

**SECTION 26**  
**Fasteners/Concrete Anchors**

<b>aCOuSTICaI</b>			
Anchors .....	26-4, 26-11		
Screws .....	26-1		
<b>aCr y l IC</b>			
Adhesive .....	26-13		
<b>aDHESivES</b>			
Acrylic .....	26-13		
Capsule .....	26-14		
Epoxy .....	26-13		
<b>aNCHOR</b>			
Bolts .....	26-25		
<b>aNCHOR S</b>			
Acoustical .....	26-4, 26-11		
Acoustical System .....	26-20		
Acrylic Adhesive .....	26-13		
Adhesives .....	26-13-14		
Adhesives Accessories .....	26-14		
Autofast System .....	26-19		
Autotraxx System .....	26-16		
Base Materials .....	26-8		
Brushes .....	26-14		
Capsule .....	26-14		
Ceiling .....	26-1, 26-4, 26-11		
Cordless System .....	26-17		
Drive-In .....	26-5-7, 26-12		
Drop-In .....	26-10		
Drywall .....	26-7, 26-12		
Drywall System .....	26-20		
Electric System .....	26-17		
Electrical Contractor System .....	26-20		
Epoxy .....	26-13-14		
Expansion .....	26-5		
Fastening Systems .....	26-15-22		
Fastraxx System .....	26-17		
Forming .....	26-11		
General Contractor/Framer System .....	26-20		
Grid Master .....	26-17		
Gypsum/Cement Panels to Steel .....	26-15		
Hammer Drive .....	26-5-7, 26-12		
Hangermate .....	26-1		
Hole Plugs .....	26-14		
Hollow Wall .....	26-4-5, 26-7		
Insulation to Masonry/Concrete/ Wood .....	26-17-18		
Lag Shield .....	26-4		
Loads (P.A.T.) .....	26-16, 26-22		
Machine Screw .....	26-4		
Metal Decking System .....	26-16-17		
Mungo .....	26-7		
Nylon Nail .....	26-6		
Pins (P.A.T.) .....	26-16, 26-21-22		
Pipe Hanging .....	26-1, 26-11		
Plastic Anchors .....	26-6-7, 26-13		
Pneumatic Systems .....	26-15		
Powder Actuated .....	26-16, 26-19-22		
Remodeling Systems .....	26-20		
Sammy Screws (Hangermate) .....	26-1		
Screen Tubes .....	26-14		
Self Drilling Fasteners .....	26-16-17		
Sleeve .....	26-9, 26-11		
Stucco Lathe to Steel .....	26-15		
Tapcon .....	26-12		
Threaded Rod Hanger .....	26-1, 26-11		
Toggle/Wings .....	26-4, 26-7		
Trakfast .....	26-19		
Umbrella Inserts .....	26-14		
Wedge Anchors .....	26-9-10		
Wood to Steel .....	26-15		
<b>BEa m CI a mpS</b>			
Pipe Hanger .....	26-74-75, 26-89		
Strut .....	26-74-75		
<b>BEVeI ED</b>			
Washers .....	26-44		
<b>BOI TS</b>			
A-325 .....	26-23-24		
Aluminum .....	26-54		
Anchor .....	26-25		
B7 (Heavy Hex) .....	26-24		
Brass .....	26-53-54		
Carriage Bolts .....	26-24-25, 26-45		
Elevator .....	26-25		
Flange .....	26-24		
Heavy Hex (B7) .....	26-24		
Hex Head Cap .....	26-23, 26-44-45, 26-51, 26-53-56, 26-60-61		
Lag .....	26-25, 26-45		
Machine .....	26-31-35, 26-46-47, 26-53-55, 26-59, 26-62-63		
Metric .....	26-55-63		
Nylon Bolts .....	26-55		
Plow Bolts .....	26-25		
Socket Cap .....	26-26-28, 26-48-49, 26-51-52, 26-56-58, 26-61-62		
Stainless .....	26-44-52, 26-60-63		
Structural .....	26-23-24		
Tap .....	26-25		
Tension Control .....	26-24		
Toggle .....	26-4		
<b>Br a cKETS</b>			
Strut .....	26-75-77		
<b>Cap</b>			
Screw .....	26-23, 26-26-28, 26-44-45, 26-48-49, 26-51-53, 26-55-58, 26-60-62		
<b>CapSUL E</b>			
Anchors .....	26-14		
<b>Car r lagE</b>			
Bolts .....	26-24-25, 26-45		
<b>CEI l ng</b>			
Anchors .....	26-1, 26-4, 26-11		
<b>CHa NNEI S</b>			
Strut .....	26-67-70		
<b>CONCr ETE</b>			
Anchors .....	26-1-22		
Cracker .....	26-7		
Repair .....	26-8		
Screws .....	26-1, 26-12		
<b>COTTER pINS</b>			
Stainless .....	26-50		
<b>COupl ING</b>			
Nuts .....	26-42		
<b>DECK</b>			
Screws .....	26-2-3		
<b>DOWEI S</b>			
Pins .....	26-30, 26-50		
Pull .....	26-30		
<b>Dr lVe</b>			
Screws .....	26-37		
<b>Dr lVe-IN</b>			
Anchors .....	26-5-7, 26-12		
<b>Dr Op-IN</b>			
Anchor .....	26-10		
<b>Dr ywa l l</b>			
Anchor .....	26-7, 26-12		
Screws .....	26-3-4, 26-39		
<b>EI EvaTOR</b>			
Bolts .....	26-25		
<b>END CapS</b>			
Strut .....	26-78		
<b>EpOXy</b>			
Adhesive Anchors .....	26-13		
Capsule Anchors .....	26-14		
<b>Ex pa NSION</b>			
Anchor .....	26-5		
<b>Eye</b>			
Nuts .....	26-42		
<b>FaSTENING SySTEM, pOWDER</b>			
Acoustical .....	26-20		
Autofast .....	26-19		
Autofast Discs and Pins .....	26-19		
Drywall .....	26-20		
Electrical Contractor .....	26-20		
Extension Poles .....	26-21		
General Contractor/Framer .....	26-20		
Loads .....	26-16, 26-22		
Metal Decking .....	26-16		
Pins .....	26-16, 26-22		
Remodeling .....	26-20		
<b>FaSTENING SySTEMS, NON pOWDER</b>			
Autotraxx .....	26-16		
Cordless .....	26-17		
Electric .....	26-17		
Fastraxx .....	26-17		
Grid Master .....	26-17		
Gypsum/Cement Panel to Steel .....	26-15		
Insulation to Masonry/Concrete/ Wood .....	26-17-18		
Metal Decking .....	26-16-17		
Pneumatic .....	26-15		
Self Drilling Fasteners .....	26-16-17		
Stucco Lathe to Steel .....	26-15		
Trakfast .....	26-19		
Wood to Steel .....	26-15		
<b>FENDER</b>			
Washers .....	26-43, 26-60, 26-63		
<b>FITTING S</b>			
Strut .....	26-78-86		
<b>FI a Ng E</b>			
Bolts .....	26-24		
Nut .....	26-41, 26-60		
<b>FI a T</b>			
Washers .....	26-42-44, 26-46, 26-52-55, 26-60, 26-63		
<b>FI OOR ING</b>			
Screws .....	26-38		
<b>FOr mING</b>			
Anchors .....	26-11		
<b>Ha mmEr</b>			

– continues –

**SECTION INDEX**

**SECTION 26**

**Fasteners/Concrete Anchors**

Anchors.....26-5-7, 26-12  
**Ha Ng Er ma TE**.....26-1  
**HEX**  
 Bolt.....26-23, 26-44-45, 26-51,  
 26-53-56, 26-60-61  
**HO I Ow**  
 Wall Anchors.....26-4-5, 26-7  
**Jam**  
 Nuts.....26-40-41, 26-45,  
 26-52-53, 26-59, 26-63  
**I ag**  
 Bolts.....26-25, 26-45  
 Shield Anchors.....26-4  
**I Oa D**  
 Indicating Washers.....26-44  
**I Ock**  
 Nuts.....26-41, 26-45-46, 26-52,  
 26-60, 26-63  
 Washers.....26-43-44, 26-46, 26-52,  
 26-54, 26-60, 26-63-64  
**ma CHINE**  
 Screw Anchors.....26-4  
 Bolts.....26-31-35, 26-46-47,  
 26-53-55, 26-62-63  
**mETr IC**  
 Bolts.....26-55-63  
 Nuts.....26-59-60, 26-63  
**Nu TS**  
 2H (A194).....26-40  
 Acme.....26-42  
 Acorn.....26-42, 26-46,  
 26-52-53, 26-60, 26-63  
 Aluminum.....26-54  
 Brass.....26-53  
 Castle.....26-60  
 Channel, Strut.....26-72-73  
 Coupling.....26-42  
 Eye.....26-42  
 Finished.....26-63  
 Flange.....26-41, 26-60  
 Flexlock.....26-41-42, 26-46, 26-52  
 Galvanized.....26-40  
 Heavy Hex.....26-40, 26-45, 26-52-53  
 Heavy Hex Jam.....26-41  
 Hex.....26-39-42, 26-45-46,  
 26-52-55, 26-59-60, 26-63  
 Hex Full.....26-39, 26-45, 26-52-54, 26-59  
 High.....26-42  
 Jam.....26-40-42, 26-45,  
 26-52-53, 26-59, 26-63  
 K-Lock.....26-41, 26-46  
 Left Hand.....26-40  
 Lock.....26-41, 26-45-46,  
 26-52, 26-60, 26-63  
 Metric.....26-59-60, 26-63  
 Nylon.....26-55  
 Nylon Inserts.....26-41, 26-45,  
 26-52, 26-60, 26-63  
 Reversible.....26-41, 26-45, 26-52  
 Slotted.....26-40  
 Square Nut.....26-42  
 Stainless.....26-45-46, 26-52, 26-63  
 Steel.....26-39-42  
 Tee.....26-42

Top Lock.....26-41, 26-45, 26-52, 26-60  
 Weld Nut.....26-63  
 Wing.....26-42, 26-46, 26-52-53, 26-60  
**Nyl ON**  
 Bolts.....26-55  
 Insert Nuts.....26-41, 26-45, 26-52, 26-60-63  
**pINS**  
 Cotter.....26-50  
 Dowel.....26-30, 26-50  
 Spring.....26-30, 26-50  
 Taper.....26-31  
**plpE Ha Ng Er S**  
 Anchors.....26-1, 26-11  
 Beam Clamp.....26-74-75, 26-89  
 Clamps - Cady.....26-70-72, 26-74-75  
 Hangermate System.....26-1  
 Straps.....26-70-72  
**pl a STIC**  
 Anchors.....26-6-7, 26-13  
**pl Ow**  
 Bolts.....26-25  
**poST**  
 Bases, Strut.....26-86-87  
**poWDER FaSTENINg SYSTEmS**  
 Acoustical.....26-20  
 Autofast.....26-19  
 Autofast Discs and Pins.....26-19  
 Drywall.....26-20  
 Electrical Contractor.....26-20  
 Extension Poles.....26-21  
 General Contractor/Framer.....26-20  
 Loads.....26-16, 26-22  
 Metal Decking.....26-16  
 Pins.....26-16, 26-21-22  
 Remodeling.....26-20  
**r OD-THr Ea DED**  
 Aluminum.....26-65  
 B-7.....26-65  
 Brass.....26-65  
 Left-Handed.....26-64  
 Metric.....26-64  
 Nylon.....26-65  
 Stainless Steel.....26-64, 26-65  
 Steel.....26-64  
 Studs (B-7).....26-65  
**Sa mmy SCr Ew S (Ha Ng Er ma TE)**.....26-1  
**SCr Ew S**  
 Acoustical.....26-1  
 Aluminum.....26-54  
 Brass.....26-53-54  
 Cap, Hex Head.....26-23, 26-44-45,  
 26-51, 26-53-56, 26-60-61  
 Concrete.....26-1, 26-12  
 Deck.....26-2, 26-3  
 Drive.....26-37  
 Drywall.....26-3-4, 26-39  
 Flooring.....26-38  
 Hangermate.....26-1  
 Hex Head Cap.....26-23, 26-44-45,  
 26-51, 26-53-56, 26-60-61  
 Self Drilling Screws.....26-2-3  
 Set, Socket.....26-28-29, 26-49,  
 26-58-59, 26-62  
 Set, Square Head.....26-31, 26-50

Sheet Metal.....26-36-37, 26-47-48  
 Shouldered.....26-29, 26-50, 26-59  
 Socket Cap.....26-26-27, 26-48,  
 26-51-52, 26-57, 26-61  
 Socket Cap, Button Head.....26-27, 26-48-49,  
 26-57-58, 26-61  
 Socket Cap, Flat Head.....26-27, 26-49,  
 26-58, 26-62  
 Socket Cap, Low Head.....26-28, 26-58, 26-61  
 Socket Cap, Shoulder.....26-29, 26-50, 26-59  
 Socket Pipe Plug.....26-29, 50  
 Speed Tip.....26-39  
 Stainless.....26-44-52, 26-61-63  
 Steel.....26-23-39  
 Structural.....26-23-24  
 Tapcon.....26-12  
 Thread Cutting.....26-37-38  
 Thread Rolling.....26-39  
 Threaded Rod Hanging.....26-1, 26-12  
 Thumb.....26-39  
 Wood Screws.....26-35-36, 26-47, 26-54  
**SET**  
 Screws, Socket.....26-28-29, 26-49,  
 26-58-59, 26-62  
 Screws, Square Head.....26-31, 26-50  
**SHEET mETal**  
 Screws.....26-36-37, 26-47-48  
**SHOUl DER ED**  
 Screws.....26-29, 26-50, 26-59  
**SI EEVe**  
 Anchors.....26-9, 26-11  
**SI OTTED**  
 Angle.....26-73-74  
**SOck ET**  
 Pipe Plug.....26-29, 26-50  
 Screws.....26-26-28, 26-48-49,  
 26-51-52, 26-56-58, 26-61-62  
 Set Screws.....26-28-29, 26-49,  
 26-58-59, 26-62  
 Shoulder Screw.....26-29, 26-50, 26-59  
**Spr INg**  
 Pins.....26-30, 26-50  
**Squar E**  
 Nut.....26-42  
**STa INI ESS**  
 Bolts.....26-44-52, 26-60-63  
 Nut.....26-45-46, 26-52, 26-63  
 Screws.....26-44-52, 26-61-63  
**STr apS**  
 Hangers.....26-70-72  
**STr uCTur al**  
 Bolts.....26-23-24  
**STr uT**  
 A-12.....26-68  
 A-14.....26-68  
 Applications/Calculating Loads.....26-66-67  
 B-12.....26-68  
 Basics To Ordering Strut.....26-66  
 Beam Clamps.....26-74-75, 26-89  
 Brackets.....26-75-77  
 C-12.....26-69  
 C-14.....26-69  
 Channel Nuts.....26-72-73  
 - continues -

**SECTION 26**  
**Fasteners/Concrete Anchors**

Channel Selection Chart.....	26-67	<b>TOggIE</b>	
Concrete Inserts.....	26-77-78	Anchor.....	26-7
D-14.....	26-69	Bolts.....	26-4
E-12.....	26-70	<b>waSHER S</b>	
End Caps.....	26-78	Aluminum.....	26-54
Fittings.....	26-78-86	Beveled.....	26-44
M-12.....	26-70	Brass.....	26-53
Pipe Clamps.....	26-70-72	Bronze.....	26-54
Post Bases.....	26-86-87	Fender.....	26-43, 26-60, 26-63
Rollers.....	26-87-88	Finishing.....	26-43, 26-46, 26-52-53
Slotted Angle.....	26-73-74	Flat.....	26-42-44, 26-46, 26-52-55, 26-60, 26-63
<b>Tap</b>		Load Indicating.....	26-44
Bolts.....	26-25	Lock.....	26-43-44, 26-46, 26-52, 26-54, 26-60, 26-63-64
<b>TapCON</b>		<b>wEDgE</b>	
Anchors.....	26-12	Anchors.....	26-9-10
<b>TapEr</b>		<b>wEl D</b>	
Pins.....	26-31	Nuts.....	26-63
<b>TEE</b>		<b>wING</b>	
Nut.....	26-42	Nut.....	26-42, 26-46, 26-52-53, 26-60
<b>TENSION CONTR OI</b>		Toggle.....	26-4
Bolts.....	26-24	<b>wOOD</b>	
<b>THr EaDED</b>		Screws.....	26-35-36, 26-47, 26-54
Rod Hanger.....	26-1, 26-11		
<b>THumB</b>			
Screws.....	26-39		





**Fasteners/Concrete Anchors**

# Mechanical Anchors

## STANDARD MILLI ED POINT SEIF-DRILLING SCREW S

STOCK SIZES/METAL TO METAL SCREW S:

### #2 point/#6 Diameter

Description	Plating	Catalog #	Box Qty.	Box Wt.
6-20 x 3/8 Phillips pan S-12	Zinc	BA125	20,000	44
6-20 x 1/2 Phillips Pan	Zinc	BA135	15,000	39
6-20 x 1/2 Hex washer	Zinc	AA155	12,000	35

### #2point/#8 Diameter

Description	Plating	Catalog #	Box Qty.	Box Wt.
8-18 x 1/2 Phillips pan	Zinc	BA245	10,000	34
8-18 x 1/2 Phillips pan	Stalgard®	BA246	10,000	34
8-18 x 1/2 Hex washer	Zinc	AA235	10,000	40
8-18 x 1/2 Hex washer	Stalgard	AA236	10,000	40
8-18 x 1/2 Phillips round washer	Phos	BD425	10,000	44
8-18 x 3/4 Phillips pan	Zinc	BA265	10,000	42
8-18 x 3/4 Phillips pan	Stalgard	BA266	10,000	42
8-18 x 3/4 Hex washer	Zinc	AA255	8,000	43
8-18 x 3/4 Hex washer	Stalgard	AA256	8,000	43
8-18 x 1 Phillips pan	Zinc	BA285	8,000	43
8-18 x 1 Hex washer	Zinc	AA275	5,000	30
8-18 x 1 Hex washer	Stalgard	AA276	5,000	30
8-18 x 1-1/2 Phillips pan	Zinc	BA305	5,000	36

### #2 point/#10 Diameter

Description	Plating	Catalog #	Box Qty.	Box Wt.
10-16 x 1/2 Hex washer	Zinc	AA440	8,000	45
10-16 x 3/4 Hex washer	Zinc	AA480	6,000	41
10-16 x 1 Hex washer	Zinc	AA510	5,000	41

### #3 point/#8 Diameter

Description	Plating	Catalog #	Box Qty.	Box Wt.
8-18 x 5/8 Slotted hex washer	Zinc	AD025	10,000	43

### #3 point/#10 Diameter

Description	Plating	Catalog #	Box Qty.	Box Wt.
10-16 x 1/2 Hex washer	Zinc	AC435	8,000	43
10-16 x 1/2 Hex washer	Stalgard	AC436	8,000	43
10-16 x 5/8 Hex washer	Zinc	AC455	6,000	37
10-16 x 5/8 Hex washer	Stalgard	AC456	6,000	37
10-16 x 5/8 Phillips pan	Zinc	BE440	8,000	44
10-16 x 3/4 Hex washer	Zinc	AC465	6,000	41
10-16 x 3/4 Hex washer	Stalgard	AC466	6,000	41
10-16 x 3/4 Phillips pan	Zinc	BE450	6,000	36
10-16 x 1 Hex washer	Zinc	AC485	4,000	32
10-16 x 1 Hex washer	Stalgard	AC486	4,000	32
10-16 x 1 Phillips pan	Zinc	BE465	5,000	37
10-16 x 1-1/4 Hex washer	Zinc	AC500	3,000	28
10-16 x 1-1/2 Hex washer	Zinc	AC510	3,000	34
10-16 x 1-1/2 Hex washer	Stalgard	AC511	3,000	34

### #3 point/#12 Diameter

Description	Plating	Catalog #	Box Qty.	Box Wt.
12-14 x 3/4 Hex washer	Zinc	AC735	5,000	43
12-14 x 3/4 Hex washer	Stalgard	AC736	5,000	43
12-14 x 1 Hex washer	Zinc	AC745	4,000	42
12-14 x 1 Hex washer	Stalgard	AC746	4,000	42
12-14 x 1-1/2 Hex washer	Zinc	AC755	2,500	35
12-14 x 1-1/2 Hex washer	Stalgard	AC756	2,500	35
12-14 x 2 Hex washer	Zinc	AC765	2,000	34
12-14 x 2 Hex washer	Stalgard	AC766	2,000	34

### #3 point/1/4" Diameter

Description	Plating	Catalog #	Box Qty.	Box Wt.
1/4-14 x 3/4 Hex washer	Zinc	AC885	3,500	48
1/4-14 x 3/4 Hex washer	Stalgard	AC886	3,500	48
1/4-14 x 1 Hex washer	Zinc	AC895	3,000	47
1/4-14 x 1 Hex washer	Stalgard	AC896	3,000	47
1/4-14 x 1-1/2 Hex washer	Zinc	AC905	2,000	41
1/4-14 x 1-1/2 Hex washer	Stalgard	AC906	2,000	41
1/4-14 x 2 Hex washer	Zinc	AC915	1,500	37
1/4-14 x 2 Hex washer	Stalgard	AC916	1,500	37

**Stalgard® Corrosion Resistant Coating... For Corrosive Environments** protects any ferrous metal against rust and corrosion better than any conventional coating. Stalgard coated parts show no sign of red rust or other base metal corrosion on significant surfaces even after 800 hours in 5% neutral salt spray per ASTM B-117 and 20 cycles in the Kesternich DIN 50018 test chambers...better than zinc... better than cadmium.

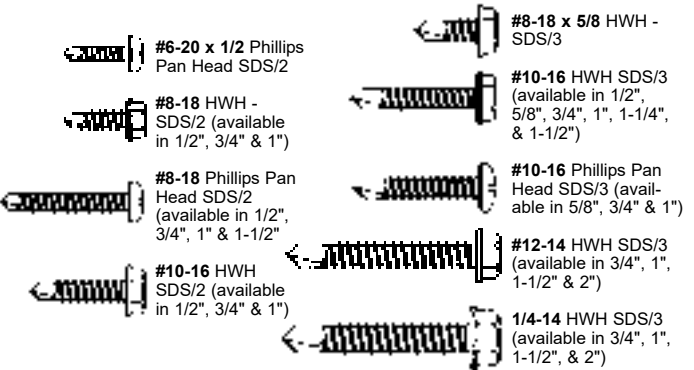
### APPLICATION INFORMATION:

#### #2 point - light/medium gauge metal

Drilling Capacity	
Fastener Dia.	Decimal
#6 (#2 point)	.090
#8 (#2 point)	.100
#10 (#2 point)	.110

#### #3 point - light/medium gauge metal

Drilling Capacity	
Fastener Dia.	Decimal
#8 (#3 point)	.140
#10 (#3 point)	.175
#12 (#3 point)	.210
1/4" (#3 point)	.210



#### ultimate pull-Out loads (lb.) for Standard SDS

Screw Thread	SDS Pt.	Gauge												
		20	18	16	14	13	12	10	5/32	3/16	7/32			
#6-20	2	283	472	583	873	1065	1214	1541						
#8-18	2	301	526	658	951	1214	1541							
#10-16	2	321	537	701	981	1288	1602							
#8-18	3					1332	1839							
#10-16	3					1448	1971	2622						
#12-14	3					1546	2178	2687	3399*					
1/4-14	3					1743	2286	3220	3945*	4650*				

\*Indicates screw failed in tension before pull-out occurred.

Note: These figures are offered only as a guide & are not guaranteed in any way by Elco Industries, Inc.

## SPECIALTY MILLI ED POINT SEIF-DRILLING SCREW S

STOCK SIZES/WOOD TO METAL SCREW S:

### #3 point-wood to metal

Description	Plating	Catalog #	Box Qty.	Box Wt.
8-18 x 1-5/16 Phillips flat decking	Phos	BH140	6,000	33
8-18 x 1-15/16 Phillips flat decking	Phos	BH150	4,000	32
10-16 x 3/4 PWH	Zinc	BF440	8,000	41
10-24 x 3/4 PWH	Zinc	BF585	8,000	42
10-24 x 1 PWH	Zinc	BF595	6,000	41
10-24 x 1-1/4 PWH	Zinc	BF605	5,000	41
10-24 x 1-1/2 PWH	Zinc	BF615	3,500	34
10-24 x 1-7/16 PWH/wings	Zinc	BK620	4,000	36
10-24 x 1-7/16 PWH/wings	Stalgard	BK621	4,000	36

### #4 point/wood to metal

Description	Plating	Catalog #	Box Qty.	Box Wt.
11-16 x 2-15/16 PWH/wings	Stalgard	BK700	1,000	23
11-16 x 3-7/16 PWH/wings	Stalgard	BK710	1,000	25
11-16 x 3-15/16 PWH/wings	Stalgard	BK720	500	15
12-24 x 1-5/8 PWH/wings	Zinc	BK645	2,500	34
12-24 x 2 Phillips flat/wings**	Zinc	BJ875	2,000	32
12-24 x 2 Phillips flat/wings**	Stalgard	BJ876	2,000	32
12-24 x 2-1/2 Phillips flat/wings**	Zinc	BJ880	1,500	29
12-24 x 2-1/2 Phillips flat/wings**	Stalgard	BJ881	1,500	29
1/4-20 x 2-3/4 Phillips flat/wings**	Zinc	BJ985	1,000	28
1/4-20 x 2-3/4 Phillips flat/wings**	Stalgard	BJ986	1,000	28
12-14 x 3-5/8 Phillips flat/pilot (#2 pt.)	Stalgard	BD275	1,000	25

\*\* Not intended for fastening to steel thinner than 16 gauge (.060").

**Fasteners/Concrete Anchors**

# Mechanical Anchors

**appl ICaTION INFOr maTION:**

**#3 point - medium gauge metal**  
 Fastening wood to medium gauge framing... makes floor, interior, partition & wood roofing work easier.

Drilling Capability	
Fastener Dia.	Decimal
#8	.140
#10	.187

**#4 point - Heavy gauge metal**  
 Fastening wood to heavy gauge steel framing... drill, ream & tap steel in one easy application... wings provide a clearance hole in wood thicker than 1/2".

Drilling Capability	
Fastener Dia.	Decimal
#11	.312
#12	.250
1/4"	.250

- #10-24 x 1-7/16 Thin Wafer Head SDS/3 With Wings\***
- #8-18 Phil FLT SDS/3\*** (available in 3/4", 1", 1-1/4" & 1-1/2")
- #10-24 x 1 Wafer Flat Head SDS/3\*** (available in 3/4", 1", 1-1/4" & 1-1/2")
- #12-24 Phillips Flat HD SDS/4 With Wings\*** (available in 2" & 2-1/2")
- 1/4-20 x 2-3/4 Phillips Flat HD SDS/4 With Wings\***
- #11-16 Plymetal Phillips Wafer Head SDS/4 With Wings\*** (available in 2-15/16", 3-7/16", 3-15/16", #12-24 x 1-5/8")

## SpECIa l Ty ml l ED pOINT SEI F-Dr ll l NG SCr Ew S

**STOCK SIZES/mETal TO mETal SCr Ew S:**

**#4 point - metal to metal**

Description	Plating	Catalog #	Box Qty.	Box Wt.
12-24 x 7/8 Hex washer	Stalgard	AE730	4,500	43
12-24 x 1-1/4 Hex washer	Stalgard	AE750	3,500	44
12-24 x 1-1/2 Hex washer	Stalgard	AE760	2,500	33
12-24 x 2 Hex washer	Stalgard	AE770	2,000	33

**#4 point - with galvanized Bonded washer**

Description	Plating	Catalog #	Box Qty.	Box Wt.
12-24 x 7/8 Hex washer	Stalgard	HJ287	2,500	32
12-24 x 1-1/4 Hex washer	Stalgard	HJ289	2,500	42
12-24 x 1-1/2 Hex washer	Stalgard	HJ291	2,000	35
12-24 x 2 Hex washer	Stalgard	HJ293	1,500	31

**#5 point - Drill-It®**

Description	Plating	Catalog #	Box Qty.	Box Wt.
12-24 x 1-1/4 Hex washer	Stalgard	AE755	4,000	49
12-24 x 1-1/2 Hex washer	Stalgard	AE765	2,500	36
12-24 x 2 Hex washer	Stalgard	AE773	2,000	30

**#5 point - Drill-It® with galvanized Bonded washer**

Description	Plating	Catalog #	Box Qty.	Box Wt.
12-24 x 1-1/4 Hex Washer	Stalgard	HJ492	2,500	36
12-24 x 1-1/2 Hex Washer	Stalgard	HJ495	2,000	37
12-24 x 2 Hex Washer	Stalgard	HJ497	1,500	28

**Decking Stitch Screw**

Description	Plating	Catalog #	Box Qty.	Box Wt.
10-16 x 3/4 HWH stitch	Stalgard	AE470	6,000	40

**#2 point - Sheeting Screws - unwashed**

Description	Plating	Catalog #	Box Qty.	Box Wt.
12-14 x 2-1/2 Hex Washer	Stalgard	AB710	1,000	21
12-14 x 3 Hex Washer	Stalgard	AB715	1,000	26
12-14 x 4 Hex Washer	Stalgard	AB720	500	15
1/4-14 x 7/8 #12 HWH stitch	Stalgard	AB805	2,500	26

**#2 point - Sealing Screws - Flo-Seal®**

Description	Plating	Catalog #	Box Qty.	Box Wt.
12-14 x 3/4 Hex Washer	Stalgard	HA201	3,000	33
12-14 x 1 Hex Washer	Stalgard	HA207	2,500	32
12-14 x 1 HWH Hi-thread	Stalgard	HA220	2,500	34
12-14 x 1-1/4 Hex Washer	Stalgard	HA227	2,000	30
12-14 x 1-1/4 HWH Hi-thread	Stalgard	HA225	2,000	30
12-14 x 1-1/2 Hex Washer	Stalgard	HA250	2,000	33
12-14 x 2 Hex Washer	Stalgard	HA260	1,500	29
12-14 x 2-1/2 Hex Washer	Stalgard	HA270	1,000	20
12-14 x 3 Hex Washer	Stalgard	HA280	1,000	28
1/4-14 x 7/8 #12 HWH stitch	Stalgard	HA320	2,500	31

**#3 point - Sealing Screws - Flo-Seal®**

Description	Plating	Catalog #	Box Qty.	Box Wt.
1/4-14x3/4 Hex Washer	Stalgard	HA310	2,500	35
1/4-14x1 Hex Washer	Stalgard	HA330	2,000	33
1/4-14x1-1/4 Hex Washer	Stalgard	HA340	1,500	28
1/4-14x1-1/2 Hex Washer	Stalgard	HA350	1,500	32
1/4-14x2 Hex Washer	Stalgard	HA360	1,000	26

**appl ICaTION INFOr maTION:**

**#4 point - Heavy gauge metal**  
 Fasten decking to bar joist & beams, electrical or plumbing accessories to joist or stud, roof, decking & bridge decking.

Drilling Capability	
Fastener Dia.	Decimal
#12-7/8	.312
#12 x 1/4 thru 2	.375

**#5 point - Drill-it® - very Heavy gauge metal**

Fasten metal siding, electrical & metal components to heavy structural members. Drills, taps & fasteners in metal having a total thickness of 1/4" to 1/2"... without predrilling

Drilling Capability	
Fastener Dia.	Decimal

**#2 point - Sealing Screw - Flo-Seal® - light gauge metal**

Fasten light gauge metal to metal or when attaching sheet to girts or purlins. Special stitch point allows easy fastening of unsupported sheets.

Drilling Capability Flo-Seal®	
Fastener Dia.	Decimal
#12 1/4" (stitch)	.187
	.048

**#3 point - Sealing Screw - medium gauge metal**

Fastening metal sheeting to medium gauge steel framing & light weight bar joist.

Drilling Capacity-Flo-Seal®	
Fastener Dia.	Decimal
1/4"	.210

- #12-24 HWH SDS/4** (available in 7/8", 1-1/4", 1-1/2" & 2")
- #12-24 HWH DRILL-IT®** (available in 1-1/4", 1-1/2" & 2")
- #12-14 HWH SDS/2** (available in 3/4", 1", 1-1/4", 1-1/2", 2", 2-1/2" & 3")

## SpECIa l pur pOSE FaSTENER S

wood Deck Corrosion r esistant-TwinFast

Description	Plating	Catalog #	Box Qty.	Box Wt.
6 x 1-5/8 Phillips bugle	Stalgard	JB135	5,000	27
8 x 2-1/2 Phillips bugle	Stalgard	JB165	2,500	25
8 x 3 Phillips bugle	Stalgard	JB175	1,400	18

**a ll-purpose/Drywall Screws-TwinFast**

Description	Plating	Catalog #	Box Qty.	Box Wt.
6 x 1 Phillips bugle	Phos	JA100	10,000	35
6 x 1-1/8 Phillips bugle	Phos	JA110	10,000	39
6 x 1-1/4 Phillips bugle	Phos	JA120	8,000	34
6 x 1-5/8 Phillips bugle	Phos	JA130	5,000	27
6 x 2 Phillips bugle	Phos	JA140	3,000	21
6 x 2-1/4 Phillips bugle	Phos	JA150	3,000	23
8 x 2-1/2 Phillips bugle	Phos	JA160	2,500	25
8 x 3 Phillips bugle	Phos	JA170	1,400	18

**S-12 Forged point Drywall Screws**

Description	Plating	Catalog #	Box Qty.	Box Wt.
6-20 x 7/16 Phillips flat pan	Phos	FD130	15,000	46
6-20 x 1 Phillips bugle	Phos	FN135	10,000	35
6-20 x 1-1/4 Phillips bugle	Phos	FN145	8,000	32
6-20 x 1-5/8 Phillips bugle	Phos	FN155	5,000	25
6-20 x 1-7/8 Phillips bugle	Phos	FN165	4,000	23
8-18 x 2-1/2 Phillips bugle	Phos	FN345	2,500	26
8-18 x 3 Phillips bugle	Phos	FN355	1,400	19

**TapFast® with Flo-Seal washer (light gauge to wood)**

Description	Plating	Catalog #	Box Qty.	Box Wt.
10-12 x 1 Hex Washer	Stalgard	HH210	3,000	26
10-12 x 1-1/2 Hex Washer	Stalgard	HH230	2,500	28
10-12 x 2 Hex Washer	Stalgard	HH250	1,500	20
10-12 x 2-1/2 Hex Washer	Stalgard	HH265	1,000	17
10-12 x 3 Hex Washer	Stalgard	HH280	800	16

**Fasteners/Concrete Anchors**

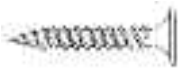
# Mechanical Anchors

## SpECIal pur pOSE FaSTENER S (continued)

**a ppl ICaTION INFOr MATION:**

**Twinfast - Drywall Screw**

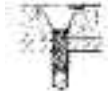
- Metal or wood
- Drywall to metal
- Drywall to wood



Twinfast features a special point designed to penetrate drywall & metal up to 24 gauge. Wood deck corrosion resistant screws are Stalgard coated to make them ideal for applications with pressure-treated decks, docks, siding, fences & other applications.

**S-12 - Drywall Screw**

- Heavy gauge steel
- Wall-board or sheathing to metal framing
- Double or multi-layers of wallboard to metal framing



Features point to fasten gypsum board, hardboard or particle board up to 2 in. thick to steel up to 12 gauge. Phillips recess bugle head burrows into gypsum or other material for a flat smooth surface. Eliminates need for extensive taping of paper tears. Black phosphate finish.

- Typical applications:** Wallboard or sheathing to metal framing  
• Double or multi-layers of wallboard to metal framing

**TapFaST®**

Self-drilling Tapfast has deep, spaced threads for greater strength & holding power & self-drilling point to cut quickly through panel & wood. Stalgard coating prevents corrosion & increases lubricity.



- Typical applications:** Attaching thin sheet metal to wood... up to 18 gauge metal.

## US anchor

## TOg g I E BOI TS

Toggle Bolts and the acoustical toggles listed below are used in hollow wall, plaster, hollow tile and block applications. Three head styles are available, Mushroom, Round and Flat head. The screws are zinc plated and fully threaded. The heavy duty toggle wings are zinc plated, with the appropriate sizing stamped on the body for easy identification. All toggle bolts are sold unassembled. Bulk and Keg quantity available.

Code	Dia. & Lgth. (in)	Hole Size (in)	Ultimate Tension Load Value	Box/Ctn Qty.	Wt. (lbs) Per 100
TB1820M	1/8 x 2	3/8	240	100/1000	1.44
TB1830M	1/8 x 3	3/8	240	100/1000	1.72
TB1840M	1/8 x 4	3/8	240	100/1000	2.06
TB3130M	3/16 x 3	1/2	430	100/1000	3.58
TB3140M	3/16 x 4	1/2	430	100/1000	4.18
TB1430M	1/4 x 3	5/8	900	50/500	6.44
TB1440M	1/4 x 4	5/8	900	50/500	7.44
TB1820R	1/8 x 2	3/8	240	100/1000	1.44
TB1830R	1/8 x 3	3/8	240	100/1000	1.72
TB1840R	1/8 x 4	3/8	240	100/1000	2.06
TB3120R	3/16 x 2	1/2	430	100/1000	2.98
TB3130R	3/16 x 3	1/2	430	100/1000	3.58
TB3140R	3/16 x 4	1/2	430	100/1000	4.18
TB3150R	3/16 x 5	1/2	430	100/1000	4.56
TB3160R	3/16 x 6	1/2	430	100/1000	5.56
TB1430R	1/4 x 3	5/8	900	50/500	6.44
TB1440R	1/4 x 4	5/8	900	50/500	7.44
TB1450R	1/4 x 5	5/8	900	50/500	8.40
TB1460R	1/4 x 6	5/8	900	50/500	9.68
TB5630R	5/16 x 3	7/8	1030	25/250	10.72
TB5640R	5/16 x 4	7/8	1030	25/250	12.08
TB5650R	5/16 x 5	7/8	1030	25/250	13.60
TB5660R	5/16 x 6	7/8	1030	25/250	15.36
TB3830R	3/8 x 3	1	1090	25/250	15.44
TB3840R	3/8 x 4	1	1090	25/250	17.56
TB3850R	3/8 x 5	1	1090	25/250	20.08
TB3860R	3/8 x 6	1	1090	25/250	22.48
TB1240R	1/2 x 4	1-1/4	1200	10/100	35.40
TB1250R	1/2 x 5	1-1/4	1200	10/100	39.40
TB1260R	1/2 x 6	1-1/4	1200	10/100	49.60
TB1820F	1/8 x 2	3/8	240	100/1000	1.40
TB1830F	1/8 x 3	3/8	240	100/1000	1.68
TB1840F	1/8 x 4	3/8	240	100/1000	1.98
TB3130F	3/16 x 3	1/2	430	100/1000	3.42
TB3140F	3/16 x 4	1/2	430	100/1000	3.98
TB1430F	1/4 x 3	5/8	900	50/500	6.12
TB1440F	1/4 x 4	5/8	900	50/500	7.12



GSA Spec. FF-B-588C, Type 1, Class A, Style 1.

## Kap Toggles

Hollow wall fastener. High strength construction.



Article Code	Description	Hole Size (in)	Box/Ctn Qty.	Wt. (lbs) Per 100
KT-1	1/8" Kap Toggle	3/8	50/500	.45
KT-2	3/16" Kap Toggle	1/2	25/250	.77
KT-3	1/4" Kap Toggle	5/8	25/250	1.07

## Toggle wings

Heavy duty toggle wings are zinc plated, with the appropriate sizing stamped on the wing for easy identification. They are available both packaged and in bulk, in the quantities shown below.

Item Code	Thread Size	Wing Lgth. (in)	Hole Size (in)	Ultimate Tension Load Value	Box/Ctn Qty.	Bulk Qty.	Wt. (lbs) Per 100
TW18	6-32	1-3/4	3/8	240	100/1000	8,000	0.76
TW31	10-24	2-1/4	1/2	430	100/1000	3,000	1.66
TW14	1/4 - 20	2-1/4	5/8	900	100/1000	3,000	2.80
TW56	5/16 - 18	2-3/4	7/8	1030	50/500	1,500	4.48
TW38	3/8 - 16	3-1/4	1	1090	50/500	700	7.20
TW12	1/2 - 13	5	1-1/4	1200	25/250	200	14.00



## Lag Shields

Lag shields are designed for light to medium duty fastening in concrete, mortar joint, masonry and brick. The lag shield is rustproof, and is used with a lag screw to provide a dependable fixing. The screw length can be determined by adding the length of the lag shield, the thickness of material to be fastened plus 1/4", as the tip of the lag screw must protrude out from the bottom of the anchor to insure proper expansion. In hard masonry, the short lag shield may be used to minimize drilling time. In softer masonry, the long lag shield will develop superior holding strength. These lag shields are manufactured of high quality zinc alloy, preventing the possible brittle characteristics of lower quality zinc. For alternatives to lag shields, check the Mungo products in the Specialty Products section.

Item Code	Anchor Size (in)	Hole Size (in)	Anchor Lgth. (in)	Box/Ctn Qty.	Wt. (lbs) Per 100
<b>Short Style</b>					
LSS14	1/4	1/2	1	100/1000	2.58
LSS56	5/16	1/2	1-1/4	100/1000	3.00
LSS38	3/8	5/8	1-3/4	50/500	6.28
LSS12	1/2	3/4	2	25/250	10.16
LSS58	5/8	7/8	2	25/250	13.76
LSS34	3/4	1	2	25/125	15.36
<b>Long Style</b>					
LSL14	1/4	1/2	1-1/2	100/1000	4.20
LSL56	5/16	1/2	1-3/4	100/1000	4.24
LSL38	3/8	5/8	2-1/2	50/500	9.36
LSL12	1/2	3/4	3	25/250	17.12
LSL58	5/8	7/8	3-1/2	25/250	21.45
LSL34	3/4	1	3-1/2	25/125	23.75



GSA Spec. FF-S-325, Group II, Type 1, Classes 1 & 2

## machine Screw anchors

This caulking type machine screw anchor features a zinc alloy cone with a lead ring. When set, using the setting tool provided with each 100 anchors, it provides a quick setting in concrete, stone, and brick. GSA specification FF-S-325, Group 1, Type 1, Class 1.

Item Code	Internal Dia.	Hole Size (in)	Min. Hole (in)	Box/Ctn Qty.	Wt. (lbs) Per 100	Setting Tool	Wt. (lbs) Per Each
M6	6-32	5/16	1/2	100/1000	1.02	MT6	.07
M8	8-32	5/16	1/2	100/1000	1.08	MT8	.07
M10	10-24	3/8	5/8	100/1000	1.80	MT10	.07
M14	14-20	1/2	7/8	100/1000	4.34	MT14	.17
M56	5/16-18	5/8	1	100/1000	6.64	MT56	.28
M38	3/8-16	3/8	1-1/4	50/500	12.72	MT38	.43
M12	1/2-13	7/8	1-1/2	50/500	16.58	MT12	.66
M58	5/8-11	1-1/8	2	25/250	38.16	MT58	1.13
M34	3/4-10	1-1/4	2-1/4	25/100	47.84	MT34	1.39



Ultimate Load Values			
Anchor	Anchor/Drill Dia.	Ultimate Load (lbs) 3500 PSI	
		Tension	Shear
M6	5/16	406	590
M8	5/16	790	700
M10	3/8	970	1190
M14	1/2	2200	2100
M56	5/8	3100	2400
M38	3/4	5500	4300
M12	7/8	6310	5000
M58	1-1/8	7440	12,900

Tests were performed by an independent testing lab in accordance with ASTM E-488-90. Values shown are average ultimate values and are offered only as a guide and are not guaranteed. A safety factor of 4 to 1 or 25% is generally accepted as a safe working load.



**Fasteners/Concrete Anchors**

# Mechanical Anchors

## Hammer Drive anchors

The body of the hammer drive anchor is made from high grade Zamac 3 zinc alloy (which provides you with high pullout values). It is rustproof and designed to virtually eliminate embrittlement which frequently occurs in lower grades of zinc alloy. Good for applications in concrete, brick, block or stone, the hammer drive comes assembled and provides for a quick and easy fastening in medium and light duty jobs. Hammer drives have a mushroom head, are relatively tamperproof, and are available with both the standard zinc plated steel and stainless steel nails depending upon the application requirements.

Item Code	Anchor Dia. & Lgth. (in)	Hole Size (in)	Grip Range	Box/Ctn. Qty.	Wt. (lbs) Per 100
<b>Hammer Drives with Zinc Plated Nails</b>					
H3107	3/16 x 7/8	3/16	0-1/8	100/1000	1.15
H1406	1/4 x 3/4	1/4	0-1/8	100/1000	1.70
H1410	1/4 x 1	1/4	1/8 - 1/4	100/1000	2.00
H1412	1/4 x 1-1/4	1/4	1/4 - 1/2	100/1000	2.35
H1414	1/4 x 1-1/2	1/4	1/2 - 3/4	100/1000	2.65
H1420	1/4 x 2	1/4	3/4 - 1-1/4	100/1000	3.35
<b>Hammer Drives with Stainless Steel Nails</b>					
H1406S	1/4 x 3/4	1/4	0 - 1/8	100/1000	1.64
H1410S	1/4 x 1	1/4	1/8 - 1/4	100/1000	2.00
H1412S	1/4 x 1-1/4	1/4	1/4 - 1/2	100/1000	2.35
H1414S	1/4 x 1-1/2	1/4	1/2 - 3/4	100/1000	2.65
H1420S	1/4 x 2	1/4	3/4 - 1-1/4	100/1000	3.35



GSA Spec. FF-S-325, Group V, Type 2, Class 3

Ultimate Load Values			
4000 Psi Concrete			
Anchor	Embedment	Tension	Shear
1/4"	3/4"	1104	1289
	1"	1373	1394
	1-1/4"	1375	1399

These tests were performed by an independent testing lab in accordance with ASTM E-488-90. Values shown are average ultimate values and are offered only as a guide and are not guaranteed. A safety factor of 4 to 1 or 25% is generally accepted as a safe working load.

## Single Expansion anchors

The rustproof, zinc alloy single expansion anchor is used with machine screws or machine bolts in concrete, brick or stone. The screw or bolt can be removed from the anchor if necessary, and replaced without materially affecting the holding power of the anchor.

Item Code	Internal Dia. (in)	Hole Size (in)	Anchor Lgth (in)	Box/Ctn. Qty	Wt. (lbs) Per 100
SE14	1/4	1/2	1-5/16	100/1000	2.86
SE56	5/16	5/8	1-1/2	50/500	5.84
SE38	3/8	5/8	1-1/2	50/500	5.52
SE12	1/2	7/8	2	50/500	11.40
SE58	5/8	1	2-5/8	25/125	20.72
SE34	3/4	1-1/4	2-3/4	25/125	31.84



Ultimate Load Values					
Anchor	Anchor/ Drill Dia. (lbs)	Ultimate Load			
		Concrete 3700 PSI		Hollow Block	
		Tension (lbs)	Shear (lbs)	Tension (lbs)	Shear
SE14	1/2	1760	2120	833	1215
SE56	5/8	2080	3200	-	-
SE38	3/4	2310	3800	-	-
SE12	7/8	3600	8100	-	-
SE58	1	5980	12,000	-	-
SE34	1-1/4	8910	15,200	-	-

These tests were performed by an independent testing lab in accordance with ASTM E-488-90. Values shown are average ultimate values and are offered only as a guide and are not guaranteed. A safety factor of 4 to 1 or 25% is generally accepted as a safe working load.

## Double Expansion anchors

The double expansion anchor is manufactured of rustproof zinc alloy, and is used with machine screws or machine bolts, and works well in soft masonry and mediums of questionable strength. As the "double" sets, the two opposing wedges pull towards each other, expanding the full length of the anchor body. Proper expansion requires that anchor, prior to setting, protrudes slightly above surface plane.

Item Code	Internal Dia. (in)	Hole Size (in)	Anchor Lgth. (in)	Box/Ctn. Qty.	Wt. (lbs) Per 100
DE14	1/4	1/2	1	100/1000	3.18
DE56	5/16	5/8	1-1/4	50/500	5.92
DE38	3/8	3/4	2	50/500	11.36
DE12	1/2	7/8	2	25/250	17.68
DE58	5/8	1	2-1/4	25/250	23.04
DE34	3/4	1-1/4	2-7/8	10/100	46.60

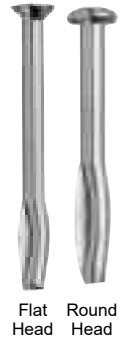


GSA Spec. FF-S-325, Group II, Type 2, Class 2, Style 2

## Split Fast anchors

Split fast anchors can be used in concrete, hard masonry and stone. Made of high grade steel with "memory", these anchors are easily hammered into a predrilled hole and exert expansive pressure on the inner walls of the hole, creating a secure fastening. Split fast anchors come in both flat and round head styles. Note: Drilling hole depth 1/4" greater than over-all anchor length allows split fast drive to be hammered flush with surface if fixture is removed.

Item Code	Dia. & Length (in)	Hole Size (in)	Min. Embedment (in)	Box/Ctn. Qty.	Wt. (lbs) Per 100
<b>Flat Head Sizes</b>					
SD3110F	3/16 x 1	3/16	7/8	100/1000	1.14
SD3114F	3/16 x 1-1/2	3/16	7/8	100/1000	1.52
SD3120F	3/16 x 2	3/16	7/8	100/1000	1.82
SD3124F	3/16 x 2-1/2	3/16	7/8	100/1000	2.34
SD3130F	3/16 x 3	3/16	7/8	100/1000	2.70
SD1414F	1/4 x 1-1/2	1/4	1-1/8	100/1000	2.36
SD1420F	1/4 x 2	1/4	1-1/8	100/1000	2.50
SD1424F	1/4 x 2-1/2	1/4	1-1/8	100/1000	3.60
SD1430F	1/4 x 3	1/4	1-1/8	100/1000	4.50
SD1434F	1/4 x 3-1/2	1/4	1-1/8	100/1000	4.78
SD1440F	1/4 x 4	1/4	1-1/8	100/1000	5.75
<b>Round Head Sizes</b>					
SD1412R	1/4 x 1-1/4	1/4	1-1/8	100/1000	2.35
SD1414R	1/4 x 1-1/2	1/4	1-1/8	100/1000	2.70
SD1420R	1/4 x 2	1/4	1-1/8	100/1000	3.82
SD1424R	1/4 x 2-1/2	1/4	1-1/8	100/1000	3.75



GSA Spec. FF-S-325, Group IV

## Hollow wall anchors

This anchor is designed to be used in thin materials such as wallboard, plaster, paneling, hollow block, etc. Prongs on the underside of the head grip the wallboard or other medium, keeping the anchor from rotating while being set. As the screw is turned in the anchor expands, securing itself to the back of the medium. Once set, the screw may be removed as often as necessary. For faster installation, the setting tools listed below may be utilized. Hollow wall anchors are available with standard machine screws, with drive point screws, (i.e. Hollow Wall Drive Anchors), and with minimal grip ranges for very thin applications, (Hollow Door and Hollow Door Drive Anchors).



Item Code	Anchor Size	Screw Size & Lgth. (in)	Hole Size (in)	Anchor Body Lgth (in)	Grip Range (in)	Head Style	Box/Ctn Qty.	Wt. (lbs) Per 100
HW18XS	1/8 XShort	6-32 x 1	5/16	3/4	1/16 - 1/4	Pan/Combo	100/1000	0.95
HW18S	1/8 Short	6-32 x 1-1/2	5/16	1-1/4	1/8 - 1/2	Pan/Combo	100/1000	1.24
HW18SH	1/8 Short	6-32 x 1-1/2	5/16	1-1/4	1/8 - 1/2	Hex	100/1000	1.37
HW18L	1/8 Long	6-32 x 2	5/16	1-5/8	5/8 - 7/8	Pan/Combo	100/1000	1.58
HW18LH	1/8 Long	6-32 x 2	5/16	1-5/8	5/8 - 7/8	Hex	100/1000	1.68
HW18SL	1/8 SLong	6-32 x 2	5/16	1-3/4	1/8 - 13/16	Pan/Combo	100/1000	1.56
HW18XL	1/8 XLong	6-32 x 2-1/2	5/16	2-1/4	1-1/4 - 1-1/2	Pan/Combo	100/1000	2.18
HW31S	3/16 Short	10-24 x 2-1/4	3/8	2-1/16	1/8 - 5/8	Pan/Combo	50/500	3.28
HW31L	3/16 Long	10-24 x 2-3/4	3/8	2-1/2	5/8 - 1-3/16	Pan/Combo	50/500	4.03
HW31XL	3/16 XLong	10-24 x 3-1/2	3/8	3-1/8	1-1/4 - 1-3/4	Pan/Combo	50/500	5.36
HW14S	1/4 Short	1/4-20 x 2-1/4	1/2	2-1/16	1/8 - 5/8	Pan/Combo	50/500	4.68
HW14L	1/4 Long	1/4-20 x 2-3/4	1/2	2-1/2	5/8 - 1-3/16	Pan/Combo	50/500	5.76
HW14XL	1/4 XLong	1/4-20 x 3-1/2	1/2	3-1/8	1-1/4 - 1-3/4	Pan/Combo	50/500	7.24

Hollow Wall Drive Anchors								
HWD18XS	1/8 XShort	6-32 x 1-3/8	5/16	3/4	1/16 - 1/4	Pan/Combo	100/1000	1.04
HWD18S	1/8 Short	6-32 x 1-3/4	5/16	1-1/4	1/8 - 1/2	Pan/Combo	100/1000	1.40
HWD18SH	1/8 Short	6-32 x 1-3/4	5/16	1-1/4	1/8 - 1/2	Hex	100/1000	1.40
HWD18L	1/8 Long	6-32 x 2-11/32	5/16	1-3/4	5/8 - 7/8	Pan/Combo	100/1000	1.78
HWD18SL	1/8 SLong	6-32 x 2-11/32	5/16	1-3/4	1/8 - 13/16	Pan/Combo	100/1000	1.82
HWD18SLH	1/8 SLong	6-32 x 2-11/32	5/16	1-3/4	1/8 - 13/16	Hex	100/1000	1.82

Hollow Door Anchors								
HD18XS	1/8 XShort	6-32 x 1	11/32	11/32	0 - 3/16	Pan/Combo	100/1000	.85
HD18MS	1/8 MShort	6-32 x 1	11/32	13/16	3/16 - 3/8	Pan/Combo	100/1000	.92

Hollow Door Drive Anchors								
HDD18MS	1/8 MShort	6-32 x 11/32	11/32	13/16	3/16 - 3/8	Pan/Combo	100/1000	1.01

## Hollow wall Setting Tools

Item Code	Description	Wt. Per Ea. (lbs)
HWST	Std. setting tool for 1/8" & 3/16" Hollow Wall anchors	1.00
HWST2	Heavy duty setting tool for 3/16" & 1/4" Hollow Wall anchors	1.04



26 Fasteners/Concrete anchors

**Fasteners/Concrete Anchors**

# Mechanical Anchors

## Nylon Nail anchors

The nylon nail anchor\* is made of virgin nylon, which remains flexible and resistant to drying and embrittlement. The nail is zinc plated steel, partially threaded with a slotted head to facilitate removal, should it be necessary once the anchor has been installed. The nylon nail anchor comes pre-assembled, and is available in three head styles: mushroom, round, and flat. Nylon nail anchors are used for light duty fastening in concrete, block, brick, plastic, wallboard, sheet metal, wood, plaster, glass, slate, marble, tile, etc. \*See Mungo MNA as an alternative.

Item Code	Dia. & Lgth (in)	Head Dia. (in)	Hole Size (in)	Box/Ctn Qty.	Wt. (lbs) Per 100
<b>Mushroom Head Sizes</b>					
N3110M	3/16 x 1	9/16	3/16	100/1000	.47
N3114M	3/16 x 1/2	9/16	3/16	100/1000	.70
N1406M	1/4 x 3/4	9/16	1/4	100/1000	.43
N1410M	1/4 x 1	9/16	1/4	100/1000	.52
N1414M	1/4 x 1-1/2	9/16	1/4	100/1000	.82
N1420M	1/4 x 2	9/16	1/4	100/1000	1.09
N1430M	1/4 x 3	9/16	1/4	100/1000	1.50
<b>Round Head Sizes</b>					
N3110R	3/16 x 1	3/8	3/16	100/1000	.47
N3114R	3/16 x 1-1/2	3/8	3/16	100/1000	.70
N1410R	1/4 x 1	7/16	1/4	100/1000	.52
N1414R	1/4 x 1-1/2	7/16	1/4	100/1000	.82
N1420R	1/4 x 2	7/16	1/4	100/1000	1.09
<b>Flat Head Sizes</b>					
N3110F	3/16 x 1	3/8	3/16	100/1000	.47
N3114F	3/16 x 1-1/2	3/8	3/16	100/1000	.70
N1410F	1/4 x 1	7/16	1/4	100/1000	.52
N1414F	1/4 x 1-1/2	7/16	1/4	100/1000	.82
N1420F	1/4 x 2	7/16	1/4	100/1000	1.09



GSA Spec. FF-325, Group V, Type 2, Class 4

## ribbed plastic anchors

Ribbed plastic anchors are used for light duty fastening in concrete, brick, masonry or drywall. The extra holding power afforded by the ribs along the body of the anchor make it a preferable alternative to the standard conical plastic anchor when better holding power is required. These anchors also offer the option of the flush mount "No Lip" version. The standard "With Lip" anchor is available in both gray and red.

Item Code	Dia. & Lgth. (in)	Hole Size (in)	To Use w/Screw Sizes (#)	Color	Pkg. Qty.	Gross (lbs) Wt. Per Pkg.
<b>Ribbed Plastic Anchors w/Lip</b>						
RPA68BX	3/16 x 7/8	3/16	6 - 8	gray	1,000	.08
RPA68BXR	3/16 x 7/8	3/16	6 - 8	red	1,000	.08
RPA68BG	3/16 x 7/8	3/16	6 - 8	gray	3,000	1.75
RPA68BGR	3/16 x 7/8	3/16	6 - 8	red	3,000	1.75
RPA68BL	3/16 x 7/8	3/16	6 - 8	gray	40,000	24.00
RPA68BLR	3/16 x 7/8	3/16	6 - 8	red	40,000	24.00
RPA1012BX	1/4 x 1	1/4	10 - 12	gray	1,000	.11
RPA1012BXR	1/4 x 1	1/4	10 - 12	red	1,000	.11
RPA1012BG	1/4 x 1	1/4	10 - 12	gray	2,000	2.34
RPA1012BGR	1/4 x 1	1/4	10 - 12	red	2,000	2.34
RPA1012BL	1/4 x 1	1/4	10 - 12	gray	20,000	23.00
RPA1012BLR	1/4 x 1	1/4	10 - 12	red	20,000	23.00
RPA1416BX	5/16 x 1-1/4	5/16	14 - 16	gray	500	.19
RPA1416BXR	5/16 x 1-1/4	5/16	14 - 16	red	500	.19
RPA1416BG	5/16 x 1-1/4	5/16	14 - 16	gray	1500	2.57
RPA1416BGR	5/16 x 1-1/4	5/16	14 - 16	red	1500	2.57
RPA1416BL	5/16 x 1-1/4	5/16	14 - 16	gray	10,000	21.00
RPA1416BLR	5/16 x 1-1/4	5/16	14 - 16	red	10,000	21.00
<b>Ribbed Plastic Anchors w/o Lip</b>						
RPANL68BX	3/16 x 7/8	3/16	6 - 8	gray	1,000	.05
RPANL68BG	3/16 x 7/8	3/16	6 - 8	gray	3,000	1.50
RPANL68BL	3/16 x 7/8	3/16	6 - 8	gray	50,000	22.00
RPANL1012BX	1/4 x 1	1/4	10 - 12	gray	1,000	.09
RPANL1012BG	1/4 x 1	1/4	10 - 12	gray	2,000	1.85
RPANL1012BL	1/4 x 1	1/4	10 - 12	gray	25,000	23.00
RPANL1416BX	5/16 x 1-1/4	5/16	14 - 16	gray	500	.17
RPANL1416BG	5/16 x 1-1/4	5/16	14 - 16	gray	500	2.55
RPANL1416BL	5/16 x 1-1/4	5/16	14 - 16	gray	12,000	22.50

Note: All "BX" items contain anchors packaged in 100 piece bags.

