
	1	3192-700	65.49	3202-700	112.80
	1-1/4	3192-710	74.06	3202-710	127.57
	1-1/2	3192-720	82.92	3202-720	142.81
	1-3/4	3192-730	92.11	3202-730	158.62
	2	3192-740	100.71	3202-740	173.51
	2-1/2	3192-750	118.54	3202-750	204.20
	3	3192-760	136.36	3202-760	234.83
	3-1/2	3192-770	154.10	3202-770	265.43
	4	3192-780	171.95	3202-780	296.15
	4-1/2	3192-790	189.76	3202-790	326.87
	5	3192-800	208.82	3202-800	359.58
	6	3192-810	255.86	3202-810	440.68
	7	3192-820	323.60	3202-820	557.34
	8	3192-830	365.44	3202-830	629.45
	10	3192-850	439.86	3202-850	757.63
	12	3192-860	513.52	-	-
	14	3192-870†	265.18	-	-

Oversize Available Upon Request

THICK	WIDTH	18" LENGTH ORDER NO	18" LENGTH PRICE EACH	36" LENGTH ORDER NO.	36" LENGTH PRICE EACH
9/16	9/16	3192-880	$57.26	3202-880	$98.63
	3/4	3192-890	64.55	3202-890	111.20
	1	3192-900	74.38	3202-900	128.18
	1-1/4	3192-910	84.11	3202-910	144.87
	1-1/2	3192-920	93.97	3202-920	161.82
	2	3192-930	113.78	3202-930	195.91
5/8	5/8	3192-940	62.45	3202-940	107.66
	3/4	3192-950	67.68	3202-950	116.53
	1	3192-960	77.89	3202-960	134.10
	1-1/4	3192-970	87.75	3202-970	151.11
	1-1/2	3192-980	97.99	3202-980	168.70
	2	3192-990	118.38	3202-990	203.95
	2-1/2	3193-000	138.79	3203-000	239.15
	3	3193-010	159.31	3203-010	274.35
	3-1/2	3193-020	179.77	3203-020	309.62
	4	3193-030	200.22	3203-030	344.84
	5	3193-040	242.40	3203-040	417.48
	6	3193-050	283.27	3203-050	487.92
	7	3193-060†	161.66	-	-
	8	3193-070†	199.26	3203-070†	332.64
	10	3193-090†	230.83	3203-090†	400.68
3/4	3/4	3193-110	80.45	3203-110	138.54
	1	3193-120	92.43	3203-120	159.18
	1-1/4	3193-130	103.72	3203-130	178.58
	1-1/2	3193-140	115.61	3203-140	199.06
	1-3/4	3193-150	127.49	3203-150	219.63
	2	3193-160	139.40	3203-160	240.07
	2-1/2	3193-170	163.15	3203-170	281.02
	3	3193-180	187.04	3203-180	322.21
	3-1/2	3193-190	210.81	3203-190	363.13
	4	3193-200	234.65	3203-200	404.15
	4-1/2	3193-210	258.51	3203-210	445.18
	5	3193-220	283.68	3203-220	488.50
	5-1/2	3193-225†	123.73	-	-
	6	3193-230	331.26	3203-230	570.57
	8	3193-250	484.65	3203-250	834.75
	10	3193-270	584.52	3203-270	1006.71
	12	3193-280	684.45	3203-280	1178.88
7/8	7/8	3193-290	100.80	3203-290	173.58
	1	3193-300	107.57	3203-300	185.26
	1-1/4	3193-310	120.32	3203-310	207.24
	1-1/2	3193-320	133.85	3203-320	230.56
	2	3193-330	160.82	3203-330	277.00
	2-1/2	3193-340†	85.69	3203-340†	151.24
	3	3193-350	215.02	3203-350	370.39
	4	3193-370	269.19	3203-370	463.63
	6	3193-390	378.81	3203-390	652.38

THICK	WIDTH	18" LENGTH ORDER NO	18" LENGTH PRICE EACH	36" LENGTH ORDER NO.	36" LENGTH PRICE EACH
1	1	3193-450	$ 115.72	3203-450	$199.26
	1-1/4	3193-460	128.98	3203-460	222.10
	1-1/2	3193-470	143.22	3203-470	246.63
	1-3/4	3193-480	157.35	3203-480	271.10
	2	3193-490	171.58	3203-490	295.56
	2-1/2	3193-500	200.02	3203-500	344.57
	3	3193-510	228.32	3203-510	393.25
	3-1/2	3193-520	256.79	3203-520	442.23
	4	3193-530	285.12	3203-530	491.15
	4-1/2	3193-540†	145.96	3203-540†	252.27
	5	3193-550	343.28	3203-550	591.24
	6	3193-560	400.11	3203-560	689.11
	8	3193-580	583.44	3203-580	1004.90
	10	3193-600	704.19	3203-600	1212.90
	12	3193-610	824.83	3203-610	1420.73
1-1/8	1-1/2	3193-620	171.75	-	-
	2	3193-630	204.32	3203-630	351.90
	2-1/2	3193-635	94.45	-	-
	3	3193-640	269.25	3203-640	463.81
	4	3193-650	334.30	3203-650	575.79
	6	3193-660	465.71	3203-660	802.14
1-1/4	1-1/4	3193-670	162.88	3203-670	280.55
	1-1/2	3193-680	180.41	3203-680	310.78
	2	3193-690	215.65	3203-690	371.49
	2-1/2	3193-700	250.74	3203-700	431.86
	3	3193-710	285.75	3203-710	492.15
	4	3193-730	355.93	3203-730	613.06
	5	3193-740	427.60	3203-740	736.44
	6	3193-750	497.80	3203-750	857.40
	8	3193-770†	324.24	3203-770†	549.57
	10	-	-	3203-790†	663.78
1-1/2	1-1/2	3193-830	210.53	3203-830	362.60
	2	3193-840	250.78	3203-840	431.93
	2-1/2	3193-850	291.10	3203-850	501.29
	3	3193-860	331.36	3203-860	570.78
	3-1/2	3193-870†	170.03	3203-870†	292.52
	4	3193-880	411.93	3203-880	709.50
	5	-	-	3203-890†	388.77
	6	3193-900	581.43	3203-900	1001.43
	8	3193-920	804.79	3203-920	1386.12
	10	3193-940†	456.97	3203-940†	765.57
2	2	3193-980	321.28	3203-980	553.34
	3	3193-990	422.51	3203-990	727.76
	4	3194-000	523.92	3204-000	902.36
	6	3194-010	697.52	3204-010	1201.31

