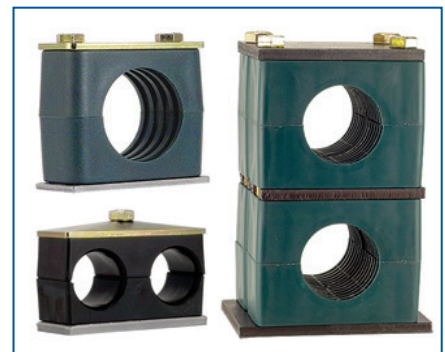
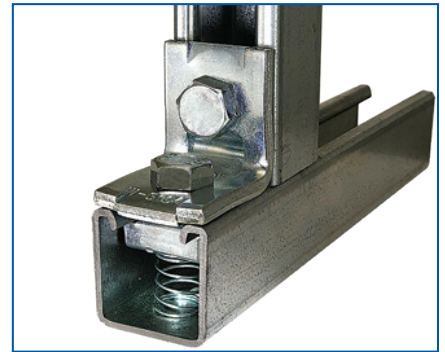
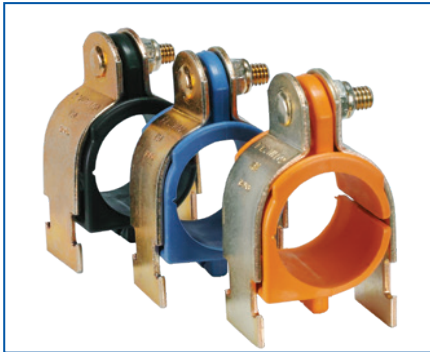




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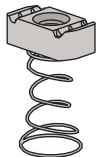

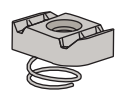
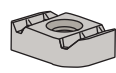



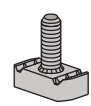
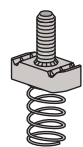
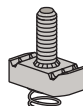


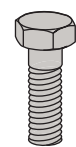








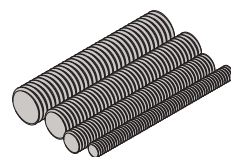
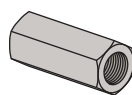
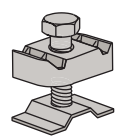
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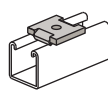
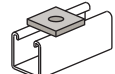
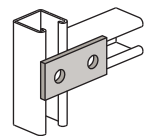
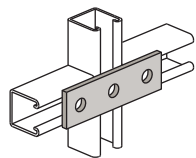
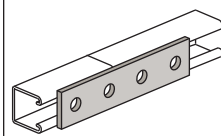
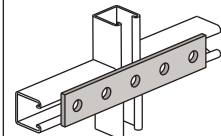
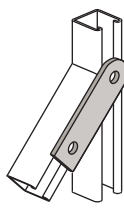
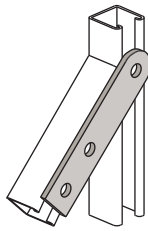
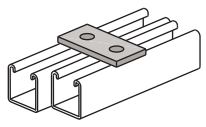
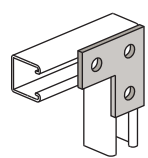
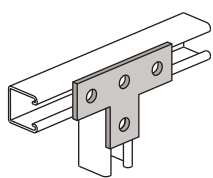
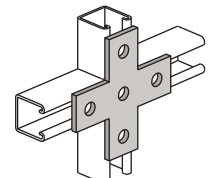
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We reserve the right to make specification changes without notice. While every effort has been made to assure the accuracy of information contained in this catalog at the time of publication, we cannot accept responsibility for inaccuracies resulting from undetected errors or omissions.

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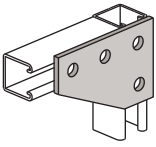
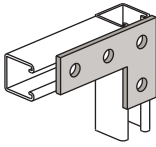
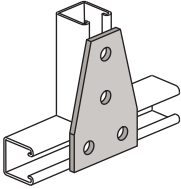
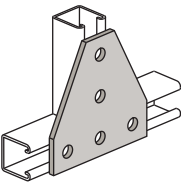
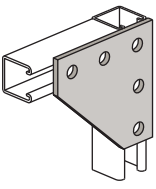
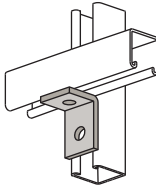
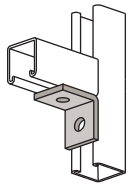
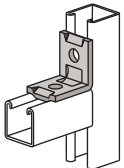
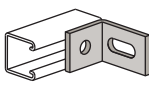
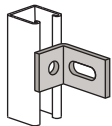
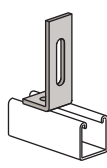
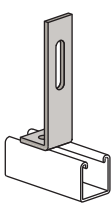
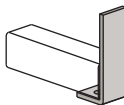
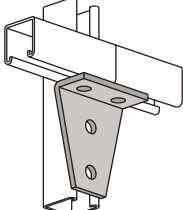
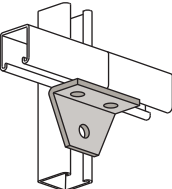
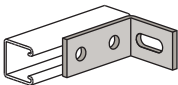
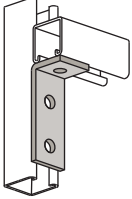
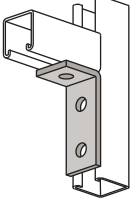
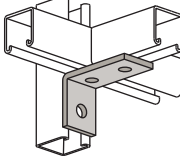
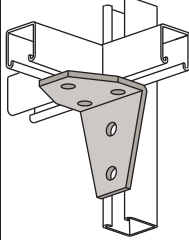
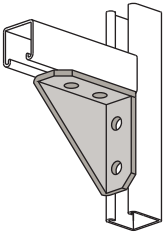
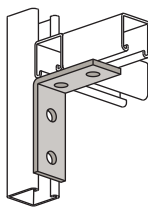
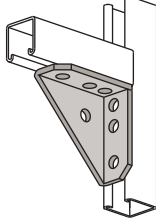
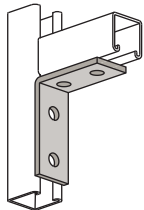
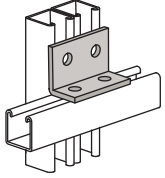
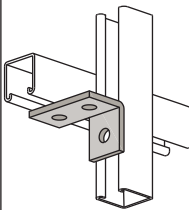
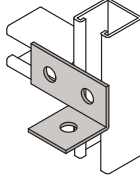
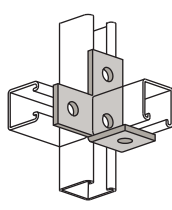
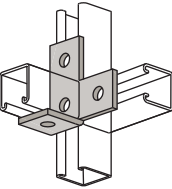
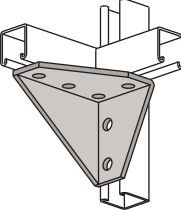
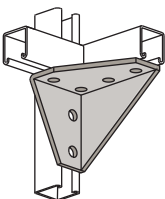
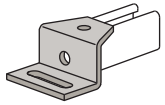
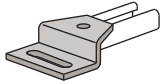
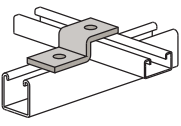
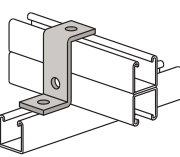
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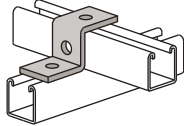
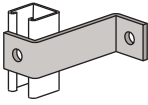
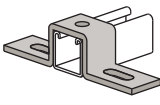
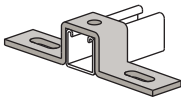
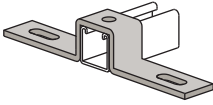
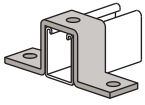
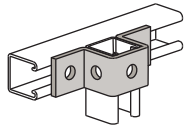
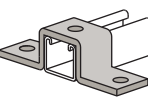
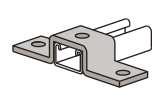
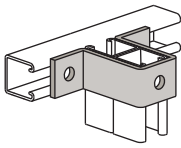
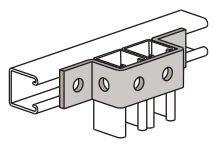
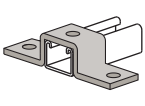
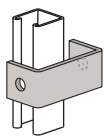


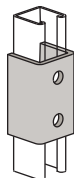
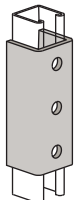

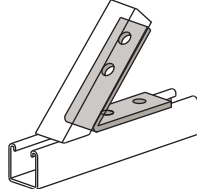
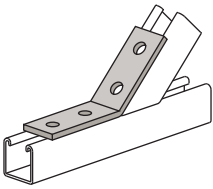
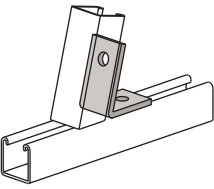
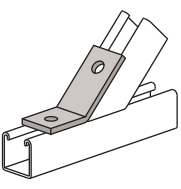
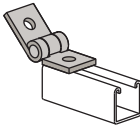
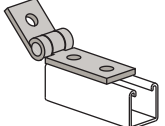
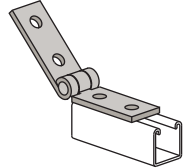
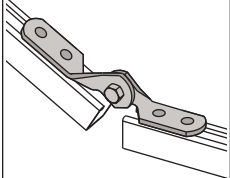
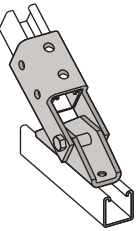
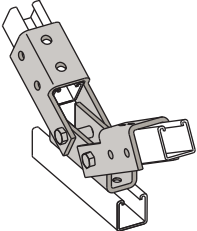
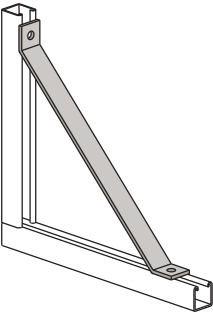
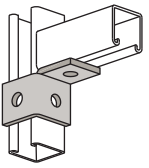
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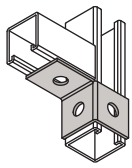
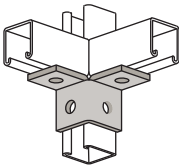
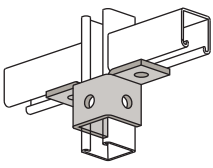
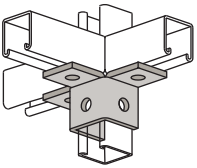
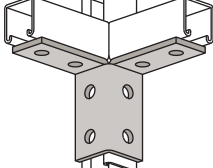
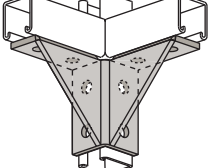
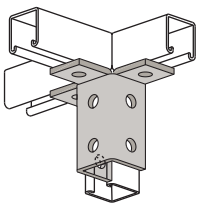
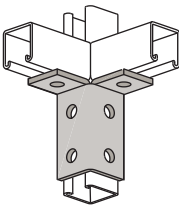
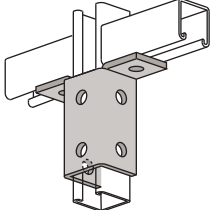
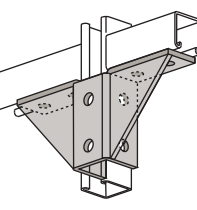
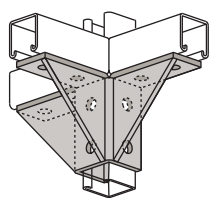
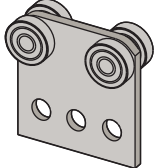
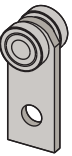
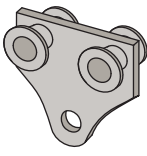
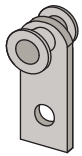
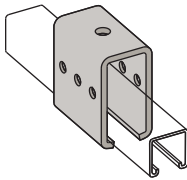
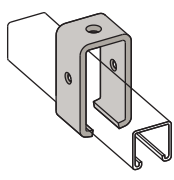
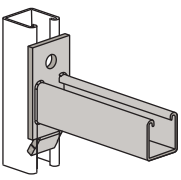
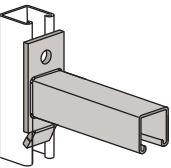
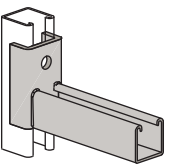
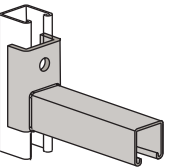
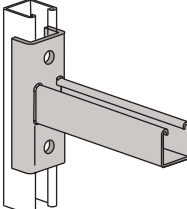
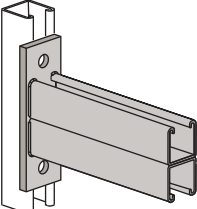
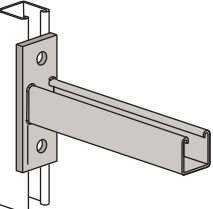
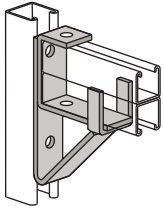
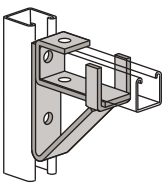
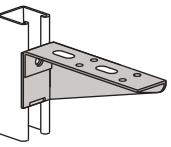
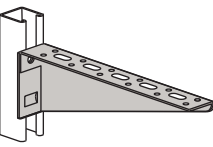
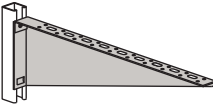
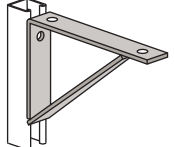
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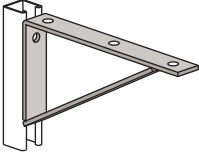
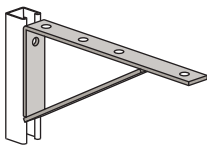
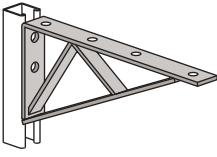
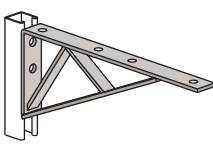
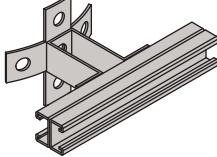
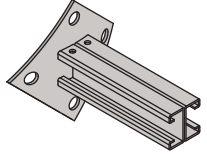
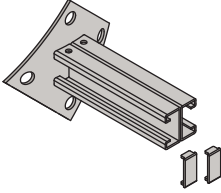
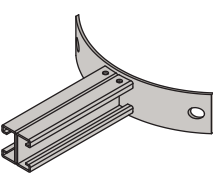
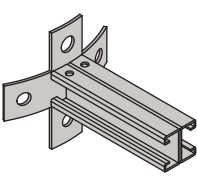
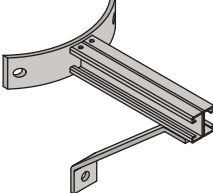
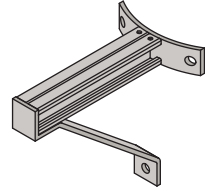
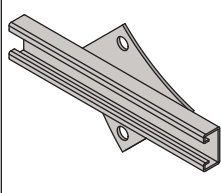
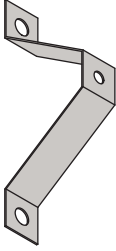
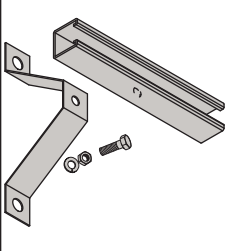
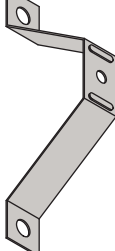
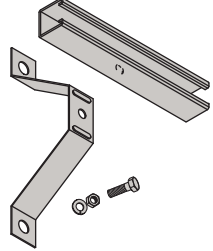
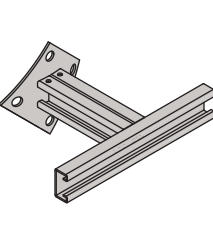
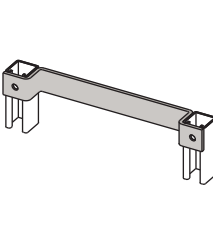
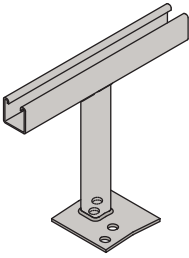
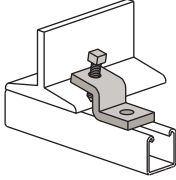
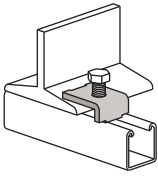
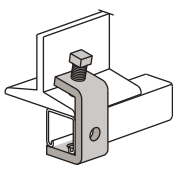
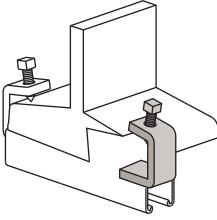
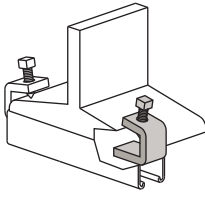
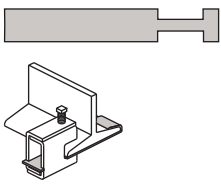
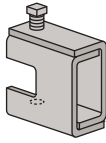
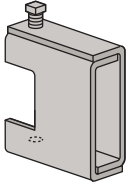
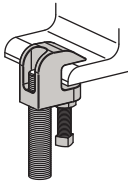
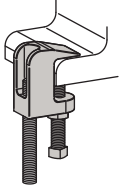
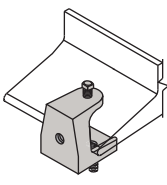
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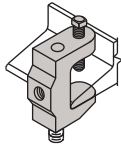
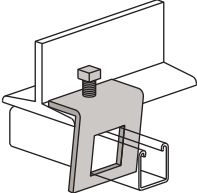
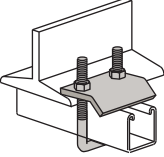
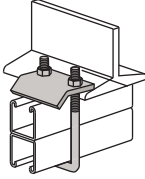
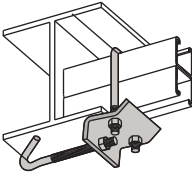
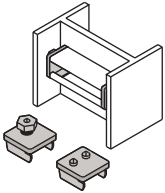
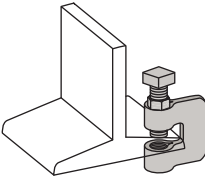
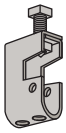
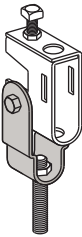
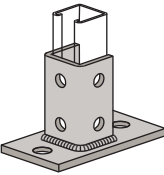
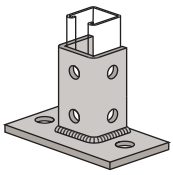
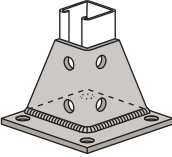
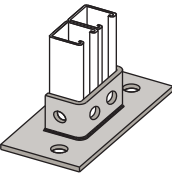
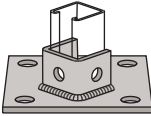
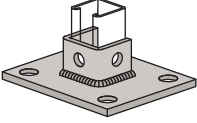
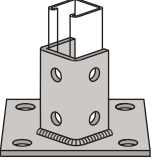
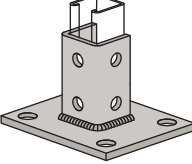
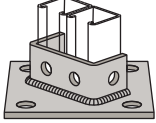
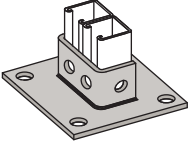
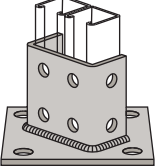
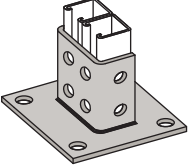


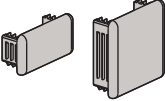
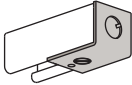
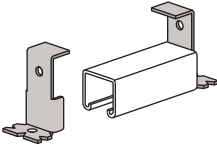
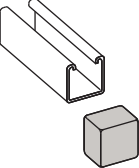

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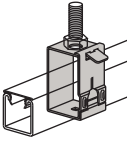
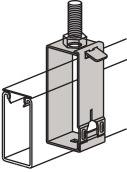
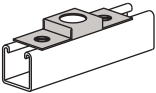
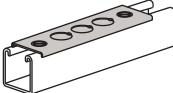
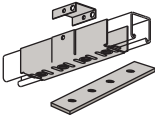
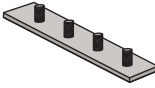
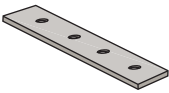
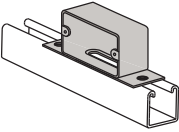
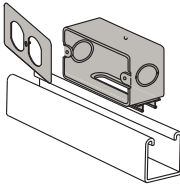

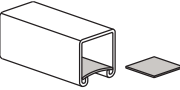
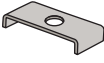
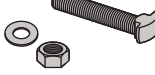


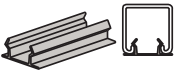

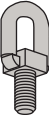

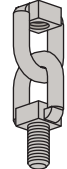

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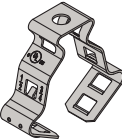
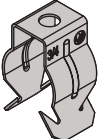

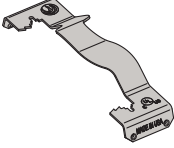
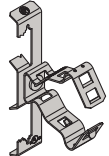
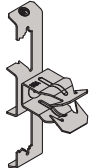
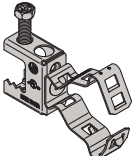
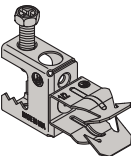
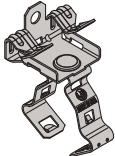
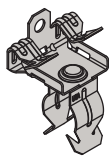
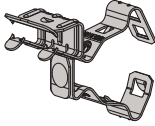
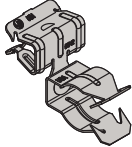
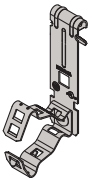
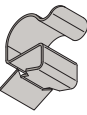

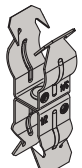

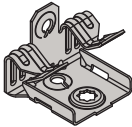
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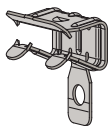

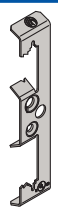

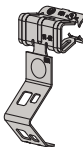
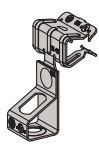


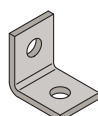
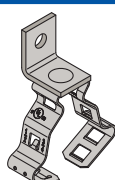
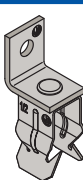
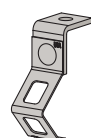
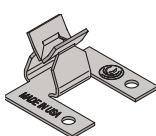
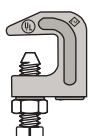
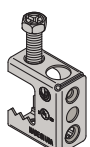
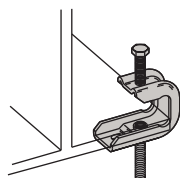
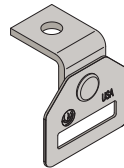
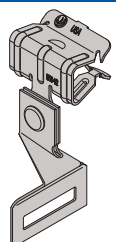
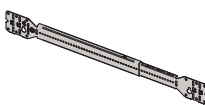
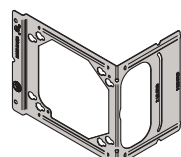
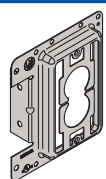

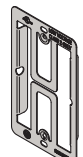


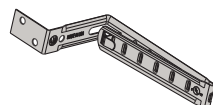


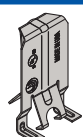
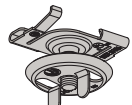

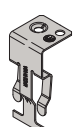
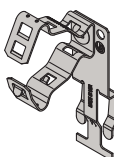
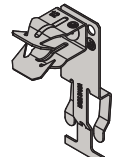


| Electrical Accessories | | | | | | |
|---|---|--|--|---|--|--|
| W6420 & W6422 | W6424 & W6426 | W6442 & W6443 | W6449 | W6432 to W6435 | W6439 | W6440 |
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| Page 160 | Page 160 | Page 160 | Page 160 | Page 161 | Page 161 | Page 161 |
| W6445 | B6445S | W6462 | W6469 | W6461 | W6463 | W6460 |
|  |  |  |  |  |  |  |
| Page 161 | Page 161 | Page 162 | Page 162 | Page 162 | Page 162 | Page 162 |
| W6500 | W6500PLASTIC | W6905 & W6906 | W6910 & W6911 | W6915 & W6916 | W6920 & W6921 | Porce-A-Clamp® |
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|---|---|---|--|---|---|
| CC/CCT | CCP | PCH | WC/WCBW | MFC | MFCCCP |
|  |  |  |  |  |  |
| Page 166 | Page 166 | Page 167 | Page 167 | Page 168 | Page 168 |
| BCC | BCL CCP | FH C | FH CCP | FHS C | FHS CCP |
|  |  |  |  |  |  |
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| FHV C | CFC | CC CC | CCP CCP | BR | FCH |
|  |  |  |  |  |  |
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|  |  |  |  |  |  |
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| FVZ RH | FVZ RT | AB | AB C & NB C | AB CCP & NB CCP | ABR & ABR T |
|  |  |  |  |  |  |
| Page 176 | Page 177 | Page 177 | Page 178 | Page 178 | Page 179 |
| PSP, FSM | Silver Claw | BCL | BC92 | ABSHP | FHS SH |
|  |  |  |  |  |  |
| Page 180 | Page 180 | Page 181 | Page 181 | Page 182 | Page 182 |
| ZBA Z-Bracket | BBSM | LVMN | LVMS | LVMP | MSC CC CCP |
|  |  |  |  |  |  |
| Page 183 | Page 183 | Page 184 | Page 184 | Page 185 | Page 185 |
| CTS | CSSTS | CCMS | SDTSLP8X1/2 | SCT | TCB TCS |
|  |  |  |  |  |  |
| Page 186 | Page 186 | Page 187 | Page 187 | Page 188 | Page 188 |
| EBH | TBC | TB C | TBC SMCCP TMCCP | | |
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|----------------------|----------|--------------|------------------------|------------------------|---------------|------------------|
| SPN | SPW | SPD | SPH Cush-A-Ring Clamps | SPP Cush-A-Ring Clamps | SVN | SVW |
| | | | | | | |
| Page 192 | Page 193 | Page 193 | Page 194 | Page 195 | Page 196 | Page 196 |
| LVZ | SSN | Cable Clamps | HVN | HSN | Python Series | Python II Series |
| | | | | | | |
| Page 197 | Page 198 | Page 198 | Page 199 | Page 199 | Page 200 | Page 200 |

| Beta Clamps and Z-Clamps | | | | | |
|--------------------------|-----------------|-----------------|------------------------|--------------------|----------------------|
| Beta Standard | Beta Heavy | Beta Twin | Beta Smoothie Standard | Beta Smoothie Twin | Beta Rubber Standard |
| | | | | | |
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| Beta Rubber Heavy | Beta Adapter | Z-CLAMP | | Z-Clamp Adapters | Z-Clamp Hardware |
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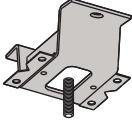

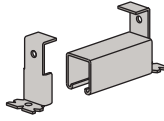
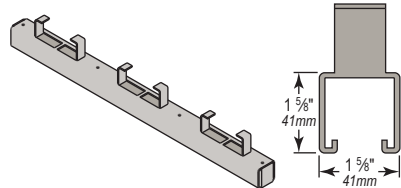
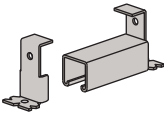
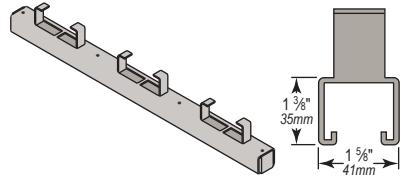
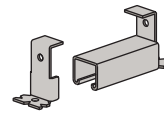
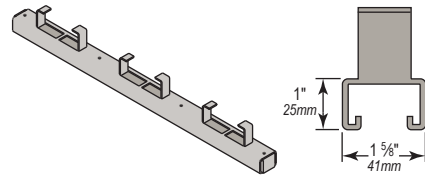
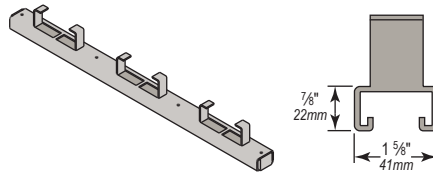
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| | | W7250 to W7252 | W7253 to W7270 |
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| W7350 Series Inserts W300 1-5/8" x 1-3/8" 12 Gauge Channel | | W7550 Series Inserts W800 1-5/8" x 1" 12 Gauge Channel | |
| W7350 to W7352 | W7353 to W7370 | W7550 to W7552 | W7553 to W7570 |
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| W7950 Series Inserts W900 1-5/8" x 7/8" 12 Gauge Channel | | | |
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| CBN-RB Series Medium Support | CBN-RB Series Heavy Support | CBN-DS Series | | CBN-DSFW Series | |
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| CBM | CBM Series | CBMPH Series | CBMPP Series | CBM REX | |
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| GAMMA Anti-Vibration Pads | | | | | |
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| Interchange with ARO 210 Series | Interchange with ARO 310 Series | Interchange with Tru-Flate Series | Interchange with Schrader Standard & Heavy Duty) | Interchange with Hansen 600 & 700 Series |
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| Interchange with Hansen RL Series | Interchange with Lincoln Long Nose | Interchange with Hansen 180 Series | Interchange with Rectus 21 KA | Universal Coupler |
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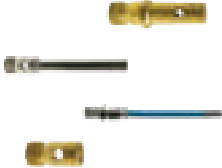


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The Metal Framing System



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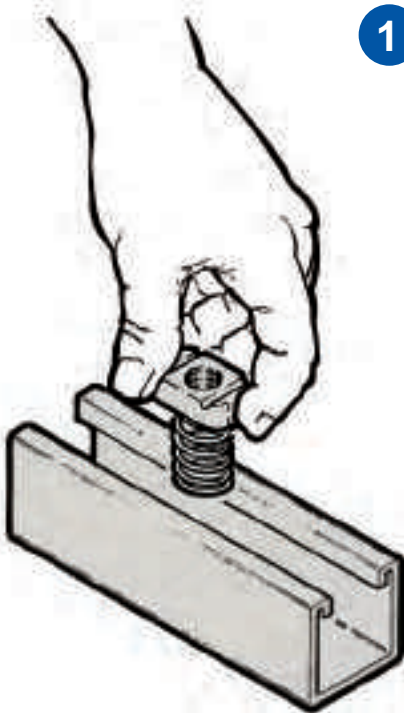
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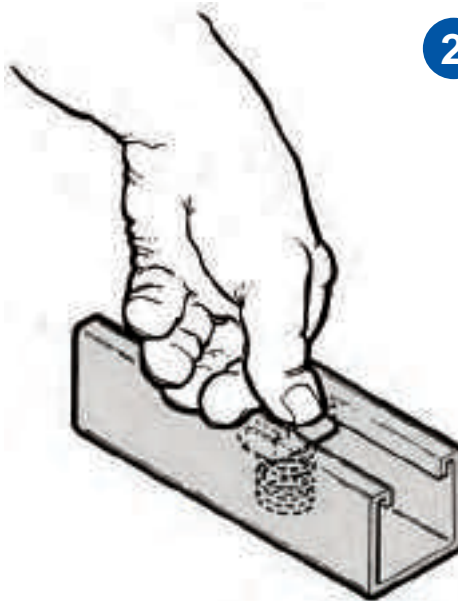
Gamma
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- 1 Insert the appropriate Wesanco® Channel Nut with spring, *parallel* to the slot edges, anywhere along the continuous open slot of the channel.



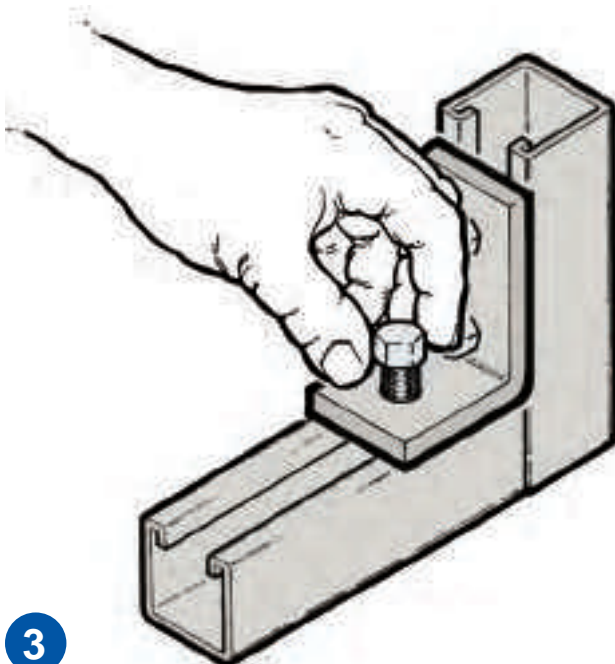
- 2 Depress the Channel Nut with spring below the in-turned channel edges. Rotate one quarter turn clock-wise, perpendicular, and release pressure on the nut.



The Nut will lock in-place, its pyramid grip enhanced grooves aligning with the underside of the channel's in-turned edges; the spring being designed to hold the nut in place during assembly.

- 4 Properly torquing the bolt draws the Channel Nut with spring up against the in-turned channel lips, forming a strong, secure clamping connection.