## Conical plastic anchors

Used primarily for light duty fastening in concrete, brick, masonry or drywall, the conical anchor's ridged body helps eliminate spinning while the screw is being inserted. Conicals are available in red and blue and are conveniently packaged for all job sizes.

Item Code	Dia. & Lgth. (in)	Hole Size (in)	To Use w/Screw Sizes (#)	Color	Pkg. Qty.	Wt. Per Pkg.
CPA48BX	3/16 x 3/4	3/16	4-6-8	red	1,000	.05
CPA48BXB	3/16 x 3/4	3/16	4-6-8	blue	1,000	.05
CPA48BG	3/16 x 3/4	3/16	4-6-8	red	5,000	2.50
CPA48BGB	3/16 x 3/4	3/16	4-6-8	blue	5,000	2.50
CPA48BL	3/16 x 3/4	3/16	4-6-8	red	50,000	27.72
CPA48BLB	3/16 x 3/4	3/16	4-6-8	blue	50,000	27.72
CPA610BX	3/16 x 7/8	3/16	6-8-10	red	1,000	.05
CPA610BXB	3/16 x 7/8	3/16	6-8-10	blue	1,000	.05
CPA610BG	3/16 x 7/8	3/16	6-8-10	red	3,000	1.61
CPA610BGB	3/16 x 7/8	3/16	6-8-10	blue	3,000	1.61
CPA610BL	3/16 x 7/8	3/16	6-8-10	red	40,000	23.29
CPA610BLB	3/16 x 7/8	3/16	6-8-10	blue	40,000	23.29
CPA1012BX	1/4 x 1	1/4	10-12	red	1,000	.11
CPA1012BXB	1/4 x 1	1/4	10-12	blue	1,000	.11
CPA1012BG	1/4 x 1	1/4	10-12	red	2,000	2.27
CPA1012BGB	1/4 x 1	1/4	10-12	blue	2,000	2.27
CPA1012BL	1/4 x 1	1/4	10-12	red	20,000	24.00
CPA1012BLB	1/4 x 1	1/4	10-12	blue	20,000	24.00
CPA1416BX	5/16 x 1-3/8	5/16	14-16	red	500	.22
CPA1416BXB	5/16 x 1-3/8	5/16	14-16	blue	500	.22
CPA1416BG	5/16 x 1-3/8	5/16	14-16	red	1500	2.25
CPA1416BGB	5/16 x 1-3/8	5/16	14-16	blue	1500	2.25
CPA1416BL	5/16 x 1-3/8	5/16	14-16	red	10,000	24.64
CPA1416BLB	5/16 x 1-3/8	5/16	14-16	blue	10,000	24.64

Note: All "BX" items contained anchors packaged in 100 piece bags.



## Super plastic anchors

One of the finest plastic anchors on the market today, the super plastic anchor has two tabs or "windows" on the neck of the anchor which expand out as the screw is driven in, insuring stability and holding strength. As the screw is driven further into the anchor, the ribbed body expands perpendicularly, producing a four way expansion and a very dependable fixing. The super plastic anchor is used for medium and light duty fastening in concrete, masonry, drywall, etc.

Item Code	Dia. & Lgth. (in)	To Use w/ Screw Sizes (#)	Hole Size (in)	Pkg. Qty.	Wt. (lbs) Per Pkg.
SPA48BX	3/16 x 1	4-6-8	3/16	1,000	.08
SPA48BG	3/16 x 1	4-6-8	3/16	5,000	2.26
SPA48BL	3/16 x 1	4-6-8	3/16	50,000	50.00
SPA812BX	1/4 x 1-1/4	8-10-12	1/4	1,000	.12
SPA812BG	1/4 x 1-1/4	8-10-12	1/4	2,000	2.53
SPA812BL	1/4 x 1-1/4	8-10-12	1/4	25,000	50.00
SPA1216BX	5/16 x 1-1/2	12-14-16	5/16	500	.20
SPA1216BG	5/16 x 1-1/2	12-14-16	5/16	1,000	2.22
SPA1216BL	5/16 x 1-1/2	12-14-16	5/16	20,000	50.00

Note: All "BX" items contained anchors packaged in 100 piece bags.



# Mechanical Anchors

## vinyl plastic plugs

The original plastic anchor, this straight, fluted plug works in a variety of solid materials such as concrete, brick and stone. Easy to install, it is a flush mount anchor with color coded sizes for easy identification. Non-corrosive and made of flexible vinyl for durability and strength in light duty applications. Vinyl plastic plugs can be used with a wide variety of standard and lag screws.

Item Code	Dia. & Lgth. (in)	Screw Sizes (#)	Hole Size (in)	Color	Box/Ctn. Qty.	Wt. (lbs) Per 100
VP1810	1/8 x 1	1-3	1/8	yellow	100/1000	.18
VP3110	3/16 x 1	4-6	3/16	white	100/1000	.11
VP3114	3/16 x 1-1/2	4-6	3/16	white	100/1000	.16
VP1510	15/64 x 1	7-9	15/64	red	100/1000	.22
VP1514	15/64 x 1-1/2	7-9	15/64	red	100/1000	.28
VP1410	1/4 x 1	10-12	1/4	green	100/1000	.20
VP1412	1/4 x 1-1/4	10-12	1/4	green	100/1000	.34
VP1414	1/4 x 1-1/2	10-12	1/4	green	100/1000	.40
VP1420	1/4 x 2	10-12	1/4	green	100/1000	.44
VP5610	5/16 x 1	#14 or 1/4" lag	5/16	blue	100/1000	.36
VP5614	5/16 x 1-1/2	#14 or 1/4" lag	5/16	blue	100/1000	.46
VP5620	5/16 x 2	#14 or 1/4" lag	5/16	blue	100/1000	.62
VP3814	3/8 x 1-1/2	#16 or 5/16" lag	3/8	orange	50/500	.84
VP3820	3/8 x 2	#16 or 5/16" lag	3/8	orange	50/500	1.04
VP3824	3/8 x 2-1/2	#16 or 5/16" lag	3/8	orange	50/500	1.28
VP7120	7/16 x 2	#20 or 3/8" lag	7/16	grey	50/500	.56
VP7124	7/16 x 2-1/2	#20 or 3/8" lag	7/16	grey	50/500	.68
VP5824	5/8 x 2-1/2	1/2" lag	5/8	black	50/500	.69
VP5830	5/8 x 3	1/2" lag	5/8	black	50/500	.81



## plastic Toggles

Primarily used for hollow walls and wallboard, this non-corrosive, one piece fastener takes screws from #6 through #12. The anchor folds down for easy installation, and the sharp ribs on the wings prevent the toggle from pulling out or spinning while being set, while the reverse action of the wings locks the anchor into place for a secure fitting. The screw may be removed and the anchor remains in place for subsequent use.



Item Code	Anchor Size	Wall Thickness To Be Fastened (in)	Hole Size (in)	Box/Ctn. Qty.	Wt. (lbs) Per 100
PT1	small	0 - 1/4	5/16	100/1000	.36
PT2	medium	3/8 - 1/2	5/16	100/1000	.44
PT3	large	5/8 - 3/4	5/16	100/1000	.52

## muNg O

### "mN" Nylon plug

#### Engineered For:

- HVAC Contractors
- Electricians
- Carpenters
- Ceiling Installers
- Shutter & Sign Contractors
- Plumbers
- Roofers
- Interior Finishers
- Mechanical Contractors



### "mNa" Hammer Screw

#### Engineered For:

- Builders
- Roofers
- Electricians
- Carpenters
- Insulation Contractors
- Interior Finishers
- Window Framers



### "mB-S" Framing anchor

#### Engineered For:

- Builders
- Roofers
- Window Framers
- Door Framers
- Interior Finishers



### "mu" universal plug

#### Engineered For:

- Builders
- Electricians
- Plumbers
- Shelving Contractors
- Bathroom Fixture Installers
- Interior Finishers



### "mJp" Jet plug

#### Engineered For:

- HVAC Contractors
- Drywall, Chipboard & Plasterboard
- Security System Installers
- Interior Finishers
- Shelving Contractors



## MUNGO (continued)

Item Code	Item Description	Box/Ctn. Qty.	Wt. (lbs) Per Box
<b>"MN" - Nylon Plug</b>			
MN4	5/32 X 3/4	100/9600	.05
MN5	3/16 X 1	100/9600	.07
MN6	1/4 X 1-3/16	100/9600	.12
MN7	1/4 X 1-3/8	100/4800	.19
MN8	5/16 X 1-1/2	100/4800	.28
MN10	3/8 X 2	50/2400	.20
MN12	1/2 X 2-3/8	25/1200	.24
MN14	9/16 X 2-3/4	15/720	.22
MN16	5/8 X 3-1/8	10/480	.22
MN20	3/4 X 3-9/16	5/240	.23
<b>"MNA" - Nylon Hammer Screw</b>			
MNA3111F	3/16 X 1-3/16	100/2400	.11
MNA3111R	3/16 X 1-3/16	100/2400	.11
MNA3120F	3/16 X 2	100/1600	.16
MNA3210R	3/16 X 2	100/1600	.11
MNA1413F	1/4 X 1-3/4	100/2400	.93
MNA1413R	1/4 X 1-3/4	100/2400	.93
MNA1420F	1/4 X 2	100/1600	1.52
MNA1420R	1/4 X 2	100/1600	1.52
MNA1423F	1/4 X 2-3/8	100/1200	1.7
MNA1423R	1/4 X 2-3/8	100/1200	1.7
MNA1426F	1/4 X 2-3/4	100/1200	1.10
MNA1426R	1/4 X 2-3/4	100/1200	1.10
MNA5623F	5/16 X 2-3/8	100/800	2.3
MNA6523R	5/16 X 2-3/8	100/800	2.3
MNA5631F	5/16 X 3-1/8	100/800	2.13
MNA5631R	5/16 X 3-1/8	100/800	2.13
MNA5637F	5/16 X 3-7/8*	100/800	3.31
MNA5637R	5/16 X 3-7/8*	100/800	3.31
MNA5646F	5/16 X 4-3/4*	100/600	4.2
MNA5646R	5/16 X 4-3/4*	100/600	4.2
MNA5654F	5/16 X 5-1/2*	100/600	7.3
MNA5654R	5/16 X 5-1/2*	100/600	7.3
Item Code Suffix F = Flathead Item Code Suffix R = Roundhead			
<b>"MU" - Universal Plug</b>			
MU6	1/4 x 1-3/4	100/1000	.22
MU8	5/16 x 2	50/500	.22
MU10	3/8 x 2-3/8	25/250	.20
<b>"MB-S" - Framing Anchor</b>			
MB-S3840	3/8 x 4	50/300	5.7
MB-S3860	3/8 x 6	50/300	6.5
MB-S3880*	3/8 x 8	50/300	7.3
<b>"MJp" - Jet Plug</b>			
MJP	1 - 1/32	100/1000	1.46
<b>Mungo Sample Kit</b>			
MSK	Assorted Sizes	1	6.9

\*Available "Special Order" only.

## The Cracker

For many demolition jobs, traditional methods are simply not an option. Safety considerations may preclude their use, or a high level of precision may be critical. And occasionally, the complexity of permitting procedures can prevent timely completion. Now, there is an effective and easy solution: The Cracker, a non-explosive cracking agent.

A breakthrough in demolition technology, The Cracker can crack any hard rock or reinforced concrete. It has been used the world over for several years, and is now distributed by U.S. Anchor - known throughout the industry for bringing the newest and most innovative products to its customers.



### usage Instructions:

Three Easy Steps: Demolition with The Cracker is literally as easy as one, two, three.

Item Code	Item Desc.	Box/Ctn Qty.	Wt. (lbs) Per Each
CRKR-2.5	2.5 KG. Container	9	6
CRKR-5	5 KG. Container	4	12

1. DRILL: Hole diameters range from 1-1/4" to 1-1/2" with spacing and depth dependent on the strength of the material. Holes must be completely cleared of dust. Guidelines are provided for specific hole placement to achieve best cracking patterns.
2. MIX: Following pre-determined guidelines, The Cracker is mixed with water in amounts and at temperatures dependent upon the temperature of the material being broken.
3. POUR: All holes are filled to the top, beginning with the outer holes and working toward the center. Tarps are recommended if personnel will remain in the area or if the holes will be exposed to rain or sunlight in high temperatures.

**Fasteners/Concrete Anchors**

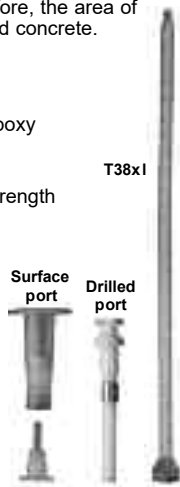
# Mechanical Anchors

## Crackbond (Concrete Repair Injection System)

Ultrabond CRACKBOND is a two component, 100% solids epoxy formulated to provide high tensile strength and at the same time exhibit very low viscosity. It is excellent for sealing cracks in all kinds of substrate because of its excellent penetrating qualities. CRACKBOND comes two parts of resin to one part of hardener. The 2:1 ratio is necessary to achieve the ultra low viscosity. It comes in a 17 fl. oz. Dual cartridge set or bulk. Both components are translucent and therefore hard to detect after a crack has been repaired. Both components are thoroughly mixed when dispensed through out AUTO-MIX mixing tube. CRACKBOND is a moisture insensitive non-shrinking epoxy that is capable of handling the toughest crack injection jobs. With the Ultrabond crack injection system, cracks can easily be repaired and the concrete structure restored to its original strength.

- Stops concrete deterioration
- The epoxy bond strength and compressive strength is greater than the design strength of the concrete being used. Therefore, the area of a repair is stronger than the surrounding unrepaired concrete.
- For use above 40°F.
- Protects steel reinforcement in concrete
- Stops air and water leaks
- Auto-mix guarantees proper mix and strength of epoxy
- Overlay of concrete, surface seal
- Bonding fresh concrete to existing concrete
- Pressure injection completely restores structural strength

Item Code	Item Description	Box/Ctn Qty.	Wt. (lbs) Per Box
<b>Crackbond</b>			
A17CB-400	17 oz. Crackbond Epoxy-400CPS	12	16
<b>Accessories</b>			
TM17	17oz. Manual Tool	1	3.5
TA17	17oz. Pneumatic Tool	1	5.8
CBSP	Surface Port	10	.10
CBDP	Drilled Port	10	.08
T38XL	3/8" Long Mixer (3 per.pkg.) w/flow control attachment & mixing nut	1	.12



## Base materials

### CONCr ETE:

**Normal weight Concrete** is made from Portland cement, coarse and fine aggregates, water and various admixtures.

The proportioning of these components controls the strength of the concrete. In the United States, concrete strength is specified by the compressive strength\* of concrete test cylinders. These test cylinders measure six inches in diameter by 12 inches in length and are tested on the 28th day after they are produced.

**Lightweight Concrete** consists of the same components (cement, coarse and fine aggregates, water and admixtures) as normal weight concrete, except it is made with lightweight aggregate. One of the most common uses of lightweight concrete has been as a structural fill of steel decking in the construction of strong, yet light floor systems.

Typical fasteners for both normal weight and lightweight concrete include Trubolt Wedge Anchors, Dynabolt Sleeve Anchors, Multi-Set II Drop-In Anchors, Self-Drill Anchors, Stud Anchors and Epcon Adhesive Anchoring Systems.

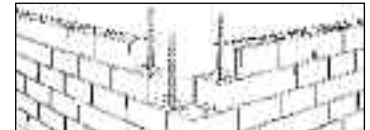
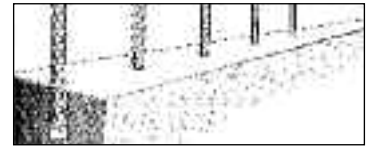
\*Compressive strengths shown in this catalog were the actual strengths at the time of testing. The load values listed were determined by testing in un-reinforced concrete.

### ma SONr y:

#### g rout-Filled Concrete Block

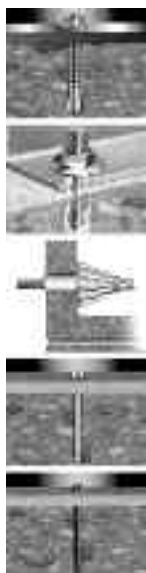
consists of three components: concrete, mortar and grout. The mortar is designed to join the units into an integral structure with predictable performance properties. Typical fasteners for grout-filled block include Dynabolt Sleeve Anchors, Redi-Bolt Removable Anchors, and Epcon C6 or A7 Adhesive Anchoring Systems.

**Hollow Concrete Block and Clay Tile** are grouped together because they require special anchoring products that can be installed into a substrate that contains voids and still provide reliable holding values. Typical fasteners used in hollow block and clay tile include Dynabolt Sleeve Anchors, Tapcon Self-Tapping Concrete Anchors, Epcon Adhesives with Screen Tubes and Epcon Adhesives used with the Umbrella Insert.



## Red Head

### Type OF a NCHOR s



**Expansion Type** - Tension loads are transferred to the base material through a portion of the anchor that is expanded inside the drill hole.

Examples: Red Head Redi-Bolts, Trubolts, Dynabolts, Multi-Set II Anchors and Hammer-Sets

**Adhesive Type** - Resistance to tension loads is provided by the presence of an adhesive between the threaded rod (or rebar) and the inside walls of the drill hole.

Examples: Epcon A7, C6, G5, Maxima 7 Capsules and Impact Capsules

**Keying Type** - Holding strength comes from a portion of an anchor that is expanded into a hollow space in a base material that contains voids such as concrete block or brick.

Examples: Epcon adhesives used in screen tubes or umbrella insert

**Friction Type** - Load capacity is created by driving a fastener into a pre-drilled hole that is slightly smaller than the fastener itself.

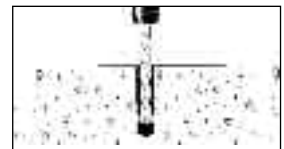
Examples: Redi-Drives

**Mechanical Interlocking Type** - Tension loads are resisted by threads on the fastener engaging with threads cut into the base material.

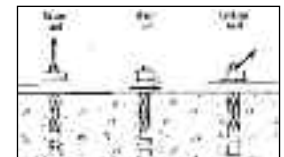
Examples: Tapcon, E-Z Anchors

## Installation procedures

Anchor drill holes are typically produced using carbide tipped drill bits and rotary hammer drills. Look at the product sections of this catalog for the correct drill hole diameter and depth of each type of anchoring system.



Careful cleaning of the anchor drill hole is important in order to obtain the best possible functioning of the anchor system. For each product in this catalog, detailed installation instructions are provided. Suggested tightening torques and curing times (for adhesive anchors) are also provided.



### Loa DING :

Holding values for the following types of loading are provided in this catalog:

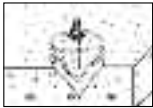
- **Tension loads** - When load is applied along the axis of the anchor
- **Shear loads** - When the loads are applied perpendicular to the axis of the anchor
- **Combined loads** - When both tension and shear loads are applied to an anchor, a combined loading equation is provided to determine the maximum loads that can be applied to the anchor at the same time.

**Fasteners/Concrete Anchors**

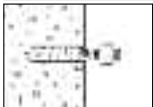
# Mechanical Anchors

## modes of Failure

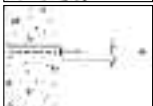
When anchors are loaded to their maximum capacity, several different types (modes) of failure are possible depending on the type of anchor, strength of the base material, embedment depth, location of the anchor, etc. Common modes of failure include:



**Concrete Spall Cone** - Occurs at shallow embedments where the resistance of the base material is less than the resistance of the anchor and the base material fails.



**Steel Breakage** - The capacity of the anchorage exceeds the strength of the steel anchor or rod material.



**anchor pullout** - Base material adjacent to the extension portion of an anchor crushes, resulting in the anchor pulling out of the hole until the capacity of the spall cone is reached, at which point the concrete will spall. This type of failure happens more commonly when anchors are set with deep embedment depths.



**Bond Failure** - Shear failure of the adhesive at rod-adhesive interface or adhesive-base material interface. Occurs more commonly in deep embedments using high strength steel rods.



**Edge Distance and Spacing reduction** - Holding values are reduced when anchors are placed too close to the edge. This also occurs when two or more anchors are spaced closely together. See suggested edge distance, anchor spacing distances and reduction values in the product sections.

## Redi-Bolt® anchors

**Redi-Bolt® EmOva BI E a NCHOR S - Specified for anchorage into Solid Concrete and Concrete Fill**

The Redi-Bolt features a patented double expansion sleeve, Grade 5, high strength threaded bolt, a steel expander cone and washer. The exposed end of the anchor is stamped by Red Head to identify anchor length post-installation. Anchors should be installed with carbide type drill bits made in accordance to ANSI B212.15-1994.



### advantages

Redi-Bolt provides up to 22% more pullout and up to 48% more shear than wedge anchors; up to 40% more pullout and 61% more shear than traditional sleeve anchors. This means reduced costs because with higher tension and shear values you can:

- Use a smaller diameter anchor
- Use a smaller, less expensive drill bit
- Drill faster because of smaller hole and shallower embedment

Catalog No.	Anchor Drill Dia. (in)	Anchor Length (in)	Min. Embedment in Concrete (in)	Max. Fixture Thickness (in)	Installation Torque (Ft. Lbs.)	Length ID Code Letter	Qty/Wt Per Box (lbs)	Qty/Wt Per Master Carton (lbs)
RB-3830	3/8	3	2	1	35	D	50/5.4	400/44
RB-1236	1/2	3-3/4	2-1/2	1-1/4	60	E	25/5.9	200/48
RB-1246	1/2	4-3/4	2-1/2	2-1/4	60	G	25/6.4	200/56
RB-1256	1/2	5-3/4	2-1/2	3-1/4	60	I	25/8.2	200/66
RB-5840	5/8	4	2-3/4	1-1/4	100	F	15/6.6	150/67
RB-5850	5/8	5	2-3/4	2-1/4	100	H	15/7.9	150/80
RB-5860	5/8	6	2-3/4	3-1/4	100	J	10/6.1	150/31
RB-3442	3/4	4-1/4	3	1-1/4	120	F	10/6.3	50/32
RB-3452	3/4	5-1/4	3	2-1/4	120	H	10/7.5	50/38
RB-3472	3/4	7-1/4	3	4-1/4	120	L	5/5.0	50/50

## Trubolt® wedge anchors

**w Edg E TypE a NCHOR S - Specified for anchorage into Concrete**

Wedge anchors feature a type 18-8 stainless steel split expansion ring, threaded stud bolt body and integral cone expander, nut and washer. Anchor bodies are made of plated carbon steel, hot-dipped galvanized carbon steel, type 304 stainless steel or type 316 stainless steel as identified in the drawings or other notations.



The exposed end of the anchor is stamped to identify anchor length. Stampings should be preserved during installation for any subsequent embedment verification.

Use carbide tipped hammer drill bits made in accordance to ANSI B212.15-1994 to install anchors.

Anchors are tested to ASTM E488 criteria and listed by ICBO and SBCCI. Anchors are listed by the following agencies as required by the local building code: UL, FM, City of Los Angeles, California State Fire Marshal and Cal Trans.

### advantages

- Versatile fully threaded design is standard on sizes up to 3/4" diameter and 7" length
- Anchor diameter equals hole diameter
- One piece stainless steel expander clip resists corrosion
- 360° contact with concrete assures full expansion for reliable working loads
- Non bottom-bearing, may be used in hole depth exceeding anchor length
- Can be installed through the work fixture, eliminating hole spotting
- Inspectable torque valves, indicating proper installation

### Fully Threaded a dvantage

- Trubolt's fully threaded feature eliminates subsurface obstruction problems.
- Fully threaded design accommodates various material thicknesses at the same embedment. One anchor length saves time and money.

## Trubolt Carbon Steel w/Zinc plating

Meets ASTM B633 SC1, Type III specifications for electroplating of 5um = .0002" thickness. This material is well suited for non-corrosive environments.

**Typical applications** - Structural Columns, Machinery, Equipment, etc.

**Environment** - Interior (non-corrosive)

**I level of Corrosion** - Low

Cat. No.	Thread Length (in)	Anchor Dia. & Drill Bit Size (Threads Per Inch)	Overall Length (in)	Max. Tkns. of Material to be Fastened (in)	Qty/Wt Per Box (lbs)	Qty/Wt Per Master Carton (lbs)
WS-1416	3/4	1/4" - 20	1-3/4	3/8	100/3.1	1000/32
WS-1422	1-1/4	1/4" - 20	2-1/4	7/8	100/3.6	1000/37
WS-1432	2-1/4	1/4" - 20	3-1/4	1-7/8	100/4.7	800/39
WS-3822	1-1/8	3/8" - 16	2-1/4	3/8	50/4.1	500/41
WS-3826	1-5/8	3/8" - 16	2-3/4	7/8	50/4.7	400/39
WS-3830	1-7/8	3/8" - 16	3	1-1/8	50/5.0	400/41
WS-3836	2-5/8	3/8" - 16	3-3/4	1-7/8	50/5.9	300/36
WS-3850	2-3/4	3/8" - 16	5	3-1/8	50/7.4	250/38
WS-3870	2-1/4	3/8" - 16	7	5-1/8	50/10.4	250/53
WS-1226	1-1/4	1/2" - 13	2-3/4	1/8	25/4.6	200/38
WS-1236	2-1/4	1/2" - 13	3-3/4	1	25/5.7	150/35
WS-1242	2-3/4	1/2" - 13	4-1/4	1-1/2	25/6.2	150/38
WS-1244	3	1/2" - 13	4-1/2	1-3/4	25/6.5	150/39
WS-1254	3	1/2" - 13	5-1/2	2-3/4	25/7.4	150/47
WS-1270	4-1/2	1/2" - 13	7	4-1/4	25/9.3	150/57
WS-5834	1-3/4	5/8" - 11	3-1/2	1/8	10/3.6	100/37
WS-5842	2-1/2	5/8" - 11	4-1/4	7/8	10/4.1	100/42
WS-5850	3-1/4	5/8" - 11	5	1-5/8	10/4.7	100/48
WS-5860	3-1/2	5/8" - 11	6	2-5/8	10/5.4	50/28
WS-5870	4-1/2	5/8" - 11	7	3-5/8	10/6.2	30/19
WS-5884	3-1/2	5/8" - 11	8-1/2	5-1/8	10/8.0	30/25
WS-58100	1-3/4	5/8" - 11	10	6-5/8	10/9.4	30/29
WS-3442	1-3/4	3/4" - 10	4-1/4	1/4	10/6.8	60/42
WS-3446	2-1/4	3/4" - 10	4-3/4	3/4	10/7.4	60/45
WS-3454	3	3/4" - 10	5-1/2	1-1/2	10/8.1	50/41
WS-3462	3-3/4	3/4" - 10	6-1/4	2-1/4	10/9.1	30/28
WS-3470	4-1/2	3/4" - 10	7	3	10/9.7	30/30
WS-3484	3-1/2	3/4" - 10	8-1/2	4-1/2	10/12.3	30/38
WS-34100	1-3/4	3/4" - 10	10	6	10/14.0	30/43
WS-34120	1-3/4	3/4" - 10	12	8	10/16.6	30/51
WS-7860	2-1/2	7/8" - 9	6	1-3/8	5/6.3	25/32
WS-7880	2-1/2	7/8" - 9	8	3-3/8	5/8.1	15/25
WS-78100	2-1/2	7/8" - 9	10	5-3/8	5/9.8	15/30
WS-10060	2-1/2	1" - 8	6	1/2	5/8.3	25/43
WS-10090	2-1/2	1" - 8	9	3-1/2	5/11.6	15/36
WS-100120	2-1/2	1" - 8	12	6-1/2	5/15.0	15/46
WS-12590	3-1/2	1-1/4" - 7	9	5-1/4	5/18.0	15/55
<b>TIE WIRE</b>						
TW-1400	N/A	1/4" - 20	2-3/16	9/32	100/3.6	1000/36

## Fasteners/Concrete Anchors

# Mechanical Anchors

### Trubolt Carbon Steel with Hot-Dipped galvanizing

Meets ASTM A153 Class specifications for hot-dipped galvanizing > 45um = .002". It is highly recommended for damp, humid environments near coastal regions. Hot-dipped galvanized Trubolts have a coating thickness of zinc that is almost 10 times as thick as electroplating. This creates greater corrosion resistance at a minimal cost.

**Typical applications** - Railing, Signage, Awnings, etc.

**Environment** - Rural/Suburban (exterior environment - essentially unpolluted areas)

**I level of Corrosion** - Low to Medium

Cat. No.	Thread Length (in)	Anchor Dia. & Drill Bit Size (Threads) Per Inch	Overall Length (in)	Max. Tkns. of Material to be Fastened (in)	Qty/Wt Per Box (lbs)	Qty/Wt Per Master Carton (lbs)
WS-1226G	1-1/4	1/2" - 13	2-3/4	1/8	25/4.8	200/39
WS-1242G	2-3/4	1/2" - 13	4-1/4	1-1/2	25/6.7	150/41
WS-1254G	3	1/2" - 13	5-1/2	2-3/4	25/8.0	150/49
WS-1270G	4-1/2	1/2" - 13	7	4-1/4	25/9.7	150/59
WS-5834G	1-3/4	5/8" - 11	3-1/2	1/8	10/3.7	100/38
WS-5860G	3-1/2	5/8" - 11	6	2-5/8	10/5.6	50/29
WS-3446G	2-1/4	3/4" - 10	4-3/4	3/4	10/7.5	60/46
WS-3454G	3	3/4" - 10	5-1/2	1-1/2	10/8.4	50/42
WS-3484G	3-1/2	3/4" - 10	8-1/2	4-1/2	10/12.5	30/38

### Trubolt Type 304 Stainless Steel

Serves many applications well. It withstands rusting in architectural and food processing environments and resists organic chemicals, dye stuffs and many inorganic chemicals.

**Typical applications** - Cladding, Stadium Seating, etc.

**Environment** - Urban (slight to moderate degree of pollution)

**I level of Corrosion** - Medium

Cat. No.	Thread Length (in)	Anchor Dia. & Drill Bit Size (Threads) Per Inch	Overall Length (in)	Max. Tkns. of Material to be Fastened (in)	Qty/Wt Per Box (lbs)	Qty/Wt Per Master Carton (lbs)
WW-1416	3/4	1/4" - 20	1-3/4	3/8	100/3.2	1000/32
WW-1422	1-1/4	1/4" - 20	2-1/4	7/8	100/3.7	1000/37
WW-1432	2-1/4	1/4" - 20	3-1/4	1-7/8	100/4.8	800/39
WW-3822	1-1/8	3/8" - 16	2-1/4	3/8	50/4.1	500/41
WW-3826	1-5/8	3/8" - 16	2-3/4	7/8	50/4.8	400/39
WW-3830	1-7/8	3/8" - 16	3	1-1/8	50/5.1	400/42
WW-3836	2-5/8	3/8" - 16	3-3/4	1-7/8	50/6.0	300/37
WW-3850	2-3/4	3/8" - 16	5	3-1/8	50/7.5	250/39
WW-1226	1-1/4	1/2" - 13	2-3/4	1/8	25/4.7	200/38
WW-1236	2-1/4	1/2" - 13	3-3/4	1	25/5.8	150/36
WW-1242	2-3/4	1/2" - 13	4-1/4	1-1/2	25/6.3	150/39
WW-1254	3	1/2" - 13	5-1/2	2-3/4	25/7.7	150/47
WW-1270	3-1/2	1/2" - 13	7	4-1/4	25/9.4	150/57
WW-5834	1-3/4	5/8" - 11	3-1/2	1/8	10/3.6	100/37
WW-5842	2-1/2	5/8" - 11	4-1/4	7/8	10/4.2	100/43
WW-5850	3-1/4	5/8" - 11	5	1-5/8	10/4.8	100/49
WW-5860	3-1/2	5/8" - 11	6	2-5/8	10/5.5	50/28
WW-5870	3-1/2	5/8" - 11	7	3-5/8	10/6.2	30/20
WW-3446	2-1/4	3/4" - 10	4-3/4	3/4	10/6.7	60/41
WW-3454	3	3/4" - 10	5-1/2	1-1/2	10/7.5	50/38
WW-3470	4	3/4" - 10	7	3	10/9.2	30/28
WW-34100	1-3/4	3/4" - 10	10	6	10/13.5	30/42
WW-10090	2-1/2	1" - 8	9	3-1/2	5/11.4	15/35

### Trubolt Type 316 Stainless Steel

Contains more nickel and chromium than Type 304, and 2%-3% molybdenum, which gives it better corrosion resistance. It is especially more effective in chloride environments that tend to cause pitting.

**Typical applications** - Pumps, Diffusers, Gates, Weir Plates, etc.

**Environment** - Industrial (moderate to heavy atmospheric pollution)

**I level of Corrosion** - Medium to High

**Typical applications** - Tunnels, Dams, Tiles, Lighting Fixtures, etc.

**Environment** - Marine (heavy atmospheric pollution)

**I level of Corrosion** - High

Cat. No.	Thread Length (in)	Anchor Dia. & Drill Bit Size (Threads) Per Inch	Overall Length (in)	Max. Tkns. of Material to be Fastened (in)	Qty. Per Box (lbs)	Qty/Wt Per Master Carton (lbs)
SWW-1422	1-1/4	1/4" - 20	2-1/4	7/8	100/3.7	1000/37
SWW-1432	2-1/4	1/4" - 20	3-1/4	1-1/8	100/4.8	1000/39
SWW-3822	1-1/8	3/8" - 16	2-1/4	3/8	50/4.1	500/41
SWW-3826	1-5/8	3/8" - 16	2-3/4	7/8	50/4.8	400/39
SWW-3830	1-7/8	3/8" - 16	3	1-1/8	50/5.2	400/42
SWW-3836	2-5/8	3/8" - 16	3-3/4	1-7/8	50/6.0	300/37
SWW-3850	2-3/4	3/8" - 16	5	3-1/8	50/7.5	250/39
SWW-1226	1-1/4	1/2" - 13	2-3/4	1/8	25/4.7	200/39
SWW-1236	2-1/4	1/2" - 13	3-3/4	1	25/5.8	150/36
SWW-1242	2-3/4	1/2" - 13	4-1/4	1-1/2	25/6.5	150/40
SWW-1254	3	1/2" - 13	5-1/2	2-3/4	25/7.8	150/48
SWW-5842	2-1/2	5/8" - 11	4-1/4	7/8	10/4.2	100/43
SWW-5850	3-1/4	5/8" - 11	5	1-5/8	10/4.8	100/49
SWW-5870	3-1/2	5/8" - 11	7	3-5/8	10/6.7	30/21
SWW-3446	2-1/4	3/4" - 10	4-3/4	3/4	10/6.8	60/41
SWW-3454	3	3/4" - 10	5-1/2	1-1/2	10/8.1	50/41

### multi-Set II® Drop-In anchors

Internally Threaded Heavy-Duty Anchoring Systems

**Drop-In, Shell-Type anchors** - Specified for Anchorage Into Concrete

Drop-In, shell-type anchors feature an internally threaded, all-steel shell with expansion cone insert and flush embedment lip. Anchors are manufactured from plated carbon steel, 18-8 stainless steel and 316 stainless steel.

Anchors should be installed with carbide tipped hammer drill bits made in accordance to ANSI B212.15-1994 specifications.

Anchors should be tested to ASTM E488 criteria and listed by ICBO and SBCCI. Anchors should also be listed by the following agencies as required by the local building code: UL, FM, City of Los Angeles, Metro Dade, California State Fire Marshal and Cal Trans.

#### advantages

Easy removability - use any head style or material bolt rod

#### rm Drop-In anchor

- Keeps anchor flush
- Easy installation
- Keeps all rods same length
- Easy inspection
- Available in carbon steel, 18-8 and 316 stainless steel



#### rl Drop-In anchor

- Below surface setting for easy patch work
- Higher performance potential with deep embedment setting



#### rx-38 Drop-In anchor

- Optimized for use in hollow-core, pre-cast plank and post-tension slabs
- Lip keeps anchor flush
- Shallow drilling - fast installation



#### Coil Thread anchor

- Quick thread attachment
- Use coil rod on job
- 2 diameters



User Type/App.	Base Material	Corrosion Level	Drop-in Anchor Type	Product No.	Bolt-Size Threads Per In	Drill Bit Size (in)	Thread Depth (in)	Embedment Min. Hole Depth (in)	Setting Tool Part No.	Qty/Wt Per Box (lbs)	Qty/Wt Per Master CTN (lbs)
HVAC/ Fire Sprinkler Plumber (Pipe-fitter)	Poured in place concrete/light wt. fill deck	Low	RM	RM-14	1/4" - 20	3/8	3/8	1	RT-114	100/2.6	1000/28
				RM-38	3/8" - 16	1/2	1/2	1-5/8	RT-138	50/3.4	500/36
				RM-12	1/2" - 13	5/8	3/4	2	RT-112	50/5.8	410/49
				RM-58	5/8" - 11	3/4	1	2-1/2	RT-158	25/7.8	125/41
				RM-34	3/4" - 10	1	1-1/4	3-3/16	RT-134	25/11.9	100/49
Concrete contractor, general contractor, Highway	Solid concrete	Med.	SRM S.S.	SRM-14	1/4" - 20	3/8	3/8	1	RT-114	100/2.7	1000/28
				SRM-38	3/8" - 16	1/2	1/2	1-5/8	RT-138	50/3.4	500/36
				SRM-12	1/2" - 13	5/8	3/4	2	RT-112	50/6.0	400/50
Concrete contractor, general contractor, Highway	Solid concrete	High	SSRM 316 S.S.	SSRM-38	3/8" - 16	1/2	1/2	1-5/8	RT-138	50/3.4	500/36
				SSRM-12	1/2" - 13	5/8	3/4	2	RT-112	50/6.0	400/50
Concrete contractor, general contractor, Highway	Solid concrete	Low	CL-Coil Threaded	CL-12	1/2" - 13	5/8	3/4	2	RT-112	50/5.7	400/47
				CL-34	3/4" - 10	1	1-1/4	3-3/16	RT-134	25/11.9	100/49
Concrete cutting/ Sawing contractor/ Misc. Metal	Solid concrete	Low	RL (w/o lip)	RL-14	1/4" - 20	3/8	3/8	1	RT-114	100/2.6	1000/28
				RL-38	3/8" - 16	1/2	1/2	1-5/8	RT-138	50/3.4	500/36
				RL-12	1/2" - 13	5/8	3/4	2	RT-112	50/5.8	400/49
				RL-58	5/8" - 11	3/4	1	2-1/2	RT-158	25/7.8	125/41
RL-34	3/4" - 10	1"	1-1/4	3-3/16	RT-134	25/11.9	100/49				

## Mechanical Anchors

### Dynabolt Sleeve Anchors

SI EEVE Type ANCHOR S - Specified for anchorage into concrete, masonry, grout-filled block and hollow block

Sleeve type anchors feature a split expansion sleeve over a threaded stud bolt body and integral expander, nut and washer.

Anchors are made of Plated Carbon Steel or Type 18-8 Stainless Steel.

Anchors should be installed with carbide tipped hammer drill bits made in accordance to ANSI B212.15-1994.

Anchors should be tested to ASTM E488 criteria.

#### advantages:

- Anchor diameter equals hole diameter
- Available in hex head and six other head styles
- Available 1/4" - 3/4" diameter up to 6-1/4" length
- Zinc plated carbon steel and 304 stainless steel
- Provides full 360° hole contact over large area and reduces concrete stress
- Heavy-loading capacity
- Preassembled for faster, easier installations
- Dynabolt can be installed through object to be fastened
- Six-rib sleeve design improves holding power
- No pre-spotting of holes necessary

**available Head Styles** - Full range of head style, corrosion protection and sizes makes the Dynabolt Sleeve the right product for almost any application: Flat Head, Hex Nut, Acorn Nut, Tie Wire, Round Head, Threshold Flat Head, Hex Coupling



### Dynabolt - Carbon Steel with Zinc plating

Head Style	Cat. No.	Anchor Dia. & Drill Bit Size (Threads) Per In.	Effective Anchor Length (in)	Bolt Dia./Threads Per In.	Min. Embedment (in)	Max. Thkns. of Mat'l to be Fastened (in)	Qty/Wt. Per Box (lbs)	Qty/Wt. Per Master Carton (lbs)
Acorn Nut	AN-1405	1/4" - 20	5/8	3/16"/24	1/2	1/8	100/1.9	1000/20
	AN-1413	1/4" - 20	1-3/8	3/16"/24	1-1/8	1/4	100/2.6	1000/27
	AN-1422	1/4" - 20	2-1/4	3/16"/24	1-1/8	1-1/8	100/3.7	1000/38
Hex Nut	HN-1405	1/4" - 20	5/8	3/16"/24	1/2	1/8	100/1.6	1000/17
	HN-1413	1/4" - 20	1-3/8	3/16"/24	1-1/8	1/4	100/2.3	1000/24
	HN-1422	1/4" - 20	2-1/4	3/16"/24	1-1/8	1-1/8	100/3.4	1000/35
	HN-1614	5/16" - 18	1-1/2	1/4"/20	1-1/4	1/4	100/4.0	1000/41
	HN-1624	5/16" - 18	2-1/2	1/4"/20	1-1/4	1-1/4	100/5.9	800/47
	HN-3817	3/8" - 16	1-7/8	5/16"/18	1-1/2	3/8	50/3.5	500/36
	HN-3830	3/8" - 16	3	5/16"/18	1-1/2	1-1/2	50/4.9	400/40
	HN-1222	1/2" - 13	2-1/4	3/8"/16	1-7/8	3/8	25/3.3	250/34
	HN-1230	1/2" - 13	3	3/8"/16	1-7/8	1-1/8	25/4.0	200/33
	HN-1240	1/2" - 13	4	3/8"/16	1-7/8	2-1/8	25/5.3	200/44
	HN-5822	5/8" - 11	2-1/4	1/2"/13	2	1/4	25/6.3	150/38
	HN-5830	5/8" - 11	3	1/2"/13	2	1	25/7.0	150/46
	HN-5842	5/8" - 11	4-1/4	1/2"/13	2	2-1/4	10/3.9	100/41
	HN-5860	5/8" - 11	6	1/2"/13	2	4	10/4.9	50/25
	HN-3424	3/4" - 10	2-1/2	5/8"/11	2-1/4	1/4	10/4.7	50/25
HN-3440	3/4" - 10	4	5/8"/11	2-1/4	1-3/4	5/3.2	50/33	
HN-3462	3/4" - 10	6-1/4	5/8"/11	2-1/4	4	5/4.3	50/44	
Flat Head	FS-1411	1/4" - 20	1-1/2	3/16"/24	1-1/8	3/8	100/1.9	1000/21
	FS-1420	1/4" - 20	2-1/4	3/16"/24	1-1/8	1-1/8	100/2.7	1000/28
	FS-1430	1/4" - 20	3-1/8	3/16"/24	1-1/8	2	100/3.8	1000/38
	FS-1440	1/4" - 20	4	3/16"/24	1-1/8	2-7/8	100/4.7	1000/48
	FS-3826	3/8" - 16	2-7/8	5/16"/18	1-1/2	1-3/8	50/3.8	500/40
	FS-3840	3/8" - 16	4	5/16"/18	1-1/2	2-1/2	50/5.3	400/44
	FS-3850	3/8" - 16	5	5/16"/18	1-1/2	3-1/2	50/5.6	300/40
FS-3860	3/8" - 16	6	5/16"/18	1-1/2	4-1/2	50/8.0	300/48	
Threshold Flat Head	TH-1420	1/4" - 20	2-1/4	3/16"/24	1-1/8	1-1/8	100/2.5	1000/25
Round Head	RS-1411	1/4" - 20	1-3/8	3/16"/24	1-1/8	1/4	100/1.9	1000/20
	RS-1420	1/4" - 20	2	3/16"/24	1-1/8	7/8	100/2.7	1000/28
	RS-1426	1/4" - 20	2-7/8	3/16"/24	1-1/8	1-3/4	100/3.7	1000/38
	RS-3824	3/8" - 16	2-5/8	5/16"/18	1-1/2	1-1/8	50/3.9	500/41
Tie Wire	TW-1614	5/16" - 18	1-1/2	1/4"/20	1-1/2	9/32	100/4.9	1000/50
Hex Coupling (Rod Hanger)	HX-3822	3/8" - 16	1-7/8	3/8"/16 Hanger	1-1/2	--	50/6.0	250/30
	HX-1222	1/2"	2-1/4	1/2"/13 Hanger	1-7/8	--	25/6.5	125/34

### Dynabolt - Type 304 Stainless Steel

Head Style	Cat. No.	Anchor Dia. & Drill Bit Size (Threads) Per In.	Effective Anchor Length (in)	Bolt Dia./Threads Per In.	Min. Embedment (in)	Max. Thkns. of Mat'l to be Fastened (in)	Qty/Wt. Per Box (lbs)	Qty/Wt. Per Master Carton (lbs)
Hex Nut	SHN-1413	1/4" - 20	1-3/8	3/16"/24	1-1/8	1/4	100/2.3	1000/24
	SHN-3817	3/8" - 16	1-7/8	5/16"/18	1-1/2	3/8	50/3.5	500/36
	SHN-3830	3/8" - 16	3	3/16"/24	1-1/2	1-1/2	50/4.9	400/40
	SHN-1222	1/2" - 13	2-1/4	3/8"/16	1-7/8	3/8	25/3.3	250/34
	SHN-1230	1/2" - 13	3	3/8"/16	1-7/8	1-1/8	25/4.0	200/33
SHN-1240	1/2" - 13	4	3/8"/16	1-7/8	2-1/8	25/5.3	200/44	
SHN-5842	5/8" - 11	4-1/4	1/2"/13	2	2-1/4	10/3.9	100/41	
Flat Head	SFS-1420	1/4" - 20	2-1/4	3/16"/24	1-1/8	1-1/8	100/2.7	1000/28
	SFS-1430	1/4" - 20	3-1/8	3/16"/24	1-1/8	3	100/3.8	1000/38
	SFS-3826	3/8" - 16	2-7/8	5/16"/18	1-1/2	1-3/8	50/3.8	500/40
SFS-3840	3/8" - 16	4	5/16"/18	1-1/2	2-1/2	50/5.3	400/44	
Round Head	SRS-1420	1/4" - 20	2	3/16"/24	1-1/8	7/8	100/2.7	1000/28

### Redi-Drive® Anchors

High Performance Without Torquing

**Light-Duty Hammer-Drive masonry anchors** - Specified for anchorage into concrete, block and brick

The Redi-Drive is a high performance small diameter one-piece hammer-drive anchor. The anchor holds based on a friction principle - the shank diameter is larger than the drill hole size. Anchors shall be installed with carbide-tipped hammer drill bits made in accordance to ANSI B212.15-1994.

The Redi-Drive is available in four types...mushroom head, pipe-hanging (1/4" & 3/8") FM approved (on 3/8"), Tie-Wire, and double-head forming versions. Anchor performance in solid concrete at one inch embedment shall exceed 400 lbs. allowable tension load and 750 lbs. allowable shear load.

#### advantages

- High performance provides superior holding values in concrete and other masonry materials
- Fire resistant
- Tamper resistant
- Standard 3/16" drill hole size
- Available in 3/4" 1-1/8", 1-5/8", 2", 2-1/2" and 3" lengths
- Most economical steel anchor available
- Provides fast, high performance drive-type fastening without torquing or need for special setting equipment



### Redi-Drive Anchors

**Typical applications** - Electrical boxes, conduit clips, and duct work

Cat. No.	Head Dia. (in)	Drill Size (in)	Total Length (in)	Min. Embedment (in)	Max. Fixture Thkns. (in)	Clearance Hole Size (in)	Qty/Wt. Per Box (lbs)	Qty/Wt. Per Master Carton (lbs)
RD4-034	7/16	3/16	3/4	11/16	1/16	1/4	100/1.4	1000/15
RD4-118	7/16	3/16	1-1/8	3/4	3/8	1/4	100/1.6	1000/17
RD4-158	7/16	3/16	1-5/8	3/4	7/8	1/4	100/2.2	1000/23
RD4-200	7/16	3/16	2	3/4	1-1/4	1/4	100/2.6	1000/26
RD4-212	7/16	3/16	2-1/2	3/4	1-3/4	1/4	100/3.2	1000/33
RD4-300	7/16	3/16	3	3/4	2-1/4	1/4	100/3.7	1000/37

### Redi-Drive Anchors

**Tie wire Typical applications** - Acoustical ceilings, suspended electrical fixture, pencil rod

**pipe Hanging Typical applications** - Fire sprinkler, water lines, steam/gas, cable tray, electrical conduits

**Forming** - Wood attachments to concrete are common Redi-Drive applications, whether permanent or temporary

Cat. No.	Head Size O.D. (in)	Drill Size (in)	Total Length (in)	Min. Embedment (in)	Head Height (in)	Head Size I.D. (in)	Qty/Wt. Per Box (lbs)	Qty/Wt. Per Master Carton (lbs)
TD4-112	3/16	3/16	2-1/8	1-1/4	5/8	9/32 hole	100/3.5	1000/35
PD4-112	13/32	3/16	2-1/8	1-1/4	5/8	1/4 - 20	100/3.0	1000/30
PD8-134	9/16	1/4	2-1/2	1-3/4	3/4	3/8 - 16	100/6.0	1000/61
FD4-234	7/16	3/16	2-3/4	3/4	N/A	N/A	100/3.5	1000/35

**Fasteners/Concrete Anchors**

**Mechanical Anchors**

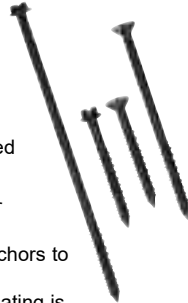
**Tapcon anchors**

TapCON aNCHOR S - Specified for anchorage into Concrete, Brick or Block

The "original masonry" anchor that cuts its own threads into concrete, brick, or block. Maximum performance is achieved because the Tapcon Anchor, the Condrive Installation Tool, and the carbide-tipped Tapcon Drill Bits are designed to work as a system. It is essential to use the Condrive tool and the correct drill bit to assure consistent anchor performance.

**advantages**

- Works in all masonry base materials
- Fast and easy - 3 anchors per minute
- No hole spotting or inserts required
- Removable and reusable
- Slotted hex and phillips flat head styles
- Excellent corrosion protection - Climaseal™ coated



**Tapcon anchors:**

**Hex Head** style on Tapcon Anchors is available for majority of fixture anchoring needs

**Climaseal™ Coating** is standard on all Tapcon anchors to provide extended corrosion resistance

**Phillips Flat Head** style is available when flush seating is necessary in countersink applications

**Hi-I o Threads** with notches cut into masonry materials for greater stability and pullout values

**Lengths** of Tapcon Anchors range from 1-1/4" to 4" in 3/16" and up to 6" in 1/4" diameters. The tapered shank provides a wedging action for a strong reliable hold

**Nail-Type point** guides the anchor into the pre-drilled hole. Excellent for wood to concrete applications

**Tapcon anchors - Selection Chart**

Cat. No. 3/16" Hex Head	Cat. No. 1/4" Hex Head	Cat. No. 3/16" Flat Head	Cat. No. 1/4" Flat Head	Recommended Tapcon Lgth. (in)	Fixture Thkns. (in)	Bit Lgth. (in)	Bits for 3/16" Tapcon Pt. No.	Bits for 1/4" Tapcon Pt. No.	Bits for 3/16" SDS Bit No.	Bits for 1/4" SDS Bit No.
HW3-114	HW4-114	PF3-114	PF4-114	1-1/4	0 - 1/4	3-1/2	7900814	7901014	-	-
HW3-134	HW4-134	PF3-134	PF4-134	1-3/4	1/4 - 3/4	3-1/2	7900814	7901014	-	-
HW3-214	HW4-214	PF3-214	PF4-214	2-1/4	3/4 - 1-1/4	4-1/2	7900818	7901018	-	-
HW3-234	HW4-234	PF3-234	PF4-234	1-3/4	1-1/4 - 1-3/4	4-1/2	7900818	7901018	-	-
HW3-314	HW4-314	PF3-314	PF4-314	3-1/4	1-3/4 - 2-1/4	5-1/2	7900822	7901022	-	-
-	HW4-334	-	PF4-334	3-3/4	2-1/4 - 2-3/4	5-1/2	7900822	7901022	-	-
-	HW4-400	-	PF4-400	4	2-1/2 - 3	5-1/2	7900822	7901022	-	-
-	HW4-500	-	PF4-500	5	3-1/2 - 4	6-1/2	-	7901026	-	7901060
-	HW4-600	-	PF4-600	6	4-1/2 - 5	7-1/2	-	7901030	7901059	7901059

All boxes of ITW Tapcon come packaged with matching carbide-tipped bit. Tapcon is packaged 100 pieces per box and 1,000 pieces per master carton except HW4-600 and PF4-600 (400 in master carton).

**Tapcon anchors - performance Table**  
ultimate Shear Tension values (lbs) in Concrete

Anchor Dia. (in)	Min. Depth of Embedment (in)	f'c - 2000 PSI		f'c - 3000 PSI		f'c - 4000 PSI		f'c - 5000 PSI	
		Tension (lbs)	Shear (lbs)	Tension (lbs)	Shear (lbs)	Tension (lbs)	Shear (lbs)	Tension (lbs)	Shear (lbs)
3/16	1	240	740	320	840	400	840	440	860
3/16	1-1/4	440	780	560	840	600	840	640	860
3/16	1-1/2	640	820	840	860	880	880	920	900
3/16	1-3/4	760	920	1,040	1,020	1,120	1,020	1,240	1,020
1/4	1	520	1,120	720	1,460	800	1,560	920	1,660
1/4	1-1/4	840	1,280	1,120	1,600	1,240	1,660	1,400	1,740
1/4	1-1/2	1,120	1,280	1,520	1,620	1,600	1,680	1,680	1,760
1/4	1-3/4	1,320	1,500	1,840	2,140	2,040	2,160	2,240	2,200

Safe working loads for single installation under static loading should not exceed 25% of the ultimate load capacity.

**Tapcon Condrive Tool kit**

CONDRIVE 1000 INSTA L I A T I O N T O O L - Specified for anchorage into Concrete, Brick or Block

The key to Tapcon's fast and easy installation is the multi-purpose Condrive Installation Tool. The drive sleeve, along with the hex head and phillips sockets provide the installer with the flexibility necessary for the complete variety of Tapcon applications.

**advantages:**

- Fast change from drilling to driving
- Eliminates need to change out chucks & bits
- Eliminates need for two tools
- Special nut driver is recessed for torque control to reduce head breakage
- Includes bits for all sizes hex & phillips head

**Condrive 1000 Spare parts**

Cat. No.	Description	Qty/Wt/ (lbs)
7901001	Drill Adapter	1/.06
7901002	Sleeve	1/.01
7901003	Black Band	1/.02
7901004	5/32" Ball Bearing	1/.02
7901006	3/16" Socket	1/.04
7901007	1/4" Socket	1/.05
7901008	#2 Phillips bit for 3/16" anchor	1/.10
7901009	#3 Phillips bit for 1/4" anchor	1/.12
7901010	Phillips Socket	1/.44
7902006	Set Screw	1/.02
7902008	1/16" Ball Bearing	1/.02
7902010	1/8" Hex Key	1/.10



**E-Z anchor**

E-Z aNCHOR SEI F-DR I I N G D R Y W A I I aNCHOR S - Specified for anchorage into gypsum wallboard

The E-Z Anchor is a one-piece self-drilling anchor designed for optimal holding performance in gypsum wallboard. Available in zinc or high strength engineered plastic (non-conductive). Ideal anchor for 3/8", 1/2" and 5/8" gypsum wallboard.

**advantages**

- Fast - no pre-drilling
- Easy - just use #2 phillips bit
- Clean and neat - tri-cut point drills a small hole and seats flush
- Corrosion resistance
- Removable - easily backed out of wallboard
- Breakaway point for easy usage when cavity is shallow



Cat. No.	Description	Qty/Wt. Per Box (lbs)	Qty/Wt. Per Master Carton (lbs)
EZ100	Zinc E-Z Anchor	100/1.6	1000/17
EZP100	Plastic E-Z Anchor	100/0.1	1000/4.2
EZ25	25 Zinc Anchors/25 Screws	1/0.9	10/10

**Hammer-Set™ anchors**

Hammer-SET Nail Drive ANCHOR S - Specified for anchorage into concrete, block or brick

The Hammer-Set one-piece zinc plated steel anchor consists of an expansion body and expander drive pin. Anchors meet or exceed GSA specification FF-S-325 Group V, Type 2, Class 3.

**advantages:**

- Fast, easy installation
- Works in concrete, block and brick
- Install through material to be fastened
- Low profile mushroom head style



Cat. No.	Drill Desc. (in)	Max. Fixture Size (in)	Min. Thickness (in)	Min. Embedment (in)	Qty/Wt. Hole Size (in)	Qty/Wt. Per Box (lbs)	Per Master CTN-lbs.
HS-1607	3/16 x 7/8	3/16	1/4	5/8	1-1/8	100/2.0	1000/20
HS-1406	1/4 x 3/4	1/4	1/8	5/8	1	100/2.2	1000/22
HS-1410	1/4 x 1	1/4	1/4	3/4	1-1/4	100/2.4	1000/24
HS-1412	1/4 x 1-1/4	1/4	1/2	3/4	1-1/2	100/2.6	1000/26
HS-1414	1/4 x 1-1/2	1/4	3/4	3/4	1-3/4	100/2.8	1000/28
HS-1420	1/4 x 2	1/4	1-1/4	3/4	2-1/4	100/3.5	1000/35

26  
Fasteners/  
Concrete  
anchors



## Mechanical Anchors/Epoxy

### poly-Set® anchors

plug anchors - Specified for anchorage into all base materials

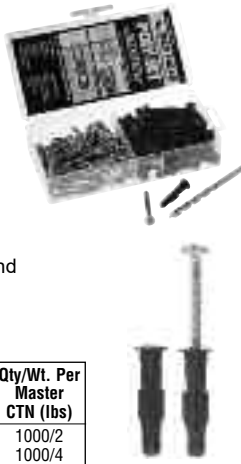
The Poly-Set is a polyethylene expansion anchor designed for fastening into drywall, hollow block, brick and solid concrete.

#### advantages

- Unique twisting action provides superior holding over standard plug anchors
- Resistant to moisture, chemicals or atmospheric conditions—can be used anywhere
- Pre-packaged in kits with matching screws and carbide-tipped drill bit
- Works well in all base materials

#### poly-Set anchors - Selection Chart

Cat. No.	Drill Size (in)	Anchor Lgth. (in)	Screw Size	Grip Range	Qty/Wt. Per Box (lbs)	Qty/Wt. Per Master CTN (lbs)
PS-0608SP	3/16	1-1/4	#6 - 8	3/8 - 3/4	100/0.9	1000/2
PS-1012SP	9/32	1-7/16	#10 - 12	1/2 - 1	100/1.8	1000/4



#### poly-Set kits - Selection Chart

Cat. No.	Drill Size (in)	Kit Contains	Grip Range (in)	Qty/Wt. Per Box (lbs)	Qty/Wt. Per Master CTN (lbs)
PS-0608SKP	3/16	100 1-1/4" anchors/100 #6-8 screws	3/8 - 3/4	1/1.0	10/11
PS-1012SKP	9/32	50 1-7/16" anchors/50 #10-12 screws	1/2 - 1	1/1.2	10/12

## aramset/Epcon

### EpOxy

#### A7 - acrylic adhesive

Fast Curing, Fast Curing acrylic adhesive

The acrylic resin and hardening agent are completely mixed as they are simultaneously dispensed from the dual cartridge through a static mixing nozzle, directly into the anchor hole. A7 can be used with threaded rod or rebar.