Precision Ground Flat Stock - Low Carbon

2

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

THICK.	WIDTH	24" LENGTH ORDER NO.	24" LENGTH PRICE EACH
1/16	3/4	3210-380	$17.92
	1	3210-390	21.33
	1-1/4	3210-400	24.71
	1-1/2	3210-410	28.00
	2	3210-430	36.11
	2-1/2	3210-440	43.77
	3	3210-450	50.12
	3-1/2	3210-460	57.09
	4	3210-470	63.91
	5	3210-480	77.17
	6	3210-490	92.94
	8	3210-500	123.63
	10	3210-510	149.32
	12	3210-520	179.50
3/32	1/2	3210-680	18.42
	3/4	3210-690	22.63
	1	3210-700	26.60
	1-1/4	3210-710	30.06
	1-1/2	3210-720	34.13
	2	3210-740	42.19
	2-1/2	3210-750	50.06
	3	3210-760	58.06
	3-1/2	3210-770	66.35
	4	3210-780	73.42

THICK.	WIDTH	24" LENGTH ORDER NO.	24" LENGTH PRICE EACH
3/32	5	3210-790	$86.03
	6	3210-800	106.15
	10	3210-820	170.22
	12	3210-830	202.83
1/8	1/2	3210-970	17.83
	3/4	3210-990	21.33
	1	3211-000	25.05
	1-1/4	3211-010	27.72
	1-1/2	3211-020	33.08
	2	3211-040	38.31
	2-1/2	3211-050	45.33
	3	3211-060	51.22
	3-1/2	3211-070	58.44
	4	3211-080	63.82
	5	3211-100	77.44
	10	3211-140	147.72
	12	3211-150	175.22
5/32	1/2	3211-300	21.94
	3/4	3211-310	25.19
	1	3211-320	29.42
	1-1/4	3211-330	30.88
	1-1/2	3211-340	35.18
	2	3211-360	42.56
	2-1/2	3211-370	50.67

THICK.	WIDTH	24" LENGTH ORDER NO.	24" LENGTH PRICE EACH
5/32	3	3211-380	$56.71
	3-1/2	3211-390	65.10
	4	3211-400	72.14
	5	3211-410	87.49
	6	3211-420	103.27
	12	3211-450	193.78
3/16	1/2	3211-500	30.04
	3/4	3211-510	34.12
	1	3211-520	40.48
	1-1/4	3211-530	43.73
	1-1/2	3211-540	49.09
	2	3211-560	59.70
	3	3211-580	79.56
	3-1/2	3211-590	91.47
	4	3211-600	102.51
	5	3211-610	124.20
	6	3211-620	149.02
	8	3211-630	185.78
	10	3211-640	221.92
1/4	1/4	3211-790	24.28
	1/2	3211-820	29.08
	3/4	3211-830	33.14
	1	3211-840	38.79
	1-1/4	3211-850	44.37

THICK.	WIDTH	24" LENGTH ORDER NO.	24" LENGTH PRICE EACH
1/4	1-1/2	3211-860	$48.18
	2	3211-880	58.37
	2-1/2	3211-890	68.93
	3	3211-900	78.90
	3-1/2	3211-910	88.11
	4	3211-920	99.11
	5	3211-940	117.94
	6	3211-960	140.23
	8	3211-980	177.39
	10	3211-990	212.06
5/16	5/16	3212-140	30.61
	1/2	3212-160	34.31
	3/4	3212-170	38.88
	1	3212-180	45.87
	1-1/4	3212-190	49.78
	1-1/2	3212-200	55.57
	2	3212-220	66.42
	2-1/2	3212-230	77.30
	3	3212-240	87.95
	3-1/2	3212-250	99.43

Continued on Next Page

Precision Ground Flat Stock - Low Carbon

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AISI/SAE Type C-1018

Continued from Previous Page

THICK.	WIDTH	24" LENGTH ORDER NO.	PRICE EACH
5/16	4	3212-260	$110.92
	5	3212-280	131.84
	6	3212-290	155.52
	7	3212-300	181.62
	8	3212-310	201.74
	10	3212-330	243.17
	12	3212-340	279.61
3/8	3/8	3212-350	35.61
	1/2	3212-360	39.02
	3/4	3212-370	43.02
	1	3212-380	50.61
	1-1/4	3212-390	55.57
	1-1/2	3212-400	60.11
	2	3212-420	71.29
	2-1/2	3212-430	85.48
	3	3212-440	91.63
	3-1/2	3212-450	107.31
	4	3212-460	116.37
	5	3212-480	143.08
	6	3212-500	167.36
	7	3212-510	190.67
	8	3212-520	212.06
	9	3212-530	234.87
	10	3212-540	257.51
1/2	1/2	3212-670	45.37
	3/4	3212-690	51.06
	1	3212-700	59.04
	1-1/4	3212-710	65.49
	1-1/2	3212-720	72.02
	2	3212-740	83.36
	2-1/2	3212-750	96.00
	3	3212-760	107.41

THICK.	WIDTH	24" LENGTH ORDER NO.	PRICE EACH
1/2	3-1/2	3212-770	$122.12
	4	3212-780	133.25
	5	3212-800	160.36
	6	3212-810	185.87
	7	3212-820	203.06
	8	3212-830	234.87
	10	3212-850	281.89
	12	3212-860	323.35
5/8	5/8	3212-940	54.17
	3/4	3212-950	58.12
	1	3212-960	66.63
	1-1/4	3212-970	75.86
	1-1/2	3212-980	82.69
	2	3212-990	97.23
	2-1/2	3213-000	109.76
	3	3213-010	124.52
	3-1/2	3213-020	137.09
	4	3213-030	151.11
	5	3213-040	181.90
	6	3213-050	207.84
	7	3213-060	234.33
	9	3213-080	295.26
	10	3213-090	316.91
	12	3213-100	368.40
3/4	3/4	3213-110	63.84
	1	3213-120	79.09
	1-1/4	3213-130	85.94
	1-1/2	3213-140	94.56
	2	3213-160	110.22
	2-1/2	3213-170	125.28
	3	3213-180	141.94
	3-1/2	3213-190	157.50