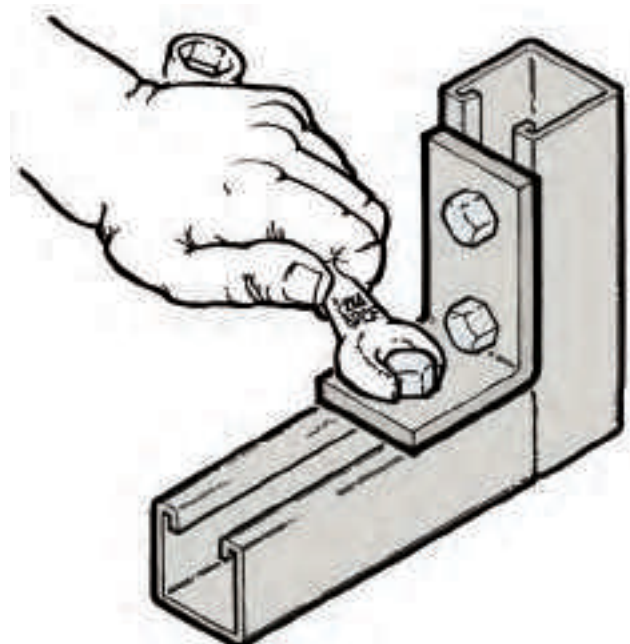
Use caution not to bottom the bolt (select one of sufficient length, but not so long as to contact the inside back). **Do not over torque the bolt.**



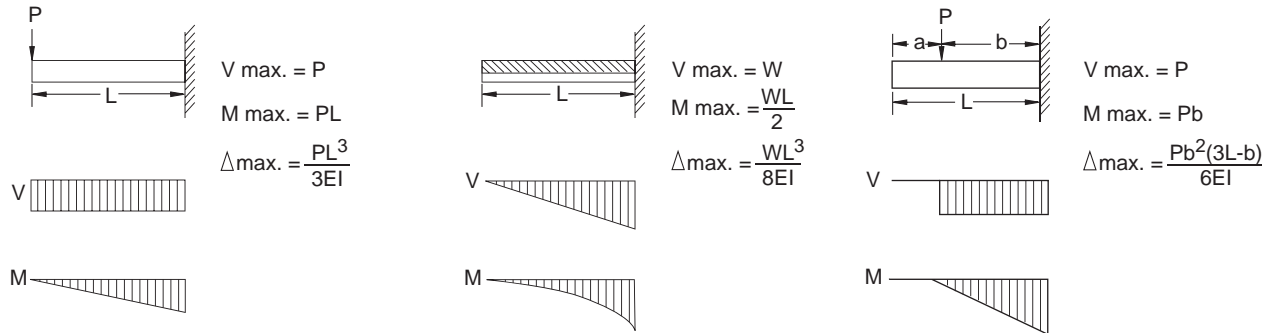
3

Fitting, bracket, or accessory, is located on the channel face over the Channel Nut with spring.

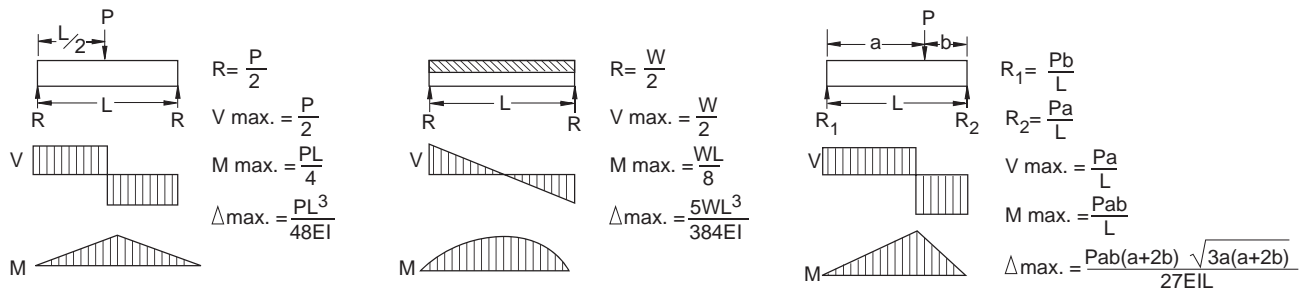
An appropriate diameter and length of bolt is inserted, and the fitting is adjusted for location at this time.



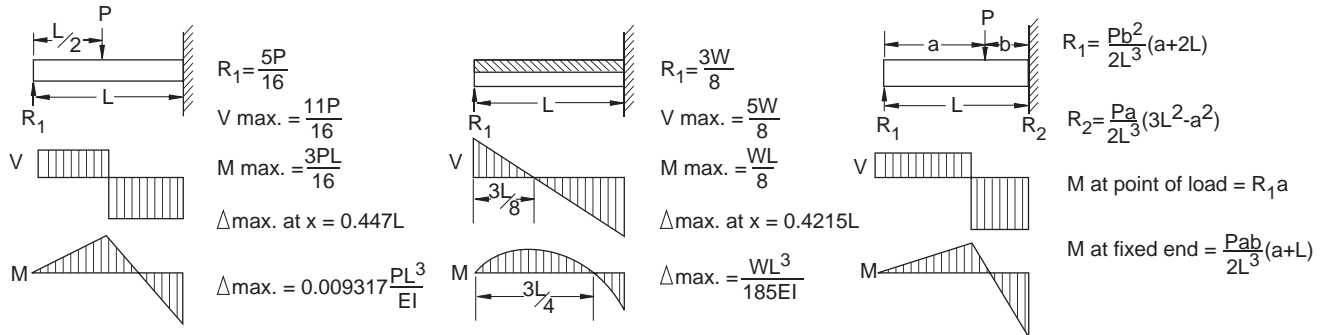
Cantilever Beams



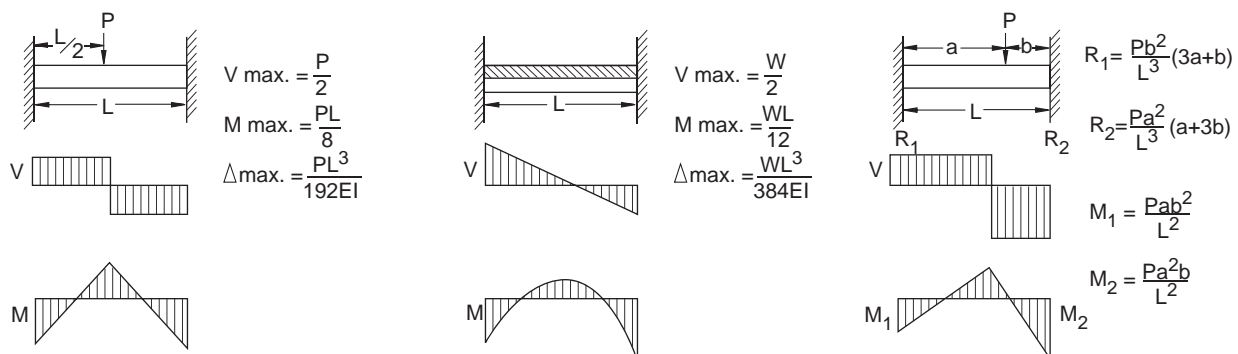
Simple Beams



Beams Fixed At One End & Supported At The Other



Beams Fixed At Both Ends



R – Reaction
 M – Moment
 P – Concentrated Load

W – Total Uniform Load
 V – Shear
 L – Length

Δ – Deflection
 E – Modulus of Elasticity
 I – Moment of Inertia

Beam Load Support Formulas



All Beam Load tables are for simple beams supported at the ends. These can be used in the majority of the cases. There are times when it is necessary to know what happens with other loading and support conditions. Some common arrangements are shown below. Simply multiply the values from the Beam Load tables by factors given below.

| Load and Support Condition | | Load Factor | Deflection Factor |
|---|--|-------------|-------------------|
| Simple Beam Uniform Load | | 1.00 | 1.00 |
| Simple Beam Concentrated Load at Center | | 0.50 | 0.80 |
| Simple Beam Two Equal Concentrated Loads at 1/4 Points | | 1.00 | 1.10 |
| Beam Fixed at Both Ends Uniform Load | | 1.50 | 0.30 |
| Beam Fixed at Both Ends Concentrated Load at Center | | 1.00 | 0.40 |
| Cantilever Beam Uniform Load | | 0.25 | 2.40 |
| Cantilever Beam Concentrated Load at End | | 0.12 | 3.20 |
| Continuous Beam Two Equal Spans - Uniform Load on One Span | | 1.30 | 0.92 |
| Continuous Beam Two Equal Spans - Uniform Load on Both Spans | | 1.00 | 0.42 |
| Continuous Beam Two Equal Spans - Concentrated Load at Center of One Span | | 0.62 | 0.71 |
| Continuous Beam Two Equal Spans - Concentrated Load at Center of Both Spans | | 0.67 | 0.48 |

EXAMPLE I

PROBLEM:

Calculate the load and deflection of an W200 beam continuous over one support and loaded uniformly on one span.

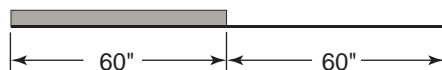
SOLUTION:

A. From load table for W200 the load for a 60" span is 700 lbs. and deflection is 0.35".

B. Multiply by factors from Table above

Load = 700 lb. x 1.30 = 910 lbs.

Deflection = 0.35" x 0.92 = 0.322"



EXAMPLE II

PROBLEM:

Determine load and deflection of an W150 cantilever beam with a concentrated load on the end.

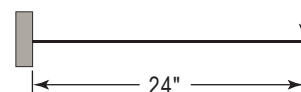
SOLUTION:

A. From load table for W150 the load for a 24" span is 5,360 lbs. and deflection is 0.09".

B. Multiply by factors from Table above.

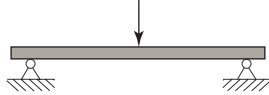
Load = 5,360 lbs. x 0.12 = 643.2 lbs.

Deflection = 0.09" x 3.20 = 0.288"



Beams are structural members loaded at right angles (perpendicular) to their length. Most beams are horizontal and subjected to gravity or vertical loads, e.g. a shelf support. However a vertical member can act as a beam under certain conditions, such as, a curtain wall mullion subjected to wind loading. The bending moment developed in a beam is dependent on:

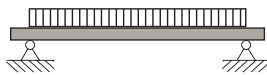
- (a) The amount of load applied
- (b) The type of loading applied
- (c) The support conditions



Beam Loading - Point Load

A load concentrated onto a very small length of the beam is a point load.

Beam Loading - Uniform Load



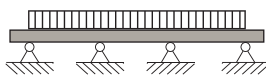
A load spread evenly over a relatively long length of the beam is a uniform load.

Point and uniform loads can be placed on a beam in any combination. A series of point loads can approximate a uniform loading. The load charts and tables are based on a uniform load unless identified otherwise.

Support Conditions - Simple Beam

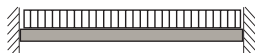
A simple beam has supports that prevent movement left and right, or up and down, but do not restrain the beam from rotating at the supports into a natural deflected curve. Most connections produce simple beams. The load charts and tables are based on simple beams unless identified otherwise.

Support Conditions - Continuous Beam



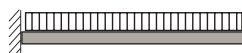
Any simple beam that is supported at one or more intermediate points is a continuous beam. A mezzanine joist that passes over three or more columns is an example of a continuous beam.

Support Conditions - Fixed-End Beam



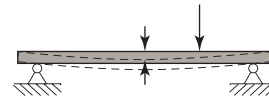
Supports that prevent the beam from rotating into a natural deflected curve produce a fixed-end beam. A welded end connection to a very rigid support produces a fixed-end beam.

Support Conditions - Cantilever Beam



A cantilever beam is a fixed-end beam that is supported at one end only, while the other end is unsupported. Brackets are examples of cantilever beams.

Deflection



All beams deflect under load. The amount of deflection is dependent on:

- (a) The amount of load,
- (b) The support conditions,
- (c) The stiffness of the beam's cross-sectional shape,
- (d) The stiffness of the beam material

The stiffness of the beam's cross-sectional shape is measured by its "Moment Of Inertia" or "I". The larger a beam's "I", the stiffer it is and the less it will deflect. A beam's "I" can change for each major axis. The "I" of both major axes (I 1-1 and I 2-2) are provided.

The stiffness of a beam's material is measured by its "Modulus of Elasticity" or "E". The larger a material's "E", the stiffer it is and the less it deflects. For example, steel is about three times stiffer than aluminum and as a result, deflects only one-third as much. Do not confuse stiffness with strength. Two materials may have identical strengths yet still have different "E's". A high-strength aluminum may be as strong as steel and still deflect three times as much.

The load charts and tables give calculated deflections for the loads shown. In many cases, a final design will be determined by the maximum deflection, not the maximum load.

Bending Moment

A beam must not only hold up the anticipated loads, but must also have sufficient additional capacity to safely hold unforeseen variations in applied loads and material strengths. This additional capacity is called a safety factor and is usually regulated by the various design codes and standards. A beam's strength is usually measured by an allowable bending moment or an allowable stress. The traditional approach is the allowable stress method, where a beam is determined to have a maximum allowable stress (in pounds per square inch) which is not to be exceeded.

The approach of the current AISI "Specification For The Design Of Cold-Formed Steel Structural Members" is to use a maximum allowable bending moment (in inch-pounds) which is not to be exceeded. Bending moment divided by a beam's section modulus or "S" equals stress.



Column - Design Fundamentals



Columns are structural members that are loaded parallel to their length. Most columns are vertical and are used to carry loads from a higher level to a lower level. However, any member subjected to compression loads, such as a diagonal or prop brace, is a column.

A column fails by "buckling", which is a sudden loss of straightness and subsequent collapse. Allowable column load is dependent on:

- (a) The length of column
- (b) The type of loading
- (c) The support conditions
- (d) The column's cross-sectional shape and material.

Column Length

The column length is measured from braced point to braced point. A braced point is where the column is restrained from lateral movement (translation) in all directions.

Column Loading – Concentric Loading

Loads applied to the center of gravity of the column cross-section are considered concentric. A beam that passes over and rests on the top of a column is an example of concentric loading.

Column Loading – Eccentric Loading

Any load which is not concentric is eccentric. The amount of eccentricity (in inches) has a major effect on the load-carrying capacity of any particular column. A load that is transmitted to a column using a standard fitting bolted to the slot face, is considered eccentric.

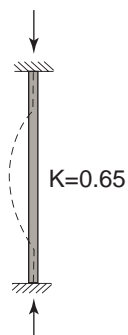
The load tables give allowable loads for both concentric (loaded at C G) and certain eccentric (loaded at slot face) loading. Allowable loads for other eccentric loading must be determined by a qualified design professional.

Support Conditions

Based on the support conditions, an appropriate "K" value is selected. This "K" value, which mathematically describes the column end conditions, is used in the column design equations. The most common support condition combinations are as follows:

Support Conditions - Fixed Top – Fixed Bottom

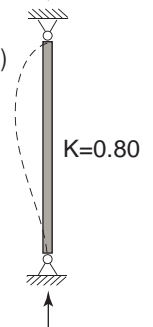
Both ends are restrained against rotation and lateral movement (translation).



Support Conditions - Pinned Top – Fixed Bottom

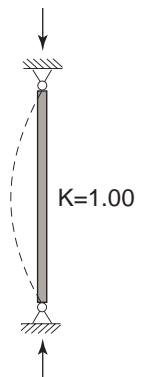
The top is restrained against lateral movement (translation) but is allowed to rotate. The bottom is restrained against rotation and lateral movement.

This is a common support condition and is used to construct the allowable column load applied at the Slot Face tables.



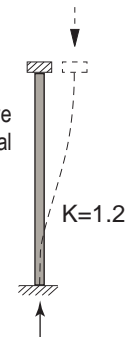
Support Conditions - Pinned Top – Pinned Bottom

Both ends are restrained against lateral movement (translation) but, are allowed to rotate.



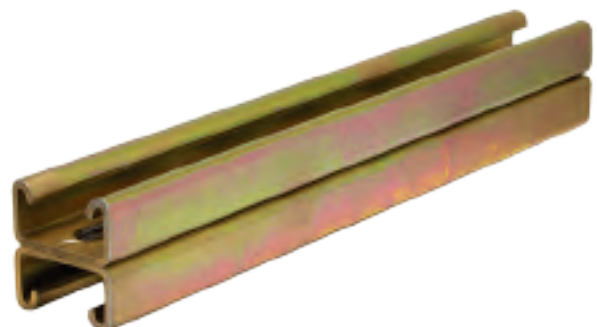
Support Conditions - Fixed / Free Top – Fixed Bottom

The top is restrained against rotation, but is allowed to move laterally. The bottom is restrained against rotation and lateral movement (translation).



Cross-Sectional Shape

The cross-sectional shape of a column member determines the value of its "Radius of Gyration" or "r". In general, a member with a large "r" makes a better column than a member with a small "r". Each axis of a column has a different "r". Typically the axis with the smallest "r" determines the final design.



Introduction

Channel

Channel Nuts & Hardware

General Fittings

Pipe & Conduit Supports

Electrical Fittings

Spring Steel

Loop & Ring Clamps

Beta Clamps & Z-Clamps

Concrete Inserts

Rooftop Supports

Gamma Pads

Technical Data



Materials & Manufacturing Details

General Information

Most Wesanco channels are produced in 10 and 20-foot lengths with a length tolerance of plus or minus $\frac{1}{16}$. Wesanco W600 and W700 are produced in 10 foot lengths only.

Channels

General

Wesanco channels are manufactured by the cold roll forming process which produces cross sections of uniform dimensions within tolerances established by the Metal Framing Manufacturer's Association, Metal Framing Standards Publication No. MFMA-1.

Material

Steel used in the manufacture of Wesanco channels conforms to the ASTM specifications in this catalog.

Design

Design is based on AISI "Specification for the Design of Cold-Formed Steel Structural Members." Maximum bending stress used in design is 25,000 pounds per square inch (PSI). This is based upon a virgin steel minimum yield stress of 33,000 psi cold worked to an average yield stress of 42,000 psi.

Welding

Welds meet the performance requirements of section 4 of AISI "Specification for the design of Cold-Formed Steel Structural Members." All multiple sections of two or more single Wesanco channels are resistance spot-welded approximately 2" to 3" on center.

Channel Nuts

General

Wesanco channel nuts are formed or stamped from steel bar stock and is case hardened after all forming and taping operations have been completed. The nuts are coated with zinc to ASTM-B633 "Electrodeposited Coatings of Zinc on Iron and Steel."

Wesanco channel nuts have uniform and American coarse screw threads.

Channel nuts are available both with and without springs. Springs are made from Galvanized spring steel wire.

Material

The bar steel used in manufacture of Wesanco channel nuts conforms to ASTM A575 or ASTM A576.

Weights and Dimensions

All weights given for materials are approximate shipping weights. Weights will vary somewhat due to permissible tolerances and slight variations in material thickness.

We reserve the right to change design specifications or to add or discontinue specific items without notice.

Fittings

General

Wesanco fittings are manufactured by cold forming steel in punch press dies and conform to those tolerances listed in section 5.3 of Metal Framing Standards Publication No. MFMA-1.

Material

Steel used for Wesanco fittings is Hot-Rolled Pickled and Oiled strip steel or bar conforming to ASTM A 570 or ASTM A575.

Welding

Wesanco fittings having two or more component parts may be arc or resistance welded in accordance with the appropriate American Welding Society Standards.

Finishes

Electroplated Zinc or Electro-Galvanized (EG)

This coating is standard for most ZSi-Foster products. Electro-Galvanized products meet ASTM B633 SC1 or SC3, Type III. Electroplating deposits zinc on the surface of the steel by electrolysis from a bath of zinc salts. The thickness of zinc applied in this method is between 0.2 mils to 0.5 mils [$5.1 \mu\text{m}$ to $12.7 \mu\text{m}$].

Mill-Galvanized (Pre-Galvanized) (PG)

ASTM A653 G-90 Pre-galvanized zinc is produced by continuously rolling steel coils or sheets through molten zinc at the mills. The coils are slit to size and fabricated by forming, shearing or punching to produce the finished product. During fabrication cut edges are not generally zinc coated. However, the zinc near the uncoated metal becomes a sacrificial anode to protect the bare areas.

Paint-Green Powder Coating (GR)

A dark green low gloss powder coating is applied and thoroughly baked after steel has been cleaned and phosphatized.

Hot Dip Galvanized After Fabrication (HG)

Wesanco channel and fittings which are hot dip galvanized after fabrication conform to one of the following specifications. ASTM A 123, ASTM A153 or ASTM A386.

Silva-Guard (SG)

ZSi-Foster Silva-Guard coating is a multi-step process that meets the 1000 hour salt spray test per ASTM B117 and DIN 50021.

Silva-Guard coating is WEEE, ELV, and RoHS compliant.

SG Finish is approved for outdoor as well as indoor applications. It is a chrome free duplex coating system that combines an inorganic zinc-rich basecoat with an aluminum-rich organic topcoat.

Special Coatings

Other commercially available finishes can be supplied per specification when required to protect applications.

Material Specifications



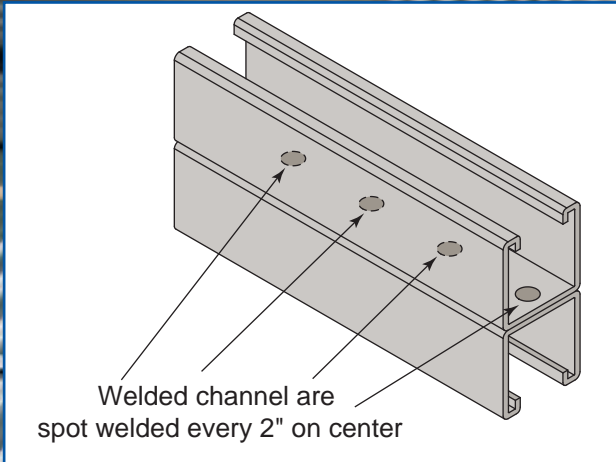
| Channel Specifications | | | |
|--------------------------|--------------------------|---------------------------|--|
| Material | Current ASTM Designation | Previous ASTM Designation | ASTM Description |
| Hot Rolled: Channel | A 1011SS GR33 | A 570 GR33 | Hot rolled carbon steel sheet and strip, structural quality. |
| Cold Rolled: Channel | A 1008SS GR33, A 1008 | A 611 | Cold rolled carbon sheet steel. |
| Pregalvanized: Channel | A 653 SS GR33 | A 653 GR33 G90 | Steel sheet zinc-coated by hot dip process at mill, structural quality. |
| Stainless Steel: Channel | A 240 TYPE 304 | A 240 TYPE 304 | Heat resisting chromium and chromium-nickel stainless steel plate, sheet, strip for pressure vessel. |
| | A 240 TYPE 316 | A 240 TYPE 316 | |
| Aluminum: Channel | B 221 TYPE 6063 T6 | B 221 TYPE 6063 TS | Aluminum alloy extruded bar, rod, wire, shape, and tube. |

| Fittings & Hardware Specifications | | | |
|------------------------------------|--------------------------|---------------------------|--|
| Material | Current ASTM Designation | Previous ASTM Designation | ASTM Description |
| Bar Stock: Channel Nuts | A 36 | A 575 | Merchant quality hot rolled carbon steel bars. Steel bars, carbon, hot rolled special quality. |
| | A 29-03 | A 576 | |
| Cold Rolled: Closure Strip | A 1008 CS GR33 | A 611 | Cold rolled carbon sheet steel. |
| Pregalvanized: Closure Strip | A 653 GR33 G90 | A 653 GR33 G90 | Steel sheet, zinc coated (galvanized) by the hot dipped process, commercial quality. |
| Bar Stock | A 569 | A 569 | Merchant quality hot rolled carbon steel bars. |
| Hot Rolled Plate | A 575 | A 575 | Steel, sheet and strip, carbon drawing quality, special killed, hot rolled. |
| Fitting (Steel) | A 366 | A 366 | Steel carbon, cold rolled sheet, commercial quality structural steel. |
| | A 366 | A 366 | |
| | A 36 | A 36 | |
| Hardware | A 563 | A 563 | Carbon and alloy steel nuts. Carbon steel externally threaded standard fasteners. |
| | A 307 | A 307 | |
| Strip Steel: Pipe Clamps | A 569 | A 569 | Steel, sheet and strip, carbon drawing quality, special killed, hot rolled. |
| Hot Rolled: Shelf Brackets | A 569 | A 569 | Steel carbon, cold rolled sheet, commercial quality structural steel. |



BACK-TO-BACK CHANNEL WELDS AND STEEL TRACEABILITY

Back-to-Back Channel Welds



Steel Traceability

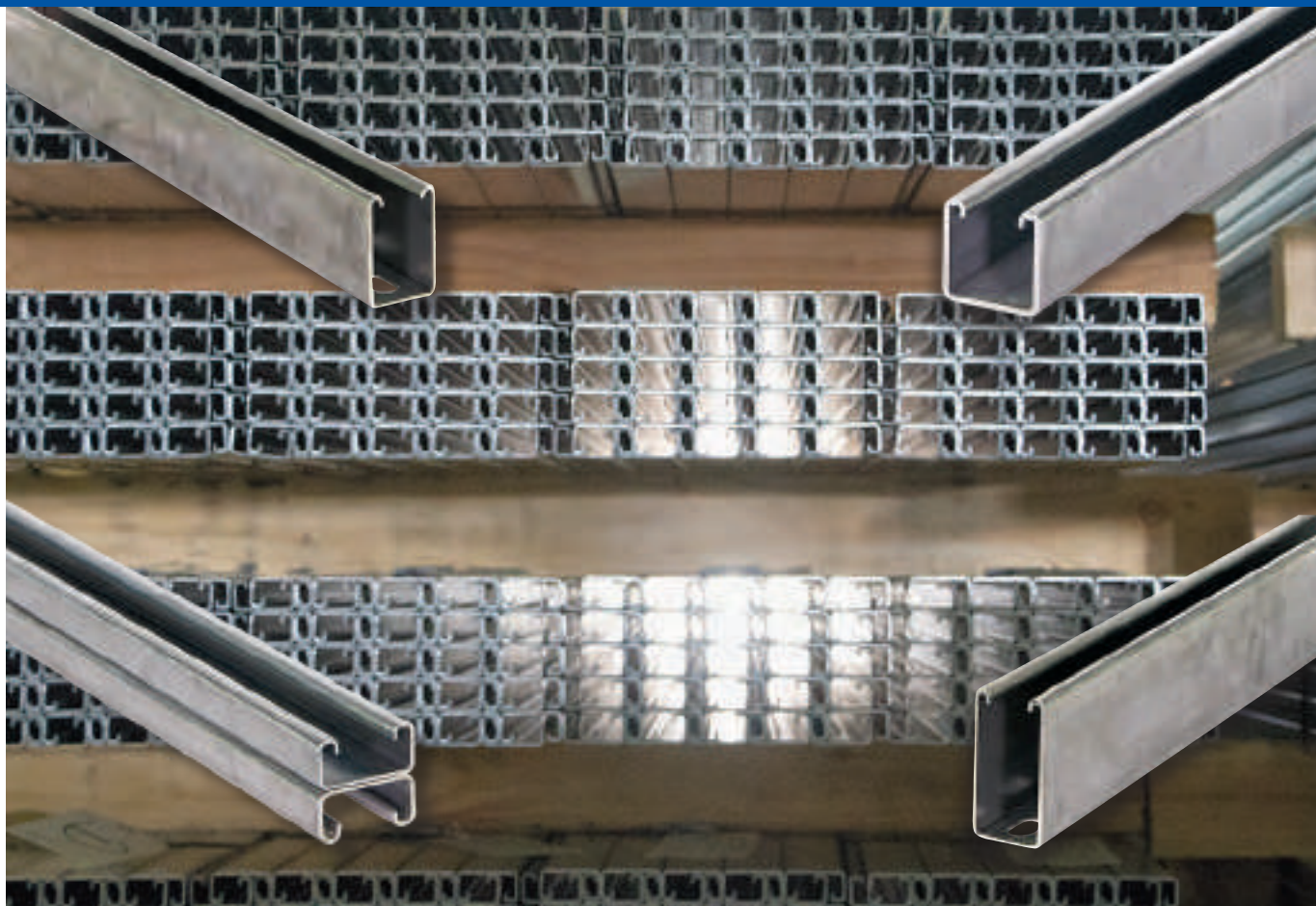
Wesanco Channel is stamped with a material code and a number code used for tracing the origin of the steel



Wesanco Channel is stamped with a material code and a number code used for tracing the origin of the steel



Channel Metal Framing



| Channel Material Specifications | | | |
|---------------------------------|-----------------|-----------------------|--|
| Material | Material Code | ASTM Designation | ASTM Description |
| Hot Rolled: Channel | Use Finish Code | A 1011SS GR33 | Hot rolled carbon steel sheet and strip, structural quality. |
| Cold Rolled: Channel | | A 1008SS GR33, A 1008 | Cold rolled carbon sheet steel. |
| Stainless Steel: Channel | ST304 | A 240 TYPE 304 | Heat resisting chromium and chromium-nickel stainless steel plate, sheet, strip for pressure vessel. |
| | ST316 | A 240 TYPE 316 | |
| Aluminum: Channel | AL | B 221 TYPE 6063 T6 | Aluminum alloy extruded bar, rod, wire, shape and tube. |

| Channel Finish Specifications | | |
|--------------------------------------|-------------|--|
| Finish | Finish Code | Description |
| Paint-Green Powder Coating | GR | A dark green low gloss powder coating is applied and thoroughly baked after steel has been cleaned and phosphatized. |
| Electroplated | EG | Wesanco fittings and hardware supplied as "Electro-Galvanized" in accordance with ASTM B 633. |
| Mill-Galvanized (Pre-Galvanized) | PG | Galvanized steel used in the manufacture of Wesanco channel sections conforms to ASTM A 653 GR33 G90. Uncoated edges resulted from slitting, punching and channel cut off are present. |
| Hot Dip Galvanized After Fabrication | HG | Wesanco channel and fittings which are hot dip galvanized after fabrication conform to one of the following specifications. ASTM A 123, ASTM A153 or ASTM A386. |
| Special Coatings | PL, GOLD | Other commercially available finishes can be supplied per specification when required to protect applications. |

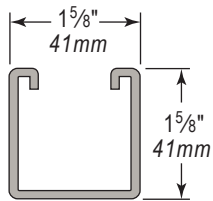
Call ZSi-Foster at (800) 323-7053 or order now at zsi-foster.com

12 Gauge Channel

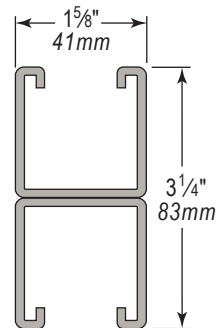
W200 & W201

(pages 34-39)

W200



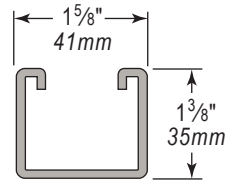
W201



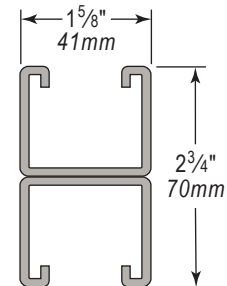
W300 & W301

(pages 44-46)

W300



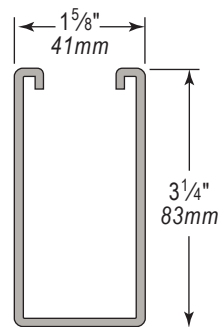
W301



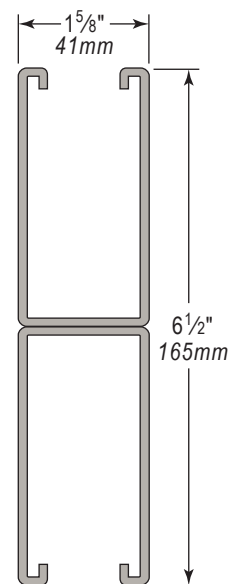
W150 & W151

(pages 67-70)

W150



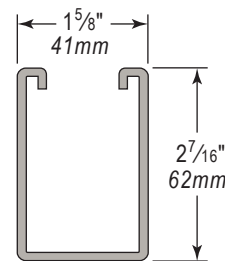
W151



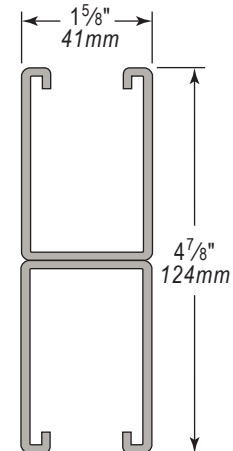
W100 & W101

(pages 63-66)

W100



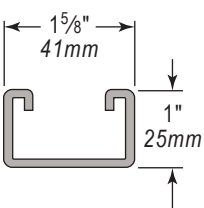
W101



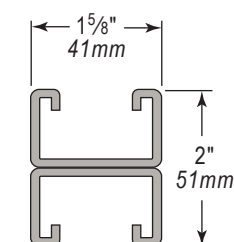
W800 & W801

(pages 47-50)

W800



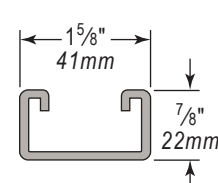
W801



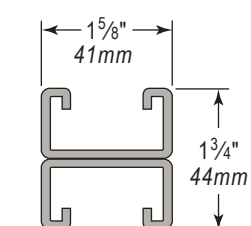
W900 & W901

(pages 51-54)

W900



W901

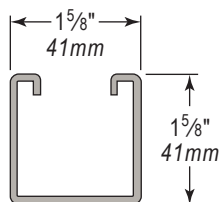


14 Gauge Channel

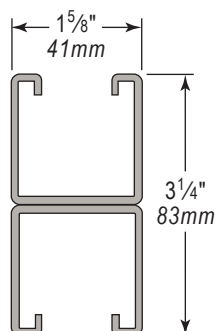
W210 & W211

(pages 40-43)

W210



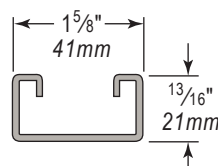
W211



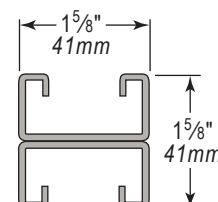
W500 & W501

(pages 55-59)

W500



W501

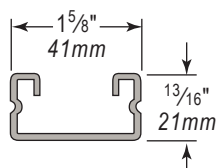


16 Gauge Channel

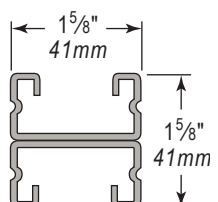
W400 & W401

(pages 60-62)

W400



W401

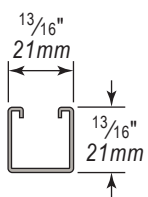


19 Gauge Channel

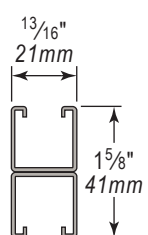
W600 & W601

(pages 71-73)

W600



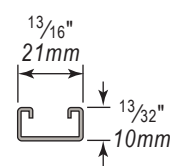
W601



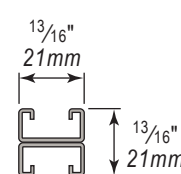
W700 & W701

(pages 74-75)