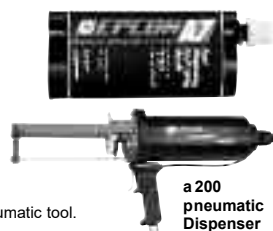
#### advantages

- All weather formula, down to 0°F and below
- No drip, no sag, easy clean up
- Fast & easy dispensing, 28-oz. Cartridge in 16 seconds
- Fast curing time, 35 minutes at 60°F
- Not mix ratio sensitive (Actually 20:1 formula sold in 10:1 cartridge—twice as much hardener as needed)
- Rods are easier to insert into the hole with A7 compared with other adhesives
- Works in damp holes
- Requires less adhesive—can be used in 1/8" oversized or 1/16" oversized holes
- One formula for both hollow and solid base materials

#### Curing Times and Dispensing Speeds:

Temp. (F°/C°)	Working Time	Full Cure Time	Dispensing* Speed
100°/38°	5 minutes	25 minutes	16 seconds
80°/27°	5.5 minutes	30 minutes	16 seconds
60°/16°	7 minutes	35 minutes	26 seconds
40°/4°	15 minutes	75 minutes	47 seconds
20°/-7°	35 minutes	6 hours	1 min. 21 sec.
0°/-18°	4 hours	24 hours	2 minutes

\*Dispensing rates for A7-28 cartridge using A200 pneumatic tool. Cartridge temperature = temperature shown



Part No.	Description	Box/Qty
<b>Epcon A7-8 Ounce System</b>		
A7-8	Fits Hilti® P2000 dispensing tools 8 Fluid Ounce Cartridge	12
A24	Mixing Nozzle for A7-8 Cartridge	24
A101	Hand Dispenser for A7-8 Cartridge	1
<b>Epcon A7-28 Ounce System</b>		
A7-28	28 Fluid Ounce Cartridge	8
A50	A50 nozzles fit into 3/8" holes & tip can be broken off to increase flow for larger holes	24
	Mixing Nozzle for A7-28 Cartridge	
A102	Largest hand dispensable cartridge - still easy to dispense	1
	Hand Dispenser for A7-28 Cartridge	
A200	Pneumatic Dispenser for A7-28 Cartridge	1

### C6 - Epoxy

Fast Curing Epoxy for all Conditions

The hardener and resin are completely mixed as they are dispensed from the dual cartridge through a static mixing nozzle. The pre-mixed adhesive is injected directly into the anchor hole. C6 can be used with threaded rod or rebar.

#### advantages:

- Reliable 1 hour cure time
- Works in damp holes
- Minimum shrinkage—can be used over-sized holes & diamond cored areas
- High heat deflection temp: 140° F (ASTM D64E)
- One formula for both solid & hollow base materials
- NSF standard 61 certified for drinking water systems
- Extensively tested—earthquake, underwater, creep, freeze-thaw, radiation, fire, fatigue, electrical isolation, ozone & many more test programs have been conducted on C6
- Extensive use—C6 has been used on projects all over the world for over 12 years.



#### Curing Times

Temp. (F°/C°)	Working Time	Full Cure Time
120°/49°	4 minutes	1 hour
90°/32°	5 minutes	1 hour
70°/20°	7 minutes	1 hour
60°/16°	10 minutes	2 hours
50°/10°	10 minutes	24 hours
40°/4°	10 minutes	32 hours



#### Epcon C6 Ordering Information

Part No.	Description	Box/Bag Qty	Carton Qty.
C6-18	C6 Adhesive, 18 Fl. Oz. Cartridge	1	12
E24	3/8" Dia. Mixing Nozzle	4	24
E50	1/2" Dia. Mixing Nozzle	5	20
E101	Hand Dispenser	1	1
E200	Pneumatic Dispenser	1	1
E300	Dosage Control Pneumatic Dispenser	1	1
C6-2	C6 Adhesive 2 Fl. Oz. Cartridge	12	120
E12	Mixing Nozzle for C6-2 Cartridge	4	24
E400	Hand Dispenser for C6-2 Cartridge	1	1
ESK401	Trouble Shooting Kit 6 pcs. C6-2 Cartridges, 12 pcs. E12 Nozzles, 1 pc. E400 Tool	1	1

### G5 - Epoxy

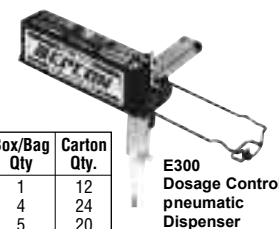
Extended working Time Epoxy - G5 provides 45 minute nozzle life & 8 hour cure time (at 70° F) – Compared w/4-10 min. cure time of typical adhesive.

The epoxy resin & hardener are completely mixed as they are dispensed from the dual cartridge through a static mixing nozzle, directly into the anchor hole. G5 can be used with threaded rod or rebar.

- Nozzles last longer—saves money
- Gives more time to install anchors
- Easier to install anchors in hot weather
- Easier installation of larger diameter anchors & deeper embedments
- Odorless

#### Curing Times

Temp. (F°/C°)	Working Time	Full Cure Time
120°/49°	18 minutes	8 hour
90°/32°	34 minutes	8 hour
70°/20°	45 minutes	8 hour
60°/16°	50 minutes	9 hours
50°/10°	60 minutes	24 hours
40°/4°	60 minutes	32 hours



#### Epcon G5 Ordering Information

Part No.	Description	Box/Bag Qty	Carton Qty.
G5-18	G5-18 Adhesive, 18 Fluid Oz. Cartridge	1	12
E24	3/8" Diameter Mixing Nozzle	4	24
E50	1/2" Diameter Mixing Nozzle	5	20
E101	Hand Dispenser	1	1
E200	Pneumatic Dispenser	1	1
E300	Dosage Control Pneumatic Dispenser	1	1

## Fasteners/Concrete Anchors

# Epoxy

### Screen Tubes

#### Screens used w/Epcon C6 & a 7

**HOI | Ow Cr EEK BI OCK** - Max. holding strength in concrete block can be obtained by fastening to both the front & back of the block using an Epcon adhesive screen tube & threaded rod.

**Br ICK wal l** - Seismic Retrofit Brick Pinning or fastening to brick—various lengths of diameters available to accommodate site conditions.

Note: The no-drip feature of Epcon A7 adhesive makes it particularly well suited for brick pinning applications.

#### a Dva NTa g ES:

##### HBp Series—Nylon Screens

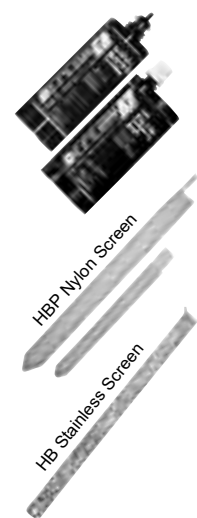
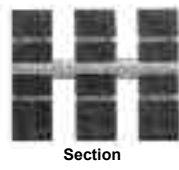
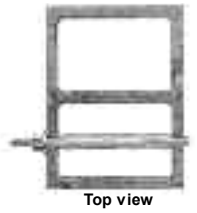
- 30% - 50% savings from stainless steel screens
- Comparable performance values
- Easier to insert & span across voids
- Less susceptible to damage (from being crushed)

##### HB Series—Stainless Screens

- Corrosion resistant
- Available in 1/4" to 3/4" diameters
- Special version, "dosage control" available for overhead & underwater installations

Rod Dia. (in)	Screen Length (in)	Stainless Steel Screens		Nylon Screens	
		Pt. No.	Qty/Box	Pt. No.	Qty/Box
1/4	6	HB 14-6	100	*	*
1/4	8	HB 14-8	100	*	*
1/4	10	HB14-10	100	*	*
3/8	6	HB 38-6	50	HBP 38-6	50
3/8	8	HB 38-8	25	HBP 38-8	25
3/8	10	HB 38-10	25	HBP 38-10	25
1/2	6	HB 12-16	50	HBP 12-6	50
1/2	8	HB 12-8	25	HBP 12-8	25
1/2	10	HB 12-10	25	HBP 12-10	25
5/8	6	HB 58-6	25	HBP 58-6	40
5/8	8	HB 58-8	20	HBP 58-8	40
5/8	10	HB 58-10	20	HBP 58-10	40
3/4	8	HB 34-8	20	*	*
3/4	10	HB 34-10	10	HBP 34-10	20
3/4	13	HB 34-13	10	HBP 34-13	20
3/4	17	HB 34-17	10	*	*

\*Not available in standard strength nylon screens. Longer screens available through specials.



### Impact & maxima 7 Capsules

#### Impact Capsule:

Two-part vinyl ester capsules—hardener & resin are mixed in the holes as a rebar (rod) is hammered (no spinning needed) through the capsule to the bottom of the hole, crushing the capsule & mixing its contents.

#### advantages:

- Either end can be inserted into the hole
- Epcon hole plugs can be used to contain the mixture w/ the hole for a cleaner installation
- On smaller projects, more convenient than using a cartridge system

#### maxima Capsule:

Patented Acrylic 7™ chemistry now available in a glass capsule—hardener & resin are mixed in the hole as a chisel-pointed rod is spun (hammer-drilled) through the capsule to the bottom of the hole, pulverizing the capsules & completely mixing the contents

#### advantages:

- Higher loads are obtained because mixing action scrapes & cleans the sides of the hole during installation
- Maxima 7 capsules can be used in temperatures as low as 0°F (full cure time in 24 hours)
- Can be used in damp holes

applications: Structural Steel, Vibratory Equipment

#### Epcon Impact - Hammer-In Capsules

Rod Dia. Rebar Size (in)	Impact Capsule Pt. No.	Capsule Dia. (Dia. x Lgth.) (in)	Qty. Per Box
3/8	EIC-38	3/8 x 3-1/2	10
1/2	EIC-12	1/2 x 3-3/4	10
5/8	EIC-58	5/8 x 3-3/4	10
3/4	EIC-34	3/4 x 6-1/2	10
#3	EIC-38	3/8 x 3-1/2	10
#4	EIC-12	1/2 x 3-3/4	10
#5	EIC-58	5/8 x 3-3/4	10
#6	EIC-34	3/4 x 6-1/2	10

#### Curing Times

Temp. (F°/C°)	Full Cure Time
68°/20°	20 min.
50°/10°	30 min.
32°/0°	1 hour
23°/-5°	5 hours

#### Epcon maxima 7 - Spin-In Capsules

Rod Dia. (in)	Maxima 7 Capsule Pt. No.	Capsule Dia. (Dia. x Lgth.) (in)	Qty. Per Box	Setting Tool Pt. No.*	Drive Socket**
3/8	A7C-38	3/8 x 3-3/8	10	A7C-DD	9/16 x 3/8
1/2	A7C-12	1/2 x 3-3/4	10	A7C-DD A7C-DSM	3/4 x 3/8 3/4 x 3/8
5/8	A7C-58	5/8 x 3-3/4	10	A7C-DD A7C-DSM	15/16 x 3/8 15/16 x 3/4
3/4	A7C-34	3/4 x 6-1/2	10	A7C-DSM	1-1/8 x 3/4
1	A7C-10	1 x 7-1/2	10	A7C-DSM	1-1/2 x 3/4

\* A7C-DD setting tools can be used in SDS-drive rotary hammer drills. A7C-DSM setting tools can be used in SDS Max rotary hammer drills.

\*\* Provided by contractor

### umbrella Inserts and Stubby Screens

#### Inserts used w/Epcon C6 & a 7

**HBU-38** - Umbrella Inserts—specially designed for fastening to the face of the concrete block, clay tile or terra cotta. Can be used with A7 or C6. Accepts rods between 1/4" & 1/2"

**HBU-FS** - Umbrella Inserts w/3/8" internally threaded sleeve. Removable fastening to concrete block.

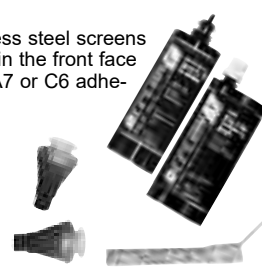
**Stubby Screens** - Specially designed stainless steel screens provide maximum performance for a screen in the front face of hollow concrete block. Can be used with A7 or C6 adhesive. Screens available for rods 1/4" to 5/8"

#### umbrella Inserts

Description	Part No.	Box Contents
Umbrella Insert	HBU-38	20 Umbrella Inserts 20 Centering Rings
Umbrella Flush Sleeve	HBU-FS	10 Umbrella Inserts 10 Flush Sleeve Inserts
Umbrella Insert Tool	HBU-TOOL	1 Setting Tool

#### Stubby Screens

Part No.	Desc.	Qty/Box
HB 14-2	1/4" x 2"	Stainless Steel 100
HB 38-312	3/8" x 3-1/2"	Stainless Steel 100
HB 12-312	1/2" x 3-1/2"	Stainless Steel 50
HB 58-412	5/8" x 4-1/2"	Stainless Steel 50



### Epcon accessories

**Hole plugs** - Special plugs make overhead installations easier, centers rod in hole, and keeps adhesive off threads

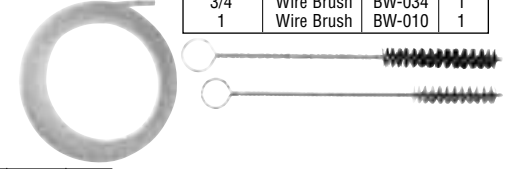
Rod Dia. (in)	Hole Dia. (in)	Part No.	Qty/Bag
3/8	7/6	E038	25
1/2	9/16	E012	25
5/8	3/4	E058	20
3/4	7/8	E034	20
7/8	1	E078	10
1	1-1/8	E010	10
1-1/4	1-3/8	E114	10

**Brushes** - Proper hole cleaning using a brush is essential to achieve optimum performance

Rod Dia. (in)	Hole Dia. (in)	Part No.	Qty/Bag
1/2	Nylon Brush	B012	1
3/4	Nylon Brush	B034	1
1	Nylon Brush	B100	1
1-1/4	Nylon Brush	B114	1
1-1/2	Nylon Brush	B112	1
3/8	Wire Brush	BW-038	1
1/2	Wire Brush	BW-012	1
5/8	Wire Brush	BW-058	1
3/4	Wire Brush	BW-034	1
1	Wire Brush	BW-014	1

**plastic Extension Tubing** - Attaches to Epcon System nozzles for deep hole installations

Desc.	Part No.	Qty/Bag
25-Foot Roll Tubing	E25	1
10-Foot Straight Tubing	E25-6	6



## Fastening Systems

### ET&F Fastening System

#### pneumatic Fastening System ET&F model 500

##### Steel Framing Tool for wood to Steel

In 1994 the Model 500 Tool and AKN-100 series pins became the first and only code approved fastening system for construction of wood panel shear walls and horizontal diaphragms with light gauge steel supports. The Model 500 Tool is designed specifically for light gauge steel construction, and has earned a reputation as the most reliable tool on the market today. Weighing only 6.5 pounds, this bumpfire tool is three to five times faster than traditional screw guns when fastening plywood or rated sheathing to steel framing 14 gauge and lighter.



##### Steel Framing pins

AKN-100 series pins are designed specially for the Model 500 tool to attach plywood or oriented strand board (OSB) to light gauge steel. These pins are code approved for horizontal diaphragm and shear wall construction. Aericote® 1000 coating provides ten times the corrosion protection of electroplated zinc.

Part No.	Length (in)	Pins Per Coil	Case Qty.
AKN-100-0150NA	1-1/2	300	10,800
AKN-100-0200NA	2	300	10,800
AKN-100-0250NA	2-1/2	300	7,200

#### pneumatic Fastening System panelfast® model 510

##### panelfast™ System for gypsum and Cement panels to Steel

The Model 510 Tool and AGS-100 pins comprise the Panelfast™ system. The sequential fire Model 510 pneumatic tool has adjustable depth control that precisely places the pin at the desired depth in gypsum sheathing, Dens Glass® Gold, fiber cement siding and even vinyl siding. The exclusive design of the Model 510 tool drives the largest headed pin on the market, providing maximum wind pressure resistance even in gypsum based sheathing materials.



##### panelfast® pins

The 5/16" head of the AGS-100 series pins are perfect for attaching exterior gypsum sheathing and fiber cement boards to steel framing 14ga and lighter. Designed for use with the Model 510 tool, the ballistic point and knurled shank combine to produce maximum holding strength. Like all ET&F, 100" pins, these fasteners have Aericote® 1000 coating, which provides 1000 hour salt spray corrosion protection.

Part No.	Length (in)	Pins Per Coil	Case Qty.
AGS-100-0150NA	1-1/2	250	9,000
AGS-100-0200NA	2	250	9,000

#### pneumatic Fastening System Stuccofast™ model 500M

##### Stuccofast™ System For Stucco Lath

The system includes the Model 500M Tool with magnetic washer holder, ET&F coiled pins and steel or plastic washers which capture and contain the wire lath. The sequential fire operation and adjustable overdrive control enable a perfect fastening with each pull of the trigger. Like all ET&F light gauge steel framing tools, the Model 500M pneumatic tool is powered by a standard air compressor operating at a maximum 120psi air pressure. The fastest, safest, lowest cost, easiest way to attach stucco lath and insulation to light gauge steel framing.



##### Stuccofast® pins & washers

Stuccofast pins and washers were developed to securely fasten stucco lath and insulation to light gauge steel. AKN-100 series pins and galvanized steel or plastic washers are supplied in combination for use with the ET&F Model 500M tool. Multiple pin lengths provide fastening solutions for most popular insulation thicknesses. Other washer styles are available upon request.

Part No.	Pin Length (in)	Washer			Case Qty.
		Material	Style	Dia. (in)	
AKN-100-0150NAT	1-1/2	STEEL	TABS	1-1/4	10,800
AKN-100-0200NAT	2	STEEL	TABS	1-1/4	10,800
AKN-100-0250NAT	2-1/2	STEEL	TABS	1-1/4	9,000
AKN-100-0150NA3	1-1/2	PLASTIC	STEM	1-3/4	10,800
AKN-100-0200NA3	2	PLASTIC	STEM	1-3/4	10,800
AKN-100-0250NA3	2-1/2	PLASTIC	STEM	1-3/4	9,000

**Fasteners/Concrete Anchors**

# Fastening Systems

## ITw Buildex

### Powder Actuated Fastening Systems:

#### uNIDEK™

#### Stand-up metal Deck Fastening System

BX 14 and BX 12 Powder Actuated Fasteners "The Fastest and the Most Consistent Way to Attach Metal Deck"

#### Applications

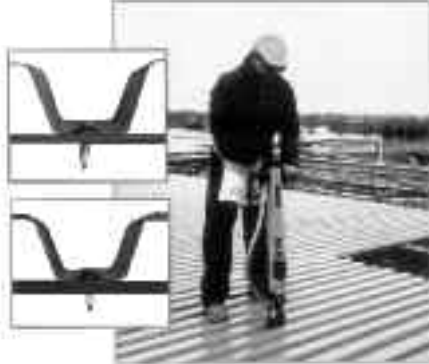
- Roof and floor deck to steel framing

#### Product Features

- Stand-up tool will increase productivity, reduce operator fatigue, and improve quality on the job.
- Cordless tool for ease of set-up and take down and quick mobility on the job with no hoses/cords.
- MAC System prevents the pin from firing through the metal deck if the structural steel framing is missed.
- Easy visual inspection of the attachment.
- Pins and loads are compatible with BX 900 system.
- BX 14 and BX 12 pin with large washer and deep knurl provides optimal tension and shear values.
- Patented .25 caliber 10 load disc is completely enclosed in tool during use and is easy to change.
- Pins are collated 10 in a tube, and tool holds 30 pins for rapid installation of deck.
- Inspection card to determine load color level for proper pin penetration.

#### Tool:

Weight.....22 lbs.  
Dimensions .....10" x 11" x 39-1/2"  
P/N .....7447910



### metal Deck Fastening System

#### Bx 900™

#### Bx 14™ powder actuated Fasteners

"Fast and Consistent way to attach metal Deck"

#### Applications

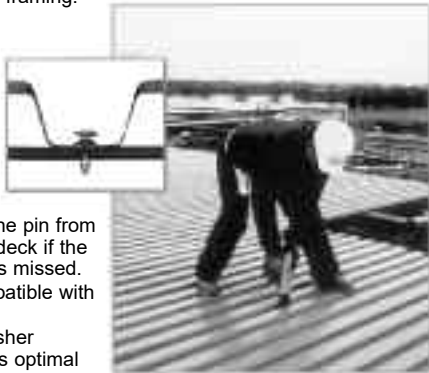
- Roof and floor deck to steel framing.
- Side wall panels to steel framing.

#### Product Features

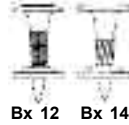
- Small portable tool can be used for wall or roof applications.
- Cordless tool for ease of set-up and take down and quick mobility on the job with no hoses/cords.
- MAC System prevents the pin from firing through the metal deck if the structural steel framing is missed.
- Pins and loads are compatible with Unidek system.
- BX 14 pin with large washer and deep knurls provides optimal tension and shear values.
- Patented .25 caliber 10 load disc is completely enclosed in tool during use and is easy to change.
- Tool is small for tight fastening areas.
- Excellent tool system for tacking steel deck proper to increasing productivity with Unidek system.

#### Tool:

Weight.....7.7 lbs.  
Dimensions .....2.5" x 8" x 14.5"  
P/N .....7279900



### Bx 12" and Bx 14" powder actuated pins and loads



Steel Thickness		Pin	Load				Tools	
			Power Level	Color	Case Color	Caliber	Unidex®	BX 900™*
1/8" - 3/16"	BX12	#4	Yellow	Brass	.25 Short	Yes	No	
>3/16" - 3/8"	BX14	#5	Red	Brass	.25 Medium†	Yes	Yes	
>3/8" - 1/2"	BX14	#5	Red	Brass	.25 Long	Yes	Yes	
>1/2" - 1"	BX14	#6	Purple	Brass	.25 Long	Yes	Yes	

\* Uses Bulk BX 14 Pins Only.  
† Long Yellow Load May Be Substituted

## TRAXX Self-Drilling Systems – Electric

### auTOTr axx™ - Electric

#### Stand-up metal Deck Fastening System

ICH Traxx™ Self-Drilling Fasteners "The Fastest and the Most Consistent Way to Attach or Stitch Metal Deck with Screws"

#### Applications

- Roof deck to steel framing.
- Roof deck to roof deck (sidelap/stitch).
- Floor deck to steel framing.
- Floor deck to floor deck (sidelap/stitch).

#### Product Features

- Stand-up tool will increase productivity, reduce operator fatigue and improve quality on the job.
- ICH (Internal Conical Head) guidance system aligns the fastener for proper socket engagement.
- Patented convex point has precise cutting edges to improve drill performance with less effort.
- Point to thread design minimizes stripout and maximizes pullout and shear.
- Pilot point results in improved clamping of multiple sheets.
- Climaseal™ finish provides excellent corrosion resistance and lower tapping torque.
- HEAD STYLE - ICH (Internal Conical Head)

#### Tool:

Weight.....13 lbs.  
Dimensions .....3" x 11-1/2" x 35-1/2"  
P/N .....7284910



### ICH Tr axx® Self-Drilling Fasteners – auTOTr axx™

Part No.	Desc.	Head Style	Drill Point	Drill & Tap Capacity	Applications
<b>Stitching for Autotraxx</b>					
7108000	10-14 x 7/8"	ICH	#3	.036-.175	• Stitching roof or floor deck.
7110000	12-14 x 7/8"	ICH	#1	.028-.095	
<b>Structural Attachments for Autotraxx</b>					
7061000	12-24 x 7/8"	ICH	#4	.125-.250	• Metal deck to less than 1/2" thick bar joist or beams
7065000	12-24 x 1-1/4"	ICH	#4	.125-.250	
7068000	12-24 x 1-1/4"	ICH	#5	.125-.500	

# Fastening Systems

## FaSTRaxx™ - Electric The Original Automated Stand-up Fastening System for metal Decking.



### Applications

- Sidelap Fastening of Metal Roof and Floor Decking.

### Product Features

- Patented, fully automated system is 4 times faster than hand fastening.
- Stand-Up Operation... reduces operator fatigue.
- 25 count strips speed up loading and eliminates dropped screws.
- Fastraxx Retrokit available to convert Autotraxx™ tool.
- ICH (internal conical head) screws and guidance system improves drilling and driving.
- Climaseal™ coated screws reduce drive torque and assure long service life.
- Heavy duty tool construction for years of durability and low maintenance.
- Head Style - ICH (Internal Conical Head)

**Tool:** Fastraxx Retrokit  
Weight .....13.5 lbs. ....4.0 lbs.  
Height .....35.5"  
P/N.....7529910.....7530910

## ICH Traxx® Self-Drilling Fasteners – FaSTRaxx™

Part No.	Desc.	Head Style	Drill Point	Drill & Tap Capacity	Applications
7531000	10-14 x 7/8"	ICH	#3	.036-.175	• Stitching roof of floor deck with Fastraxx Tool

## Screws

### wood/light metal Screws

For use with plywood, OSB, dimensional lumber and light gauge metal (26 gauge – 20 gauge).

### Steel Framing Screws

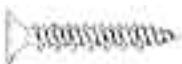
For use with steel framing from 20 gauge – 12 gauge.

### masonry Screws

For use with brick, block and concrete

### wood/light metal Screws

For use with plywood, OSB, dimensional lumber and light gauge metal (26 gauge - 20 gauge).



Part No.	Desc.	Carton Qty.	Carton Wt (lbs)
2311500	6 x 1-5/8	5000	23
2312500	8 x 2	3500	28
2313500	8 x 2-1/2	2500	21
2314500	8 x 3	2000	20
2315500	10 x 4	1000	12
2316500	10 x 5	1000	23
2317500	10 x 6	1000	27

#2 Phillips Bugle Head  
Climacoat® Finish  
Hi-Lo® Thread Form

### Steel Framing Screws

For use with steel framing from 20 gauge - 12 gauge.



Part No.	Desc.	Carton Qty.	Carton Wt (lbs)
2321500	6 x 1-5/8	5000	25
2318500	8 x 2	3500	28
2319500	8 x 2-5/8	2500	26
2320500	8 x 3	2000	24
2322500	10 x 4	1000	21
2323500	10 x 5	1000	26

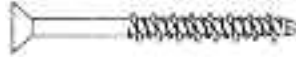
#2 Phillips Bugle Head  
Climacoat® Finish  
S-12™ Drill Point

- continues -

## Screws (continued)

### masonry Screws

For use with brick, block and concrete.



Part No.	Desc.	Carton Qty.	Carton Wt (lbs)
3171407	3/16 x 1-3/4	100/1000	12
3173407	3/16 x 2-1/4	100/1000	12
3175407	3/16 x 2-3/4	100/1000	15
3177407	3/16 x 3-1/4	100/1000	17
3181407	3/16 x 4	100/1000	21

5 Carbide Bits per 1000 piece carton  
#2 Phillips Flat Head  
Blue Climaseal® Finish  
Original Tapcon® Masonry Anchor

## grid-master™

Fully Automatic Cordless Fastening Tool System For All Polymer Based (PB) Exterior Insulated Finish Systems (EIFS)  
*"The fastest and easiest way to mechanically attach insulation to masonry, concrete or wood."*

### Applications

- Attaches 1", 1-1/2" and 2" EPS insulation to hollow block, brick or concrete walls.
- Attaches 1", 1-1/2" and 2" EPS insulation to plywood and lumber.
- Excellent for attaching blanket and rigid insulation in parking garages, foundations, fire and sound proofing applications.
- New 2-1/4" magazine Grid-Master tool allows attachment of 1", 1-1/2" and 2" EPS insulation into wood, plywood, concrete and masonry with collated pins and nails.

### Product Features

- Ease of use... place washer on nosepiece, place over insulation and pull the trigger. NO PRE-DRILLING
- Fully automatic reduces labor hours to increase productivity and profits.
- Capable of installing one plate fastening every three seconds.
- Cordless tool for ease of set-up and take-down, and quick mobility on the job with no hoses or cords.
- Patented "closure fingers" on plates keep coating out of contact with pin head - no "thermal bridge" or bleed throughs.
- Large 2" plate diameter provides 25% higher pullover resistance than 1-3/4" plates.
- Corrosion resistant hardened steel pins for fastening into hollow block, concrete or brick.
- Stainless steel ring shank nail for fastening into wood.

### Product Specifications

PLATES  
Diameter.....2"  
Material.....Polypropylene  
Color.....Orange  
Lengths.....PB10 for 1", 1-1/2", 2" EPS  
PB15 for 1-1/2", 2" EPS

GRID-MASTER Tool  
Weight .....9.5 lbs.  
Tool Dimensions...16" long x 14" high  
MASONRY PINS (Assembled in (10) count strips)  
Lengths.....1-1/4", 1-1/2", 2"  
Diameter......102" Smooth Shank  
Material.....Zinc Plated Carbon Steel  
WOOD NAIL (Assembled in (10) count strips)  
Lengths.....1-3/4", 2-1/4"  
Diameter......105" Ring Shank  
Material.....300 Stainless Steel

### Selector guide:

Part Number	Pin/Plate/Fuel Pack Contents						Application	
	Plate	Qty	Pin/Nail	Qty	Fuel Cell	Wt. (lbs)		EPS Thickness
2195900	PB10	1000	1-1/4" Pin	1000	1	16	1"	Hollow Block, Concrete, Brick
2196900	PB15	1000	1-1/2" Pin	1000	1	18	1-1/2"	
2197999	PB15	1000	2" Pin	1000	1	19	2"	
2198900	PB10	1000	1-3/4" Nail	1000	1	16.5	1, 1-1/2"	1/2", 5/8", 3/4" Plywood OSB or Lumber
2375900	PB10	1000	2-1/4" Nail	1000	1	18	2"	
2376910	Grid-Master Tool (2-1/4" magazine) - Complete in Plastic Case with: (2) Rechargeable Batteries (1) Charger and A.C. Adapter (1) Hex Key (1) Safety Goggles Operator and Repair Manuals. Weight = 17 lbs.							

NOTE: (1,000) Fastenings per fuel cell, (8) hour usage for fully charged battery.

**Fasteners/Concrete Anchors**

# Fastening Systems

## mECHA NiCaI FaSTENER S FOR mETaI EIFS

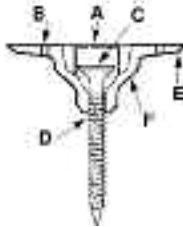
### Washers:

#### g r ID-maTE™ pB

Designed for attachment of EPS insulation in all polymer based (PB) barrier and water managed EIFS.

- A) Patented "closure fingers" keep coating out of contact with fastener head – no sink marks or bleeding throughs.
- B) "Keying" holes and textured surface form a strong bond with coatings.
- C) Recessed core allows fastener to float – no head pops or thermal bridging.
- D) Designed for use with #6 through 1/4" diameter screws for wood, steel or masonry
- E) Large 2" diameter for greater wind load resistance.
- F) Strong, polypropylene material for excellent impact and stress resistance in all temperatures.

\* Excellent for attaching blanket and rigid insulation in parking garages, foundations, fire and sound proofing applications.



Part No.	Desc.	Carton Qty.	Carton Wt. (lbs)
2189900	Grid-Mate PB Washer	1000	11

#### g r id-mate™ pB

For use in polymer based (PB) barrier and water manage systems.

**wood/ light metal** - For use with Plywood, OSB, Dimensional Lumber and Light Gauge Metal (26 Gauge – 20 gauge)

Item	Part No.	Insulation Thickness (in)	Screw Length (in)	Carton Qty.	Carton Wt. (lbs)
WLM1	2349500	1	1-5/8	1000	16
WLM2	2350500	1-1/2	2	1000	18
WLM3	2351500	2	2-1/2	1000	20
WLM4	2358500	2-1/2	3	1000	21
WLM5	2359500	3, 3-1/2	4	500	24
WLM6	3260500	4	5	500	34



**Steel** - For use with steel framing from 20 gauge – 12 gauge. For attachment over gypsum, use next length of screw.

Item	Part No.	Insulation Thickness (in)	Screw Length (in)	Carton Qty.	Carton Wt. (lbs)
S1	2362500	1	1-5/8	1000	16
S2	2363500	1-1/2	2	1000	19
S3	2364500	2	2-5/8	1000	21
S4	2365500	2-1/2	3	1000	23
S5	2366500	3, 3-1/2	4	500	32
S6	2367500	4	5	500	37



**masonry** -For use with Brick, Block and Concrete (2) Phillips and (5) carbide bits per carton

Item	Part No.	Insulation Thickness (in)	Screw Length (in)	Carton Qty.	Carton Wt. (lbs)
M1	2368400	1	1-3/4	1000	21
M2	2369400	1-1/2	2-1/4	1000	24
M3	2370400	2	2-3/4	1000	26
M4	2371400	2-1/2	3-1/4	1000	28
M5	2372400	3	4	500	31



#### g r ID-maTE™

The original mechanical fastening system for polymer modified (PM) EIFS or modified systems over extruded polystyrene or polyiso boards.

- Low profile design - seals flush without damaging the insulation or mesh.
- "Keying" holes and textured surface form a strong bond with coatings.
- Strong polypropylene material provides excellent impact resistance and service life in temperature extremes.
- Large 1-3/4" diameter for secure attachment.
- \* Excellent for fiberglass, fabric, wire mesh or expanded lath over rigid insulation.



Part No.	Desc.	Carton Qty.	Carton Wt. (lbs)
2115900	Grid-Mate Washer	1000	4.5

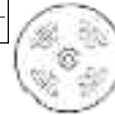
#### g r ID-maTE™ with pre-Spotting Stem

Designed for attachment of polysocyanurate insulation in polyiso-modified systems

- The same Grid-Mate design with the added pre-spotting stem design for easy jobsite attachment of glas-faced polyisocyanurate insulation.



Part No.	Desc.	Carton Qty.	Carton Wt. (lbs)
2117900	Grid-Mate with Stem	1000	5



#### g r ID-maTE™ - m

A metal Grid-Mate designed for attachment of stucco, modified stucco and polyiso-modified systems.

- Pre-spotting prongs for polyisocyanurate applications.
- Recessed center for flush fastener seating.
- Excellent for fiberglass mesh, expanded lath and stucco netting.
- 1-1/4" Square.
- G-90 Galvanized for corrosion resistance.



Part No.	Desc.	Carton Qty.	Carton Wt. (lbs)
2373900	Grid-Mate - Metal	1000	7.5

### Assembled Fasteners:

#### g r id-mate™

For use in polymer modified, polyiso-modified and modified stucco systems.



**wood/ light metal** - For use with Plywood, OSB, Dimensional Lumber and Light Gauge Metal (26 Gauge – 20 gauge)

Item	Part No.	Insulation Thickness (in)	Screw Length (in)	Carton Qty.	Carton Wt. (lbs)
GM1	2352500	1	1-5/8	1000	9
GM2	2353500	1-1/2	2	1000	12
GM3	2354500	2	2-1/2	1000	13

**Steel** - For use with Steel Framing.

Item	Part No.	Insulation Thickness (in)	Screw Length (in)	Carton Qty.	Carton Wt. (lbs)
GM4	2355500	1	1-5/5	1000	10
GM5	2356500	1-1/2	2	1000	13
GM6	2357500	2	2-5/8	1000	14

**Fasteners/Concrete Anchors**

# Fastening Systems

## Automatic

### TrakFast - a Automatic Fastening System

TrakFast Fastening Tool for Interior & Exterior Contractors

Even after seven years of high performance fastening, contractors using TrakFast continue to report time savings of 100%, 200% & 300% over their previous method of fastening. They have discovered that TrakFast's actual cost-in-place beats any other system. The increased speed & productivity of TrakFast reduces the cost per installed pin so contractors complete jobs sooner, bid more completely & move on to the next job faster.



Because of its speed, durability & ease of use, TrakFast can be used in various exterior applications. With its self-contained power source, there's no need for air compressors, hoses, different power loads or licensing. Anyone can use TrakFast—just load your pins & fire. It's that easy.

**advantages:**

- **Speed** - No other fastening system works as well—or as fast—as TrakFast. It's three to five times faster than any other system. The tool holds 42 pins so the operator spends even less time reloading and more time fastening.
- **Ease of use** - TrakFast's self-contained power source makes the tool easier and safer to use than powder or pneumatic tools. Because of TrakFast's unique vacuum return, there's no need to reset the piston after each firing.
- **No recoil** - The tool actually absorbs the recoil so there is much less operator fatigue after a long day of fastening.
- **No wasted pins and loads** - With the FastTrak technology, there's no dropped pins & loads or misfires, as with powder tools. This means less waste & increased productivity.
- **Durability** - The tool body is constructed of high-impact nylon. Fewer parts mean less maintenance. Fewer jams because of our patented guidance system for pins. Less downtime and less maintenance because there's no powder build-up.
- **No Load Changes required for Different applications** - Unlike powder tools, there's no need to inventory a variety of load colors when using TrakFast for different applications. TrakFast's self-contained engine delivers consistent fastening force for concrete, block or steel.
- **No Licensing Required** - Unlike powder actuated tools, no special training or licensing is required.
- **Clean Burning Fuel** - The patented fuel cell is easy to load. Liquefied gas burns clean, which keeps the tool cleaner than powder tools.

Tool Specs:	
Model No.	TF1100
Length (in)	17
Height (in)	15-1/2
Weight	9.25
Max. Cap.	42 pins
Max. Cycles/Second	2

### TrakFast pins - Superior Drivability in Concrete & Steel

#### Standard Black Collation Strip

TrakFast's patented black collation strip is designed to stay with the fastener. Track or channels are held down tightly to the work surface. Pins work in both concrete & block without making any adjustments to the power of the tool. Available in 1/2", 3/4" & 1" pin lengths

#### Breakaway Collation Strip

Designed for applications that require the head of the fastener to be flush or slightly recessed with the surface of the material being attached. Collation strip breaks away upon impact, allowing the head to recess into the material. Pins work in both concrete & block without making adjustments to the power of the tool. Available in 3/4", 1", 1-1/4" & 1-1/2" plated pin lengths.

### performance Tables

#### TrakFast pins in Concrete

Min. Embedment (in)	2000 PSI/13.8 MPa		3000 PSI/20.7 MPa		4000 PSI/27.6 MPa	
	Tension (lbs)	Shear (lbs)	Tension (lbs)	Shear (lbs)	Tension (lbs)	Shear (lbs)
5/8	60	55	55	75	55	95
3/4	60	80	55	55	55	35

\*All values published are allowable working loads  
Shank Dia. = .102

#### TrakFast pins in 300 psi lightweight Concrete & Hollow Cmu

Min. Embedment (in)	Installed in Concrete		Installed thru Metal Deck (Lower Flute)		Hollow CMU (Any Location)	
	Tension (lbs)	Shear (lbs)	Tension (lbs)	Shear (lbs)	Tension (lbs)	Shear (lbs)
5/8	35	55	30	205	35	50
3/4	90	110	40	235	-	-

\*All values published are allowable working loads  
Shank Dia. = .102

#### TrakFast 1/2" pins in a STm a 36 Steel

Min. Embedment (in)	Steel Thickness (in)							
	3/16"		1/4"		3/8"		1/2"	
	Tension (lbs)	Shear (lbs)	Tension (lbs)	Shear (lbs)	Tension (lbs)	Shear (lbs)	Tension (lbs)	Shear (lbs)
9/16 step shank	115	300	195	340	215	335	215	355

\*All values published are allowable working loads  
Shank Dia. = .092/.107

#### TrakFast 1/2" pins in a STm a 572 g grade 50 Steel

Fastener Type (in)	Steel Thickness (in)							
	1/8"		1/4"		3/8"		1/2"	
	Tension (lbs)	Shear (lbs)	Tension (lbs)	Shear (lbs)	Tension (lbs)	Shear (lbs)	Tension (lbs)	Shear (lbs)
9/16 step shank	135	300	200	290	210	345	180	330

\*All values published are allowable working loads  
Shank Dia. = .092/.107

### TrakFast Tool & Fuel/pin packs

Pt. No.	Desc.	Qty/Ctn
TF1100	TrakFast Tool	1
<b>Std. Black Strip Fuel/Pin Packs*</b>		
FPP012S	1/2" Plated Steel Pin	1000
FPP034B	3/4" Black Pin	1000
FP100B	1" Black Pin	1000
<b>New Breakaway Strip Fuel/Pin Packs*</b>		
FPP034T	3/4" Plated Pin	1000
FPP100T	1" Plated Pin	1000
FPP114T	1-1/4" Plated Pin	1000
FPP112T	1-1/2" Plated Pin	1000
<b>TrakFast Accessories</b>		
LD100	Plated Lathing Disc. (1" dia.)	1000
7405140	Disc. Holding Probe (for TF1000)	1
7405151	Disc. Holding Probe (for TF1100)	1
7405160	Delta Plug Holder/Cosella	1
7405162	Platen Plug Holder/Big O	1

\* Each fuel/pin pack includes 1 fuel cell & 1,000 pins.  
\*\* Available in master cartons of 5,000

### AutoFast - a automatic piston return Tool

**AutoFast Fastening System...provides the Fastest, most Cost Effective way to use powder...in the world!**

Framers can save up to 33% of the time usually required when fastening 2' x 4's to concrete. Our simple method of returning the piston by use of a spring is a 100% sure way of mechanically cycling the tool. Simple operation means less maintenance and easier maintenance required.

**advantages:**

- 33% faster than semi-automatic tools
- No cycling necessary
- Dramatically less recoil
- Exceptionally quiet
- 2.4 lbs. lighter than Hilti DXA41™



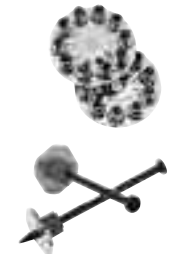
**applications:**

Use AutoFast for these high-production applications! Speed, comfort, ease of handling. With its Automatic Piston Return, lighter weight and reduced recoil, the AutoFast Powder Fastening System is the ideal tool for the following high production applications:

- Attachment of dry wall track
- Roofing
- Overhead track attachment
- Flooring

### most Common Fasteners

Pin No.	Shank Length (in)	Most Common Application
1524SDB* (washed)	3	2' x 4' to concrete
1516SD (washed)	2-1/2	2' x 4' to concrete
SP178	1-7/8	2' x 4' to steel
1506B	1	Sheet metal to concrete
1503K (knurled)	1/2	Sheet metal to steel
SP12	1/2	Sheet metal to harder steel



\*Packaged 1000 per carton (2/500 ct. bags). 100-count boxes are also available.

### Disc Loads

Cat. No.	Power Level	Color	Caliber
2D60/D45	2	Brown	.25
3D60/45	3	Green	.25
4D60/45	4	Yellow	.25
5D45	5	Red	.25

### Tool Specifications

Caliber .25  
Disc Loads 10-shot  
Weight 5 lbs.  
Height 7-1/2"  
Length 17-1/2"  
Compressed Length 13-1/2"  
Muzzle Bushing O.D. .750  
Muzzle Bushing I.D. .340-.345  
Max. Fastener Length 2-1/2" or 3" washed

**kit Includes:**

- Heavy-duty lockable box
- Operators instruction manual
- Spall guard
- Safety glasses
- Maintenance kit

**26**  
Fasteners/  
Concrete  
anchors

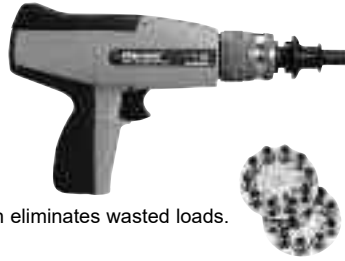
**Fasteners/Concrete Anchors**

# Fastening Systems

## Drywall Contractors D45 Semi-automatic

- 2" Pin Capacity (2-1/2" w/washer)
- 5-Year Warranty

Ramset's Patented Red Disc Gives You the Power You Need  
Fasten into the hardest of concrete and steel with a red disc load and the D45. The patented 10-shot disc load advances only after firing which eliminates wasted loads.



**advantages:**

- Most durable, powerful powder tool—designed for high-production use in steel and concrete
- Heavy-duty buffer system—prevents front-end tool damage for longer tool life
- Weekly cleaning, not daily cleaning—saves time and reduces labor costs
- Quieter than standard powder tool—allows you to work in occupied buildings
- Disc System—eliminates wasted loads... and dollars
- Long, narrow muzzle bushing—allows fastening in hard-to-reach areas

**Specifications**

- .25 caliber, 10-shot disc loads
- Length: 11 inches
- 2 (Brown), 3 (Green), 4 (Yellow), 5 (Red)
- Muzzle Bushing O.D.: 5/8"
- Weight: 4-1/2 pounds
- Pin Capacity: 2 or 2-1/2" washered
- Height: 7-1/2 inches
- Factory Mutual System approved

## Electrical Contractors D60/60L Semi-automatic

Patented 10-shot disc loads advance automatically, eliminating wasted loads

- D60 2-3/8" Pin Capacity (2-1/2" w/washer)
- D60L 2-1/2" Pin Capacity (3" w/washer)
- 5-Year Warranty

**advantages**

- Quick power adjustment-gives eight levels of power with only one load level for a variety of applications.
- Rugged polyamide housing-reduces heat transfer and maximizes operator comfort
- Soft, recoil-absorbing handle-for increased operator comfort
- Disc System-eliminates wasted loads... and dollars



**Specifications**

- .25 caliber, 10-shot disc loads
- Muzzle Bushing O.D.: 3/4"
- 2 (Brown), 3 (Green), 4 (Yellow)
- Pin Capacity: 2-3/8" (3" w/washer-D60L)
- Weight: 4.9 pounds
- Factory Mutual System approved
- Length: 12-1/2 inches

## General Contractors/Framer Sa 270 Semi-automatic

- 2-1/2" Pin Capacity (3" w/washer)
- 5-Year Warranty
- Uses Loadsaver™ 10-shot strip load



**advantages**

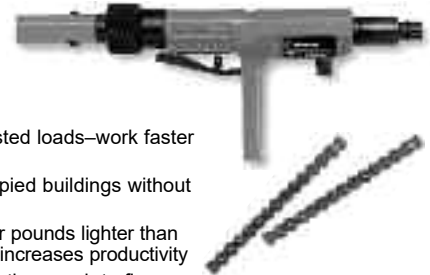
- Excellent balance-easy to use all day long
- Rubber grip on front barrel-eliminates pinched fingers and hands
- Twist lock front end-easy to clean
- Rugged polyamide housing-reduces heat transfer and maximizes operator comfort
- Soft, recoil-absorbing handle-for increased operator comfort
- Narrow nosepiece for hat track available-Part #27996

**Specifications**

- .27 caliber 10-shot strip loads
- Muzzle Bushing O.D.: 5/8"
- 3 (Green), 4 (Yellow), 5 (Red)
- Pin Capacity: 2-1/2" (3" w/washer)
- Weight: 5-3/4 pounds
- Factory Mutual System approved
- Length: 15 inches

## Acoustical Applications Viper - Semi-automatic

- 30% Faster Overhead Attachment
- 5-Year Warranty
- Uses Loadsaver™ 10-shot strip loads



**advantages**

- No cycling eliminates wasted loads—work faster and save money
- Super quiet—work in occupied buildings without disturbing occupants
- Weighs just 3 pounds—four pounds lighter than other manufacturer's tool; increases productivity
- Easy to use—just position, then push to fire—no trigger; no broken cables; no pinched fingers
- Durable ringless piston with 1-1/2" overdrive-prevents piston from breaking in thick fire-proofing material
- Easy to keep maintained—no tools needed for fast, daily cleaning
- Long, narrow housing—allows fastening in hard-to-reach areas
- Telescoping poles reduce expensive lift basket rentals

**Specifications**

- .27 caliber 10-shot strip loads
- Weight: 3 pounds
- 3 (Green), 4 (Yellow), 5 (Red)
- Pin Capacity Ceiling Clips: 1-1/4" (match nosepiece with pin)
- Pin Capacity 1/4" -20 threaded studs: 2" (with nosepiece #2VP4200)

## Remodeling Applications Cobra - Semi-automatic

- 2-1/2" Pin Capacity (3" w/washer)
- Uses Loadsaver™ 10-shot strip loads

**advantages**

- Low velocity piston drive tool-provides added safety on the job
- Padded recoil-absorbing handle-for greater operator comfort
- Fastens up to 3" standard Ramset drive pins and threaded studs-ideal for general construction applications
- Full one-year warranty



**Specifications**

- Weight: 4-1/2 pounds
- Uses .27 caliber 10-shot strip loads
- Length: 13-1/4"
- 3 (Green), 4 (Yellow), 5 (Red)
- Muzzle Bushing O.D.: 9/16"

26  
Fasteners/  
Concrete  
anchors



# Fastening Systems

## Extension poles

Quality Ramset extension poles provide the convenience of using powder actuated tools for overhead fastening without the need for scaffolding or ladders.

part Numbers for Ramset & Hilti® Tools

- **pTSEm16 (6') and pTSEm18 (8') for use with:**
  - **D60**—our premier semi-automatic tool, featuring power level adjustment and no-waste disc loads.
  - **Sa 270**—high-quality .27 caliber strip tool for general purpose applications.
  - **D45**—most durable, high-power, semi-automatic tool for hard concrete and steel applications.
  - **mD380**—popular 3/8" head diameter tool.
  - **AutoFast**—the fastest, quietest tool we make. No cocking!
  - **Hilti® Dx 36**



## viper

Fixed-length extension poles:

- 6' # VPOL6
- 8' # VPOL8
- 10' #VPOL10

Telescoping extension poles adjustable in 1 foot increments:

- 6'-12' #TVPOL612
- 6'-18' #TVPOL618
- 8'-24' #TVPOL824

- **pTSINGI E6 (6') and pTSINGI E8 (8') for use with:**
  - **721**—the industry-preferred tool for the drywall trade.
  - **4170**—the precision-manufactured general-purpose tool.

- **pTr ED16 (6') and pTr ED18 (8') for use with:**
  - Hilti DX350 and DX35
  - Cobra

Hilti® is a registered trademark of Hilti, Corp.

## powerpoint pins

pins for advanced Steel Fastening

Use Ramset's exclusive PowerPoint pins for your advanced steel fastening applications. They provide easier penetration into hard steel. That means reduced pin failures and increased holding values to make your jobs more productive.

### advantages:

**Consistent performance, Even in Hard Steel** – Standard powder actuated pins fasten inconsistently in steel. Frequently the steel is just too hard for conventional pins. Steel is also inconsistent because hardness varies. According to the steel industry's accepted Rockwell Hardness Scale (Rb), steel strength can vary from a relatively soft 54 Rb to an extremely hard 88 Rb or higher. Standard pins typically begin to fail in the upper 70s Rb. Tests, however, have proven that PowerPoint consistently performs, even as steel approaches 90 Rb!

### Selection Charts

Base Steel Thickness

Material	3/16"	1/4"	3/8"	1/2"	3/4"
14" Plywood	SP58*	SP34*	SP78**	SP78**	SP78**
3/8" Plywood	SP58*	SP34*	SP78**	SP78**	SP78**
1/2" Plywood	SP100**	SP100**	SP100**	SP100**	SP100**
3/4" Plywood	SP114**	SP114**	SP114**	SP114**	SP114**
2' x 4' Plate	SP178**	SP178**	SP178**	SP178**	SP178**
10 Ga. To 12 Ga.	SP58*	SP34*	SP34*	SP78**	SP58**
13 Ga. To 17 Ga.	SP12*	SP58*	SP34*	SP34**	SP58**
18 Ga. To 25 Ga.	SP12*	SP58*	SP34*	SP34**	SP58**

\* For use with all Ramset Powder Tools

\*\*For use with all Ramset Powder Tools except the Model 721

### product Selection Chart

Part No.	Nom. Shank Diameter	Shank Lgth. (in)	Box Qty
SP12	.150	1/2	100
SP58	.150	5/8	100
SP34	.150	3/4	100
SP78	.150	7/8	100
SP100	.150/.180	1	100
SP114	.150/.180	1-1/4	100
SP178	.150/.180	1-7/8	100

For optimum results in hard steel, use the D45 powder actuated tool.

## Fasteners

We maintain only the highest standards in the materials, production techniques and quality control measures used to manufacture our fasteners, assuring consistent, optimum quality in every fastener.

### advantages

**Black Pins** - The special black coating improves pin penetration into difficult base material (i.e. hard concrete). We offer this black coating on all of our fasteners manufactured for the attachment of drywall track and channel to concrete and steel.

**pins** - ITW Ramset/Red Head powder actuated fasteners are specifically fabricated to meet the exacting requirements of toughness and durability that enable them to penetrate dense concrete and structural quality steel.

### SELECTION CHARTS:

#### Black Track pins - .300 Head Diameter Drive pins

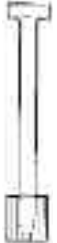
Designed for use in concrete and structural steel applications. Available in 100- or 1000-Pack



Cat. No.	Shank Length (in)	721	Auto Fast	4170	D60	D60L	SA270	D45	Cobra	M70
1503KBC	1/2 Knurled	X	X	X	X	X	X	X	X	X
1506CD	3/4	X	X	X	X	X	X	X	X	X
1508BC	1	X	X	X	X	X	X	X	X	X

#### Drive pins - .300 Head Diameter Drive pins

Designed for use in concrete and structural steel applications. 100 Pin Pack

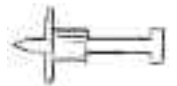


Cat. No.	Shank Length (in)	721	Auto Fast	4170	D60	D60L	SA270	D45	Cobra	M70
1503K*	1/2 Knurled	X	X	X	X	X	X	X	X	X
1506*	3/4	X	X	X	X	X	X	X	X	X
1508*	1	X	X	X	X	X	X	X	X	X
1510*	1-1/4	X	X	X	X	X	X	X	X	X
1512	1-1/2	X	X	X	X	X	X	X	X	X
1513	1-3/4	X	X	X	X	X	X	X	X	X
1514	2	X	X	X	X	X	X	X	X	X
1515	2-3/8	X	X	X	X	X	X	X	X	X
1516	2-1/2	X	X	X	X	X	X	X	X	X
1524	3	X	X	X	X	X	X	X	X	X

\* Also available in 1000 Pack Shank diameter = .145

#### Drive pins - .300 Head Diameter Drive pins with 7/8" washer

Washer increases bearing surface against the material to be fastened. 100 Pin Pack



Cat. No.	Shank Lgth (in)	721	Auto Fast	4170	D60	D60L	SA270	D45	Cobra	M70
1508SD	1	X	X	X	X	X	X	X	X	X
1510SD	1-1/4	X	X	X	X	X	X	X	X	X
1512SD	1-1/2	X	X	X	X	X	X	X	X	X
1514SD	2	X	X	X	X	X	X	X	X	X
1516SD	2-1/2	X	X	X	X	X	X	X	X	X
1524SDB†	3	X	X	X	X	X	X	X	X	X

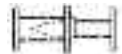
\* Square washer indicates 3" pin has been installed

† 1,000 pins per box in (2) 500 piece bags

Shank diameter = .145

#### Top Hat Drive pins - .300 Head Diameter Top-Hat

Increases the bearing surface against the material to be fastened for improved attachment to inconsistent base materials. 100 Pin Pak



Cat. No.	Shank Lgth (in)	721	Auto Fast	4170	D60	D60L	SA270	D45	Cobra	M70
1903K*	1/2 Knurled	X	X	X	X	X	X	X	X	X
1906*	3/4	X	X	X	X	X	X	X	X	X
1906K*	3/4 Knurled	X	X	X	X	X	X	X	X	X
1908*	1	X	X	X	X	X	X	X	X	X

Shank diameter = .145

#### powerpoint pins - Premium Steel Pin

for fastening into harder steel and concrete. 100 Pin Pack



Cat. No.	Shank Lgth (in)	721	Auto Fast	4170	D60	D60L	SA270	D45	Cobra	M70
SP12	1/2	X	X	X	X	X	X	X	X	X
SP58	5/8	X	X	X	X	X	X	X	X	X
SP34	3/4	X	X	X	X	X	X	X	X	X
SP78	7/8	X	X	X	X	X	X	X	X	X

Shank diameter = .150

**Fasteners/Concrete Anchors**

# Fastening Systems

**power point Step Shank pins - premium Steel pin**

Pin for fastening into harder steel and concrete. 100 Pin Pack

Cat. No.	Shank Lgth (in)	721	Auto Fast	4170	D60	D60L	SA270	D45	Cobra	M70
SP100	1	X	X	X	X	X	X	X	X	X
SP114	1-1/4	X	X	X	X	X	X	X	X	X
SP178	1-7/8	X	X	X	X	X	X	X	X	X



Shank diameter = .150/.180

**Drive pins - 3/8" (.375) Head Diameter Drive pins**

Cat. No.	Shank Lgth (in)	MD380
3306K	3/4 Knurled	X
3310	1-1/4	X
3335	1-1/2	X
3329	2	X
3337	2-1/2	X
3330	3	X



Shank diameter = .180

**Threaded Studs - 1/4"-20 Threaded Stud**

For applications that require removability, where shiming is required.

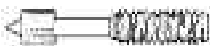


Cat. No.	Thread Lgth (in)	Shank Lgth (in)	721	Auto Fast	4170	D60	D60L	SA270	D45	Cobra	M70	Viper	Viper Nosepiece Required
1622WK	1/2	1/2 Knurled	X	X	X	X	X	X	X	X	X	X	2VP4100
1623WK	3/4	1/2 Knurled	X	X	X	X	X	X	X	X	X	X	2VP4125
1642W	1/2	1	X	X	X	X	X	X	X	X	X	X	2VP4200
1643W	3/4	1	X	X	X	X	X	X	X	X	X	X	2VP4200
1644W	1	1	X	X	X	X	X	X	X	X	X	X	2VP4200
1653W	3/4	1-1/4	X	X	X	X	X	X	X	X	X	X	

\* Use piston 306450TS with D45 for optimum performance  
Shank diameter = .145

**Threaded Studs - 3/8"-16 Threaded Stud**

Cat. No.	Thread Lgth (in)	Shank Lgth (in)	MD380
9140K	1	5/8 Knurled	X
9150	1	1-1/16	X
9190	1	1-1/4	X



Shank diameter = .205

**Ceiling Clip assemblies - .300 Head Diameter pin**

Fastener is preassembled to angle clip for applications such as the hanging of ceiling wire to support ceiling grid. Available in 1000-Pack only.

Cat. No.	Description	721	Auto Fast	4170	D60	D60L	SA270	D45	Viper
2202	Ceiling Clip w/1-1/4"	X	X	X	X	X	X	X	X

\*Viper tool comes assembled with the 2VP4125 nosepiece  
Shank diameter = .145

Cat. No.	Pin Lgth (in)	721	Auto Fast	4170	D60	D60L	SA270	D45	Cobra	Viper*	Viper Nosepiece Required
SDC100	1	X	X	X	X	X	X	X	X	X	2VP4100
SDC125*	1-1/4	X	X	X	X	X	X	X	X	X	2VP4125

\* Available in 1000-Pack

\*\* Viper tool comes assembled with the 2VP4125 nosepiece  
Shank diameter = .145

**Step Shank pins with Ceiling Clip**

- .300 Head Diameter pin for Hard Concrete

Cat. No.	Pin Lgth (in)	Auto Fast	4170	D60	D60L	SA270	D45	Cobra	Viper*	Viper Nosepiece Required
SPC100	1	X	X	X	X	X	X	X	X	2VP4100
SPC114	1-1/4	X	X	X	X	X	X	X	X	2VP4125

\* Viper tool comes assembled with the 2VP4125 nosepiece  
Shank diameter = .150/.180

**Conduit Clip assemblies - .300 Head Diameter pin**

Fastener is preassembled to conduit clip to attach electrical conduit to concrete or steel.



Cat. No.	Description	721	Auto Fast	4170	D60	D60L	SA270	D45	Cobra	M70	Viper
38BX08C	3/8" Box clip w/1" pin	X	X	X	X	X	X	X	X	X	X
12EMT08C	1/2" Conduit clip w/1" pin	X	X	X	X	X	X	X	X	X	X
34EMT08C	3/4" Conduit clip w/1" pin	X	X	X	X	X	X	X	X	X	X
10EMT08C	1" Conduit clip w/1" pin	X	X	X	X	X	X	X	X	X	X

Shank diameter = .145

**Fastener accessories**

Cat. No.	Description
1202CF	Angle clip (no pin)
1183A	7/8 Metal washer



**I add a ssembly For I 1600**

Cat. No.	Pin Lgth (in)	Description
L652	1-1/4	Preassembled pin & clip



**power loads**

ITW Ramset/Red Head powder loads and tools match tolerances to provide optimum power within recognized national velocity standards. Available in color-coded 10-load discs, 10-load strips, and 100-load boxes.