THICK.	WIDTH	24" LENGTH ORDER NO.	PRICE EACH
3/4	4	3213-200	$171.91
	5	3213-220	202.94
	6	3213-230	235.58
	7	3213-240	265.73
	8	3213-250	299.97
	9	3213-260	325.62
	10	3213-270	353.23
	12	3213-280	408.68
7/8	7/8	3213-290	85.03
	1	3213-300	89.92
	1-1/4	3213-310	98.03
	1-1/2	3213-320	105.80
	2	3213-330	124.98
	2-1/2	3213-340	140.18
	3	3213-350	155.24
	3-1/2	3213-360	172.57
	4	3213-370	190.03
	5	3213-380	233.66
	7	3213-400	299.47
	8	3213-410	336.84
	9	3213-420	376.72
	10	3213-430	407.53
1	1	3213-450	95.06
	1-1/4	3213-460	107.38
	1-1/2	3213-470	116.80
	2	3213-490	135.26
	2-1/2	3213-500	152.22
	3	3213-510	169.14
	3-1/2	3213-520	188.32
	4	3213-530	202.81
	6	3213-560	268.32
	8	3213-580	344.93

Oversize Available Upon Request

THICK.	WIDTH	24" LENGTH ORDER NO.	PRICE EACH
1	9	3213-590	$385.73
	10	3213-600	415.99
	12	3213-610	467.47
1-1/4	1-1/4	3213-670	127.73
	1-1/2	3213-680	142.70
	2	3213-690	162.88
	2-1/2	3213-700	185.35
	3	3213-710	205.10
	3-1/2	3213-720	225.34
	4	3213-730	246.71
	5	3213-740	294.01
	6	3213-750	326.03
	7	3213-760	386.99
	8	3213-770	422.53
	9	3213-780	461.61
	10	3213-790	500.58
	12	3213-800	572.18
1-1/2	1-1/2	3213-830	166.05
	2	3213-840	192.07
	2-1/2	3213-850	216.38
	3-1/2	3213-870	264.07
	7	3213-910	450.55
	8	3213-920	484.52
	9	3213-930	532.91
	10	3213-940	575.37
	12	3213-950	716.61

Precision Ground Flat Stock - Air Hardening

2

AISI/SAE Type A-2

Tolerances:
Thickness ±.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.**

THICK	WIDTH	18" LENGTH ORDER NO.	18" LENGTH PRICE EACH	36" LENGTH ORDER NO.	36" LENGTH PRICE EACH
1/16	1/2	5330-010	$16.80	5340-010	$30.28
	3/4	5330-020	22.67	5340-020	40.75
	1	5330-030	25.97	5340-030	46.76
	1-1/4	5330-040	30.35	5340-040	54.61
	1-1/2	5330-050	34.95	5340-050	62.90
	2	5330-060	43.96	5340-060	79.15
	2-1/2	5330-070	53.19	5340-070	95.73
	3	5330-080	56.37	5340-080	101.46
	4	5330-090	80.64	5340-090	145.19
3/32	1/2	5330-100	22.17	5340-100	40.04
	3/4	5330-110	27.86	5340-110	50.17
	1	5330-120	33.56	5340-120	60.39
	1-1/4	5330-130	39.04	5340-130	70.31
	1-1/2	5330-140	44.78	5340-140	80.53
	2	5330-150	56.11	5340-150	101.03
	2-1/2	5330-160	67.56	5340-160	121.64
	3	5330-170	78.90	5340-170	142.06
	4	5330-180	101.78	5340-180	183.15
1/8	1/2	5330-190	19.25	5340-190	34.58
	5/8	5330-200	21.42	5340-200	38.58
	3/4	5330-210	23.57	5340-210	42.45
	1	5330-220	27.96	5340-220	50.29
	1-1/4	5330-230	32.05	5340-230	57.62
	1-1/2	5330-240	36.39	5340-240	65.48
	1-3/4	5330-250	40.76	5340-250	73.41
	2	5330-260	45.16	5340-260	81.28
	2-1/2	5330-270	53.85	5340-270	96.91
	3	5330-280	62.60	5340-280	112.66
	3-1/2	5330-290	72.75	5340-290	130.99
	4	5330-300	80.13	5340-300	144.23
	5	5330-310	97.53	5340-310	175.65
	6	5330-320	114.99	5340-320	207.10
	7	5330-330	156.38	5340-330	281.60
	8	5330-340	177.23	5340-340	319.17
	10	5330-350	218.67	5340-350	393.75
	12	5330-360	260.16	5340-360	468.45
5/32	1/2	5330-370	24.68	5340-370	44.43
	3/4	5330-380	30.28	5340-380	54.56
	1	5330-390	36.02	5340-390	64.87
	1-1/4	5330-400	41.39	5340-400	74.56
	1-1/2	5330-410	46.97	5340-410	84.57
	1-3/4	5330-420	52.68	5340-420	94.81
	2	5330-430	58.37	5340-430	105.10
	2-1/2	5330-440	69.65	5340-440	125.44
	3	5330-450	81.05	5340-450	145.96
	3-1/2	5330-460	92.41	5340-460	166.31
	4	5330-470	103.75	5340-470	186.81
	5	5330-480	126.45	5340-480	227.65
	6	5330-490	149.07	5340-490	268.43
	8	5330-500	245.80	5340-500	442.49
3/16	3/16	5330-510	44.04	5340-510	79.36
	1/2	5330-520	26.03	5340-520	46.86