W700



W701



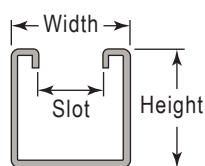


Channels in Descending Order of Strength

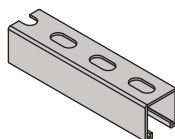
| Channel | Channel Style | Area | | Weight | | I x | | S x | | Moment | |
|---------|---------------|-----------------|--------------------|----------|--------|-----------------|--------------------|-----------------|--------------------|--------|---------|
| | | In ² | (cm ²) | lbs / ft | (kg/m) | In ⁴ | (cm ⁴) | In ³ | (cm ³) | in-lbs | (N•m) |
| W151 | | 1.804" | (11.64) | 6.14 | (9.1) | 6.339" | (263.9) | 1.951 | (32.0) | 48,180 | (5,440) |
| W101 | | 1.463" | (9.44) | 4.98 | (7.4) | 2.867" | (119.3) | 1.176 | (19.3) | 28,940 | (3,270) |
| W150 | | 0.902" | (5.82) | 3.07 | (4.6) | 1.113" | (46.3) | 0.639 | (10.5) | 15,770 | (1,780) |
| W201 | | 1.122" | (7.24) | 3.82 | (5.7) | 0.954" | (39.7) | 0.587 | (9.6) | 14,360 | (1,620) |
| W301 | | 1.017" | (6.56) | 3.46 | (5.1) | 0.608" | (25.3) | 0.443 | (7.3) | 10,810 | (1,220) |
| W211 | | 0.834" | (5.38) | 2.84 | (4.2) | 0.739" | (30.8) | 0.455 | (7.5) | 11,340 | (1,280) |
| W100 | | 0.732" | (4.72) | 2.49 | (3.7) | 0.530" | (22.0) | 0.400 | (6.5) | 9,820 | (1,110) |
| W200 | | 0.561" | (3.62) | 1.91 | (2.8) | 0.188" | (7.8) | 0.207 | (3.4) | 5,070 | (570) |
| W901 | | 0.807" | (5.21) | 2.75 | (4.1) | 0.183" | (7.6) | 0.209 | (3.4) | 5,060 | (570) |
| W300 | | 0.508" | (3.28) | 1.73 | (2.6) | 0.123" | (5.1) | 0.158 | (2.6) | 3,840 | (430) |
| W210 | | 0.417" | (2.69) | 1.42 | (2.1) | 0.148" | (6.2) | 0.169 | (2.8) | 4,060 | (460) |
| W801 | | 0.859" | (5.54) | 2.92 | (4.3) | 0.261" | (10.9) | 0.261 | (4.3) | 3,610 | (410) |
| W501 | | 0.590" | (3.81) | 2.01 | (3.0) | 0.122" | (5.1) | 0.150 | (2.4) | 3,610 | (410) |
| W800 | | 0.430" | (2.77) | 1.46 | (2.2) | 0.054" | (2.2) | 0.093 | (1.5) | 3,610 | (410) |
| W401 | | 0.487" | (3.14) | 1.66 | (2.5) | 0.105" | (4.4) | 0.129 | (2.1) | 3,210 | (360) |
| W900 | | 0.403" | (2.60) | 1.37 | (2.0) | 0.038" | (1.6) | 0.074 | (1.2) | 1,800 | (200) |
| W500 | | 0.295" | (1.90) | 1.00 | (1.5) | 0.026" | (1.1) | 0.056 | (0.9) | 1,360 | (150) |
| W400 | | 0.244" | (1.57) | 0.83 | (1.2) | 0.023" | (1.0) | 0.050 | (0.8) | 1,230 | (140) |
| W601 | | 0.214" | (1.38) | 0.73 | (1.1) | 0.045" | (1.9) | 0.056 | (0.9) | 1,390 | (160) |
| W600 | | 0.107" | (0.69) | 0.36 | (0.5) | 0.009" | (0.4) | 0.020 | (0.3) | 510 | (60) |
| W701 | | 0.149" | (0.96) | 0.51 | (0.8) | 0.007" | (0.3) | 0.018 | (0.3) | 450 | (50) |
| W700 | | 0.074" | (0.48) | 0.25 | (0.4) | 0.002" | (0.1) | 0.007 | (0.1) | 170 | (20) |



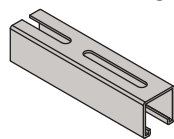
Wesanco® Channel Selection Chart



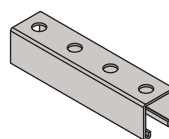
"SS" - Channel With Short Slots



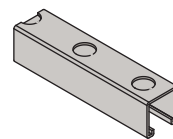
"SL" - Channel With Long Slots



"H" - Channel With Holes



"KO" - Channel With Knock-Outs



| Channel | Channel Dimensions | | | | Steel Gauge | Hole Patterns | | | | Finish | | | | | | Special Metals | | |
|---------|--------------------|----------------|----------------|--------------|-------------|---------------|----|---|----|--------|----|----|----|----|------|----------------|-------|----|
| | Style | Width | Height | Slot Width | | SS | SL | H | KO | PG | EG | HG | GR | PL | Gold | ST304 | ST316 | EA |
| W100 | | 1 5/8" (41mm) | 2 7/16" (62mm) | 7/8" (22mm) | 12 | ◆ | ◆ | ◆ | ◆ | ■ | - | ■ | ■ | ■ | ■ | ■ | ■ | - |
| W101 | | | 4 7/8" (124mm) | | | ◆ | ◆ | ◆ | ◆ | ■ | - | ■ | ■ | ■ | ■ | ■ | ■ | - |
| W150 | | | 3 1/4" (83mm) | | | ◆ | ◆ | ◆ | ◆ | ■ | - | ■ | ■ | ■ | ■ | ■ | ■ | - |
| W151 | | | 6 1/2" (165mm) | | | ◆ | ◆ | ◆ | ◆ | ■ | - | ■ | ■ | ■ | ■ | ■ | ■ | - |
| W200 | | | 1 5/8" (41mm) | | | ◆ | ◆ | ◆ | ◆ | ■ | - | ■ | ■ | ■ | ■ | ■ | ■ | ■ |
| W201 | | | 3 1/4" (83mm) | | | ◆ | ◆ | ◆ | ◆ | ■ | - | ■ | ■ | ■ | ■ | ■ | ■ | ■ |
| W210 | | | 1 5/8" (41mm) | | 14 | ◆ | ◆ | ◆ | ◆ | ■ | - | ■ | ■ | ■ | ■ | ■ | ■ | - |
| W211 | | | 3 1/4" (83mm) | | | ◆ | ◆ | ◆ | ◆ | ■ | - | ■ | ■ | ■ | ■ | ■ | ■ | - |
| W300 | | | 1 3/8" (35mm) | | 12 | ◆ | ◆ | ◆ | ◆ | ■ | - | ■ | ■ | ■ | ■ | ■ | ■ | - |
| W301 | | | 2 3/4" (70mm) | | | ◆ | ◆ | ◆ | ◆ | ■ | - | ■ | ■ | ■ | ■ | ■ | ■ | - |
| W400 | | | 1 3/16" (21mm) | | 16 | ◆ | ◆ | ◆ | ◆ | ■ | - | ■ | ■ | ■ | ■ | ■ | ■ | - |
| W401 | | | 1 5/8" (41mm) | | | ◆ | ◆ | ◆ | ◆ | ■ | - | ■ | ■ | ■ | ■ | ■ | ■ | - |
| W500 | | | 1 3/16" (21mm) | | 14 | ◆ | ◆ | ◆ | ◆ | ■ | - | ■ | ■ | ■ | ■ | ■ | ■ | ■ |
| W501 | | | 1 5/8" (41mm) | | | ◆ | ◆ | ◆ | ◆ | ■ | - | ■ | ■ | ■ | ■ | ■ | ■ | ■ |
| W600 | | 1 3/16" (21mm) | 1 3/16" (21mm) | 7/16" (11mm) | 19 | - | - | - | - | - | ■ | ■ | ■ | ■ | ■ | - | - | - |
| W601 | | | 1 5/8" (41mm) | | | - | - | - | - | - | ■ | ■ | ■ | ■ | ■ | - | - | - |
| W700 | | | 1 3/32" (10mm) | | | - | - | - | - | - | ■ | ■ | ■ | ■ | ■ | - | - | - |
| W701 | | | 1 3/16" (21mm) | | | - | - | - | - | - | ■ | ■ | ■ | ■ | ■ | - | - | - |
| W800 | | 1 5/8" (41mm) | 1" (25mm) | 7/8" (22mm) | 12 | ◆ | ◆ | ◆ | ◆ | ■ | - | ■ | ■ | ■ | ■ | ■ | ■ | - |
| W801 | | | 2" (51mm) | | | ◆ | ◆ | ◆ | ◆ | ■ | - | ■ | ■ | ■ | ■ | ■ | ■ | - |
| W900 | | | 7/8" (23mm) | | | ◆ | ◆ | ◆ | ◆ | ■ | - | ■ | ■ | ■ | ■ | ■ | ■ | - |
| W901 | | | 1 3/4" (44mm) | | | ◆ | ◆ | ◆ | ◆ | ■ | - | ■ | ■ | ■ | ■ | ■ | ■ | - |

◆ Pierced Available

For finish and material specifications see pages 24 - 25

PG - Pre-Galvanized • EG - Electro-Galvanized • HG - Hot Dip Galvanized • GR - Paint-Green Powder Coating • PL - Uncoated Steel • GOLD - Yellow Zinc Dichromate
ST304 - Stainless Steel Type 304 • ST316 - Stainless Steel Type 316 • EA - Extruded Aluminum



WARNING: These products can expose you to chemicals including lead, which is known to the State of California to cause cancer, and which is known to cause birth defects or other reproductive harm. For more information go to www.P65Warnings.ca.gov.



Wesanco® Pierced Channel

Pierced Channel

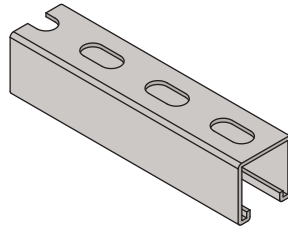
Channel with Short Slots

$\frac{9}{16}$ " x $1\frac{1}{8}$ " (14mm x 29mm)

Slots are punched on 2" (51mm) centers.

Add "SS" to channel number.

Example: W200SS



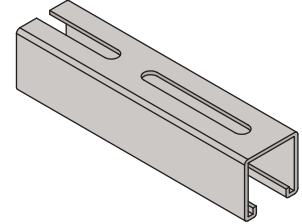
Channel with Long Slots

$\frac{13}{32}$ " x 3" (10mm x 76mm)

Slots are punched on 4" (102mm) centers.

Add "SL" to channel number.

Example: W200SL

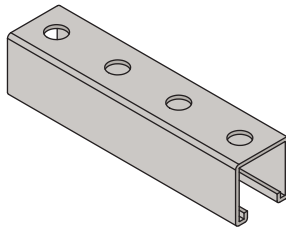


Channel with Holes

$\frac{9}{16}$ " (14mm) Holes are punched on $1\frac{7}{8}$ " (48mm) centers.

Add "H" to channel number.

Example: W200H

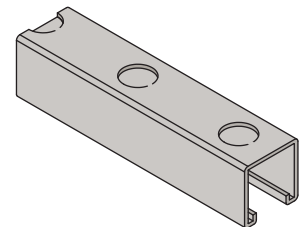


Channel with Knock-Outs

$\frac{7}{8}$ " (22mm) Knock-outs are punched on 6" (152mm) centers.

Add "KO" to channel number.

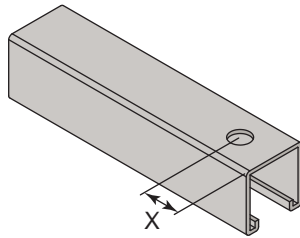
Example: W200KO



Channel with Specialty Custom Perforations

Designation is indicated by adding type of perforation from standard selection and pertinent dimensional information.

Example: W200H 1" from each end. If used as a trapeze reference page 246.

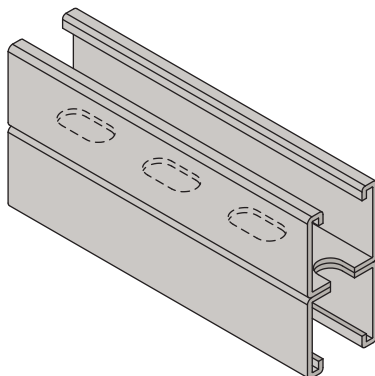


Beam Loading of Punched Channels

Load for punched channel is obtained by multiplying the loads shown by the following reduction factors:

| | |
|--------------------------------------|------|
| SS - Channel with Short Slots | 0.90 |
| SL - Channel with Long Slots | 0.90 |
| H - Channel with Holes | 0.95 |
| KO - Knock-Out Channel | 0.95 |

Pierced Combinations



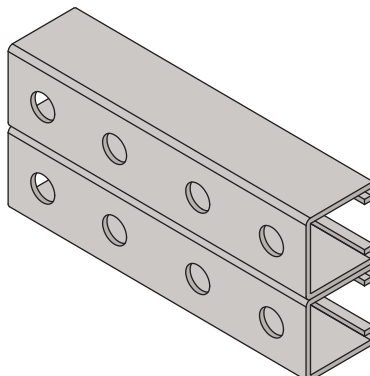
Channel with Short Slots

$\frac{9}{16}$ " x $1\frac{1}{8}$ " (14mm x 29mm)

Slots are punched on 2" (51mm) centers.

Add "SS" to channel number.

Example: W201SS

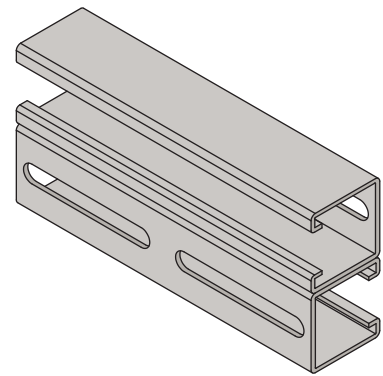


Channel with Holes

$\frac{9}{16}$ " (14mm) Holes are punched on $1\frac{7}{8}$ " (48mm) centers.

Add "H" to channel number.

Example: W202H



Channel with Long Slots

$\frac{13}{32}$ " x 3" (10mm x 76mm)

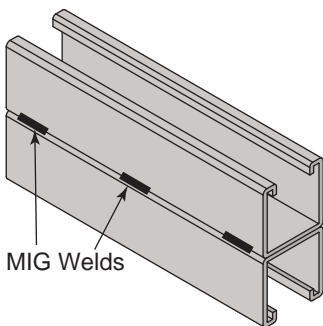
Slots are punched on 4" (102mm) centers.

Add "SL" to channel number.

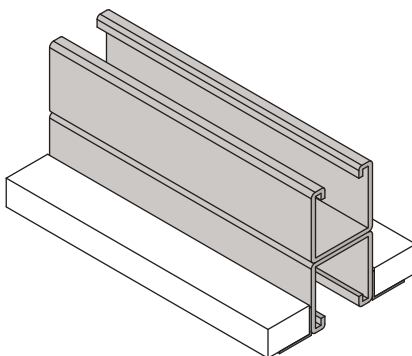
Example: W203SL



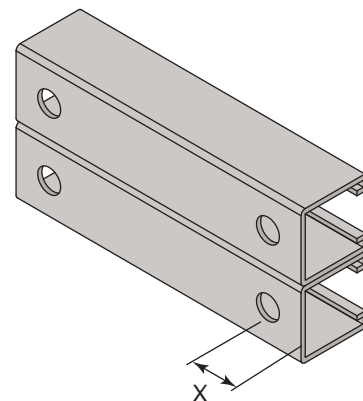
Specialty Combinations



MIG Welded To Meet Specific Engineering Request



**Combination/
Ceiling Support**



Channel Custom Pierced

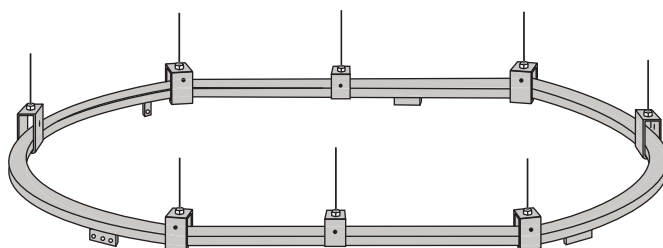
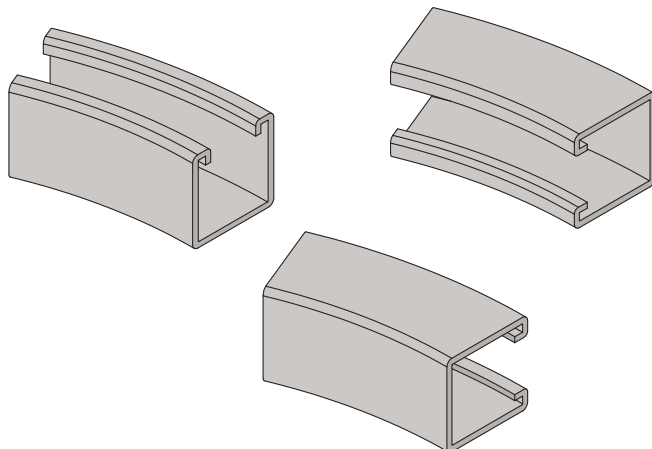
Channel for Trolley Systems

The Wesanco trolley system moves equipment from 10 to 600 lbs., with reliability, ease, and economy. Trolleys can be ganged to accommodate higher loads. Trolleys, featuring corrosion-free stainless wheel bearings and steel or acetyl wheels that require no lubrication, deliver built-in value and dependability for a wide range of applications. Throughout the system, famous Wesanco quality assures dependable, trouble-free performance.

Composed of three basic elements; trolleys, track, and supports. Wesanco trolley systems are efficient and economical. Different trolleys give users a wide range of weight capacities and suspension options, to allow tailoring of the system to exact application needs.

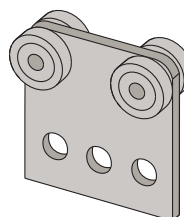
Track is available in 20 foot sections and can be easily field cut according to project requirements. Longer lengths and curved sections (shown below) are available on special order. A complete system of easy-to-use supports, including beam clamps, make installation a breeze.

Radiused Channel for Trolleys



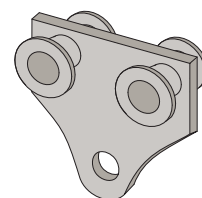
W6600

Four Wheel Trolley



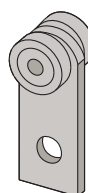
W6601 & W6605

Four Wheel Trolley



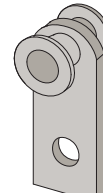
W6602

Two Wheel Trolley



W6606

Two Wheel Trolley



See page 97 for more trolley information

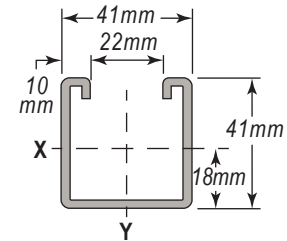
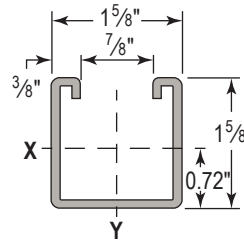
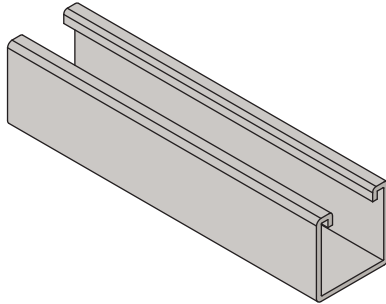




W200 & W201 - 12 Gauge Channel

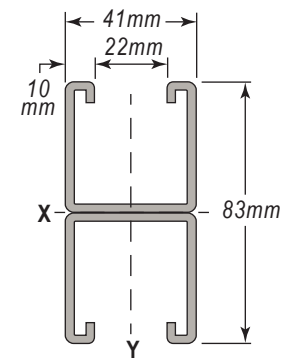
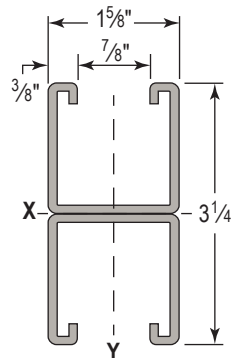
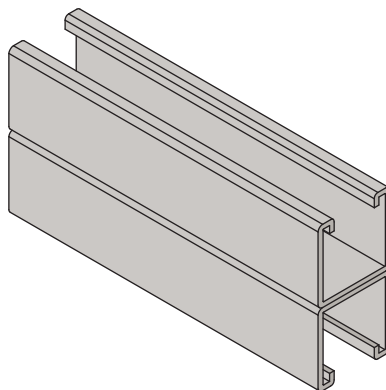
W200: 1⁵/₈" x 1⁵/₈" (41mm x 41mm) & W201: 1⁵/₈" x 3¹/₄" (41mm x 83mm)

W200: 1⁵/₈" x 1⁵/₈" (41mm x 41mm)



Available in 10', 20' & Pre-Cut lengths see page 36 • Finishes: PG, HG, GR, PL, Gold, EA, ST304, & ST316

W201: 1⁵/₈" x 3¹/₄" (41mm x 83mm)



Available in 10', 20' & Pre-Cut lengths see page 37 • Finishes: PG, HG, GR, PL, Gold, EA, ST304, & ST316

Pierced Channel

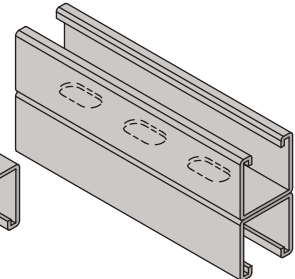
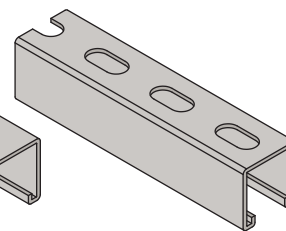
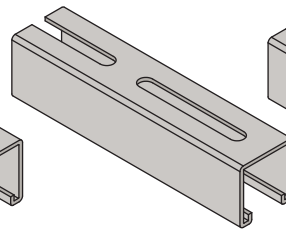
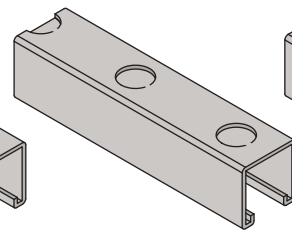
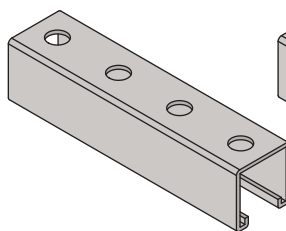
W200H

W200KO

W200SL

W200SS

W201SS



Channel With Holes

⁹/₁₆" Holes are punched on 1-⁷/₈" centers.

Channel With Knock-Outs

⁷/₈" Knock-outs are punched on 6" centers.

Channel With Long Slots

¹³/₃₂" x 3" Slots are punched on 4" centers.

Channel With Short Slots

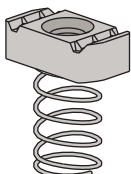
⁹/₁₆" x 1-¹/₈" Slots are punched on 2" centers.

Channel With Short Slots

⁹/₁₆" x 1-¹/₈" Slots are punched on 2" centers.

Related Channel Nuts (See Pages 81 - 82)

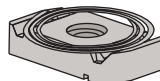
Channel Nut with Standard Spring



Channel Nut Without Spring



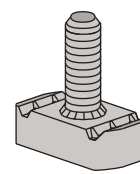
Channel Nut with Top-Lock Spring



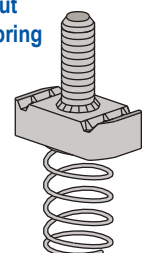
Rapid Strut Slide Nut



Stud Nut without Spring



Stud Nut with Spring

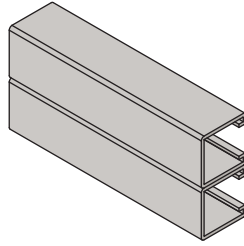


W200 Series Combination Channel



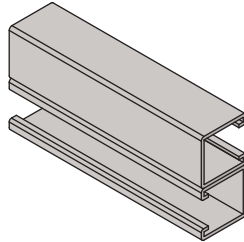
W202

1⁵/₈" x 3¹/₄"
(41mm x 83mm)



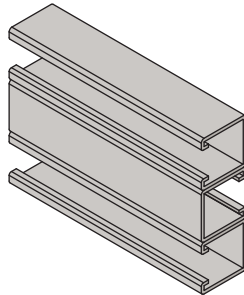
W203

1⁵/₈" x 3¹/₄"
(41mm x 83mm)



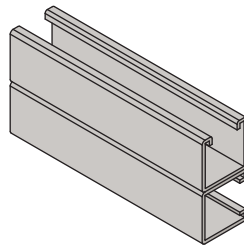
W203B3

1⁵/₈" x 4⁷/₈"
(41mm x 124mm)



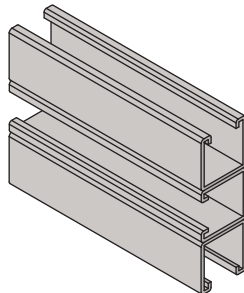
W204

1⁵/₈" x 3¹/₄"
(41mm x 83mm)



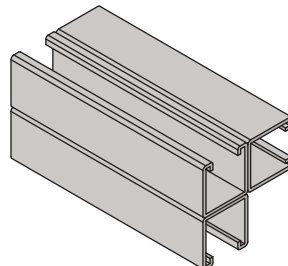
W204A3

1⁵/₈" x 4⁷/₈"
(41mm x 124mm)



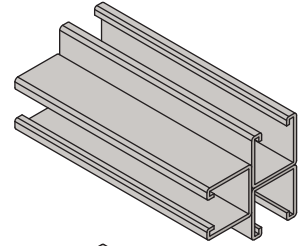
W205

3¹/₄" x 3¹/₄"
(83mm x 83mm)



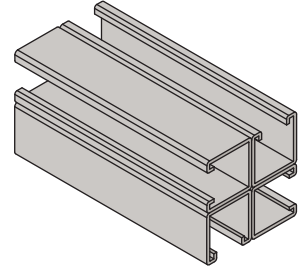
W206

3¹/₄" x 3¹/₄"
(83mm x 83mm)



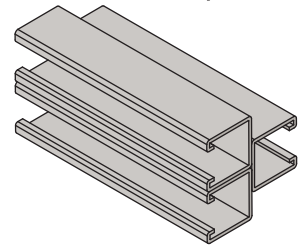
W207

3¹/₄" x 3¹/₄"
(83mm x 83mm)



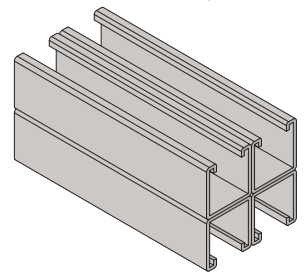
W208

3¹/₄" x 3¹/₄"
(83mm x 83mm)



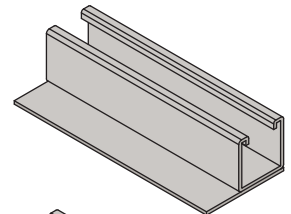
W209

3¹/₄" x 3¹/₄"
(83mm x 83mm)



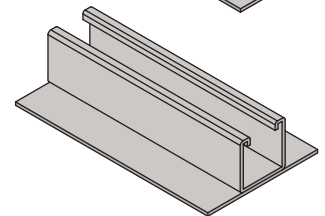
W220

2¹³/₁₆" x 1³/₄"
(71mm x 46mm)



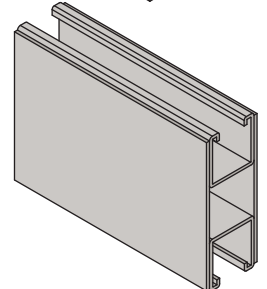
W221

4" x 1³/₄"
(102mm x 46mm)



W222

1⁷/₈" x 4⁷/₈"
(48mm x 124mm)



Introduction

Channel

Channel Nuts
& Hardware

General
Fittings

Pipe & Conduit
Supports

Electrical
Fittings

Spring
Steel

Loop & Ring
Clamps

Beta Clamps
& Z-Clamps

Concrete
Inserts

Rooftop
Supports

Gamma
Pads

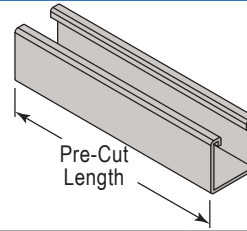
Technical
Data





W200 Pre-Cut Channel

W200: 1 $\frac{5}{8}$ " x 1 $\frac{5}{8}$ " (41mm x 41mm) - Solid Channel - Pre-Cut Lengths



W200 - 1 $\frac{5}{8}$ " x 1 $\frac{5}{8}$ " - 12 Gauge - Solid Channel

| Pre-Cut Length | Steel - PG | ST304 | ST316 |
|----------------|------------|---------------|---------------|
| 6" (15.2cm) | W200PG6IN | W200ST3046IN | W200ST3166IN |
| 12" (0.31m) | W200PG12IN | W200ST30412IN | W200ST31612IN |
| 18" (0.45m) | W200PG18IN | W200ST30418IN | W200ST31618IN |
| 24" (0.61m) | W200PG24IN | W200ST30424IN | W200ST31624IN |
| 30" (0.76m) | W200PG30IN | W200ST30430IN | W200ST31630IN |
| 36" (0.91m) | W200PG36IN | W200ST30436IN | W200ST31636IN |
| 42" (1.07m) | W200PG42IN | W200ST30442IN | W200ST31642IN |
| 48" (1.22m) | W200PG48IN | W200ST30448IN | W200ST31648IN |
| 54" (1.37m) | W200PG54IN | W200ST30454IN | W200ST31654IN |
| 60" (1.52m) | W200PG60IN | W200ST30460IN | W200ST31660IN |
| 72" (1.83m) | W200PG72IN | W200ST30472IN | W200ST31672IN |
| 80" (2.03m) | W200PG80IN | W200ST30480IN | W200ST31680IN |
| 96" (2.44m) | W200PG96IN | W200ST30496IN | W200ST31696IN |
| 10' (3.05m) | W200PG10 | W200ST30410 | W200ST31610 |
| 20' (6.10m) | W200PG20 | W200ST30420 | W200ST31620 |

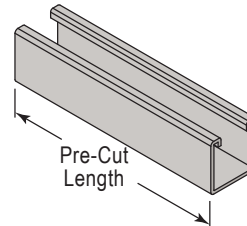
Note: Minimum order quantity is 100 pieces for any size under 10'.

W200SS: 1 $\frac{5}{8}$ " x 1 $\frac{5}{8}$ " (41mm x 41mm) - Channel with Short Slots - Pre-Cut Lengths



Channel With Short Slots

$\frac{9}{16}$ " x 1 $\frac{1}{8}$ " (14mm x 29mm) Slots
are punched on 2" (51mm) centers.



W200SS - 1 $\frac{5}{8}$ " x 1 $\frac{5}{8}$ " - 12 Gauge - Channel with Short Slots

| Pre-Cut Length | Steel - PG | ST304 | ST316 |
|----------------|--------------|-----------------|-----------------|
| 6" (15.2cm) | W200SSPG6IN | W200SSST3046IN | W200SSST3166IN |
| 12" (0.31m) | W200SSPG12IN | W200SSST30412IN | W200SSST31612IN |
| 18" (0.45m) | W200SSPG18IN | W200SSST30418IN | W200SSST31618IN |
| 24" (0.61m) | W200SSPG24IN | W200SSST30424IN | W200SSST31624IN |
| 30" (0.76m) | W200SSPG30IN | W200SSST30430IN | W200SSST31630IN |
| 36" (0.91m) | W200SSPG36IN | W200SSST30436IN | W200SSST31636IN |
| 42" (1.07m) | W200SSPG42IN | W200SSST30442IN | W200SSST31642IN |
| 48" (1.22m) | W200SSPG48IN | W200SSST30448IN | W200SSST31648IN |
| 54" (1.37m) | W200SSPG54IN | W200SSST30454IN | W200SSST31654IN |
| 60" (1.52m) | W200SSPG60IN | W200SSST30460IN | W200SSST31660IN |
| 72" (1.83m) | W200SSPG72IN | W200SSST30472IN | W200SSST31672IN |
| 80" (2.03m) | W200SSPG80IN | W200SSST30480IN | W200SSST31680IN |
| 96" (2.44m) | W200SSPG96IN | W200SSST30496IN | W200SSST31696IN |
| 10' (3.05m) | W200SSPG10 | W200SSST30410 | W200SSST31610 |
| 20' (6.10m) | W200SSPG20 | W200SSST30420 | W200SSST31620 |

Note: Minimum order quantity is 100 pieces for any size under 10'.



W201 & W202 Pre-Cut Channel



Introduction

Channel

Channel Nuts
& Hardware

General
Fittings

Pipe & Conduit
Supports

Electrical
Fittings

Spring
Steel

Loop & Ring
Clamps

Beta Clamps
& Z-Clamps

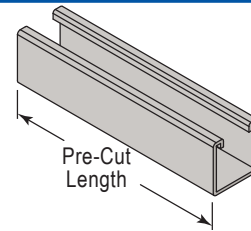
Concrete
Inserts

Rooftop
Supports

Gamma
Pads

Technical
Data

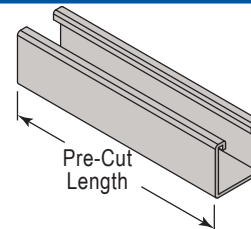
W201: 1⁵/₈" x 3¹/₄" (41mm x 83mm) - Solid Back-to-Back Channel - Pre-Cut Lengths



| W201 - 1 ⁵ / ₈ " x 3 ¹ / ₄ " - 12 Gauge Solid Back-to-Back Channel | | | |
|--|------------|---------------|---------------|
| Pre-Cut Length | Steel - PG | ST304 | ST316 |
| 6" (15.2cm) | W201PG6IN | W201ST3046IN | W201ST3166IN |
| 12" (0.31m) | W201PG12IN | W201ST30412IN | W201ST31612IN |
| 18" (0.45m) | W201PG18IN | W201ST30418IN | W201ST31618IN |
| 24" (0.61m) | W201PG24IN | W201ST30424IN | W201ST31624IN |
| 30" (0.76m) | W201PG30IN | W201ST30430IN | W201ST31630IN |
| 36" (0.91m) | W201PG36IN | W201ST30436IN | W201ST31636IN |
| 42" (1.07m) | W201PG42IN | W201ST30442IN | W201ST31642IN |
| 48" (1.22m) | W201PG48IN | W201ST30448IN | W201ST31648IN |
| 54" (1.37m) | W201PG54IN | W201ST30454IN | W201ST31654IN |
| 60" (1.52m) | W201PG60IN | W201ST30460IN | W201ST31660IN |
| 72" (1.83m) | W201PG72IN | W201ST30472IN | W201ST31672IN |
| 80" (2.03m) | W201PG80IN | W201ST30480IN | W201ST31680IN |
| 96" (2.44m) | W201PG96IN | W201ST30496IN | W201ST31696IN |
| 10' (3.05m) | W201PG10 | W201ST30410 | W201ST31610 |
| 20' (6.10m) | W201PG20 | W201ST30420 | W201ST31620 |

Note: Minimum order quantity is 100 pieces for any size under 10'.