**Caution:** Always test-fasten with the lowest power level for your tool. If more power is necessary, use the next highest power level until proper level and fastening is achieved. Refer to operators manual for more specific details. Observe all safety reminders. Tool operators must be trained and qualified as required by federal law. Failure to use properly can result in serious injury or death to users of bystanders.

**advantages:**

- **LoadSaver™ Strip Loads** - No more wasted loads! No more wasted time! When mark on strip appears, you know you're about to use the 10th load. Top mark is for tool with high cowling; second mark is for all Ramset and similarly designed tools.
- **Powder Guide** - Power level is designated by the load level number marked on each box; also by the color of the box and each powder load. As the number increases, the power level increases.



**r amset loads for low velocity Tools**

Tool Model	Cat. No.	Power Level	Color	Case Color	Caliber	Packaging
D60, D60L	2D60/45	2	Brown	Brass	.25	All 10 Disc
D45	3D60/45	3	Green	Brass	.25	All 100/Box
AutoFast	4D60/45	4	Yellow	Brass	.25	10 Discs/Box
D45 & AutoFast	5D45	5	Red	Brass	.25	10 Discs/Box
721	12CW	1	Gray	Brass	.22	All 100/Box
S38	22CW	2	Brown	Brass	.22	All 100/Box
4170	32CW	3	Green	Brass	.22	All 100/Box
M70	42CW	4	Yellow	Brass	.22	All 100/Box
SA270	3RS27	3	Green	Brass	.27	All 10 Strip, 10 Strips/Box
Cobra	4RS27	4	Yellow	Brass	.27	All 10 Strip, 10 Strips/Box
Viper	5RS27	5	Red	Brass	.27	All 10 Strip, 10 Strips/Box
MD380	4RL27	4	Yellow	Brass	.27	All 100/Box
MD380	5RL27	5	Red	Brass	.27	All 100/Box
MD380	6RL27	6	Purple	Brass	.27	All 100/Box
L1600	L674	4	Yellow	Brass	.22	All 100/Box
L1600	L675	5	Red	Brass	.22	All 100/Box

**r amset loads for Hilti Tools**

Tool Model	Cat. No.	Power Level	Color	Case Color	Caliber	Packaging
DX-35	3RS25	3	Green	Brass	.25	All 10 Strip, 10 Strips/Box
DX-35	3RS25M*	3	Green	Brass	.25	All 10 Strip, 10 Strips/Box
DX-35	4RS25	4	Yellow	Brass	.25	All 10 Strip, 10 Strips/Box
DX-35	4RS25M*	4	Yellow	Brass	.25	All 10 Strip, 10 Strips/Box
DX-35	5RS25	5	Red	Brass	.25	All 10 Strip, 10 Strips/Box
DX-35	5RS25M*	5	Red	Brass	.25	All 10 Strip, 10 Strips/Box
DX-350	3RS27	3	Green	Brass	.27	All 10 Strip, 10 Strips/Box
DX-350	4RS27	4	Yellow	Brass	.27	All 10 Strip, 10 Strips/Box
DX-350	5RS27	5	Red	Brass	.27	All 10 Strip, 10 Strips/Box
DX-36M						
DX-451	5RS27	5	Red	Brass	.27	All 10 Strip, 10 Strips/Box
DX-451	6RS27	6	Purple	Brass	.27	All 10 Strip, 10 Strips/Box
DX-600N	4RL27	4	Yellow	Brass	.27	All 100/Box
DX-600N	5RL27	5	Red	Brass	.27	All 100/Box
DX-600N	6RL27	6	Purple	Brass	.27	All 100/Box
DXE37	12CW	1	Gray	Brass	.22	All 100/Box
DXE72	22CW	2	Brown	Brass	.22	All 100/Box
DXE72	32CW	3	Green	Brass	.22	All 100/Box
DXE72	42CW	4	Yellow	Brass	.22	All 100/Box

\*1000-Pak/100 Strips/Box

Hilti® is a registered trademark of the Hilti, Corp.

**Fasteners/Concrete Anchors**

**Bolts**

**Hex Head Cap Screws**

SaE gr aDE 5 & 8  
 COar SE & FINE THr EaD  
 plain or Zinc plated



Length (in)	Pkg. Qty.	Length (in)	Pkg. Qty.
<b>1/4"-20 DIA. - COARSE</b>			
7-1/2	50	7-1/2	50
8	50	8-1/2	25
<b>1/4"-28 DIA. - FINE</b>			
1/2	100	9	25
5/8	100	9-1/2	25
3/4	100	10	25
7/8	100	11	25
1	100	12	25
1-1/4	100	13	25
1-1/2	100	14	25
1-3/4	100	<b>7/16"-14 DIA. - COARSE</b>	
2	100	7/16"-20 DIA. - FINE	
2-1/4	100	3/4	50
2-1/2	100	7/8	50
2-3/4	100	1	50
3	100	1-1/4	50
3-1/4	50	1-1/2	50
3-1/2	50	1-3/4	50
3-3/4	50	2	50
4	50	2-1/4	50
4-1/2	50	2-1/2	50
5	50	2-3/4	50
5-1/2	50	3	50
6	50	3-1/4	25
6-1/2	50	3-1/2	25
7	50	3-3/4	25
7-1/2	50	4	25
8	50	4-1/2	25
<b>5/16"-18 DIA. - COARSE</b>			
<b>5/16"-24 DIA. - FINE</b>			
1/2	100	5	25
5/8	100	5-1/2	25
3/4	100	6	25
7/8	100	6-1/2	25
1	100	7	25
1-1/4	100	7-1/2	25
1-1/2	100	8	25
1-3/4	100	8-1/2	10
2	100	9	10
2-1/4	100	9-1/2	10
2-1/2	100	10	10
2-3/4	100	11	10
3	100	12	10
3-1/4	50	13	10
3-1/2	50	14	10
3-3/4	50	<b>1/2"-13 DIA. - COARSE</b>	
4	50	<b>1/2"-20 DIA. - FINE</b>	
4-1/2	50	3/4	50
5	50	1	50
5-1/2	50	1-1/4	50
6	50	1-1/2	50
6-1/2	50	1-3/4	50
7	50	2	50
7-1/2	50	2-1/4	50
8	50	2-1/2	50
<b>3/8"-16 DIA. - COARSE</b>			
<b>3/8"-24 DIA. - FINE</b>			
1/2	100	3	50
5/8	100	3-1/4	25
3/4	100	3-1/2	25
7/8	100	3-3/4	25
1	100	4	25
1-1/4	100	4-1/2	25
1-1/2	100	5	25
1-3/4	100	5-1/2	25
2	100	6	25
2-1/4	100	6-1/2	25
2-1/2	100	7	25
2-3/4	100	7-1/2	25
3	100	8	25
3-1/4	50	8-1/2	10
3-1/2	50	9	10
3-3/4	50	9-1/2	10
4	50	10	10
4-1/2	50	10	10
5	50	11	10
5-1/2	50	12	10
6	50	13	10
6-1/2	50	14	10
7	50	<b>9/16"-12 DIA. - COARSE</b>	
<b>9/16"-18 DIA. - FINE</b>			
1	50	1	50
1-1/4	50	1-1/4	50
1-1/2	50	1-1/2	50

- continues -

**Hex Head Cap Screws**

SaE gr aDE 5 & 8/COar SE & FINE THr EaD  
 plain or Zinc plated - continued

Length (in)	Pkg. Qty.	Length (in)	Pkg. Qty.
1-3/4	50	16	10
2	50	18	10
2-1/4	50	20	10
2-1/2	50	<b>7/8"-9 DIA. - COARSE</b>	
2-3/4	50	<b>7/8"-14 DIA. - FINE</b>	
3	50	1-1/2	15
3-1/4	25	1-3/4	15
3-1/2	25	2	15
3-3/4	25	2-1/4	15
4	25	2-1/2	15
4-1/2	25	2-3/4	15
5	25	3	15
5-1/2	25	3-1/4	15
6	25	3-1/2	15
<b>5/8"-11 DIA. - COARSE</b>			
<b>5/8"-18 - FINE</b>			
1	25	3-3/4	15
1-1/4	25	4	15
1-1/2	25	4-1/2	15
1-3/4	25	5	15
2	25	5-1/2	15
2-1/4	25	6	15
2-1/2	25	6-1/2	10
2-3/4	25	7	10
3	25	7-1/2	10
3-1/4	25	8	10
3-1/2	25	8-1/2	10
3-3/4	25	9	10
4	25	9-1/2	10
4-1/2	25	10	10
5	25	11	10
5-1/2	25	12	10
6	25	14	10
6-1/2	10	16	10
7	10	18	10
7-1/2	10	20	10
8	10	<b>1"-8 DIA. - COARSE</b>	
8-1/2	10	<b>1"-14 DIA. - FINE</b>	
9	10	1-1/2	10
9-1/2	10	1-3/4	10
10	10	2	10
11	10	2-1/4	10
12	10	2-1/2	10
13	10	2-3/4	10
14	10	3	10
15	10	3-1/4	10
<b>3/4"-10 DIA. - COARSE</b>			
<b>3/4"-16 DIA. - FINE</b>			
1	25	3-1/2	10
1-1/4	25	4	10
1-1/2	25	4-1/2	10
1-3/4	25	5	10
2	25	5-1/2	10
2-1/4	25	6	10
2-1/2	25	6-1/2	5
2-3/4	25	7	5
3	25	7-1/2	5
3-1/4	25	8	5
3-1/2	25	8-1/2	5
3-3/4	25	9	5
4	25	9-1/2	5
4-1/2	25	10	5
5	25	*11	5
5-1/2	25	*12	5
6	25	*14	5
6-1/2	10	*16	5
7	10	*18	5
7-1/2	10	*20	5
8	10	<b>1-1/8"-7 DIA. - COARSE</b>	
8-1/2	10	<b>1-1/8"-12 DIA. - FINE</b>	
9	10	2	10
9-1/2	10	2-1/2	10
10	10	3	10
11	10	3-1/2	10
12	10	4	10
13	10	4-1/2	10
14	10	5	10
15	10	5-1/2	10
<b>1-1/8"-7 DIA. - COARSE</b>			
<b>1-1/8"-12 DIA. - FINE</b>			
2	10	6-1/2	5
2-1/2	10	7	5
3	10	7-1/2	5
3-1/2	10	8	5
4	10	8-1/2	5
4-1/2	10	<b>1-1/8"-7 DIA. - COARSE</b>	
5	10	<b>1-1/8"-12 DIA. - FINE</b>	
5-1/2	10	2	10
6	10	2-1/2	10
6-1/2	5	3	10
7	5	3-1/2	10
7-1/2	5	4	10
8	5	4-1/2	10
8-1/2	5	5	10
<b>1-1/8"-7 DIA. - COARSE</b>			
<b>1-1/8"-12 DIA. - FINE</b>			
2	10	5-1/2	10
2-1/2	10	6	10
3	10	6-1/2	5
3-1/2	10	7	5
4	10	7-1/2	5
4-1/2	10	8	5
5	10	8-1/2	5
5-1/2	10	<b>1-1/8"-7 DIA. - COARSE</b>	
6	10	<b>1-1/8"-12 DIA. - FINE</b>	
6-1/2	5	2	10
7	5	2-1/2	10
7-1/2	5	3	10
8	5	3-1/2	10
8-1/2	5	4	10
<b>1-1/8"-7 DIA. - COARSE</b>			
<b>1-1/8"-12 DIA. - FINE</b>			
2	10	4-1/2	10
2-1/2	10	5	10
3	10	5-1/2	10
3-1/2	10	6	10
4	10	6-1/2	5
4-1/2	10	7	5
5	10	7-1/2	5
5-1/2	10	8	5
6	10	8-1/2	5
6-1/2	5	<b>1-1/8"-7 DIA. - COARSE</b>	
7	5	<b>1-1/8"-12 DIA. - FINE</b>	
7-1/2	5	2	10
8	5	2-1/2	10
8-1/2	5	3	10
<b>1-1/8"-7 DIA. - COARSE</b>			
<b>1-1/8"-12 DIA. - FINE</b>			
2	10	3-1/2	10
2-1/2	10	4	10
3	10	4-1/2	10
3-1/2	10	5	10
4	10	5-1/2	10
4-1/2	10	6	10
5	10	6-1/2	5
5-1/2	10	7	5
6	10	7-1/2	5
6-1/2	5	8	5
7	5	<b>1-1/8"-7 DIA. - COARSE</b>	
7-1/2	5	<b>1-1/8"-12 DIA. - FINE</b>	
8	5	2	10
8-1/2	5	2-1/2	10
<b>1-1/8"-7 DIA. - COARSE</b>			
<b>1-1/8"-12 DIA. - FINE</b>			
2	10	3	10
2-1/2	10	3-1/4	10
3	10	3-1/2	10
3-1/2	10	4	10
4	10	4-1/4	10
4-1/2	10	4-1/2	10
4-3/4	10	5	10
5	10	5-1/2	10
5-1/2	10	6	10
6	10	6-1/2	10
6-1/2	10	7	10
7	10	7-1/2	10
7-1/2	10	<b>1"-8 DIAMETER</b>	
8	10	2	10
<b>1"-8 DIAMETER</b>			
2-1/4	10	2-1/2	10
2-1/2	10	2-3/4	10
3	10	3	10
3-1/4	10	3-1/2	10
3-1/2	10	3-3/4	10
3-3/4	10	4	10
4	10	4-1/4	10
4-1/4	10	4-1/2	10
4-1/2	10	4-3/4	10
4-3/4	10	5	10
5	10	5-1/2	10
5-1/2	10	6	10
6	10	6-1/2	10
6-1/2	10	7	10
7	10	7-1/2	10
7-1/2	10	<b>1"-8 DIAMETER</b>	
8	10	2	10
<b>1"-8 DIAMETER</b>			
2-1/4	10	2-1/2	10
2-1/2	10	2-3/4	10
3	10	3	10
3-1/4	10	3-1/2	10
3-1/2	10	3-3/4	10
3-3/4	10	4	10
4	10	4-1/4	10
4-1/4	10	4-1/2	10
4-1/2	10	4-3/4	10
4-3/4	10	5	10
5	10	5-1/2	10
5-1/2	10	6	10
6	10	6-1/2	10
6-1/2	10	7	10
7	10	7-1/2	10
7-1/2	10	<b>1"-8 DIAMETER</b>	
8	10	2	10
<b>1"-8 DIAMETER</b>			
2-1/4	10	2-1/2	10
2-1/2	10	2-3/4	10
3	10	3	10
3-1/4	10	3-1/2	10

## Fasteners/Concrete Anchors

### Structural Bolts w/Nuts

a STm a -325/COar SE THr Ea D  
plain or galvanized - continued

Length (in)	Pkg. Qty.	Length (in)	Pkg. Qty.
8	10	9	5
<b>1-1/8"-7 DIAMETER</b>		<b>1-1/4"-7 DIAMETER</b>	
3	10	3	10
3-1/4	10	3-1/4	10
3-1/2	10	3-1/2	10
3-3/4	10	3-3/4	10
4	10	4	10
4-1/4	10	4-1/4	10
4-1/2	10	4-1/2	10
4-3/4	10	4-3/4	10
5	10	5	10
5-1/2	10	5-1/2	10
6	10	6	10
6-1/2	10	6-1/2	10
7	5	7	5
7-1/2	5	7-1/2	5
8	5	8	5

### a STm a -325 Tension Control Bolts

Nut & washer assembly plain



Length (in)	Pkg. Qty.	Length (in)	Pkg. Qty.
<b>3/4"-10 DIAMETER</b>		<b>1"-8 DIAMETER</b>	
1-3/4	25	3	10
2	25	3-1/4	10
2-1/4	25	3-1/2	10
2-1/2	25	4	10
2-3/4	25	4-1/4	10
3	25	4-1/2	10
3-1/4	25	4-3/4	10
3-1/2	25	5	10
3-3/4	25	5-1/2	10
4	25	6	10
4-1/4	25	<b>1"-8 DIAMETER</b>	
4-1/2	25	3	10
4-3/4	25	3-1/4	10
5	25	3-1/2	10
5-1/2	25	4	10
6	25	4-1/4	10
<b>7/8"-9 DIAMETER</b>		4-1/2	10
2	15	4-3/4	10
2-1/4	15	5	10
2-1/2	15	5-1/2	10
2-3/4	15	6	10
3	15		

### a STm a 193 B7 (Heavy Hex) Bolts

COar SE THr Ea D  
plain



Length (in)	Pkg. Qty.	Length (in)	Pkg. Qty.
<b>1/2"-13 DIAMETER</b>		<b>5/8"-11 DIAMETER</b>	
1	100	1	50
1-1/4	100	1-1/4	50
1-1/2	100	1-1/2	50
1-3/4	100	1-3/4	50
2	100	2	50
2-1/4	100	2-1/4	50
2-1/2	100	2-1/2	50
2-3/4	100	2-3/4	50
3	100	3	50
3-1/4	50	3-1/4	50
3-1/2	50	3-1/2	50
3-3/4	50	3-3/4	50
4	50	4	50
4-1/4	50	4-1/4	50
4-1/2	50	4-1/2	50
4-3/4	50	4-3/4	50
5	50	5	50
5-1/4	50	5-1/2	50
5-1/2	50	6	50
6	50	6-1/2	50

- continues -

## Bolts

### a STm a 193 B7 (Heavy Hex) Bolts

COar SE THr Ea D  
plain - continued

Length (in)	Pkg. Qty.	Length (in)	Pkg. Qty.
7	50	<b>1"-8 DIAMETER</b>	
7-1/2	50	2	50
8	50	2-1/4	50
<b>3/4"-10 DIAMETER</b>		2-1/2	50
1-1/4	50	2-3/4	50
1-1/2	50	3	50
1-3/4	50	3-1/4	50
2	50	3-1/2	50
2-1/4	50	3-3/4	50
2-1/2	50	4	50
2-3/4	50	4-1/4	50
3	50	4-1/2	50
3-1/4	50	4-3/4	50
3-1/2	50	5	50
3-3/4	50	5-1/4	50
4	50	5-1/2	50
4-1/4	50	6	50
4-1/2	50	6-1/2	50
4-3/4	50	7	50
5	50	<b>1-1/8"-8 DIAMETER</b>	
5-1/4	50	2-3/4	10
5-1/2	50	3	10
6	50	3-1/4	10
6-1/2	50	3-1/2	10
7	50	3-3/4	10
7-1/2	50	4	10
8	50	4-1/2	10
<b>7/8"-9 DIAMETER</b>		4-3/4	10
1-1/2	50	5	10
1-3/4	50	5-1/4	10
2	50	5-1/2	10
2-1/4	50	6	10
2-1/2	50	6-1/2	10
2-3/4	50	7	10
3	50	<b>1-1/4"-8 DIAMETER</b>	
3-1/4	50	3	10
3-1/2	50	3-1/2	10
3-3/4	50	3-3/4	10
4	50	4	10
4-1/4	50	4-1/4	10
4-1/2	50	4-1/2	10
4-3/4	50	4-3/4	10
5	50	5	10
5-1/4	50	5-1/2	10
5-1/2	50	6	10
6	50	6-1/2	5
6-1/2	50	7	5
7	50		

### Flange Bolts

Sa E g r a DE 8.2/  
COar SE THr Ea D  
Zinc plated



Length (in)	Pkg. Qty.	Length (in)	Pkg. Qty.
<b>1/4"-20 DIAMETER</b>		<b>3/8"-16 DIAMETER</b>	
3/8	100	1/2	100
1/2	100	2-1/4	100
5/8	100	2-1/2	100
3/4	100	2-3/4	100
7/8	100	3	100
1	100	<b>5/16"-18 DIAMETER</b>	
1-1/4	100	1/2	100
1-1/2	100	5/8	100
1-3/4	100	3/4	100
2	100	7/8	100
2-1/4	100	1	100
2-1/2	100	1-1/4	100
2-3/4	100	1-1/2	100
3	100	1-3/4	100
<b>5/16"-18 DIAMETER</b>		2	100
1/2	100	2-1/4	100
5/8	100	2-1/2	100
3/4	100	2-3/4	100
7/8	100	3	100
1	100	<b>1/2"-13 DIAMETER</b>	
1-1/4	100	1/2	50
1-1/2	100	5/8	50
1-3/4	100	3/4	50
		7/8	50

- continues -

### Flange Bolts

Sa E g r a DE 8.2/COar SE THr Ea D  
Zinc plated - continued

Length (in)	Pkg. Qty.	Length (in)	Pkg. Qty.
1	50	<b>3/4"-10 DIAMETER</b>	
1-1/4	50	1	50
1-1/2	50	1-1/4	50
1-3/4	50	1-1/2	50
2	50	2	50
2-1/4	50	2-1/4	50
2-1/2	50	2-1/2	50
2-3/4	50	2-3/4	50
3	50	3	50
<b>5/8"-11 DIAMETER</b>		<b>3/4"-10 DIAMETER</b>	
1/2	50	1	50
5/8	50	1-1/4	50
3/4	50	1-1/2	50
7/8	50	2	50
1	50		

### Carriage Bolts

COar SE THr Ea D  
plain or Zinc plated



Length (in)	Pkg. Qty.	Length (in)	Pkg. Qty.
<b>3/16"-24 DIAMETER</b>		<b>3/8"-16 DIAMETER</b>	
1/2	100	5	50
5/8	100	5-1/2	50
3/4	100	6	50
1	100	6-1/2	50
1-1/4	100	7	50
1-1/2	100	7-1/2	50
1-3/4	100	8	50
2	100	9	50
2-1/4	100	10	50
2-1/2	100	11	50
2-3/4	100	12	50
3	100	13	50
3-1/2	100	14	50
<b>1/4"-20 DIAMETER</b>		15	50
1/2	100	16	50
3/4	100	<b>7/16"-14 DIAMETER</b>	
1	100	1	50
1-1/4	100	1-1/4	50
1-1/2	100	1-1/2	50
1-3/4	100	1-3/4	50
2	100	2	50
2-1/4	100	2-1/4	50
2-1/2	100	2-1/2	50
2-3/4	100	2-3/4	50
3	100	3	50
3-1/4	100	3-1/2	50
3-1/2	100	4	50
3-3/4	100	4-1/2	25
4	100		
4-1/2	100		
5	100		
5-1/2	100		
6	100		
6-1/2	100		
7	100		
7-1/2	100		
8	100		
9	100		
10	100		
11	100		
12	100		
<b>5/16"-18 DIAMETER</b>			
3/4	100		
1	100		
1-1/4	100		
1-1/2	100		
1-3/4	100		
2	100		
2-1/4	100		
2-1/2	100		
2-3/4	100		
3	100		
3-1/4	100		
3-1/2	100		
3-3/4	50		
4	50		
4-1/2	50		

- continues -

**Fasteners/Concrete Anchors**

**Bolts**

**Carriage Bolts**

COar SE THr EaD  
 plain or Zinc plated – *continued*

Length (in)	Pkg. Qty.	Length (in)	Pkg. Qty.
5	25	3	25
5-1/2	25	3-1/2	25
6	25	4	25
6-1/2	25	4-1/2	25
7	25	5	25
7-1/2	25	5-1/2	25
8	25	6	25
9	25	6-1/2	25
10	25	7	25
11	25	7-1/2	25
12	25	8	25
12	25	8-1/2	25
<b>1/2"-13 DIAMETER</b>			
1	50	9	25
1-1/4	50	10	25
1-1/2	50	11	25
1-3/4	50	12	25
2	50	13	25
2-1/4	50	14	25
2-1/2	50	15	25
2-3/4	50	16	25
3	50	<b>3/4"-10 DIAMETER</b>	
3-1/2	25	1-1/2	20
4	25	1-3/4	20
4-1/2	25	2	20
5	25	2-1/4	20
5-1/2	25	2-1/2	20
6	25	2-3/4	20
6-1/2	25	3	20
7	25	3-1/2	20
7-1/2	25	4	20
8	25	4-1/2	20
8-1/2	25	5	20
9	25	5-1/2	20
9-1/2	25	6	20
10	25	6-1/2	20
11	25	7	20
12	25	7-1/2	20
13	25	8	20
14	25	8-1/2	20
15	25	9	20
16	25	10	20
16	25	11	20
<b>5/8"-11 DIAMETER</b>			
1-1/2	25	12	20
1-3/4	25	13	20
2	25	14	20
2-1/4	25	15	20
2-1/2	25	16	20
2-3/4	25		

**Hex Lag Screws**

plain or Zinc plated



Length (in)	Pkg. Qty.	Length (in)	Pkg. Qty.
<b>1/4"</b>			
1	100	4-1/2	50
1-1/4	100	5	50
1-1/2	100	5-1/2	50
1-3/4	100	6	50
2	100	<b>3/8"</b>	
2-1/2	100	1-1/2	100
3	100	1-3/4	100
3-1/2	100	2	100
4	100	2-1/2	50
4-1/2	100	3	50
5	100	3-1/2	50
5-1/2	100	4	50
6	100	4-1/2	50
<b>5/16"</b>			
1	100	5	50
1-1/4	100	5-1/2	50
1-1/2	100	6	50
1-3/4	100	7	50
2	100	8	50
2-1/2	50	9	50
3	50	10	50
3-1/2	50	12	50
4	50	<b>1/2"</b>	
		2	20
		2-1/2	20
		3	20

- continues -

**Hex Lag Screws**

plain or Zinc plated – *continued*

Length (in)	Pkg. Qty.	Length (in)	Pkg. Qty.
3-1/2	20	6	25
4	20	7	25
4-1/2	20	8	25
5	20	9	25
5-1/2	20	10	25
6	20	12	25
7	20	<b>3/4"</b>	
8	20	3	20
9	20	3-1/2	20
10	20	4	20
12	20	4-1/2	20
<b>5/8"</b>			
2	25	5	20
2-1/2	25	5-1/2	20
3	25	6	20
3-1/2	25	7	25
4	25	8	20
4-1/2	25	9	20
5	25	10	20
5-1/2	25	12	20

**Elevator Bolts**

COar SE THr EaD  
 plain



Length (in)	Pkg. Qty.	Length (in)	Pkg. Qty.
<b>1/4"-20 DIAMETER</b>			
3/4	100	2	50
1	100	2-1/4	50
1-1/4	100	2-1/2	50
1-1/2	100	2-3/4	50
1-3/4	100	3	50
2	100	<b>3/8"-16 DIAMETER</b>	
2-1/4	100	3/4	100
2-1/2	100	1	100
2-3/4	100	1-1/4	100
3	100	1-1/2	50
<b>5/16"-18 DIAMETER</b>			
3/4	100	1-1/2	50
1	100	1-3/4	50
1-1/4	100	2	50
1-1/2	100	2-1/4	50
1-3/4	100	2-1/2	50
		2-3/4	50
		3	50

**Anchor Bolts**

with Nut & washer  
 plain Finish



Desc.	Box Qty.	Desc.	Box Qty.
<b>DIAMETER 3/8-16</b>			
3/8-16 x 6	25	<b>DIAMETER 1/2-13</b>	
3/8-16 x 8	25	1/2-13 x 6	25
3/8-16 x 10	25	1/2-13 x 8	25
		1/2-13 x 10	25
		1/2-13 x 12	25
		1/2-13 x 16	25
		1/2-13 x 18	25

**Tap Bolts**

Coarse Thread Zinc plated



Desc.	Box Qty.	Desc.	Box Qty.
<b>DIAMETER 1/4-20 - NC</b>			
1/4-20 x 1	100	5/16-18 x 2	100
1/4-20 x 1-1/4	100	5/16-18 x 2-1/2	100
1/4-20 x 1-1/2	100	5/16-18 x 3	100
1/4-20 x 2	100	5/16 x 4	50
1/4-20 x 2-1/2	100	<b>DIAMETER 3/8-16 - NC</b>	
1/4-20 x 3	100	3/8-16 x 1	100
<b>DIAMETER 5/16-18 - NC</b>			
5/16-18 x 1	100	3/8-16 x 1-1/4	100
5/16-18 x 1-1/4	100	3/8-16 x 1-1/2	100
5/16-18 x 1-1/2	100	3/8-16 x 2	100
		3/8-16 x 2-1/2	50
		3/8-16 x 3	50

**plow Bolts**

gr a DE 5 – #3 Flat Head  
 COar SE THr EaD



Length (in)	Pkg. Qty.	Length (in)	Pkg. Qty.
<b>3/8"-16 DIAMETER</b>			
1	100	1-1/4	100
1-1/4	100	1-1/2	100
1-1/2	100	1-3/4	50
1-3/4	100	2	50
2	100	2-1/4	50
2-1/4	100	2-1/2	50
2-1/2	50	2-3/4	50
2-3/4	50	3	50
3	50	3-1/4	25
3-1/4	50	3-1/2	25
3-1/2	50	3-3/4	25
3-3/4	50	4	25
4	50	4-1/2	25
4-1/2	50	5	25
5	50	5-1/2	25
5	50	6	25
<b>7/16"-14 DIAMETER</b>			
1	100	<b>5/8"-11 DIAMETER</b>	
1-1/4	100	1	50
1-1/2	100	1-1/4	50
1-3/4	100	1-1/2	50
2	100	1-3/4	50
2-1/4	100	2	50
2-1/2	50	2-1/4	50
2-3/4	50	2-1/2	25
3	50	2-3/4	25
3-1/4	50	3	25
3-1/2	50	3-1/4	25
3-3/4	50	3-1/2	25
4	50	3-3/4	25
4-1/2	25	4	25
5	25	4-1/2	25
5	25	5	25
<b>1/2"-13 DIAMETER</b>			
1	100	5-1/2	25
		6	25

**plow Bolts**

gr a DE 8  
 #3 Dome Head



Length (in)	Pkg. Qty.	Length (in)	Pkg. Qty.
<b>5/8"- 11 DIAMETER</b>			
1	50	<b>7/8"- 9 DIAMETER</b>	
1-1/4	50	1-3/4	25
1-1/2	50	2	25
1-3/4	50	2-1/4	25
2	50	2-1/2	25
2-1/4	50	2-3/4	25
2-1/2	25	3	25
2-3/4	25	3-1/4	25
3	25	3-1/2	25
3-1/4	25	3-3/4	25
3-1/2	25	4	25
3-3/4	25	4-1/2	25
4	25	5	15
4-1/2	25	5-1/2	15
5	25	6	15
5-1/2	25	6-1/2	15
6	25	7	15
<b>3/4"- 10 DIAMETER</b>			
1-3/4	25	<b>1"- 8 DIAMETER</b>	
2	25	1-3/4	10
2-1/4	25	2	10
2-1/2	25	2-1/4	10
2-3/4	25	2-1/2	10
3	25	2-3/4	10
3-1/4	25	3	10
3-1/2	25	3-1/4	10
3-3/4	25	3-1/2	10
4	25	3-3/4	10
4-1/2	25	4	10
5	25	4-1/2	10
5-1/2	25	5	10
6	25	5-1/2	10
6-1/2	25	6	10
7	25	6-1/2	10
		7	10

**26**  
 Fasteners/  
 Concrete  
 anchors

**Fasteners/Concrete Anchors**

**Socket Head Cap Screws**



COar SE & FINE Thr EaD

Length (in)	Pkg. Qty.	Length (in)	Pkg. Qty.
<b>0-80 with .050" HEX</b>			
1/8	100	2-3/4	100
3/16	100	3	100
1/4	100	3-1/4	100
3/8	100	3-1/2	100
<b>1-64 with 1/16" HEX</b>			
3/16	100	3/16	100
1/4	100	1/4	100
5/16	100	5/16	100
3/8	100	3/8	100
1/2	100	1/2	100
5/8	100	5/8	100
3/4	100	3/4	100
1	100		
<b>1-72 with 1/16" HEX</b>			
1/8	100	1/4	100
3/16	100	5/16	100
1/4	100	3/8	100
3/8	100	1/2	100
<b>2-56 with 5/64" HEX</b>			
5/32	100	1	100
3/16	100	1-1/4	100
7/32	100	1-1/2	100
1/4	100	2	100
3/8	100	3	100
1/2	100		
5/8	100		
3/4	100		
1	100		
1-1/4	100		
1-1/2	100		
2	100		
<b>2-64 with 5/64" HEX</b>			
1/8	100	1/4	100
3/16	100	5/16	100
1/4	100	3/8	100
3/8	100	7/16	100
1/2	100	1/2	100
5/8	100	9/16	100
3/4	100	5/8	100
1	100	3/4	100
		7/8	100
<b>3-48 with 5/64" HEX</b>			
3/16	100	1	100
1/4	100	1-1/8	100
3/8	100	1-1/4	100
1/2	100	1-5/16	100
5/8	100	1-3/8	100
3/4	100	1-1/2	100
1	100	1-5/8	100
1-1/4	100	1-3/4	100
1-1/2	100	1-7/8	100
<b>3-56 with 5/64" HEX</b>			
1/8	100	2	100
3/16	100	2-1/4	100
1/4	100	2-1/2	100
3/8	100	2-3/4	100
1/2	100	3	100
5/8	100		
3/4	100		
1	100		
<b>4-40 with 3/32" HEX</b>			
3/16	100	7/16	100
1/4	100	1/2	100
5/16	100	5/8	100
3/8	100	3/4	100
7/16	100	7/8	100
1/2	100	1	100
3/8	100	1-1/4	100
7/16	100	1-1/2	100
1/2	100	1-5/8	100
9/16	100	1-3/4	100
5/8	100	1-7/8	100
3/4	100	2	100
7/8	100	2-1/4	100
1	100	2-1/2	100
1-1/8	100	2-3/4	100
1-1/4	100	3	100
1-1/2	100	3-1/2	100
1-5/8	100	4	100
1-3/4	100		
2	100		
2-1/2	100		
<b>8-32 with 9/64" HEX</b>			
1/4	100	1/4	100
3/8	100	5/16	100
1/2	100	3/8	100
5/8	100	7/16	100
3/4	100	1/2	100
7/8	100	5/8	100
1	100	3/4	100
1-1/4	100	7/8	100
1-1/2	100	1	100
1-5/8	100	1-1/4	100
1-3/4	100	1-1/2	100
2	100	1-3/4	100
2-1/2	100	2	100
		2-1/4	100
		2-1/2	100
		2-3/4	100
		3	100
		3-1/4	100
		3-1/2	100
		4	100

- continues -

**Sockets**

**Socket Head Cap Screws**

COar SE & FINE Thr EaD - continued

Length (in)	Pkg. Qty.	Length (in)	Pkg. Qty.
1-1/4	100	2-1/2	100
1-1/2	100	3	100
<b>12-28 with 5/32" HEX</b>			
1/4	100	1/4	100
3/8	100	3/8	100
1/2	100	1/2	100
5/8	100	5/8	100
2-3/4	100	2-3/4	100
3	100	3	100
3-1/4	100	3-1/4	100
4	100	4	100
<b>8-36 with 9/64" HEX</b>			
3/8	100	1/4	100
1/2	100	1/2	100
3/4	100	3/4	100
<b>10-24 with 5/32" HEX</b>			
1/4	100	1/4	100
5/16	100	5/16	100
3/8	100	3/8	100
7/16	100	7/16	100
1/2	100	1/2	100
9/16	100	9/16	100
5/8	100	5/8	100
3/4	100	3/4	100
7/8	100	7/8	100
1	100	1	100
1-1/4	100	1-1/4	100
1-3/8	100	1-3/8	100
1-1/2	100	1-1/2	100
1-3/4	100	1-3/4	100
2	100	2	100
2-1/4	100	2-1/4	100
2-1/2	100	2-1/2	100
2-3/4	100	2-3/4	100
3	100	3	100
3-1/2	100	3-1/2	100
4	100	4	100
<b>14-28 with 3/16" HEX</b>			
3/8	100	3/8	100
1/2	100	1/2	100
5/8	100	5/8	100
3/4	100	3/4	100
7/8	100	7/8	100
1	100	1	100
1-1/4	100	1-1/4	100
1-1/2	100	1-1/2	100
1-3/4	100	1-3/4	100
1-7/8	100	1-7/8	100
2	100	2	100
2-1/4	100	2-1/4	100
2-3/8	100	2-3/8	100
2-1/2	100	2-1/2	100
2-3/4	100	2-3/4	100
3	100	3	100
3-1/2	100	3-1/2	100
4	100	4	100
<b>16-18 with 1/4" HEX</b>			
3/8	100	3/8	100
1/2	100	1/2	100
5/8	100	5/8	100
3/4	100	3/4	100
7/8	100	7/8	100
1	100	1	100
1-1/4	100	1-1/4	100
1-1/2	100	1-1/2	100
1-3/4	100	1-3/4	100
2	100	2	100
2-1/4	100	2-1/4	100
2-1/2	100	2-1/2	100
2-3/4	100	2-3/4	100
3	100	3	100
3-1/4	50	3-1/4	50
3-1/2	50	3-1/2	50
4	50	4	50
<b>16-24 with 1/4" HEX</b>			
1/2	100	1/2	100
5/8	100	5/8	100
3/4	100	3/4	100
7/8	100	7/8	100
1	100	1	100
1-1/4	100	1-1/4	100
1-1/2	100	1-1/2	100
1-3/4	100	1-3/4	100
2	100	2	100
2-1/4	100	2-1/4	100
2-1/2	100	2-1/2	100
2-3/4	100	2-3/4	100
3	100	3	100
3-1/4	50	3-1/4	50
3-1/2	50	3-1/2	50
4	50	4	50
<b>16-24 with 1/4" HEX</b>			
1/2	100	1/2	100
5/8	100	5/8	100
3/4	100	3/4	100
7/8	100	7/8	100
1	100	1	100
1-1/4	100	1-1/4	100
1-1/2	100	1-1/2	100
1-3/4	100	1-3/4	100
2	100	2	100
2-1/4	100	2-1/4	100
2-1/2	100	2-1/2	100
2-3/4	100	2-3/4	100
<b>3/8"-16 with 5/16" HEX</b>			
3/8	100	3/8	100
1/2	100	1/2	100
5/8	100	5/8	100
3/4	100	3/4	100
7/8	100	7/8	100
1	100	1	100
1-1/4	100	1-1/4	100
1-1/2	100	1-1/2	100
1-3/4	100	1-3/4	100
2	100	2	100
2-1/4	100	2-1/4	100
2-1/2	100	2-1/2	100
2-3/4	100	2-3/4	100

- continues -

**Socket Head Cap Screws**

COar SE & FINE Thr EaD - continued

Length (in)	Pkg. Qty.	Length (in)	Pkg. Qty.
7/8	100	2-1/2	25
1	100	3	25
<b>5/8"-11 with 1/2" HEX</b>			
1	25	1	25
1-1/4	25	1-1/4	25
1-1/2	25	1-1/2	25
1-3/4	25	1-3/4	25
2	25	2	25
2-1/4	25	2-1/4	25
2-1/2	25	2-1/2	25
2-3/4	25	2-3/4	25
3	25	3	25
3-1/4	25	3-1/4	25
3-1/2	25	3-1/2	25
4	25	4	25
4-1/2	20	4-1/2	20
5	20	5	20
5-1/2	10	5-1/2	10
6	10	6	10
6-1/2	10	6-1/2	10
7	10	7	10
8	10	8	10
<b>5/8"-18 with 1/2" HEX</b>			
1	25	1	25
1-1/4	25	1-1/4	25
1-1/2	25	1-1/2	25
1-3/4	25	1-3/4	25
2	25	2	25
2-1/4	25	2-1/4	25
2-1/2	25	2-1/2	25
2-3/4	25	2-3/4	25
<b>3/4"-10 with 5/8" HEX</b>			
1-1/4	25	1-1/4	25
1-1/2	25	1-1/2	25
1-3/4	25	1-3/4	25
2	25	2	25
2-1/4	25	2-1/4	25
2-1/2	25	2-1/2	25
2-3/4	25	2-3/4	25
3	25	3	25
3-1/4	25	3-1/4	25
3-1/2	25	3-1/2	25
4	25	4	25
4-1/2	20	4-1/2	20
5	20	5	20
5-1/2	10	5-1/2	10
6	10	6	10
6-1/2	10	6-1/2	10
7	10	7	10
8	10	8	10
<b>3/4"-16 with 5/8" HEX</b>			
1	25	1	25
1-1/4	25	1-1/4	25
1-1/2	25	1-1/2	25
1-3/4	25	1-3/4	25
2	25	2	25
2-1/4	25	2-1/4	25
2-1/2	25	2-1/2	25
2-3/4	25	2-3/4	25
3	25	3	25
3-1/4	25	3-1/4	25
3-1/2	25	3-1/2	25
4	25	4	25
4-1/2	25	4-1/2	25
5	25	5	25
5-1/2	10	5-1/2	10
6	10	6	10
6-1/2	10	6-1/2	10
7	10	7	10
8	10	8	10
<b>7/8"-9 with 3/4" HEX</b>			
2	10	2	10
2-1/4	10	2-1/4	10
2-1/2	10	2-1/2	10
2-3/4	10	2-3/4	10
3	10	3	10
3-1/4	10	3-1/4	10
3-1/2	10	3-1/2	10
4	10	4	10
4-1/2	10	4-1/2	10
5	10	5	10
5-1/2	10	5-1/2	10

- continues -

**Fasteners/Concrete Anchors**

# Sockets

## Socket Head Cap Screws

COar SE & FINE THr EaD - *continued*

Length (in)	Pkg. Qty.	Length (in)	Pkg. Qty.
6	10	3-1/2	1
6-1/2	10	4	1
7	10	4-1/2	1
8	10	5	1
<b>7/8"-14 with 3/4" HEX</b>		6	1
2	10	7	1
2-1/4	10	8	1
2-1/2	10	9	1
3	10	10	1
3-1/4	10	12	1
3-1/2	10	<b>1-1/2"-6 with 1" HEX</b>	
4	10	3	1
4-1/2	10	3-1/2	1
5	10	4	1
6	10	4-1/2	1
7	10	5	1
8	10	5-1/2	1
<b>1"-8 with 3/4" HEX</b>		6	1
2	10	6-1/2	1
2-1/4	10	7	1
2-1/2	10	8	1
2-3/4	10	9	1
3	10	10	1
3-1/4	10	12	1
3-1/2	10	<b>1-1/2"-12 with 1" HEX</b>	
4	10	3	1
4-1/2	10	3-1/2	1
5	10	4	1
5-1/2	10	4-1/2	1
6	10	5	1
6-1/2	10	5-1/2	1
7	10	6	1
7-1/2	10	7	1
8	10	8	1
8-1/2	10	10	1
9	10	12	1
9-1/2	10	<b>1-3/4"-5 with 1" HEX</b>	
10	10	5-1/2	1
10-1/2	10	6	1
11	10	7	1
11-1/2	10	8	1
12	10	9	1
12-1/2	10	10	1
13-1/2	10	11	1
14	10	12	1
14-1/2	10	13	1
15-1/2	10	14	1
16	10	15	1
<b>1-14 with 3/4" HEX</b>		16 w/8" TH	1
2	10	<b>2-4-1/2" with 1-1/2" HEX</b>	
2-1/4	10	4	1
2-1/2	10	4-1/2	1
2-3/4	10	5	1
3	10	5-1/2	1
3-1/4	10	6	1
3-1/2	10	7	1
4	10	8	1
4-1/2	10	9	1
5	10	10	1
5-1/2	10	11	1
6	10	12	1
7	10	14	1
8	10	15	1
<b>1-1/4"-7 with 7/8" HEX</b>		16	1
2-1/2	1	<b>2-12</b>	
3	1	4	1
3-1/2	1	4-1/2	1
4	1	5	1
4-1/2	1	5-1/2	1
5	1	6	1
5-1/2	1	7	1
6	1	8	1
6-1/2	1	9	1
7	1	10	1
8	1	11	1
9	1	12	1
10	1	13	1
12	1	14	1
<b>1-1/4"-12 with 7/8" HEX</b>		15	1
2	5	16 w/8"TH	1
2-1/2	5		
3	5		

## Button Head Socket Cap Screws

COar SE & FINE THr EaD 

Length (in)	Pkg. Qty.	Length (in)	Pkg. Qty.
<b>0-80 with .035" HEX</b>		<b>5/16"-18 with 3/16" HEX</b>	
1/8	100	3/8	100
3/16	100	1/2	100
1/4	100	5/8	100
3/8	100	3/4	100
<b>1-72 with .050" HEX</b>		7/8	50
1/8	100	1	50
3/16	100	<b>5/16"-24 with 3/16" HEX</b>	
1/4	100	3/8	100
3/8	100	1/2	100
<b>2-56 with .050" HEX</b>		5/8	100
3/16	100	3/4	100
1/4	100	7/8	100
3/8	100	1	50
<b>3-48 with 1/16" HEX</b>		1-1/4	50
3/16	100	1-1/2	50
1/4	100	1-3/4	50
3/8	100	2	50
<b>4-40 with 1/16" HEX</b>		<b>3/8"-16 with 7/32" HEX</b>	
1/4	100	1/2	50
3/8	100	5/8	50
1/2	100	3/4	50
5/8	50	7/8	50
<b>6-32 with 5/64" HEX</b>		1	50
1/4	100	1-1/4	50
5/16	100	1-1/2	50
3/8	100	1-3/4	50
1/2	100	2	50
5/8	100	2-1/4	20
3/4	100	2-1/2	50
1	100	3	50
1-1/4	100	<b>1/2"-13 with 5/16" HEX</b>	
<b>8-32 with 3/32" HEX</b>		3/4	50
1/4	100	7/8	50
3/8	100	1	25
1/2	100	1-1/4	25
5/8	100	1-1/2	25
3/4	100	1-3/4	25
1	50	2	25
<b>10-24 with 1/8" HEX</b>		2-1/4	25
1/4	100	2-1/2	25
3/8	100	3	25
1/2	100	3-1/2	25
5/8	100	4	25
3/4	100	<b>1/2"-20 with 5/16" HEX</b>	
1	50	1	25
<b>10-32 with 1/8" HEX</b>		1-1/4	25
1/4	100	1-1/2	25
3/8	100	1-3/4	25
1/2	100	2	25
5/8	100	2-1/4	25
3/4	100	2-1/2	25
1	50	3	25
<b>1/4"-20 with 5/32" HEX</b>		<b>3/4"-10 with 3/8" HEX</b>	
3/8	100	1	25
1/2	100	1-1/4	25
5/8	100	1-1/2	25
1	50	1-3/4	25
<b>1/4"-28 with 5/32" HEX</b>		2	25
3/8	100	2-1/2	25
1/2	100	3	25
5/8	100	<b>3/4"-10 with 3/8" HEX</b>	
3/4	100	1	25
1	50	1-1/4	25
1-1/4	50	1-1/2	25

## Flat Head Socket Cap Screws

COar SE & FINE THr EaD 

Length (in)	Pkg. Qty.	Length (in)	Pkg. Qty.
<b>0-80 with .035" HEX</b>		1-1/2	100
1/8	100	2	100
3/16	100	<b>5/16"-18 with 3/16" HEX</b>	
1/4	100	1/2	100
3/8	100	5/8	100
<b>1-72 with .050" HEX</b>		3/4	100
1/8	100	1	100
3/16	100	1-1/4	100
1/4	100	1-1/2	100
3/8	100	1-3/4	100
<b>2-56 with .035" HEX</b>		2	100
3/16	100	2-1/4	100
1/4	100	2-1/2	100
3/8	100	<b>5/16"-24 with 3/16" HEX</b>	
1/2	100	1/2	100
5/8	100	5/8	100
1	50	3/4	100
<b>3-48 with 1/16" HEX</b>		<b>3/8"-16 with 7/32" HEX</b>	
3/16	100	1/2	100
1/4	100	1-1/4	100
3/8	100	1-1/2	100
<b>4-40 with 1/16" HEX</b>		<b>3/8"-16 with 7/32" HEX</b>	
1/4	100	1/2	100
3/8	100	1-1/4	100
1/2	100	1-1/2	100
5/8	100	3/4	100
3/4	100	<b>5-40 with 5/64" HEX</b>	
1	50	1/4	100
1-1/4	50	3/8	100
1-1/2	50	1/2	100
1-3/4	50	5/8	100
<b>3/8"-24 with 7/32" HEX</b>		3/4	100
3/8	50	<b>6-32 with 5/64" HEX</b>	
1/2	50	1/4	100
5/8	50	3/8	100
3/4	50	1/2	100
1	50	5/8	100
1-1/4	50	3/4	100
1-1/2	50	<b>8-32 with 3/32" HEX</b>	
1-3/4	50	3/8	100
2	50	1/2	100
2-1/4	20	5/8	100
2-1/2	50	3/4	100
3	50	<b>8-32 with 3/32" HEX</b>	
<b>1/2"-13 with 5/16" HEX</b>		3/8	100
3/4	50	7/8	50
7/8	50	1	25
1	25	1-1/4	25
1-1/4	25	1-1/2	25
1-1/2	25	1-3/4	25
1-3/4	25	2	25
2	25	2-1/4	25
2-1/4	25	2-1/2	25
2-1/2	25	3	25
3	25	<b>1/2"-20 with 5/16" HEX</b>	
3-1/2	25	3/4	50
4	25	1	50
<b>1/2"-20 with 5/16" HEX</b>		1-1/4	50
1	25	1-1/2	50
1-1/4	25	1-3/4	50
1-1/2	25	2	50
1-3/4	25	2-1/4	25
2	25	2-1/2	25
2-1/4	25	3	25
2-1/2	25	<b>1/2"-20 with 5/16" HEX</b>	
3	25	3/4	50
<b>3/4"-10 with 3/8" HEX</b>		1	50
1	25	1-1/4	50
1-1/4	25	1-1/2	50
1-1/2	25	1-3/4	50
1-3/4	25	2	50
2	25	<b>5/8"-11 with 3/8" HEX</b>	
2-1/4	25	1-1/4	25
2-1/2	25	1-1/2	25
3	25	1-3/4	25
<b>3/4"-10 with 3/8" HEX</b>		2	25
1	25	2-1/4	25
1-1/4	25	2-1/2	25
1-1/2	25	3	25
1-3/4	25	<b>3/4"-10 with 1/2" HEX</b>	
2	25	1-1/4	25
2-1/2	100	1-1/2	25
<b>1/4"-28 with 5/32" HEX</b>		1-3/4	25
3/8	100	2	25
1/2	100	2-1/4	25
5/8	100	2-1/2	25
3/4	100	3	25
1	100		
1-1/4	100		

**26**  
Fasteners/  
Concrete  
anchors

## Fasteners/Concrete Anchors

### Low Head Socket Cap Screws

COar SE & FINE THr Ea D



Length (in)	Pkg. Qty.	Length (in)	Pkg. Qty.
<b>6-32 with 5/64" HEX</b>			
1/4	100	1/4"-20 with 1/8" HEX	
5/16	100	3/8	100
3/8	100	1/2	100
1/2	100	5/8	100
5/8	100	3/4	100
3/4	100	1	100
1	100	1-1/4	100
<b>8-32 with 5/64" HEX</b>			
1/4	100	1-1/2	100
5/16	100	1-3/4	100
3/8	100	2	100
1/2	100	<b>5/16"-18 with 5/32" HEX</b>	
5/8	100	3/8	100
3/4	100	1/2	100
1	100	5/8	100
1-1/4	100	3/4	100
1-1/2	100	1	100
<b>10-24 with 3/32" HEX</b>			
1/4	100	1-1/4	100
5/16	100	1-1/2	100
3/8	100	1-3/4	100
1/2	100	2	100
5/8	100	<b>3/8"-16 with 3/16" HEX</b>	
3/4	100	1/2	100
1	100	5/8	100
1-1/4	100	3/4	100
1-1/2	100	1	100
<b>10-32 with 3/32" HEX</b>			
1/4	100	1-1/4	100
5/16	100	1-1/2	100
3/8	100	1-3/4	100
1/2	100	2	100
5/8	100	<b>1/2"-13 with 1/4" HEX</b>	
3/4	100	3/4	50
1	100	1	50
1-1/4	100	1-1/4	50
1-1/2	100	1-1/2	50
1-3/4	100	1-3/4	50
2	100	2	50

## Sockets

### Socket Set Screws

COar SE & FINE THr Ea D  
Cup point - Continued

Length (in)	Pkg. Qty.	Length (in)	Pkg. Qty.
3/8	100	1	100
<b>8-32 with 5/64" HEX</b>			
1/8	100	1-1/4	100
3/16	100	1-1/2	100
1/4	100	1-3/4	50
5/16	100	2	50
3/8	100	<b>5/16"-24 with 5/32" HEX</b>	
7/16	100	1/4	100
1/2	100	5/16	100
5/8	100	3/8	100
3/4	100	7/16	100
7/8	100	1/2	100
1	100	5/8	100
<b>8-36 with 5/64" HEX</b>			
1/8	100	3/4	100
3/16	100	1	100
1/4	100	1-1/4	100
5/16	100	1-1/2	100
3/8	100	1-3/4	100
7/16	100	1/2	100
1	100	<b>10-24 with 3/32" HEX</b>	
<b>8-36 with 5/64" HEX</b>			
1/8	100	1/8	100
3/16	100	3/16	100
1/4	100	1/4	100
5/16	100	5/16	100
3/8	100	3/8	100
7/16	100	7/16	100
1	100	1	100
<b>10-24 with 3/32" HEX</b>			
1/8	100	1-1/4	100
3/16	100	1-1/2	100
1/4	100	1-3/4	100
5/16	100	2	100
3/8	100	<b>10-32 with 3/32" HEX</b>	
7/16	100	1/8	100
1/2	100	1/2	100
5/8	100	3/4	100
3/4	100	1	100
7/8	100	1-1/4	100
1	100	1-1/2	100
1-1/4	100	<b>10-32 with 3/32" HEX</b>	
1-1/2	100	1/8	100
<b>1/4"-20 with 1/8" HEX</b>			
3/16	100	3/16	100
1/4	100	1/4	100
5/16	100	<b>1/4"-20 with 1/8" HEX</b>	
3/8	100	1/8	100
1/2	100	3/16	100
5/8	100	1/4	100
3/4	100	5/16	100
7/8	100	3/8	100
1	100	1/2	100
1-1/4	100	5/8	100
<b>1/4"-20 with 1/8" HEX</b>			
3/16	100	3/4	100
1/4	100	7/8	100
5/16	100	1	100
3/8	100	<b>1/4"-28 with 1/8" HEX</b>	
7/16	100	3/16	100
1/2	100	1/4	100
5/8	100	5/16	100
3/4	100	3/8	100
7/8	100	1/2	100
1	100	5/8	100
1-1/4	100	3/4	100
<b>1/4"-28 with 1/8" HEX</b>			
3/16	100	7/16	100
1/4	100	1	100
5/16	100	<b>5/16"-18 with 5/32" HEX</b>	
3/8	100	1/4	100
7/16	100	5/16	100
1/2	100	3/8	100
5/8	100	1/2	100
3/4	100	5/8	100
7/8	100	3/4	100
1	100	7/8	100
1-1/4	100	1	100
<b>5/16"-18 with 5/32" HEX</b>			
1/4	100	1/2	100
5/16	100	5/8	100
3/8	100	3/4	100
7/16	100	7/8	100
1	100	1	100
1-1/4	100	<b>5/8"-11 with 5/16" HEX</b>	
1/2	100	1/2	100
5/8	100	5/8	100
3/4	100	3/4	100
7/8	100	1	50
<b>5/8"-11 with 5/16" HEX</b>			
1/2	100	1/2	100
5/8	100	5/8	100
3/4	100	3/4	100
7/8	100	1	50
<b>5/8"-11 with 5/16" HEX</b>			
1/2	100	1/2	100
5/8	100	5/8	100
3/4	100	3/4	100
7/8	100	1	50

### Socket Set Screws

COar SE & FINE THr Ea D  
Cup point - Continued

Length (in)	Pkg. Qty.	Length (in)	Pkg. Qty.
1	50	2	10
1-1/4	25	2-1/2	10
1-1/2	25	3	10
1-3/4	25	<b>7/8"-9 with 1/2" HEX</b>	
2	25	7/8	10
2-1/2	10	1	10
3	10	1-1/2	10
<b>5/8"-18 with 5/16" Hex</b>			
5/8	50	2	10
1	50	2-1/2	10
<b>3/4"-10 with 3/8" HEX</b>			
5/8	50	3	10
3/4	50	<b>1"-8 with 9/16" HEX</b>	
1	50	1	10
1-1/4	25	1-1/2	10
1-1/2	25	2	10
1-3/4	10	2-1/2	10
		3	10

### Alloy Socket Set Screws

Cone point - COar SE & FINE THr Ea D



Length (in)	Pkg. Qty.	Length (in)	Pkg. Qty.
<b>4-40 with .050" HEX</b>			
1/8	100	1/4	100
3/16	100	5/16	100
1/4	100	3/8	100
5/16	100	7/16	100
3/8	100	1/2	100
7/16	100	5/8	100
1/2	100	3/4	100
5/8	100	7/8	100
3/4	100	1	100
<b>5-40 with 1/16" HEX</b>			
1/8	100	<b>1/4"-20 with 1/8" HEX</b>	
3/16	100	3/16	100
1/4	100	1/4	100
5/16	100	5/16	100
3/8	100	3/8	100
7/16	100	7/16	100
1/2	100	1/2	100
5/8	100	5/8	100
3/4	100	3/4	100
1	100	7/8	100
<b>6-32 with 1/16" HEX</b>			
1/8	100	1	100
3/16	100	1-1/4	100
1/4	100	1-1/2	100
5/16	100	2	100
3/8	100	<b>5/16"-18 with 5/32" HEX</b>	
7/16	100	1/4	100
1/2	100	5/16	100
5/8	100	3/8	100
3/4	100	1/2	100
7/8	100	5/8	100
1	100	3/4	100
<b>8-32 with 5/64" HEX</b>			
1/8	100	7/8	100
3/16	100	1	100
1/4	100	1-1/4	100
5/16	100	1-1/2	100
3/8	100	2	100
7/16	100	<b>5/16"-24 with 5/32" HEX</b>	
1/2	100	5/16	100
5/8	100	3/8	100
3/4	100	1/2	100
7/8	100	5/8	100
1	100	3/4	100
<b>10-24 with 3/32" HEX</b>			
3/16	100	7/8	100
1/4	100	1	100
5/16	100	<b>3/8"-16 with 3/16" HEX</b>	
3/8	100	5/16	100
7/16	100	3/8	100
1/2	100	1/2	100
5/8	100	5/8	100
3/4	100	3/4	100
7/8	100	7/8	100
1	100	1	100
<b>10-32 with 3/32" HEX</b>			
3/16	100	1-1/4	100
1/4	100	1-1/2	100

### Socket Set Screws

COar SE & FINE THr Ea D  
Cup point



Length (in)	Pkg. Qty.	Length (in)	Pkg. Qty.
<b>0-80 with .028" HEX</b>			
1/16	100	3/16	100
3/32	100	1/4	100
1/8	100	3/8	100
3/16	100	<b>5-40 with 1/16" HEX</b>	
1/4	100	1/8	100
<b>1-72 with .035" HEX</b>			
1/16	100	3/16	100
3/32	100	1/4	100
1/8	100	5/16	100
3/16	100	3/8	100
1/4	100	1/2	100
<b>2-56 with .035" HEX</b>			
1/16	100	5/8	100
3/32	100	3/4	100
1/8	100	1	100
3/16	100	<b>5-44 with 1/16" HEX</b>	
1/4	100	1/8	100
<b>3-48 with .050" HEX</b>			
3/32	100	3/16	100
1/8	100	1/4	100
3/16	100	<b>6-32 with 1/16" HEX</b>	
1/4	100	1/8	100
<b>4-40 with .050" HEX</b>			
1/8	100	3/16	100
3/16	100	1/4	100
1/4	100	5/16	100
5/16	100	3/8	100
3/8	100	7/16	100
1/2	100	1	100
5/8	100	<b>6-40 with 1/16" HEX</b>	
<b>4-48 with .050" HEX</b>			
1/8	100	1/8	100
3/16	100	3/16	100
1/4	100	1/4	100
5/16	100	5/16	100
3/8	100		
1/2	100		