THICK	WIDTH	18" LENGTH ORDER NO.	18" LENGTH PRICE EACH	36" LENGTH ORDER NO.	36" LENGTH PRICE EACH
3/16	3/4	5330-530	31.52	5340-530	$56.75
	1	5330-540	37.23	5340-540	67.02
	1-1/4	5330-550	42.44	5340-550	76.39
	1-1/2	5330-560	48.00	5340-560	86.45
	1-3/4	5330-570	53.65	5340-570	96.57
	2	5330-580	59.33	5340-580	106.81
	2-1/2	5330-590	70.54	5340-590	127.01
	3	5330-600	81.78	5340-600	147.24
	3-1/2	5330-610	94.47	5340-610	170.08
	4	5330-620	104.32	5340-620	187.84
	5	5330-630	126.85	5340-630	228.41
	6	5330-640	149.35	5340-640	268.89
	7	5330-650	192.46	5340-650	346.58
	8	5330-660	230.67	5340-660	415.31
1/4	1/4	5330-670	43.04	5340-670	77.53
	1/2	5330-680	31.70	5340-680	56.98
	3/4	5330-690	38.28	5340-690	68.89
	1	5330-700	45.00	5340-700	81.03
	1-1/4	5330-710	51.02	5340-710	91.88
	1-1/2	5330-720	57.74	5340-720	103.98
	1-3/4	5330-730	64.43	5340-730	115.95
	2	5330-740	71.02	5340-740	127.86
	2-1/2	5330-750	84.29	5340-750	151.79
	3	5330-760	97.53	5340-760	175.68
	3-1/2	5330-770	110.90	5340-770	199.65
	4	5330-780	124.18	5340-780	223.65
	5	5330-790	150.76	5340-790	271.47
	6	5330-800	177.41	5340-800	319.44
5/16	5/16	5330-810	48.69	5340-810	87.68
	1/2	5330-820	37.08	5340-820	66.77
	3/4	5330-830	44.66	5340-830	80.45
	1	5330-840	52.29	5340-840	94.05
	1-1/4	5330-850	59.08	5340-850	106.44
	1-1/2	5330-890	66.77	5340-860	120.23
	1-3/4	5330-900	74.38	5340-870	133.90
	2	5330-910	81.92	5340-880	147.50
	2-1/2	5330-920	97.14	5340-890	174.88
	3	5330-930	112.23	5340-900	202.10
	3-1/2	5330-940	127.41	5340-910	229.39
	4	5330-950	142.49	5340-920	256.59
	5	5330-960	172.77	5340-930	311.20
	6	5330-970	203.17	5340-940	365.85
3/8	3/8	5330-980	58.65	5340-950	105.60
	1/2	5330-990	45.32	5340-960	81.60
	3/4	5331-000	54.54	5340-970	98.17
	1	5331-010	63.68	5340-980	114.67
	1-1/4	5331-020	71.95	5340-990	129.60
	1-1/2	5331-030	81.21	5341-000	146.15
	1-3/4	5331-040	90.45	5341-010	162.83
	2	5331-050	99.61	5341-020	179.34
	2-1/2	5331-060	117.99	5341-030	212.41
	3	5331-070	136.36	5341-040	245.50

THICK	WIDTH	18" LENGTH ORDER NO.	18" LENGTH PRICE EACH	36" LENGTH ORDER NO.	36" LENGTH PRICE EACH
3/8	3-1/2	5331-080	$154.76	5341-050	$278.62
	4	5331-090	173.10	5341-060	311.70
	5	5331-100	209.80	5341-070	377.75
	6	5331-110	246.60	5341-080	444.02
1/2	1/2	5331-120	55.75	5341-090	100.34
	5/8	5331-130	61.28	5341-100	110.26
	3/4	5331-140	66.74	5341-110	120.20
	1	5331-150	77.76	5341-120	140.02
	1-1/4	5331-160	88.23	5341-130	158.76
	1-1/2	5331-170	99.22	5341-140	178.63
	1-3/4	5331-180	110.24	5341-150	198.53
	2	5331-190	121.21	5341-160	218.28
	2-1/2	5331-200	143.29	5341-170	257.98
	3	5331-210	165.26	5341-180	297.62
	3-1/2	5331-220	187.33	5341-190	337.32
	4	5331-230	209.41	5341-200	377.04
	5	5331-240	254.87	5341-210	458.89
	6	5331-250	298.85	5341-220	538.21
5/8	5/8	5331-260	75.88	5341-230	136.68
	3/4	5331-270	81.69	5341-240	147.10
	1	5331-280	95.18	5341-250	171.42
	1-1/2	5331-290	120.18	5341-260	216.39
	2	5331-300	145.94	5341-270	262.81
	2-1/2	5331-310	171.75	5341-280	309.25
	3	5331-320	197.55	5341-290	355.76
	4	5331-330	249.28	5341-300	448.88
	5	5331-340	302.24	5341-310	544.27
	6	5331-350	353.89	5341-320	637.23
3/4	3/4	5331-360	94.77	5341-330	170.63
	1	5331-370	109.41	5341-340	197.03
	1-1/4	5331-380	122.74	5341-350	220.89
	1-1/2	5331-390	137.07	5341-360	246.76
	2	5331-400	166.06	5341-370	299.01
	2-1/2	5331-410	194.99	5341-380	351.13
	3	5331-420	221.03	5341-390	397.98
	4	5331-430	281.87	5341-400	507.54
	5	5331-440	341.14	5341-410	614.28
	6	5331-450	399.01	5341-420	718.46
7/8	7/8	5331-460	116.64	5341-430	210.01
	1	5331-470	124.73	5341-440	224.64
	1-1/2	5331-480	156.14	5341-450	281.03
	2	5331-490	188.64	5341-460	339.70
	3	5331-500	253.85	5341-470	457.04
	4	5331-510	319.03	5341-480	574.44
	6	5331-520	450.67	5341-490	811.46
1	1	5331-530	139.29	5341-500	250.78
	1-1/4	5331-540	155.75	5341-510	280.48
	1-1/2	5331-550	173.53	5341-520	312.54
	2	5331-560	209.41	5341-530	377.09
	2-1/2	5331-570	245.25	5341-540	441.66
	3	5331-580	281.02	5341-550	506.07
	4	5331-590	352.72	5341-560	635.14
	5	5331-600	425.80	5341-570	766.73
	6	5331-610	497.41	5341-580	895.71