W202: 1⁵/₈" x 3¹/₄" (41mm x 83mm) - Solid Side-to-Side Channel - Pre-Cut Lengths



| W202 - 1 ⁵ / ₈ " x 3 ¹ / ₄ " - 12 Gauge Solid Side-to-Side Channel | | | |
|--|------------|---------------|---------------|
| Pre-Cut Length | Steel - PG | ST304 | ST316 |
| 6" (15.2cm) | W202PG6IN | W202ST3046IN | W202ST3166IN |
| 12" (0.31m) | W202PG12IN | W202ST30412IN | W202ST31612IN |
| 18" (0.45m) | W202PG18IN | W202ST30418IN | W202ST31618IN |
| 24" (0.61m) | W202PG24IN | W202ST30424IN | W202ST31624IN |
| 30" (0.76m) | W202PG30IN | W202ST30430IN | W202ST31630IN |
| 36" (0.91m) | W202PG36IN | W202ST30436IN | W202ST31636IN |
| 42" (1.07m) | W202PG42IN | W202ST30442IN | W202ST31642IN |
| 48" (1.22m) | W202PG48IN | W202ST30448IN | W202ST31648IN |
| 54" (1.37m) | W202PG54IN | W202ST30454IN | W202ST31654IN |
| 60" (1.52m) | W202PG60IN | W202ST30460IN | W202ST31660IN |
| 72" (1.83m) | W202PG72IN | W202ST30472IN | W202ST31672IN |
| 80" (2.03m) | W202PG80IN | W202ST30480IN | W202ST31680IN |
| 96" (2.44m) | W202PG96IN | W202ST30496IN | W202ST31696IN |
| 10' (3.05m) | W202PG10 | W202ST30410 | W202ST31610 |
| 20' (6.10m) | W202PG20 | W202ST30420 | W202ST31620 |

Note: Minimum order quantity is 100 pieces for any size under 10'.





W200 Channel Loads

12 Gauge - 1⁵/₈" x 1⁵/₈" (41mm x 41mm)

Section Properties

| Channel Part No. | Wt./Ft. Lbs. (Kg/M) | Area of Section Sq. in. (Sq. cm) | X-X Axis | | | Y-Y Axis | | |
|------------------|---------------------|----------------------------------|---|---|------------------|---|---|----------------|
| | | | Ix in. ⁴ (Ix cm ⁴) | Sx in. ³ (Sx cm ³) | rx. in. (rx. cm) | Iy in. ⁴ (Iy cm ⁴) | Sy in. ³ (Sy cm ³) | ry in. (ry cm) |
| W200 | 1.91 | 0.561 | 0.188 | 0.207 | 0.579 | 0.238 | 0.293 | 0.652 |
| | (2.84) | (3.62) | (7.83) | (3.39) | (1.47) | (9.91) | (4.80) | (1.66) |

W200 - Allowable Beam Loads

| Span | Max. Uniform Load (W) | Deflection at Load (W) | Uniform Load at Deflection | | |
|------|-----------------------|------------------------|----------------------------|-----------|-----------|
| | | | Span /180 | Span /240 | Span /360 |
| In | Lbs | In | Lbs | Lbs | Lbs |
| 12 | 3,480 | 0.01 | 3,480 | 3,480 | 3,480 |
| 24 | 1,740 | 0.06 | 1,740 | 1,740 | 1,740 |
| 36 | 1,160 | 0.13 | 1,160 | 1,160 | 910 |
| 48 | 870 | 0.23 | 870 | 770 | 510 |
| 60 | 700 | 0.35 | 660 | 490 | 330 |
| 72 | 580 | 0.51 | 460 | 340 | 230 |
| 84 | 500 | 0.70 | 340 | 250 | 170 |
| 96 | 430 | 0.89 | 260 | 190 | 130 |
| 108 | 390 | 1.15 | 200 | 150 | 100 |
| 120 | 350 | 1.42 | 160 | 120 | 80 |

| Span | Max. Uniform Load (W) | Deflection at Load (W) | Uniform Load at Deflection | | |
|-------|-----------------------|------------------------|----------------------------|-----------|-----------|
| | | | Span /180 | Span /240 | Span /360 |
| mm | kN | mm | kN | kN | kN |
| 300 | 15.7 | 0.35 | 15.7 | 15.7 | 15.7 |
| 600 | 7.9 | 1.39 | 7.9 | 7.9 | 7.9 |
| 900 | 5.2 | 3.13 | 5.2 | 5.2 | 4.2 |
| 1,200 | 3.9 | 5.53 | 3.9 | 3.6 | 2.4 |
| 1,500 | 3.2 | 8.72 | 3.0 | 2.3 | 1.5 |
| 1,800 | 2.6 | 12.52 | 2.1 | 1.6 | 1.1 |
| 2,100 | 2.2 | 16.85 | 1.6 | 1.2 | 0.8 |
| 2,400 | 2.0 | 22.13 | 1.2 | 0.9 | 0.6 |
| 2,700 | 1.7 | 27.93 | 0.9 | 0.7 | 0.4 |
| 3,000 | 1.6 | 34.39 | 0.8 | 0.6 | 0.4 |

W200 - Allowable Column Loads

| Unbraced Height | Max. Slot Face Load | Max. Column Load Applied at C.G. | | | |
|-----------------|---------------------|----------------------------------|----------|---------|---------|
| | | K = 0.65 | K = 0.80 | K = 1.0 | K = 1.2 |
| In | Lbs | Lbs | Lbs | Lbs | Lbs |
| 12 | 3,870 | 12,430 | 12,120 | 11,640 | 11,110 |
| 24 | 3,620 | 10,830 | 9,970 | 8,830 | 7,780 |
| 36 | 3,250 | 8,970 | 7,780 | 6,420 | 5,330 |
| 48 | 2,800 | 7,300 | 6,030 | 4,710 | 3,820 |
| 60 | 2,410 | 5,940 | 4,710 | 3,650 | 2,970 |
| 72 | 2,110 | 4,850 | 3,820 | 2,970 | 2,410 |
| 84 | 1,870 | 4,060 | 3,210 | 2,490 | 1,990 |
| 96 | 1,680 | 3,490 | 2,760 | 2,120 | 1,670 |
| 108 | 1,530 | 3,060 | 2,410 | 1,830 | ** |
| 120 | 1,390 | 2,710 | 2,120 | ** | ** |

| Unbraced Height | Max. Slot Face Load | Max. Column Load Applied at C.G. | | | |
|-----------------|---------------------|----------------------------------|----------|---------|---------|
| | | K = 0.65 | K = 0.80 | K = 1.0 | K = 1.2 |
| mm | kN | kN | kN | kN | kN |
| 300 | 17.3 | 55.4 | 54.0 | 52.0 | 49.6 |
| 600 | 16.1 | 48.4 | 44.7 | 39.7 | 35.1 |
| 900 | 14.5 | 40.3 | 35.1 | 29.0 | 24.1 |
| 1,200 | 12.6 | 32.9 | 27.3 | 21.4 | 17.3 |
| 1,500 | 10.9 | 26.8 | 21.4 | 16.5 | 13.5 |
| 1,800 | 9.5 | 22.0 | 17.3 | 13.5 | 10.9 |
| 2,100 | 8.5 | 18.4 | 14.5 | 11.3 | 9.1 |
| 2,400 | 7.6 | 15.8 | 12.5 | 9.6 | 7.6 |
| 2,700 | 6.9 | 13.8 | 10.9 | 8.3 | ** |
| 3,000 | 6.3 | 12.3 | 9.6 | ** | ** |

** KL/r > 200

NR = Not Recommended

Beam loads shown are total uniform load, including the channel weight, for a simple span supported at each end that is adequately laterally braced.

Refer to pages 20 -23 for other beam support conditions.

Refer to page 77 for load reduction factor for an unbraced beam length.

Beam Loading of Punched Channels

Load for punched channel is obtained by multiplying the loads shown by the following reduction factors:

SS - Channel with Short Slots 0.90

SL - Channel with Long Slots 0.90

H - Channel with Holes 0.95

KO - Knock-Out Channel. 0.95



W201 Channel Loads

12 Gauge - 1⁵/₈" x 3¹/₄" (41mm x 83mm)



Section Properties

| Channel Part No. | Wt./Ft. Lbs. (Kg/M) | Area of Section Sq. in. (Sq. cm) | X-X Axis | | | Y-Y Axis | | |
|------------------|---------------------|----------------------------------|---|---|------------------|---|---|----------------|
| | | | Ix in. ⁴ (Ix cm ⁴) | Sx in. ³ (Sx cm ³) | rx. in. (rx. cm) | Iy in. ⁴ (Iy cm ⁴) | Sy in. ³ (Sy cm ³) | ry in. (ry cm) |
| W201 | 3.82 | 1.122 | 0.954 | 0.587 | 0.922 | 0.477 | 0.587 | 0.652 |
| | (5.68) | (7.24) | (39.71) | (9.62) | (2.34) | (19.85) | (9.62) | (1.66) |

W201 - Allowable Beam Loads

| Span | Max. Uniform Load (W) | Deflection at Load (W) | Uniform Load at Deflection | | |
|------|-----------------------|------------------------|----------------------------|-----------|-----------|
| | | | Span /180 | Span /240 | Span /360 |
| In | Lbs | In | Lbs | Lbs | Lbs |
| 12 | 2,500 * | 0.00 | 2,500 * | 2,500 * | 2,500 * |
| 24 | 2,500 * | 0.02 | 2,500 * | 2,500 * | 2,500 * |
| 36 | 2,500 * | 0.05 | 2,500 * | 2,500 * | 2,500 * |
| 48 | 2,460 | 0.13 | 2,460 | 2,460 | 2,460 |
| 60 | 1,970 | 0.20 | 1,970 | 1,970 | 1,670 |
| 72 | 1,640 | 0.28 | 1,640 | 1,640 | 1,160 |
| 84 | 1,410 | 0.39 | 1,410 | 1,280 | 850 |
| 96 | 1,230 | 0.50 | 1,230 | 980 | 650 |
| 108 | 1,090 | 0.64 | 1,030 | 770 | 510 |
| 120 | 980 | 0.78 | 830 | 630 | 420 |

| Span | Max. Uniform Load (W) | Deflection at Load (W) | Uniform Load at Deflection | | |
|-------|-----------------------|------------------------|----------------------------|-----------|-----------|
| | | | Span /180 | Span /240 | Span /360 |
| mm | kN | mm | kN | kN | kN |
| 300 | 11.1 * | 0.05 | 11.1 * | 11.1 * | 11.1 * |
| 600 | 11.1 * | 0.39 | 11.1 * | 11.1 * | 11.1 * |
| 900 | 11.1 * | 1.31 | 11.1 * | 11.1 * | 11.1 * |
| 1,200 | 11.1 * | 3.10 | 11.1 * | 11.1 * | 11.1 * |
| 1,500 | 8.9 | 4.84 | 8.9 | 8.9 | 7.7 |
| 1,800 | 7.4 | 6.98 | 7.4 | 7.4 | 5.3 |
| 2,100 | 6.4 | 9.50 | 6.4 | 5.9 | 3.9 |
| 2,400 | 5.6 | 12.39 | 5.6 | 4.5 | 3.0 |
| 2,700 | 4.9 | 15.66 | 4.7 | 3.6 | 2.4 |
| 3,000 | 4.4 | 19.36 | 3.8 | 2.9 | 1.9 |

W201 - Allowable Column Loads

| Unbraced Height | Max. Slot Face Load | Max. Column Load Applied at C.G. | | | |
|-----------------|---------------------|----------------------------------|----------|---------|---------|
| | | K = 0.65 | K = 0.80 | K = 1.0 | K = 1.2 |
| In | Lbs | Lbs | Lbs | Lbs | Lbs |
| 12 | 6,700 | 25,700 | 25,480 | 25,120 | 24,720 |
| 24 | 6,580 | 24,510 | 23,830 | 22,900 | 22,010 |
| 36 | 6,430 | 23,020 | 22,010 | 20,810 | 19,820 |
| 48 | 6,290 | 21,580 | 20,450 | 18,860 | 16,320 |
| 60 | 6,130 | 20,370 | 18,860 | 15,680 | 12,520 |
| 72 | 5,730 | 19,160 | 16,320 | 12,520 | 9,040 |
| 84 | 5,270 | 17,120 | 13,760 | 9,570 | 6,640 |
| 96 | 4,770 | 15,040 | 11,310 | 7,320 | 5,090 |
| 108 | 4,240 | 12,980 | 9,040 | 5,790 | 4,020 |
| 120 | 3,750 | 11,010 | 7,320 | 4,690 | ** |

| Unbraced Height | Max. Slot Face Load | Max. Column Load Applied at C.G. | | | |
|-----------------|---------------------|----------------------------------|----------|---------|---------|
| | | K = 0.65 | K = 0.80 | K = 1.0 | K = 1.2 |
| mm | kN | kN | kN | kN | kN |
| 300 | 29.8 | 114.4 | 113.4 | 111.9 | 110.1 |
| 600 | 29.3 | 109.2 | 106.3 | 102.2 | 98.3 |
| 900 | 28.6 | 102.7 | 98.3 | 92.9 | 88.5 |
| 1,200 | 28.0 | 96.4 | 91.4 | 84.7 | 73.7 |
| 1,500 | 27.4 | 91.0 | 84.7 | 70.9 | 57.0 |
| 1,800 | 25.7 | 86.1 | 73.7 | 57.0 | 41.5 |
| 2,100 | 23.7 | 77.2 | 62.5 | 43.9 | 30.5 |
| 2,400 | 21.5 | 68.1 | 51.6 | 33.6 | 23.4 |
| 2,700 | 19.2 | 59.0 | 41.5 | 26.6 | 18.5 |
| 3,000 | 17.0 | 50.3 | 33.6 | 21.5 | ** |

* Load limited by spot weld shear

** KL/r > 200

NR = Not Recommended

Beam loads shown are total uniform load, including the channel weight, for a simple span supported at each end that is adequately laterally braced.

Refer to pages 20 -23 for other beam support conditions.

Refer to page 77 for load reduction factor for an unbraced beam length.

Beam Loading of Punched Channels

Load for punched channel is obtained by multiplying the loads shown by the following reduction factors:

SS - Channel with Short Slots 0.90

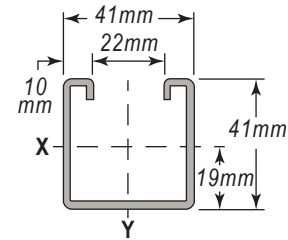
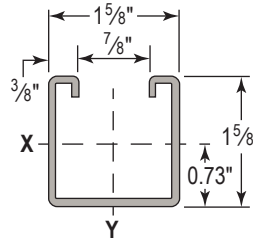
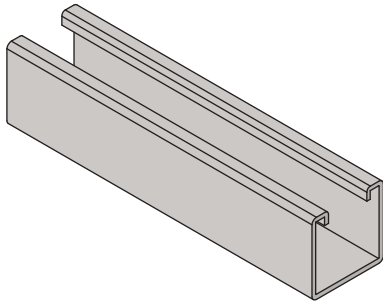




W210 & W211 - 14 Gauge Channel

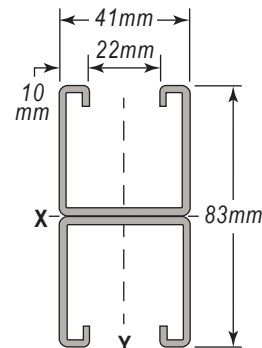
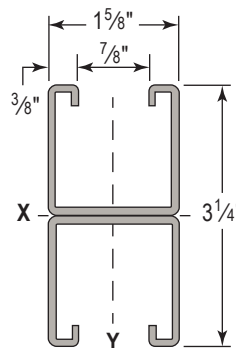
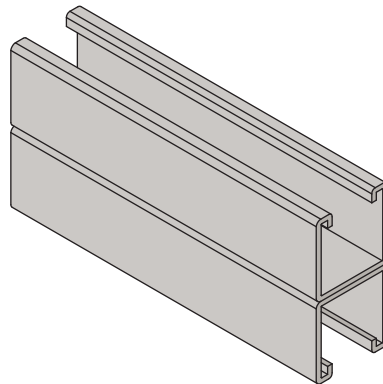
W210: 1⁵/₈" x 1⁵/₈" (41mm x 41mm) & W211: 1⁵/₈" x 3¹/₄" (41mm x 83mm)

W210: 1⁵/₈" x 1⁵/₈" (41mm x 41mm)



Available in 10' & 20' Lengths • Finishes: PG, HG, GR, PL, Gold, ST304, & ST316

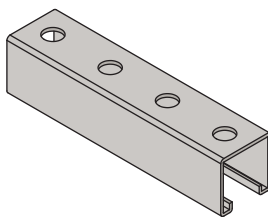
W211: 1⁵/₈" x 3¹/₄" (41mm x 83mm)



Available in 10' & 20' Lengths • Finishes: PG, HG, GR, PL, Gold, ST304, & ST316

Pierced Channel

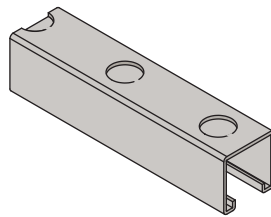
W210H



Channel With Holes

⁹/₁₆" Holes are punched on 1-⁷/₈" centers.

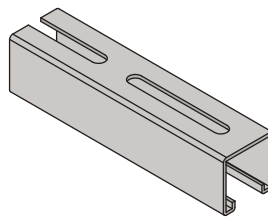
W210KO



Channel With Knock-Outs

⁷/₈" Knock-outs are punched on 6" centers.

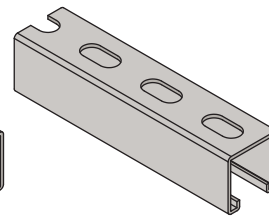
W210SL



Channel With Long Slots

¹³/₃₂" x 3" Slots are punched on 4" centers.

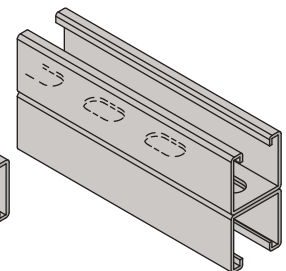
W210SS



Channel With Short Slots

⁹/₁₆" x 1-¹/₈" Slots are punched on 2" centers.

W211SS

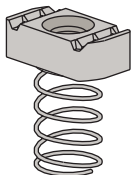


Channel With Short Slots

⁹/₁₆" x 1-¹/₈" Slots are punched on 2" centers.

Related Channel Nuts (See Pages 81 - 82)

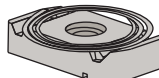
Channel Nut with Standard Spring



Channel Nut Without Spring



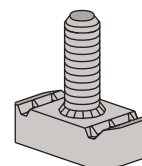
Channel Nut with Top-Lock Spring



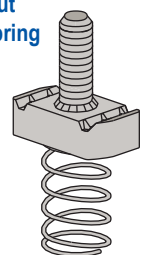
Rapid Strut Slide Nut



Stud Nut without Spring



Stud Nut with Spring

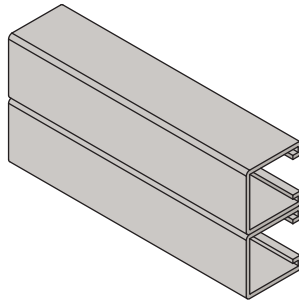


W210 Series Combination Channel



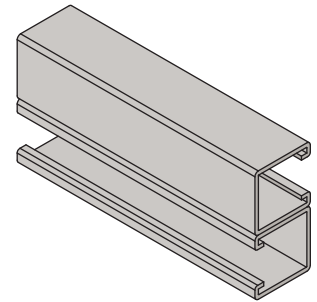
W212

1⁵/₈" x 3¹/₄"
(41mm x 83mm)



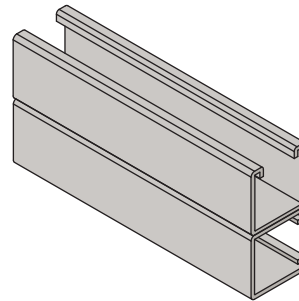
W213

1⁵/₈" x 3¹/₄"
(41mm x 83mm)



W214

1⁵/₈" x 3¹/₄"
(41mm x 83mm)



Note: Additional combinations are available upon request

Introduction

Channel

Channel Nuts
& Hardware

General
Fittings

Pipe & Conduit
Supports

Electrical
Fittings

Spring
Steel

Loop & Ring
Clamps

Beta Clamps
& Z-Clamps

Concrete
Inserts

Rooftop
Supports

Gamma
Pads

Technical
Data





W210 Channel Loads

14 Gauge - 1⁵/₈" x 1⁵/₈" (41mm x 41mm)

Section Properties

| Channel Part No. | Wt./Ft. Lbs. (Kg/M) | Area of Section Sq. in. (Sq. cm) | X-X Axis | | | Y-Y Axis | | |
|------------------|---------------------|----------------------------------|---|---|------------------|---|---|----------------|
| | | | Ix in. ⁴ (Ix cm ⁴) | Sx in. ³ (Sx cm ³) | rx. in. (rx. cm) | Iy in. ⁴ (Iy cm ⁴) | Sy in. ³ (Sy cm ³) | ry in. (ry cm) |
| W210 | 1.42 | 0.417 | 0.148 | 0.169 | 0.596 | 0.183 | 0.225 | 0.662 |
| | (2.11) | (2.69) | (6.16) | (2.77) | (1.51) | (7.62) | (3.69) | (1.68) |

W210 - Allowable Beam Loads

| Span | Max. Uniform Load (W) | Deflection at Load (W) | Uniform Load at Deflection | | |
|------|-----------------------|------------------------|----------------------------|-----------|-----------|
| | | | Span /180 | Span /240 | Span /360 |
| In | Lbs | In | Lbs | Lbs | Lbs |
| 12 | 2,840 | 0.01 | 2,840 | 2,840 | 2,840 |
| 24 | 1,420 | 0.06 | 1,420 | 1,420 | 1,420 |
| 36 | 950 | 0.13 | 950 | 950 | 720 |
| 48 | 710 | 0.23 | 710 | 610 | 400 |
| 60 | 570 | 0.37 | 520 | 390 | 260 |
| 72 | 470 | 0.52 | 360 | 270 | 180 |
| 84 | 410 | 0.72 | 260 | 200 | 130 |
| 96 | 350 | 0.92 | 200 | 150 | 100 |
| 108 | 320 | 1.20 | 160 | 120 | 80 |
| 120 | 280 | 1.44 | 130 | 100 | 60 |

| Span | Max. Uniform Load (W) | Deflection at Load (W) | Uniform Load at Deflection | | |
|-------|-----------------------|------------------------|----------------------------|-----------|-----------|
| | | | Span /180 | Span /240 | Span /360 |
| mm | kN | mm | kN | kN | kN |
| 300 | 12.8 | 0.36 | 12.8 | 12.8 | 12.8 |
| 600 | 6.4 | 1.44 | 6.4 | 6.4 | 6.4 |
| 900 | 4.3 | 3.24 | 4.3 | 4.3 | 3.3 |
| 1,200 | 3.2 | 5.75 | 3.2 | 2.8 | 1.9 |
| 1,500 | 2.6 | 9.05 | 2.4 | 1.8 | 1.2 |
| 1,800 | 2.1 | 12.94 | 1.6 | 1.2 | 0.8 |
| 2,100 | 1.8 | 17.55 | 1.2 | 0.9 | 0.6 |
| 2,400 | 1.6 | 23.01 | 0.9 | 0.7 | 0.4 |
| 2,700 | 1.4 | 29.12 | 0.7 | 0.5 | 0.4 |
| 3,000 | 1.3 | 36.20 | 0.6 | 0.4 | 0.3 |

W210 - Allowable Column Loads

| Unbraced Height | Max. Slot Face Load | Max. Column Load Applied at C.G. | | | |
|-----------------|---------------------|----------------------------------|----------|---------|---------|
| | | K = 0.65 | K = 0.80 | K = 1.0 | K = 1.2 |
| In | Lbs | Lbs | Lbs | Lbs | Lbs |
| 12 | 3,110 | 9,250 | 9,020 | 8,660 | 8,250 |
| 24 | 2,880 | 8,030 | 7,330 | 6,360 | 5,420 |
| 36 | 2,460 | 6,480 | 5,420 | 4,190 | 3,210 |
| 48 | 1,980 | 4,990 | 3,830 | 2,760 | 2,160 |
| 60 | 1,570 | 3,740 | 2,760 | 2,050 | 1,640 |
| 72 | 1,300 | 2,860 | 2,160 | 1,640 | 1,320 |
| 84 | 1,100 | 2,310 | 1,780 | 1,370 | 1,110 |
| 96 | 950 | 1,950 | 1,520 | 1,170 | 950 |
| 108 | 840 | 1,690 | 1,320 | 1,030 | ** |
| 120 | 750 | 1,490 | 1,170 | ** | ** |

| Unbraced Height | Max. Slot Face Load | Max. Column Load Applied at C.G. | | | |
|-----------------|---------------------|----------------------------------|----------|---------|---------|
| | | K = 0.65 | K = 0.80 | K = 1.0 | K = 1.2 |
| mm | kN | kN | kN | kN | kN |
| 300 | 13.8 | 41.2 | 40.3 | 38.7 | 36.9 |
| 600 | 12.9 | 35.9 | 32.9 | 28.6 | 24.5 |
| 900 | 11.1 | 29.1 | 24.5 | 19.0 | 14.6 |
| 1,200 | 8.9 | 22.6 | 17.4 | 12.5 | 9.8 |
| 1,500 | 7.1 | 17.0 | 12.5 | 9.3 | 7.4 |
| 1,800 | 5.9 | 13.0 | 9.8 | 7.4 | 6.0 |
| 2,100 | 5.0 | 10.5 | 8.1 | 6.2 | 5.0 |
| 2,400 | 4.3 | 8.9 | 6.9 | 5.3 | 4.3 |
| 2,700 | 3.8 | 7.7 | 6.0 | 4.7 | ** |
| 3,000 | 3.4 | 6.8 | 5.3 | 4.1 | ** |

** KL/r > 200

NR = Not Recommended

Beam loads shown are total uniform load, including the channel weight, for a simple span supported at each end that is adequately laterally braced.

Refer to pages 20 -23 for other beam support conditions.

Refer to page 77 for load reduction factor for an unbraced beam length.

Beam Loading of Punched Channels

Load for punched channel is obtained by multiplying the loads shown by the following reduction factors:

SS - Channel with Short Slots 0.90
 SL - Channel with Long Slots 0.90
 H - Channel with Holes 0.95
 KO - Knock-Out Channel. 0.95



W211 Channel Loads



14 Gauge - 1⁵/₈" x 3¹/₄" (41mm x 83mm)

Section Properties

| Channel Part No. | Wt./Ft. Lbs. (Kg/M) | Area of Section Sq. in. (Sq. cm) | X-X Axis | | | Y-Y Axis | | |
|------------------|---------------------|----------------------------------|---|---|------------------|---|---|----------------|
| | | | Ix in. ⁴ (Ix cm ⁴) | Sx in. ³ (Sx cm ³) | rx. in. (rx. cm) | Iy in. ⁴ (Iy cm ⁴) | Sy in. ³ (Sy cm ³) | ry in. (ry cm) |
| W211 | 2.84 | 0.834 | 0.739 | 0.455 | 0.942 | 0.365 | 0.450 | 0.662 |
| | (4.23) | (5.38) | (30.76) | (7.46) | (2.39) | (15.19) | (7.37) | (1.68) |

W211 - Allowable Beam Loads

| Span | Max. Uniform Load (W) | Deflection at Load (W) | Uniform Load at Deflection | | |
|------|-----------------------|------------------------|----------------------------|-----------|-----------|
| | | | Span /180 | Span /240 | Span /360 |
| In | Lbs | In | Lbs | Lbs | Lbs |
| 12 | 1,600 * | 0.00 | 1,600 * | 1,600 * | 1,600 * |
| 24 | 1,600 * | 0.01 | 1,600 * | 1,600 * | 1,600 * |
| 36 | 1,600 * | 0.04 | 1,600 * | 1,600 * | 1,600 * |
| 48 | 1,600 * | 0.11 | 1,600 * | 1,600 * | 1,600 * |
| 60 | 1,530 | 0.20 | 1,530 | 1,530 | 1,290 |
| 72 | 1,270 | 0.28 | 1,270 | 1,270 | 900 |
| 84 | 1,090 | 0.39 | 1,090 | 990 | 660 |
| 96 | 950 | 0.50 | 950 | 760 | 500 |
| 108 | 850 | 0.64 | 800 | 600 | 400 |
| 120 | 760 | 0.78 | 650 | 480 | 320 |

| Span | Max. Uniform Load (W) | Deflection at Load (W) | Uniform Load at Deflection | | |
|-------|-----------------------|------------------------|----------------------------|-----------|-----------|
| | | | Span /180 | Span /240 | Span /360 |
| mm | kN | mm | kN | kN | kN |
| 300 | 7.1 * | 0.04 | 7.1 * | 7.1 * | 7.1 * |
| 600 | 7.1 * | 0.32 | 7.1 * | 7.1 * | 7.1 * |
| 900 | 7.1 * | 1.08 | 7.1 * | 7.1 * | 7.1 * |
| 1,200 | 7.1 * | 2.56 | 7.1 * | 7.1 * | 7.1 * |
| 1,500 | 6.9 | 4.84 | 6.9 | 6.9 | 5.9 |
| 1,800 | 5.7 | 6.96 | 5.7 | 5.7 | 4.1 |
| 2,100 | 4.9 | 9.51 | 4.9 | 4.5 | 3.0 |
| 2,400 | 4.3 | 12.41 | 4.3 | 3.5 | 2.3 |
| 2,700 | 3.8 | 15.66 | 3.6 | 2.8 | 1.8 |
| 3,000 | 3.5 | 19.49 | 3.0 | 2.2 | 1.5 |

W211 - Allowable Column Loads

| Unbraced Height | Max. Slot Face Load | Max. Column Load Applied at C.G. | | | |
|-----------------|---------------------|----------------------------------|----------|---------|---------|
| | | K = 0.65 | K = 0.80 | K = 1.0 | K = 1.2 |
| In | Lbs | Lbs | Lbs | Lbs | Lbs |
| 12 | 5,140 | 19,130 | 18,970 | 18,700 | 18,390 |
| 24 | 5,040 | 18,230 | 17,670 | 16,860 | 16,010 |
| 36 | 4,890 | 16,970 | 16,010 | 14,760 | 13,610 |
| 48 | 4,720 | 15,590 | 14,360 | 12,920 | 11,740 |
| 60 | 4,500 | 14,260 | 12,920 | 11,480 | 9,280 |
| 72 | 4,230 | 13,080 | 11,740 | 9,280 | 6,690 |
| 84 | 3,890 | 12,080 | 10,210 | 7,080 | 4,920 |
| 96 | 3,490 | 11,150 | 8,380 | 5,420 | 3,770 |
| 108 | 3,060 | 9,620 | 6,690 | 4,280 | 2,980 |
| 120 | 2,690 | 8,160 | 5,420 | 3,470 | ** |

| Unbraced Height | Max. Slot Face Load | Max. Column Load Applied at C.G. | | | |
|-----------------|---------------------|----------------------------------|----------|---------|---------|
| | | K = 0.65 | K = 0.80 | K = 1.0 | K = 1.2 |
| mm | kN | kN | kN | kN | kN |
| 300 | 22.9 | 85.1 | 84.4 | 83.3 | 82.0 |
| 600 | 22.4 | 81.2 | 78.8 | 75.3 | 71.6 |
| 900 | 21.8 | 75.8 | 71.6 | 66.1 | 61.0 |
| 1,200 | 21.1 | 69.7 | 64.3 | 57.9 | 52.7 |
| 1,500 | 20.1 | 63.9 | 57.9 | 51.5 | 42.2 |
| 1,800 | 18.9 | 58.7 | 52.7 | 42.2 | 30.7 |
| 2,100 | 17.5 | 54.2 | 46.3 | 32.5 | 22.6 |
| 2,400 | 15.7 | 50.4 | 38.3 | 24.9 | 17.3 |
| 2,700 | 13.9 | 43.8 | 30.7 | 19.7 | 13.7 |
| 3,000 | 12.2 | 37.3 | 24.9 | 15.9 | ** |

* Load limited by spot weld shear

** KL/r > 200

NR = Not Recommended

Beam loads shown are total uniform load, including the channel weight, for a simple span supported at each end that is adequately laterally braced.

Refer to pages 20 -23 for other beam support conditions.

Refer to page 77 for load reduction factor for an unbraced beam length.