- continues -

- continues -



**Fasteners/Concrete Anchors**

**Sockets**

**a lloy Socket Set Screws**



1/2 Dog point

Length (in)	Pkg. Qty.	Length (in)	Pkg. Qty.
<b>4-40 with .050" HEX</b>			
1/8	100	5/16	100
3/16	100	3/8	100
1/4	100	7/16	100
		1/2	100
5/16	100	5/8	100
3/8	100	3/4	100
1/2	100	7/8	100
5/8	100	1	100
3/4	100	1-1/4	100
		1-1/2	100
<b>6-32 with 1/16" HEX</b>			
1/8	100	<b>10-32 with 3/32" HEX</b>	
3/16	100	3/16	100
1/4	100	1/4	100
		5/16	100
5/16	100	3/8	100
3/8	100	7/16	100
7/16	100	1/2	100
1/2	100	5/8	100
5/8	100	3/4	100
3/4	100	7/8	100
7/8	100	1	100
1	100	1-1/4	100
		1-1/2	100
<b>8-32 with 5/64" HEX</b>			
1/8	100	1/4	100
3/16	100	5/16	100
1/4	100	3/8	100
5/16	100	7/16	100
3/8	100	1/2	100
7/16	100	5/8	100
1/2	100	3/4	100
5/8	100	1	100
3/4	100	1-1/4	100
7/8	100	1-1/2	100
1	100	2	100
<b>10-24 with 3/32" HEX</b>			
3/16	100		
1/4	100		

**a lloy Socket Set Screws**



Full Dog point

Length (in)	Pkg. Qty.	Length (in)	Pkg. Qty.
<b>4-40 with .050" HEX</b>			
3/16	100	7/8	100
1/4	100	1	100
5/16	100	1-1/4	100
		1-1/2	100
3/8	100	<b>10-32 with 3/32" HEX</b>	
1/2	100	1/4	100
1-1/4	100	5/16	100
		3/8	100
<b>6-32 with 1/16" HEX</b>			
1/4	100	7/16	100
5/16	100	1/2	100
3/8	100	5/8	100
7/16	100	3/4	100
1/2	100	7/8	100
5/8	100	1	100
3/4	100	1-1/4	100
7/8	100	1-1/2	100
1	100		
<b>8-32 with 5/64" HEX</b>			
3/16	100	1/4	100
1/4	100	5/16	100
5/16	100	3/8	100
3/8	100	7/16	100
7/16	100	1/2	100
1/2	100	5/8	100
5/8	100	3/4	100
3/4	100	7/8	100
7/8	100	1	100
1	100	1-1/4	100
		1-1/2	100
<b>10-24 with 3/32" HEX</b>			
1/4	100	<b>5/16"-18 with 5/16" HEX</b>	
5/16	100	5/16	100
3/8	100	3/8	100
		7/16	100
7/16	100	1/2	100
1/2	100	5/8	100
5/8	100	3/4	100
3/4	100	7/8	100

**a lloy Socket Set Screws**

Full Dog point - continued

Length (in)	Pkg. Qty.	Length (in)	Pkg. Qty.
1	100	5/8	100
1-1/4	100	3/4	100
1-1/2	100	7/8	100
		1	100
<b>3/8"-16 with 3/16" HEX</b>			
3/8	100	1-1/4	100
7/16	100	1-1/2	100
1/2	100	1-3/4	100
		2	100

**Socket pipe plugs**



Pt. Size (in)	Key Size T.P.I.	Pkg. Qty.	Pt. Size (in)	Key Size T.P.I.	Pkg. Qty.
<b>3/4" TAPER</b>			<b>7/8" TAPER</b>		
1/16	27	5/32 100	1/16	27	5/32 100
1/8	27	3/16 100	1/8	27	3/16 100
1/4	18	1/4 100	1/4	18	1/4 100
3/8	18	5/16 100	3/8	18	5/16 100
1/2	14	3/8 50	1/2	14	3/8 50
3/4	14	9/16 50	3/4	14	9/16 50
1	11-1/2	5/8 25	1	11-1/2	5/8 25
1-1/4	11-1/2	3/4 25	1-1/4	11-1/2	3/4 25

Square Drive Socket Pipe Plugs Also Available

**a lloy Socket Set Screws**



Flat point

Length (in)	Pkg. Qty.	Length (in)	Pkg. Qty.
<b>4-40 with .050" HEX</b>			
3/8	100	5/16	100
5/8	100	3/8	100
3/4	100	7/16	100
		1/2	100
		5/8	100
		3/4	100
<b>6-32 with 1/16" Hex</b>			
1/8	100	7/8	100
3/16	100	1	100
1/4	100	1-1/4	100
		1-1/2	100
5/16	100		
3/8	100		
7/16	100		
1/2	100		
5/8	100		
3/4	100		
7/8	100		
1	100		
<b>8-32 with 5/64" Hex</b>			
1/8	100	5/8	100
3/16	100	3/4	100
1/4	100	7/8	100
		1	100
5/16	100	1-1/4	100
3/8	100	1-1/2	100
7/16	100		
1/2	100		
5/8	100		
3/4	100		
7/8	100		
1	100		
<b>10-24 with 3/32" Hex</b>			
1/8	100	5/16"-18 with 5/16" Hex	
3/16	100	1/4	100
1/4	100	5/16	100
		3/8	100
5/16	100	7/16	100
3/8	100	1/2	100
7/16	100	5/8	100
1/2	100	3/4	100
		7/8	100
		1	100
<b>3/8"-16 with 3/16" Hex</b>			
3/8	100	1	100
7/16	100	1-1/4	100
1/2	100	1-1/2	100
		1-3/4	100
		2	100
<b>5/16"-18 with 5/16" Hex</b>			
1/4	100		
5/16	100		
3/8	100		
7/16	100		
1/2	100		
5/8	100		
3/4	100		
7/8	100		
1	100		
<b>3/8"-16 with 3/16" Hex</b>			
3/8	100		
7/16	100		
1/2	100		
		5/8	100
		3/4	100
		7/8	100
		1	100
		1-1/4	100
		1-1/2	100
		1-3/4	100
		2	100

**Socket Head Shoulder Screws**



Coarse Thread-Stripper Bolt

Shoulder Length (in)	Pkg. Qty.	Shoulder Length (in)	Pkg. Qty.
<b>1/4" Shoulder w/1/8" Hex 10-24 Threaded Portion</b>			
3/8	25	2-1/2	25
1/2	25	2-3/4	25
5/8	25	3	25
3/4	25	3-1/4	25
1	25	3-1/2	25
1-1/4	25	3-3/4	25
1-1/2	25	4	25
		4-1/4	25
		4-1/2	10
		4-3/4	10
		5	10
<b>5/16" Shoulder w/5/32" Hex 1/4"-20 Threaded Portion</b>			
3/8	25	<b>5/8" Shoulder w/5/16" Hex 1/2"-13 Threaded Portion</b>	
1/2	25	1-1/4	25
5/8	25	1-1/2	25
3/4	25	1-3/4	25
1	25	2	25
1-1/4	25	2-1/4	25
1-1/2	25	2-1/2	25
1-3/4	25	2-3/4	25
2	25	3	25
<b>3/8" Shoulder w/3/16" Hex 5/16"-18 Threaded Portion</b>			
3/8	25	3-1/4	25
1/2	25	3-1/2	25
5/8	25	4	10
3/4	25	4-1/4	10
1	25	4-1/2	10
1-1/4	25	4-3/4	10
1-1/2	25	5	10
1-3/4	25	5-1/2	10
2	25	6	10
2-1/4	25	<b>3/4" Shoulder w/3/8" Hex 5/8"-11 Threaded Portion</b>	
2-1/2	25	1-1/2	10
2-3/4	25	1-3/4	10
3	25	2	10
3-1/4	25	2-1/4	10
3-1/2	25	2-1/2	10
4	25	2-3/4	10
<b>1/2" Shoulder w/1/4" Hex 3/8"-16 Threaded Portion</b>			
1/2	25	3	10
5/8	25	3-1/4	10
3/4	25	3-1/2	10
1	25	3-3/4	10
1-1/4	25	4	10
1-1/2	25	4-1/4	10
1-3/4	25	4-1/2	10
2	25	4-3/4	10
2-1/4	25	5	10
		5-1/2	10
		6	10

**26**  
Fasteners/  
Concrete  
anchors



## Sockets

### Square Head Set Screws

Coarse Thread – Cup point



Length (in)	Pkg. Qty.	Length (in)	Pkg. Qty.
<b>1/4"-20</b>			
3/8	100	7/8	100
1/2	100	1	100
5/8	100	1-1/4	100
3/4	100	1-1/2	100
7/8	100	1-3/4	100
1	100	2	50
1-1/4	100	2-1/4	50
1-1/2	100	2-1/2	50
1-3/4	100	3	50
2	100	3-1/2	25
2-1/4	100	4	25
2-1/2	100	4-1/2	25
3	100	5	25
		6	25
<b>5/16"-18</b>			
1/2	100	3/4	50
5/8	100	7/8	50
3/4	100	1	50
7/8	100	1-1/4	50
1	100	1-1/2	50
1-1/4	100	1-3/4	50
1-1/2	100	2	25
1-3/4	100	2-1/4	25
2	100	2-1/2	25
2-1/4	100	3	25
2-1/2	100	3-1/2	25
3	100	4	25
		4-1/2	25
		5	25
		6	25
<b>3/8"-16</b>			
1/2	100		
5/8	100		
3/4	100		
7/8	100		
1	100		
1-1/4	100		
1-1/2	100		
1-3/4	100		
2	100		
2-1/4	100		
2-1/2	100		
3	100		
3-1/2	50		
4	50		
4-1/2	50		
5	50		
6	50		
<b>7/16"-14</b>			
3/4	100		
1	100		
1-1/4	100		
1-1/2	100		
1-3/4	100		
2	50		
2-1/4	50		
2-1/2	50		
3	50		
3-1/2	50		
4	50		
4-1/2	50		
5	50		
6	50		
<b>1/2"-13</b>			
5/8	100		
3/4	100		

### Taper pins

Carbon Steel-plain



Pin No.	Lgth. (in)	Large End Dia. (in)	Pkg. Qty.
2/0	1/2	.141	100
2/0	5/8	.141	100
2/0	3/4	.141	100
2/0	7/8	.141	100
2/0	1	.141	100
2/0	1-1/4	.141	100
0	1/2	.156	100
0	5/8	.156	100
0	3/4	.156	100
0	7/8	.156	100
0	1	.156	100
0	1-1/4	.156	100
0	1-1/2	.156	100
1	3/4	.172	100
1	7/8	.172	100
1	1	.172	100
1	1-1/4	.172	100
1	1-1/2	.172	100
1	1-3/4	.172	100
1	2	.172	100
2	3/4	.193	100
2	7/8	.193	100
2	1	.193	100
2	1-3/4	.193	100
2	2	.193	100
2	2-1/4	.193	100
2	2-1/2	.193	100
3	3/4	.219	100
3	7/8	.219	100
3	1	.219	100
3	1-1/4	.219	100
3	1-1/2	.219	100
3	1-3/4	.219	100
3	2	.219	100
3	2-1/4	.219	100
3	2-1/2	.219	100
3	2-3/4	.219	100
3	3	.219	100
4	3/4	.250	100
4	7/8	.250	100
4	1	.250	100
4	1-1/4	.250	100
4	1-1/2	.250	100
4	1-3/4	.250	100
4	2	.250	100
4	2-1/4	.250	100
4	2-1/2	.250	100
4	2-3/4	.250	100
4	3	.250	100
5	3/4	.289	100
5	1	.289	100
5	1-1/4	.289	100
5	1-1/2	.289	100
5	1-3/4	.289	100
5	2	.289	100
5	2-1/4	.289	100
5	2-1/2	.289	100
5	2-3/4	.289	100
5	3	.289	100
5	3-1/4	.289	100
5	3-1/2	.289	100
5	3-3/4	.289	100
5	4	.289	100
6	3/4	.341	100
6	1	.341	100
6	1-1/4	.341	100
6	1-1/2	.341	100
6	1-3/4	.341	100

## Fasteners/Concrete Anchors

### Screws

### machine Screws

Round Head - Slotted  
Zinc plated



Length (in)	Pkg. Qty.	Length (in)	Pkg. Qty.
<b>2-56</b>			
1/8	100	1/2	100
3/16	100	5/8	100
1/4	100	3/4	100
5/16	100	7/8	100
3/8	100	1	100
7/16	100	1-1/8	100
1/2	100	1-1/4	100
5/8	100	1-1/2	100
3/4	100	1-3/4	100
7/8	100	2	100
1	100	2-1/4	100
		2-1/2	100
		2-3/4	100
<b>3-48</b>			
1/8	100	3	100
3/16	100	3-1/2	100
1/4	100	4	100
5/16	100		
3/8	100		
7/16	100		
1/2	100		
5/8	100		
3/4	100		
7/8	100		
1	100		
<b>4-40</b>			
1/8	100		
3/16	100		
1/4	100		
5/16	100		
3/8	100		
7/16	100		
1/2	100		
5/8	100		
3/4	100		
7/8	100		
1	100		
1-1/4	100		
1-1/2	100		
<b>5-40</b>			
1/8	100		
3/16	100		
1/4	100		
5/16	100		
3/8	100		
7/16	100		
1/2	100		
5/8	100		
3/4	100		
7/8	100		
1	100		
1-1/4	100		
1-1/2	100		
<b>6-32</b>			
1/8	100		
3/16	100		
1/4	100		
5/16	100		
3/8	100		
7/16	100		
1/2	100		
5/8	100		
3/4	100		
7/8	100		
1	100		
1-1/4	100		
1-1/2	100		
<b>8-32</b>			
3/16	100		
1/4	100		
5/16	100		
3/8	100		
7/16	100		

**26**  
Fasteners/  
Concrete  
anchors















**Fasteners/Concrete Anchors**

**Thread Cutting Screws**

pan Head – phillips  
TCS Type “F”

Length (in)	Pkg. Qty.	Length (in)	Pkg. Qty.
<b>4-40</b>		<b>10-24</b>	
1/4	100	3/8	100
5/16	100	1/2	100
3/8	100	5/8	100
1/2	100	3/4	100
5/8	100	1	100
3/4	100	1-1/4	100
1	100	1-1/2	100
<b>6-32</b>		<b>10-32</b>	
1/4	100	3/8	100
5/16	100	1/2	100
3/8	100	5/8	100
1/2	100	3/4	100
5/8	100	1	100
3/4	100	1-1/4	100
1	100	1-1/2	100
<b>8-32</b>		<b>1-1/4"-20</b>	
1/4	100	3/8	100
5/16	100	1/2	100
3/8	100	5/8	100
1/2	100	3/4	100
5/8	100	1	100
3/4	100	1-1/4	100
1	100	1-1/2	100
1-1/4	100	1-3/4	100
1-1/2	100	2	100
1-3/4	100		
2	100		

**Thread Cutting Screws**

Hex washer Head  
Type “23” – Zinc plated

Length (in)	Pkg. Qty.	Length (in)	Pkg. Qty.
<b>4-40</b>		<b>1/4"-20</b>	
1/4	100	1/2	100
5/16	100	5/8	100
3/8	100	3/4	100
1/2	100	1	100
5/8	100	<b>3/8"-16</b>	
3/4	100	1/2	100
<b>6-32</b>		5/8	100
1/4	100	3/4	100
5/16	100	1	100
3/8	100	1-1/4	100
1/2	100	1-1/2	100
5/8	100	2	100
3/4	100	<b>5/16"-18</b>	
1	100	1/2	100
<b>8-32</b>		5/8	100
1/4	100	3/4	100
5/16	100	1	100
3/8	100	1-1/4	100
1/2	100	1-1/2	100
5/8	100	2	100
3/4	100	<b>10-24</b>	
1	100	3/8	100
<b>10-32</b>		1/2	100
3/8	100	5/8	100
1/2	100	3/4	100
5/8	100	1	100
3/4	100	<b>10-32</b>	
1	100	3/8	100

**Screws**

**Thread-Cutting Screws**

pan Head – Slotted  
Type “23” – Zinc plated



Length (in)	Pkg. Qty.	Length (in)	Pkg. Qty.
<b>4-40</b>		<b>10-32</b>	
1/4	100	3/8	100
5/16	100	1/2	100
3/8	100	5/8	100
1/2	100	3/4	100
<b>6-32</b>		<b>1/4</b>	
1/4	100	3/8	100
5/16	100	1/2	100
3/8	100	5/8	100
1/2	100	3/4	100
<b>8-32</b>		<b>1</b>	
1/4	100	3/8	100
3/8	100		

**Thread-Cutting Screws**

pan Head – phillips  
Type “23” – Zinc plated



Length (in)	Pkg. Qty.	Length (in)	Pkg. Qty.
<b>4-40</b>		<b>10-24</b>	
1/4	100	3/8	100
5/16	100	1	100
3/8	100	<b>10-32</b>	
1/2	100	3/8	100
5/8	100	1/2	100
3/4	100	5/8	100
<b>6-32</b>		3/4	100
1/4	100	1	100
5/16	100	<b>1-1/4"-20</b>	
3/8	100	3/8	100
1/2	100	1/2	100
5/8	100	5/8	100
3/4	100	3/4	100
1	100	1	100
<b>8-32</b>		<b>1/4"-20</b>	
1/4	100	3/8	100
5/16	100	1/2	100
3/8	100	5/8	100
1/2	100	3/4	100
5/8	100	1	100
3/4	100		
1	100		

**Thread-Cutting Screws**

pan Head – Slotted  
Type “25” – Zinc plated



Length (in)	Pkg. Qty.	Length (in)	Pkg. Qty.
<b>#2</b>		<b>#8</b>	
3/16	100	5/16	100
1/4	100	3/8	100
5/16	100	1/2	100
<b>#4</b>		<b>#10</b>	
3/8	100	3/8	100
1/2	100	1/2	100
<b>#6</b>		5/8	100
1/4	100	3/4	100
		1	100

**Thread-Cutting Screws**

pan Head – phillips  
Type “25” – Zinc plated



Length (in)	Pkg. Qty.	Length (in)	Pkg. Qty.
<b>#2</b>		<b>#8</b>	
3/16	100	1/2	100
1/4	100	5/8	100
5/16	100	3/4	100
3/8	100	1	100
1/2	100	<b>#10</b>	
<b>#4</b>		1/4	100
1/4	100	3/8	100
5/16	100	1/2	100
3/8	100	5/8	100
1/2	100	3/4	100
5/8	100	1	100
3/4	100	<b>#6</b>	
1	100	1/4	100
<b>#6</b>		5/16	100
1/4	100	3/8	100

**Floor Screws**

Flat Head – phillips  
plain



Length (in)	Pkg. Qty.	Length (in)	Pkg. Qty.
<b>1/4"</b>		<b>5/16"</b>	
1-1/4	100	3-1/2	100
1-1/2	100	4	100
1-3/4	100	5	100
2	100	6	100
2-1/4	100	<b>1/4"</b>	
2-1/2	100	1	100
3	100	1-1/2	100
		1-3/4	100
		2	100

**Flooring Screws**

Flat Head – Slotted/plain



Length (in)	Pkg. Qty.	Length (in)	Pkg. Qty.
<b>1/4"</b>		<b>5/16"</b>	
1	100	2-1/4	100
1-1/2	100	2-1/2	100
1-3/4	100	3	100
2	100	3-1/2	100
		4	100

**Flooring Screws**

Flat Head – Torx®  
plain



Length (in)	Pkg. Qty.	Length (in)	Pkg. Qty.
<b>1/4"</b>		<b>5/16"</b>	
1	100	1-1/2	100
1-1/4	100	1-3/4	100
1-1/2	100	2	100
1-3/4	100	2-1/4	100
2	100	2-1/2	100
2-1/4	100	3	100
2-1/2	100	3-1/2	100
3	100	4	100
3-1/2	100		
4	100		

## Screws

### Thumb Screws

Type "p"  
Zinc plated



Length (in)	Pkg. Qty.	Length (in)	Pkg. Qty.
<b>8-32</b>		<b>1/4"-20</b>	
3/8	100	3/8	100
1/2	100	1/2	100
5/8	100	5/8	100
3/4	100	3/4	100
1	100	1	100
1-1/4	100	1-1/4	100
1-1/2	100	1-1/2	100
<b>10-24</b>		<b>5/16"-18</b>	
3/8	100	1/2	100
1/2	100	3/4	100
5/8	100	1	100
3/4	100	1	100
1	100	1-1/4	100
1-1/4	100	1-1/2	100
1-1/2	100	2	100
2	100	2-1/2	100
<b>10-32</b>		<b>3/8"-16</b>	
3/8	100	3/4	50
1/2	100	1	50
5/8	100	1-1/4	50
3/4	100	1-1/2	50
1	100	2	50
1-1/4	100	2-1/2	50
1-1/2	100	3	50

### Thread-rolling Screws

Hex washer Head  
Zinc plated - waxed



Length (in)	Pkg. Qty.	Length (in)	Pkg. Qty.
<b>4-40</b>		<b>10-32</b>	
3/4	100	3/8	100
5/16	100	1/2	100
3/8	100	5/8	100
1/2	100	3/4	100
<b>6-32</b>		<b>1/4"-20</b>	
1/4	100	3/8	100
3/8	100	1/2	100
1/2	100	5/8	100
<b>8-32</b>		<b>3/4</b>	
3/8	100	1	100
1/2	100	<b>5/16"-18</b>	
5/8	100	1	100
3/4	100		

### Thread-rolling Screws

pan Head - phillips  
Zinc plated



Length (in)	Pkg. Qty.	Length (in)	Pkg. Qty.
<b>4-40</b>		<b>10-32</b>	
1/4	100	1/4	100
5/16	100	3/8	100
3/8	100	1/2	100
1/2	100	5/8	100
<b>6-32</b>		<b>3/4</b>	
1/4	100	1	100
3/8	100	<b>1/4"-20</b>	
1/2	100	3/8	100
<b>8-32</b>		1/2	100
1/4	100	5/8	100
3/8	100	3/4	100
1/2	100	1	100
5/8	100		

### Studbuster™

Drywall Screws  
pH Bugle Black phosphate  
Twinfast Thread



Desc.	Box Qty.	Desc.	Box Qty.
<b>100 COUNT BOX</b>		<b>5 POUND BOX</b>	
6 x 1	100	6 x 1	1570
6 x 1-1/8	100	6 x 1-1/8	1455
6 x 1-1/4	100	6 x 1-1/4	1340
6 x 1-5/8	100	6 x 1-5/8	1060
6 x 2	100	6 x 2	890
6 x 2-1/4	100	6 x 2-1/4	770
8 x 2-1/2	100	8 x 2-1/2	525
8 x 3	100	8 x 3	425
10 x 3-3/4	100	10 x 3-3/4	260
10 x 4-1/2	100	10 x 4-1/2	210
10 x 5	100	10 x 5	190
10 x 6	100	10 x 6	160

### Speed Tip Screws

Self-piercing to .050 material  
1/4 Hex Drive  
100 Box



Desc.	Box Qty.	Desc.	Box Qty.
<b>NO. 7 DIAMETER</b>		<b>NO. 10 DIAMETER</b>	
7 x 1/2	100	8 x 1-1/2	100
<b>NO. 8 DIAMETER</b>		10 x 1/2	100
8 x 1/2	100	10 x 3/4	100
8 x 3/4	100	10 x 1	100
8 x 1	100		

### Speed Tip Screws

Self-piercing to .050 material  
1/4 Hex Drive  
Resealable Tubs



Desc.	Box Qty.	Desc.	Box Qty.
<b>NO. 7 DIAMETER</b>		<b>NO. 10 DIAMETER</b>	
7 x 1/2	1000	8 x 1-1/2	250
<b>NO. 8 DIAMETER</b>		10 x 1/2	1000
8 x 1/2	1000	10 x 3/4	1000
8 x 3/4	1000	10 x 1	500
8 x 1	500		

## Fasteners/Concrete Anchors Nuts

### Hex Full Nuts

plain or Zinc plated  
Low Carbon Steel



Size (in)	Pkg. Qty.	Size (in)	Pkg. Qty.
<b>COARSE THREAD</b>		<b>FINE THREAD</b>	
0-80	100	2-3/4-4	1
1-72	100	3-4	1
2-56	100	<b>FINE THREAD</b>	
3-48	100	3-56	100
4-40	100	4-48	100
5-40	100	5-44	100
6-32	100	6-40	100
8-32	100	8-36	100
10-24	100	10-32	100
12-24	100	12-28	100
14-20	100	14-28	100
5/16-18	100	5/16-24	100
3/8-16	100	3/8-24	100
7/16-14	100	7/16-20	100
1/2-13	100	1/2-20	100
9/16-12	50	9/16-18	50
5/8-11	50	5/8-18	50
3/4-10	25	3/4-16	25
7/8-9	25	7/8-14	25
1-8	25	1-14	25
1-1/8-7	10	1-1/8-12	10
1-1/4-7	10	1-1/4-12	10
1-3/8-6	10	1-3/8-12	10
1-1/2-6	10	1-1/2-12	10
1-5/8-5.5	10	1-5/8-12	10
1-3/4-5	10	1-3/4-12	10
1-7/8-5	1	2-12	1
2-4.5	1	2-1/4-12	1
2-1/4-4.5	1	2-1/2-12	1
2-1/2-4	1	2-3/4-12	1
2-1/2-4	1	3-12	1

### Grade 5 Hex Nuts

plain or Zinc plated



Size (in)	Pkg. Qty.	Size (in)	Pkg. Qty.
<b>COARSE THREAD</b>		<b>FINE THREAD</b>	
1/4-20	100	1/4-28	100
5/16-18	100	5/16-24	100
3/8-16	100	3/8-24	100
7/16-14	100	7/16-20	100
1/2-13	100	1/2-20	100
9/16-12	50	9/16-18	50
5/8-11	50	5/8-18	50
3/4-10	25	3/4-16	25
7/8-9	25	7/8-14	25
1-8	25	1-14	25
1-1/8-7	10	1-1/8-12	10
1-1/4-7	10	1-1/4-12	10
1-3/8-6	10	1-3/8-12	10
1-1/2-6	10	1-1/2-12	10
1-5/8-5.5	10	1-5/8-12	10
1-3/4-5	1	1-3/4-12	1
1-7/8-5	1	2-12	1
2-4.5	1	2-1/4-12	1
2-1/4-4.5	1	2-1/2-12	1
2-1/2-4	1	2-3/4-12	1
2-3/4-4	1	3-12	1
3-4	1		

### Grade 8 Hex Nuts

plain or Zinc plated  
Coarse Thread



Size (in)	Pkg. Qty.	Size (in)	Pkg. Qty.
<b>COARSE THREAD</b>			
1-1/4-7	10		
1/4-20	100	1-3/8-6	10
5/16-18	100	1-1/2-6	10
3/8-16	100	1-5/8-5.5	10
7/16-14	100	1-3/4-5	1
1/2-13	100	1-7/8-5	1
9/16-12	50	2-4.5	1
5/8-11	50	2-1/4-4.5	1
3/4-10	25	2-1/2-4	1
7/8-9	25	2-3/4-4	1
1-8	25	3-4	1
1-1/8-7	10		













**Fasteners/Concrete Anchors**

# Stainless Steel Fasteners

## Hex Head Cap Screws

18-8 Stainless Steel/FINE THr Ea D - *continued*

Length (in)	Pkg. Qty.	Length (in)	Pkg. Qty.
1-1/2	100	1-3/4	25
1-3/4	100	2	25
2	100	2-1/4	25
2-1/4	100	2-1/2	25
2-1/2	100	2-3/4	25
2-3/4	100	3	25
3	100	3-1/2	25
3-1/2	50	4	25
4	50	4-1/2	25
<b>7/16"-20</b>		<b>3/4"-16</b>	
3/4	50	1	25
1	50	1-1/4	25
1-1/4	50	1-1/2	25
1-1/2	50	1-3/4	25
1-3/4	50	2	25
2	50	2-1/4	25
2-1/4	50	2-1/2	25
2-1/2	50	2-3/4	25
2-3/4	50	3	25
3	50	3-1/2	25
<b>1/2"-20</b>		4	25
3/4	50	4-1/2	25
1	50	5	25
1-1/4	50	<b>7/8"-14</b>	
1-1/2	50	1-1/2	15
2	50	1-3/4	15
2-1/4	50	2	15
2-1/2	50	2-1/4	15
2-3/4	50	2-1/2	15
3	50	2-3/4	15
3-1/2	25	3	15
4	25	3-1/2	15
4-1/2	25	4	15
<b>9/16"-18</b>		4-1/2	15
1	50	5	15
1-1/4	50	<b>1"-14</b>	
1-1/2	50	1-1/2	10
1-3/4	50	1-3/4	10
2	50	2	10
2-1/4	50	2-1/4	10
2-1/2	50	2-1/2	10
2-3/4	50	2-3/4	10
3	50	3	10
3-1/2	25	3-1/2	10
<b>5/8"-18</b>		4	10
1	25	4-1/2	10
1-1/4	25	5	10
1-1/2	25		

Note: Other lengths available

## Carriage Bolts

18-8 Stainless Steel - COar SE THr Ea D

Length (in)	Pkg. Qty.	Length (in)	Pkg. Qty.
<b>3/16"-24</b>			
1/2	100	3	100
5/8	100	3-1/2	100
3/4	100	4	100
1	100	4-1/2	100
1-1/4	100	5	100
1-1/2	100	5-1/2	100
2	100	6	100
2-1/2	100	<b>5/16"-18</b>	
3	100	3/4	100
<b>1/4"-20</b>			
1/2	100	1	100
3/4	100	1-1/4	100
1	100	1-1/2	100
1-1/4	100	1-3/4	100
1-1/2	100	2	100
2	100	2-1/2	100
2-1/2	100	3	100
2-1/2	100	3-1/2	100
		4	50
		5	50
		6	50

- continues -

## Carriage Bolts

18-8 Stainless Steel/ COar SE THr Ea D - *continued*

Length (in)	Pkg. Qty.	Length (in)	Pkg. Qty.
<b>3/8"-16</b>			
3/4	100	<b>1/2"-13</b>	
1	100	1	50
1-1/4	100	1-1/4	50
1-1/2	100	1-1/2	50
1-1/2	100	1-3/4	50
1-3/4	100	2	50
2	100	2-1/4	50
2-1/4	50	2-1/2	50
2-1/2	50	3	50
3	50	3-1/2	25
3-1/2	50	4	25
4	50	4-1/2	25
4-1/2	50	5	25
5	50	5-1/2	25
5-1/2	50	6	25
6	50		

## Hex Lag Screws

18-8 Stainless Steel

Length (in)	Pkg. Qty.	Length (in)	Pkg. Qty.
<b>1/4"</b>			
1	100	5	50
1-1/4	100	6	50
1-1/2	100	<b>3/8"</b>	
2	100	1-1/2	100
2-1/2	100	2	100
3	100	2-1/2	50
3-1/2	100	3	50
4	100	3-1/2	50
4-1/2	100	4	50
5	100	4-1/2	50
5-1/2	100	5	50
6	100	5-1/2	50
<b>5/16"</b>			
1	100	6	50
1-1/4	100	<b>1/2"</b>	
1-1/2	100	2	20
2	100	2-1/2	20
2-1/2	100	3	20
3	50	3-1/2	20
3-1/2	50	4	20
4	50	4-1/2	20
4-1/2	50	5	20
		6	20

## Hex Full Nuts

18-8 Stainless Steel

Size (in)	Pkg. Qty.	Size (in)	Pkg. Qty.
<b>COARSE THREAD</b>			
0-8	100	1-1/8-7	10
2-56	100	1-1/4-7	10
3-48	100	1-1/2-6	10
4-40	100	1-3/4-5	10
5-40	100	2-4-1/2	1
6-32	100	<b>FINE THREAD</b>	
8-32	100	10-32	100
10-24	100	1/4-28	100
12-24	100	5/16-24	100
1/4-20	100	3/8-24	100
5/16-18	100	7/16-20	100
3/8-16	100	1/2-20	100
7/16-14	100	9/16-18	50
1/2-13	100	5/8-18	50
9/16-12	50	3/4-16	25
5/8-11	50	7/8-14	25
3/4-10	25	1-14	25
7/8-9	25	1-1/8-12	10
1-8	25	1-1/4-12	10
1-1/8-7	10	1-1/2-12	10
1-1/4-7	10		

## Hex Jam Nuts

18-8 Stainless Steel

Size (in)	Pkg. Qty.	Size (in)	Pkg. Qty.
<b>COARSE THREAD</b>			
1/4-20	100	<b>FINE THREAD</b>	
5/16-18	100	1/4-28	100
3/8-16	100	5/16-24	100
7/16-14	100	3/8-24	100
1/2-13	100	7/16-20	100
9/16-12	50	1/2-20	100
5/8-11	50	9/16-18	50
3/4-10	25	5/8-18	50
7/8-9	25	3/4-16	25
1-8	25	7/8-14	25
1-1/8-7	10	1-14	25
1-1/4-7	10	1-1/8-12	10
1-1/2-6	10	1-1/4-12	10
		1-1/2-12	10

## Heavy Hex Nuts

18-8 Stainless Steel

Size (in)	Pkg. Qty.	Size (in)	Pkg. Qty.
<b>COARSE THREAD</b>			
1/4-20	100	3/4-10	25
5/16-18	100	7/8-9	25
3/8-16	100	1-8	25
7/16-14	100	1-1/8-7	10
1/2-13	100	1-1/4-7	10
9/16-12	50	1-1/2-6	10
5/8-11	50	1-3/4-5	1
		2-4-1/2	1

## Heavy Reversible Lock Nuts

18-8 Stainless Steel

Size (in)	Pkg. Qty.	Size (in)	Pkg. Qty.
<b>COARSE THREAD</b>			
1/4-20	100	5/8-11	50
5/16-18	100	3/4-10	25
3/8-16	100	7/8-9	25
7/16-14	100	1-8	25
1/2-13	100		

## Nylon Insert Lock Nuts

18-8 Stainless Steel

Size (in)	Pkg. Qty.	Size (in)	Pkg. Qty.
<b>COARSE THREAD</b>			
4-40	100	<b>1-1/2-6</b>	
6-32	100	<b>FINE THREAD</b>	
8-32	100	10-32	100
10-24	100	1/4-28	100
1/4-20	100	5/16-24	100
5/16-18	100	3/8-24	100
3/8-16	100	7/16-20	100
7/16-14	100	1/2-20	100
1/2-13	100	9/16-18	50
9/16-12	50	5/8-18	50
5/8-11	50	3/4-16	25
3/4-10	25	7/8-14	25
7/8-9	25	1-14	25
1-8	25	1-1/8-12	10
1-1/8-7	10	1-1/4-12	10
1-1/4-7	10	1-1/2-12	10

## Top Lock Nuts

18-8 Stainless Steel

Size (in)	Pkg. Qty.	Size (in)	Pkg. Qty.
1/4-20	100	9/16-12	50
5/16-18	100	5/8-11	50
3/8-16	100	3/4-10	25
7/16-14	100	7/8-9	25
1/2-13	100	1-8	25

**26**  
Fasteners/  
Concrete  
anchors

**Fasteners/Concrete Anchors**

**Stainless Steel Fasteners**

**Lock Nuts**  
18-8 Stainless Steel



Size (in)	Pkg. Qty.	Size (in)	Pkg. Qty.
4-40	100	10-32	100
6-32	100	1/4-20	100
8-32	100	5/16-18	100
10-24	100	3/8-16	100

**Flex-Type Lock Nuts**  
18-8 Stainless Steel



Size (in)	Pkg. Qty.	Size (in)	Pkg. Qty.
6-32	100	7/16-14	100
8-32	100	1/2-13	100
10-24	100	5/8-11	50
1/4-20	100	3/4-10	50
5/16-18	100	7/8-9	25
3/8-16	100	1-8	25

**Wing Nuts**  
18-8 Stainless Steel



Size (in)	Pkg. Qty.	Size (in)	Pkg. Qty.
6-32	100	3/8-16	100
8-32	100	7/16-14	100
10-24	100	1/2-13	100
10-32	100	5/8-11	50
1/4-20	100	3/4-10	50
5/16-18	100		

**Acorn Nuts**  
18-8 Stainless Steel



Size (in)	Pkg. Qty.	Size (in)	Pkg. Qty.
<b>COARSE THREAD</b>		<b>FINE THREAD</b>	
6-32	100	10-32	100
8-32	100	1/4-28	100
10-24	100	5/16-24	100
1/4-20	100	3/8-24	100
5/16-18	100	7/16-20	50
3/8-16	100	1/2-20	50
7/16-14	50	5/8-18	50
1/2-13	50	3/4-16	25
5/8-11	50		
3/4-10	25		

**Finishing washers**  
18-8 Stainless Steel



Size (in)	Pkg. Qty.	Size (in)	Pkg. Qty.
6	100	12	100
8	100	1/4	100
10	100		

**Split Lock washers**  
18-8 Stainless Steel



Size (in)	Pkg. Qty.	Size (in)	Pkg. Qty.
2	100	7/16	100
3	100	1/2	100
4	100	9/16	50
5	100	5/8	50
6	100	3/4	50
8	100	7/8	50
10	100	1	50
12	100	1-1/8	25
1/4	100	1-1/4	25
5/16	100	1-1/2	25
3/8	100		

**Small O.D. Flat washers**  
18-8 Stainless Steel



Size (in)	Pkg. Qty.	Length (in)	Pkg. Qty.
10	100	5/8	50
12	100	3/4	50
1/4	100	7/8	50
5/16	100	1	50
3/8	100	1-1/8	25
7/16	100	1-1/4	25
1/2	100	1-1/2	25

**Internal Tooth Lock washers**  
410 Stainless Steel



Size (in)	Pkg. Qty.	Size (in)	Pkg. Qty.
4	100	1/2	100
6	100	9/16	50
8	100	5/8	50
10	100	3/4	50
12	100	7/8	50
1/4	100	1	25
5/16	100	1-1/8	25
3/8	100	1-1/4	25
7/16	100		

**External Tooth Lock washers**  
410 Stainless Steel



Size (in)	Pkg. Qty.	Size (in)	Pkg. Qty.
4	100	7/16	100
6	100	1/2	100
8	100	9/16	50
10	100	5/8	50
12	100	3/4	50
1/4	100	7/8	50
5/16	100	1	25
3/8	100	1-1/8	25

**Machine Screws**

18-8 Stainless Steel  
Round Head - Slotted  
Coarse and FINE Thread



Length (in)	Pkg. Qty.	Length (in)	Pkg. Qty.
<b>2-56</b>		<b>8-32</b>	
1/8	50	3/16	50
3/16	50	1/4	50
1/4	50	5/16	50
5/16	50	3/8	50
3/8	50	1/2	50
7/16	50	5/8	50
1/2	50	3/4	50
5/8	50	7/8	50
3/4	50	1	50
7/8	50	1-1/4	50
1	50	1-1/2	50
		1-3/4	50
<b>4-40</b>		<b>10-24</b>	
1/8	50	1/4	50
3/16	50	3/8	50
1/4	50	7/16	50
5/16	50	1/2	50
3/8	50	5/8	50
7/16	50	3/4	50
1/2	50	7/8	50
5/8	50	1	50
3/4	50	1-1/4	50
7/8	50	1-1/2	50
1	50	1-3/4	50
1-1/4	50	2	50
1-1/2	50	2-1/4	50
		2-1/2	50
<b>6-32</b>		<b>12-24</b>	
3/16	50	3/8	50
1/4	50	1/2	50
5/16	50	5/8	50
3/8	50	7/8	50
7/16	50	1	50
1/2	50	1-1/4	50
		1-1/2	50
<b>8-32</b>		<b>18-8</b>	
1/8	50	1/2	50
3/16	50	3/4	50
1/4	50	5/8	50
5/16	50	7/8	50
3/8	50	1	50
7/16	50	1-1/4	50
1/2	50	1-1/2	50
		1-3/4	50

**Machine Screws** 18-8 Stainless Steel  
Round Head - Slotted/  
Coarse and FINE Thread - continued

Length (in)	Pkg. Qty.	Length (in)	Pkg. Qty.
<b>10-32</b>		<b>5/16"-18</b>	
5/8	50	1	50
3/4	50	1-1/4	50
7/8	50	1-1/2	50
1	50	1-3/4	50
1-1/4	50	2	50
1-1/2	50	2-1/4	50
1-3/4	50	2-1/2	50
2	50	3	50
2-1/4	50	3-1/2	50
2-1/2	50	4	50
3	50		
3-1/2	50	<b>3/8"-16</b>	
4	50	1/2	50
		5/8	50
<b>12-24</b>		3/4	50
1/4	50	7/8	50
3/8	50	1	50
1/2	50	1-1/4	50
5/8	50	1-1/2	50
3/4	50	1-3/4	50
1	50	2	50
1-1/4	50	2-1/2	50
1-1/2	50	3	50
1-3/4	50	3-1/2	50
2	50	4	50
2-1/4	50		
2-1/2	50	<b>1/2"-13</b>	
3	50	1	50
3-1/2	50	1-1/4	50
4	50	1-1/2	50
		1-3/4	50
<b>18-8</b>		2	50
3/8	50	2-1/2	50
1/2	50	3	50
5/8	50	3-1/2	25
3/4	50	4	25
7/8	50		

**Machine Screws**

18-8 Stainless Steel  
Flat Head - Slotted  
Coarse and FINE Thread



Length (in)	Pkg. Qty.	Length (in)	Pkg. Qty.
<b>2-56</b>		<b>6-32</b>	
5/8	50	3/16	50
3/4	50	1/4	50
7/8	50	5/16	50
1	50	3/8	50
1-1/4	50	7/16	50
1-1/2	50	1/2	50
1-3/4	50		
2	50	<b>8-32</b>	
2-1/4	50	1/8	50
2-1/2	50	3/16	50
3	50	1/4	50
		5/16	50
<b>4-40</b>		3/8	50
1/8	50	7/16	50
3/16	50	1	50
1/4	50	1-1/4	50
5/16	50	1-1/2	50
3/8	50	5/8	50
7/16	50	3/4	50
1/2	50	7/8	50
5/8	50	1	50
3/4	50	1-1/4	50
7/8	50	1-1/2	50
1	50	1-3/4	50

- continues -

- continues -





**Fasteners/Concrete Anchors**

# Stainless Steel Fasteners

## Button Head Socket Cap Screws

18-8 Stainless Steel/COar SE THr Ea D - *continued*

Length (in)	Pkg. Qty.	Length (in)	Pkg. Qty.
3/4	100	3/4	50
7/8	100	7/8	50
1	100	1	50
<b>5/16"-18 with 3/16"</b>			
3/8	100	1/2"-13 with 5/16" Hex	
1/2	100	1	25
5/8	100	1-1/2	25
3/4	100	2	25
1	100	<b>5/8"-11 with 3/8" Hex</b>	
<b>3/8"-16 with 7/32" Hex</b>			
1/2	50	1	25
5/8	50	1-1/2	25
		2	25

## Button Head Socket Cap Screws

18-8 Stainless Steel FINE THr Ea D



Length (in)	Pkg. Qty.	Length (in)	Pkg. Qty.
<b>10-32 with 1/8" Hex</b>			
1/4	100	1	50
3/8	100	<b>5/16"-24 with 3/16" Hex</b>	
1/2	100	3/8	100
5/8	100	1/2	100
3/4	100	5/8	100
7/8	50	3/4	100
1	50	1	50
<b>1/4"-28 with 5/32" Hex</b>			
3/8	100	1/2	50
1/2	100	5/8	50
5/8	100	3/4	50
3/4	100	1	50

## Flat Head Socket Cap Screws

18-8 Stainless Steel COar SE THr Ea D



Length (in)	Pkg. Qty.	Length (in)	Pkg. Qty.
<b>2-56 with .050 Hex</b>			
3/16	100	1-1/2	100
1/4	100	<b>1/4"-20 with 5/32" Hex</b>	
3/8	100	3/8	100
<b>4-40 with 1/16" Hex</b>			
1/4	100	1/2	100
3/8	100	5/8	100
1/2	100	3/4	100
5/8	100	1	100
3/4	100	1-1/4	100
<b>5-40 with 5/64" Hex</b>			
1/4	100	1-1/2	100
3/8	100	1-3/4	100
1/2	100	2	100
3/4	100	2-1/4	100
<b>6-32 with 5/64" Hex</b>			
1/4	100	2-1/2	100
3/8	100	<b>3/8"-16 with 7/32" Hex</b>	
1/2	100	1/2	100
5/8	100	5/8	100
3/4	100	3/4	100
<b>8-32 with 3/32" Hex</b>			
3/8	100	1	100
1/2	100	1-1/4	100
5/8	100	1-1/2	100
3/4	100	2	100
1	100	2-1/4	100
<b>10-24 with 1/8" Hex</b>			
3/8	100	2-1/2	100
1/2	100	3	50
5/8	100		
3/4	100		
1	100		
1-1/4	100		

- continues -

## Flat Head Socket Cap Screws

18-8 Stainless Steel/COar SE THr Ea D - *continued*

Length (in)	Pkg. Qty.	Length (in)	Pkg. Qty.
<b>7/16"-14 with 1/4" Hex</b>			
3/4	100	5/8"-11 with 3/8" Hex	
1	100	1-1/4	25
1-1/2	50	1-1/2	25
2	50	1-3/4	25
<b>1/2"-13 with 5/16" Hex</b>			
3/4	50	2	25
1	50	2-1/4	25
1-1/4	50	2-1/2	25
1-1/2	50	3	25
1-3/4	50	<b>3/4"-10 with 1/2" Hex</b>	
2	50	1-1/4	25
2-1/4	25	1-1/2	25
2-1/2	25	1-3/4	25
3	25	2	25
		2-1/4	25
		2-1/2	25
		3	25

## Flat Head Socket Cap Screws

18-8 Stainless Steel FINE THr Ea D



Length (in)	Pkg. Qty.	Length (in)	Pkg. Qty.
<b>10-32 with 1/8" Hex</b>			
3/8	100	5/8	100
1/2	100	3/4	100
5/8	100	1	100
3/4	100	1-1/4	100
1	100	1-1/2	100
1-1/4	100	<b>3/8"-24 with 7/32" Hex</b>	
1-1/2	100	5/8	100
<b>1/4"-28 with 5/32" Hex</b>			
3/8	100	3/4	100
1/2	100	1	100
5/8	100	1-1/4	100
3/4	100	1-1/2	100
1	100	<b>1/2"-20 with 5/16" Hex</b>	
1-1/4	100	3/4	50
1-1/2	100	1	50
1-3/4	50	1-1/4	50
2	50	1-1/2	50
<b>3/8"-16 with 3/16" Hex</b>			
1/4	100	1-3/4	50
5/16	100	2	50
3/8	100	<b>5/16"-24 with 3/16" Hex</b>	
1/2	100	1/2	100
5/8	100	3/4	100
3/4	100	1	100
1	100	1-1/4	100
1-1/4	100	1-1/2	100
1-1/2	100	1-3/4	100
1-3/4	100	2	100
2	100		

## Socket Set Screws

18-8 Stainless Steel - Cup point COar SE THr Ea D



Length (in)	Pkg. Qty.	Length (in)	Pkg. Qty.
<b>2-56 with .035 Hex</b>			
1/16	100	6-32 with 1/16" Hex	
3/32	100	1/8	100
1/8	100	3/16	100
3/16	100	1/4	100
1/4	100	5/16	100
<b>3-48 with .050 Hex</b>			
3/32	100	3/8	100
1/8	100	7/16	100
3/16	100	1/2	100
1/4	100	5/8	100
<b>4-40 with .050 Hex</b>			
1/8	100	3/4	100
3/16	100	1	100
1/4	100	1-1/4	100
5/16	100	1-1/2	100
3/8	100	5/8	100
1/2	100	3/4	100
5/8	100	7/8	100
3/4	100	1	100
<b>5-40 with 1/16" Hex</b>			
1/8	100	1-1/4	50
3/16	100	1-1/2	50
1/4	100	1-3/4	25
5/16	100	2	25
3/8	100	2-1/2	25
1/2	100		
5/8	100	<b>8-32 with 5/64" Hex</b>	
3/4	100	1/2	100
1	100	5/8	100
<b>10-24 with 3/32" Hex</b>			
3/16	100	3/4	100
1/4	100	1	100
5/16	100	1-1/4	100
3/8	100	1-1/2	100
1/2	100	2	100
5/8	100		
3/4	100	<b>10-24 with 3/32" Hex</b>	
1	100	3/16	100
1-1/4	100	1/4	100
		5/16	100

- continues -

## Socket Set Screws

18-8 Stainless Steel - Cup point COar SE THr Ea D - *continued*

Length (in)	Pkg. Qty.	Length (in)	Pkg. Qty.
3/8	100	3	25
7/16	100	<b>5/8"-11 with 5/16" Hex</b>	
1/2	100	1/2	100
5/8	100	5/8	50
3/4	100	3/4	50
7/8	100	7/8	50
1	100	1	50
1-1/4	100	1-1/4	25
<b>1/4"-20 with 1/8" Hex</b>			
3/16	100	1-1/2	25
1/4	100	1-3/4	25
5/16	100	2	25
3/8	100	<b>0-80 with .028 Hex - Fine Thread</b>	
7/16	100	1/16	100
1/2	100	3/32	100
5/8	100	1/8	100
3/4	100	3/16	100
7/8	100	1/4	100
1	100	<b>1-72 with .035 Hex</b>	
1-1/4	100	1/16	100
1-1/2	50	3/32	100
1-3/4	50	1/8	100
2	50	3/16	100
<b>5/16"-18 with 5/32" Hex</b>			
1/4	100	1/4	100
5/16	100	5/16	100
3/8	100	3/8	100
7/16	100	7/16	100
1/2	100	1/2	100
5/8	100	5/8	100
3/4	100	3/4	100
7/8	100	1	100
1	100	1-1/4	100
1-1/4	100	<b>1/4"-28 with 1/8" Hex</b>	
1-1/2	50	3/16	100
1-3/4	50	1/4	100
2	50	5/16	100
<b>3/8"-16 with 3/16" Hex</b>			
1/4	100	3/8	100
5/16	100	1/2	100
3/8	100	5/8	100
1/2	100	3/4	100
5/8	100	1	100
3/4	100	1-1/4	100
7/8	100	<b>5/16"-24 with 5/32" Hex</b>	
1	100	1/4	100
1-1/4	100	5/16	100
1-1/2	100	3/8	100
1-3/4	100	1/2	100
2	50	5/8	100
2-1/2	50	3/4	100
<b>7/16"-14 with 7/32" Hex</b>			
1/2	100	1	100
3/4	100	1-1/4	100
1	50	1-1/2	100
1-1/2	50	1-3/4	100
2	50	2	50
<b>1/2"-13 with 1/4" Hex</b>			
3/8	100	2-1/2	50
1/2	100		
5/8	100		
3/4	100		
7/8	100		
1	100		
1-1/4	50		
1-1/2	50		
1-3/4	25		
2	25		
2-1/2	25		

**26**  
Fasteners/  
Concrete  
anchors





**Fasteners/Concrete Anchors**

**Stainless Steel Fasteners**

**Socket Head Cap Screws**

18-8 Stainless Steel/COARSE THREAD – continued

Length (in)	Pkg. Qty.	Length (in)	Pkg. Qty.
2	25	<b>7/8"–9</b>	
2-1/4	25	2	25
2-1/2	25	2-1/2	25
3	25	3	25
3-1/2	25	3-1/2	25
4	25	4	25
4-1/2	25	4-1/2	25
5	25	5	25
<b>3/4"–10</b>		<b>1"–8</b>	
1-1/2	25	2	10
2	25	2-1/2	10
2-1/2	25	3	10
3	25	3-1/2	10
3-1/2	25	4	10
4	25	4-1/2	10
4-1/2	25	5	10
5	25	6	10

**Hex Full Nuts**

316 Stainless Steel

Length (in)	Pkg. Qty.	Length (in)	Pkg. Qty.
<b>COARSE THREAD</b>			
0–80	100	1-1/8–7	10
2–56	100	1-1/4–7	10
3–48	100	1-1/2–6	10
4–40	100	1-3/4–5	10
5–40	100	2–4-1/2	1
6–32	100	<b>FINE THREAD</b>	
8–32	100	10–32	100
10–24	100	1/4–28	100
12–24	100	5/16–24	100
1/4–20	100	3/8–24	100
5/16–18	100	7/16–20	100
3/8–16	100	1/2–20	100
7/16–14	100	9/16–18	50
1/2–13	100	5/8–18	50
9/16–12	50	3/4–16	25
5/8–11	50	7/8–14	25
3/4–10	25	1–14	25
7/8–9	25	1-1/8–12	10
1–8	25	1-1/4–12	10
		1-1/2–12	10

**Heavy Hex Nuts**

316 Stainless Steel

Length (in)	Pkg. Qty.	Length (in)	Pkg. Qty.
<b>COARSE THREAD</b>			
1/4–20	100	3/4–10	25
5/16–18	100	7/8–9	25
3/8–16	100	1–8	25
7/16–14	100	1-1/8–7	10
1/2–13	100	1-1/4–7	10
9/16–12	50	1-1/2–6	10
5/8–11	50	1-3/4–5	1
		2–4-1/2	1

**Hex Jam Nuts**

316 Stainless Steel

Length (in)	Pkg. Qty.	Length (in)	Pkg. Qty.
<b>COARSE THREAD</b>		<b>FINE THREAD</b>	
1/4–20	100	1/4–28	100
5/16–18	100	5/16–24	100
3/8–16	100	3/8–24	100
7/16–14	100	7/16–20	100
1/2–13	100	1/2–20	100
9/16–12	50	9/16–18	50
5/8–11	50	5/8–18	50
3/4–10	25	3/4–16	25
7/8–9	25	7/8–14	25
1–8	25	1–14	25
1-1/8–7	10	1-1/8–12	10
1-1/4–7	10	1-1/4–12	10
1-1/2–6	10	1-1/2–12	10

**Nylon Insert Lock Nuts**

316 Stainless Steel

Length (in)	Pkg. Qty.	Length (in)	Pkg. Qty.
<b>COARSE THREAD</b>			
4–40	100	1-1/2–6	10
6–32	100	<b>FINE THREAD</b>	
8–32	100	10–32	100
10–24	100	1/4–28	100
1/4–20	100	5/16–24	100
5/16–18	100	3/8–24	100
3/8–16	100	7/16–20	100
7/16–14	100	1/2–20	100
1/2–13	100	9/16–18	50
9/16–12	50	5/8–18	50
5/8–11	50	3/4–16	25
3/4–10	25	7/8–14	25
7/8–9	25	1–14	25
1–8	25	1-1/8–12	10
1-1/8–7	10	1-1/4–12	10
1-1/4–7	10	1-1/2–12	10

**Hex Reversible Lock Nuts**

316 Stainless Steel

Length (in)	Pkg. Qty.	Length (in)	Pkg. Qty.
<b>COARSE THREAD</b>			
1/4–20	100	5/8–11	50
5/16–18	100	3/4–10	25
3/8–16	100	7/8–9	25
1/2–13	100	1–8	25

**Flex-Type Lock Nuts**

316 Stainless Steel

Length (in)	Pkg. Qty.	Length (in)	Pkg. Qty.
6–32	100	7/16–14	100
8–32	100	1/2–13	100
10–24	100	5/8–11	50
1/4–20	100	3/4–10	50
5/16–18	100	7/8–9	25
3/8–16	100	1–8	25

**Top Lock Nuts**

316 Stainless Steel

Length (in)	Pkg. Qty.	Length (in)	Pkg. Qty.
1/4–20	100	9/16–12	50
5/16–18	100	5/8–11	50
3/8–16	100	3/4–10	25
7/16–14	100	7/8–9	25
1/2–13	100	1–8	25

**Acorn Nuts**

316 Stainless Steel

Length (in)	Pkg. Qty.	Length (in)	Pkg. Qty.
<b>COARSE THREAD</b>			
6–32	100	3/4–10	25
8–32	100	<b>FINE THREAD</b>	
10–24	100	10–32	100
1/4–20	100	1/4–28	100
5/16–18	100	5/16–24	100
3/8–16	100	3/8–24	100
7/16–14	50	7/16–20	50
1/2–13	50	1/2–20	50
5/8–11	50	5/8–18	50
		3/4–16	25

**Cold Forged Wing Nuts**

316 Stainless Steel

Length (in)	Pkg. Qty.	Length (in)	Pkg. Qty.
6–32	100	1/4–20	100
8–32	100	5/16–18	100
10–24	100	3/8–16	100
10–32	100		

**Small O.D. Flat washers**

316 Stainless Steel

Size (in)	O.D.	Pkg. Qty.	Size (in)	O.D.	Pkg. Qty.
3/16	10/16	100	5/8	1-1/2	50
1/2	1/2	100	3/4	1-3/4	50
1/4	5/8	100	7/8	2	50
5/16	3/4	100	1	2	50
3/8	7/8	100	1-1/8	2-1/2	25
7/16	1-1/8	100	1-1/4	2-3/4	25
1/2	1-1/4	100	1-1/2	3-1/4	25

**Finishing washers**

316 Stainless Steel

Length (in)	Pkg. Qty.	Length (in)	Pkg. Qty.
6	100	12	100
8	100	1/4	100
10	100		

**Split Lock washers**

316 Stainless Steel

Length (in)	Pkg. Qty.	Length (in)	Pkg. Qty.
2	100	7/16	100
3	100	1/2	100
4	100	9/16	50
5	100	5/8	50
6	100	3/4	50
8	100	7/8	50
10	100	1	50
12	100	1-1/8	25
1/4	100	1-1/4	25
5/16	100	1-1/2	25
3/8	100		

**Internal Tooth Lock washers**

316 Stainless Steel

Length (in)	Pkg. Qty.	Length (in)	Pkg. Qty.
4	100	1/2	100
6	100	9/16	50
8	100	5/8	50
10	100	3/4	50
12	100	7/8	50
1/4	100	1	25
5/16	100	1-1/8	25
3/8	100	1-1/4	25
7/16	100		

**External Tooth Lock washers**

316 Stainless Steel

Length (in)	Pkg. Qty.	Length (in)	Pkg. Qty.
4	100	7/16	100
6	100	1/2	100
8	100	9/16	50
10	100	5/8	50
12	100	3/4	50
1/4	100	7/8	50
5/16	100	1	25
3/8	100	1-1/8	25





**Fasteners/Concrete Anchors**

**Brass, Nylon, Aluminum**

**machine Screws**  
Brass - Flat Head - Slotted  
Coarse and Fine Thread - continued

Length (in)	Pkg. Qty.	Length (in)	Pkg. Qty.
1-1/4	100	1	100
1-1/2	100	1-1/4	100
1-3/4	100	1-1/2	50
2	100	1-3/4	50
2-1/2	100	2	50
3	100	2-1/2	50
<b>5/16"-18</b>			
1/2	100	3	50
3/4	100	3-1/2	50
1	100	4	50
1-1/4	100	<b>1/2"-13</b>	
1-1/2	100	1	25
1-3/4	100	1-1/4	25
2	100	1-1/2	25
2-1/2	100	1-3/4	25
3	100	2	25
<b>3/8"-16</b>			
3/4	100	2-1/2	25
		3	25

**machine Screws**

Brass - Pan Head  
- Slotted  
Coarse and Fine Thread



Length (in)	Pkg. Qty.	Length (in)	Pkg. Qty.
<b>4"-40</b>			
3/8	100	2-1/4	100
1/2	100	2-1/2	100
5/8	100	3	100
3/4	100	<b>10-32 Fine Thread</b>	
1	100	1/4	100
<b>6-32</b>			
3/8	100	3/8	100
1/2	100	1/2	100
5/8	100	5/8	100
3/4	100	3/4	100
1	100	1	100
1-1/2	100	1-1/4	100
2	100	1-1/2	100
1-3/4	100	1-3/4	100
<b>8-32</b>			
1/4	100	2	100
3/8	100	2-1/4	100
1/2	100	2-1/2	100
5/8	100	3	100
3/4	100	<b>12-24</b>	
1	100	1/2	100
1-1/2	100	3/4	100
1-3/4	100	1	100
2	100	1-1/4	100
2-1/4	100	1-1/2	100
2-1/2	100	1-3/4	100
3	100	2	100
<b>10-24</b>			
1/4	100	2-1/4	100
3/8	100	2-1/2	100
1/2	100	3	100
5/8	100	<b>1/4"-20</b>	
3/4	100	1/2	100
1	100	3/4	100
1-1/4	100	1	100
1-1/2	100	1-1/4	100
1-3/4	100	1-1/2	100
2	100	1-3/4	100
		2	100
		2-1/2	100
		3	100