Drill Rod - 36" Length

Oil Hardening - AISI/SAE Type 0-1 & Water Hardening - AISI/SAE Type W-1

Fractional Sizes

FRAC. SIZES	OIL HARDENING ORDER NO.	OIL HARDENING PRICE EACH	WATER HARDENING ORDER NO.	WATER HARDENING PRICE EACH
3/64	3220-003	$1.32	-	-
1/16	3220-004	2.70	3223-004	$1.53
5/64	3220-005	4.46	3223-005	2.60
3/32	3220-006	3.08	3223-006	2.79
7/64	3220-007	4.46	3223-007	4.04
1/8	3220-008	4.11	3223-008	3.08
9/64	3220-009	5.48	3223-009	4.16
5/32	3220-010	5.12	3223-010	3.89
11/64	3220-011	6.67	3223-011	5.21
3/16	3220-012	5.92	3223-012	4.59
13/64	3220-013	7.45	3223-013	5.85
7/32	3220-014	7.06	3223-014	5.67
15/64	3220-015	8.75	3223-015	7.15
1/4	3220-016	6.70	3223-016	5.62
17/64	3220-017	8.14	3223-017	6.42
9/32	3220-018	8.43	3223-018	6.56
19/64	3220-019	10.10	3223-019	7.98
5/16	3220-020	8.43	3223-020	7.32
21/64	3220-021	11.04	3223-021	9.64
11/32	3220-022	11.20	3223-022	9.76
23/64	3220-023	13.23	3223-023	11.59
3/8	3220-024	11.91	3223-024	9.76
25/64	3220-025	15.22	3223-025	12.73
13/32	3220-026	15.43	3223-026	12.69
27/64	3220-027	17.72	3223-027	14.92
7/16	3220-028	16.12	3223-028	13.26
29/64	3220-029	20.50	3223-029	17.21
15/32	3220-030	20.41	3223-030	16.75
31/64	3220-031	23.40	3223-031	19.54
1/2	3220-032	19.80	3223-032	15.98
33/64	3220-033	24.96	3223-033	20.44
17/32	3220-034	25.76	3223-034	20.73
35/64	3220-035	28.05	3223-035	22.86
9/16	3220-036	27.66	3223-036	22.20
37/64	3220-037	31.40	3223-037	25.62
19/32	3220-038	32.28	3223-038	25.87
39/64	3220-039	34.42	3223-039	28.46
5/8	3220-040	30.60	3223-040	22.52
41/64	3220-041	38.01	3223-041	28.53
21/32	3220-042	38.86	3223-042	28.68
43/64	3220-043	41.80	3223-043	31.32
11/16	3220-044	40.82	3223-044	30.04
45/64	3220-045	45.80	3223-045	34.42
23/32	3220-046	46.63	3223-046	34.42
47/64	3220-047	49.92	3223-047	37.48
3/4	3220-048	42.24	3223-048	31.24
49/64	3220-049	52.14	3223-049	39.20
25/32	3220-050	52.91	3223-050	39.15
51/64	3220-051	56.43	3223-051	42.44
13/16	3220-052	54.63	3223-052	40.37
53/64	3220-053	61.01	3223-053	45.92
27/32	3220-054	61.73	3223-054	45.67
55/64	3220-055	65.62	3223-055	49.37

FRAC. SIZES	OIL HARDENING ORDER NO.	OIL HARDENING PRICE EACH	WATER HARDENING ORDER NO.	WATER HARDENING PRICE EACH
7/8	3220-056	$63.29	3223-056	$46.86
57/64	3220-057	70.53	3223-057	53.01
29/32	3220-058	71.20	3223-058	52.68
59/64	3220-059	75.56	3223-059	56.84
15/16	3220-060	76.11	3223-060	56.30
61/64	3220-061	80.75	3223-061	60.75
31/32	3220-062	81.35	3223-062	60.09
63/64	3220-063	86.10	3223-063	64.82
1	3220-064	71.47	3223-064	54.51
1-1/64	3220-065	87.20	3223-065	67.56
1-1/32	3220-066	87.61	3223-066	66.76
1-3/64	3220-067	92.64	3223-067	71.82
1-1/16	3220-068	93.01	3223-068	70.97
1-5/64	3220-069	98.22	3223-069	76.11
1-3/32	3220-070	98.10	3223-070	75.15
1-7/64	3220-071	104.02	3223-071	80.64
1-1/8	3220-072	99.59	3223-072	75.91
1-9/64	3220-073	109.96	3223-073	85.21
1-5/32	3220-074	110.77	3223-074	84.43
1-11/64	3220-075	116.13	3223-075	89.97
1-3/16	3220-076	116.21	3223-076	88.69
1-13/64	3220-077	122.37	3223-077	94.83
1-7/32	3220-078	122.40	3223-078	93.26
1-15/64	3220-079	128.82	3223-079	99.79
1-1/4	3220-080	104.73	3223-080	82.92
1-17/64	3220-081	115.56	3223-081	93.12
1-9/32	3220-082	115.18	3223-082	91.25
1-19/64	3220-083	121.12	3223-083	97.55
1-5/16	3220-084	120.93	3223-084	95.82
1-21/64	3220-085	127.01	3223-085	102.31
1-11/32	3220-086	126.70	3223-086	100.39
1-23/64	3220-087	133.00	3223-087	107.22
1-3/8	3220-088	126.70	3223-088	100.39
1-25/64	3220-089	139.24	3223-089	112.21
1-13/32	3220-090	138.81	3223-090	109.87
1-27/64	3220-091	145.58	3223-091	117.25
1-7/16	3220-092	145.14	3223-092	114.92
1-29/64	3220-093	152.06	3223-093	122.44
1-15/32	3220-094	151.43	3223-094	119.91
1-31/64	3220-095	158.67	3223-095	127.82
1-1/2	3220-096	149.30	3223-096	109.69
1-9/16	3220-100	161.00	3223-100	118.33
1-5/8	3220-104	183.50	3223-104	134.88
1-11/16	3220-108	197.90	3223-108	145.46
1-3/4	3220-112	203.27	3223-112	149.51
1-13/16	3220-116	228.32	3223-116	167.79
1-7/8	3220-120	244.39	3223-120	179.58
1-15/16	3220-124	260.89	3223-124	191.81
2	3220-128	263.29	3223-128	193.90