Beam Loading of Punched Channels

Load for punched channel is obtained by multiplying the loads shown by the following reduction factors:

SS - Channel with Short Slots 0.90

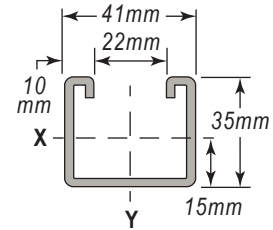
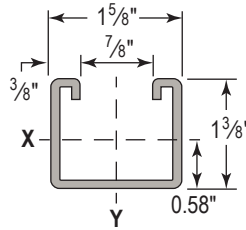
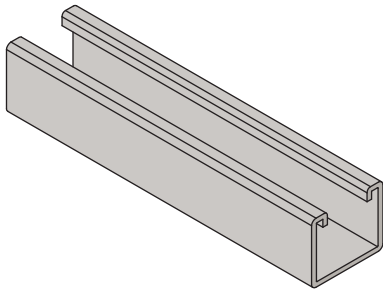




W300 & W301 - 12 Gauge Channel

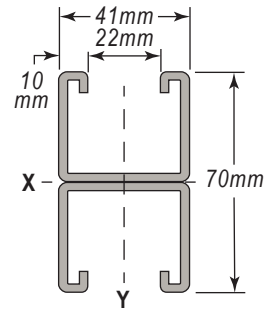
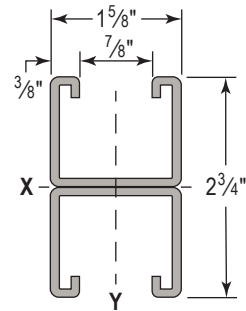
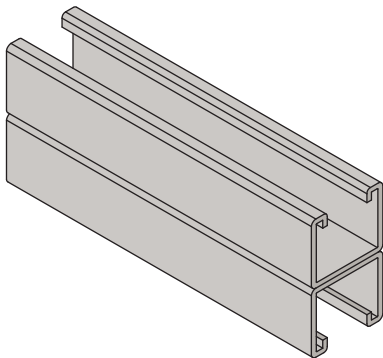
W300: 1⁵/₈" x 1³/₈" (41mm x 35mm) & W301: 1⁵/₈" x 2³/₄" (41mm x 70mm)

W300: 1⁵/₈" x 1³/₈" (41mm x 35mm)



Available in 10' & 20' Lengths • Finishes: PG, HG, GR, PL, Gold, ST304, & ST316

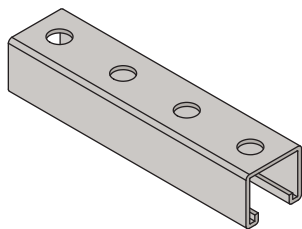
W301: 1⁵/₈" x 2³/₄" (41mm x 70mm)



Available in 10' & 20' Lengths • Finishes: PG, HG, GR, PL, Gold, ST304, & ST316

Pierced Channel

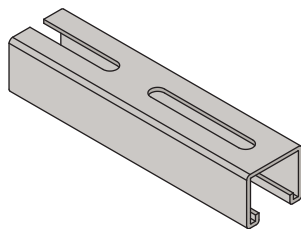
W300H



Channel With Holes

⁹/₁₆" Holes are punched on 1-⁷/₈" centers.

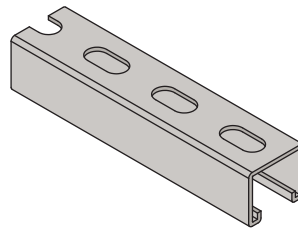
W300SL



Channel With Long Slots

¹³/₃₂" x 3" Slots are punched on 4" centers.

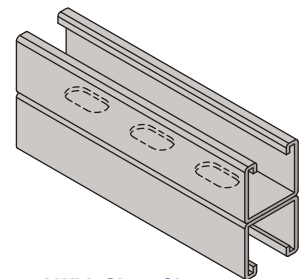
W300SS



Channel With Short Slots

⁹/₁₆" x 1-¹/₈" Slots are punched on 2" centers.

W301SS

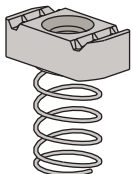


Channel With Short Slots

⁹/₁₆" x 1-¹/₈" Slots are punched on 2" centers.

Related Channel Nuts (See Pages 81 - 82)

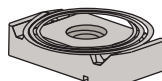
Channel Nut with Standard Spring



Channel Nut Without Spring



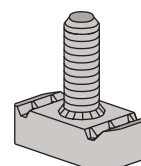
Channel Nut with Top-Lock Spring



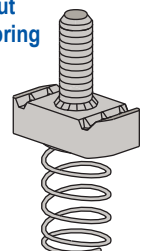
Rapid Strut Slide Nut



Stud Nut without Spring



Stud Nut with Spring



W300 Channel Loads

12 Gauge - 1⁵/₈" x 1³/₈" (41mm x 35mm)



Section Properties

| Channel Part No. | Wt./Ft. Lbs. (Kg/M) | Area of Section Sq. in. (Sq. cm) | X-X Axis | | | Y-Y Axis | | |
|------------------|---------------------|----------------------------------|---|---|------------------|---|---|----------------|
| | | | Ix in. ⁴ (Ix cm ⁴) | Sx in. ³ (Sx cm ³) | rx. in. (rx. cm) | Iy in. ⁴ (Iy cm ⁴) | Sy in. ³ (Sy cm ³) | ry in. (ry cm) |
| W300 | 1.73 | 0.508 | 0.123 | 0.158 | 0.491 | 0.208 | 0.256 | 0.64 |
| | (2.57) | (3.28) | (5.12) | (2.59) | (1.25) | (8.66) | (4.20) | (1.63) |

W300 - Allowable Beam Loads

| Span | Max. Uniform Load (W) | Deflection at Load (W) | Uniform Load at Deflection | | |
|------|-----------------------|------------------------|----------------------------|-----------|-----------|
| | | | Span /180 | Span /240 | Span /360 |
| In | Lbs | In | Lbs | Lbs | Lbs |
| 12 | 2,650 | 0.02 | 2,650 | 2,650 | 2,650 |
| 24 | 1,320 | 0.07 | 1,320 | 1,320 | 1,320 |
| 36 | 880 | 0.15 | 880 | 880 | 600 |
| 48 | 660 | 0.26 | 660 | 500 | 340 |
| 60 | 530 | 0.41 | 430 | 320 | 210 |
| 72 | 440 | 0.59 | 300 | 220 | 150 |
| 84 | 380 | 0.81 | 220 | 160 | 110 |
| 96 | 330 | 1.05 | 170 | 130 | 80 |
| 108 | 290 | 1.31 | 130 | 100 | 70 |
| 120 | 260 | 1.62 | 110 | 80 | 50 |

| Span | Max. Uniform Load (W) | Deflection at Load (W) | Uniform Load at Deflection | | |
|-------|-----------------------|------------------------|----------------------------|-----------|-----------|
| | | | Span /180 | Span /240 | Span /360 |
| mm | kN | mm | kN | kN | kN |
| 300 | 12.0 | 0.40 | 12.0 | 12.0 | 12.0 |
| 600 | 6.0 | 1.63 | 6.0 | 6.0 | 6.0 |
| 900 | 4.0 | 3.66 | 4.0 | 4.0 | 2.8 |
| 1,200 | 3.0 | 6.46 | 3.0 | 2.3 | 1.6 |
| 1,500 | 2.4 | 10.16 | 2.0 | 1.5 | 1.0 |
| 1,800 | 2.0 | 14.63 | 1.4 | 1.0 | 0.7 |
| 2,100 | 1.7 | 19.62 | 1.0 | 0.8 | 0.5 |
| 2,400 | 1.5 | 26.21 | 0.8 | 0.6 | 0.4 |
| 2,700 | 1.3 | 32.92 | 0.6 | 0.4 | 0.3 |
| 3,000 | 1.2 | 40.65 | 0.5 | 0.4 | 0.3 |

W300 - Allowable Column Loads

| Unbraced Height | Max. Slot Face Load | Max. Column Load Applied at C.G. | | | |
|-----------------|---------------------|----------------------------------|----------|---------|---------|
| | | K = 0.65 | K = 0.80 | K = 1.0 | K = 1.2 |
| In | Lbs | Lbs | Lbs | Lbs | Lbs |
| 12 | 3,480 | 11,260 | 10,980 | 10,550 | 10,080 |
| 24 | 3,260 | 9,830 | 9,100 | 8,150 | 7,280 |
| 36 | 2,980 | 8,260 | 7,280 | 6,180 | 5,280 |
| 48 | 2,640 | 6,890 | 5,860 | 4,760 | 3,890 |
| 60 | 2,340 | 5,780 | 4,760 | 3,720 | 3,010 |
| 72 | 2,080 | 4,880 | 3,890 | 3,010 | 2,330 |
| 84 | 1,860 | 4,130 | 3,270 | 2,470 | ** |
| 96 | 1,680 | 3,550 | 2,790 | 1,890 | ** |
| 108 | 1,480 | 3,110 | 2,330 | ** | ** |
| 120 | 1,280 | 2,740 | 1,890 | ** | ** |

| Unbraced Height | Max. Slot Face Load | Max. Column Load Applied at C.G. | | | |
|-----------------|---------------------|----------------------------------|----------|---------|---------|
| | | K = 0.65 | K = 0.80 | K = 1.0 | K = 1.2 |
| mm | kN | kN | kN | kN | kN |
| 300 | 15.5 | 50.1 | 48.9 | 47.1 | 45.0 |
| 600 | 14.5 | 43.9 | 40.7 | 36.6 | 32.7 |
| 900 | 13.3 | 37.1 | 32.7 | 27.8 | 23.8 |
| 1,200 | 11.8 | 31.0 | 26.4 | 21.5 | 17.6 |
| 1,500 | 10.5 | 26.1 | 21.5 | 16.8 | 13.7 |
| 1,800 | 9.3 | 22.1 | 17.6 | 13.7 | 10.7 |
| 2,100 | 8.4 | 18.7 | 14.8 | 11.3 | ** |
| 2,400 | 7.6 | 16.1 | 12.6 | 8.7 | ** |
| 2,700 | 6.8 | 14.1 | 10.7 | ** | ** |
| 3,000 | 5.8 | 12.4 | 8.7 | ** | ** |

** KL/r > 200

NR = Not Recommended

Beam loads shown are total uniform load, including the channel weight, for a simple span supported at each end that is adequately laterally braced.

Refer to pages 20 - 23 for other beam support conditions.

Refer to page 77 for load reduction factor for an unbraced beam length.

Beam Loading of Punched Channels

Load for punched channel is obtained by multiplying the loads shown by the following reduction factors:

| | |
|-------------------------------|------|
| SS - Channel with Short Slots | 0.90 |
| SL - Channel with Long Slots | 0.90 |
| H - Channel with Holes | 0.95 |
| KO - Knock-Out Channel | 0.95 |





W301 Channel Loads

12 Gauge - 1⁵/₈" x 2³/₄" (41mm x 70mm)

Section Properties

| Channel Part No. | Wt./Ft. Lbs. (Kg/M) | Area of Section Sq. in. (Sq. cm) | X-X Axis | | | Y-Y Axis | | |
|------------------|---------------------|----------------------------------|---|---|------------------|---|---|----------------|
| | | | Ix in. ⁴ (Ix cm ⁴) | Sx in. ³ (Sx cm ³) | rx. in. (rx. cm) | Iy in. ⁴ (Iy cm ⁴) | Sy in. ³ (Sy cm ³) | ry in. (ry cm) |
| W301 | 3.46 | 1.017 | 0.608 | 0.443 | 0.774 | 0.416 | 0.512 | 0.64 |
| | (5.15) | (6.56) | (25.31) | (7.26) | (1.97) | (17.32) | (8.39) | (1.63) |

W301 - Allowable Beam Loads

| Span | Max. Uniform Load (W) | Deflection at Load (W) | Uniform Load at Deflection | | |
|------|-----------------------|------------------------|----------------------------|-----------|-----------|
| | | | Span /180 | Span /240 | Span /360 |
| In | Lbs | In | Lbs | Lbs | Lbs |
| 12 | 2,110 * | 0.00 | 2,110 * | 2,110 * | 2,110 * |
| 24 | 2,110 * | 0.02 | 2,110 * | 2,110 * | 2,110 * |
| 36 | 2,110 * | 0.07 | 2,110 * | 2,110 * | 2,110 * |
| 48 | 1,860 | 0.15 | 1,860 | 1,860 | 1,660 |
| 60 | 1,490 | 0.23 | 1,490 | 1,490 | 1,060 |
| 72 | 1,240 | 0.34 | 1,240 | 1,110 | 740 |
| 84 | 1,060 | 0.46 | 1,060 | 810 | 540 |
| 96 | 930 | 0.60 | 830 | 620 | 410 |
| 108 | 830 | 0.76 | 660 | 490 | 330 |
| 120 | 740 | 0.93 | 530 | 400 | 270 |

| Span | Max. Uniform Load (W) | Deflection at Load (W) | Uniform Load at Deflection | | |
|-------|-----------------------|------------------------|----------------------------|-----------|-----------|
| | | | Span /180 | Span /240 | Span /360 |
| mm | kN | mm | kN | kN | kN |
| 300 | 9.4 * | 0.06 | 9.4 * | 9.4 * | 9.4 * |
| 600 | 9.4 * | 0.51 | 9.4 * | 9.4 * | 9.4 * |
| 900 | 9.4 * | 1.73 | 9.4 * | 9.4 * | 9.4 * |
| 1,200 | 8.4 | 3.68 | 8.4 | 8.4 | 7.6 |
| 1,500 | 6.7 | 5.74 | 6.7 | 6.7 | 4.9 |
| 1,800 | 5.6 | 8.27 | 5.6 | 5.1 | 3.4 |
| 2,100 | 4.8 | 11.26 | 4.8 | 3.7 | 2.5 |
| 2,400 | 4.2 | 14.63 | 3.8 | 2.8 | 1.9 |
| 2,700 | 3.7 | 18.62 | 3.0 | 2.3 | 1.5 |
| 3,000 | 3.4 | 23.11 | 2.4 | 1.8 | 1.2 |

W301 - Allowable Column Loads

| Unbraced Height | Max. Slot Face Load | Max. Column Load Applied at C.G. | | | |
|-----------------|---------------------|----------------------------------|----------|---------|---------|
| | | K = 0.65 | K = 0.80 | K = 1.0 | K = 1.2 |
| In | Lbs | Lbs | Lbs | Lbs | Lbs |
| 12 | 6,000 | 23,260 | 23,040 | 22,700 | 22,330 |
| 24 | 5,890 | 22,130 | 21,520 | 20,730 | 20,000 |
| 36 | 5,770 | 20,830 | 20,000 | 19,080 | 17,990 |
| 48 | 5,670 | 19,670 | 18,820 | 16,850 | 14,500 |
| 60 | 5,470 | 18,750 | 16,850 | 13,900 | 10,990 |
| 72 | 5,150 | 17,140 | 14,500 | 10,990 | 7,860 |
| 84 | 4,740 | 15,240 | 12,140 | 8,320 | 5,770 |
| 96 | 4,280 | 13,310 | 9,890 | 6,370 | 4,420 |
| 108 | 3,800 | 11,420 | 7,860 | 5,030 | ** |
| 120 | 3,370 | 9,620 | 6,370 | 4,070 | ** |

| Unbraced Height | Max. Slot Face Load | Max. Column Load Applied at C.G. | | | |
|-----------------|---------------------|----------------------------------|----------|---------|---------|
| | | K = 0.65 | K = 0.80 | K = 1.0 | K = 1.2 |
| mm | kN | kN | kN | kN | kN |
| 300 | 26.7 | 103.5 | 102.6 | 101.1 | 99.5 |
| 450 | 26.5 | 101.3 | 99.5 | 96.8 | 94.2 |
| 600 | 26.2 | 98.6 | 95.9 | 92.5 | 89.3 |
| 750 | 25.9 | 95.7 | 92.5 | 88.5 | 85.1 |
| 900 | 25.7 | 92.9 | 89.3 | 85.1 | 80.7 |
| 1,050 | 25.4 | 90.2 | 86.4 | 81.9 | 73.3 |
| 1,200 | 25.2 | 87.8 | 84.0 | 75.8 | 65.5 |
| 1,500 | 24.4 | 83.7 | 75.8 | 62.9 | 50.1 |
| 1,800 | 23.1 | 77.0 | 65.5 | 50.1 | 36.1 |
| 2,100 | 21.3 | 68.7 | 55.1 | 38.2 | 26.5 |

* Load limited by spot weld shear

** KL/r > 200

NR = Not Recommended

Beam loads shown are total uniform load, including the channel weight, for a simple span supported at each end that is adequately laterally braced.

Refer to pages 20 -23 for other beam support conditions.

Refer to page 77 for load reduction factor for an unbraced beam length.

Beam Loading of Punched Channels

Load for punched channel is obtained by multiplying the loads shown by the following reduction factors:

SS - Channel with Short Slots 0.90

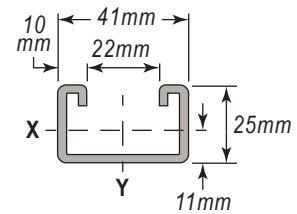
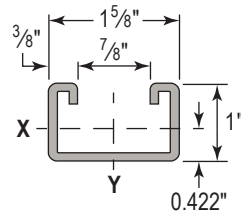
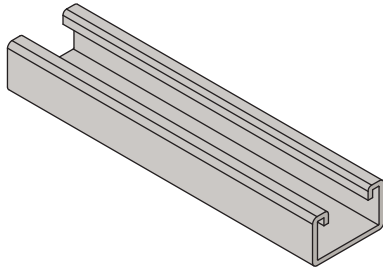


W800 & W801 - 12 Gauge Channel



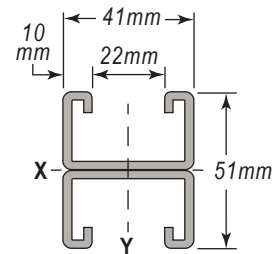
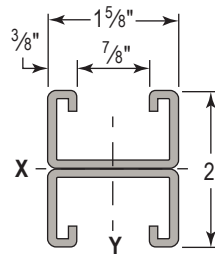
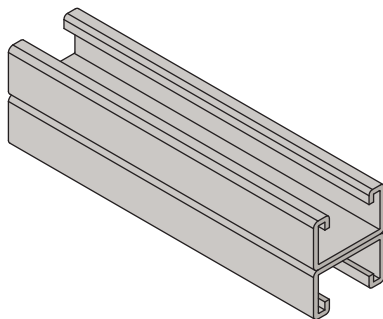
W800: 1⁵/₈" x 1" (41mm x 25mm) & W801: 1⁵/₈" x 2" (41mm x 51mm)

W800: 1⁵/₈" x 1" (41mm x 25mm)



Available in 10', 20' & Pre-Cut lengths see page 48 • Finishes: PG, HG, GR, PL, Gold, ST304, & ST316

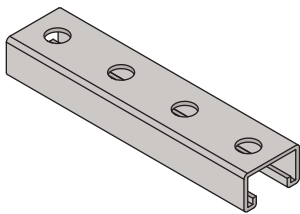
W801: 1⁵/₈" x 2" (41mm x 51mm)



Available in 10' & 20' Lengths • Finishes: PG, HG, GR, PL, Gold, ST304, & ST316

Pierced Channel

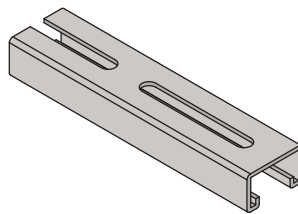
W800H



Channel With Holes

⁹/₁₆" Holes are punched on 1-⁷/₈" centers.

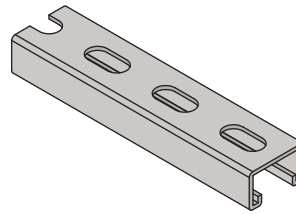
W800SL



Channel With Long Slots

¹³/₃₂" x 3" Slots are punched on 4" centers.

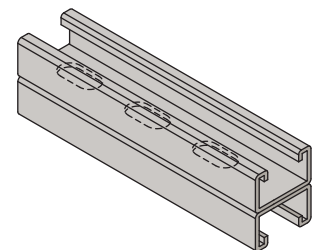
W800SS



Channel With Short Slots

⁹/₁₆" x 1-¹/₈" Slots are punched on 2" centers.

W801SS



Channel With Short Slots

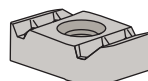
⁹/₁₆" x 1-¹/₈" Slots are punched on 2" centers.

Related Channel Nuts (See Pages 81 - 82)

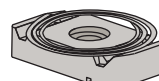
Channel Nut with Short Spring



Channel Nut Without Spring



Channel Nut with Top-Lock Spring



Rapid Strut Slide Nut

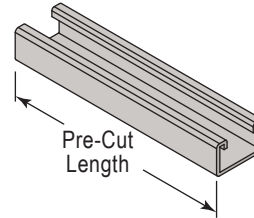




W800 Pre-Cut Channel

1⁵/₈" x 1" (41mm x 25mm) - 12 Gauge

W800: 1⁵/₈" x 1" (41mm x 25mm) - Solid Channel - Pre-Cut Lengths



| W800 - 1 ⁵ / ₈ " x 1" - 12 Gauge - Solid Channel | | | |
|--|------------|---------------|---------------|
| Pre-Cut Length | Steel - PG | ST304 | ST316 |
| 6" (15.2cm) | W800PG6IN | W800ST3046IN | W800ST3166IN |
| 12" (0.31m) | W800PG12IN | W800ST30412IN | W800ST31612IN |
| 18" (0.45m) | W800PG18IN | W800ST30418IN | W800ST31618IN |
| 24" (0.61m) | W800PG24IN | W800ST30424IN | W800ST31624IN |
| 30" (0.76m) | W800PG30IN | W800ST30430IN | W800ST31630IN |
| 36" (0.91m) | W800PG36IN | W800ST30436IN | W800ST31636IN |
| 42" (1.07m) | W800PG42IN | W800ST30442IN | W800ST31642IN |
| 48" (1.22m) | W800PG48IN | W800ST30448IN | W800ST31648IN |
| 54" (1.37m) | W800PG54IN | W800ST30454IN | W800ST31654IN |
| 60" (1.52m) | W800PG60IN | W800ST30460IN | W800ST31660IN |
| 72" (1.83m) | W800PG72IN | W800ST30472IN | W800ST31672IN |
| 80" (2.03m) | W800PG80IN | W800ST30480IN | W800ST31680IN |
| 96" (2.44m) | W800PG96IN | W800ST30496IN | W800ST31696IN |
| 10' (3.05m) | W800PG10 | W800ST30410 | W800ST31610 |
| 20' (6.10m) | W800PG20 | W800ST30420 | W800ST31620 |

Note: Minimum order quantity is 100 pieces for any size under 10'.



W800 Channel Loads



12 Gauge - 1⁵/₈" x 1" (41mm x 25mm)

Section Properties

| Channel Part No. | Wt./Ft. Lbs. (Kg/M) | Area of Section Sq. in. (Sq. cm) | X-X Axis | | | Y-Y Axis | | |
|------------------|---------------------|----------------------------------|---|---|------------------|---|---|----------------|
| | | | Ix in. ⁴ (Ix cm ⁴) | Sx in. ³ (Sx cm ³) | rx. in. (rx. cm) | Iy in. ⁴ (Iy cm ⁴) | Sy in. ³ (Sy cm ³) | ry in. (ry cm) |
| W800 | 1.46 | 0.43 | 0.054 | 0.093 | 0.354 | 0.163 | 0.200 | 0.615 |
| | (2.17) | (2.77) | (2.25) | (1.52) | (0.90) | (6.78) | (3.28) | (1.56) |

W800 - Allowable Beam Loads

| Span | Max. Uniform Load (W) | Deflection at Load (W) | Uniform Load at Deflection | | |
|------|-----------------------|------------------------|----------------------------|-----------|-----------|
| | | | Span /180 | Span /240 | Span /360 |
| In | Lbs | In | Lbs | Lbs | Lbs |
| 12 | 1,560 | 0.02 | 1,560 | 1,560 | 1,560 |
| 18 | 1,040 | 0.05 | 1,040 | 1,040 | 1,040 |
| 24 | 780 | 0.09 | 780 | 780 | 590 |
| 30 | 630 | 0.14 | 630 | 570 | 380 |
| 36 | 520 | 0.20 | 520 | 390 | 260 |
| 42 | 450 | 0.27 | 380 | 290 | 190 |
| 48 | 390 | 0.35 | 290 | 220 | 150 |
| 60 | 310 | 0.55 | 190 | 140 | 90 |
| 72 | 260 | 0.79 | 130 | 100 | 70 |
| 84 | 220 | 1.07 | 100 | 70 | 50 |

| Span | Max. Uniform Load (W) | Deflection at Load (W) | Uniform Load at Deflection | | |
|-------|-----------------------|------------------------|----------------------------|-----------|-----------|
| | | | Span /180 | Span /240 | Span /360 |
| mm | kN | mm | kN | kN | kN |
| 300 | 7.1 | 0.54 | 7.1 | 7.1 | 7.1 |
| 450 | 4.7 | 1.23 | 4.7 | 4.7 | 4.7 |
| 600 | 3.5 | 2.17 | 3.5 | 3.5 | 2.7 |
| 750 | 2.8 | 3.43 | 2.8 | 2.6 | 1.7 |
| 900 | 2.4 | 4.90 | 2.4 | 1.8 | 1.2 |
| 1,050 | 2.0 | 6.61 | 1.8 | 1.3 | 0.9 |
| 1,200 | 1.8 | 8.77 | 1.3 | 1.0 | 0.7 |
| 1,500 | 1.4 | 13.71 | 0.8 | 0.7 | 0.4 |
| 1,800 | 1.2 | 19.25 | 0.6 | 0.4 | 0.3 |
| 2,100 | 1.0 | 27.04 | 0.4 | 0.3 | 0.2 |

W800 - Allowable Column Loads

| Unbraced Height | Max. Slot Face Load | Max. Column Load Applied at C.G. | | | |
|-----------------|---------------------|----------------------------------|----------|---------|---------|
| | | K = 0.65 | K = 0.80 | K = 1.0 | K = 1.2 |
| In | Lbs | Lbs | Lbs | Lbs | Lbs |
| 12 | 2,220 | 9,730 | 9,590 | 9,350 | 9,070 |
| 18 | 2,190 | 9,390 | 9,070 | 8,580 | 8,010 |
| 24 | 2,150 | 8,920 | 8,400 | 7,600 | 6,730 |
| 30 | 2,090 | 8,350 | 7,600 | 6,500 | 5,370 |
| 36 | 2,020 | 7,700 | 6,730 | 5,370 | 4,090 |
| 42 | 1,930 | 7,000 | 5,820 | 4,290 | 3,010 |
| 48 | 1,820 | 6,280 | 4,930 | 3,320 | 2,310 |
| 60 | 1,540 | 4,820 | 3,320 | 2,120 | ** |
| 72 | 1,280 | 3,490 | 2,310 | ** | ** |
| 84 | 1,060 | 2,570 | 1,690 | ** | ** |

| Unbraced Height | Max. Slot Face Load | Max. Column Load Applied at C.G. | | | |
|-----------------|---------------------|----------------------------------|----------|---------|---------|
| | | K = 0.65 | K = 0.80 | K = 1.0 | K = 1.2 |
| mm | kN | kN | kN | kN | kN |
| 300 | 9.9 | 43.3 | 42.7 | 41.7 | 40.5 |
| 450 | 9.7 | 41.8 | 40.5 | 38.3 | 35.9 |
| 600 | 9.6 | 39.8 | 37.5 | 34.1 | 30.3 |
| 750 | 9.3 | 37.4 | 34.1 | 29.3 | 24.4 |
| 900 | 9.0 | 34.6 | 30.3 | 24.4 | 18.7 |
| 1,050 | 8.6 | 31.5 | 26.3 | 19.6 | 13.8 |
| 1,200 | 8.2 | 28.3 | 22.4 | 15.3 | 10.6 |
| 1,500 | 7.0 | 21.9 | 15.3 | 9.7 | ** |
| 1,800 | 5.8 | 16.1 | 10.6 | ** | ** |
| 2,100 | 4.8 | 11.8 | 7.8 | ** | ** |

** KL/r > 200

NR = Not Recommended

Beam loads shown are total uniform load, including the channel weight, for a simple span supported at each end that is adequately laterally braced.

Refer to pages 20 -23 for other beam support conditions.

Refer to page 77 for load reduction factor for an unbraced beam length.

Beam Loading of Punched Channels

Load for punched channel is obtained by multiplying the loads shown by the following reduction factors:

| | |
|-------------------------------|------|
| SS - Channel with Short Slots | 0.90 |
| SL - Channel with Long Slots | 0.90 |
| H - Channel with Holes | 0.95 |
| KO - Knock-Out Channel | 0.95 |





W801 Channel Loads

12 Gauge - 1⁵/₈" x 2" (41mm x 51mm)

Section Properties

| Channel Part No. | Wt./Ft. Lbs. (Kg/M) | Area of Section Sq. in. (Sq. cm) | X-X Axis | | | Y-Y Axis | | |
|------------------|---------------------|----------------------------------|---|---|------------------|---|---|----------------|
| | | | Ix in. ⁴ (Ix cm ⁴) | Sx in. ³ (Sx cm ³) | rx. in. (rx. cm) | Iy in. ⁴ (Iy cm ⁴) | Sy in. ³ (Sy cm ³) | ry in. (ry cm) |
| W801 | 2.92 | 0.859 | 0.261 | 0.261 | 0.551 | 0.325 | 0.400 | 0.615 |
| | (4.35) | (5.54) | (10.86) | (4.28) | (1.40) | (13.53) | (6.55) | (1.56) |

W801 - Allowable Beam Loads

| Span | Max. Uniform Load (W) | Deflection at Load (W) | Uniform Load at Deflection | | |
|------|-----------------------|------------------------|----------------------------|-----------|-----------|
| | | | Span /180 | Span /240 | Span /360 |
| In | Lbs | In | Lbs | Lbs | Lbs |
| 12 | 1,520 * | 0.00 | 1,520 * | 1,520 * | 1,520 * |
| 18 | 1,520 * | 0.02 | 1,520 * | 1,520 * | 1,520 * |
| 24 | 1,520 * | 0.04 | 1,520 * | 1,520 * | 1,520 * |
| 30 | 1,520 * | 0.07 | 1,520 * | 1,520 * | 1,520 * |
| 36 | 1,460 | 0.12 | 1,460 | 1,460 | 1,270 |
| 42 | 1,250 | 0.16 | 1,250 | 1,250 | 930 |
| 48 | 1,090 | 0.20 | 1,090 | 1,070 | 710 |
| 60 | 870 | 0.32 | 870 | 680 | 460 |
| 72 | 730 | 0.46 | 630 | 470 | 320 |
| 84 | 620 | 0.62 | 470 | 350 | 230 |

| Span | Max. Uniform Load (W) | Deflection at Load (W) | Uniform Load at Deflection | | |
|-------|-----------------------|------------------------|----------------------------|-----------|-----------|
| | | | Span /180 | Span /240 | Span /360 |
| mm | kN | mm | kN | kN | kN |
| 300 | 6.8 * | 0.11 | 6.8 * | 6.8 * | 6.8 * |
| 450 | 6.8 * | 0.36 | 6.8 * | 6.8 * | 6.8 * |
| 600 | 6.8 * | 0.86 | 6.8 * | 6.8 * | 6.8 * |
| 750 | 6.8 * | 1.68 | 6.8 * | 6.8 * | 6.8 * |
| 900 | 6.6 | 2.83 | 6.6 | 6.6 | 5.8 |
| 1,050 | 5.6 | 3.86 | 5.6 | 5.6 | 4.3 |
| 1,200 | 4.9 | 5.03 | 4.9 | 4.9 | 3.3 |
| 1,500 | 4.0 | 7.88 | 4.0 | 3.2 | 2.1 |
| 1,800 | 3.3 | 11.32 | 2.9 | 2.2 | 1.5 |
| 2,100 | 2.8 | 15.31 | 2.1 | 1.6 | 1.1 |

W801 - Allowable Column Loads

| Unbraced Height | Max. Slot Face Load | Max. Column Load Applied at C.G. | | | |
|-----------------|---------------------|----------------------------------|----------|---------|---------|
| | | K = 0.65 | K = 0.80 | K = 1.0 | K = 1.2 |
| In | Lbs | Lbs | Lbs | Lbs | Lbs |
| 12 | 5,660 | 19,300 | 18,950 | 18,430 | 17,870 |
| 18 | 5,560 | 18,500 | 17,870 | 17,000 | 16,160 |
| 24 | 5,440 | 17,580 | 16,720 | 15,640 | 14,720 |
| 30 | 5,320 | 16,650 | 15,640 | 14,510 | 13,590 |
| 36 | 5,210 | 15,770 | 14,720 | 13,590 | 11,460 |
| 42 | 5,110 | 14,990 | 13,940 | 11,810 | 9,360 |
| 48 | 4,920 | 14,310 | 12,880 | 10,050 | 7,400 |
| 60 | 4,320 | 12,710 | 10,050 | 6,820 | 4,730 |
| 72 | 3,660 | 10,400 | 7,400 | 4,730 | 3,290 |
| 84 | 3,030 | 8,200 | 5,430 | 3,480 | 2,420 |

| Unbraced Height | Max. Slot Face Load | Max. Column Load Applied at C.G. | | | |
|-----------------|---------------------|----------------------------------|----------|---------|---------|
| | | K = 0.65 | K = 0.80 | K = 1.0 | K = 1.2 |
| mm | kN | kN | kN | kN | kN |
| 300 | 25.2 | 85.9 | 84.4 | 82.2 | 79.7 |
| 450 | 24.8 | 82.5 | 79.7 | 75.9 | 72.2 |
| 600 | 24.2 | 78.5 | 74.7 | 69.9 | 65.8 |
| 750 | 23.7 | 74.4 | 69.9 | 64.9 | 60.9 |
| 900 | 23.2 | 70.5 | 65.8 | 60.9 | 51.9 |
| 1,050 | 22.8 | 67.0 | 62.4 | 53.4 | 42.6 |
| 1,200 | 22.0 | 64.0 | 58.1 | 45.7 | 33.9 |
| 1,500 | 19.4 | 57.3 | 45.7 | 31.3 | 21.8 |
| 1,800 | 16.5 | 47.2 | 33.9 | 21.8 | 15.1 |
| 2,100 | 13.8 | 37.5 | 25.0 | 16.0 | 11.1 |

* Load limited by spot weld shear

** KL/r > 200

NR = Not Recommended

Beam loads shown are total uniform load, including the channel weight, for a simple span supported at each end that is adequately laterally braced.