**wood Screws**

Brass - Round  
Head - Slotted



Length (in)	Pkg. Qty.	Length (in)	Pkg. Qty.
<b>2</b>			
1/4	100	2	100
3/8	100	<b>10</b>	
1/2	100	5/8	100
3/4	100	3/4	100
<b>4</b>			
3/8	100	1	100
1/2	100	1-1/4	100
5/8	100	1-1/2	100
3/4	100	2	100
1	100	2-1/2	100
<b>6</b>			
3/8	100	3	100
1/2	100	<b>12</b>	
5/8	100	3/4	100
3/4	100	1	100
1	100	1-1/4	100
<b>8</b>			
3/8	100	1-1/2	100
1/2	100	1-3/4	100
5/8	100	2	100
3/4	100	2-1/2	100
1	100	3	100
<b>14</b>			
1	100	1	100
1-1/4	100	1-1/4	100
1-1/2	100	1-1/2	100
2	100	1-3/4	100
2-1/2	100	2	100
3	100	2-1/2	100
		3	100

**wood Screws**

Brass - Flat  
Head - Slotted



Length (in)	Pkg. Qty.	Length (in)	Pkg. Qty.
<b>2</b>			
1/4	100	5/8	100
3/8	100	3/4	100
1/2	100	1	100
3/4	100	1-1/4	100
<b>4</b>			
3/8	100	1-1/2	100
1/2	100	2	100
5/8	100	2-1/2	100
3/4	100	3	100
1	100	<b>12</b>	
<b>6</b>			
3/8	100	3/4	100
1/2	100	1	100
5/8	100	1-1/4	100
3/4	100	1-1/2	100
1	100	1-3/4	100
<b>8</b>			
3/8	100	2	100
1/2	100	2-1/2	100
5/8	100	3	100
3/4	100	<b>14</b>	
1	100	1	100
1-1/4	100	1-1/4	100
1-1/2	100	1-1/2	100
2	100	1-3/4	100
2-1/2	100	2	100
3	100	2-1/2	100
		3	100

**wood Screws**

Brass - Flat Head  
- phillips



Length (in)	Pkg. Qty.	Length (in)	Pkg. Qty.
<b>4</b>			
3/8	100	5/8	100
1/2	100	3/4	100
5/8	100	1	100
3/4	100	1-1/4	100
<b>6</b>			
1/2	100	1-1/2	100
5/8	100	<b>10</b>	
3/4	100	3/4	100
1	100	1	100
<b>8</b>			
1/2	100	1-1/4	100
		1-1/2	100
		2	100

**Split Lock washers**

Silicon Bronze



Size (in)	Pkg. Qty.	Size (in)	Pkg. Qty.
4	100	3/8	100
6	100	7/16	100
8	100	1/2	100
10	100	5/8	100
12	100	3/4	50
1/4	100	7/8	50
5/16	100	1	50

**Hex Head Cap  
Screws**

aluminum - Coarse Thread



Length (in)	Pkg. Qty.	Length (in)	Pkg. Qty.
<b>1/4"-20</b>			
1/2	100	<b>3/8"-16</b>	
3/4	100	1/2	100
1	100	3/4	100
1-1/4	100	1	100
1-1/2	100	1-1/4	100
1-3/4	100	1-1/2	100
2	50	1-3/4	100
2-1/2	50	2	50
3	50	2-1/2	50
<b>5/16"-18</b>			
1/2	100	3	50
3/4	100	<b>1/2"-13</b>	
1	100	1/2	50
1-1/4	100	3/4	50
1-1/2	100	1	50
1-3/4	100	1-1/4	50
2	50	1-1/2	50
2-1/2	50	1-3/4	50
3	50	2	25
		2-1/2	25
		3	25

**Hex Full Nuts**

aluminum



Size (in)	Pkg. Qty.	Size (in)	Pkg. Qty.
6-32	100	3/8-16	100
8-32	100	1/2-13	50
10-24	100	5/8-11	50
10-32	100	3/4-10	25
1/4-20	100	7/8-9	25
5/16-18	100	1-8	25

**Flat washers**

aluminum



Size (in)	Pkg. Qty.	Size (in)	Pkg. Qty.
6	100	1/2	50
8	100	5/8	50
3/16	100	3/4	25
1/4	100	7/8	25
5/16	100	1	25
3/8	100		

**machine Screws**

aluminum - Round  
Head - Slotted  
Coarse Thread



Length (in)	Pkg. Qty.	Length (in)	Pkg. Qty.
<b>10-24</b>			
1/2	100	1-1/2	100
3/4	100	2	100
1	100	2-1/2	100
1-1/2	100	3	100
2	100	<b>10-23 Fine Thread</b>	
2-1/2	100	1/2	100
3	100	3/4	100
<b>1/4"-20</b>			
1/2	100	1	100
3/4	100	1-1/2	100
1	100	2	100
		2-1/2	100
		3	100









## Metric

### Socket Set Screws

metric – Cup point – *continued*

Length (in)	Pkg. Qty.	Length (in)	Pkg. Qty.
60	25	<b>M20–2.5mm Pitch 10mm Hex</b>	
80	25		
<b>M16–2.0mm Pitch 8mm Hex</b>			
16	25	20	10
18	25	25	10
20	25	30	10
25	25	35	10
30	25	40	10
35	25	50	10
40	25	60	10
50	25	<b>M24–3.0mm Pitch 12mm Hex</b>	
60	10		
70	10		
80	10	40	5
		45	5
		50	5
		60	5

### Socket Head Shoulder Screws

12.9 metric – plain  
– Stripper Bolts



Shoulder Length (in)	Pkg. Qty.	Shoulder Length (in)	Pkg. Qty.
<b>M6 Shoulder–M5 Thread–0.8mm Pitch</b>			
10	25	60	10
12	25	70	10
16	25	80	10
		90	10
		100	10
20	25	<b>M16 Shoulder–M12 Thread – 1.75 Pitch</b>	
25	25		
30	25		
40	25		
50	25		
60	25		
<b>M8 Shoulder–M6 Thread–1.0mm Pitch</b>			
12	25	30	10
16	25	40	10
20	25	50	10
25	25	60	10
30	25	70	10
40	25	80	10
50	25	90	10
		100	10
		120	10
<b>M10 Shoulder–M8 Thread–1.25mm Pitch</b>			
16	25	<b>M20 Shoulder–M16 Thread – 2.0mm Pitch</b>	
20	25		
25	25		
30	25		
40	25		
50	25		
60	25		
70	25		
80	25		
<b>M12–M10–1.5mm Pitch</b>			
16	25	40	10
20	25	50	10
25	25	60	10
30	25	70	10
40	10	80	10
50	10	90	10
		100	10
		120	10
		<b>M24 Shoulder–M20 Thread – 2.5mm Pitch</b>	

### machine Screws

metric – Slotted  
Cheese Head – Zinc plated



Size (in)	Pkg. Qty.	Size (in)	Pkg. Qty.
<b>M1.6–0.35mm Pitch</b>			
2	100	<b>M2–0.4mm Pitch</b>	
3	100		
4	100		
5	100		
6	100		
8	100		
10	100		
12	100		

– continues –

### machine Screws

metric – Slotted  
Cheese Head – Zinc plated – *continued*

Size (in)	Pkg. Qty.	Size (in)	Pkg. Qty.
25	25	<b>M3–0.5mm Pitch</b>	
30	25		
<b>M2.5–0.45mm Pitch</b>			
3	100	10	100
4	100	12	25
5	100	14	25
6	100	16	25
8	100	20	25
10	100	22	25
12	100	25	25
16	25	30	25
20	25	35	25
25	25	40	25
30	25	45	25
		50	25
		55	25
		60	25
		65	25
<b>M4–0.7mm Pitch</b>			
3	100	70	25
4	100	75	25
5	100	80	25
6	100	90	25
8	100	100	25
10	100	<b>M6–1.0mm Pitch</b>	
12	25		
16	25		
20	25		
25	25		
30	25		
35	25		
45	25		
50	25		
60	25		
<b>M4–0.7mm Pitch</b>			
4	100	50	25
5	100	55	25
6	100	60	25
8	100	65	25
10	100	70	25
12	25	75	25
16	25	80	25
20	25	90	25
25	25	100	25
30	25	<b>M10–1.5mm Pitch</b>	
35	25		
40	25		
45	25		
50	25		
55	25		
60	25		
75	25		
80	25		
90	25		
100	25		
<b>M5–0.8mm Pitch</b>			
5	100	70	10
6	100	80	10
8	100	90	10
		100	10

### machine Screws

metric – Slotted  
Flat Head  
Zinc plated – DIN 963



Size (in)	Pkg. Qty.	Size (in)	Pkg. Qty.
<b>M1.6–0.35mm Pitch</b>			
3	100	<b>M2.5–0.45mm Pitch</b>	
4	100		
5	100		
6	100		
8	100		
10	100		
12	100		
<b>M2–0.4mm Pitch</b>			
4	100		
5	100		
6	100		
8	100		

– continues –

### machine Screws

metric – Slotted/Flat Head  
Zinc plated – DIN 963 – *continued*

Size (in)	Pkg. Qty.	Size (in)	Pkg. Qty.		
<b>M3–0.5mm Pitch</b>					
4	100	<b>M5–0.8mm Pitch</b>			
5	100				
6	100				
8	100				
10	100				
12	50				
14	50				
16	50				
20	50				
22	50				
25	50				
30	50				
35	50				
40	50				
<b>M4–0.7mm Pitch</b>					
5	100			<b>M6–1.0mm Pitch</b>	
6	100				
8	100				
10	100				
12	50				
14	50				
16	50				
20	50				
22	50				
25	50				
30	50				
35	50				
40	50				
<b>M8–1.25mm Pitch</b>					
12	50				
14	50				
16	50				
20	50				
25	50				
30	50				

### Hex Jam Nuts

metric – DIN 439B plain  
– Coarse Thread



Size (in)	Pkg. Qty.	Size (in)	Pkg. Qty.
M2.5–0.45	100	M14–2.0	50
M3–0.5	100	M16–2.0	50
M3.5–0.6	100	M18–2.5	25
M4–0.7	100	M20–2.5	25
M5–0.8	100	M22–2.5	1
M6–1.0	100	M24–3.0	1
M7–1.0	100	M27–3.0	1
M8–1.25	100	M30–3.5	1
M10–1.5	100	M36–4.0	1
M12–1.75	100		

### Hex Full Nuts

metric – DIN 934  
plain or Zinc plated



Size (in)	Pkg. Qty.	Size (in)	Pkg. Qty.
<b>COARSE THREAD</b>			
M1–0.25	100	M24–3.0	50
M1.2–0.25	100	M27–3.0	25
M1.6–0.35	100	M30–3.5	25
		M36–4.0	25
<b>FINE THREAD</b>			
M2–0.4	100	M3–0.35	100
M2.5–0.45	100	M4–0.5	100
M3–0.5	100	M5–0.5	100
M3.5–0.6	100	M6–0.75	100
M4–0.7	100	M8–1.0	100
M5–0.8	100	M10–1.25	100
M6–1.0	100	M12–1.25	100
M7–1.0	100	M14–1.5	100
M8–1.25	100	M16–1.5	50
M10–1.5	100	M18–1.5	50
M12–1.75	100	M20–1.5	50
M14–2.0	100	M22–1.5	50
M16–2.0	50	M24–2.0	50
M18–2.5	50	M27–2.0	25
M20–2.5	50	M30–2.0	25
M22–2.5	50		

**Fasteners/Concrete Anchors**

**Metric**

**Nylock Insert Nuts**  
metric – DIN 985  
Zinc plated – Coarse Thread



Size (in)	Pkg. Qty.	Size (in)	Pkg. Qty.
M2.5-0.45	100	M14-2.0	50
M3-0.5	100	M16-2.0	50
M3.5-0.6	100	M18-2.5	25
M4-0.7	100	M20-2.5	25
M5-0.8	100	M22-2.5	1
M6-1.0	100	M24-3.0	1
M7-1.0	100	M27-3.0	1
M8-1.25	100	M30-3.5	1
M10-1.5	100	M36-4.0	1
M12-1.75	100		

**Castle Nuts**  
metric – DIN 935



Size (in)	Pkg. Qty.	Size (in)	Pkg. Qty.
M4-0.7	50	M20-2.5	10
M5-0.8	50	M24-3.0	1
M6-1.0	50	M30-3.5	1
M8-1.25	50	M36-4.0	1
M10-1.5	50	M42-4.5	1
M12-1.75	50	M48-5.0	1
M16-2.0	25		

**Top Lock Nuts**  
metric – Classic C – DIN 980



Size (in)	Pkg. Qty.	Size (in)	Pkg. Qty.
M3-0.5	100	M10-1.5	100
M4-0.7	100	M12-1.75	100
M5-0.8	100	M16-2.0	50
M6-1.0	100	M20-2.5	25
M8-1.25	100	M24-3.5	1

**Flange Nuts**  
metric – DIN 6923



Size (in)	Pkg. Qty.	Size (in)	Pkg. Qty.
M6-1.0	100	M16-2.0	25
M8-1.25	100	M20-2.5	10
M10-1.5	25	M24-3.0	10
M12-1.75	25		

**acorn Nuts**  
metric – DIN 1587



Size (in)	Pkg. Qty.	Size (in)	Pkg. Qty.
M3-0.5	100	M10-1.5	100
M4-0.7	100	M12-1.75	25
M5-0.8	100	M16-2.0	25
M6-1.0	100	M20-2.5	10
M8-1.25	100	M24-3.0	1

**wing Nuts**  
metric – Cold Forged – DIN 213




Size (in)	Pkg. Qty.	Size (in)	Pkg. Qty.
M3-0.5	25	M8-1.25	25
M4-0.7	25	M10-1.5	25
M5-0.8	25	M12-1.75	25
M6-1.0	25		

**Flat washers**  
metric – DIN 6916 – plain



Size I.D.	O.D.	Size I.D.	O.D.
M12	24	M22	39
M14	28	M24	44
M16	30	M30	56
M20	37	M36	66

**Flat washers**  
metric – DIN 125  
– plain or Zinc plated



Size I.D.	O.D.	Pkg. Qty.	Size I.D.	O.D.	Pkg. Qty.
M1		100	M12	24	100
M1.2		100	M14	28	100
M1.6		100	M16	30	50
M2		100	M18	34	50
M2.5		100	M20	37	50
M3	7	100	M22	39	50
M4	9	100	M24	44	50
M5	10	100	M27	50	25
M6	12.5	100	M30	56	25
M7		100	M33	60	25
M8	17	100	M36	66	25
M10	21	100			

**Fender washers**  
metric – a 2 Stainless Steel  
DIN 9021  
metric Fender washers – 3 x ID



Size I.D.	O.D.	Size I.D.	O.D.
M3	9	M10	30
M4	11	M12	40
M5	15	M16	50
M6	18		
M8	25		

**Split Lock washers**  
metric – DIN 127  
plain or Zinc plated



Size I.D.	Pkg. Qty.	Size I.D.	Pkg. Qty.
M3	100	M24	25
M4	100	M27	25
M5	100	M30	25
M6	100	M33	25
M7	100	M36	25
M8	100	M39	1
M10	100	M42	1
M12	100	M45	1
M14	100	M48	1
M16	50	M52	1
M18	50	M56	1
M20	50	M64	1
M22	50		

**Internal Tooth Lock washers**  
metric – Type J DIN 6797



Size I.D.	Pkg. Qty.	Size I.D.	Pkg. Qty.
M3	100	M10	100
M4	100	M12	50
M5	100	M14	50
M6	100	M16	50
M8	100	M20	50

**External Tooth Lock washers**  
metric – Type a – DIN 6797



Size I.D.	Pkg. Qty.	Size I.D.	Pkg. Qty.
M3	100	M10	100
M4	100	M12	50
M5	100	M14	50
M6	100	M16	50
M8	100	M20	50

**Metric Stainless**

**Hex Head Cap Screws**  
Full Thread  
metric – a 2  
Stainless Steel - DIN 933



Length (in)	Length (in)	Length (in)	Length (in)
<b>m3-0.5</b>	20	90	<b>m18-2.5</b>
6	25	100	30
8	30	<b>m12-1.75</b>	35
10	35	20	40
12	40	25	45
16	45	30	50
20	50	35	55
25	60	40	60
30	80	45	65
35	<b>m8-1.25</b>	50	70
40	10	55	75
<b>m4-0.7</b>	12	60	80
6	16	80	85
8	18	100	90
10	20	<b>m14-2.0</b>	100
12	25	20	150
16	30	25	<b>m20-2.5</b>
20	35	30	30
25	40	35	35
30	45	40	40
35	50	45	45
40	55	50	50
45	60	55	55
<b>m5-0.8</b>	65	60	60
6	70	65	70
8	80	70	75
10	90	75	90
12	100	80	<b>m22-2.5</b>
16	<b>m10-1.50</b>	90	50
20	16	100	55
22	20	<b>m16-2.0</b>	60
25	25	20	65
30	30	25	70
35	35	30	75
40	40	35	80
45	45	40	90
<b>m6-1.0</b>	50	45	100
8	55	50	150
10	60	55	<b>m24-3.0</b>
12	65	60	40
14	70	65	55
16	75	70	70
18	80	80	

**Hex Head Cap Screws**

partial Thread  
metric – a 2  
Stainless Steel - DIN 931



Length (in)	Length (in)	Length (in)	Length (in)
<b>m5-0.8</b>	<b>m8-1.25</b>	100	75
30	35	110	80
35	40	120	100
40	45	130	130
45	50	150	150
50	55	<b>m12-1.75</b>	200
55	60	45	<b>m20-2.5</b>
60	65	50	70
65	70	55	80
70	75	60	90
<b>m6-1.0</b>	80	65	100
30	90	70	110
35	100	75	120
40	150	80	130
45	200	100	140
50	<b>m10-1.50</b>	150	150
55	40	190	<b>m24-3.0</b>
60	45	200	80
65	50	<b>m14-2.0</b>	90
70	55	100	100
75	60	200	110
80	65	<b>m16-2.0</b>	120
90	70	55	130
100	75	60	140
130	80	65	150
150	90	70	



**Fasteners/Concrete Anchors**

**Hex Head Cap Screws**

Full Thread  
 metric - a 4  
 Stainless Steel - DIN 933



Length (in)	Length (in)	Length (in)	Length (in)
m3-0.5	60	30	35
6	m6-1.0	35	40
8	8	40	45
10	10	45	50
12	12	50	55
16	14	55	60
20	16	60	65
25	20	m12-1.75	70
m4-0.7	25	16	75
8	30	20	m20-2.5
10	35	25	30
12	40	30	35
16	45	35	40
20	50	40	45
25	m8-1.25	45	50
30	10	50	55
35	12	55	60
40	16	60	65
m5-0.8	20	m14-2.0	70
8	25	20	75
10	30	30	80
12	35	35	100
16	40	40	m24-3.0
20	45	60	50
25	50	70	60
30	70	80	70
35	75	90	80
40	100	100	m30-3.5
45	m10-1.50	m16-2.0	70
50	16	20	
55	20	25	
	25	30	

**Hex Head Cap Screws**

partial Thread  
 metric - a 4 Stainless  
 Steel - DIN 931



Length (in)	Length (in)	Length (in)	Length (in)
m6-1.0	130	100	100
55	140	110	110
60	150	120	120
65	m10-1.50	130	130
70	65	140	140
75	70	150	150
80	75	m16-2.0	m24-3.0
90	80	70	90
100	90	75	100
m8-1.25	100	80	110
55	110	90	120
60	120	100	130
65	130	110	140
70	140	120	150
75	150	130	m30-3.5
80	m12-1.75	140	80
90	65	150	90
100	70	m20-2.5	100
110	80	75	110
120	90	90	130

**Metric Stainless**

**Socket Head Cap Screws**

metric - a 2  
 Stainless  
 Steel - DIN 912



Length (in)	Length (in)	Length (in)	Length (in)
m2-0.4	m5-.08	35	35
3	8	40	40
4	10	45	50
5	12	50	60
6	14	55	m16-2.0
8	16	60	20
10	18	65	25
12	20	70	30
16	25	75	35
20	30	80	40
m2.5-0.45	35	90	45
5	40	100	50
6	45	150	55
8	50	m10-1.50	60
10	55	16	65
12	60	20	70
16	65	25	75
20	70	30	80
m3-0.5	75	35	90
4	80	40	100
5	m6-1.0	45	150
6	8	50	m20-2.5
8	10	55	40
10	12	60	45
12	14	65	50
14	16	70	55
16	18	75	60
20	20	80	70
25	25	90	80
30	30	100	90
35	35	150	100
40	40	m12-1.75	110
45	45	20	120
50	50	25	130
m4-.07	55	30	140
5	60	35	150
6	65	40	m24-3.0
8	70	45	50
10	75	50	60
12	100	55	70
14	110	60	80
16	130	65	90
18	150	70	100
20	m8-1.25	75	110
25	10	80	120
30	12	90	130
35	16	100	140
40	20	120	150
45	25	150	m14-2.0
50	30		

**Socket Head Cap Screws**

metric - a 4 Stainless  
 Steel - DIN 912



Length (in)	Length (in)	Length (in)	Length (in)
m2-0.4	16	12	30
4	20	16	35
5	25	20	40
6	30	25	45
8	40	30	50
12	m4-0.7	35	55
16	40	40	60
m2.5-0.45	6	45	70
5	8	50	80
8	10	55	90
10	12	60	100
12	16	70	110
16	20	80	120
20	30	m6v1.0	m8-1.25
m3-0.5	35	8	10
5	40	10	12
6	45	12	16
8	50	16	20
10	m5-0.8	18	25
12	8	20	30
14	10	25	35

**Socket Head Cap Screws**

metric - a 4 Stainless  
 Steel - DIN 912 - continued

Length (in)	Length (in)	Length (in)	Length (in)
40	60	100	150
45	70	110	m20-2.5
50	80	120	40
55	90	m14-2.0	45
60	100	20	50
70	110	30	55
80	120	40	60
90	m12-1.75	60	70
100	20	80	80
110	25	100	90
120	30	m16-2.0	100
150	35	30	140
m10-1.50	40	35	150
16	45	40	m24-3.0
20	50	45	70
25	55	50	80
30	60	55	100
35	65	60	110
40	70	70	120
45	75	80	m30-3.5
50	80	90	70
55	90	100	80

**Socket Head Cap Screws**

Button Head  
 metric - a 2 Stainless  
 Steel - ISO 7380



Length (in)	Length (in)	Length (in)	Length (in)
m2-0.4	12	20	50
4	16	25	m10-1.50
5	20	30	20
6	25	35	25
8	m5-0.8	40	30
12	8	45	40
16	10	50	45
m3-0.5	12	m8-1.25	50
6	16	10	m12-1.75
8	20	12	20
10	25	16	25
12	30	20	30
16	35	25	35
m4-0.7	m6-1.0	30	40
6	10	35	45
8	12	40	50
10	16	45	

**Socket Head Cap Screws**

Low Head  
 metric - a 2 Stainless  
 Steel - DIN 6912



Length (in)	Length (in)	Length (in)	Length (in)
m3-0.5	20	16	20
6	25	20	25
8	30	25	30
10	m5-0.8	30	40
12	10	m8-1.25	50
16	12	12	m12-1.75
20	16	16	20
m4-0.7	20	20	25
8	25	25	30
10	30	30	40
12	m6-1.0	80	50
16	12	m10-1.50	

- continues -

## Fasteners/Concrete Anchors

### Socket Head Cap Screws

Flat Head  
metric - a 2 Stainless  
Steel - DIN 7991



Length (in)	Length (in)	Length (in)	Length (in)
m3-0.5	25	35	80
6	30	m8-1.25	90
8	35	40	100
10	40	45	m16-2.0
12	45	50	25
16	50	60	30
20	60	70	35
25	m6-1.0	40	40
30	8	45	45
40	10	50	50
m4-0.7	12	25	60
6	16	30	70
8	20	35	80
10	25	40	90
12	30	45	100
16	35	50	150
20	40	60	m20-2.5
25	45	70	40
30	50	80	45
35	55	m12-1.75	50
40	60	20	60
45	70	25	70
50	m8-1.25	30	80
m5-0.8	10	35	90
10	12	40	100
12	16	45	150
14	20	50	
16	25	60	
20	30	70	

### Socket Head Cap Screws

Flat Head  
metric - a 4 Stainless  
Steel - DIN 7991



Length (in)	Length (in)	Length (in)	Length (in)
m3-0.5	30	10	30
6	35	12	35
8	40	16	40
10	45	20	50
12	50	25	60
16	m5-0.8	30	m10-1.50
20	12	35	16
m4-0.7	16	40	20
6	20	50	25
8	25	m8-1.25	30
10	30	10	35
12	35	12	40
16	40	16	45
20	50	20	
25	m6-1.0	25	

### Socket Set Screws

Cone point  
metric - a 2 Stainless  
Steel - DIN 914



Length (in)	Length (in)	Length (in)	Length (in)
m3-0.5	4	8	m8-1.25
3	5	10	8
4	6	12	10
5	8	16	12
6	10	m6-1.0	16
8	12	6	20
10	16	8	
12	m5-0.8	10	
16	5	12	
m4-0.7	6	16	

## Metric Stainless

### Socket Set Screws

Cup point  
metric - a 2 Stainless  
Steel - DIN 916



Length (in)	Length (in)	Length (in)	Length (in)
m2-0.4	25	8	12
3	m4-0.7	10	16
4	4	12	20
5	5	16	25
6	6	20	30
8	8	25	35
10	10	30	40
12	12	35	45
m2.5-0.45	16	40	50
3	20	45	60
4	25	50	70
5	30	m8-1.25	m12-1.75
6	8	8	12
8	m5-0.8	10	16
10	5	12	20
12	6	16	25
m3-0.5	8	20	30
3	10	25	35
4	12	30	40
5	16	35	45
6	20	40	50
8	25	45	60
10	30	50	
12	35	60	
16	40	m10-1.50	
20	m6-1.0	10	
	6		

### Socket Set Screws

Cup point  
metric - a 4 Stainless  
Steel - DIN 916



Length (in)	Length (in)	Length (in)	Length (in)
m3-0.5	8	50	m5-0.8
3	10	m12-1.75	5
4	12	12	6
5	16	16	8
6	20	20	10
8	25	25	12
10	30	30	16
12	35	35	m6-1.0
16	40	40	6
20	45	45	8
m4-0.7	m8-1.25	50	10
4	8	60	12
5	10	70	16
6	16	20	m3-0.5
8	20	3	3
10	25	4	4
12	30	5	5
16	35	6	6
20	40	8	8
m5-0.8	45	10	10
5	50	12	12
6	16	16	16
8	m10-1.50	20	m10-1.50
10	10	25	12
12	12	30	16
16	16	4	m4-0.7
20	20	5	4
25	25	6	5
30	30	8	6
m6-1.0	35	10	8
40	40	12	10
6	45	16	12

### machine Screws

Flat Head - phillips  
metric - a 2 Stainless  
Steel - DIN 965



Length (in)	Length (in)	Length (in)	Length (in)
m2-0.4	6	40	16
4	8	45	20
5	10	50	25
6	12	m5-0.8	30
8	16	6	35
10	20	8	40
12	25	10	45
16	30	12	50
20	35	16	60
m2.5-0.45	40	20	m8-1.25
4	m4-0.7	25	12
5	5	30	16
6	6	35	20
8	8	40	25
10	10	45	30
12	12	50	35
16	16	60	40
20	20	m6-1.0	45
m3-0.5	25	8	50
4	30	10	60
5	35	12	

### machine Screws

Flat Head - Slotted  
metric - a 2 Stainless  
Steel - DIN 963



Length (in)	Length (in)	Length (in)	Length (in)
m2.5-0.45	35	16	35
5	m4-0.7	20	40
6	6	25	50
8	8	30	60
10	10	35	70
12	12	40	m8-1.25
16	16	45	16
20	20	50	20
m3-0.5	25	60	30
6	30	70	35
8	35	m6-1.0	40
10	45	10	50
12	50	12	60
16	m5-0.8	16	70
20	8	20	
25	10	25	
30	12	30	

### machine Screws

Oval Head - phillips/  
a 2 Stainless Steel  
metric - DIN 966



Length (in)	Length (in)	Length (in)	Length (in)
m2.5-0.45	6	16	30
5	8	20	35
6	10	25	40
8	12	30	45
10	16	35	50
m3-0.5	20	40	m8-1.25
4	25	45	16
5	30	50	20
6	35	m6-1.0	25
8	m5-0.8	8	30
10	6	10	35
12	8	12	40
16	10	16	45
20	12	20	50
25		25	

**Fasteners/Concrete Anchors**

**Metric Stainless**

**machine Screws**

pan Head - phillips  
metric - a 2 Stainless  
Steel - DIN 7985a



Length (in)	Length (in)	Length (in)	Length (in)
<b>m2.5-0.45</b>			
4	30	10	25
5	35	12	30
6	40	14	35
	<b>m4-0.7</b>	16	40
8	5	18	45
10	6	20	50
12	8	25	60
16	10	30	70
20	12	35	80
25	14	40	
	<b>m3-0.5</b>	16	45
4	18	50	12
5	20	60	16
6	22	80	20
8	25	<b>m6-1.0</b>	25
10	30	8	30
12	35	10	35
14	40	12	40
16	45	14	45
18	50	16	50
20	<b>m5-0.8</b>	18	60
22	6	20	
25	8	22	

**a corn Nuts**

metric - a 2 Stainless  
Steel - DIN 980



Size	Size	Size
M4	M8	M14
M5	M10	M16
M6	M12	M20

**a ll metal l ock Nuts**

metric - a 2 Stainless Steel  
DIN 980



Size	Size	Size
M5	M10	M16
M6	M12	M20
M8	M14	

**Finished Hex Nuts**

Coarse Thread  
metric - a 2 Stainless Steel  
DIN 934



Size	Thread Pitch	Size	Thread Pitch	Size	Thread Pitch
M2	0.4	M8	1.25	M24	3.0
M2.5	0.45	M10	1.5	M27	3.0
M3	0.5	M12	1.75	M30	3.5
M3.5	0.6	M14	2.0	M33	3.5
M4	0.7	M16	2.0	M36	4.0
M5	0.8	M18	2.5	M42	4.5
M6	1.0	M20	2.5	M48	5.0
M7	1.0	M22	2.5		

**Finished Hex Nuts**

Coarse Thread  
metric-a 4 Stainless Steel  
DIN 934



Size	Thread Pitch	Size	Thread Pitch	Size	Thread Pitch
M3	0.5	M12	1.75	M24	3.0
M4	0.7	M14	2.0	M27	3.0
M5	0.8	M16	2.0	M30	3.5
M6	1.0	M18	2.5	M33	3.5
M8	1.25	M20	2.5	M36	4.0
M10	1.5	M22	2.5		

**Finished Hex Nuts**

Fine Thread  
metric-a 2 Stainless Steel  
DIN 934



Size	Thread Pitch	Size	Thread Pitch	Size	Thread Pitch
M8	1.0	M12	1.5	M20	1.5
M10	1.25	M14	1.5	M24	2.0
M10	1.0	M16	1.5		

**Finished Hex Nuts**

Coarse Thread- l eft Hand  
metric-a 2 Stainless Steel  
DIN 934



Size	Size	Size
M6	M12	M20
M8	M14	M24
M10	M16	

**Hex Jam Nuts**

metric-a 2 Stainless Steel  
DIN 439



Size	Size	Size
M3	M8	M16
M4	M10	M20
M5	M12	M24
M6	M14	

**Hex Jam Nuts**

metric - a 4 Stainless Steel  
DIN 439



Size	Size	Size
M3	M6	M12
M4	M8	M16
M5	M10	M20

**Nylon Insert l ock Nut**

metric - a 2 Stainless Steel  
DIN 985



Size	Size	Size
M3	M8	M16
M4	M10	M20
M5	M12	M22
M6	M14	M24

**Nylon Insert l ock Nut**

metric - a 4 Stainless Steel  
DIN 985



Size	Size	Size
M3	M8	M16
M4	M10	M20
M5	M12	
M6	M14	

**weld Nuts**

metric - a 2 Stainless Steel



Size	Size
M5	M8
M6	M10

**Fender washers**

metric - a 2 Stainless Steel  
DIN 9021



O.D. (3 x I.D.)	Size	Size	Thread Pitch
18mm	M6	36mm	M12
24mm	M8	48mm	M16
30mm	M10		

**Flat washers**

metric-a 2 Stainless Steel



Size	Size	Size	Size
M2	M6	M14	M24
M2.5	M7	M16	M30
M3	M8	M18	M33
M4	M10	M20	M36
M5	M12	M22	

**Flat washers**

metric-a 4 Stainless Steel  
DIN 125



Size	Size	Size	Size
M2.5	M8	M16	M30
M3	M10	M18	M42
M5	M12	M20	
M6	M14	M24	

**Split l ock washers**

metric-a 2 Stainless Steel  
DIN 127



Size	Size	Size	Size
M2	M5	M10	M18
M2.5	M6	M12	M20
M3	M7	M14	M22
M4	M8	M16	M24

**machine Screws**

pan Head - Slotted  
metric - a 2 Stainless  
Steel - DIN 85



Length (in)	Length (in)	Length (in)	Length (in)
<b>m2-0.4</b>			
5	8	50	20
6	10	<b>m5-0.8</b>	25
8	12	10	30
	16	12	35
10	20	16	45
12	25	20	50
16	<b>m4-0.7</b>	25	60
20	5	30	70
<b>m2.5-0.45</b>	6	35	<b>m8-1.25</b>
5	8	40	12
6	10	50	16
10	12	60	20
12	16	<b>m6-1.0</b>	25
16	20	8	30
<b>m3-0.5</b>	25	10	35
5	30	12	40
6	35	16	45

**machine Screws**

pan Head - phillips  
metric - a 4 Stainless  
Steel - DIN 7985



Length (in)	Length (in)	Length (in)	Length (in)
<b>m3-0.5</b>			
6	20	16	<b>m5-0.8</b>
10	25	20	16
12	<b>m4-0.7</b>	25	
16	10	30	
	12	35	

**machine Screws**

Truss Head-Slotted  
metric-a 2 Stainless Steel



Length (in)	Length (in)	Length (in)	Length (in)
<b>m4-0.7</b>			
8	40	35	35
10	<b>m5-0.8</b>	40	40
12	8	<b>m6-1.0</b>	<b>m8-1.25</b>
16	10	10	16
20	12	12	20
25	16	16	25
30	20	20	30
35	25	25	35
	30	30	40

26

Fasteners/  
Concrete  
anchors

Fasteners/Concrete Anchors

Metric Stainless

Split Lock washers

metric-a 4 Stainless Steel  
DIN 127



Size	Size	Size	Size
M2.5	M6	M12	M20
M3	M8	M14	M24
M4	M10	M16	M30
M5			

External Tooth

Lock washers

metric-a 2 Stainless Steel  
DIN 6797a



Size	Size	Size
M3	M6	M12
M4	M8	M18
M5	M10	M20

Internal retaining rings

metric - a 2 Stainless Steel  
DIN 472



Size	Size	Size	Size
M8	M21	M35	M60
M9	M22	M36	M62
M10	M23	M37	M65
M11	M24	M38	M68
M12	M25	M40	M70
M13	M26	M42	M72
M14	M27	M45	M80
M15	M28	M47	M85
M16	M29	M48	M90
M17	M30	M50	M100
M18	M32	M52	
M19	M33	M55	
M20	M34	M58	

Threaded rod

Low Carbon Steel  
- plain or Zinc plated

Length (in)	Pkg. Qty.
<b>3' COARSE THREAD</b>	
6-32	1
8-32	1
10-24	1
12-24	1
1/4-20	1
5/16-18	1
3/8-16	1
7/16-14	1
1/2-13	1
9/16-12	1
5/8-11	1
3/4-10	1
7/8-9	1
1-8	1
1-1/8-7	1
1-1/4-7	1
1-3/8-6	1
1-1/2-6	1
1-3/4-5	1
2-4.5	1
<b>3' FINE THREAD</b>	
10-32	1
1/4-28	1
5/16-24	1
3/8-24	1
7/16-20	1
1/2-20	1
9/16-18	1
5/8-18	1
3/4-16	1
7/8-14	1
1-14	1
1-1/8-12	1
1-1/4-12	1
1-1/2-12	1
<b>6' COARSE THREAD</b>	
6-32	1
8-32	1
10-24	1
12-24	1
1/4-20	1
5/16-18	1
3/8-16	1
7/16-14	1
1/2-13	1
9/16-12	1
5/8-11	1
3/4-10	1
7/8-9	1
1-8	1
1-1/8-7	1
1-1/4-7	1
1-3/8-6	1
1-1/2-6	1
1-3/4-5	1
2-4.5	1
<b>6' FINE THREAD</b>	
10-32	1
1/4-28	1
5/16-24	1
3/8-24	1
7/16-20	1
1/2-20	1
9/16-18	1
5/8-18	1
3/4-16	1
7/8-14	1



Rod

Left Hand

Threaded rod

Low Carbon Steel - plain

Length (in)	Pkg. Qty.	Length (in)	Pkg. Qty.
<b>6' COARSE THREAD</b>		<b>6' FINE THREAD</b>	
10-24	1	1-5/8-5.5	1
1/4-20	1	1-3/4-5	1
5/16-18	1	2-4.5	1
3/8-16	1	10-32	1
7/16-14	1	1/4-28	1
1/2-13	1	5/16-24	1
9/16-12	1	3/8-24	1
5/8-11	1	7/16-20	1
3/4-10	1	1/2-20	1
7/8-9	1	9/16-18	1
1-8	1	5/8-18	1
1-1/8-7	1	3/4-16	1
1-1/4-7	1	7/8-14	1
1-3/8-6	1	1-14	1
1-1/2-6	1		

Threaded rod

metric - DIN 975

Length (in)	Pkg. Qty.	Length (in)	Pkg. Qty.
<b>1 METER - CLASS 4.6</b>		<b>1 METER - CLASS 8.8</b>	
4-0.7	1	56-5.5	1
5-0.8	1	64-6.0	1
6-1.0	1	6-1.0	1
8-1.25	1	8-1.25	1
10-1.5	1	10-1.5	1
12-1.75	1	12-1.75	1
14-2.0	1	14-2.0	1
16-2.0	1	16-2.0	1
18-2.5	1	18-2.5	1
20-2.5	1	20-2.5	1
22-2.5	1	22-2.5	1
24-3.0	1	24-3.0	1
27-3.0	1	27-3.0	1
30-3.5	1	30-3.5	1
33-3.5	1	33-3.5	1
36-4.0	1	36-4.0	1
39-4.0	1	39-4.0	1
42-4.5	1	42-4.5	1
45-4.5	1	45-4.5	1
48-5.0	1	48-5.0	1
52-5.0	1		

Threaded rod

18-8 Stainless Steel  
- Coarse Thread

Length (in)	Pkg. Qty.	Length (in)	Pkg. Qty.
<b>6'</b>		<b>12'</b>	
8-32	1	1-1/2-6	1
10-24	1	10-24	1
10-32	1	1/4-20	1
1/4-20	1	5/16-18	1
5/16-18	1	3/8-16	1
3/8-16	1	7/16-14	1
7/16-14	1	1/2-13	1
1/2-13	1	9/16-12	1
9/16-12	1	5/8-11	1
5/8-11	1	3/4-10	1
3/4-10	1	7/8-9	1
7/8-9	1	1-8	1
1-8	1	1-1/8-7	1
1-1/8-7	1	1-1/4-7	1
1-1/4-7	1		

**Rod**

**Threaded rod  
 316 Stainless Steel**

Length (in)	Pkg. Qty.	Length (in)	Pkg. Qty.
<b>6' COARSE THREAD</b>			
1/4-20	1	5/16-18	1
5/16-18	1	3/8-16	1
3/8-16	1	7/16-14	1
1/2-13	1	1/2-13	1
5/8-11	1	9/16-12	1
3/4-10	1	5/8-11	1
7/8-9	1	3/4-10	1
1-8	1	7/8-9	1
<b>12' COARSE THREAD</b>			
10-24	1	1-8	1
1/4-20	1	1-1/8-7	1
		1-1/4-7	1
		1-1/2-6	1

**Threaded rod  
 Brass**

Length (in)	Pkg. Qty.	Length (in)	Pkg. Qty.
<b>3'</b>			
6-32	1	3/8-16	1
8-32	1	7/16-14	1
10-24	1	1/2-13	1
10-32	1	5/8-11	1
1/4-20	1	3/4-10	1
5/16-18	1	7/8-9	1
		1-8	1

**Threaded rod  
 Nylon**

Length (in)	Pkg. Qty.	Length (in)	Pkg. Qty.
<b>6'</b>			
6-32	1	3/8-16	1
8-32	1	7/16-14	1
10-24	1	1/2-13	1
10-32	1	5/8-11	1
1/4-20	1	3/4-10	1
5/16-18	1	7/8-9	1
		1-8	1

**Threaded rod  
 aluminum**

Length (in)	Pkg. Qty.	Length (in)	Pkg. Qty.
<b>6'</b>			
6/32	1	5/16-18	1
8/32	1	3/8-16	1
10-24	1	1/2-13	1
10-32	1	5/8-11	1
1/4-20	1	3/4-10	1

**Threaded rod  
 B-7 alloy Steel**

Length (in)	Pkg. Qty.	Length (in)	Pkg. Qty.
<b>6' COARSE THREAD</b>			
10-24	1	3/4-10	1
1/4-20	1	7/8-9	1
5/16-18	1	1-8	1
3/8-16	1	1-1/8-8	1
7/16-14	1	1-1/4-8	1
1/2-13	1	1-3/8-8	1
9/16-12	1	1-1/2-8	1
5/8-11	1	1-5/8-8	1
3/4-10	1	1-3/4-8	1
7/8-9	1	2-8	1
1-8	1	<b>6' FINE THREAD</b>	
1-1/8-8	1	10-32	1
1-1/4-7	1	1/4-28	1
1-1/4-8	1	5/16-24	1
1-3/8-8	1	3/8-24	1
1-1/2-8	1	7/16-20	1
1-5/8-8	1	1/2-20	1
1-3/4-8	1	9/16-18	1
2-8	1	5/8-18	1
<b>12' COARSE THREAD</b>			
1/4-20	1	3/4-16	1
5/16-18	1	7/8-14	1
3/8-16	1	1-14	1
1/2-13	1	1-1/8-12	1
5/8-11	1	1-1/4-12	1
		1-3/8-12	1
		1-1/2-12	1
		1-5/8-12	1
		1-3/4-12	1
		2-12	1

**B-7 Full Thread Studs  
 aStm a 193  
 plain**

Length (in)	Pkg. Qty.	Length (in)	Pkg. Qty.
<b>1/2"-13 Dia</b>		<b>3/4"-10 Dia.</b>	
2	50	6-3/4	25
2-1/4	50	7	25
2-1/2	50	7-1/4	25
2-3/4	50	7-1/2	25
3	50	7-3/4	25
3-1/4	50	8	25
3-1/2	50	8-1/4	10
3-3/4	50	8-1/2	10
4	50	8-3/4	10
4-1/4	50	9	10
4-1/2	50	<b>3/4"-10 Dia.</b>	
4-3/4	50	3	25
5	50	3-1/4	25
5-1/4	25	3-1/2	25
5-1/2	25	3-3/4	25
5-3/4	25	4	25
6	25	4-1/4	25
6-1/4	25	4-1/2	25
6-1/2	25	4-3/4	25
6-3/4	25	5	25
7	25	5-1/4	25
<b>5/8"-11 Dia.</b>		5-1/2	25
2	50	5-3/4	25
2-1/4	50	6	10
2-1/2	50	6-1/4	10
2-3/4	50	6-1/2	10
3	50	6-3/4	10
3-1/4	50	7	10
3-1/2	50	7-1/4	10
3-3/4	50	7-1/2	10
4	50	7-3/4	10
4-1/4	50	8	10
4-1/2	50	8-1/4	10
4-3/4	50	8-1/2	10
5	50	8-3/4	10
5-1/4	50	9	10
5-1/2	50	<b>7/8"-9 Dia.</b>	
5-3/4	50	3-1/2	10
6	25	3-3/4	10
6-1/4	25	4	10
6-1/2	25	4-1/4	10
		4-1/2	10

- continues -

**B-7 Full Thread Studs  
 aStm a 193 - plain - continued**

Length (in)	Pkg. Qty.	Length (in)	Pkg. Qty.
<b>1"-8 DIA.</b>		<b>1-1/4"-8 DIA</b>	
4-3/4	10	9-3/4	5
5	10	10	5
5-1/4	10	10-1/4	5
5-1/2	10	10-1/2	1
5-3/4	10	<b>1-1/4"-8 DIA</b>	
6	10	6	5
6-1/4	10	6-1/4	5
6-1/2	10	6-1/2	5
6-3/4	10	6-3/4	5
7	10	7	5
7-1/4	10	7-1/4	5
7-1/2	10	7-1/2	5
7-3/4	10	7-3/4	5
8	10	8	5
8-1/4	10	8-1/4	5
8-1/2	10	8-1/2	5
8-3/4	10	8-3/4	5
9	10	9	5
<b>1"-8 DIA.</b>		9-1/4	5
4	10	9-1/2	1
4-1/4	10	9-3/4	1
4-1/2	10	10	1
4-3/4	10	10-1/4	1
5	10	10-1/2	1
5-1/4	10	10-3/4	1
5-1/2	10	11	1
5-3/4	10	<b>1-3/8"-8 DIA</b>	
6	10	7	5
6-1/4	10	7-1/4	5
6-1/2	10	7-1/2	5
6-3/4	10	7-3/4	5
7	10	8	1
7-1/4	10	8-1/4	1
7-1/2	10	8-1/2	1
7-3/4	10	8-3/4	1
8	10	9	1
8-1/4	10	9-1/4	1
8-1/2	10	9-1/2	1
8-3/4	10	9-3/4	1
9	10	10	1
<b>1-1/8"-8 DIA</b>		10-1/4	1
5	10	10-1/2	1
5-1/4	10	10-3/4	1
5-1/2	10	11	1
5-3/4	10	11-1/4	1
6	10	11-1/2	1
6-1/4	10	<b>1-1/2"-8 DIA</b>	
6-1/2	10	8	1
6-3/4	10	8-1/4	1
7	10	8-1/2	1
7-1/4	5	8-3/4	1
7-1/2	5	9	1
7-3/4	5	9-1/4	1
8	5	9-1/2	1
8-1/4	5	9-3/4	1
8-1/2	5	10	1
8-3/4	5	10-1/4	1
9	5	10-1/2	1
<b>1-1/8"-8 DIA</b>		10-3/4	1
5	10	11	1
5-1/4	10	11-1/4	1
5-1/2	10	11-1/2	1
5-3/4	10	11-3/4	1
6	10	12	1
6-1/4	10	<b>1-1/2"-8 DIA</b>	
6-1/2	10	8	1
6-3/4	10	8-1/4	1
7	10	8-1/2	1
7-1/4	10	8-3/4	1
7-1/2	10	9	1
7-3/4	10	9-1/4	1
8	10	9-1/2	1
8-1/4	10	9-3/4	1
8-1/2	10	10	1
8-3/4	10	10-1/4	1
9	10	10-1/2	1
<b>7/8"-9 Dia.</b>		10-3/4	1
3-1/2	10	11	1
3-3/4	10	11-1/4	1
4	10	11-1/2	1
4-1/4	10	11-3/4	1
4-1/2	10	12	1

**26**  
 Fasteners/  
 Concrete  
 anchors

**Fasteners/Concrete Anchors**

**EriStrut®**

**EriStrut®**

**Specifications:**

**Channel Material**

ERISTRUT channel and continuous inserts are cold roll-formed from high quality carbon steel. The raw steel used conforms to the following ASTM specifications:

g age	Finish	a STm No.
12	GR, HDG, PG	A570 GR33 A446 GRA
14	GR, HDG, PG	A570 GR33 A446 GRA

**FINISHES:**

**green powder Coated (gr)**

ERISTRUT's green poly-urethane powder coating is electrostatically applied after fabrication. Once the channel is pre-treated and cleaned, it is coated with the powder and proceeds through a baking process creating a chemical bond, resulting in a 1.5 mil thickness of poly-urethane coating. This coating provides excellent resistance to chipping, peeling, and corrosion.

**pre-galvanized (pg)**

The zinc coating on this channel is produced by hot dipping the steel coil or sheet at the mill prior to fabrication. This process is also known as "mill galvanized". The steel is then rolled and processed by to produce various sizes and configurations of channel. During the fabrication of this product, the cut edges and welded areas are no longer zinc coated. However, the zinc near the uncoated metal provides sufficient protection to any bare areas. Pre-galvanized channel is suitable for use in dry or mildly corrosive atmospheres.

**Hot Dip galvanized (HDg)**

The zinc coating in this finish is applied after rolling and fabrication. The bond formed by dipping the finished product in molten zinc, completely covers all surfaces, including edges and welds. This zinc coating is recommended for prolonged outdoor exposure and will normally protect steel for up to 20 years or more. For best results, any field cuts should be treated with a zinc rich paint to ensure the integrity of the finish.

**Stainless Steel (S4 or S6)**

ERISTRUT offers channel and accessories in AISI Type 304 or Type 316 stainless steel. Both are non magnetic. Stainless steel reduces long term maintenance costs, is ideal for use in extreme ambient temperatures, and is resistant to corrosion.

**aluminum (al)**

Aluminum channel offers low insulation costs through ease of handling and field cutting, while providing excellent corrosion resistance. All aluminum channels are extruded from aluminum alloy 6063-T6. Strut fittings are made from aluminum alloy 5052-H32.

**plain (pl)**

The plain finish designation means that the channel retains the oiled surface applied to the steel prior to the rolling process. This channel offers no protection from corrosion.

**FITTING S:**

ERISTRUT fittings, unless otherwise noted, are punch pressed from hot rolled, pickled and oiled steel plates, strip or coil, and conform to ASTM specifications A575, A576, A635 and A36. The picking of the steel provides a smooth scale free surface.

**Hardware:**

ERISTRUT's Channel nuts are designed to provide gripping power and ease during installation. Channel nuts are press formed, machined and hardened from steel that meet the requirements of ASTM A576, ASTM A675 and ASTM A108. Standard finish is electro-plated zinc (ASTM B663). Channel nuts are rectangular with beveled ends to permit quarter turn in the channel after insertion through the rolled opening. Toothed grooves engage the rolled edges of the channel, and prevent movement of the nut after tightening of bolt and nut. All bolts, screws and nuts meet the physical and chemical requirements of ASTM A307, SAEJ429 and ASTM A563, as well as having unified inch screw threads (course, UNC). Metric threads are also available.

**Electro-plated Zinc (Eg)**

The Electro-plated Zinc process deposits a coating of zinc other than steel by electrolysis from a bath of zinc sales. EG finish is usually recommended for indoor use in relatively dry areas.

Unless otherwise noted, the standard finish for all O-Strut fittings and accessories is EG. This finish conforms with ASTM B633 SC1.

**Load applications:**

**uSING Er ISTR uT I OaD TaBI ES**

The calculation for beam loading, on a piece of strut or a beam, supported on both ends with a uniformly distributed load is based on the following equations taken from "Machinery's Handbook, 24th edition":

$$\text{Stress at center (worse Case)} = \frac{WL}{8Z} \text{ [eq. 1]}$$

$$\text{Maximum deflection at center} = \frac{5}{384} * \frac{WL^3}{EI} \text{ [eq. 2]}$$

W = Load value evenly distributed over the strut (maximum supplied by the manufacturer)

Z = Section modulus (calculated or supplied by the manufacturer)

E = Modulus of elasticity of the material (29,000,000 psi for commercial grade steel)

I = Moment of inertia of the cross section of the strut (calculated or supplied by the manufacturer)

L = Length of strut

**Selecting the Er ISTR uT profile**

Typically the capacity ratings for strut are listed for an evenly distributed load as shown above. Although this case may be rare for pipe support applications, it does provide a baseline from which the acceptable load for a given piping layout can be obtained. The figures listed in the load tables are based on a yield stress rating for steel. ERISTRUT used 25,000 psi as the maximum stress allowed in the strut member.

The most commonly asked question concerning beam design for strut is how are the loads calculated if a point load or several point loads are applied instead of a uniformly distributed load. This can be derived from the supplied information using simple conversion numbers derived from the formulas in "Machinery's Handbook". A sample of the calculation used for the listed evenly distributed load and a single point load is shown in the next equation.

$$\text{point load stress} = \frac{WL}{4Z}$$

$$\text{evenly distributed load stress} = \frac{WL}{8Z}$$

$$\frac{\text{evenly distributed load stress}}{\text{point load stress}} = \frac{1}{2} = 0.50$$

The comparison formula above shows the stress is doubled and the allowable load cut in half when applying a point load instead of an evenly distributed load. This is case 2 on the Loading Application Tables. Other load factors are also shown. Simply apply the load factor for the appropriate case to the maximum loads shown in the catalog to obtain the maximum load for the situation. The load used in the calculation should include a factor of safety appropriate for the application in which the strut is being used.

Consider an applied load of 250 lbs. (AL) as a point load to the center of a 24-in. section of strut. Assume that the strut has half slots and the required factor of safety (FS) is 3. First, determine the appropriate hole factor (HF) and load factor (LF) from the Load Application Table. Then calculate the design load.

$$\text{design load} = \frac{AL * FS}{LF * HF} = \frac{250\text{lb.} * 3}{0.5 * 0.9} = 1667\text{lb.}$$

Next, in the load tables find the strut section which has a uniform load rating higher than the design load for a 24 inch section. Note that A12 allows 1692 lb. for a 24 inch section. If no strut sections will support the design load, a different support configuration may need to be selected.

**Deflection Calculations**

The maximum allowable deflection is based on an industry standard of the length of the member divided by 240. For a 24" section of channel this would yield an allowable deflection of .10". These values are listed in the load tables. The deflection for a simply supported beam with uniform load of 250 lb. using eq. 2 is:

$$\text{deflection} = \frac{5}{384} * \frac{WL^3}{EI} = \frac{5 * 250\text{lb.} * (24\text{in})^3}{384 * 29000000\text{lb. in.}^{-2} * 0.188\text{in}^4} = 0.008\text{in.}$$

– Load Applications Continue –

# Eristrut®

### Load Applications (continued)

In order to determine the deflection for other loading cases multiply the deflection amount for the uniform loading case by the deflection factor found in the Load Application Chart. An allowance must be made for a channel that is punched with slots or holes. For a simply supported beam with concentrated load in the center of the span:

$$\text{Deflection} = \text{Uniform Load Deflection} * \text{DF} * \text{HF} = 0.008 \text{ in.} * 1.6 * 1.1 = 0.014 \text{ in.}$$

$$\text{Allowable Deflection} = \frac{L}{240} = \frac{24 \text{ in.}}{240} = 0.10 \text{ in.}$$

Note that this deflection is within the recommended range. If it is not, another beam or another support configuration should be selected.

### Factor of Safety Calculations



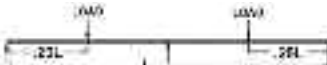

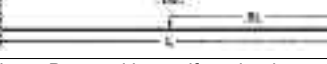
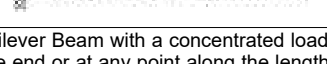
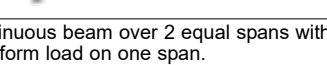
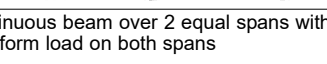

ERISTRUT uses 25,000 psi as the maximum stress allowed in the strut member. Considering a 1-5/8" x 1-5/8" piece of 12 gauge channel (ERISTRUT Model A12) two (2) feet in length with an applied load of 250 lb. Using Eq. 1 we find the values of:

$$\text{stress} = \frac{WL}{8Z} = \frac{250 \text{ lb.} * 24 \text{ in.}}{8 * 0.203 \text{ in}^3} = 3695 \text{ psi.}$$




Since our example is for a point load the stress will be doubled per the Load Application Chart.



$$\text{Factor of Safety} = \frac{\text{LF} * \text{HF} * 25000 \text{ psi.}}{\text{Actual Stress}} = \frac{0.5 * 0.9 * 25000}{3695} = 3$$


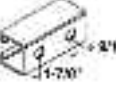
The figures on these pages illustrate the load applications and the derived conversion factors. These factors multiplied by the load ratings will give the maximum recommended load in that application for the type of ERISTRUT being used.

I loading a plication	I load Factor (I F)	Deflection Factor (DF)
1. Simple beam with a uniformly applied load and supported at each end. 	1.00	1.00
2. Simple beam with a concentrated load at center and supported at each end. 	0.50	1.60
3. Simple beam with 2 equal concentrated loads at 1/4 total length from ends and supported at each end. 	1.00	1.10
4. Beam Fixed at both ends with a uniformly applied load. 	1.50	0.20
5. Beam Fixed at both ends with a concentrated load at center. 	1.00	0.40
6. Cantilever Beam with a uniform load. 	0.25	9.60
7. Cantilever Beam with a concentrated load at the end or at any point along the length. 	0.12	25.60
8. Continuous beam over 2 equal spans with a uniform load on one span. 	1.30	0.71
9. Continuous beam over 2 equal spans with a uniform load on both spans 	1.00	0.42

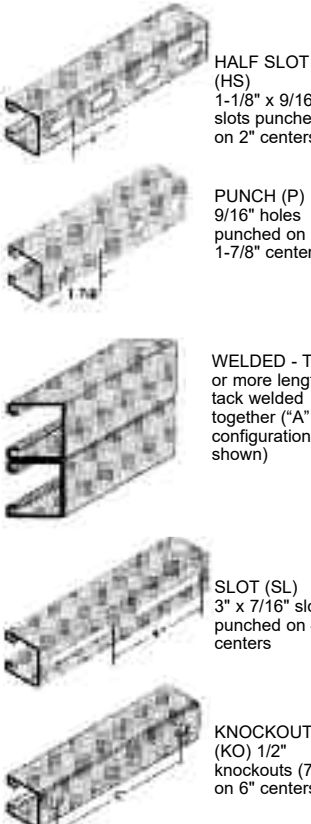
### Load Applications (continued)

I loading a plication	I load Factor (I F)	Deflection Factor (DF)
10. Continuous beam over 2 equal spans with a concentrated load at the center of both spans. 	0.67	0.72
11. A beam supported at both ends with 2 symmetrical loads at the same distance from each end. 	$\frac{L^2}{8 * A * B}$	Consult Factory
12. A beam supported at both ends with 2 symmetrical loads each the same distance from each end. 	$\frac{2 * L}{8 * A}$	Consult Factory

Hole Type	Sample	Hole Factor (HF)
None or Solid		1.00
Full Slot		0.90

Hole Type	Sample	Hole Factor (HF)
Half Slot		0.92
Punched		0.92

### Channel Selection Chart



**HALF SLOT (HS)**  
1-1/8" x 9/16" slots punched on 2" centers

**PUNCH (P)**  
9/16" holes punched on 1-7/8" centers

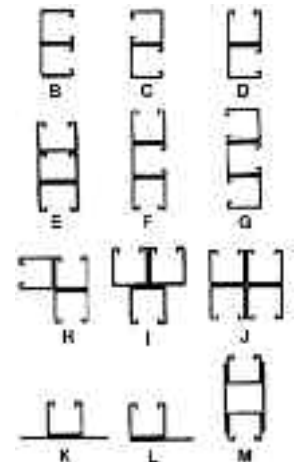
**WELDED** - Two or more lengths tack welded together ("A" configuration shown)

**SLOT (SL)**  
3" x 7/16" slots punched on 4" centers

**KNOCKOUT (KO)**  
1/2" knockouts (7/8" on 6" centers)

Model No.	Width (in)	Height (in)	Material Size (gal)
A12	1-5/8	1-5/8	12
A14	1-5/8	1-5/8	14
B12	1-5/8	1-3/8	12
C12	1-5/8	13/16	12
C14	1-5/8	13/16	14
D12	1-5/8	2-7/16	12
E12	1-5/8	3-1/4	12
M12	1-5/8	1	12

#### Other wEI DED Configurations:

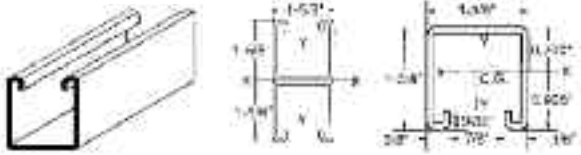


(Special configurations available upon request)

**Fasteners/Concrete Anchors**

**Eristrut®**

**a-12 Channel**



Channel Part #	Wt. lbs/ft	Area of Section sq.in.	Elements of Section					
			Axis x-x			Axis y-y		
			I (in. <sup>4</sup> )	S (in. <sup>3</sup> )	R (in.)	I (in. <sup>4</sup> )	S (in. <sup>3</sup> )	R (in.)
A-12	1.890	.583	.188	.203	.581	.257	.316	.680
A-12A	3.780	1.166	.920	.566	.910	.514	.634	.680

I = Moment of Inertia S = Section Modulus R = Radius of Gyration

Channel Part #	Beam Span or Unbraced Column Ht. (in)	Uniform Load @ Stress of 25,000 PSI (lbs)	Deflection @ Stress of 25,000 PSI (lbs)	Uniform Load (lbs) when Max. Deflection = $\frac{span}{240}$	Max. Allowable Load of Column (lbs)
A-12 UL Listed	18	2256	.031	2256	9481
	24	1692	.056	1692	8582
	30	1353	.087	1353	7601
	36	1128	.126	1128	6595
	42	967	.171	967	5595
	48	846	.223	757	4718
	54	752	.283	598	4090
	60	677	.349	485	3616
	72	564	.503	337	2936
	84	483	.684	247	2461
A-12A	18	6289	.018	6289	21239
	24	4717	.032	4717	20819
	30	3773	.050	3773	20279
	36	3144	.072	3144	19619
	42	2695	.097	2695	18840
	48	2358	.127	2358	17940
	54	2096	.161	2096	16920
	60	1887	.199	1887	15781
	72	1572	.286	1572	13141
	84	1348	.39	1210	10076
A-14A	18	1179	.509	926	7715
	24	1048	.644	732	6096
	30	943	.796	593	4937

**BEam I Oa DS** - Loads listed are uniformly distributed. \*\*  $\frac{KL}{r}$  exceeds 200  
 When deflection is not a factor, use stress of 25,000 PSI.  
 When deflection is a factor, use deflection of  $\frac{span}{240}$ .  
**COI umN I Oa DS** - Loads listed are for unbraced height, K=1.0.  
 Modules of elasticity = 29,000,000 PSI.