Also Available
- **Metric Sizes**
- **Special Diameters**
- **Special Lengths**

Fractional Sizes
Air Hardening - AISI/SAE Type A-2

FRACT. SIZES	DEC. EQUIV.	ORDER NO.	PRICE EACH
1/16	.0625	3225-100	$ 4.07
5/64	.0781	3225-101	6.99
3/32	.0937	3225-102	6.58
7/64	.1093	3225-104	7.84
1/8	.1250	3225-105	7.18
9/64	.1406	3225-106	10.10
5/32	.1562	3225-107	10.24
11/64	.1718	3225-108	12.36
3/16	.1875	3225-109	10.92
13/64	.2031	3225-110	14.10
7/32	.2187	3225-111	15.20
15/64	.2343	3225-112	17.46
1/4	.2500	3225-113	14.95
17/64	.2656	3225-114	16.64
9/32	.2812	3225-115	18.68
19/64	.2968	3225-116	20.91
5/16	.3125	3225-117	19.29
21/64	.3281	3225-118	23.48
11/32	.3437	3225-119	25.72
23/64	.3593	3225-120	28.14
3/8	.3750	3225-121	27.41
25/64	.3906	3225-122	32.84
13/32	.4062	3225-123	35.54
27/64	.4218	3225-124	38.35
7/16	.4375	3225-125	37.32
29/64	.4531	3225-126	44.16
15/32	.4687	3225-127	47.34
31/64	.4843	3225-128	50.54
1/2	.5000	3225-129	46.74
17/32	.5312	3225-130	59.25
9/16	.5625	3225-131	59.13
19/32	.5937	3225-132	72.75
5/8	.6250	3225-133	72.16
21/32	.6562	3225-134	87.91
11/16	.6875	3225-135	87.34
23/32	.7187	3225-136	105.53
3/4	.7500	3225-137	101.14
13/16	.8125	3225-138	118.69
7/8	.8750	3225-139	137.66
1	1.0000	3225-140	178.70
1-1/16	1.0625	3225-141	201.74
1-1/8	1.1250	3225-142	226.17
1-1/4	1.2500	3225-143	234.60
1-3/8	1.3750	3225-144	283.95
1-1/2	1.5000	3225-145	335.04
1-3/4	1.7500	3225-146	455.95
2	2.0000	3225-147	590.99

Drill Rod - 36" Length

Wire Gage Sizes

Oil Hardening - AISI/SAE Type 0-1
Water Hardening - AISI/SAE Type W-1

	OIL HARDENING		WATER HARDENING	
WIRE. GAGE	ORDER NO.	PRICE EACH	ORDER NO.	PRICE EACH
1	3221-001	$ 8.20	3224-001	$6.68
2	3221-002	7.66	3224-002	6.17
3	3221-003	8.14	3224-003	6.35
4	3221-004	7.72	3224-004	6.04
5	3221-005	7.57	3224-005	5.85
6	3221-006	7.31	3224-006	5.76
7	3221-007	7.13	3224-007	5.62
8	3221-008	7.06	3224-008	5.46
9	3221-009	6.86	3224-009	5.35
10	3221-010	6.60	3224-010	5.19
11	3221-011	6.42	3224-011	5.12
12	3221-012	7.75	3224-012	6.01
13	3221-013	7.45	3224-013	5.80
14	3221-014	7.36	3224-014	5.67
15	3221-015	7.16	3224-015	5.58
16	3221-016	6.92	3224-016	5.35
17	3221-017	6.70	3224-017	5.21
18	3221-018	6.42	3224-018	4.71
19	3221-019	6.08	3224-019	4.48
20	3221-020	5.92	3224-020	4.57
21	3221-021	5.60	3224-021	4.32
22	3221-022	6.60	3224-022	5.19
23	3221-023	6.54	3224-023	5.12
24	3221-024	6.29	3224-024	4.91
25	3221-025	6.08	3224-025	4.71
26	3221-026	5.92	3224-026	4.57
27	3221-027	5.69	3224-027	4.32
28	3221-028	5.37	3224-028	4.11
29	3221-029	4.98	3224-029	3.82
30	3221-030	4.46	3224-030	3.41
31	3221-031	5.37	3224-031	4.91
32	3221-032	4.98	3224-032	4.52
33	3221-033	4.64	3224-033	4.21
34	3221-034	4.52	3224-034	4.11
35	3221-035	4.39	3224-035	3.98
36	3221-036	4.23	3224-036	3.82
37	3221-037	3.96	3224-037	3.61
38	3221-038	3.91	3224-038	3.45
39	3221-039	3.68	3224-039	3.34
40	3221-040	3.47	3224-040	3.29
41	3221-041	3.38	3224-041	3.15
42	3221-042	6.22	3224-042	3.61
43	3221-043	5.65	3224-043	3.34
44	3221-044	5.21	3224-044	3.15
45	3221-045	4.82	3224-045	2.79
46	3221-046	4.55	3224-046	2.61
47	3221-047	4.39	3224-047	2.52
48	3221-048	4.11	3224-048	2.42
49	3221-049	3.80	3224-049	2.20
50	3221-050	3.43	3224-050	2.03
51	3221-051	3.20	3224-051	1.90
52	3221-052	2.92	3224-052	1.76

Letter Sizes

Oil Hardening - AISI/SAE Type 0-1
Water Hardening - AISI/SAE Type W-1

	OIL HARDENING		WATER HARDENING	
LETTER SIZES	ORDER NO.	PRICE EACH	ORDER NO.	PRICE EACH
A	3222-001	$ 8.71	3225-001	$7.15
B	3222-002	9.07	3225-002	7.32
C	3222-003	9.30	3225-003	7.47
D	3222-004	9.58	3225-004	7.86
E	3222-005	POA	3225-005	POA
F	3222-006	7.57	3225-006	5.96
G	3222-007	7.80	3225-007	6.17
H	3222-008	8.14	3225-008	6.49
I	3222-009	8.52	3225-009	6.76
J	3222-010	8.82	3225-010	6.99
K	3222-011	9.10	3225-011	7.16
L	3222-012	9.62	3225-012	7.66
M	3222-013	10.01	3225-013	7.91
N	3222-014	10.49	3225-014	8.30
O	3222-015	10.29	3225-015	9.07
P	3222-016	10.65	3225-016	9.39
Q	3222-017	11.25	3225-017	9.92
R	3222-018	11.79	3225-018	10.33
S	3222-019	12.36	3225-019	10.92
T	3222-020	13.08	3225-020	11.54
U	3222-021	13.85	3225-021	12.21
V	3222-022	14.19	3225-022	11.88
W	3222-023	14.90	3225-023	12.39
X	3222-024	15.77	3225-024	13.16
Y	3222-025	16.32	3225-025	13.56
Z	3222-026	17.01	3225-026	14.20