Refer to pages 20 -23 for other beam support conditions.

Refer to page 77 for load reduction factor for an unbraced beam length.

Beam Loading of Punched Channels

Load for punched channel is obtained by multiplying the loads shown by the following reduction factors:

SS - Channel with Short Slots 0.90

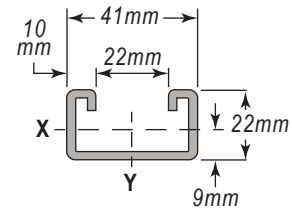
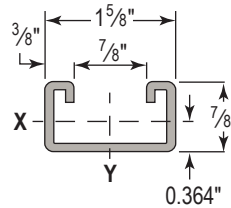
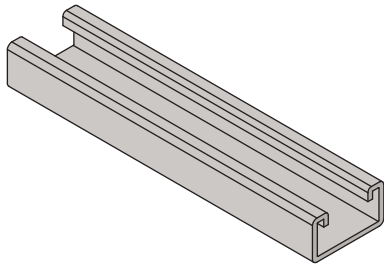


W900 & W901 - 12 Gauge Channel



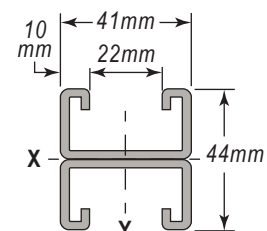
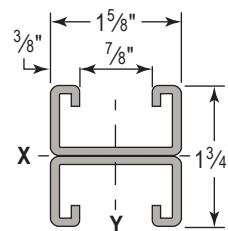
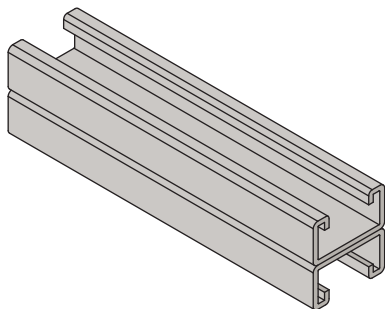
W900: 1⁵/₈" x 7⁷/₈" (41mm x 22mm) & W901: 1⁵/₈" x 1³/₄" (41mm x 44mm)

W900: 1⁵/₈" x 7⁷/₈" (41mm x 22mm)



Available in 10', 20' & Pre-Cut lengths see page 52 • Finishes: PG, HG, GR, PL, Gold, ST304, & ST316

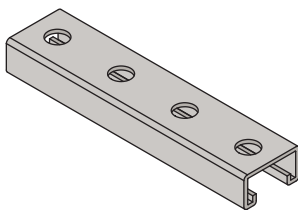
W901: 1⁵/₈" x 1³/₄" (41mm x 44mm)



Available in 10' & 20' Lengths • Finishes: PG, HG, GR, PL, Gold, ST304, & ST316

Pierced Channel

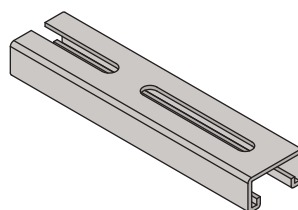
W900H



Channel With Holes

⁹/₁₆" Holes are punched on 1-⁷/₈" centers.

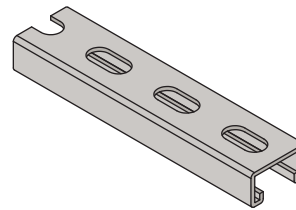
W900SL



Channel With Long Slots

¹³/₃₂" x 3" Slots are punched on 4" centers.

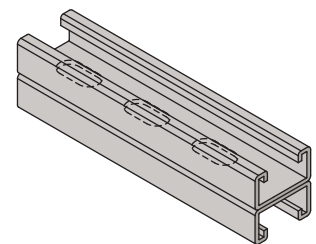
W900SS



Channel With Short Slots

⁹/₁₆" x 1-¹/₈" Slots are punched on 2" centers.

W901SS



Channel With Short Slots

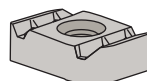
⁹/₁₆" x 1-¹/₈" Slots are punched on 2" centers.

Related Channel Nuts (See Pages 81 - 82)

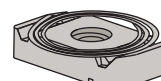
Channel Nut with Short Spring



Channel Nut Without Spring



Channel Nut with Top-Lock Spring



Rapid Strut Slide Nut

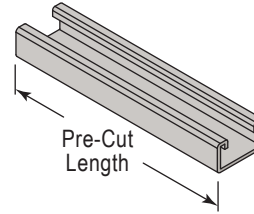




W900 Pre-Cut Channel

1⁵/₈" x 7⁷/₈" (41mm x 22mm) - 12 Gauge

W900: 1⁵/₈" x 7⁷/₈" (41mm x 22mm) - Solid Channel - Pre-Cut Lengths



W900 - 1⁵/₈" x 7⁷/₈" - 12 Gauge - Solid Channel

| Pre-Cut Length | Steel - PG | ST304 | ST316 |
|----------------|------------|---------------|---------------|
| 6" (15.2cm) | W900PG6IN | W900ST3046IN | W900ST3166IN |
| 12" (0.31m) | W900PG12IN | W900ST30412IN | W900ST31612IN |
| 18" (0.45m) | W900PG18IN | W900ST30418IN | W900ST31618IN |
| 24" (0.61m) | W900PG24IN | W900ST30424IN | W900ST31624IN |
| 30" (0.76m) | W900PG30IN | W900ST30430IN | W900ST31630IN |
| 36" (0.91m) | W900PG36IN | W900ST30436IN | W900ST31636IN |
| 42" (1.07m) | W900PG42IN | W900ST30442IN | W900ST31642IN |
| 48" (1.22m) | W900PG48IN | W900ST30448IN | W900ST31648IN |
| 54" (1.37m) | W900PG54IN | W900ST30454IN | W900ST31654IN |
| 60" (1.52m) | W900PG60IN | W900ST30460IN | W900ST31660IN |
| 72" (1.83m) | W900PG72IN | W900ST30472IN | W900ST31672IN |
| 80" (2.03m) | W900PG80IN | W900ST30480IN | W900ST31680IN |
| 96" (2.44m) | W900PG96IN | W900ST30496IN | W900ST31696IN |
| 10' (3.05m) | W900PG10 | W900ST30410 | W900ST31610 |
| 20' (6.10m) | W900PG20 | W900ST30420 | W900ST31620 |

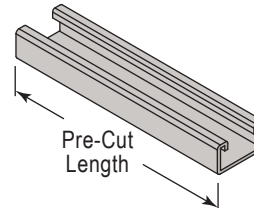
Note: Minimum order quantity is 100 pieces for any size under 10'.

W900SS: 1⁵/₈" x 7⁷/₈" (41mm x 22mm) - Channel with Short Slots - Pre-Cut Lengths



Channel With Short Slots

9¹/₁₆" x 1-1¹/₈" (14mm x 29mm) Slots
are punched on 2" (51mm) centers.



W900SS - 1⁵/₈" x 7⁷/₈" - 12 Gauge - Channel with Short Slots

| Pre-Cut Length | Steel - PG | ST304 | ST316 |
|----------------|--------------|-----------------|-----------------|
| 6" (15.2cm) | W900SSPG6IN | W900SSST3046IN | W900SSST3166IN |
| 12" (0.31m) | W900SSPG12IN | W900SSST30412IN | W900SSST31612IN |
| 18" (0.45m) | W900SSPG18IN | W900SSST30418IN | W900SSST31618IN |
| 24" (0.61m) | W900SSPG24IN | W900SSST30424IN | W900SSST31624IN |
| 30" (0.76m) | W900SSPG30IN | W900SSST30430IN | W900SSST31630IN |
| 36" (0.91m) | W900SSPG36IN | W900SSST30436IN | W900SSST31636IN |
| 42" (1.07m) | W900SSPG42IN | W900SSST30442IN | W900SSST31642IN |
| 48" (1.22m) | W900SSPG48IN | W900SSST30448IN | W900SSST31648IN |
| 54" (1.37m) | W900SSPG54IN | W900SSST30454IN | W900SSST31654IN |
| 60" (1.52m) | W900SSPG60IN | W900SSST30460IN | W900SSST31660IN |
| 72" (1.83m) | W900SSPG72IN | W900SSST30472IN | W900SSST31672IN |
| 80" (2.03m) | W900SSPG80IN | W900SSST30480IN | W900SSST31680IN |
| 96" (2.44m) | W900SSPG96IN | W900SSST30496IN | W900SSST31696IN |
| 10' (3.05m) | W900SSPG10 | W900SSST30410 | W900SSST31610 |
| 20' (6.10m) | W900SSPG20 | W900SSST30420 | W900SSST31620 |

Note: Minimum order quantity is 100 pieces for any size under 10'.



W900 Channel Loads



12 Gauge - 1⁵/₈" x 7⁷/₈" (41mm x 22mm)

Section Properties

| Channel Part No. | Wt./Ft. Lbs. (Kg/M) | Area of Section Sq. in. (Sq. cm) | X-X Axis | | | Y-Y Axis | | |
|------------------|---------------------|----------------------------------|---|---|------------------|---|---|----------------|
| | | | Ix in. ⁴ (Ix cm ⁴) | Sx in. ³ (Sx cm ³) | rx. in. (rx. cm) | Iy in. ⁴ (Iy cm ⁴) | Sy in. ³ (Sy cm ³) | ry in. (ry cm) |
| W900 | 1.37 | 0.403 | 0.038 | 0.074 | 0.307 | 0.147 | 0.181 | 0.604 |
| | (2.04) | (2.60) | (1.58) | (1.21) | (0.78) | (6.12) | (2.97) | (1.53) |

W900 - Allowable Beam Loads

| Span | Max. Uniform Load (W) | Deflection at Load (W) | Uniform Load at Deflection | | |
|------|-----------------------|------------------------|----------------------------|-----------|-----------|
| | | | Span /180 | Span /240 | Span /360 |
| In | Lbs | In | Lbs | Lbs | Lbs |
| 12 | 1,250 | 0.03 | 1,250 | 1,250 | 1,250 |
| 18 | 830 | 0.06 | 830 | 830 | 740 |
| 24 | 620 | 0.10 | 620 | 620 | 420 |
| 30 | 500 | 0.16 | 500 | 400 | 270 |
| 36 | 420 | 0.23 | 370 | 280 | 180 |
| 42 | 360 | 0.31 | 270 | 200 | 140 |
| 48 | 310 | 0.40 | 210 | 160 | 100 |
| 60 | 250 | 0.63 | 130 | 100 | 70 |
| 72 | 210 | 0.91 | 90 | 70 | 50 |
| 84 | 180 | 1.24 | 70 | 50 | 30 |

| Span | Max. Uniform Load (W) | Deflection at Load (W) | Uniform Load at Deflection | | |
|-------|-----------------------|------------------------|----------------------------|-----------|-----------|
| | | | Span /180 | Span /240 | Span /360 |
| mm | kN | mm | kN | kN | kN |
| 300 | 5.6 | 0.62 | 5.6 | 5.6 | 5.6 |
| 450 | 3.7 | 1.38 | 3.7 | 3.7 | 3.4 |
| 600 | 2.8 | 2.45 | 2.8 | 2.8 | 1.9 |
| 750 | 2.3 | 3.87 | 2.3 | 1.8 | 1.2 |
| 900 | 1.9 | 5.51 | 1.7 | 1.3 | 0.8 |
| 1,050 | 1.6 | 7.50 | 1.2 | 0.9 | 0.6 |
| 1,200 | 1.4 | 9.96 | 0.9 | 0.7 | 0.5 |
| 1,500 | 1.1 | 15.19 | 0.6 | 0.4 | 0.3 |
| 1,800 | 0.9 | 22.05 | 0.4 | 0.3 | 0.2 |
| 2,100 | 0.8 | 30.01 | 0.3 | 0.2 | 0.1 |

W900 - Allowable Column Loads

| Unbraced Height | Max. Slot Face Load | Max. Column Load Applied at C.G. | | | |
|-----------------|---------------------|----------------------------------|----------|---------|---------|
| | | K = 0.65 | K = 0.80 | K = 1.0 | K = 1.2 |
| In | Lbs | Lbs | Lbs | Lbs | Lbs |
| 12 | 2,560 | 8,900 | 8,670 | 8,360 | 8,040 |
| 18 | 2,500 | 8,400 | 8,040 | 7,580 | 6,980 |
| 24 | 2,440 | 7,880 | 7,430 | 6,510 | 5,530 |
| 30 | 2,330 | 7,380 | 6,510 | 5,280 | 4,100 |
| 36 | 2,190 | 6,620 | 5,530 | 4,100 | 2,890 |
| 42 | 2,020 | 5,840 | 4,560 | 3,050 | 2,120 |
| 48 | 1,820 | 5,040 | 3,650 | 2,340 | 1,620 |
| 60 | 1,420 | 3,540 | 2,340 | 1,500 | ** |
| 72 | 1,110 | 2,460 | 1,620 | ** | ** |
| 84 | ** | 1,810 | ** | ** | ** |

| Unbraced Height | Max. Slot Face Load | Max. Column Load Applied at C.G. | | | |
|-----------------|---------------------|----------------------------------|----------|---------|---------|
| | | K = 0.65 | K = 0.80 | K = 1.0 | K = 1.2 |
| mm | kN | kN | kN | kN | kN |
| 300 | 11.4 | 39.6 | 38.7 | 37.3 | 35.9 |
| 450 | 11.1 | 37.5 | 35.9 | 33.9 | 31.3 |
| 600 | 10.9 | 35.2 | 33.2 | 29.3 | 25.0 |
| 750 | 10.4 | 33.1 | 29.3 | 23.9 | 18.7 |
| 900 | 9.8 | 29.8 | 25.0 | 18.7 | 13.3 |
| 1,050 | 9.1 | 26.3 | 20.8 | 14.0 | 9.7 |
| 1,200 | 8.2 | 22.9 | 16.8 | 10.7 | 7.5 |
| 1,500 | 6.4 | 16.3 | 10.7 | 6.9 | ** |
| 1,800 | 5.1 | 11.3 | 7.5 | ** | ** |
| 2,100 | ** | 8.3 | ** | ** | ** |

** KL/r > 200

NR = Not Recommended

Beam loads shown are total uniform load, including the channel weight, for a simple span supported at each end that is adequately laterally braced.

Refer to pages 20 -23 for other beam support conditions.

Refer to page 77 for load reduction factor for an unbraced beam length.

Beam Loading of Punched Channels

Load for punched channel is obtained by multiplying the loads shown by the following reduction factors:

| | |
|-------------------------------|------|
| SS - Channel with Short Slots | 0.90 |
| SL - Channel with Long Slots | 0.90 |
| H - Channel with Holes | 0.95 |
| KO - Knock-Out Channel | 0.95 |





W901 Channel Loads

12 Gauge - 1⁵/₈" x 1³/₄" (41mm x 44mm)

Section Properties

| Channel Part No. | Wt./Ft. Lbs. (Kg/M) | Area of Section Sq. in. (Sq. cm) | X-X Axis | | | Y-Y Axis | | |
|------------------|---------------------|----------------------------------|---|---|------------------|---|---|----------------|
| | | | Ix in. ⁴ (Ix cm ⁴) | Sx in. ³ (Sx cm ³) | rx. in. (rx. cm) | Iy in. ⁴ (Iy cm ⁴) | Sy in. ³ (Sy cm ³) | ry in. (ry cm) |
| W901 | 2.75 | 0.807 | 0.183 | 0.209 | 0.476 | 0.295 | 0.363 | 0.604 |
| | (4.09) | (5.21) | (7.62) | (3.42) | (1.21) | (12.28) | (5.95) | (1.53) |

W901 - Allowable Beam Loads

| Span | Max. Uniform Load (W) | Deflection at Load (W) | Uniform Load at Deflection | | |
|------|-----------------------|------------------------|----------------------------|-----------|-----------|
| | | | Span /180 | Span /240 | Span /360 |
| In | Lbs | In | Lbs | Lbs | Lbs |
| 12 | 1,310 * | 0.01 | 1,310 * | 1,310 * | 1,310 * |
| 18 | 1,310 * | 0.02 | 1,310 * | 1,310 * | 1,310 * |
| 24 | 1,310 * | 0.04 | 1,310 * | 1,310 * | 1,310 * |
| 30 | 1,310 * | 0.09 | 1,310 * | 1,310 * | 1,280 |
| 36 | 1,170 | 0.13 | 1,170 | 1,170 | 890 |
| 42 | 1,000 | 0.18 | 1,000 | 980 | 650 |
| 48 | 880 | 0.23 | 880 | 750 | 500 |
| 60 | 700 | 0.37 | 640 | 480 | 320 |
| 72 | 580 | 0.52 | 440 | 330 | 220 |
| 84 | 500 | 0.72 | 330 | 240 | 160 |

| Span | Max. Uniform Load (W) | Deflection at Load (W) | Uniform Load at Deflection | | |
|-------|-----------------------|------------------------|----------------------------|-----------|-----------|
| | | | Span /180 | Span /240 | Span /360 |
| mm | kN | mm | kN | kN | kN |
| 300 | 5.8 * | 0.13 | 5.8 * | 5.8 * | 5.8 * |
| 450 | 5.8 * | 0.45 | 5.8 * | 5.8 * | 5.8 * |
| 600 | 5.8 * | 1.06 | 5.8 * | 5.8 * | 5.8 * |
| 750 | 5.8 * | 2.07 | 5.8 * | 5.8 * | 5.8 * |
| 900 | 5.3 | 3.25 | 5.3 | 5.3 | 4.1 |
| 1,050 | 4.5 | 4.42 | 4.5 | 4.5 | 3.0 |
| 1,200 | 4.0 | 5.76 | 4.0 | 3.4 | 2.3 |
| 1,500 | 3.2 | 8.97 | 2.9 | 2.2 | 1.5 |
| 1,800 | 2.6 | 12.88 | 2.0 | 1.5 | 1.0 |
| 2,100 | 2.3 | 17.68 | 1.5 | 1.1 | 0.8 |

W901 - Allowable Column Loads

| Unbraced Height | Max. Slot Face Load | Max. Column Load Applied at C.G. | | | |
|-----------------|---------------------|----------------------------------|----------|---------|---------|
| | | K = 0.65 | K = 0.80 | K = 1.0 | K = 1.2 |
| In | Lbs | Lbs | Lbs | Lbs | Lbs |
| 12 | 4,510 | 18,310 | 18,090 | 17,780 | 17,470 |
| 18 | 4,470 | 17,820 | 17,470 | 17,040 | 16,590 |
| 24 | 4,430 | 17,320 | 16,900 | 16,110 | 15,040 |
| 30 | 4,380 | 16,870 | 16,110 | 14,760 | 13,260 |
| 36 | 4,290 | 16,230 | 15,040 | 13,260 | 11,360 |
| 42 | 4,190 | 15,390 | 13,870 | 11,680 | 9,470 |
| 48 | 4,070 | 14,460 | 12,630 | 10,090 | 7,670 |
| 60 | 3,770 | 12,470 | 10,090 | 7,090 | 4,920 |
| 72 | 3,370 | 10,410 | 7,670 | 4,920 | 3,420 |
| 84 | 2,880 | 8,400 | 5,650 | 3,620 | ** |

| Unbraced Height | Max. Slot Face Load | Max. Column Load Applied at C.G. | | | |
|-----------------|---------------------|----------------------------------|----------|---------|---------|
| | | K = 0.65 | K = 0.80 | K = 1.0 | K = 1.2 |
| mm | kN | kN | kN | kN | kN |
| 300 | 20.1 | 81.5 | 80.6 | 79.2 | 77.8 |
| 450 | 19.9 | 79.4 | 77.8 | 75.9 | 74.1 |
| 600 | 19.7 | 77.2 | 75.4 | 72.0 | 67.4 |
| 750 | 19.5 | 75.2 | 72.0 | 66.1 | 59.6 |
| 900 | 19.1 | 72.6 | 67.4 | 59.6 | 51.3 |
| 1,050 | 18.7 | 68.9 | 62.3 | 52.7 | 43.0 |
| 1,200 | 18.2 | 64.9 | 56.9 | 45.8 | 35.1 |
| 1,500 | 16.9 | 56.2 | 45.8 | 32.6 | 22.6 |
| 1,800 | 15.2 | 47.2 | 35.1 | 22.6 | 15.7 |
| 2,100 | 13.0 | 38.3 | 26.0 | 16.6 | ** |

* Load limited by spot weld shear

** KL/r > 200

NR = Not Recommended

Beam loads shown are total uniform load, including the channel weight, for a simple span supported at each end that is adequately laterally braced.

Refer to pages 20 -23 for other beam support conditions.

Refer to page 77 for load reduction factor for an unbraced beam length.

Beam Loading of Punched Channels

Load for punched channel is obtained by multiplying the loads shown by the following reduction factors:

SS - Channel with Short Slots 0.90

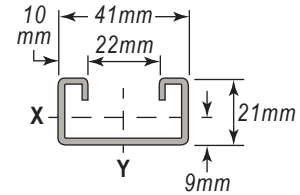
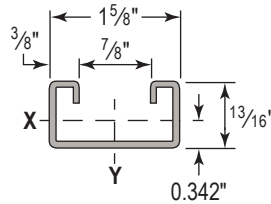
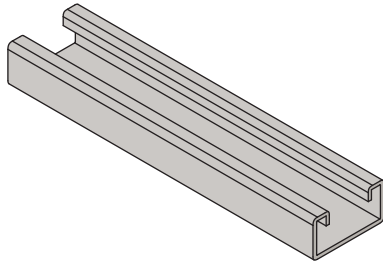


W500 & W501 - 14 Gauge Channel



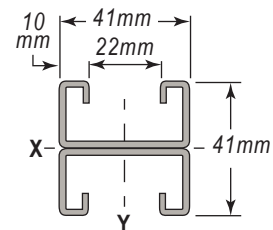
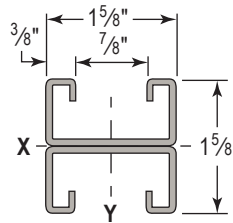
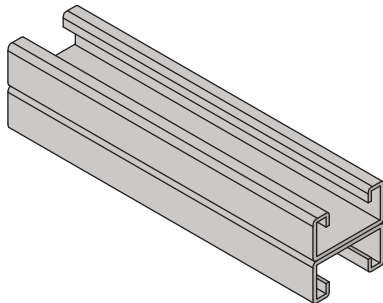
W500: 1⁵/₈" x 1³/₁₆" (41mm x 21mm) & W501: 1⁵/₈" x 1⁵/₈" (41mm x 41mm)

W500: 1⁵/₈" x 1³/₁₆" (41mm x 21mm)



Available in 10', 20' & Pre-Cut lengths see page 56 • Finishes: PG, HG, GR, PL, Gold, EA, ST304, & ST316

W501: 1⁵/₈" x 1⁵/₈" (41mm x 41mm)

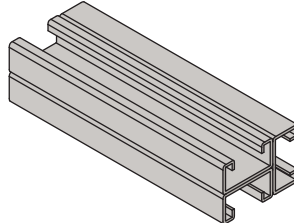


Available in 10', 20' & Pre-Cut lengths see page 57 • Finishes: PG, HG, GR, PL, Gold, EA, ST304, & ST316

W501 Series Combination Channel

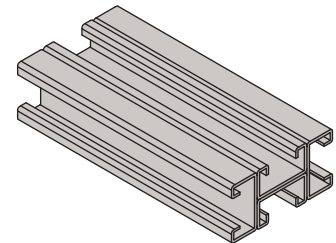
W503

1⁵/₈" x 2⁷/₁₆"
(41mm x 62mm)



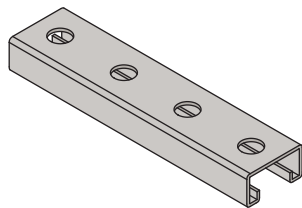
W504

3¹/₄" x 1⁵/₈"
(83mm x 41mm)



Pierced Channel

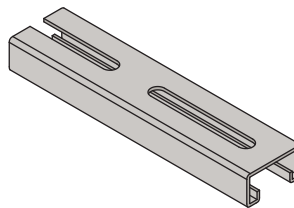
W500H



Channel With Holes

⁹/₁₆" Holes are punched on 1-7/8" centers.

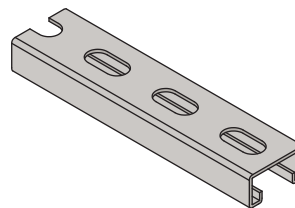
W500SL



Channel With Long Slots

¹³/₃₂" x 3" Slots are punched on 4" centers.

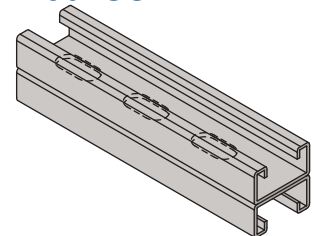
W500SS



Channel With Short Slots

⁹/₁₆" x 1-1/8" Slots are punched on 2" centers.

W501SS



Channel With Short Slots

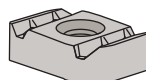
⁹/₁₆" x 1-1/8" Slots are punched on 2" centers.

Related Channel Nuts (See Pages 81 - 82)

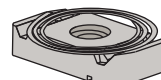
Channel Nut with Short Spring



Channel Nut Without Spring



Channel Nut with Top-Lock Spring



Rapid Strut Slide Nut

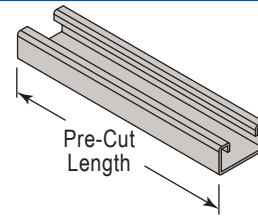




W500 Pre-Cut Channel

1⁵/₈" x 1³/₁₆" (41mm x 21mm) - 14 Gauge

W500: 1⁵/₈" x 1³/₁₆" (41mm x 21mm) - Solid Channel - Pre-Cut Lengths



| W500 - 1 ⁵ / ₈ " x 1 ³ / ₁₆ " - 14 Gauge - Solid Channel | | | |
|--|------------|---------------|---------------|
| Pre-Cut Length | Steel - PG | ST304 | ST316 |
| 6" (15.2cm) | W500PG6IN | W500ST3046IN | W500ST3166IN |
| 12" (0.31m) | W500PG12IN | W500ST30412IN | W500ST31612IN |
| 18" (0.45m) | W500PG18IN | W500ST30418IN | W500ST31618IN |
| 24" (0.61m) | W500PG24IN | W500ST30424IN | W500ST31624IN |
| 30" (0.76m) | W500PG30IN | W500ST30430IN | W500ST31630IN |
| 36" (0.91m) | W500PG36IN | W500ST30436IN | W500ST31636IN |
| 42" (1.07m) | W500PG42IN | W500ST30442IN | W500ST31642IN |
| 48" (1.22m) | W500PG48IN | W500ST30448IN | W500ST31648IN |
| 54" (1.37m) | W500PG54IN | W500ST30454IN | W500ST31654IN |
| 60" (1.52m) | W500PG60IN | W500ST30460IN | W500ST31660IN |
| 72" (1.83m) | W500PG72IN | W500ST30472IN | W500ST31672IN |
| 80" (2.03m) | W500PG80IN | W500ST30480IN | W500ST31680IN |
| 96" (2.44m) | W500PG96IN | W500ST30496IN | W500ST31696IN |
| 10' (3.05m) | W500PG10 | W500ST30410 | W500ST31610 |
| 20' (6.10m) | W500PG20 | W500ST30420 | W500ST31620 |

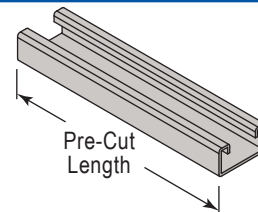
Note: Minimum order quantity is 100 pieces for any size under 10'.

W500SS: 1⁵/₈" x 1³/₁₆" (41mm x 21mm) - Channel with Short Slots - Pre-Cut Lengths



Channel With Short Slots

9/16" x 1-1/8" (14mm x 29mm) Slots
are punched on 2" (51mm) centers.



| W500SS - 1 ⁵ / ₈ " x 1 ³ / ₁₆ " - 14 Gauge - Channel with Short Slots | | | |
|---|--------------|-----------------|-----------------|
| Pre-Cut Length | Steel - PG | ST304 | ST316 |
| 6" (15.2cm) | W500SSPG6IN | W500SSST3046IN | W500SSST3166IN |
| 12" (0.31m) | W500SSPG12IN | W500SSST30412IN | W500SSST31612IN |
| 18" (0.45m) | W500SSPG18IN | W500SSST30418IN | W500SSST31618IN |
| 24" (0.61m) | W500SSPG24IN | W500SSST30424IN | W500SSST31624IN |
| 30" (0.76m) | W500SSPG30IN | W500SSST30430IN | W500SSST31630IN |
| 36" (0.91m) | W500SSPG36IN | W500SSST30436IN | W500SSST31636IN |
| 42" (1.07m) | W500SSPG42IN | W500SSST30442IN | W500SSST31642IN |
| 48" (1.22m) | W500SSPG48IN | W500SSST30448IN | W500SSST31648IN |
| 54" (1.37m) | W500SSPG54IN | W500SSST30454IN | W500SSST31654IN |
| 60" (1.52m) | W500SSPG60IN | W500SSST30460IN | W500SSST31660IN |
| 72" (1.83m) | W500SSPG72IN | W500SSST30472IN | W500SSST31672IN |
| 80" (2.03m) | W500SSPG80IN | W500SSST30480IN | W500SSST31680IN |
| 96" (2.44m) | W500SSPG96IN | W500SSST30496IN | W500SSST31696IN |
| 10' (3.05m) | W500SSPG10 | W500SSST30410 | W500SSST31610 |
| 20' (6.10m) | W500SSPG20 | W500SSST30420 | W500SSST31620 |

Note: Minimum order quantity is 100 pieces for any size under 10'.

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www.zsi-foster.com



WARNING: These products can expose you to chemicals including lead, which is known to the State of California to cause cancer, and which is known to cause birth defects or other reproductive harm. For more information go to www.P65Warnings.ca.gov.

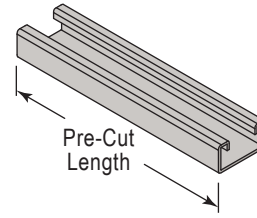
W501 Pre-Cut Channel

1⁵/₈" x 1⁵/₈" (41mm x 41mm) - 14 Gauge



| |
|-------------------------|
| Introduction |
| Channel |
| Channel Nuts & Hardware |
| General Fittings |
| Pipe & Conduit Supports |
| Electrical Fittings |
| Spring Steel |
| Loop & Ring Clamps |
| Beta Clamps & Z-Clamps |
| Concrete Inserts |
| Rooftop Supports |
| Gamma Pads |
| Technical Data |

W501: 1⁵/₈" x 1⁵/₈" (41mm x 41mm) - Solid Channel - Pre-Cut Lengths



| W501 - 1 ⁵ / ₈ " x 1 ⁵ / ₈ " - 14 Gauge - Solid Back-to-Back Channel | | | |
|--|------------|---------------|---------------|
| Pre-Cut Length | Steel - PG | ST304 | ST316 |
| 6" (15.2cm) | W501PG6IN | W501ST3046IN | W501ST3166IN |
| 12" (0.31m) | W501PG12IN | W501ST30412IN | W501ST31612IN |
| 18" (0.45m) | W501PG18IN | W501ST30418IN | W501ST31618IN |
| 24" (0.61m) | W501PG24IN | W501ST30424IN | W501ST31624IN |
| 30" (0.76m) | W501PG30IN | W501ST30430IN | W501ST31630IN |
| 36" (0.91m) | W501PG36IN | W501ST30436IN | W501ST31636IN |
| 42" (1.07m) | W501PG42IN | W501ST30442IN | W501ST31642IN |
| 48" (1.22m) | W501PG48IN | W501ST30448IN | W501ST31648IN |
| 54" (1.37m) | W501PG54IN | W501ST30454IN | W501ST31654IN |
| 60" (1.52m) | W501PG60IN | W501ST30460IN | W501ST31660IN |
| 72" (1.83m) | W501PG72IN | W501ST30472IN | W501ST31672IN |
| 80" (2.03m) | W501PG80IN | W501ST30480IN | W501ST31680IN |
| 96" (2.44m) | W501PG96IN | W501ST30496IN | W501ST31696IN |
| 10' (3.05m) | W501PG10 | W501ST30410 | W501ST31610 |
| 20' (6.10m) | W501PG20 | W501ST30420 | W501ST31620 |

Note: Minimum order quantity is 100 pieces for any size under 10'.