**a-14 Channel**



Channel Part #	Wt. lbs/ft	Area of Section sq.in.	Elements of Section					
			Axis x-x			Axis y-y		
			I (in. <sup>4</sup> )	S (in. <sup>3</sup> )	R (in.)	I (in. <sup>4</sup> )	S (in. <sup>3</sup> )	R (in.)
A-14	1.350	.398	.142	.155	.597	.177	.215	.655
A-14A	2.700	.796	.685	.421	.927	.354	.430	.655

I = Moment of Inertia S = Section Modulus R = Radius of Gyration

Channel Part #	Beam Span or Unbraced Column Ht. (in)	Uniform Load @ Stress of 25,000 PSI (lbs)	Deflection @ Stress of 25,000 PSI (lbs)	Uniform Load (lbs) when Max. Deflection = $\frac{span}{240}$	Max. Allowable Load of Column (lbs)
A-14 UL Listed	18	1722	.032	1722	6058
	24	1292	.056	1292	5483
	30	1033	.088	1033	4958
	36	861	.127	861	4302
	42	738	.173	738	3571
	48	646	.226	572	3008

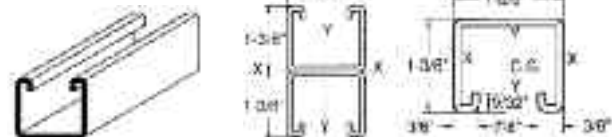
- continues -

**A-14 Channel (continued)**

Channel Part #	Beam Span or Unbraced Column Ht. (in)	Uniform Load @ Stress of 25,000 PSI (lbs)	Deflection @ Stress of 25,000 PSI (lbs)	Uniform Load (lbs) when Max. Deflection = $\frac{span}{240}$	Max. Allowable Load of Column (lbs)						
						<b>Beam &amp; Column Loads Data</b>					
						54	574	.286	452	2488	
60	517	.353	366	2200							
72	431	.506	254	1740							
84	369	.692	187	1444							
96	323	.903	143	1236							
108	287	1.143	113	1078							
120	258	1.411	92	953**							
A-14A	18	4678	.018	4678	13085						
	24	3508	.032	3508	12828						
	30	2807	.050	2807	12667						
	36	2339	.072	2339	12256						
	42	2005	.097	2005	12031						
	48	1754	.127	1754	11456						
	54	1559	.161	1559	11179						
	60	1403	.199	1403	10427						
	72	1169	.286	1169	9169						
	84	1002	.389	901	7683						
96	877	.509	690	6024							
108	780	.644	545	4760							
120	702	.796	441	3856							

**BEam I Oa DS** - Loads listed are uniformly distributed. \*\*  $\frac{KL}{r}$  exceeds 200  
 When deflection is not a factor, use stress of 25,000 PSI.  
 When deflection is a factor, use deflection of  $\frac{span}{240}$ .  
**COI umN I Oa DS** - Loads listed are for unbraced height, K=1.0.  
 Modules of elasticity = 29,000,000 PSI.

**B-12 Channel**



Channel Part #	Wt. lbs-ft	Area of Section sq.in.	Elements of Section					
			Axis x-x			Axis y-y		
			I (in. <sup>4</sup> )	S (in. <sup>3</sup> )	R (in.)	I (in. <sup>4</sup> )	S (in. <sup>3</sup> )	R (in.)
B-12	1.704	.500	.134	.168	.517	.219	.269	.662
B-12A	3.408	1.000	.602	.438	.775	.438	.538	.662

I = Moment of Inertia S = Section Modulus R = Radius of Gyration

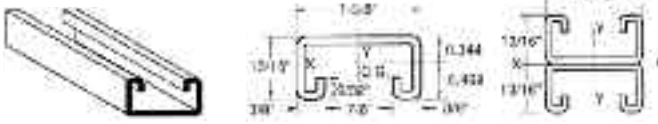
Channel Part #	Beam Span or Unbraced Column Ht. (in)	Uniform Load @ Stress of 25,000 PSI (lbs)	Deflection @ Stress of 25,000 PSI (lbs)	Uniform Load (lbs) when Max. Deflection = $\frac{span}{240}$	Max. Allowable Load of Column (lbs)
B-12	18	1867	.036	1867	9266
	24	1400	.065	1400	8387
	30	1120	.101	1120	7514
	36	933	.146	933	6520
	42	800	.199	705	5672
	48	700	.259	540	4778
B-12	54	622	.328	426	4177
	60	560	.405	345	3693
	72	467	.584	240	2994
	84	400	.794	176	2489
	96	350	1.038	135	1993
	108	311	1.313	107	1574**
120	280	1.621	86	1275**	
B-12A	18	4867	.021	4867	20831
	24	3650	.038	3650	20421
	30	2920	.059	2920	19724
	36	2433	.085	2433	19083
	42	2086	.115	2086	18073
	48	1825	.151	1825	17210
B-12	54	1622	.191	1622	15869
	60	1460	.235	1460	14801
	72	1217	.339	1078	11858
	84	1043	.461	792	8798
	96	913	.602	606	6736
	108	811	.762	479	5322
120	730	.941	388	4311	

**BEam I Oa DS** - Loads listed are uniformly distributed. \*\*  $\frac{KL}{r}$  exceeds 200  
 When deflection is not a factor, use stress of 25,000 PSI.  
 When deflection is a factor, use deflection of  $\frac{span}{240}$ .  
**COI umN I Oa DS** - Loads listed are for unbraced height, K=1.0.  
 Modules of elasticity = 29,000,000 PSI.



# Eristrut®

## C-12 Channel



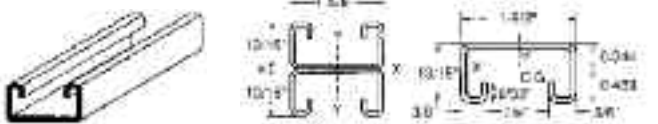
Elements of Section								
Channel Part #	Wt. lbs-ft	Area of Section sq.in.	Axis x-x			Axis y-y		
			I (in. <sup>4</sup> )	S (in. <sup>3</sup> )	R (in.)	I (in. <sup>4</sup> )	S (in. <sup>3</sup> )	R (in.)
C-12	1.350	.389	.030	.061	.278	.145	.179	.616
C-12A	2.700	.766	.142	.175	.431	.290	.357	.616

I = Moment of Inertia S = Section Modulus R = Radius of Gyration

Beam & Column Loads Data						
Channel Part #	Beam Span or Unbraced Column Ht. (in)	Uniform Load @ Stress of 25,000 PSI (lbs)	Deflection @ Stress of 25,000 PSI (lbs)	Uniform Load (lbs) when Max. Deflection = $\frac{span^2}{240}$	Max. Allowable Load of Column (lbs)	
C-12	18	678	.059	678	7204	
	24	508	.105	483	6521	
	30	407	.164	309	4167	
	36	339	.237	215	3616	
	42	290	.322	158	2415	
	48	254	.421	121	2034	
	54	226	.532	95	1473	
	60	203	.657	77	1302**	
	72	169	.947	54	904**	
	84	145	1.288	39	664**	
96	127	1.683	30	-		
108	113	2.13	24	-		
120	102	2.629	19	-		
C-12A	18	1944	.036	1944	16741	
	24	1458	.064	1458	16412	
	30	1167	.100	1167	13825	
	36	972	.143	972	13376	
	42	833	.195	747	10169	
	48	729	.255	572	9683	
	54	648	.323	452	6699	
	60	583	.398	366	6248	
	72	486	.574	254	4339	
	84	417	.781	187	3188	
96	365	1.020	143	2441**		
108	324	1.291	113	1928**		
120	292	1.594	92	1562**		

BEam I Oa DS - Loads listed are uniformly distributed. When deflection is not a factor, use stress of 25,000 PSI. When deflection is a factor, use deflection of  $\frac{span^2}{240}$ . \*\*  $\frac{KL}{r}$  exceeds 200  
 COI umN I Oa DS - Loads listed are for unbraced height, K=1.0. Modules of elasticity = 29,000,000 PSI.

## C-14 Channel



Elements of Section								
Channel Part #	Wt. lbs-ft	Area of Section sq.in.	Axis x-x			Axis y-y		
			I (in. <sup>4</sup> )	S (in. <sup>3</sup> )	R (in.)	I (in. <sup>4</sup> )	S (in. <sup>3</sup> )	R (in.)
C-14	1.000	.275	.028	.060	.319	.116	.142	.649
C-14A	2.000	.550	.121	.149	.469	.232	.284	.649

I = Moment of Inertia S = Section Modulus R = Radius of Gyration

Beam & Column Loads Data					
Channel Part #	Beam Span or Unbraced Column Ht. (in)	Uniform Load @ Stress of 25,000 PSI (lbs)	Deflection @ Stress of 25,000 PSI (lbs)	Uniform Load (lbs) when Max. Deflection = $\frac{span^2}{240}$	Max. Allowable Load of Column (lbs)
C-14	18	667	.062	667	5488
	24	500	.111	451	4968
	30	400	.173	289	3545
	36	333	.249	200	3076
	42	286	.339	147	2053
	48	250	.443	113	1730
	54	222	.561	59	1252
	60	200	.693	72	1107**
	72	167	.998	50	769**

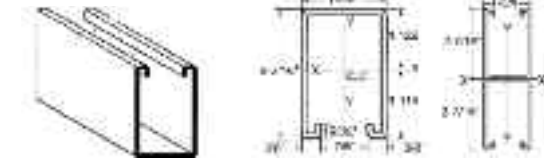
- continues -

## C-14 Channel (continued)

Beam & Column Loads Data					
Channel Part #	Beam Span or Unbraced Column Ht. (in)	Uniform Load @ Stress of 25,000 PSI (lbs)	Deflection @ Stress of 25,000 PSI (lbs)	Uniform Load (lbs) when Max. Deflection = $\frac{span^2}{240}$	Max. Allowable Load of Column (lbs)
	84	143	1.358	37	565**
	96	125	1.773	28	-
	108	111	2.244	22	-
	120	100	2.771	18	-
	120	100	2.771	18	-
C-14A	18	1656	.036	1656	11897
	24	1242	.064	1242	11663
	30	993	.100	993	10362
	36	828	.143	828	10026
	42	710	.195	637	8122
	48	621	.255	487	7734
	54	552	.322	385	5504
	60	497	.398	312	5134
	72	414	.573	217	3566
	84	355	.780	159	2620
96	310	1.019	122	2006**	
108	276	1.290	96	1585**	
120	248	1.592	78	1284**	

BEam I Oa DS - Loads listed are uniformly distributed. When deflection is not a factor, use stress of 25,000 PSI. When deflection is a factor, use deflection of  $\frac{span^2}{240}$ . \*\*  $\frac{KL}{r}$  exceeds 200  
 COI umN I Oa DS - Loads listed are for unbraced height, K=1.0. Modules of elasticity = 29,000,000 PSI.

## D-14 Channel



Elements of Section								
Channel Part #	Wt. lbs-ft	Area of Section sq.in.	Axis x-x			Axis y-y		
			I (in. <sup>4</sup> )	S (in. <sup>3</sup> )	R (in.)	I (in. <sup>4</sup> )	S (in. <sup>3</sup> )	R (in.)
D-12	2.470	.725	.520	.395	.847	.337	.415	.682
D-12A	4.940	1.450	2.865	1.175	1.405	.674	.830	.682

I = Moment of Inertia S = Section Modulus R = Radius of Gyration

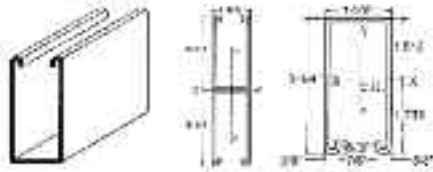
Beam & Column Loads Data					
Channel Part #	Beam Span or Unbraced Column Ht. (in)	Uniform Load @ Stress of 25,000 PSI (lbs)	Deflection @ Stress of 25,000 PSI (lbs)	Uniform Load (lbs) when Max. Deflection = $\frac{span^2}{240}$	Max. Allowable Load of Column (lbs)
D-12	18	4389	.022	4389	9533
	24	3292	.039	3292	8629
	30	2633	.061	2633	7821
	36	2194	.088	2194	6786
	42	1881	.120	1881	5680
	48	1646	.157	1646	4785
	54	1463	.199	1463	3984
	60	1317	.246	1317	3523
	72	1097	.354	931	2806
	84	940	.481	684	2345
96	823	.629	524	2019	
108	731	.796	414	1773	
120	658	.982	335	1577	
D-12A	18	13056	.012	13056	20500
	24	9792	.021	9792	20293
	30	7833	.033	7833	19801
	36	6528	.048	6528	19509
	42	5595	.065	5595	18860
	48	4896	.085	4896	18412
	54	4352	.107	4352	17607
	60	3917	.133	3917	17002
	72	3264	.191	3264	15278
	84	2798	.260	2798	13240
96	2448	.339	2448	10889	
108	2176	.430	2176	8610	
120	1958	.530	1846	6974	

BEam I Oa DS - Loads listed are uniformly distributed. When deflection is not a factor, use stress of 25,000 PSI. When deflection is a factor, use deflection of  $\frac{span^2}{240}$ . \*\*  $\frac{KL}{r}$  exceeds 200  
 COI umN I Oa DS - Loads listed are for unbraced height, K=1.0.

**Fasteners/Concrete Anchors**

**Eristrut®**

**E-12 Channel**



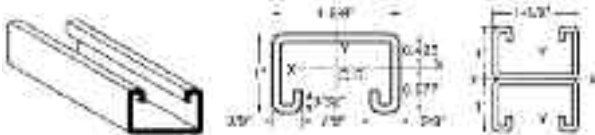
Channel Part #	Wt. lbs-ft	Area of Section sq.in.	Elements of Section					
			Axis x-x			Axis y-y		
			I (in. <sup>4</sup> )	S (in. <sup>3</sup> )	R (in.)	I (in. <sup>4</sup> )	S (in. <sup>3</sup> )	R (in.)
E-12	3.060	.898	1.111	.640	1.112	.438	.539	.698
E-12A	6.120	1.796	6.344	1.920	1.879	.876	1.078	.698

I = Moment of Inertia S = Section Modulus R = Radius of Gyration

Channel Part #	Beam Span or Unbraced Column Ht. (in)	Uniform Load @ Stress of 25,000 PSI (lbs)	Deflection @ Stress of 25,000 PSI (lbs)	Uniform Load (lbs) when Max. Deflection = $\frac{span^2}{240}$	Max. Allowable Load of Column (lbs)
E-12	18	7111	.017	7111	8598
	24	5333	.030	5333	7783
	30	4267	.047	4267	7495
	36	3556	.067	3556	6503
	42	3048	.091	3048	5921
	48	2667	.119	2667	4988
	54	2370	.151	2370	4066
	60	2133	.186	2133	3595
	72	1778	.268	1778	2790
	84	1524	.365	1461	2291
96	1333	.477	1119	1953	
108	1185	.603	884	1708	
120	1067	.745	716	1522	
E-12A	18	21333	.009	21333	17925
	24	16000	.016	16000	17572
	30	12800	.024	12800	17331
	36	10667	.035	10667	17127
	42	9143	.048	9143	16715
	48	8000	.063	8000	16503
	54	7111	.079	7111	16102
	60	6400	.098	6400	15701
	72	5333	.141	5333	14721
	84	4571	.192	4571	13563
96	4000	.250	4000	12226	
108	3556	.317	3556	10712	
120	3200	.391	3200	9019	

**BEa m I Oa DS** - Loads listed are uniformly distributed.  
When deflection is not a factor, use stress of 25,000 PSI.  
When deflection is a factor, use deflection of  $\frac{span^2}{240}$ .  
**COI umN I Oa DS** - Loads listed are for unbraced height, K=1.0.

**m-12 Channel**



Channel Part #	Wt. lbs-ft	Area of Section sq.in.	Elements of Section					
			Axis x-x			Axis y-y		
			I (in. <sup>4</sup> )	S (in. <sup>3</sup> )	R (in.)	I (in. <sup>4</sup> )	S (in. <sup>3</sup> )	R (in.)
M-12	1.410	.430	.055	.095	.357	.163	.201	.616
M-12A	2.82	.860	.263	.263	.553	.327	.402	.616

I = Moment of Inertia S = Section Modulus R = Radius of Gyration

Channel Part #	Beam Span or Unbraced Column Ht. (in)	Uniform Load @ Stress of 25,000 PSI (lbs)	Deflection @ Stress of 25,000 PSI (lbs)	Uniform Load (lbs) when Max. Deflection = $\frac{span^2}{240}$	Max. Allowable Load of Column (lbs)
M-12	18	1056	.050	1056	8384
	24	792	.089	792	7589
	30	633	.140	567	6828
	36	528	.201	394	5925
	42	452	.274	289	4169
	48	396	.357	222	3512
	54	352	.452	175	2541
	60	317	.558	142	2247
	72	264	.804	98	1561**
	84	226	1.094	72	1147**
96	198	1.429	55	878**	
108	176	1.809	44	-	

**M-12 Channel (continued)**

Channel Part #	Beam Span or Unbraced Column Ht. (in)	Uniform Load @ Stress of 25,000 PSI (lbs)	Deflection @ Stress of 25,000 PSI (lbs)	Uniform Load (lbs) when Max. Deflection = $\frac{span^2}{240}$	Max. Allowable Load of Column (lbs)
M-12A	18	2922	.029	2922	19347
	24	2192	.052	2192	18964
	30	1753	.081	1753	17214
	36	1461	.116	1461	16654
	42	1252	.158	1252	14603
	48	1096	.207	1059	13906
	54	974	.262	837	11483
	60	877	.323	678	10710
	72	731	.466	471	7531
	84	626	.634	346	5533
96	548	.828	265	4236	
108	487	1.047	209	3347	
120	438	1.293	169	2711**	

**BEa m I Oa DS** - Loads listed are uniformly distributed. **\*\* KL/r exceeds 200**  
When deflection is not a factor, use stress of 25,000 PSI.  
When deflection is a factor, use deflection of  $\frac{span^2}{240}$ .  
**COI umN I Oa DS** - Loads listed are for unbraced height, K=1.0.  
Modules of elasticity = 29,000,000 PSI.

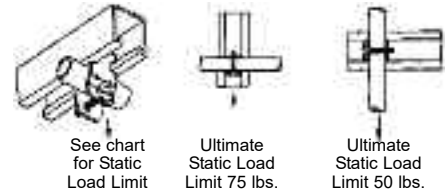
**plpE Cl a mpS**

Unless noted, Standard Finish: EG

**Sk Series**

**One piece Break a part Clamp**  
available in Electro-galvanized (Eg), 304 Stainless Steel (SS), aluminum (al) or Copper plated (Cp), sized for copper tubing

- Sized for Steel Pipe or Rigid and EMT Conduit
- Retained Bolt and built in nut (thread impression)\*



Material	Part No.	Fig. No.	Size (in)	Static/Load Limit
Electro Galvanized Steel (EG)	SK85I	1	1/2	200
	SK125I	1	3/4	200
	SK165I	1	1	200
	SK205I	1	1-1/4	200
	SK245I	1	1-1/2	200
	SK325I	1	2	200
Aluminum (AL)*	SK405I	2	2-1/2	350
	SK485I	2	3	350
	SK565I	2	3-1/2	350
	SK645I	2	4	350
	SK8AL	3	1/2	150
	SK12AL	3	3/4	150
Stainless Steel (SS)	SK16AL	3	1	150
	SK20AL	3	1-1/4	150
	SK24AL	3	1-1/2	150
	SK32AL	3	2	150
	SK40AL	4	2-1/2	200
	SK48AL	4	3	200
Cooper Plated Steel (CP)	SK56AL	4	3-1/2	200
	SK64AL	4	4	200
	SK8SS	1	1/2	200
	SK12SS	1	3/4	200
	SK16SS	1	1	200
	SK20SS	1	1-1/4	200
Cooper Plated Steel (CP)	SK24SS	1	1-1/2	200
	SK32SS	1	2	200
	SK40SS	2	2-1/2	350
	SK48SS	2	3	350
	SK56SS	2	3-1/2	350
	SK64SS	2	4	350
Cooper Plated Steel (CP)	SKT8CP	1	1/2 (5/8)	200
	SKT12CP	1	3/4 (7/8)	200
	SKT16CP	1	1 (1-1/8)	200
	SKT20CP	1	1-1/4 (1-3/8)	200
	SKT24CP	1	1-1/2 (1-5/8)	200
	SKT32CP	1	2 (2-1/8)	200
Cooper Plated Steel (CP)	SKT40CP	2	2-1/2 (2-5/8)	350
	SKT48CP	2	3 (3-1/8)	350
	SKT56CP	2	3-1/2 (3-5/8)	350
	SKT64CP	2	4 (4-1/8)	350

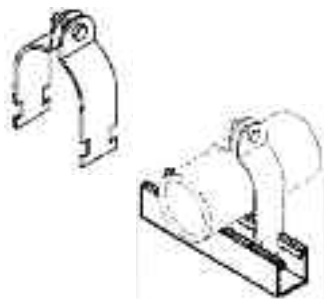
\*Aluminum SK's do not have thread impression. An aluminum bolt and nut are normally provided. Also available with standard steel nut and bolt.



# Erstrut®

## Clamps for rigid Conduit

Part No.	Size (in)	O.D. (in)	Design Load
RIGD 3/8	3/8	.675	400
RIGD 1/2	1/2	.840	400
RIGD 3/4	3/4	1.050	600
RIGD 1	1	1.315	600
RIGD 1- 1/4	1-1/4	1.660	600
RIGD 1-1/2	1-1/2	1.900	800
RIGD 2	2	2.375	800
RIGD 2-1/2	2-1/2	2.875	800
RIGD 3	3	3.500	800
RIGD 3-1/2	3-1/2	4.000	1000
RIGD 4	4	4.500	1000
RIGD 5	5	5.563	1000
RIGD 6	6	6.625	1000
RIGD 8	8	8.625	1000



## Clamps for rigid or EmT Conduit

Part No.	Size (in)	Design Load
UNIV 1/2	1/2	400
UNIV 3/4	3/4	600
UNIV 1	1	600
UNIV 1-1/4	1-1/4	600
UNIV 1-1/2	1-1/2	800
UNIV 2	2	800

## Clamps for EmT Conduit

Part No.	Size (in)	O.D. (in)	Design Load
EMTC 1/2	1/2	.706	400
EMTC 3/4	3/4	.922	600
EMTC 1	1	1.163	600
EMTC 1-1/4	1-1/4	1.510	600
EMTC 1-1/2	1-1/2	1.740	800
EMTC 2	2	2.197	800

## O.D. Clamp for Tubing

Part No.	O.D. (in)	Design Load
O.D. 1/4	.250	400
O.D. 3/8	.375	400
O.D. 1/2	.500	400
O.D. 5/8	.625	400
O.D. 3/4	.750	400
O.D. 7/8	.870	400
O.D. 1	1.000	600
O.D. 1-1/8	1.125	600
O.D. 1-1/4	1.250	600
O.D. 1-3/8	1.375	600
O.D. 1-1/2	1.500	600
O.D. 1-5/8	1.625	600
O.D. 1-3/4	1.750	800
O.D. 1-7/8	1.870	800
O.D. 2	2.000	800
O.D. 2-1/8	2.125	800
O.D. 2-1/4	2.250	800
O.D. 2-3/8	2.375	800
O.D. 2-1/2	2.500	800
O.D. 2-5/8	2.625	800
O.D. 2-3/4	2.750	800
O.D. 2-7/8	2.875	800
O.D. 3	3.000	800
O.D. 3-1/8	3.125	800
O.D. 3-1/4	3.250	800
O.D. 3-3/8	3.375	800
O.D. 3-1/2	3.500	1000
O.D. 3-5/8	3.625	1000
O.D. 3-3/4	3.750	1000
O.D. 3-7/8	3.875	1000
O.D. 4	4.000	1000
O.D. 4-1/8	4.125	1000
O.D. 4-1/4	4.250	1000
O.D. 4-3/8	4.375	1000
O.D. 4-1/2	4.500	1000

Part No.	O.D. (in)	Design Load
O.D. 4-5/8	4.625	1000
O.D. 4-3/4	4.750	1000
O.D. 4-7/8	4.875	1000
O.D. 5	5.000	1000
O.D. 5-1/8	5.125	1000
O.D. 5-1/4	5.250	1000
O.D. 5-3/8	5.375	1000
O.D. 5-1/2	5.500	1000
O.D. 5-5/8	5.625	1000
O.D. 5-3/4	5.750	1000
O.D. 5-7/8	5.875	1000
O.D. 6	6.000	1000
O.D. 6-1/8	6.125	1000
O.D. 6-1/4	6.250	1000
O.D. 6-3/8	6.375	1000
O.D. 6-1/2	6.500	1000
O.D. 6-5/8	6.625	1000
O.D. 6-3/4	6.750	1000
O.D. 6-7/8	6.875	1000
O.D. 7	7.000	1000
O.D. 7-1/8	7.125	1000
O.D. 7-1/4	7.250	1000
O.D. 7-3/8	7.375	1000
O.D. 7-1/2	7.500	1000
O.D. 7-5/8	7.625	1000
O.D. 7-3/4	7.750	1000
O.D. 7-7/8	7.875	1000
O.D. 8	8.000	1000
O.D. 8-1/8	8.125	1000
O.D. 8-1/4	8.250	1000
O.D. 8-3/8	8.375	1000
O.D. 8-1/2	8.500	1000
O.D. 8-5/8	8.625	1000

## Clamps for Copper Tubing

Standard Copper plated Finish Sized for Copper Tubing



Part No.	Size (in)	O.D. (in)	Design Load
COPC 1/4	1/4	.375	400
COPC 3/8	3/8	.500	400
COPC 1/2	1/2	.625	400
COPC 3/4	3/4	.875	400
COPC 1	1	1.125	600
COPC 1-1/4	1-1/4	1.375	600
COPC 1-1/2	1-1/2	1.625	600
COPC 2	2	2.125	800
COPC 2-1/2	2-1/2	2.625	800
COPC 3	3	3.125	800
COPC 3-1/2	3-1/2	3.625	1000
COPC 4	4	4.125	1000
COPC 5	5	5.125	1000
COPC 6	6	6.125	1000

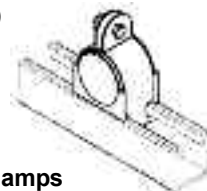
## Cushion Clamps for pipe and Copper Tubing

### Standard yellow Chromate finish

- Inhibits Galvanic Corrosion
- Dampens Sound and Vibrations
- Service Temperature Range -50°F to +275°F

### Tube Cushion Clamps (sized by O.D.)

Part No.	O.D. (in)
TCC 1/4	.250
TCC 3/8	.375
TCC 1/2	.500
TCC 5/8	.625
TCC 3/4	.750
TCC 7/8	.870
TCC 1	1.000
TCC 1-1/8	1.125
TCC 1-1/4	1.250
TCC 1-3/8	1.375
TCC 1-1/2	1.500
TCC 1-5/8	1.625
TCC 1-3/4	1.750
TCC 1-7/8	1.870
TCC 2	2.000
TCC 2-1/8	2.125
TCC 2-1/4	2.250
TCC 2-3/8	2.375
TCC 2-5/8	2.625
TCC 3-1/8	3.125
TCC 3-5/8	3.625
TCC 4-1/8	4.125



### pipe Cushion Clamps

Part No.	Size (in)	O.D. (in)
PCC 3/8	3/8	.675
PCC 1/2	1/2	.840
PCC 3/4	3/4	1.050
PCC 1	1	1.315
PCC 1-1/4	1-1/4	1.660
PCC 1-1/2	1-1/2	1.900
PCC 2	2	2.375
PCC 2-1/2	2-1/2	2.875
PCC 3	3	3.500
PCC 3-1/2	3-1/2	4.000
PCC 4	4	4.500
PCC 5	5	5.563
PCC 6	6	6.625

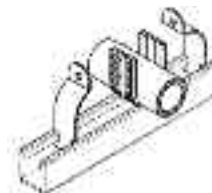
### vibra Strip, pipe Cushion

#### isolation material for use with pipe clamps

- Inhibits Galvanic Corrosion
- Dampens Sound and Vibration
- Service Temperature Range -75°F to +375°F

A sizing chart is provided on every box

Vibra Strip is designed for use with refrigeration lines, HVAC, copper tubing, glass pipe and hydraulic lines. It provides an energy-absorption barrier between the lines and the mounting material, also allowing for expansion and contraction within the mounting system.



## parallel /ET Clamps

for attaching pipe or conduit to beams or angle iron

### right angle (ra ) pipe Support

Standard Finish: Hot Dip galvanized (u-Bolt and 2 nuts included)

Size 3/8" thru 4" pipe  
(maximum 3/4" flange thickness)



### parallel (par ) pipe Support

Standard Finish: Hot Dip galvanized (Bolt and Nut included)

Size 3/8" thru 4" pipe  
maximum 3/4" flange thickness)



### Edge Type (ET) pipe Support

Standard Finish: Hot Dip galvanized (Bolt and Nut included)

Size 3/8" thru 4" pipe  
maximum 3/4" flange thickness)

## EpS One Hole EmT Strap

For Thin Wall Conduit

Part No.	Conduit Size (in)	W (in)	Hole Size (in)
EPS 1/2	1/2	3/4	9/32
EPS 3/4	3/4	7/8	9/32
EPS 1	1	1	9/32
EPS 1-1/4	1-1/4	1-1/4	9/32
EPS 1-1/2	1-1/2	1	11/32
EPS 2	2	1-1/4	11/32

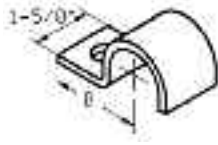


**Fasteners/Concrete Anchors**

**EriStrut®**

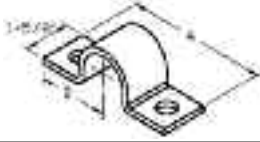
**STr One Hole pipe Strap**

Part No.	O.D. Size (in)	B (in)	Hole Size (in)
STR 1/4	1/4	7/8	9/32
STR 5/16	5/16	15/16	9/32
STR 3/8	3/8	31/32	9/32
STR 1/2	1/2	1-1/32	9/32
STR 5/8	5/8	1-3/32	9/32
STR 3/4	3/4	1-5/32	9/32
STR 7/8	7/8	1-7/32	9/32
STR 1	1	1-9/32	9/32



**2STr Two Hole pipe Strap**

Part No.	Pipe Size (in)	A (in)	B (in)	Hole Size (in)	Design Load
2STR 1/2	1/2	3-3/32	1-17/32	9/32	600
2STR 3/4	3/4	3-5/16	1-21/32	9/32	600
2STR 1	1	3-11/16	1-27/32	9/32	600
2STR 1-1/4	1-1/4	3-29/32	1-31/32	9/32	600
2STR 1-1/2	1-1/2	4-5/16	2-3/32	9/32	600
2STR 2	2	5-7/8	2-15/16	7/16	1200
2STR 2-1/2	2-1/2	6-1/8	3-1/16	7/16	1200
2STR 3	3	6-7/8	3-7/16	7/16	1200
2STR 3-1/2	3-1/2	7-7/8	3-15/16	7/16	1200
2STR 4	4	8	4	7/16	1500
2STR 5	5	8-13/16	4-13/16	7/16	1500
2STR 6	6	9-7/8	4-15/16	7/16	1500
2STR 8	8	11-15/16	5-31/32	7/16	1500



**CHaNNEl NuTs**

Unless noted, Standard Finish: EG

**Channel Nuts for a 12, a 14 & B12**

Part No.			Thread Size	Thickness (in)
With Spring	Without Spring	Top Spring		
SPRA #8	NUT #8	-	#8 - 32	.25
SPRA #10	NUT #10	-	#10 - 24	.25
SPRA 1	NUT 1/4	TSNT 1/4	1/4" - 20	.25
SPRA 3/8	NUT 5/16	-	5/16" - 18	.25
SPRA 3/8	NUT 3/8	TSNT 3/8	3/8" - 16	.38
SPRA 7/16	NUT 7/16	-	7/16" - 14	.38
SPRA 1/2	NUT 1/2	-	1/2" - 13	.50
SPRA 5/8	NUT 5/8	-	5/8" - 11	.50
SPRA 3/4	NUT 3/4	-	3/4" - 10	.50
SPRA 7/8	NUT 7/8	-	7/8" - 9	.50



Spr a with spring for A, B & M



Spr c with spring for C & M



NuT & NuTC without spring



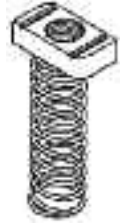
TSNT top spring

**Channel Nuts for C12, C14 & m12**

Part No.				Thread Size	Thickness (in)
With Spring	Without Spring for C only	Without Spring for M only	Top Spring		
SPRC #8	-	NUT #8	-	#8 - 32	.25
SPRC #10	-	NUT #10	-	#10 - 24	.25
SPRC 1/4	NUTC 1/4	NUT 1/4	TSNT 1/4	1/4" - 20	.25
SPRC 5/16	NUTC 5/16	NUT 5/16	-	5/16" - 18	.25
SPRC 3/8	NUTC 3/8	NUT 3/8	TSNT 3/8	3/8" - 16	.25
SPRC 7/16	-	NUT 7/16	-	7/16" - 14	.25
SPRC 1/2	NUTC 1/2	NUT 1/2	TSNC 1/2	1/2" - 13	.38
SPRC 5/8	NUTC 5/8	NUT 5/8	-	5/8" - 11	.38
SPRC 3/4	NUTC 3/4	NUT 3/4	-	3/4" - 10	.38
-	NUTC 7/8	NUT 7/8	-	7/8" - 9	.38

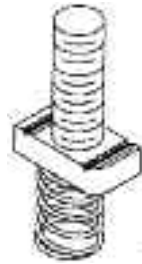
**Channel Nuts for D12 & E12**

Part No.			Thread Size	Thickness (in)
With Spring	Without Spring	Top Spring		
SPRD #8	NUT #8	-	#8 - 32	.25
SPRD #10	NUT #10	-	#10 - 24	.25
SPRD 1/4	NUT 1/4	TSNT 1/4	1/4" - 20	.25
SPRD 3/8	NUT 5/16	-	5/16" - 18	.25
SPRD 3/8	NUT 3/8	TSNT 3/8	3/8" - 16	.38
SPRD 7/16	NUT 7/16	-	7/16" - 14	.38
SPRD 1/2	NUT 1/2	-	1/2" - 13	.50
SPRD 5/8	NUT 5/8	-	5/8" - 11	.50
SPRD 3/4	NUT 3/4	-	3/4" - 10	.50
-	NUT 7/8	-	7/8" - 9	.50



**Stud Spring Nuts for a 12, a 14 & B12**

Part No.	Stud Length (in)	Thread Size (in)	Thickness (in)
SPRM 1/4 x 7/8	7/8	-	-
SPRM 1/4 x 1-1/8	1-1/8	-	-
SPRM 1/4 x 1-3/8	1-3/8	-	-
SPRM 1/4 x 1-1/2	1-1/2	1/4" - 20	.25
SPRM 1/4 x 1-5/8	1-5/8	-	-
SPRM 1/4 x 1-7/8	1-7/8	-	-
SPRM 1/4 x 2-1/8	2-1/8	-	-
SPRM 3/8 x 7/8	7/8	-	-
SPRM 3/8 x 1-1/8	1-1/8	-	-
SPRM 3/8 x 1-5/8	1-5/8	3/8" - 16	.38
SPRM 3/8 x 1-7/8	1-7/8	-	-
SPRM 3/8 x 2-1/8	2-1/8	-	-
SPRM 1/2 x 7/8	7/8	-	-
SPRM 1/2 x 1-1/8	1-1/8	-	-
SPRM 1/2 x 1-3/8	1-3/8	1/2" - 13	.50
SPRM 1/2 x 1-5/8	1-5/8	-	-
SPRM 1/2 x 1-7/8	1-7/8	-	-
SPRM 1/2 x 2-1/8	2-1/8	-	-
SPRM 5/8 x 7/8	7/8	-	-
SPRM 5/8 x 1-1/8	1-1/8	-	-
SPRM 5/8 x 1-7/8	1-7/8	5/8" - 11	.50
SPRM 5/8 x 2-1/8	2-1/8	-	-



**Channel Nut - r esistance to Slip\***

Resistance to Slip*				12 GA Channel		14 GA Channel		16 GA Channel	
Size	Part No.	Channel Size		Lb.	N	Lb.	N	Lb.	N
8-32	NUT, NUTC, SPRA, SPRC, SPRD	A, B, C, D, E, M		50	220	50	220	50	220
10-24	NUT, NUTC, SPRA, SPRC, SPRD	A, B, C, D, E, M		100	440	100	440	100	440
10-32	NUT, NUTC, SPRA, SPRC, SPRD	A, B, C, D, E, M		100	440	100	440	100	440
1/4-20	NUT, NUTC, SPRA, SPRC, SPRD, TSNT	A, B, C, D, E, M		300	1330	300	1330	300	1330
5/16-18	NUT, NUTC, SPRA, SPRC, SPRD	A, B, C, D, E, M		450	2000	450	2000	450	2000
3/8-16	NUT, NUTC, SPRA, SPRC, SPRD, TSNT	A, B, C, D, E, M		800	3560	800	3560	800	3560
7/16-14	NUT, NUTC, SPRA, SPRC, SPRD	A, B, C, D, E, M		1000	4450	800	3560	800	3560
1/2-13	NUT, NUTC, SPRA, SPRC, SPRD, TSNT	A, B, C, M		1500	6670	1000	4450	1000	4450
5/8-11	NUT, NUTC, SPRA, SPRC, SPRD	D, E		1500	6670	1000	4450	1000	4450
3/4-10	NUT, NUTC, SPRA, SPRC, SPRD	A, B, C, M		1500	6670	1000	4450	1000	4450
7/8-9	NUT, NUTC, SPRA, SPRC, SPRD	D, E		1500	6670	1000	4450	1000	4450

Maximum pullout for D12 and E12 channel is 1500 lb. or 6670 NM.

\*-With a safety factor of

# Eristrut®

## Channel Nuts - pull Out Strength\*

Pull out strength*			12 GA Channel		14 GA Channel		16 GA Channel	
Size	Part No.		Lb.	N	Lb.	N	Lb.	N
8-32	NUT, NUTC, SPRA, SPRC, SPRD	A, B, C, D, E, M	200	890	200	890	200	890
10-24	NUT, NUTC, SPRA, SPRC, SPRD	A, B, C, D, E, M	250	1110	250	1110	250	1110
10-32	NUT, NUTC, SPRA, SPRC, SPRD	A, B, C, D, E, M	250	1110	250	1110	250	1110
1/4-20	NUT, NUTC, SPRA, SPRC, SPRD, TSNT	A, B, C, D, E, M	450	2000	450	2000	450	2000
5/16-18	NUT, NUTC, SPRA, SPRC, SPRD	A, B, C, D, E, M	750	3330	750	3330	750	3330
3/8-16	NUT, NUTC, SPRA, SPRC, SPRD, TSNT	A, B, C, D, E, M	1100	4890	1000	4450	1000	4450
7/16-14	NUT, NUTC, SPRA, SPRC, SPRD	A, B, C, D, E, M	1500	6670	1200	5340	1000	4450
1/2-13	NUT, NUTC, SPRA, SPRC, SPRD, TSNT	A, B, C, M	2000	8900	1400	6230	1000	4450
1/2-13	NUT, NUTC, SPRA, SPRC, SPRD, TSNT	D, E	1500	6670	1400	6230	1000	4450
5/8-11	NUT, NUTC, SPRA, SPRC, SPRD	A, B, C, M	2000	8900	1400	6230	1000	4450
5/8-11	NUT, NUTC, SPRA, SPRC, SPRD	D, E	1500	6670	1400	6230	1000	4450
3/4-10	NUT, NUTC, SPRA, SPRC, SPRD	A, B, C, M	2000	8900	1400	6230	1000	4450
3/4-10	NUT, NUTC, SPRA, SPRC, SPRD	D, E	1500	6670	1400	6230	1000	4450
7/8-9	NUT, NUTC, SPRA, SPRC, SPRD	A, B, C, M	2000	8900	1400	6230	1000	4450
7/8-9	NUT, NUTC, SPRA, SPRC, SPRD	D, E	1500	6670	1400	6230	1000	4450

Maximum pullout for D12 and E12 channel is 1500 lb. or 6670 NM.  
 \*-With a safety factor of

## Channel Nuts - Torque Settings

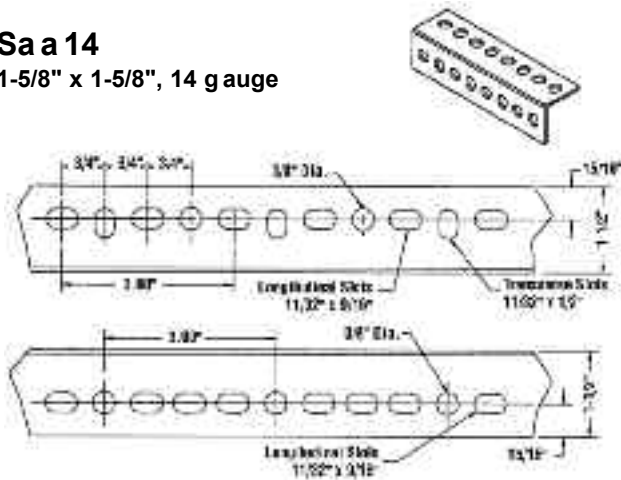
Torque Settings				
Torque/Size	1/4" - 20	5/16" - 18	3/8" - 16	1/2" - 13
Ft. Lb.	6	11	19	50

## SI OTTED a Ng I E

Unless noted, Standard Finish: EG

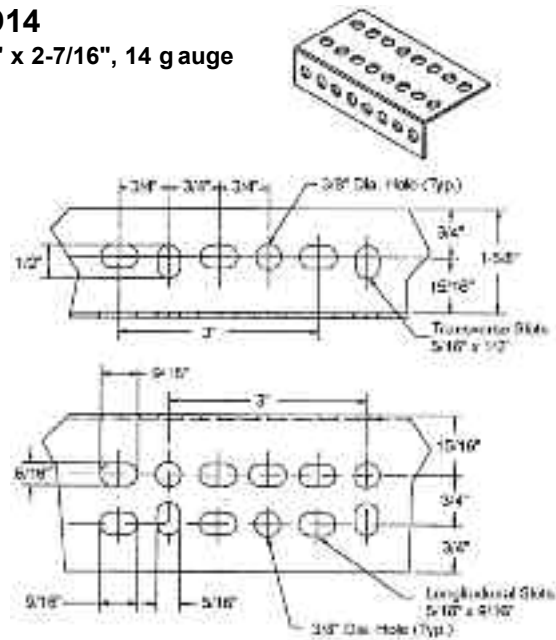
## Saa 14

1-5/8" x 1-5/8", 14 gauge



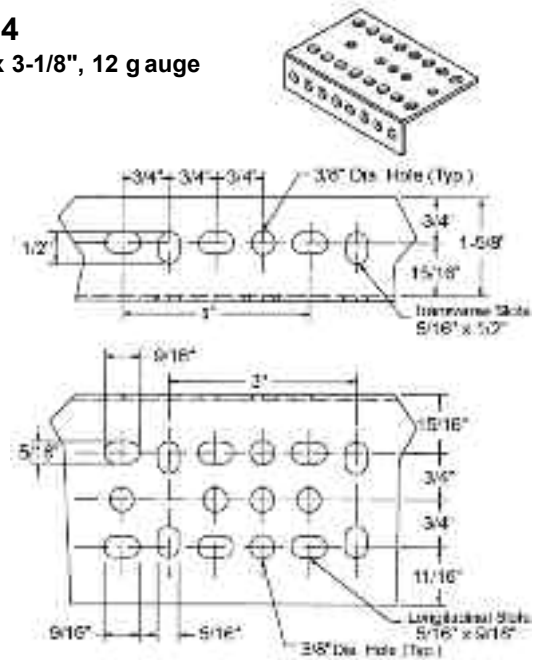
## Sa D14

1-5/8" x 2-7/16", 14 gauge

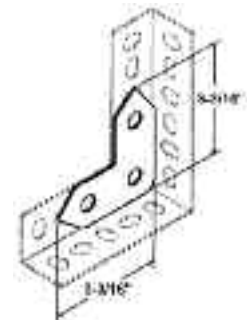


## Sa E14

1-5/8" x 3-1/8", 12 gauge



## Sa B Slotted a ngle Brace 14 gauge

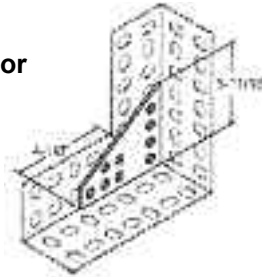


26  
Fasteners/  
Concrete  
anchors

**Fasteners/Concrete Anchors**

**Eristrut®**

**Sa C Slotted angle Connector**  
12 gauge

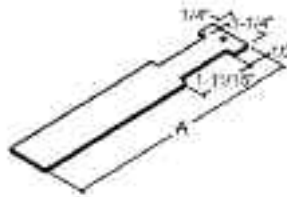


**BEam Cl amp s**

Unless noted, Standard Finish: EG

**BC9 anchor Strap**

part No.	l (in)	For Flange width (in)
BC09-09	9	6
BC09-12	12	9
BC09-15	15	12

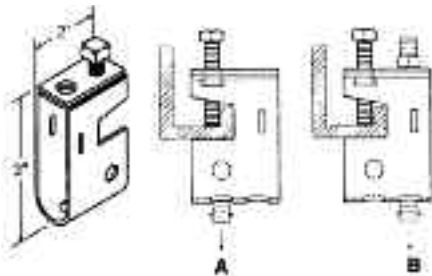


**BC10 Beam Clamp**

Maximum Flange Thickness is 3/4"

Design Loads:

- A - 500#
- B - 300#

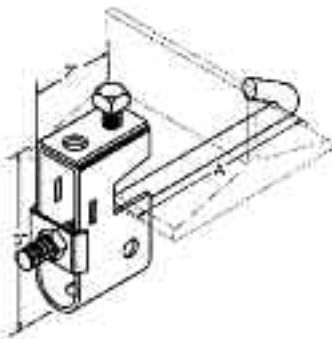


**BC11 & 12 Beam Clamp with J-Bolt assembly**

Maximum Flange Thickness is 3/4"

Part No.	A (in)	For Flange Width (in)
BC11	3-1/2 - 7	3 - 6
BC12	7-1/2 - 11	5-1/2 - 9
BC11JBLT	3-1/2 - 7	3 - 6
BC12JBLT	7-1/2 - 11	5-1/2 - 9

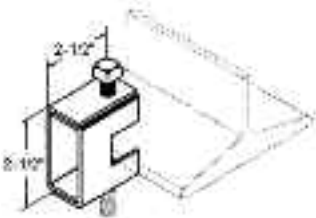
Loads are the same as BC10, Beam Clamp



**BC13 Beam Clamp**

Maximum Flange Thickness is 7/8"

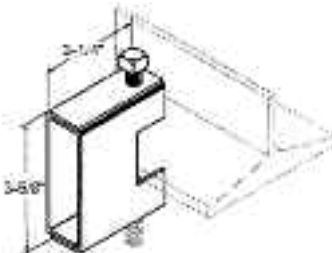
Part No.	RS (in)	Set Screw (in)	Design Load
BC13 - 1/4	1/4	3/8 x 1-3/4	650
BC13 - 5/16	5/16	3/8 x 1-3/4	650
BC13 - 3/8	3/8	3/8 x 1-3/4	650
BC13 - 1/2	1/2	1/2 x 1-3/4	1100
BC13 - 5/8	5/8	1/2 x 1-3/4	1600
BC13 - 3/4	3/4	1/2 x 1-3/4	2400



**BC14 Beam Clamp**

Maximum Flange Thickness is 3/4"

Part No.	RS (in)	Set Screw (in)	Design Load
BC14 - 1/4	1/4	3/8 x 2-3/4	800
BC14 - 5/16	5/16	3/8 x 2-3/4	800
BC14 - 3/8	3/8	3/8 x 2-3/4	800
BC14 - 1/2	1/2	1/2 x 2-1/2	1300
BC14 - 5/8	5/8	1/2 x 2-1/2	1900
BC14 - 3/4	3/4	5/8 x 2-1/2	2800



**BC15 Beam Clamp attachment**

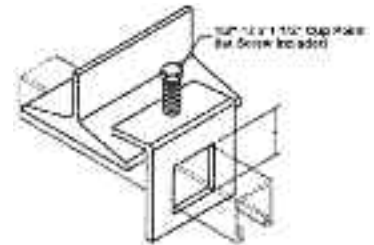
Swivel Attachment for use with #BC10  
For rod sizes 1/4" to 1/2"



**BC16 Beam Clamp (sold in pieces)**

Channel type must be specified - "A" for either 1-5/8" or 13/16" channel.

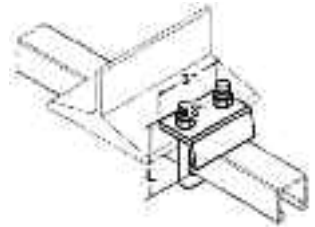
Design Load - 900 lbs., when used in pairs



**BC17 Beam Clamp (sold in pieces)**

Channel type must be specified/  
For A channel L = 3-3/8"  
For D channel L = 5"

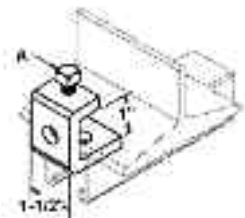
Design Load - 1200 lbs., when used in pairs.



**BC18 Beam Clamp (sold in pieces)**

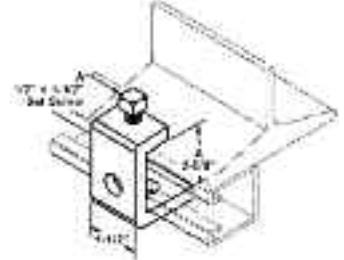
Design Load - 1100 lbs. When used in pairs.

Part No.	RS (in)	Set Screw "A" (in)
BC18 - 3/8	3/8	3/8 x 1-1/2
BC18 - 1/2	1/2	1/2 x 1-1/2



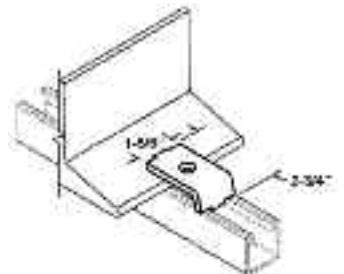
**BC19 Beam Clamp (sold in pieces)**

Design Load - 1100 lbs., when used in pairs.



**BC20 Beam Clamp (sold in pieces)**

Maximum Flange Thickness is 2".  
Design Load - 600 lbs., when used in pairs.

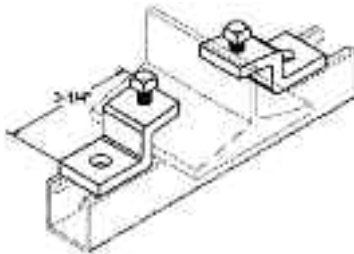


# Eristrut®

## BC21 Beam Clamp

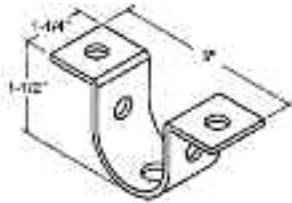
(sold in pieces)

Maximum Flange Thickness is 2".  
 Design Load - 600 lbs., when used in pairs.



## BC22 wood Beam Hanger

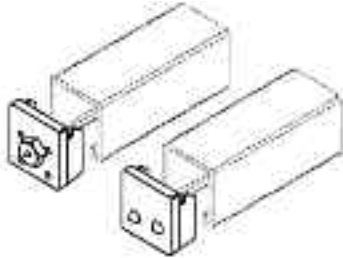
Used to suspend up to 1/2" rod,  
 With 13/32" mounting holes.



## BC23 Spreader Cap

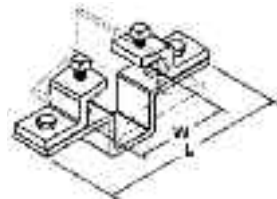
(sold in pairs)

Channel type must be specified

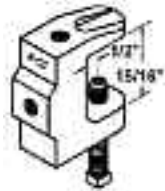


## BC24 Beam Clamp

Part No.	L (in)	W (in)
BC24 7-1/4	7-1/4	7/8 - 1-7/8
BC24 8-1/2	8-1/2	2-1/8 - 4-1/8
BC24 10-3/8	10-3/8	4 - 6



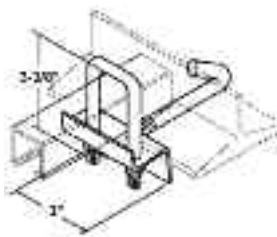
## BC26 Beam Clamp



## BC70 Single Channel Beam Clamp

For use with A, B, C & M Channels  
 Comes with 3/8" dia. J-hook and hex nut

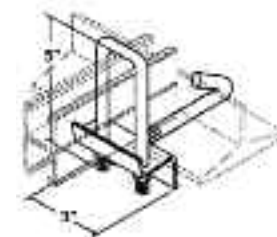
Part No.	For Flange Widths (in)
BC70 4-6	4 - 5-7/8
BC70 6-9	6 - 8-7/8
BC70 9-12	9 - 11-7/8
BC70 12-15	12 - 14-7/8



## BC71 Double Channel Beam Clamp

For use with D & E Channels  
 (or welded channels)  
 Comes with 3/8" dia. J-hook and hex nut

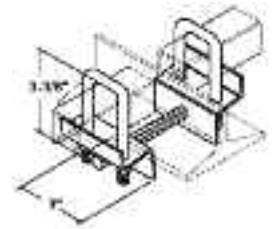
Part No.	For Flange Widths (in)
BC72 4-6	4 - 5-7/8
BC72 6-9	6 - 8-7/8
BC72 9-12	9 - 11-7/8
BC72 12-15	12 - 14-7/8



## BC72 Double Beam Clamp

For use with A, B, C & M Channels  
 Comes with 3/8" dia. ATR and hex nuts

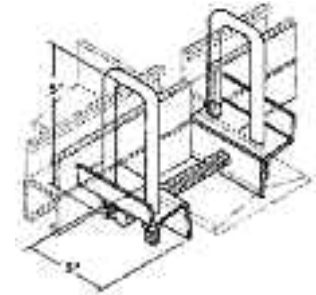
Part No.	For Flange Widths (in)
BC71 4-6	4 - 5-7/8
BC71 6-9	6 - 8-7/8
BC71 9-12	9 - 11-7/8
BC71 12-15	12 - 14-7/8



## BC73 Double Beam Clamp

For use with D & E Channels  
 (or welded channels)  
 Comes with 3/8" dia. ATR and hex nuts

Part No.	For Flange Widths (in)
BC72 4-6	4 - 5-7/8
BC72 6-9	6 - 8-7/8
BC72 9-12	9 - 11-7/8
BC72 12-15	12 - 14-7/8



## miscellaneous Beam Clamps

See current Michigan Hanger Erico Catalog

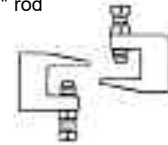
### C Clamp, #200 Eg

Steel C Clamp for 3/8" to 3/4" rod



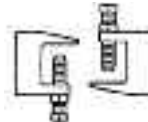
### Beam Clamp, #310 Eg

Universal/Reversible- Wide Mouth Malleable Beam Clamp for 3/8" and 1/2" rod



### Beam Clamp, #300 Eg

Universal/Reversible Malleable Beam Clamp for 3/8" to 7/8" rod



### Beam Clamp, #315 Eg

Malleable Purlin Beam Clamp for 3/8" rod



## Br a Ck ETS

**NOTE:** Fitting Specifications: Unless noted, width is 1-5/8", hole size is 9/16", thickness is 1/4", standard finish is EG.

## Br 10 Channel Bracket

Available for Right or Left hand use.  
 Uniform Loading - 300 lbs.  
 Using A12 channel.

Part No.	Fig. No.	A (in)	B (in)	C (in)
BR10-6	1	6	1-15/16	3
BR10-8	1	8	2-7/16	5
BR10-10	1	10	2-15/16	7
BR10-12	2	12	3-7/16	3
BR10-18	2	18	4-15/16	6
BR10-20	2	20	5-7/16	7
BR10-26	3	26	6-15/16	5-11/16



Fig. 1



Fig. 2



Fig. 3

**26**  
Fasteners/  
Concrete  
anchors

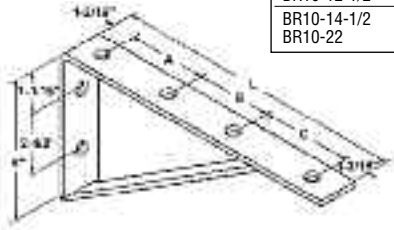
**Fasteners/Concrete Anchors**

**Eristrut®**

**Br 11 Channel Bracket**

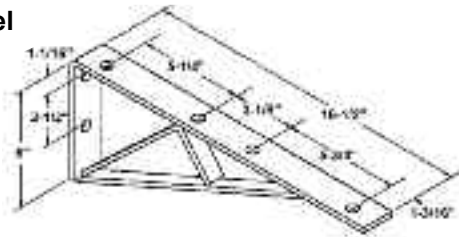
Uniform Loading - 1040 lbs.

Part No.	A (in)	B (in)	C (in)	L (in)
BR10-8-1/2	1-1/2	4-5/8	-	8-1/2
BR10-10-1/2	4-3/8	3-25/35	-	10-1/2
BR10-12-1/2	3-1/4	3-1/8	3-3/4	12-1/2
BR10-14-1/2	3-1/4	3-1/8	5-3/4	14-1/2
BR10-22	8-1/4	3-1/8	8-1/4	22



**Br 12 Channel Bracket**

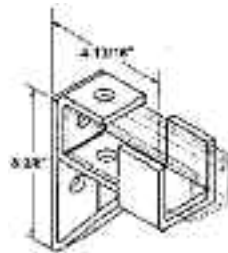
Uniform loading - 1200 lbs



**Br 13 Channel Bracket For Single "a" Channel**

Loading\* 6300 In.\* lbs.