Threaded Rod 36" Length

	PLAIN OIL FINISH		ZINC PLATED	
SIZE	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.	PRICE EACH
.0010	3226-010	$34.15	3226-401	$63.26
.0015	3226-015	34.35	3226-400	63.26
.0020	3226-020	35.42	3226-402	63.26
.0030	3226-030	36.54	3226-403	63.26
.0040	3226-040	38.52	3226-404	67.02
.0050	3226-050	39.88	3226-405	76.46
.0060	3226-060	41.08	3226-406	83.09
.0070	3226-070	43.04	3226-407	92.57
.0080	3226-080	45.42	3226-408	92.57
.0090	3226-090	48.78	3226-409	98.77
.0100	3226-100	53.08	3226-410	98.77
.0120	3226-120	57.50	3226-412	122.77
.0150	3226-150	66.38	3226-415	136.47
.0200	3226-200	75.02	3226-420	152.56
.0250	3226-250	89.66	3226-425	184.95
.0310	3226-310	106.10	3226-431	210.95

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	$69.35
15 pc. 6" x 12"	3226-360	94.37
12 pc. 6" x 18"	3226-361	133.97
15 pc. 6" x 18"	3226-362	198.57

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 ANALYSIS: C .13 max, Mn .30-.60, 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	$28.77	3227-401	$58.99	3227-501	$108.05
.0015	3227-015	34.18	3227-400	58.99	-	-
.0020	3227-020	19.70	3227-402	38.04	3227-502	65.37
.0025	3227-025	24.68	3227-435	67.72	-	-
.0030	3227-030	21.27	3227-403	32.24	3227-503	68.30
.0035	3227-035	21.62	-	-	-	-
.0040	3227-040	21.41	3227-404	35.33	3227-504	66.36
.0050	3227-050	18.73	3227-405	34.31	3227-505	59.35
.0060	3227-060	18.35	3227-406	38.07	3227-506	60.66
.0070	3227-070	20.90	3227-407	41.53	3227-507	68.94
.0080	3227-080	22.43	3227-408	46.06	3227-508	77.62
.0090	3227-090	23.50	3227-409	46.06	3227-509	79.48
.0100	3227-100	19.30	3227-410	39.33	3227-510	67.95
.0120	3227-112	19.76	3227-412	41.68	3227-512	67.70
.0150	3227-150	17.92	3227-415	39.78	3227-515	61.78
.0180	3227-180	27.84	3227-418	59.85	3227-518	97.47
.0200	3227-200	20.27	3227-420	47.13	3227-520	70.96
.0220	3227-220	40.31	3227-422	91.94	-	-
.0250	3227-250	21.69	3227-425	48.27	3227-525	75.23
.0310	3227-310	22.80	3227-431	51.64	3227-531	83.48

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	$69.98
15 pc. 6" x 12"	3227-365	84.36
12 pc. 6" x 18"	3227-361	103.90
15 pc. 6" x 18"	3227-362	125.26

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	$52.61	-	-	-	-
.0030	3229-503	55.23	-	-	-	-
.0040	-	-	3229-504*	$59.64	-	-
.0050	-	-	3229-505	52.61	3229-605†	$ 20.38
.0060	-	-	3229-506	52.40	-	-
.0070	-	-	3229-507	53.43	-	-
.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	$101.09

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

	6" x 50" ROLLS		6" x 60" ROLLS	
THICK.	ORDER NO.	PRICE EACH	ORDER NO.	PRICE EACH
.0005	3228-005	$147.34	3228-400	$212.14
.0010	3228-010	71.05	3228-401	102.31
.0015	3228-015	65.09	3228-435	64.98
.0020	3228-020	45.11	3228-402	62.20
.0030	3228-030	43.25	3228-403	60.65
.0040	3228-040	42.14	3228-404	69.83
.0050	3228-050	48.51	3228-405	69.71
.0060	3228-060	48.45	3228-406	71.94
.0070	3228-070	49.92	3228-407	73.05
.0080	3228-080	50.75	3228-408	82.31
.0090	3228-090	57.13	3228-409	75.80
.0100	3228-100	52.68	3228-410	79.25
.0120	3228-120	55.04	3228-412	85.72
.0150	3228-150	59.56	3228-415	101.82
.0200	3228-200	70.68	3228-420	119.27
.0250	3228-250	82.85	3228-425	135.94
.0310	3228-310	94.39	3228-431	140.84

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	$165.95

Flat Packs

(2 pcs./ 6" x 25")

Brass

THICK.	ORDER NO.	PRICE EACH
.012	3229-012	$43.20
.015	3229-015	49.69
.020	3229-020	56.38
.025	3229-025	67.21
.031	3229-031	79.56
.032	3229-032†	47.36

† Limited Quantities

Steel Flat Pak

THICK.	ORDER NO.	PRICE EACH
.012	3229-112	$21.66
.015	3229-115	20.24
.020	3229-120	22.73
.025	3229-125	24.34
.031	3229-131	25.55
.032	3229-132†	10.75

Blue Tempered

THICK.	ORDER NO.	PRICE EACH
.008	3229-308	$62.42
.010	3229-310	68.07
.012	3229-312	70.20
.015	3229-315	76.32
.020	3229-320	88.82
.025	3229-325	101.52
.032	3229-332	112.50

Stainless Steel

THICK.	ORDER NO.	PRICE EACH
.008	3229-208	$63.29
.010	3229-210	66.05
.012	3229-212	71.38
.015	3229-215	84.88
.020	3229-220	84.88
.025	3229-225	99.45
.031	3229-231	113.34