W500 Channel Loads

14 Gauge - 1⁵/₈" x 1³/₁₆" (41mm x 21mm)

Section Properties

| Channel Part No. | Wt./Ft. Lbs. (Kg/M) | Area of Section Sq. in. (Sq. cm) | X-X Axis | | | Y-Y Axis | | |
|------------------|---------------------|----------------------------------|---|---|------------------|---|---|----------------|
| | | | Ix in. ⁴ (Ix cm ⁴) | Sx in. ³ (Sx cm ³) | rx. in. (rx. cm) | Iy in. ⁴ (Iy cm ⁴) | Sy in. ³ (Sy cm ³) | ry in. (ry cm) |
| W500 | 1.00 | 0.295 | 0.026 | 0.056 | 0.297 | 0.109 | 0.135 | 0.609 |
| | (1.49) | (1.90) | (1.08) | (0.92) | (0.75) | (4.54) | (2.21) | (1.55) |

W500 - Allowable Beam Loads

| Span | Max. Uniform Load (W) | Deflection at Load (W) | Uniform Load at Deflection | | |
|------|-----------------------|------------------------|----------------------------|-----------|-----------|
| | | | Span /180 | Span /240 | Span /360 |
| In | Lbs | In | Lbs | Lbs | Lbs |
| 12 | 930 | 0.03 | 930 | 930 | 930 |
| 18 | 620 | 0.06 | 620 | 620 | 510 |
| 24 | 470 | 0.11 | 470 | 430 | 290 |
| 30 | 370 | 0.17 | 370 | 270 | 180 |
| 36 | 310 | 0.24 | 250 | 190 | 130 |
| 42 | 270 | 0.34 | 190 | 140 | 90 |
| 48 | 230 | 0.43 | 140 | 110 | 70 |
| 60 | 190 | 0.69 | 90 | 70 | 50 |
| 72 | 160 | 1.01 | 60 | 50 | 30 |
| 84 | 130 | 1.30 | 50 | 40 | 20 |

| Span | Max. Uniform Load (W) | Deflection at Load (W) | Uniform Load at Deflection | | |
|-------|-----------------------|------------------------|----------------------------|-----------|-----------|
| | | | Span /180 | Span /240 | Span /360 |
| mm | kN | mm | kN | kN | kN |
| 300 | 4.2 | 0.67 | 4.2 | 4.2 | 4.2 |
| 450 | 2.8 | 1.50 | 2.8 | 2.8 | 2.4 |
| 600 | 2.1 | 2.65 | 2.1 | 2.0 | 1.3 |
| 750 | 1.7 | 4.19 | 1.7 | 1.2 | 0.8 |
| 900 | 1.4 | 6.09 | 1.2 | 0.9 | 0.6 |
| 1,050 | 1.2 | 8.16 | 0.8 | 0.6 | 0.4 |
| 1,200 | 1.1 | 10.83 | 0.7 | 0.5 | 0.3 |
| 1,500 | 0.8 | 16.74 | 0.4 | 0.3 | 0.2 |
| 1,800 | 0.7 | 24.37 | 0.3 | 0.2 | 0.1 |
| 2,100 | 0.6 | 33.86 | 0.2 | 0.2 | 0.1 |

W500 - Allowable Column Loads

| Unbraced Height | Max. Slot Face Load | Max. Column Load Applied at C.G. | | | |
|-----------------|---------------------|----------------------------------|----------|---------|---------|
| | | K = 0.65 | K = 0.80 | K = 1.0 | K = 1.2 |
| In | Lbs | Lbs | Lbs | Lbs | Lbs |
| 12 | 2,010 | 6,530 | 6,360 | 6,110 | 5,840 |
| 18 | 1,950 | 6,140 | 5,840 | 5,420 | 5,010 |
| 24 | 1,890 | 5,700 | 5,280 | 4,650 | 3,910 |
| 30 | 1,800 | 5,250 | 4,650 | 3,720 | 2,840 |
| 36 | 1,680 | 4,740 | 3,910 | 2,840 | 1,980 |
| 42 | 1,510 | 4,140 | 3,180 | 2,100 | 1,460 |
| 48 | 1,330 | 3,540 | 2,510 | 1,610 | 1,110 |
| 60 | 1,020 | 2,430 | 1,610 | ** | ** |
| 72 | 780 | 1,690 | 1,110 | ** | ** |
| 84 | ** | 1,240 | ** | ** | ** |

| Unbraced Height | Max. Slot Face Load | Max. Column Load Applied at C.G. | | | |
|-----------------|---------------------|----------------------------------|----------|---------|---------|
| | | K = 0.65 | K = 0.80 | K = 1.0 | K = 1.2 |
| mm | kN | kN | kN | kN | kN |
| 300 | 8.9 | 29.1 | 28.3 | 27.3 | 26.1 |
| 450 | 8.7 | 27.4 | 26.1 | 24.3 | 22.5 |
| 600 | 8.4 | 25.5 | 23.7 | 20.9 | 17.7 |
| 750 | 8.1 | 23.5 | 20.9 | 16.9 | 13.0 |
| 900 | 7.5 | 21.3 | 17.7 | 13.0 | 9.1 |
| 1,050 | 6.8 | 18.7 | 14.5 | 9.6 | 6.7 |
| 1,200 | 6.0 | 16.1 | 11.5 | 7.4 | 5.1 |
| 1,500 | 4.6 | 11.2 | 7.4 | 4.7 | ** |
| 1,800 | 3.6 | 7.7 | 5.1 | ** | ** |
| 2,100 | ** | 5.7 | ** | ** | ** |

** KL/r > 200

NR = Not Recommended

Beam loads shown are total uniform load, including the channel weight, for a simple span supported at each end that is adequately laterally braced.

Refer to pages 20 -23 for other beam support conditions.

Refer to page 77 for load reduction factor for an unbraced beam length.

Beam Loading of Punched Channels

Load for punched channel is obtained by multiplying the loads shown by the following reduction factors:

SS - Channel with Short Slots 0.90

SL - Channel with Long Slots 0.90

H - Channel with Holes 0.95

KO - Knock-Out Channel 0.95



W501 Channel Loads



14 Gauge - 1⁵/₈" x 1⁵/₈" (41mm x 41mm)

Section Properties

| Channel Part No. | Wt./Ft. Lbs. (Kg/M) | Area of Section Sq. in. (Sq. cm) | X-X Axis | | | Y-Y Axis | | |
|------------------|---------------------|----------------------------------|---|---|------------------|---|---|----------------|
| | | | Ix in. ⁴ (Ix cm ⁴) | Sx in. ³ (Sx cm ³) | rx. in. (rx. cm) | Iy in. ⁴ (Iy cm ⁴) | Sy in. ³ (Sy cm ³) | ry in. (ry cm) |
| W501 | 2.01 | 0.59 | 0.122 | 0.15 | 0.454 | 0.219 | 0.269 | 0.609 |
| | (2.99) | (3.81) | (5.08) | (2.46) | (1.15) | (9.12) | (4.41) | (1.55) |

W501 - Allowable Beam Loads

| Span | Max. Uniform Load (W) | Deflection at Load (W) | Uniform Load at Deflection | | |
|------|-----------------------|------------------------|----------------------------|-----------|-----------|
| | | | Span /180 | Span /240 | Span /360 |
| In | Lbs | In | Lbs | Lbs | Lbs |
| 12 | 790 * | 0.00 | 790 * | 790 * | 790 * |
| 18 | 790 * | 0.02 | 790 * | 790 * | 790 * |
| 24 | 790 * | 0.04 | 790 * | 790 * | 790 * |
| 30 | 790 * | 0.08 | 790 * | 790 * | 790 * |
| 36 | 790 * | 0.13 | 790 * | 790 * | 590 |
| 42 | 720 | 0.19 | 720 | 650 | 430 |
| 48 | 630 | 0.25 | 630 | 500 | 330 |
| 60 | 500 | 0.39 | 420 | 320 | 210 |
| 72 | 420 | 0.57 | 300 | 220 | 150 |
| 84 | 360 | 0.78 | 220 | 160 | 110 |

| Span | Max. Uniform Load (W) | Deflection at Load (W) | Uniform Load at Deflection | | |
|-------|-----------------------|------------------------|----------------------------|-----------|-----------|
| | | | Span /180 | Span /240 | Span /360 |
| mm | kN | mm | kN | kN | kN |
| 300 | 3.5 * | 0.12 | 3.5 * | 3.5 * | 3.5 * |
| 450 | 3.5 * | 0.41 | 3.5 * | 3.5 * | 3.5 * |
| 600 | 3.5 * | 0.96 | 3.5 * | 3.5 * | 3.5 * |
| 750 | 3.5 * | 1.88 | 3.5 * | 3.5 * | 3.5 * |
| 900 | 3.5 * | 3.24 | 3.5 * | 3.5 * | 2.7 |
| 1,050 | 3.2 | 4.76 | 3.2 | 3.0 | 2.0 |
| 1,200 | 2.8 | 6.23 | 2.8 | 2.3 | 1.5 |
| 1,500 | 2.3 | 9.69 | 2.0 | 1.5 | 1.0 |
| 1,800 | 1.9 | 13.79 | 1.3 | 1.0 | 0.7 |
| 2,100 | 1.6 | 18.77 | 1.0 | 0.8 | 0.5 |

W501 - Allowable Column Loads

| Unbraced Height | Max. Slot Face Load | Max. Column Load Applied at C.G. | | | |
|-----------------|---------------------|----------------------------------|----------|---------|---------|
| | | K = 0.65 | K = 0.80 | K = 1.0 | K = 1.2 |
| In | Lbs | Lbs | Lbs | Lbs | Lbs |
| 12 | 3,430 | 13,420 | 13,250 | 13,000 | 12,720 |
| 18 | 3,390 | 13,030 | 12,720 | 12,300 | 11,880 |
| 24 | 3,350 | 12,580 | 12,160 | 11,590 | 10,740 |
| 30 | 3,310 | 12,120 | 11,590 | 10,520 | 9,340 |
| 36 | 3,230 | 11,680 | 10,740 | 9,340 | 7,870 |
| 42 | 3,150 | 11,010 | 9,820 | 8,110 | 6,430 |
| 48 | 3,040 | 10,290 | 8,850 | 6,900 | 5,080 |
| 60 | 2,760 | 8,730 | 6,900 | 4,680 | 3,250 |
| 72 | 2,370 | 7,140 | 5,080 | 3,250 | 2,260 |
| 84 | 2,000 | 5,630 | 3,730 | 2,390 | ** |

| Unbraced Height | Max. Slot Face Load | Max. Column Load Applied at C.G. | | | |
|-----------------|---------------------|----------------------------------|----------|---------|---------|
| | | K = 0.65 | K = 0.80 | K = 1.0 | K = 1.2 |
| mm | kN | kN | kN | kN | kN |
| 300 | 15.3 | 59.7 | 59.0 | 57.9 | 56.7 |
| 450 | 15.1 | 58.0 | 56.7 | 54.8 | 53.0 |
| 600 | 14.9 | 56.1 | 54.2 | 51.8 | 48.1 |
| 750 | 14.7 | 54.1 | 51.8 | 47.2 | 42.0 |
| 900 | 14.4 | 52.1 | 48.1 | 42.0 | 35.6 |
| 1,050 | 14.1 | 49.3 | 44.1 | 36.7 | 29.3 |
| 1,200 | 13.6 | 46.2 | 39.9 | 31.4 | 23.3 |
| 1,500 | 12.4 | 39.4 | 31.4 | 21.5 | 14.9 |
| 1,800 | 10.7 | 32.4 | 23.3 | 14.9 | 10.4 |
| 2,100 | 9.1 | 25.8 | 17.1 | 11.0 | ** |

* Load limited by spot weld shear

** KL/r > 200

NR = Not Recommended

Beam loads shown are total uniform load, including the channel weight, for a simple span supported at each end that is adequately laterally braced.

Refer to pages 20 - 23 for other beam support conditions.

Refer to page 77 for load reduction factor for an unbraced beam length.

Beam Loading of Punched Channels

Load for punched channel is obtained by multiplying the loads shown by the following reduction factors:

SS - Channel with Short Slots 0.90

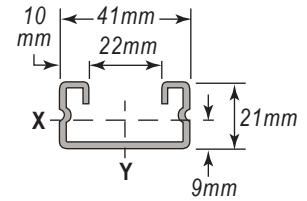
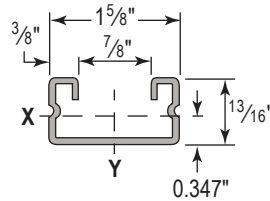
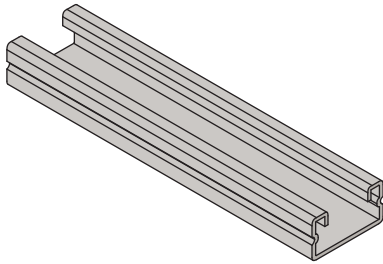




W400 & W401 - 16 Gauge Channel

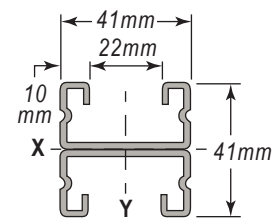
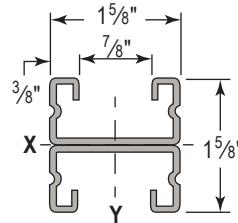
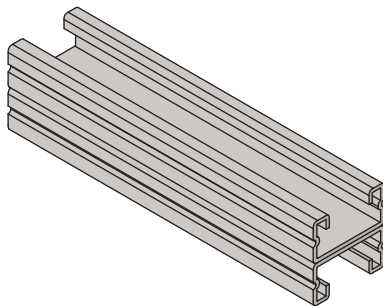
W400: 1⁵/₈" x 1³/₁₆" (41mm x 21mm) & W401: 1⁵/₈" x 1⁵/₈" (41mm x 41mm)

W400: 1⁵/₈" x 1³/₁₆" (41mm x 21mm)



Available in 10' & 20' Lengths • Finishes: PG, HG, GR, PL, Gold, ST304, & ST316

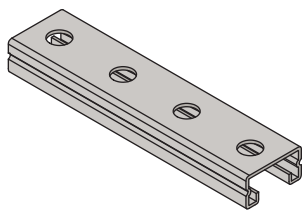
W401: 1⁵/₈" x 1⁵/₈" (41mm x 41mm)



Available in 10' & 20' Lengths • Finishes: PG, HG, GR, PL, Gold, ST304, & ST316

Pierced Channel

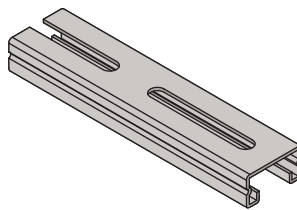
W400H



Channel With Holes

⁹/₁₆" Holes are punched on 1-⁷/₈" centers.

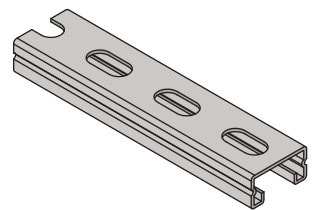
W400SL



Channel With Long Slots

¹³/₃₂" x 3" Slots are punched on 4" centers.

W400SS



Channel With Short Slots

⁹/₁₆" x 1-¹/₈" Slots are punched on 2" centers.

Related Channel Nuts (See Pages 81 - 82)

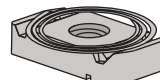
Channel Nut with Short Spring



Channel Nut Without Spring



Channel Nut with Top-Lock Spring



Rapid Strut Slide Nut



W400 Channel Loads



16 Gauge - 1⁵/₈" x 1³/₁₆" (41mm x 21mm)

Section Properties

| Channel Part No. | Wt./Ft. Lbs. (Kg/M) | Area of Section Sq. in. (Sq. cm) | X-X Axis | | | Y-Y Axis | | |
|------------------|---------------------|----------------------------------|---|---|------------------|---|---|----------------|
| | | | Ix in. ⁴ (Ix cm ⁴) | Sx in. ³ (Sx cm ³) | rx. in. (rx. cm) | Iy in. ⁴ (Iy cm ⁴) | Sy in. ³ (Sy cm ³) | ry in. (ry cm) |
| W400 | 0.83 | 0.244 | 0.023 | 0.05 | 0.31 | 0.092 | 0.113 | 0.614 |
| | (1.24) | (1.57) | (0.96) | (0.82) | (0.79) | (3.83) | (1.85) | (1.56) |

W400 - Allowable Beam Loads

| Span | Max. Uniform Load (W) | Deflection at Load (W) | Uniform Load at Deflection | | |
|------|-----------------------|------------------------|----------------------------|-----------|-----------|
| | | | Span /180 | Span /240 | Span /360 |
| In | Lbs | In | Lbs | Lbs | Lbs |
| 12 | 840 | 0.03 | 840 | 840 | 840 |
| 18 | 560 | 0.06 | 560 | 560 | 450 |
| 24 | 420 | 0.11 | 420 | 380 | 260 |
| 30 | 330 | 0.17 | 330 | 250 | 160 |
| 36 | 280 | 0.25 | 230 | 170 | 110 |
| 42 | 240 | 0.34 | 170 | 130 | 80 |
| 48 | 210 | 0.44 | 130 | 100 | 60 |
| 60 | 170 | 0.69 | 80 | 60 | 40 |
| 72 | 140 | 0.99 | 60 | 40 | 30 |
| 84 | 120 | 1.34 | 40 | 30 | 20 |

| Span | Max. Uniform Load (W) | Deflection at Load (W) | Uniform Load at Deflection | | |
|-------|-----------------------|------------------------|----------------------------|-----------|-----------|
| | | | Span /180 | Span /240 | Span /360 |
| mm | kN | mm | kN | kN | kN |
| 300 | 3.8 | 0.67 | 3.8 | 3.8 | 3.8 |
| 450 | 2.5 | 1.52 | 2.5 | 2.5 | 2.1 |
| 600 | 1.9 | 2.72 | 1.9 | 1.8 | 1.2 |
| 750 | 1.5 | 4.19 | 1.5 | 1.1 | 0.8 |
| 900 | 1.2 | 5.97 | 1.0 | 0.8 | 0.5 |
| 1,050 | 1.1 | 8.12 | 0.8 | 0.6 | 0.4 |
| 1,200 | 0.9 | 10.61 | 0.6 | 0.4 | 0.3 |
| 1,500 | 0.8 | 16.77 | 0.4 | 0.3 | 0.2 |
| 1,800 | 0.6 | 23.87 | 0.3 | 0.2 | 0.1 |
| 2,100 | 0.5 | 32.49 | 0.2 | 0.1 | 0.1 |

W400 - Allowable Column Loads

| Unbraced Height | Max. Slot Face Load | Max. Column Load Applied at C.G. | | | |
|-----------------|---------------------|----------------------------------|----------|---------|---------|
| | | K = 0.65 | K = 0.80 | K = 1.0 | K = 1.2 |
| In | Lbs | Lbs | Lbs | Lbs | Lbs |
| 12 | 1,780 | 5,390 | 5,250 | 5,040 | 4,800 |
| 18 | 1,720 | 5,070 | 4,800 | 4,420 | 4,030 |
| 24 | 1,650 | 4,680 | 4,290 | 3,780 | 3,310 |
| 30 | 1,570 | 4,260 | 3,780 | 3,210 | 2,520 |
| 36 | 1,470 | 3,840 | 3,310 | 2,520 | 1,780 |
| 42 | 1,340 | 3,460 | 2,800 | 1,880 | 1,310 |
| 48 | 1,180 | 3,080 | 2,250 | 1,440 | 1,000 |
| 60 | 890 | 2,180 | 1,440 | 920 | ** |
| 72 | 690 | 1,520 | 1,000 | ** | ** |
| 84 | ** | 1,110 | ** | ** | ** |

| Unbraced Height | Max. Slot Face Load | Max. Column Load Applied at C.G. | | | |
|-----------------|---------------------|----------------------------------|----------|---------|---------|
| | | K = 0.65 | K = 0.80 | K = 1.0 | K = 1.2 |
| mm | kN | kN | kN | kN | kN |
| 300 | 7.9 | 24.0 | 23.4 | 22.5 | 21.4 |
| 450 | 7.7 | 22.6 | 21.4 | 19.8 | 18.1 |
| 600 | 7.4 | 20.9 | 19.2 | 17.0 | 14.9 |
| 750 | 7.0 | 19.1 | 17.0 | 14.5 | 11.5 |
| 900 | 6.6 | 17.3 | 14.9 | 11.5 | 8.2 |
| 1,050 | 6.0 | 15.6 | 12.7 | 8.6 | 6.0 |
| 1,200 | 5.3 | 14.0 | 10.3 | 6.6 | 4.6 |
| 1,500 | 4.0 | 10.0 | 6.6 | 4.2 | ** |
| 1,800 | 3.2 | 6.9 | 4.6 | ** | ** |
| 2,100 | ** | 5.1 | ** | ** | ** |

** KL/r > 200

NR = Not Recommended

Beam loads shown are total uniform load, including the channel weight, for a simple span supported at each end that is adequately laterally braced.

Refer to pages 20 - 23 for other beam support conditions.

Refer to page 77 for load reduction factor for an unbraced beam length.

Beam Loading of Punched Channels

Load for punched channel is obtained by multiplying the loads shown by the following reduction factors:

| | |
|-------------------------------|------|
| SS - Channel with Short Slots | 0.90 |
| SL - Channel with Long Slots | 0.90 |
| H - Channel with Holes | 0.95 |
| KO - Knock-Out Channel | 0.95 |





W401 Channel Loads

16 Gauge - 1⁵/₈" x 1⁵/₈" (41mm x 41mm)

Section Properties

| Channel Part No. | Wt./Ft. Lbs. (Kg/M) | Area of Section Sq. in. (Sq. cm) | X-X Axis | | | Y-Y Axis | | |
|------------------|---------------------|----------------------------------|---|---|------------------|---|---|----------------|
| | | | Ix in. ⁴ (Ix cm ⁴) | Sx in. ³ (Sx cm ³) | rx. in. (rx. cm) | Iy in. ⁴ (Iy cm ⁴) | Sy in. ³ (Sy cm ³) | ry in. (ry cm) |
| W401 | 1.66 | 0.487 | 0.105 | 0.129 | 0.463 | 0.184 | 0.226 | 0.614 |
| | (2.47) | (3.14) | (4.37) | (2.11) | (1.18) | (7.66) | (3.70) | (1.56) |

W401 - Allowable Beam Loads

| Span | Max. Uniform Load (W) | Deflection at Load (W) | Uniform Load at Deflection | | |
|------|-----------------------|------------------------|----------------------------|-----------|-----------|
| | | | Span /180 | Span /240 | Span /360 |
| In | Lbs | In | Lbs | Lbs | Lbs |
| 12 | 500 * | 0.00 | 500 * | 500 * | 500 * |
| 18 | 500 * | 0.01 | 500 * | 500 * | 500 * |
| 24 | 500 * | 0.03 | 500 * | 500 * | 500 * |
| 30 | 500 * | 0.06 | 500 * | 500 * | 500 * |
| 36 | 500 * | 0.10 | 500 * | 500 * | 500 * |
| 42 | 500 * | 0.16 | 500 * | 500 * | 370 |
| 48 | 500 * | 0.23 | 500 * | 430 | 290 |
| 60 | 430 | 0.39 | 370 | 270 | 180 |
| 72 | 360 | 0.57 | 250 | 190 | 130 |
| 84 | 310 | 0.78 | 190 | 140 | 90 |

| Span | Max. Uniform Load (W) | Deflection at Load (W) | Uniform Load at Deflection | | |
|-------|-----------------------|------------------------|----------------------------|-----------|-----------|
| | | | Span /180 | Span /240 | Span /360 |
| mm | kN | mm | kN | kN | kN |
| 300 | 2.2 * | 0.09 | 2.2 * | 2.2 * | 2.2 * |
| 450 | 2.2 * | 0.30 | 2.2 * | 2.2 * | 2.2 * |
| 600 | 2.2 * | 0.71 | 2.2 * | 2.2 * | 2.2 * |
| 750 | 2.2 * | 1.38 | 2.2 * | 2.2 * | 2.2 * |
| 900 | 2.2 * | 2.38 | 2.2 * | 2.2 * | 2.2 * |
| 1,050 | 2.2 * | 3.79 | 2.2 * | 2.2 * | 1.7 |
| 1,200 | 2.2 * | 5.65 | 2.2 * | 2.0 | 1.3 |
| 1,500 | 2.0 | 9.71 | 1.7 | 1.2 | 0.8 |
| 1,800 | 1.6 | 14.11 | 1.2 | 0.9 | 0.6 |
| 2,100 | 1.4 | 18.78 | 0.8 | 0.6 | 0.4 |

W401 - Allowable Column Loads

| Unbraced Height | Max. Slot Face Load | Max. Column Load Applied at C.G. | | | |
|-----------------|---------------------|----------------------------------|----------|---------|---------|
| | | K = 0.65 | K = 0.80 | K = 1.0 | K = 1.2 |
| In | Lbs | Lbs | Lbs | Lbs | Lbs |
| 12 | 2,920 | 11,090 | 10,960 | 10,750 | 10,520 |
| 18 | 2,890 | 10,780 | 10,520 | 10,140 | 9,740 |
| 24 | 2,850 | 10,390 | 10,000 | 9,470 | 8,960 |
| 30 | 2,800 | 9,970 | 9,470 | 8,810 | 7,870 |
| 36 | 2,760 | 9,540 | 8,960 | 7,870 | 6,700 |
| 42 | 2,690 | 9,120 | 8,260 | 6,900 | 5,530 |
| 48 | 2,600 | 8,630 | 7,490 | 5,920 | 4,440 |
| 60 | 2,350 | 7,390 | 5,920 | 4,090 | 2,840 |
| 72 | 2,030 | 6,110 | 4,440 | 2,840 | 1,970 |
| 84 | 1,710 | 4,880 | 3,260 | 2,090 | ** |

| Unbraced Height | Max. Slot Face Load | Max. Column Load Applied at C.G. | | | |
|-----------------|---------------------|----------------------------------|----------|---------|---------|
| | | K = 0.65 | K = 0.80 | K = 1.0 | K = 1.2 |
| mm | kN | kN | kN | kN | kN |
| 300 | 13.0 | 49.4 | 48.8 | 47.9 | 46.9 |
| 450 | 12.9 | 48.0 | 46.9 | 45.2 | 43.5 |
| 600 | 12.7 | 46.4 | 44.7 | 42.3 | 40.1 |
| 750 | 12.5 | 44.5 | 42.3 | 39.5 | 35.4 |
| 900 | 12.3 | 42.6 | 40.1 | 35.4 | 30.3 |
| 1,050 | 12.0 | 40.7 | 37.1 | 31.1 | 25.2 |
| 1,200 | 11.6 | 38.7 | 33.7 | 26.9 | 20.3 |
| 1,500 | 10.5 | 33.3 | 26.9 | 18.8 | 13.0 |
| 1,800 | 9.2 | 27.7 | 20.3 | 13.0 | 9.1 |
| 2,100 | 7.7 | 22.3 | 15.0 | 9.6 | ** |

* Load limited by spot weld shear

** KL/r > 200

NR = Not Recommended

Beam loads shown are total uniform load, including the channel weight, for a simple span supported at each end that is adequately laterally braced.

Refer to pages 20 -23 for other beam support conditions.

Refer to page 77 for load reduction factor for an unbraced beam length.

Beam Loading of Punched Channels

Load for punched channel is obtained by multiplying the loads shown by the following reduction factors:

SS - Channel with Short Slots 0.90

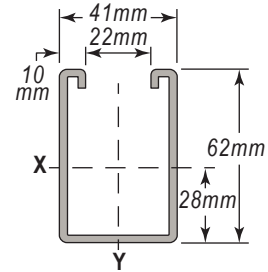
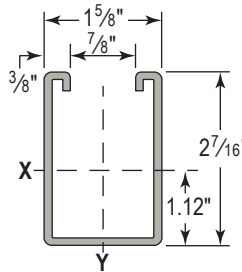
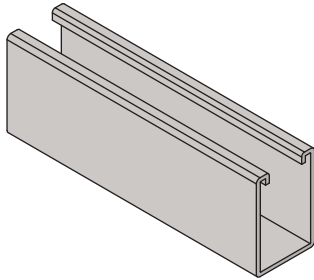


W100 & W101 - 12 Gauge Channel



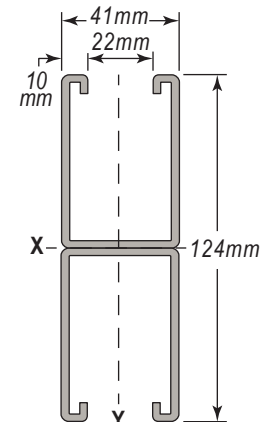
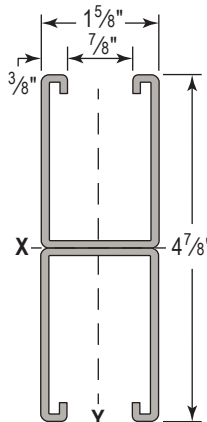
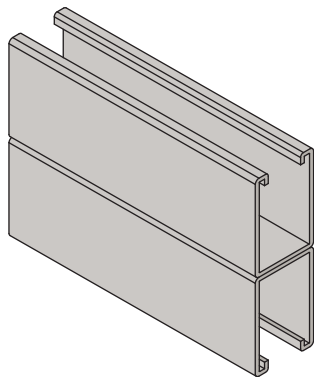
W100: 1⁵/₈" x 2⁷/₁₆" (41mm x 62mm) & W101: 1⁵/₈" x 4⁷/₈" (41mm x 124mm)

W100: 1⁵/₈" x 2⁷/₁₆" (41mm x 62mm)



Available in 10', 20' & Pre-Cut lengths see next page • Finishes: PG, HG, GR, PL, Gold, ST304, & ST316

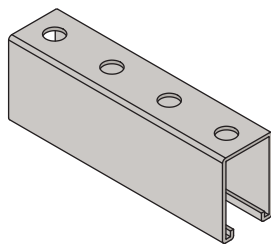
W101: 1⁵/₈" x 4⁷/₈" (41mm x 124mm)



Available in 10' & 20' lengths • Finishes: PG, HG, GR, PL, Gold, ST304, & ST316

Pierced Channel

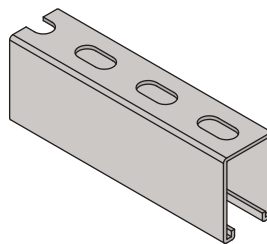
W100H



Channel With Holes

⁹/₁₆" Holes are punched on 1⁷/₈" centers.

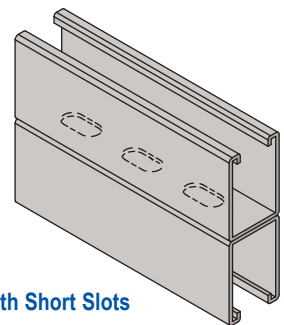
W100SS



Channel With Short Slots

⁹/₁₆" x 1¹/₈" Slots are punched on 2" centers.

W101SS

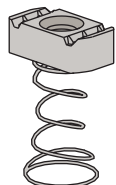


Channel With Short Slots

⁹/₁₆" x 1¹/₈" Slots are punched on 2" centers.

Related Channel Nuts (See Pages 81 - 82)

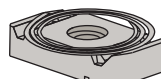
Channel Nut with Long Spring



Channel Nut Without Spring



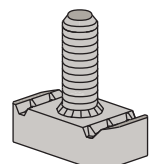
Channel Nut with Top-Lock Spring



Rapid Strut Slide Nut



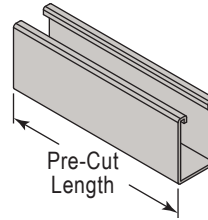
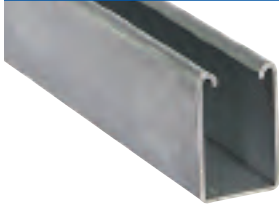
Stud Nut without Spring





W100 Pre-Cut Channel

W100: 1⁵/₈" x 2⁷/₁₆" (41mm x 62mm) - Solid Channel - Pre-Cut Lengths

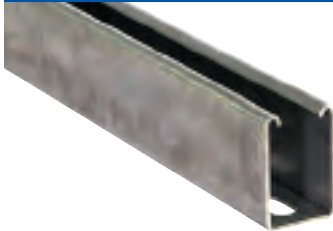


W100 - 1⁵/₈" x 2⁷/₁₆" - 12 Gauge Solid Channel

| Pre-Cut Length | Steel - PG | ST304 | ST316 |
|----------------|------------|---------------|---------------|
| 6" (15.2cm) | W100PG6IN | W100ST3046IN | W100ST3166IN |
| 12" (0.31m) | W100PG12IN | W100ST30412IN | W100ST31612IN |
| 18" (0.45m) | W100PG18IN | W100ST30418IN | W100ST31618IN |
| 24" (0.61m) | W100PG24IN | W100ST30424IN | W100ST31624IN |
| 30" (0.76m) | W100PG30IN | W100ST30430IN | W100ST31630IN |
| 36" (0.91m) | W100PG36IN | W100ST30436IN | W100ST31636IN |
| 42" (1.07m) | W100PG42IN | W100ST30442IN | W100ST31642IN |
| 48" (1.22m) | W100PG48IN | W100ST30448IN | W100ST31648IN |
| 54" (1.37m) | W100PG54IN | W100ST30454IN | W100ST31654IN |
| 60" (1.52m) | W100PG60IN | W100ST30460IN | W100ST31660IN |
| 72" (1.83m) | W100PG72IN | W100ST30472IN | W100ST31672IN |
| 80" (2.03m) | W100PG80IN | W100ST30480IN | W100ST31680IN |
| 96" (2.44m) | W100PG96IN | W100ST30496IN | W100ST31696IN |
| 10' (3.05m) | W100PG10 | W100ST30410 | W100ST31610 |
| 20' (6.10m) | W100PG20 | W100ST30420 | W100ST31620 |

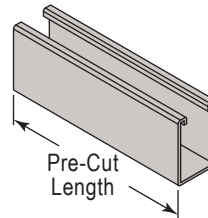
Note: Minimum order quantity is 100 pieces for any size under 10'.

W100SS: 1⁵/₈" x 2⁷/₁₆" (41mm x 62mm) - Channel with Short Slots - Pre-Cut Lengths



Channel With Short Slots

⁹/₁₆" x 1¹/₈" (14mm x 29mm) Slots
are punched on 2" (51mm) centers.



W100SS - 1⁵/₈" x 2⁷/₁₆" - 12 Gauge - Channel with Short Slots

| Pre-Cut Length | Steel - PG | ST304 | ST316 |
|----------------|--------------|-----------------|-----------------|
| 6" (15.2cm) | W100SSPG6IN | W100SSST3046IN | W100SSST3166IN |
| 12" (0.31m) | W100SSPG12IN | W100SSST30412IN | W100SSST31612IN |
| 18" (0.45m) | W100SSPG18IN | W100SSST30418IN | W100SSST31618IN |
| 24" (0.61m) | W100SSPG24IN | W100SSST30424IN | W100SSST31624IN |
| 30" (0.76m) | W100SSPG30IN | W100SSST30430IN | W100SSST31630IN |
| 36" (0.91m) | W100SSPG36IN | W100SSST30436IN | W100SSST31636IN |
| 42" (1.07m) | W100SSPG42IN | W100SSST30442IN | W100SSST31642IN |
| 48" (1.22m) | W100SSPG48IN | W100SSST30448IN | W100SSST31648IN |
| 54" (1.37m) | W100SSPG54IN | W100SSST30454IN | W100SSST31654IN |
| 60" (1.52m) | W100SSPG60IN | W100SSST30460IN | W100SSST31660IN |
| 72" (1.83m) | W100SSPG72IN | W100SSST30472IN | W100SSST31672IN |
| 80" (2.03m) | W100SSPG80IN | W100SSST30480IN | W100SSST31680IN |
| 96" (2.44m) | W100SSPG96IN | W100SSST30496IN | W100SSST31696IN |
| 10' (3.05m) | W100SSPG10 | W100SSST30410 | W100SSST31610 |
| 20' (6.10m) | W100SSPG20 | W100SSST30420 | W100SSST31620 |

Note: Minimum order quantity is 100 pieces for any size under 10'.