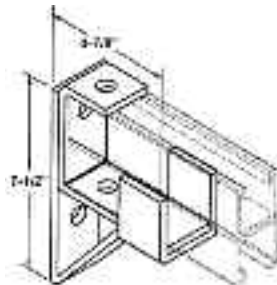
\*Applies to fitting only, not to strength of strut arm.



**Br 14 Channel Bracket For Double "a" Channel**

Loading\* 6300 In.\* lbs.

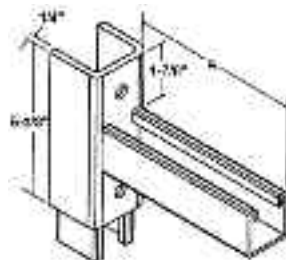
\*Applies to fitting only, not to strength of strut arm.



**Br 15 Channel Bracket**

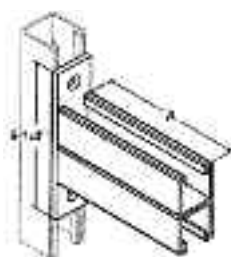
May be used with channel arm in up or down position.

Part No.	A (in)	Uniform Load (lbs)
BR15-6	6	1,600
BR15-12	12	800
BR15-18	18	600
BR15-24	24	450



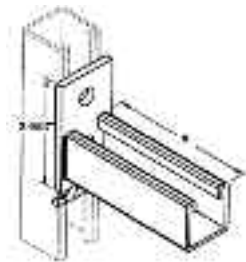
**Br 17 Double Channel Bracket**

Part No.	A (in)	Uniform Load (lbs)
BR17-12	12	2,000
BR17-18	18	1,300
BR17-24	24	1,000
BR17-30	30	800
BR17-36	36	660



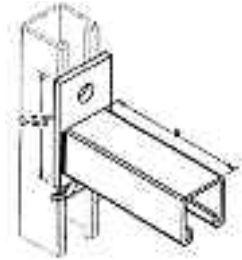
**Br 18 Channel Bracket**

Part No.	A (in)	Uniform Load (lbs)
BR18-6	6	1,200
BR18-9	9	900
BR18-12	12	600
BR18-18	18	400
BR18-24	24	300



**Br 19 Channel Bracket**

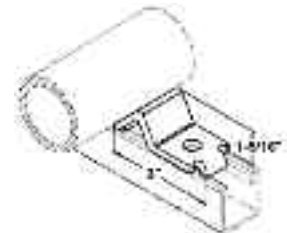
Part No.	A (in)	Uniform Load (lbs)
BR19-6	6	1,200
BR19-9	9	900
BR19-12	12	600
BR19-18	18	400
BR19-24	24	300



**Br 20 Channel Bracket**



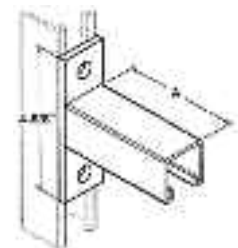
**Br 21 Channel Bracket**



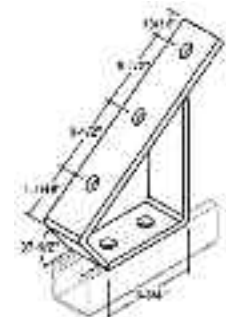
**Br 22 Channel Bracket**

Standard E. G. finish

Part No.	A (in)	Uniform Load (lbs)
BR22-6	6	1,800
BR22-12	12	1,000
BR22-18	18	700
BR22-24	24	500
BR22-30	30	350
BR22-36	36	300



**SF10 Stair Support 37-1/2°**

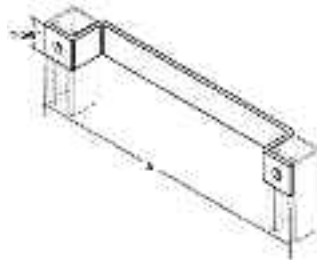




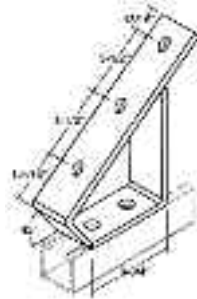
## Eristrut®

### SF11, 12, 13 Special Bracket

Part No.	A (in)
SF11	12
SF12	15
SF13	18

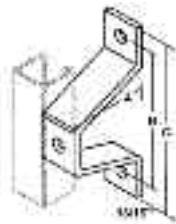


### SF14 Stair Support 45°



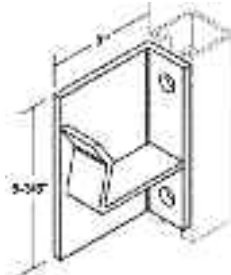
### SF15- SF19 angle Bracket

Part #	A (in)	B (in)	C (in)
SF15	2.38	6	7.62
SF16	4.38	8	9.62
SF17	6.38	10	10.62
SF18	8.38	12	12.62
SF19	10.38	14	15.62



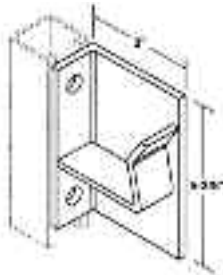
### SF20 pipe Support

For 1-1/4" or 2" pipe  
(Right Hand Support)



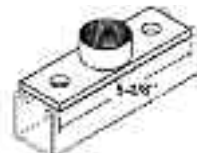
### SF21 pipe Support

For 1-1/4" or 2" pipe  
(Left Hand Support)

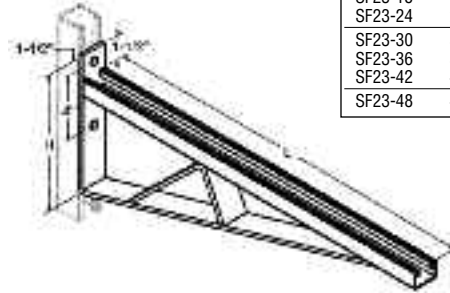


### SF22 Coupling Fitting

For 1/2", 3/4" or 1" pipe.



### SF23 Braced Channel Bracket



Part No.	A (in)	H (in)	Uniform Load (lbs)
SF23-12	12	8.75	1,900
SF23-18	18	8.75	1,000
SF23-24	24	8.75	1,000
SF23-30	30	11.25	900
SF23-36	36	11.25	900
SF23-42	42	16	700
SF23-48	48	16	600

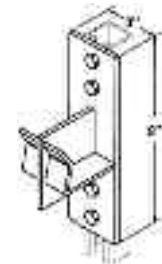
### SF24 Double pipe Bracket

For 1-1/4" pipe

### SF25 Double pipe Bracket

For 2" pipe

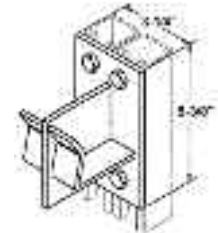
(Both models are used on single channel)



### SF26 Double pipe Bracket

For 1-1/4" pipe

(used on double channel)

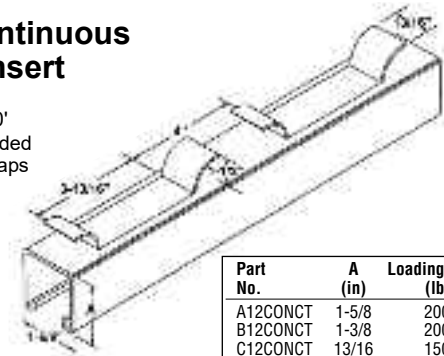


### CONCr ETE INSEr TS:

Unless noted, Standard Finish: EG

### CONCT Continuous Concrete Insert

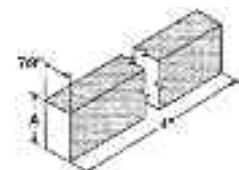
Material: 12 gauge  
Standard length: 20'  
All CONCT is provided  
with filler and endcaps



Part No.	A (in)	Loading Rating (lbs)
A12CONCT	1-5/8	2000
B12CONCT	1-3/8	2000
C12CONCT	13/16	1500

### Styrofoam Filler

Part No.	A (in)
FILA	1-1/2
FILB	1-1/4
FILC	3/4



### CI 10 Closure Strip

For all channels  
Available in Plastic, EG, Green  
and Cal-Gold



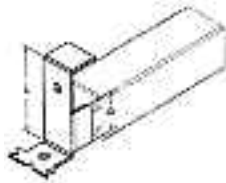
**Fasteners/Concrete Anchors**

**Eristrut®**

**ENDSpOT End Cap**

(sold in pieces)

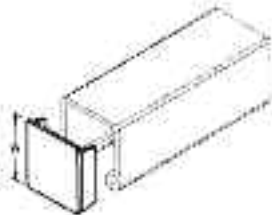
Part No.	A (in)	L (in)
A12ENDSPOT	1-7/16	3-1/8
B12ENDSPOT	1-3/16	2-7/8
C12ENDSPOT	19/32	2-3/16
M12ENDSPOT	13/16	2-1/2



**End Caps**

(sold in pieces)

Part No.	A (in)
A12ENDCAP	1-5/8
A14ENDCAP	1-5/8
B12ENDCAP	1-3/8
C14ENDCAP	13/16
D12ENDCAP	2-7/16
E12ENDCAP	3-1/4
M12ENDCAP	1



**miscellaneous Concrete Inserts**

See current Michigan Hanger Erico Catalog

**Drop In anchor, #345r Eg**



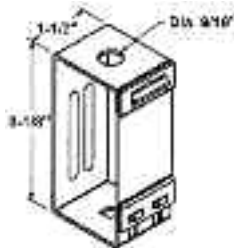
**Steel Concrete Insert, #345r Eg**  
Use with #355N, Insert Nut



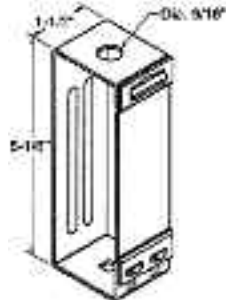
**ELECTRIC FITTING S**

Unless noted, Standard Finish: EG

**EF11 Fluorescent Fixture Hanger**



**EF12 Fluorescent Fixture Hangers**



**EF 13 Swivel Channel Hanger**

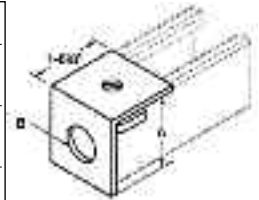
Design Load - 250 lbs.

Part No.	A (in)	For Channel Type
EF13-A	3-1/8	A
EF13-B	3-1/8	B
EF13-C	2-19/32	C
EF13-D	4-15/16	D
EF13-E	4.94	E
EF13-M	2.59	M



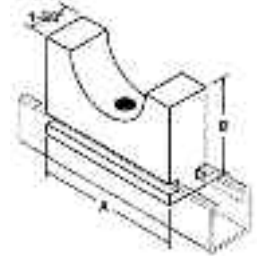
**EF15 End Cap with knockouts**

Part No.	A (in)	For Channel Type	Hole Size (in)	Conduit Size (in)
EF15A-1/2	1-5/8	A	7/8	1/2
EF15A-3/4	1-5/8	A	1-1/16	3/4
EF15B-1/2	1-3/8	B	7/8	1/2
EF15B-3/4	1-3/8	B	1-1/16	3/4
EF15D-1/2	2-7/16	D	7/8	1/2
EF15D-3/4	2-7/16	D	1-1/16	3/4
EF15E-1/2	3-1/4	E	7/8	1/2
EF15E-3/4	3-1/4	E	1-1/16	3/4



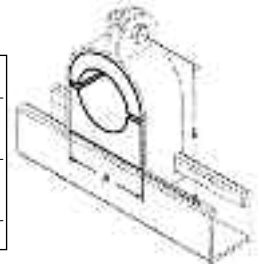
**EF16 maple Cable Saddle**

Part No.	Hole Dia. (in)	A (in)	B (in)
EF16-1/2	1/2	3	1-3/4
EF16-1	1	3	1-3/4
EF161-1/2	1-1/2	3-1/2	2
EF16-2	2	4	2-1/4
EF16-2-1/2	2-1/2	4-1/2	2-1/2
EF16-3	3	5	2-3/4
EF16-3-1/2	3-1/2	5-1/2	3
EF16-4	4	6	3-1/4



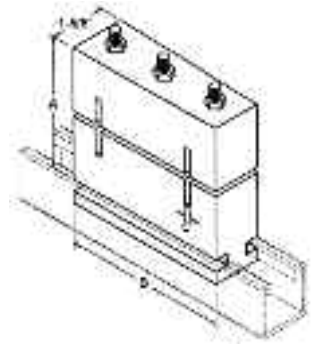
**EF17 maple Cable Clamp**

Part No.	Hole Dia. (in)	A (in)	B (in)	Clamp No.
EF17-1	1	1-29/32	2-25/32	RIGD 1-1/2
EF17-1-1/2	1-1/2	2-3/8	3-9/32	RIGD 2
EF17-2	2	2-7/8	3-3/4	RIGD 2-1/2
EF17-2-1/2	2-1/2	3-1/2	4-3/8	RIGD 3
EF17-3	3	4	4-7/8	RIGD 3-1/2
EF17-3-1/2	3-1/2	4-1/2	5-3/8	RIGD 4
EF17-4	4	5-9/16	6-7/16	RIGD 5

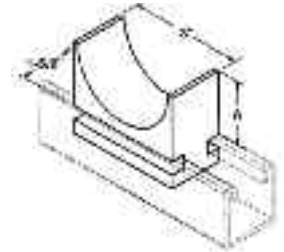


**EF18 maple Bus Bar Separator**

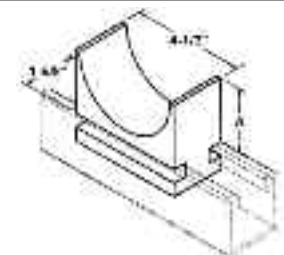
Part #	A (in)	B (in)	C (in)
EF18-8	7-3/8	8-1/2	1/4
EF18-9	7-3/8	9-1/2	3/4
EF18-10	7-3/8	10-1/2	1-1/4
EF18-11	7-3/8	11-1/2	1-3/4
EF18-12	7-3/8	12-1/2	2-1/4
EF18-13	7-3/8	13-1/2	2-3/4



**EF19 maple Cable Saddle**



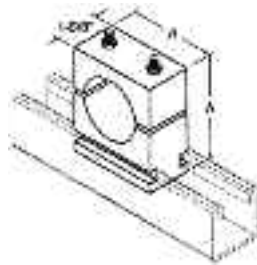
**EF20 maple Cable Saddle**



## Eri strut®

### EF21 maple Cable Clamp

Part No.	A (in)	Hole Dia. (in)
EF21-1	3-1/2	1
EF21-1-1/2	4	1-1/2
EF21-2	4-1/2	2
EF21-2-1/2	5-1/2	2-1/2
EF21-3	6	3
EF21-3-1/2	6-1/2	3-1/2
EF21-4	7	4



### EF22 4 Hole Channel Splice assembly

5/16" dia. Holes for 1/4" flat head machine screw

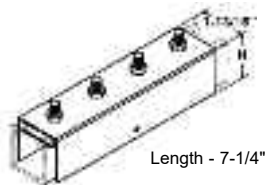
Part No.	H (in)	For Channel Type
EF22A	1-5/8	A
EF22B	1-3/8	B
EF22C	7/8	C
EF22D	2-7/16	D
EF22E	3-1/4	E
EF22M	1	M



### EF24 4 Hole Channel Splice

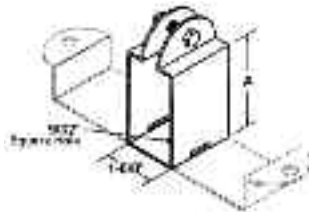
With Stud Plate (sold separately)

Part No.	For Channel Type - H
EF24-A	A
EF24-B	B
EF24-C	C
EF24-D	D
EF24-E	E
EF24-M	M

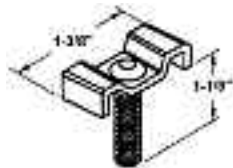


### EF25, EF26 Electrical Hanger Box

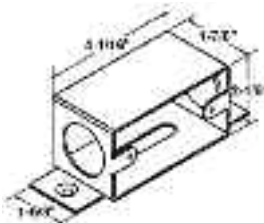
Part No.	For Channel Type - H
EF24-A	A
EF24-B	B



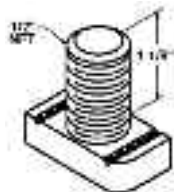
### EF28 Fixture Stud Nut



### EF29 Bolt Down Outlet Box

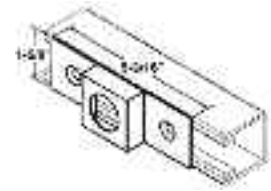


### EF30 wiring Stud



### CCp Conduit Connection plate

With knockouts for conduit  
 Specify conduit size 1/2" or 3/4"

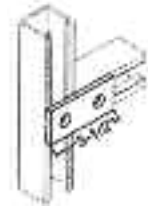


### FI aT FITTING S

Fitting Specifications (unless noted):

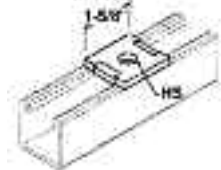
Hole Sizes - 9/16", Spacing 13/16" from edge and 1-7/8" on center.  
 Width - 1-5/8", Thickness 1/4", Standard Finish: EG

### F09 2 Hole Splice plate



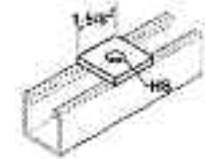
### F10-F12 Notched Channel washer

Part No.	HS (in)	Bolt Size (in)
F10	3/8	5/16
F11	7/16	3/8
F12-1/2	9/16	1/2
F12-5/8	11/16	5/8
F12-3/4	13/16	3/4

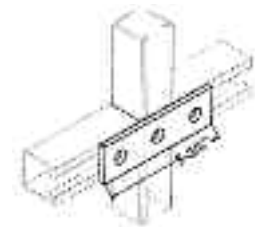


### F13- F18 Square Channel washers

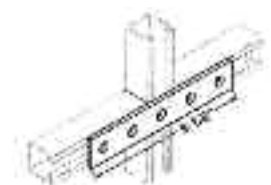
Part No.	HS (in)	Bolt Size (in)
F13	3/8	5/16
F14	7/16	3/8
F15	9/16	1/2
F16	11/16	5/8
F17	13/16	3/4
F18	15/16	7/8



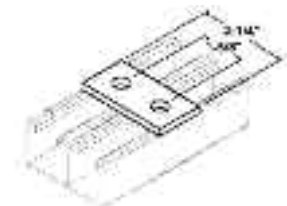
### F20 3 Hole Splice plate



### F21 5 Hole Splice plate



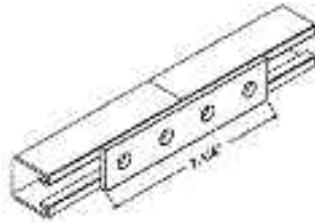
### F22 2 Hole Splice plate



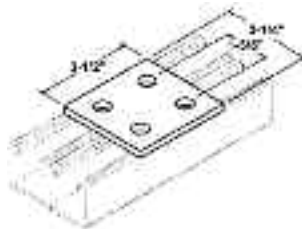
**Fasteners/Concrete Anchors**

**Eristrut®**

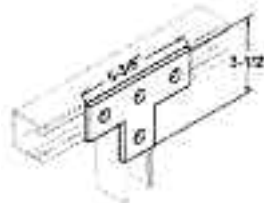
**F23 4 Hole Splice plate**



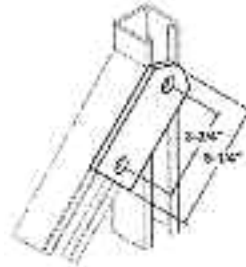
**F24 4 Hole g usset plate**



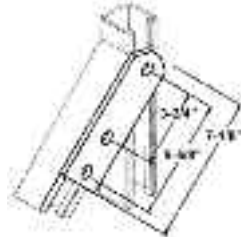
**F25 4 Hole Tee g usset plate**



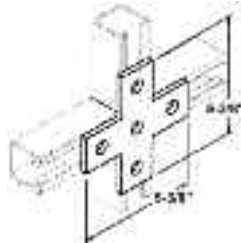
**F26 2 Hole Brace plate**



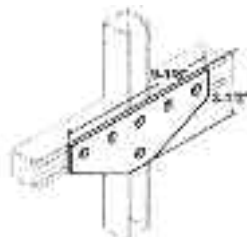
**F27 3 Hole Brace plate**



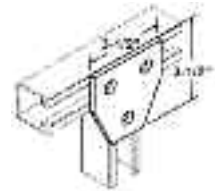
**F28 5 Hole Tee plate**



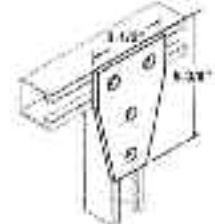
**F29 6 Hole g usset plate**



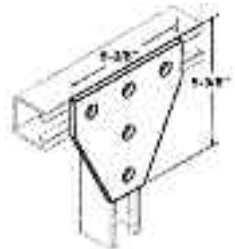
**F30 3 Hole g usset plate**



**F31 4 Hole g usset plate**



**F32 5 Hole g usset plate**

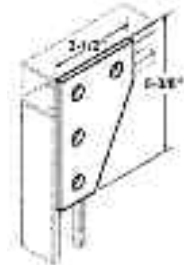


**a Ng I E FITTING S**

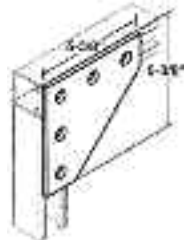
Fitting Specifications (unless noted):

Hole Sizes - 9/16", Spacing 13/16" from edge and 1-7/8" on center.  
Width - 1-5/8", Thickness 1/4", Standard Finish: EG

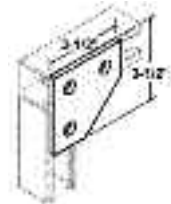
**F33 4 Hole g usset plate**



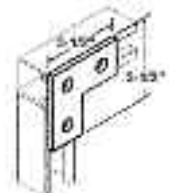
**F34 5 Hole g usset plate**



**F35 3 Hole g usset plate**

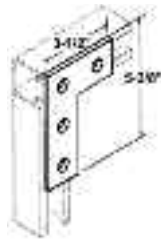


**F36 3 Hole Half Tee plate**

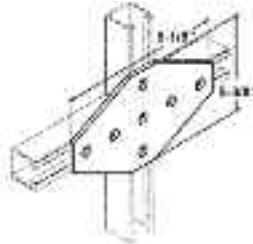


**Eristrut®**

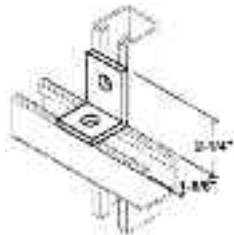
**F37 4 Hole Half Tee plate**



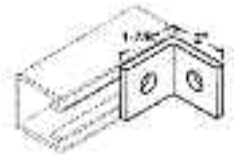
**F38 7 Hole gusset plate**



**I 10 2 Hole Corner angle**



**I 11 2 Hole Corner angle**

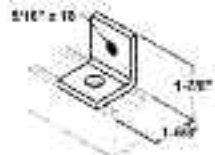


**I 12 2 Hole Corner angle**

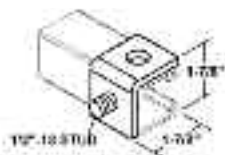
This may be ordered with "A" dimension of 3", 3-1/2" or 4".



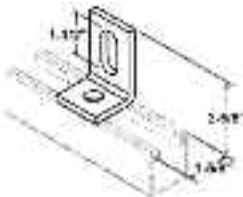
**I 13 Tapped 2 Hole Corner angle**



**I 14 1 Stud - 1 Hole angle**

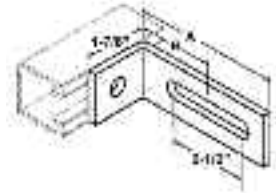


**I 15 1 Slot - 1 Hole angle**

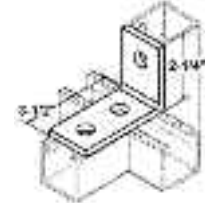


**I 16, I 17  
 1 Slot - 1 Hole angle**

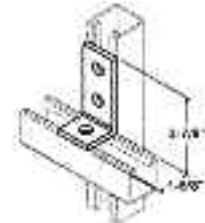
L16 - A=4-7/8"  
 L17 - A=6-7/8"



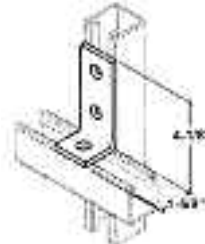
**I 18 3 Hole Corner angle**



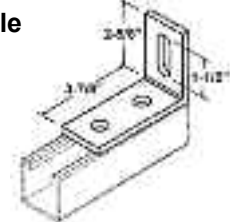
**I 19 3 Hole Corner angle**



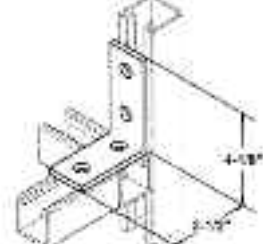
**I 20 3 Hole Corner angle**



**I 21 1 Slot - 2 Hole Corner angle**

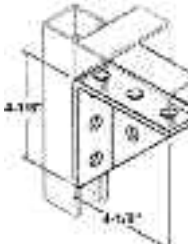


**I 22 4 Hole Corner angle**



**I 23 7 Hole Corner angle**

Universal style shown.  
 Available in right or left hand style,  
 contact the factory.

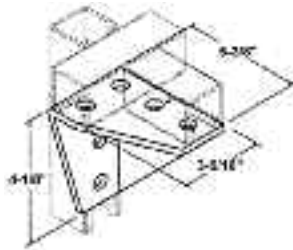


**Fasteners/Concrete Anchors**

**Eristrut®**

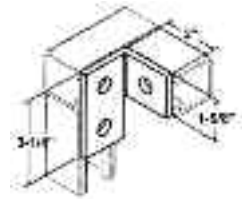
**I 24 6 Hole Corner angle**

Available for right or left hand use (right hand shown). Specify "R" or "L" when ordering.



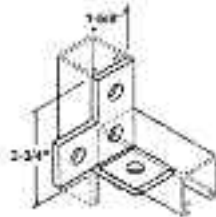
**I 31 3 Hole Corner angle**

Available for right or left hand use (right hand shown). Specify "R" or "L" when ordering.

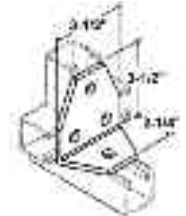


**I 25 4 Hole Offset Corner angle**

Available for right or left hand use (right hand shown). Specify "R" or "L" when ordering.

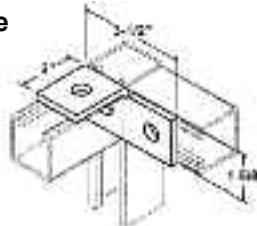


**I 32 4 Hole Corner angle**

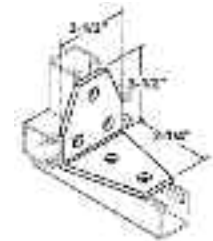


**I 26 3 Hole Offset Corner angle**

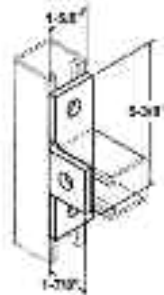
Available for right or left hand use (right hand shown). Specify "R" or "L" when ordering.



**I 33 5 Hole Corner angle**



**I 27 4 Hole Offset Corner angle**

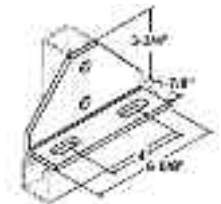


**I 36 4 Hole Corner angle**

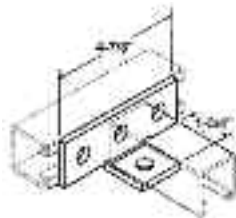
Available for right or left hand use (right hand shown). Specify "R" or "L" when ordering.



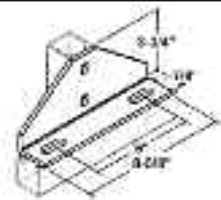
**I 37 2 Hole 2 Slot angle**



**I 28 4 Hole Offset Corner angle**



**I 38 2 Hole 2 Slot angle**

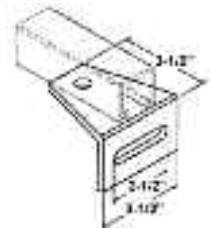


**I 29 1 Hole Corner angle**

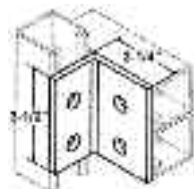
May be ordered with "A" dimension of 3-7/8", 7-7/8" or 9-7/8"



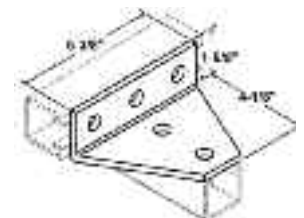
**I 39 1 Hole 1 Slot angle**



**I 30 4 Hole Corner angle**



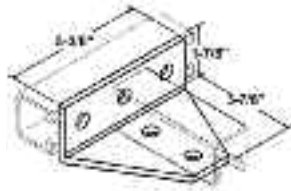
**I 40 5 Hole angle**



26  
Fasteners/  
Concrete  
anchors

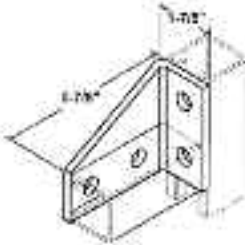
# Eristrut®

## I 41 5 Hole angle

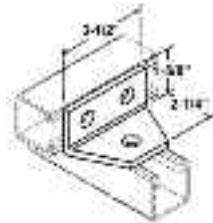


## I 42 4 Hole angle

Available for right or left hand use (right hand shown). Specify "R" or "L" when ordering.



## I 43 3 Hole angle



## I 44 2 Hole 45° angle

Part No.	A (in)	B (in)
L44 - 12	12	10-1/2
L44 - 16	16	13-5/16
L44 - 18	18	14-3/4



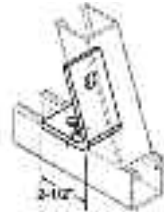
## I 46 2 Hole Open angle

May be ordered with "A" dimension of 7-1/2°, 30°, 45°, 60°, 82-1/2° or flat.



## I 47 2 Hole Closed angle

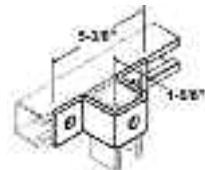
May be ordered with "A" dimension of 30°, 45°, 60°, 82-1/2° or flat.



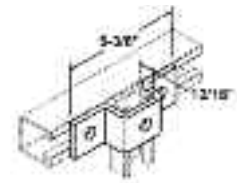
## u FITTING S

Fitting Specifications (unless noted):  
 Hole Sizes - 9/16", Spacing 13/16" from edge and 1-7/8" on center.  
 Width - 1-5/8", Thickness 1/4", Standard Finish: EG

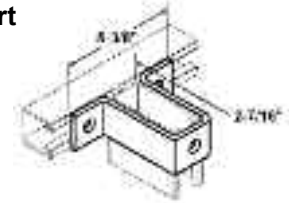
## u 10a 3 Hole Channel Support



## u 11C 3 Hole Channel Support

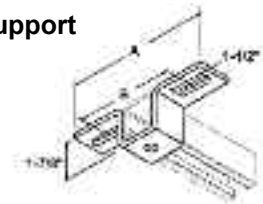


## u 12D 3 Hole Channel Support

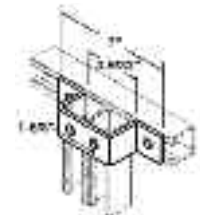


## u 13 2 Slot 1 Hole Channel Support

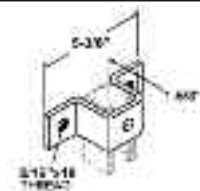
Part No.	A (in)	B (in)
U13-7-1/4	7-1/4	4-1/8
U13-8-1/2	8-1/2	5-3/8
U13-10-3/8	10-3/8	7-1/4



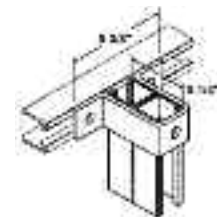
## u 14 4 Hole Channel Support



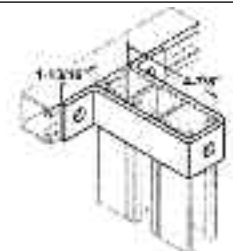
## u 15 3 Hole Threaded Channel Support



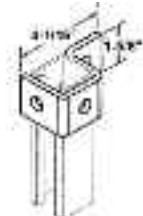
## u 16 3 Hole Channel Support



## u 17 3 Hole Channel Support



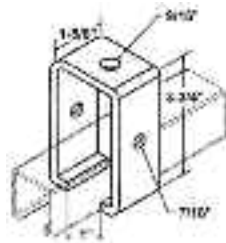
## u 18 3 Hole Channel Cup Support



**Fasteners/Concrete Anchors**

**Eristrut®**

**u 19 3 Hole Channel Support**

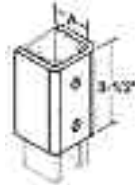


**u 20 3 Hole Channel Support**



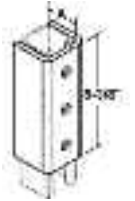
**u 22 2 Hole Splice**

Part No.	A (in)	For Channel Type
U22A	1-5/8	A
U22C	27/32	C



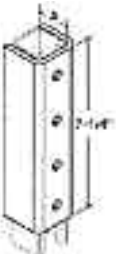
**u 23 2 Hole Splice**

Part No.	A (in)	For Channel Type
U23A	1-5/8	A
U23C	27/32	C

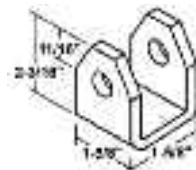


**u 24 4 Hole Splice**

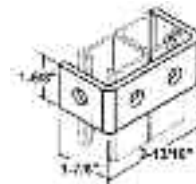
Part No.	A (in)	For Channel Type
U24A	1-5/8	A
U24C	27/32	C
U24D	2-15/32	D
U24M	1-1/4	M5



**u 25 3 Hole Swivel Clevis**

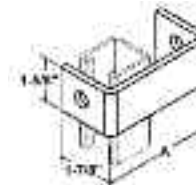


**u 26 4 Hole Channel Support**

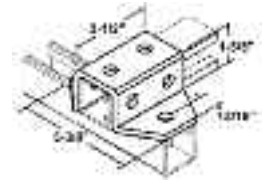


**u 27 2 Hole Support for Channels**

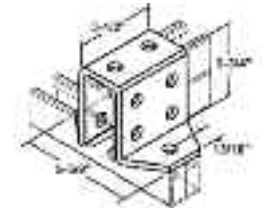
May be ordered with "A" dimensions of 4", 5", 6", 7" or 8".



**u 31 8 Hole Channel Support**



**u 32 12 Hole Channel Support**



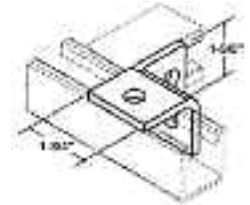
**wING FITTING S**

Fitting Specifications (unless noted):

Hole Sizes - 9/16", Spacing 13/16" from edge and 1-7/8" on center.  
Width - 1-5/8", Thickness 1/4", Standard Finish: EG

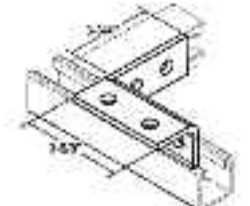
**w 10 2 Hole Single Corner Connector**

Available for right or left hand use (right hand shown).  
Specify "R" or "L" when ordering.

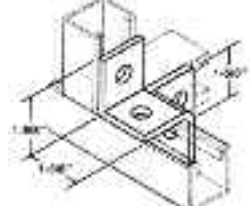


**w 11 4 Hole Single Corner Connector**

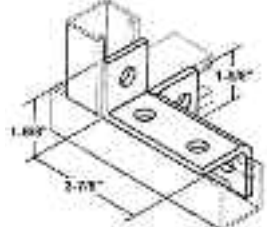
Available for right or left hand use (right hand shown).  
Specify "R" or "L" when ordering.



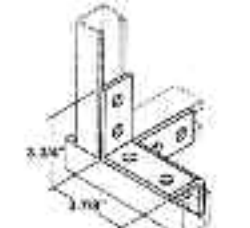
**w 12 4 Hole Double Corner Connector**



**w 13 6 Hole Double Corner Connector**



**w 14 8 Hole Double Corner Connector**

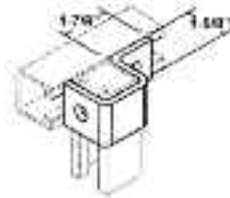




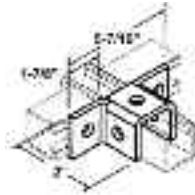
## Eristrut®

### W 15 3 Hole Double Corner Connector

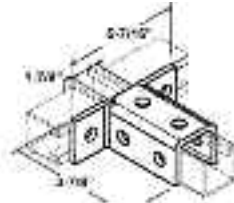
Available for right or left hand use (right hand shown). Specify "R" or "L" when ordering.



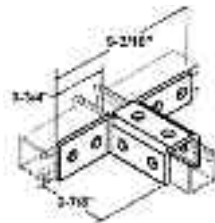
### W 16 5 Hole Double Corner Connector



### W 17 8 Hole Double Corner Connector



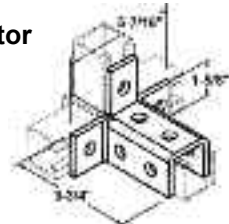
### W 18 10 Hole Double Corner Connector



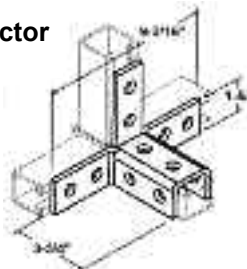
### W 19 9 Hole Double Corner Connector



### W 20 9 Hole Triple wing Connector



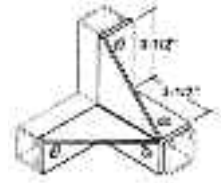
### W 21 12 Hole Triple wing Connector



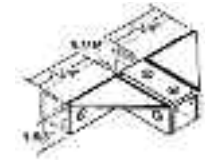
### W 22 4 Hole Single Corner g usset



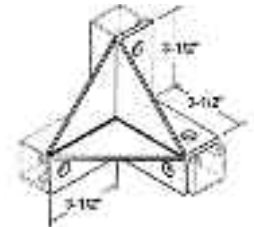
### W 23 8 Hole Double g usset



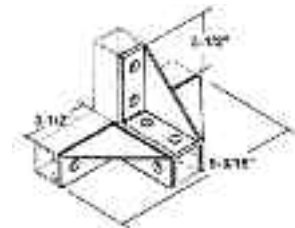
### W 24 10 Hole Double g usset



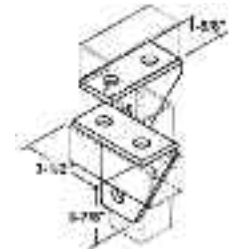
### W 25 8 Hole Double g usset



### W 26 12 Hole Triple g usset



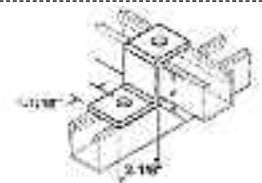
### W 27 8 Hole Double Corner Connector



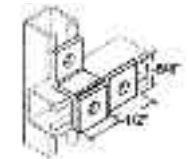
### Z FITTING S

Fitting Specifications (unless noted):  
 Hole Sizes - 9/16", Spacing 13/16" from edge and 1-7/8" on center.  
 Width - 1-5/8", Thickness 1/4", Standard Finish: EG

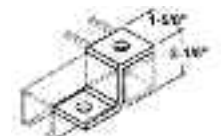
### Z10 2 Hole "Z" Support



### Z14 2 Hole Offset "Z" Support



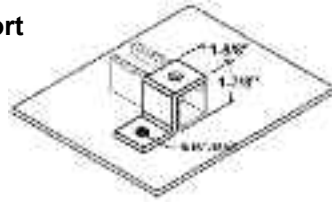
### Z15 2 Hole Support for a Channel



**Fasteners/Concrete Anchors**

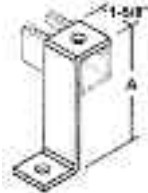
**Eristrut®**

**Z16 Tapped 2 Hole Support**

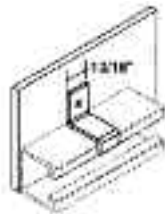


**Z17 2 Hole Support**

A dimension is available in 4", 5", 6", 7" and 8".



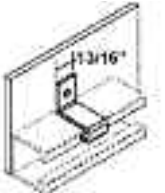
**Z18 1 Hole Support for a Channel**



**Z19 1 Hole Support for C Channel**



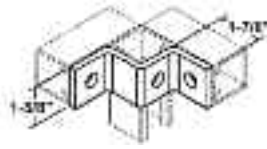
**Z20 1 Hole Bracket for a Channel**



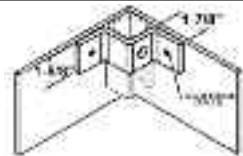
**Z21 1 Hole Bracket for D Channel**



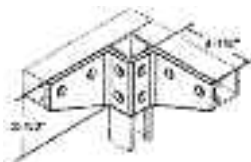
**Z22 3 Hole Corner Brace for a Channel**



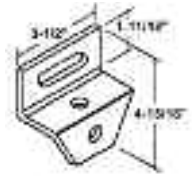
**Z23 Tapped 3 Hole Brace for a Channel**



**Z24 8 Hole Corner Brace for a Channel**



**Z25 Slotted 2 Hole "Z" Support**

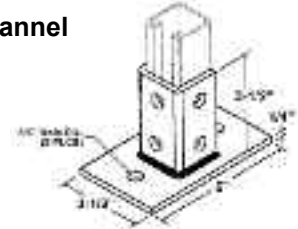


**p0ST BaSES**

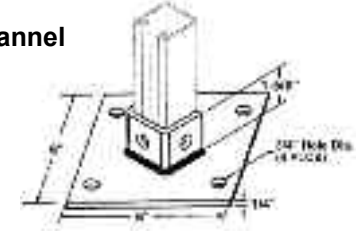
Fitting Specifications (unless noted):

Hole Sizes - 9/16", Spacing 13/16" from edge and 1-7/8" on center.  
 Width - 1-5/8", Thickness 1/4", Standard Finish: EG

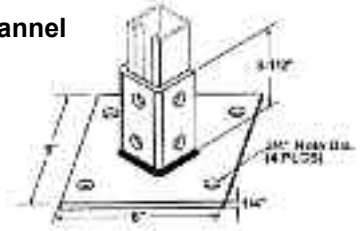
**p09 post Base for a Channel**



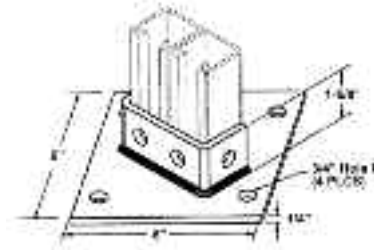
**p10 post Base for a Channel**



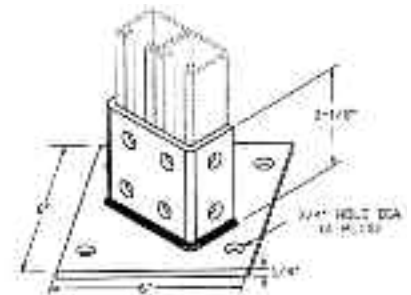
**p11 post Base for a Channel**



**p12 post Base for welded Channel**

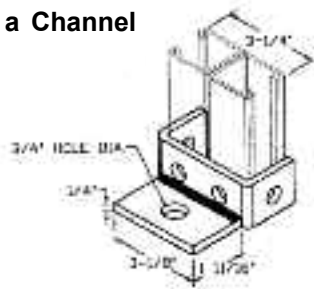


**p13 post Base for welded Channel**

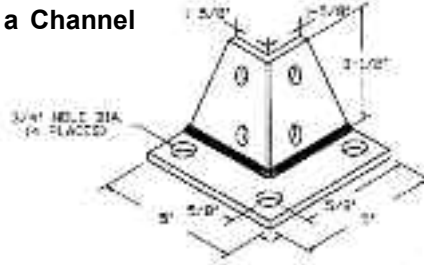


## Eristrut®

### p14 post Base for welded a Channel



### p15 post Base for a Channel



### r OI Er S

Fitting Specifications (unless noted):  
 Hole Sizes - 9/16", Spacing 13/16" from edge and 1-7/8" on center.  
 Width - 1-5/8", Thickness 1/4", Standard Finish: EG

### r OI 10 Single Trolley

For use with A12, A14, D12 or E12 channels  
 Wheels - 1-3/8" diameter



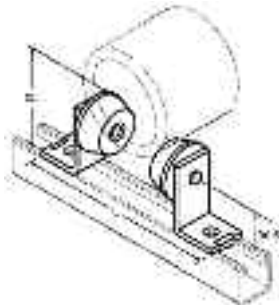
### r OI 11 Double Trolley

For use with A12, A14, D12 or E12 channels  
 Wheels - 1-3/8" diameter



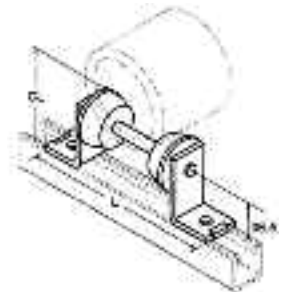
### r OI 12 pipe r oller for 1" - 4" pipe

(See Chart for Specifications)



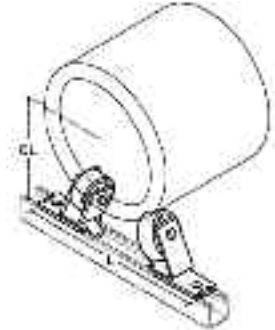
### r OI 13 pipe r oller for up to 8" pipe

(See Chart for Specifications)



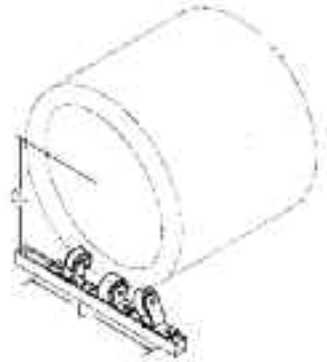
### r OI 14 pipe r oller for 6" - 16" pipe

(See Chart for Specifications)



### r OI 15 pipe r oller for 16" - 24" pipe

(See Chart for Specifications)



**Fasteners/Concrete Anchors**

**Eristrut®**

**rollers - r OI 12, r OI 13, r OI 14 & r OI 15**

Pipe Size (in)	Saddle No.	Actual Covering Thkns (in)	Actual O.D. (in)	Actual Radius (in)	ROL L (in)	ROL CL (in)
<b>ROL 12 &amp; 13</b>						
3/4"	None	0	1-1/16	17/32	6-1/2	2-15/16
	630	7/8	3-1/4	1-5/8	6-1/2	4-1/8
	631	1-7/16	4-3/8	2-3/16	8-1/4	4-7/16
	632	1-7/8	5-3/8	2-11/16	8-1/4	4-15/16
1"	None	0	1-5/16	21/32	6-1/2	3-1/8
	630	1-1/16	3-5/8	1-13/16	7-1/4	4-1/4
	631	1-9/16	4-5/8	2-5/16	8-1/4	4-9/16
	632	2-1/8	5-3/4	2-7/8	8-1/4	5-1/8
1-1/4"	None	0	1-11/16	27/32	6-1/2	3-5/16
	630	7/8	3-7/8	1-15/16	7-1/4	4-5/16
	631	1-5/8	5-1/8	2-9/16	8-1/4	4-13/16
	632	1-15/16	6	3	8-1/4	5-1/4
1-1/2"	None	0	1-7/8	15/16	6-1/2	3-3/8
	630	1	4-1/4	2-1/8	8-1/4	4-3/8
	631	1-1/2	5-1/4	2-5/8	8-1/4	4-7/8
	632	2-5/16	6-5/8	3-5/16	9-1/4	5-7/16
2"	None	0	2-3/8	1-3/16	6-1/2	3-11/16
	630	1-1/16	4-3/4	2-3/8	8-1/4	4-5/8
	631	1-9/16	5-3/4	2-7/8	8-1/4	5-1/8
	632	2-1/8	7-1/8	3-9/16	9-1/4	5-11/16
2-1/2"	None	0	2-7/8	1-7/16	6-1/2	3-15/16
	630	1-1/16	5-3/8	2-11/16	8-1/4	4-15/16
	631	1-7/8	6-5/8	3-5/16	9-1/4	5-7/16
	632	2-5/16	7-3/4	3-7/8	9-1/4	6
3"	None	0	3-1/2	1-3/4	7-1/4	4-1/8
	630	1	5-7/8	2-15/16	8-1/4	5-1/4
	631	1-9/16	7-1/4	3-5/8	9-1/4	5-3/4
	632	2-1/16	8-1/4	4-1/8	10-1/8	6-1/8
3-1/2"	None	0	4	2	7-1/4	4-3/8
	630	1-1/4	6-5/8	3-5/16	9-1/4	5-7/16
	631	1-13/16	7-3/8	3-11/16	9-1/4	5-13/16
	632	2-1/4	8-5/8	4-5/16	10-1/8	6-3/8
4"	None	0	4-1/2	2-1/4	8-1/4	4-1/2
	630	1-1/16	7-1/8	3-9/16	9-1/4	5-11/16
	631	1-9/16	8-1/8	4-1/16	10-1/8	6-3/8
	632	2-1/16	9-1/8	4-9/16	10-1/8	6-5/8
5"	None	0	5-5/8	2-13/16	8-1/4	5-1/16
	630	1	8-1/4	4-1/8	10-1/8	6-1/8
	631	1-1/5	9-3/8	4-11/16	10-1/8	6-3/4
	632	2	10-3/8	5-3/16	10-7/8	7-1/8
6"	None	0	6-5/8	3-5/16	9-1/4	5-7/16
	630	1	9	4-1/2	10-1/8	6-9/16
	631	1-1/2	10-1/8	5-1/16	10-7/8	7
	632	2	11	5-1/2	10-7/8	7-1/2
8"	None	0	8-5/8	4-5/16	10-1/8	6-3/8
	631	1-1/2	12	6	10-7/8	8
	632	2	13	6-1/2	10-7/8	8-9/16
	633	2-11/16	14-1/2	7-1/4	10-7/8	9-5/16

Pipe Size (in)	Saddle No.	Actual Covering Thkns (in)	Actual O.D. (in)	Actual Radius (in)	ROL L (in)	ROL CL (in)
<b>ROL14</b>						
6"	None	0	6-5/8	3-5/16	9-5/16	7
	630	1	9	4-1/8		
	631	1-1/2	10-1/8	5-1/16		
	632	2	11	5-1/2		
	633	2-1/2	12-3/8	6-3/16		
	634	3	13-1/8	6-9/16		
8"	None	0	8-5/8	4-5/16	10	7-15/16
	631	1-1/2	12	6		
	632	2	13	6-1/2		
	633	2-11/16	14-1/12	7-1/4		
	634	3-1/8	15-3/8	7-11/16		
	635	4-3/16	17-3/8	8-11/16		
10"	None	0	10-3/4	5-3/8	10-11/16	8-15/16
	631	1-9/16	14-1/2	7-1/4		
	632	2-1/16	15-1/4	7-5/8		
	633	2-9/16	16-1/4	8-1/8		
	634	3-1/16	17-3/8	8-11/16		
	635	4-1/16	19-1/2	9-3/4		
12"	None	0	12-3/4	6-3/8	11-3/8	9-7/8
	631	1-9/16	16-1/8	8-1/16		
	632	2-1/16	17-1/4	8-5/8		
	633	2-5/8	18-1/4	9-1/8		
	634	3-1/16	19-1/4	9-5/8		
	635	4-1/8	20-3/8	10-3/16		
14"	None	0	14	7	12-1/16	10-7/16
	631	1-1/2	17-1/2	8-3/4		
	632	2	18-5/8	9-5/16		
	633	2-1/2	19-3/4	9-7/8		
	634	3	20-5/8	10-5/16		
	635	4	22-5/8	11-5/16		
16"	None	0	16	8	12-3/4	11-3/8
	631	1-1/2	19-5/8	9-13/16		
	632	2	20-3/8	10-3/16		
	633	2-1/2	21-5/8	10-13/16		
	634	3	22-1/8	11-1/16		
	635	4	24-3/8	12-3/16		
<b>ROL15</b>						
18	None	0	18	9	12-3/4	12-1/4
	631	1-1/2	21-5/8	10-13/16		
	632	2	22-5/8	11-5/16		
	633	2-1/2	23-1/4	11-5/8		
	634	3	24-1/2	12-1/4		
	635	4	26-5/8	13-5/16		
20	None	0	20	10	14-1/8	13-1/4
	631	1-1/2	23-1/4	11-5/8		
	632	2	24-1/2	12-1/4		
	633	2-1/2	25-1/2	12-3/4		
	634	3	26-5/8	13-5/16		
	635	4	28-1/4	14-1/8		
24	None	0	24	12	14-13/16	15-1/4
	631	1-1/2	27	13-1/2		
	632	2	28	14		
	633	2-1/2	29-1/4	14-5/8		
	634	3	30-1/2	15-1/4		
	635	4	32-7/8	16-7/16		
30	Special order	0	30	15	15-7/8	16-1/4

- continues -

**26**  
Fasteners/  
Concrete  
anchors

# ERICO®

## Er ICO®

### plpE Ha Ng Er S/SuppOr TS

#### Steel C-Clamp (model #200)

**Size range:** 3/8" and 7/8" rod sizes

**material:** Carbon steel with hardened steel cup point set screw and lock nut

**alternate material or Finish:** EG, SS, HDG

**approved By:** Factory Mutual (both 3/8" & 1/2")

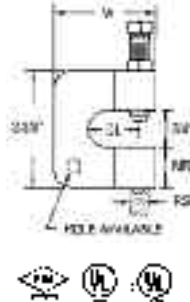
**listed By:** Underwriters Laboratories Inc. to U. S. and Canadian safety standards (3/8" only)

**Conforms with:** Federal Specification WW-H-171 (Type 23), Manufacturers Standardization Society ANSI/MSS-SP-58 (Type 23); install in accordance with ANSI/MSS-SP-69.

**Service:** Structural attachment to metal beams, purlins, channel or angle iron. To support hanger rods. Provides no vertical adjustment.

**Ordering:** Specify rod size, model number and name.

**Note:** Set screw must be tightened onto sloped side of I-beam, channel or angle iron flange and torqued to 60 inch pounds for 3/8" rod size and 125 inch pounds for 1/2" rod size. Locknut required to resist vibration.



RS (in)	CL (in)	MRI (in)	W (in)	Max. Pipe Size (in)	Max. Recom. Load (lbs)
3/8	13/16	13/16	2-1/4	4	250
1/2	11/16	13/16	2-1/8	8	760
5/8	7/8	7/8	2-5/16	8	550
3/4	3/4	7/8	2-1/4	8	630
7/8	5/8	7/8	2-5/8	8	1200

#### Domestic Beam Clamp (model #300) Import Beam Clamp universal/reversible (Double rod Hole) (model #300 I)

**Size range:**

#300 – 3/8" thru 7/8" rod sizes

#300I – 3/8" rod size only

**material:** Malleable iron casting with a hardened cup point set screw and locknut

**alternate material or Finish:** EG, HDG

**approved By:** Factory Mutual

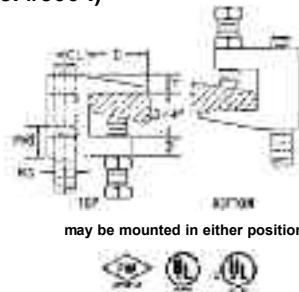
**listed By:** Underwriters Laboratories Inc. to U. S. and Canadian safety standards

**Conforms with:** Federal Specification WW-H-171 (Type 23), Manufacturers Standardization Society ANSI/MSS-SP-58 (Type 19 & 23); install in accordance with ANSI/MSS-SP-69.

**Service:** Structural attachment (with *infinite adjustment*) to top or bottom of metal beams, purlins, channel or angle iron to support hanger rod.

**Ordering:** Specify size, model number and name

**Note:** Set screw must be tightened onto the sloped side of the I-Beam, channel or angle iron flange and torqued to 60 inch pounds.



RS (in)	Max. pipe Size (in)	CL (in)	D (in)	MRI (in)	F (in)	T (in)	Max. recom. Load (lbs)	
							Top	Bottom
3/8	4	7/16	1-1/8	1/2	3/8	3/8	500	250
1/2	8	9/16	1-1/16	11/16	1/2	1/2	950	760
5/8	8	9/16	1-1/16	11/16	1/2	1/2	950	760
3/4	8	9/16	1-1/8	13/16	5/8	3/8	950	760
7/8	8	9/16	1-1/8	13/16	5/8	3/8	950	760

#### r etainer Strap (model #200C)

**Size range:** 3/8" thru 7/8" rod sizes (RS); 4-1/2", 6", 8", 10" and 14" lengths (L)

**material:** Pre-galvanized carbon steel

**alternate material or Finish:** HDG

**Service:** To be utilized when a retainer strap is specified with Model #200C Clamp.

**Ordering:** Specify rod size, length (L) (order 2" longer than beam flange width), model number and name.



#### r etainer Strap (model #255C)

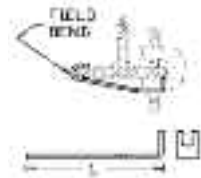
**Size range:** 3/8" thru 3/4" rod sizes; 4-1/2", 6", 8", 10" and 14" lengths (L)

**material:** Pre-galvanized carbon steel

**alternate material or Finish:** HDG

**Service:** To be utilized when a retainer strap is specified with Model #255 or #255L.

**Ordering:** Specify rod size, length (L) (order 2" longer than beam flange width), model number and name.



#### r etainer Strap (model #300-C)

**Size range:** 3/8" thru 7/8" rod sizes; 6", 8", 10", 12" and 14" lengths (L)

**material:** Pre-galvanized carbon steel

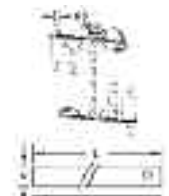
**alternate material or Finish:** HDG

**Service:** To be utilized when a retainer strap is specified with Models: #300, #300I, #310 Beam Clamps

**Ordering:** Specify rod size, length (L) (order 2" longer than beam flange width), model number and name.

**Note:** Field bend and use jam nut over hanger rod to secure.

RS (in)	L (in)	W (in)
3/8	6, 8, 10, 12, 14	1
1/2	6, 8, 10, 12, 14	1
5/8	6, 8, 10, 12, 14	1-1/4
3/4	6, 8, 10, 12, 14	2
7/8	6, 8, 10, 12, 14	2



#### "Big mouth" Beam Clamp universal/reversible

(model #310)

**Size range:** 3/8" and 1/2" rod sizes

**material:** Malleable iron casting with a hardened cup point set screw and locknut

**alternate material or Finish:** EG, HDG

**approved By:** Factory Mutual

**listed By:** Underwriters Laboratories Inc. to U. S. and Canadian safety standards

**Conforms with:** Federal Specification WW-H-171 (Type 23), Manufacturers Standardization Society ANSI/MSS-SP-58 (Type 19 & 23); install in accordance with ANSI/MSS-SP-69.

**Service:** Structural attachment (with *infinite adjustment*) to top or bottom of roll formed, large lipped metal beams, purlins, channel or angle iron which require a 1-1/4" maximum jaw opening.

**Ordering:** Specify rod size, model number and name.

**Note:** Set screw must be tightened onto the sloped side of the I-Beam, channel or angle iron flange and torqued to 60 inch pounds for 3/8" rod size and 125 inch pounds for 1/2" rod size.

RS (in)	Max. Pipe size (in)	CL (in)	D (in)	MRI (in)	F (in)	T (in)	Max. Recom. Load (lbs)	
							Top	Bottom
3/8	4	7/16	1	17/16	7/16	3/16	500	250
1/2	8	9/16	1	19/32	5/8	7/32	950	760



26  
Fasteners/  
Concrete  
anchors