Shim Stock

PRECISION BRAND 2

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

		"A" 2 x 2 x 5/8		"B" 3 x 3 x 3/4		"C" 4 x 4 x 1-1/4	
THICK.	PCS./ PKG.	ORDER NO.	PRICE/ PKG.	ORDER NO.	PRICE/ PKG.	ORDER NO.	PRICE/ PKG.
.001	20	3229-900	$72.89	3229-920	$87.42	3229-940	$115.13
.002	20	3229-901	72.89	3229-921	87.42	3229-941	115.13
.003	20	3229-902	72.89	3229-922	87.42	3229-942	115.13
.004	20	3229-903	72.89	3229-923	87.42	3229-943	115.13
.005	20	3229-904	72.89	3229-924	87.42	3229-944	115.13
.010	20	3229-905	72.89	3229-925	87.42	3229-945	115.13
.015	10	3229-906	36.43	3229-926	43.74	3229-946	57.56
.020	10	3229-907	40.76	3229-927	43.74	3229-947	61.91
.025	10	3229-908	40.76	3229-928	43.74	3229-948	61.91
.050	5	3229-909	21.93	3229-929	27.34	3229-949	38.28
.075	5	3229-910	24.78	3229-930	36.43	3229-950	52.78
.100	5	3229-911	29.19	3229-931	41.04	3229-951	69.21
.125	5	3229-912	32.05	3229-932	45.56	3229-952	78.34

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	$1104.62
B	3229-934	1387.97
C	3229-954	2009.47

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	$632.35
B	3229-935	772.90
C	3229-955	1101.15

Strips 1/2" x 12"
12 Pcs. Per Package

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	$1.73	3229-454	$6.43
5/32	3229-804	2.16	-	-
3/16*	3229-808	1.81	3229-456	6.46
7/32	3229-812	2.87	-	-
1/4*	3229-816	2.24	3229-458	9.25
9/32	3229-820	3.49	-	-
5/16*	3229-824	3.00	3229-460	18.91
3/8*	3229-828	3.67	3229-462	21.00
7/16*	3229-832	4.75	3229-464	29.31
1/2*	3229-836	6.29	3229-466	38.47
9/16	3229-840	11.34	-	-
5/8	3229-844	9.56	3229-470	61.80
11/16	3229-848	16.66	-	-
3/4	3229-852	12.49	3229-474	76.65
13/16	3229-856	24.36	-	-
7/8	3229-860	16.65	3229-478	109.84
1	3229-864	20.30	3229-482	140.09
1-1/8	3229-868	36.96	-	-
1-3/16	3229-872	59.27	-	-
1-1/4	3229-876	47.77	-	-
1-3/8	3229-880	53.70	-	-
1-1/2	3229-884	64.13	-	-
1-3/4	3229-888	88.30	-	-
2	3229-892	126.14	-	-
asst.*	3229-895	106.94	3229-498	472.14

*Assortment contains one bundle of each size indicated

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

	1/2" x 12" STRIPS		1/2" x 25' COILS	
SIZE	ORDER NO.	PRICE EACH	ORDER NO.	PRICE EACH
.001	3225-801	$7.99	3225-851	$177.22
.0015	3225-845	4.26	3225-895	86.79
.002	3225-802	4.26	3225-852	86.79
.003	3225-803	4.26	3225-853	86.79
.004	3225-804	3.47	3225-854	62.45
.005	3225-805	3.47	3225-855	62.45
.006	3225-806	3.47	3225-856	62.45
.007	3225-807	3.07	3225-857	51.55
.008	3225-808	3.07	3225-858	51.55
.009	3225-809	3.07	3225-859	51.55
.010	3225-810	3.07	3225-860	51.55
.011	3225-811	3.07	3225-861	51.55
.012	3225-812	3.07	3225-862	51.55
.013	3225-813	3.07	3225-863	51.55
.014	3225-814	3.07	3225-864	51.55
.015	3225-815	3.07	3225-865	51.55
.016	3225-816	3.07	3225-866	51.55

	1/2" x 12" STRIPS		1/2" x 25' COILS	
SIZE	ORDER NO.	PRICE EACH	ORDER NO.	PRICE EACH
.017	3225-817	$3.07	3225-867	$51.55
.018	3225-818	3.07	3225-868	51.55
.019	3225-819	3.07	3225-869	51.55
.020	3225-820	3.07	3225-870	51.55
.021	3225-821	3.07	3225-871	51.55
.022	3225-822	3.07	3225-872	51.55
.023	3225-823	3.07	3225-873	51.55
.024	3225-824	3.07	3225-874	51.55
.025	3225-825	3.07	3225-875	51.55
.028	3225-828	3.07	3225-878	51.55
.030	3225-830	3.07	3225-880	51.55
.031	3225-831	3.19	3225-881	58.49
.032	3225-832	3.19	3225-882	58.49
.034	3225-834	3.19	3225-884	58.49
.040	3225-840	3.19	-	-
.050	3225-842	18.86	-	-

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	$112.06	3225-850 (NEW Poc-Kit® Asst.)	$48.47

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	$6.24	14MM	3229-764	$22.94
4MM	3229-754	3.54	16MM	3229-766	22.94
5MM	3229-755	3.75	18MM	3229-768	28.34
6MM	3229-756	4.18	20MM	3229-770	35.42
7MM	3229-757	10.42	22MM	3229-772	83.35
8MM	3229-758	6.04	25MM*	3229-775	46.88
10MM	3229-760	8.77			
12MM	3229-762	13.34			

*Available in plain finish only.

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: $77.76

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 1850ºF
- Approx. 24" wide, .002" thick, in 50 and 100 ft. lengths

QTY.	ORDER NO.	PRICE EACH
100 sq. ft.	3229-990	$909.57
50 sq. ft.	3229-989	478.77

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",
(20) 3/32" x 3/8",
(10) 1/8" x 3/8",
(10) 1/16" x 1/2",
(15) 3/32" x 1/2",
(15) 1/8" x 1/2",
(10) 3/32" x 5/8",
(30) 1/8" x 5/8",
(50) 5/32" x 5/8",
(20) 1/8" x 3/4",
(10) 5/32" x 3/4",
(20) 3/16" x 3/4",
(5) 3/16" x 5/8",
(5) 5/32" x 7/8",
(5) 3/16" x 7/8",
(5) 7/32" x 7/8",
(5) 1/4" x 7/8",
(5) 1/4" x 3/4"

Order No.: 3237-640 Price Each: $71.13