W100 Channel Loads



12 Gauge - 1⁵/₈" x 2⁷/₁₆" (41mm x 62mm)

Section Properties

| Channel Part No. | Wt./Ft. Lbs. (Kg/M) | Area of Section Sq. in. (Sq. cm) | X-X Axis | | | Y-Y Axis | | |
|------------------|---------------------|----------------------------------|---|---|------------------|---|---|----------------|
| | | | Ix in. ⁴ (Ix cm ⁴) | Sx in. ³ (Sx cm ³) | rx. in. (rx. cm) | Iy in. ⁴ (Iy cm ⁴) | Sy in. ³ (Sy cm ³) | ry in. (ry cm) |
| W100 | 2.49 | 0.732 | 0.530 | 0.400 | 0.851 | 0.337 | 0.415 | 0.679 |
| | (3.71) | (4.72) | (22.06) | (6.55) | (2.16) | (14.03) | (6.80) | (1.72) |

W100 - Allowable Beam Loads

| Span | Max. Uniform Load (W) | Deflection at Load (W) | Uniform Load at Deflection | | |
|------|-----------------------|------------------------|----------------------------|-----------|-----------|
| | | | Span /180 | Span /240 | Span /360 |
| In | Lbs | In | Lbs | Lbs | Lbs |
| 12 | 6,700 | 0.01 | 6,700 | 6,700 | 6,700 |
| 24 | 3,350 | 0.04 | 3,350 | 3,350 | 3,350 |
| 36 | 2,230 | 0.09 | 2,230 | 2,230 | 2,230 |
| 48 | 1,670 | 0.15 | 1,670 | 1,670 | 1,450 |
| 60 | 1,340 | 0.24 | 1,340 | 1,340 | 930 |
| 72 | 1,120 | 0.35 | 1,120 | 960 | 640 |
| 84 | 960 | 0.47 | 940 | 710 | 470 |
| 96 | 840 | 0.62 | 720 | 540 | 360 |
| 108 | 740 | 0.78 | 570 | 430 | 290 |
| 120 | 670 | 0.96 | 460 | 350 | 230 |

| Span | Max. Uniform Load (W) | Deflection at Load (W) | Uniform Load at Deflection | | |
|-------|-----------------------|------------------------|----------------------------|-----------|-----------|
| | | | Span /180 | Span /240 | Span /360 |
| mm | kN | mm | kN | kN | kN |
| 300 | 30.3 | 0.24 | 30.3 | 30.3 | 30.3 |
| 600 | 15.1 | 0.95 | 15.1 | 15.1 | 15.1 |
| 900 | 10.1 | 2.14 | 10.1 | 10.1 | 10.1 |
| 1,200 | 7.6 | 3.79 | 7.6 | 7.6 | 6.6 |
| 1,500 | 6.0 | 5.93 | 6.0 | 6.0 | 4.3 |
| 1,800 | 5.0 | 8.51 | 5.0 | 4.4 | 2.9 |
| 2,100 | 4.3 | 11.60 | 4.3 | 3.2 | 2.2 |
| 2,400 | 3.8 | 15.18 | 3.3 | 2.5 | 1.6 |
| 2,700 | 3.4 | 19.32 | 2.6 | 2.0 | 1.3 |
| 3,000 | 3.0 | 23.71 | 2.1 | 1.6 | 1.1 |

W100 - Allowable Column Loads

| Unbraced Height | Max. Slot Face Load | Max. Column Load Applied at C.G. | | | |
|-----------------|---------------------|----------------------------------|----------|---------|---------|
| | | K = 0.65 | K = 0.80 | K = 1.0 | K = 1.2 |
| In | Lbs | Lbs | Lbs | Lbs | Lbs |
| 12 | 5,090 | 16,190 | 15,760 | 15,090 | 14,330 |
| 24 | 4,720 | 13,920 | 12,640 | 10,890 | 9,220 |
| 36 | 4,020 | 11,110 | 9,220 | 7,040 | 5,370 |
| 48 | 3,210 | 8,440 | 6,400 | 4,630 | 3,640 |
| 60 | 2,570 | 6,250 | 4,630 | 3,460 | 2,780 |
| 72 | 2,130 | 4,790 | 3,640 | 2,780 | 2,270 |
| 84 | 1,810 | 3,900 | 3,010 | 2,340 | 1,920 |
| 96 | 1,580 | 3,290 | 2,590 | 2,020 | 1,660 |
| 108 | 1,400 | 2,860 | 2,270 | 1,780 | 1,450 |
| 120 | 1,270 | 2,540 | 2,020 | 1,580 | ** |

| Unbraced Height | Max. Slot Face Load | Max. Column Load Applied at C.G. | | | |
|-----------------|---------------------|----------------------------------|----------|---------|---------|
| | | K = 0.65 | K = 0.80 | K = 1.0 | K = 1.2 |
| mm | kN | kN | kN | kN | kN |
| 300 | 22.7 | 72.1 | 70.3 | 67.4 | 64.1 |
| 600 | 21.0 | 62.3 | 56.7 | 49.1 | 41.7 |
| 900 | 18.1 | 50.0 | 41.7 | 32.0 | 24.5 |
| 1,200 | 14.5 | 38.3 | 29.2 | 21.0 | 16.5 |
| 1,500 | 11.6 | 28.5 | 21.0 | 15.7 | 12.6 |
| 1,800 | 9.6 | 21.8 | 16.5 | 12.6 | 10.3 |
| 2,100 | 8.2 | 17.7 | 13.7 | 10.6 | 8.7 |
| 2,400 | 7.1 | 14.9 | 11.7 | 9.2 | 7.5 |
| 2,700 | 6.4 | 13.0 | 10.3 | 8.1 | 6.6 |
| 3,000 | 5.7 | 11.5 | 9.2 | 7.2 | ** |

** KL/r > 200

NR = Not Recommended

Beam loads shown are total uniform load, including the channel weight, for a simple span supported at each end that is adequately laterally braced.

Refer to pages 20 - 23 for other beam support conditions.

Refer to page 77 for load reduction factor for an unbraced beam length.

Beam Loading of Punched Channels

Load for punched channel is obtained by multiplying the loads shown by the following reduction factors:

| | |
|-------------------------------|------|
| SS - Channel with Short Slots | 0.90 |
| SL - Channel with Long Slots | 0.90 |
| H - Channel with Holes | 0.95 |
| KO - Knock-Out Channel | 0.95 |





W101 Channel Loads

12 Gauge - 1⁵/₈" x 4⁷/₈" (41mm x 124mm)

Section Properties

| Channel Part No. | Wt./Ft. Lbs. (Kg/M) | Area of Section Sq. in. (Sq. cm) | X-X Axis | | | Y-Y Axis | | |
|------------------|---------------------|----------------------------------|---|---|-----------------|---|---|----------------|
| | | | Ix in. ⁴ (Ix cm ⁴) | Sx in. ³ (Sx cm ³) | rx in. (rx. cm) | Iy in. ⁴ (Iy cm ⁴) | Sy in. ³ (Sy cm ³) | ry in. (ry cm) |
| W101 | 4.98 | 1.463 | 2.867 | 1.176 | 1.400 | 0.674 | 0.829 | 0.679 |
| | (7.41) | (9.44) | (119.33) | (19.27) | (3.56) | (28.05) | (13.58) | (1.72) |

W101 - Allowable Beam Loads

| Span | Max. Uniform Load (W) | Deflection at Load (W) | Uniform Load at Deflection | | |
|------|-----------------------|------------------------|----------------------------|-----------|-----------|
| | | | Span /180 | Span /240 | Span /360 |
| In | Lbs | In | Lbs | Lbs | Lbs |
| 12 | 3,710 * | 0.00 | 3,710 * | 3,710 * | 3,710 * |
| 24 | 3,710 * | 0.01 | 3,710 * | 3,710 * | 3,710 * |
| 36 | 3,710 * | 0.03 | 3,710 * | 3,710 * | 3,710 * |
| 48 | 3,710 * | 0.06 | 3,710 * | 3,710 * | 3,710 * |
| 60 | 3,710 * | 0.12 | 3,710 * | 3,710 * | 3,710 * |
| 72 | 3,290 | 0.19 | 3,290 | 3,290 | 3,290 |
| 84 | 2,820 | 0.26 | 2,820 | 2,820 | 2,560 |
| 96 | 2,470 | 0.34 | 2,470 | 2,470 | 1,960 |
| 108 | 2,190 | 0.42 | 2,190 | 2,190 | 1,550 |
| 120 | 1,970 | 0.52 | 1,970 | 1,880 | 1,250 |

| Span | Max. Uniform Load (W) | Deflection at Load (W) | Uniform Load at Deflection | | |
|-------|-----------------------|------------------------|----------------------------|-----------|-----------|
| | | | Span /180 | Span /240 | Span /360 |
| mm | kN | mm | kN | kN | kN |
| 300 | 16.5 * | 0.02 | 16.5 * | 16.5 * | 16.5 * |
| 600 | 16.5 * | 0.19 | 16.5 * | 16.5 * | 16.5 * |
| 900 | 16.5 * | 0.65 | 16.5 * | 16.5 * | 16.5 * |
| 1,200 | 16.5 * | 1.53 | 16.5 * | 16.5 * | 16.5 * |
| 1,500 | 16.5 * | 2.99 | 16.5 * | 16.5 * | 16.5 * |
| 1,800 | 14.9 | 4.65 | 14.9 | 14.9 | 14.9 |
| 2,100 | 12.7 | 6.32 | 12.7 | 12.7 | 11.7 |
| 2,400 | 11.1 | 8.25 | 11.1 | 11.1 | 9.0 |
| 2,700 | 9.9 | 10.47 | 9.9 | 9.9 | 7.1 |
| 3,000 | 8.9 | 12.89 | 8.9 | 8.6 | 5.7 |

W101 - Allowable Column Loads

| Unbraced Height | Max. Slot Face Load | Max. Column Load Applied at C.G. | | | |
|-----------------|---------------------|----------------------------------|----------|---------|---------|
| | | K = 0.65 | K = 0.80 | K = 1.0 | K = 1.2 |
| In | Lbs | Lbs | Lbs | Lbs | Lbs |
| 12 | 8,890 | 33,570 | 33,290 | 32,840 | 32,320 |
| 24 | 8,730 | 32,030 | 31,100 | 29,720 | 28,280 |
| 36 | 8,490 | 29,900 | 28,280 | 26,150 | 24,190 |
| 48 | 8,220 | 27,560 | 25,470 | 23,020 | 21,020 |
| 60 | 7,840 | 25,310 | 23,020 | 20,590 | 17,300 |
| 72 | 7,370 | 23,300 | 21,020 | 17,300 | 12,800 |
| 84 | 6,870 | 21,600 | 18,880 | 13,530 | 9,410 |
| 96 | 6,210 | 20,180 | 15,750 | 10,370 | 7,200 |
| 108 | 5,510 | 17,890 | 12,800 | 8,190 | 5,690 |
| 120 | 4,850 | 15,370 | 10,370 | 6,640 | ** |

| Unbraced Height | Max. Slot Face Load | Max. Column Load Applied at C.G. | | | |
|-----------------|---------------------|----------------------------------|----------|---------|---------|
| | | K = 0.65 | K = 0.80 | K = 1.0 | K = 1.2 |
| mm | kN | kN | kN | kN | kN |
| 300 | 39.6 | 149.4 | 148.2 | 146.3 | 144.0 |
| 600 | 38.9 | 142.7 | 138.7 | 132.7 | 126.4 |
| 900 | 37.8 | 133.4 | 126.4 | 117.0 | 108.4 |
| 1,200 | 36.7 | 123.2 | 114.1 | 103.2 | 94.3 |
| 1,500 | 35.0 | 113.3 | 103.2 | 92.3 | 78.6 |
| 1,800 | 33.0 | 104.4 | 94.3 | 78.6 | 58.8 |
| 2,100 | 30.9 | 96.8 | 85.6 | 62.0 | 43.2 |
| 2,400 | 28.0 | 90.5 | 71.8 | 47.6 | 33.1 |
| 2,700 | 25.0 | 81.2 | 58.8 | 37.6 | 26.1 |
| 3,000 | 22.0 | 70.1 | 47.6 | 30.5 | ** |

* Load limited by spot weld shear

** KL/r > 200

NR = Not Recommended

Beam loads shown are total uniform load, including the channel weight, for a simple span supported at each end that is adequately laterally braced.

Refer to pages 20 -23 for other beam support conditions.

Refer to page 77 for load reduction factor for an unbraced beam length.

Beam Loading of Punched Channels

Load for punched channel is obtained by multiplying the loads shown by the following reduction factors:

SS - Channel with Short Slots 0.90

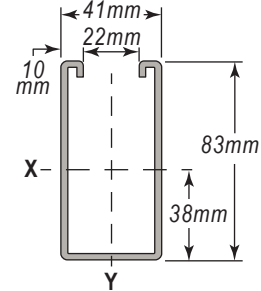
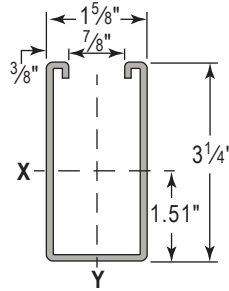
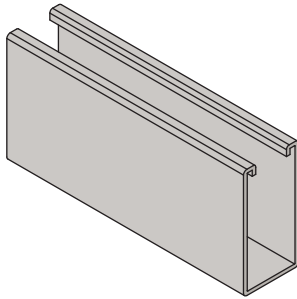


W150 & W151 - 12 Gauge Channel



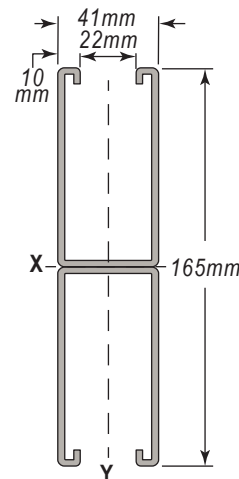
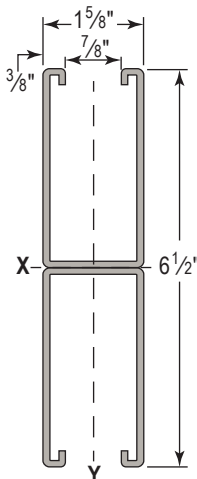
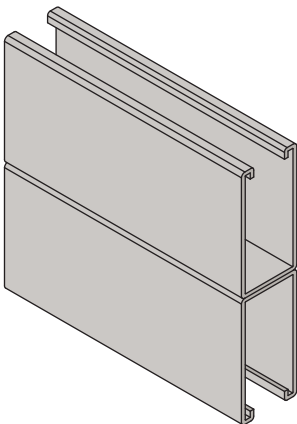
W150: 1⁵/₈" x 3¹/₄" (41mm x 83mm) & W151: 1⁵/₈" x 6¹/₂" (41mm x 165mm)

W150: 1⁵/₈" x 3¹/₄" (41mm x 83mm)



Available in 10', 20' & Pre-Cut lengths see next page • Finishes: PG, HG, GR, PL, Gold, ST304, & ST316

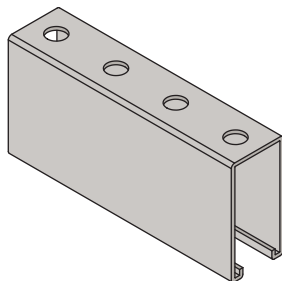
W151: 1⁵/₈" x 6¹/₂" (41mm x 165mm)



Available in 10' & 20' lengths • Finishes: PG, HG, GR, PL, Gold, ST304, & ST316

Pierced Channel

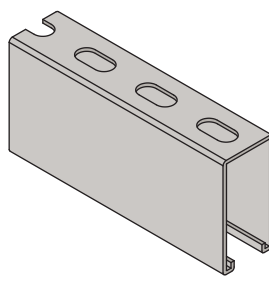
W150H



Channel With Holes

⁹/₁₆" Holes are punched on 1-⁷/₈" centers.

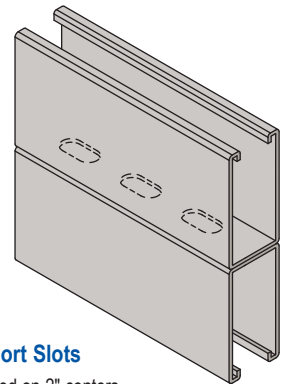
W150SS



Channel With Short Slots

⁹/₁₆" x 1-¹/₈" Slots are punched on 2" centers.

W151SS

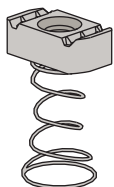


Channel With Short Slots

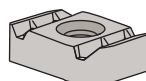
⁹/₁₆" x 1-¹/₈" Slots are punched on 2" centers.

Related Channel Nuts (See Pages 81 - 82)

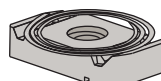
Channel Nut with Long Spring



Channel Nut Without Spring



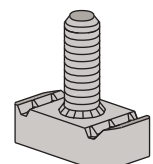
Channel Nut with Top-Lock Spring



Rapid Strut Slide Nut

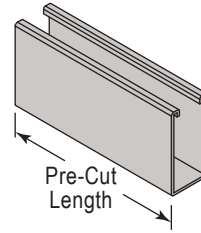
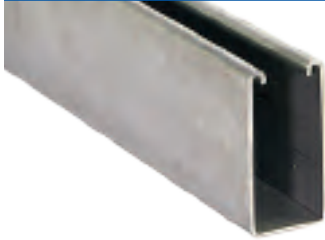


Stud Nut without Spring



W150 Pre-Cut Channel

W150: 1⁵/₈" x 3¹/₄" (41mm x 83mm) - Solid Channel - Pre-Cut Lengths



W150 - 1⁵/₈" x 3¹/₄" - 12 Gauge Solid Channel

| Pre-Cut Length | Steel - PG | ST304 | ST316 |
|----------------|------------|---------------|---------------|
| 6" (15.2cm) | W150PG6IN | W150ST3046IN | W150ST3166IN |
| 12" (0.31m) | W150PG12IN | W150ST30412IN | W150ST31612IN |
| 18" (0.45m) | W150PG18IN | W150ST30418IN | W150ST31618IN |
| 24" (0.61m) | W150PG24IN | W150ST30424IN | W150ST31624IN |
| 30" (0.76m) | W150PG30IN | W150ST30430IN | W150ST31630IN |
| 36" (0.91m) | W150PG36IN | W150ST30436IN | W150ST31636IN |
| 42" (1.07m) | W150PG42IN | W150ST30442IN | W150ST31642IN |
| 48" (1.22m) | W150PG48IN | W150ST30448IN | W150ST31648IN |
| 54" (1.37m) | W150PG54IN | W150ST30454IN | W150ST31654IN |
| 60" (1.52m) | W150PG60IN | W150ST30460IN | W150ST31660IN |
| 72" (1.83m) | W150PG72IN | W150ST30472IN | W150ST31672IN |
| 80" (2.03m) | W150PG80IN | W150ST30480IN | W150ST31680IN |
| 96" (2.44m) | W150PG96IN | W150ST30496IN | W150ST31696IN |
| 10' (3.05m) | W150PG10 | W150ST30410 | W150ST31610 |
| 20' (6.10m) | W150PG20 | W150ST30420 | W150ST31620 |

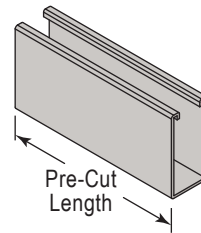
Note: Minimum order quantity is 100 pieces for any size under 10'.

W150SS: 1⁵/₈" x 3¹/₄" (41mm x 83mm) - Channel with Short Slots - Pre-Cut Lengths



Channel With Short Slots

⁹/₁₆" x 1¹/₈" (14mm x 29mm) Slots
are punched on 2" (51mm) centers.



W150SS - 1⁵/₈" x 3¹/₄" - 12 Gauge - Channel with Short Slots

| Pre-Cut Length | Steel - PG | ST304 | ST316 |
|----------------|--------------|-----------------|-----------------|
| 6" (15.2cm) | W150SSPG6IN | W150SSST3046IN | W150SSST3166IN |
| 12" (0.31m) | W150SSPG12IN | W150SSST30412IN | W150SSST31612IN |
| 18" (0.45m) | W150SSPG18IN | W150SSST30418IN | W150SSST31618IN |
| 24" (0.61m) | W150SSPG24IN | W150SSST30424IN | W150SSST31624IN |
| 30" (0.76m) | W150SSPG30IN | W150SSST30430IN | W150SSST31630IN |
| 36" (0.91m) | W150SSPG36IN | W150SSST30436IN | W150SSST31636IN |
| 42" (1.07m) | W150SSPG42IN | W150SSST30442IN | W150SSST31642IN |
| 48" (1.22m) | W150SSPG48IN | W150SSST30448IN | W150SSST31648IN |
| 54" (1.37m) | W150SSPG54IN | W150SSST30454IN | W150SSST31654IN |
| 60" (1.52m) | W150SSPG60IN | W150SSST30460IN | W150SSST31660IN |
| 72" (1.83m) | W150SSPG72IN | W150SSST30472IN | W150SSST31672IN |
| 80" (2.03m) | W150SSPG80IN | W150SSST30480IN | W150SSST31680IN |
| 96" (2.44m) | W150SSPG96IN | W150SSST30496IN | W150SSST31696IN |
| 10' (3.05m) | W150SSPG10 | W150SSST30410 | W150SSST31610 |
| 20' (6.10m) | W150SSPG20 | W150SSST30420 | W150SSST31620 |

Note: Minimum order quantity is 100 pieces for any size under 10'.



W150 Channel Loads

12 Gauge - 1⁵/₈" x 3¹/₄" (41mm x 83mm)



Section Properties

| Channel Part No. | Wt./Ft. Lbs. (Kg/M) | Area of Section Sq. in. (Sq. cm) | X-X Axis | | | Y-Y Axis | | |
|------------------|---------------------|----------------------------------|---|---|------------------|---|---|----------------|
| | | | Ix in. ⁴ (Ix cm ⁴) | Sx in. ³ (Sx cm ³) | rx. in. (rx. cm) | Iy in. ⁴ (Iy cm ⁴) | Sy in. ³ (Sy cm ³) | ry in. (ry cm) |
| W150 | 3.07 | 0.902 | 1.113 | 0.639 | 1.111 | 0.435 | 0.536 | 0.695 |
| | (4.57) | (5.82) | (46.33) | (10.47) | (2.82) | (18.11) | (8.78) | (1.77) |

W150 - Allowable Beam Loads

| Span | Max. Uniform Load (W) | Deflection at Load (W) | Uniform Load at Deflection | | |
|------|-----------------------|------------------------|----------------------------|-----------|-----------|
| | | | Span /180 | Span /240 | Span /360 |
| In | Lbs | In | Lbs | Lbs | Lbs |
| 12 | 10,720 | 0.01 | 10,720 | 10,720 | 10,720 |
| 24 | 5,360 | 0.03 | 5,360 | 5,360 | 5,360 |
| 36 | 3,570 | 0.07 | 3,570 | 3,570 | 3,570 |
| 48 | 2,680 | 0.12 | 2,680 | 2,680 | 2,680 |
| 60 | 2,140 | 0.18 | 2,140 | 2,140 | 1,940 |
| 72 | 1,790 | 0.27 | 1,790 | 1,790 | 1,350 |
| 84 | 1,530 | 0.36 | 1,530 | 1,490 | 990 |
| 96 | 1,340 | 0.47 | 1,340 | 1,140 | 760 |
| 108 | 1,190 | 0.59 | 1,190 | 900 | 600 |
| 120 | 1,070 | 0.73 | 970 | 730 | 490 |

| Span | Max. Uniform Load (W) | Deflection at Load (W) | Uniform Load at Deflection | | |
|-------|-----------------------|------------------------|----------------------------|-----------|-----------|
| | | | Span /180 | Span /240 | Span /360 |
| mm | kN | mm | kN | kN | kN |
| 300 | 48.4 | 0.18 | 48.4 | 48.4 | 48.4 |
| 600 | 24.2 | 0.72 | 24.2 | 24.2 | 24.2 |
| 900 | 16.1 | 1.63 | 16.1 | 16.1 | 16.1 |
| 1,200 | 12.1 | 2.89 | 12.1 | 12.1 | 12.1 |
| 1,500 | 9.7 | 4.52 | 9.7 | 9.7 | 8.9 |
| 1,800 | 8.1 | 6.53 | 8.1 | 8.1 | 6.2 |
| 2,100 | 6.9 | 8.88 | 6.9 | 6.9 | 4.5 |
| 2,400 | 6.0 | 11.56 | 6.0 | 5.2 | 3.5 |
| 2,700 | 5.4 | 14.64 | 5.4 | 4.1 | 2.8 |
| 3,000 | 4.8 | 18.10 | 4.4 | 3.3 | 2.2 |

W150 - Allowable Column Loads

| Unbraced Height | Max. Slot Face Load | Max. Column Load Applied at C.G. | | | |
|-----------------|---------------------|----------------------------------|----------|---------|---------|
| | | K = 0.65 | K = 0.80 | K = 1.0 | K = 1.2 |
| In | Lbs | Lbs | Lbs | Lbs | Lbs |
| 12 | 6,230 | 19,910 | 19,360 | 18,480 | 17,490 |
| 24 | 5,730 | 16,950 | 15,250 | 12,890 | 10,630 |
| 36 | 4,740 | 13,190 | 10,630 | 7,650 | 5,660 |
| 48 | 3,590 | 9,570 | 6,870 | 4,800 | 3,660 |
| 60 | 2,740 | 6,690 | 4,800 | 3,460 | 2,710 |
| 72 | 2,160 | 4,990 | 3,660 | 2,710 | 2,170 |
| 84 | 1,760 | 3,960 | 2,970 | 2,250 | 1,830 |
| 96 | 1,500 | 3,280 | 2,500 | 1,930 | 1,580 |
| 108 | 1,310 | 2,800 | 2,170 | 1,700 | 1,400 |
| 120 | 1,170 | 2,460 | 1,930 | 1,520 | ** |

| Unbraced Height | Max. Slot Face Load | Max. Column Load Applied at C.G. | | | |
|-----------------|---------------------|----------------------------------|----------|---------|---------|
| | | K = 0.65 | K = 0.80 | K = 1.0 | K = 1.2 |
| mm | kN | kN | kN | kN | kN |
| 300 | 27.8 | 88.7 | 86.3 | 82.6 | 78.2 |
| 600 | 25.6 | 75.9 | 68.5 | 58.2 | 48.2 |
| 900 | 21.3 | 59.5 | 48.2 | 35.0 | 25.8 |
| 1,200 | 16.2 | 43.5 | 31.4 | 21.9 | 16.7 |
| 1,500 | 12.5 | 30.6 | 21.9 | 15.7 | 12.3 |
| 1,800 | 9.8 | 22.7 | 16.7 | 12.3 | 9.8 |
| 2,100 | 8.0 | 18.0 | 13.5 | 10.2 | 8.3 |
| 2,400 | 6.8 | 14.9 | 11.3 | 8.7 | 7.2 |
| 2,700 | 5.9 | 12.7 | 9.8 | 7.7 | 6.3 |
| 3,000 | 5.3 | 11.1 | 8.7 | 6.9 | ** |

** KL/r > 200

NR = Not Recommended

Beam loads shown are total uniform load, including the channel weight, for a simple span supported at each end that is adequately laterally braced.

Refer to pages 20 -23 for other beam support conditions.

Refer to page 77 for load reduction factor for an unbraced beam length.

Beam Loading of Punched Channels

Load for punched channel is obtained by multiplying the loads shown by the following reduction factors:

| | |
|-------------------------------|------|
| SS - Channel with Short Slots | 0.90 |
| SL - Channel with Long Slots | 0.90 |
| H - Channel with Holes | 0.95 |
| KO - Knock-Out Channel | 0.95 |





W151 Channel Loads

12 Gauge - 1⁵/₈" x 6¹/₂" (41mm x 165mm)

Section Properties

| Channel Part No. | Wt./Ft. Lbs. (Kg/M) | Area of Section Sq. in. (Sq. cm) | X-X Axis | | | Y-Y Axis | | |
|------------------|---------------------|----------------------------------|---|---|------------------|---|---|----------------|
| | | | Ix in. ⁴ (Ix cm ⁴) | Sx in. ³ (Sx cm ³) | rx. in. (rx. cm) | Iy in. ⁴ (Iy cm ⁴) | Sy in. ³ (Sy cm ³) | ry in. (ry cm) |
| W151 | 6.14 | 1.804 | 6.339 | 1.951 | 1.874 | 0.871 | 1.072 | 0.695 |
| | (9.14) | (11.64) | (263.85) | (31.97) | (4.76) | (36.25) | (17.57) | (1.77) |

W151 - Allowable Beam Loads

| Span | Max. Uniform Load (W) | Deflection at Load (W) | Uniform Load at Deflection | | |
|------|-----------------------|------------------------|----------------------------|-----------|-----------|
| | | | Span /180 | Span /240 | Span /360 |
| In | Lbs | In | Lbs | Lbs | Lbs |
| 12 | 4,890 * | 0.00 | 4,890 * | 4,890 * | 4,890 * |
| 24 | 4,890 * | 0.00 | 4,890 * | 4,890 * | 4,890 * |
| 36 | 4,890 * | 0.02 | 4,890 * | 4,890 * | 4,890 * |
| 48 | 4,890 * | 0.04 | 4,890 * | 4,890 * | 4,890 * |
| 60 | 4,890 * | 0.07 | 4,890 * | 4,890 * | 4,890 * |
| 72 | 4,890 * | 0.13 | 4,890 * | 4,890 * | 4,890 * |
| 84 | 4,670 | 0.19 | 4,670 | 4,670 | 4,670 |
| 96 | 4,090 | 0.25 | 4,090 | 4,090 | 4,090 |
| 108 | 3,630 | 0.32 | 3,630 | 3,630 | 3,420 |
| 120 | 3,270 | 0.39 | 3,270 | 3,270 | 2,770 |

| Span | Max. Uniform Load (W) | Deflection at Load (W) | Uniform Load at Deflection | | |
|-------|-----------------------|------------------------|----------------------------|-----------|-----------|
| | | | Span /180 | Span /240 | Span /360 |
| mm | kN | mm | kN | kN | kN |
| 300 | 21.8 * | 0.01 | 21.8 * | 21.8 * | 21.8 * |
| 600 | 21.8 * | 0.11 | 21.8 * | 21.8 * | 21.8 * |
| 900 | 21.8 * | 0.38 | 21.8 * | 21.8 * | 21.8 * |
| 1,200 | 21.8 * | 0.91 | 21.8 * | 21.8 * | 21.8 * |
| 1,500 | 21.8 * | 1.78 | 21.8 * | 21.8 * | 21.8 * |
| 1,800 | 21.8 * | 3.08 | 21.8 * | 21.8 * | 21.8 * |
| 2,100 | 21.1 | 4.75 | 21.1 | 21.1 | 21.1 |
| 2,400 | 18.5 | 6.19 | 18.5 | 18.5 | 18.5 |
| 2,700 | 16.4 | 7.84 | 16.4 | 16.4 | 15.7 |
| 3,000 | 14.8 | 9.67 | 14.8 | 14.8 | 12.7 |

W151 - Allowable Column Loads

| Unbraced Height | Max. Slot Face Load | Max. Column Load Applied at C.G. | | | |
|-----------------|---------------------|----------------------------------|----------|---------|---------|
| | | K = 0.65 | K = 0.80 | K = 1.0 | K = 1.2 |
| In | Lbs | Lbs | Lbs | Lbs | Lbs |
| 12 | 11,040 | 41,400 | 41,060 | 40,490 | 39,830 |
| 24 | 10,820 | 39,460 | 38,240 | 36,400 | 34,410 |
| 36 | 10,490 | 36,640 | 34,410 | 31,330 | 28,370 |
| 48 | 10,080 | 33,380 | 30,320 | 26,520 | 23,250 |
| 60 | 9,400 | 30,070 | 26,520 | 22,520 | 19,410 |
| 72 | 8,650 | 26,970 | 23,250 | 19,410 | 16,540 |
| 84 | 7,930 | 24,210 | 20,560 | 17,050 | 12,160 |
| 96 | 7,280 | 21,830 | 18,390 | 13,400 | 9,310 |
| 108 | 6,660 | 19,820 | 16,540 | 10,590 | 7,350 |
| 120 | 5,800 | 18,150 | 13,400 | 8,580 | ** |

| Unbraced Height | Max. Slot Face Load | Max. Column Load Applied at C.G. | | | |
|-----------------|---------------------|----------------------------------|----------|---------|---------|
| | | K = 0.65 | K = 0.80 | K = 1.0 | K = 1.2 |
| mm | kN | kN | kN | kN | kN |
| 300 | 49.1 | 184.2 | 182.8 | 180.3 | 177.5 |
| 600 | 48.2 | 175.9 | 170.6 | 162.6 | 153.9 |
| 900 | 46.8 | 163.7 | 153.9 | 140.4 | 127.4 |
| 1,200 | 45.0 | 149.4 | 136.0 | 119.2 | 104.7 |
| 1,500 | 42.1 | 134.9 | 119.2 | 101.4 | 87.5 |
| 1,800 | 38.8 | 121.2 | 104.7 | 87.5 | 75.1 |
| 2,100 | 35.6 | 109.0 | 92.7 | 76.9 | 55.8 |
| 2,400 | 32.7 | 98.4 | 82.9 | 61.5 | 42.7 |
| 2,700 | 30.1 | 89.4 | 75.1 | 48.6 | 33.8 |
| 3,000 | 26.4 | 81.8 | 61.5 | 39.4 | ** |

* Load limited by spot weld shear

** KL/r > 200

NR = Not Recommended

Beam loads shown are total uniform load, including the channel weight, for a simple span supported at each end that is adequately laterally braced.

Refer to pages 20 -23 for other beam support conditions.

Refer to page 77 for load reduction factor for an unbraced beam length.

Beam Loading of Punched Channels

Load for punched channel is obtained by multiplying the loads shown by the following reduction factors:

SS - Channel with Short Slots 0.90

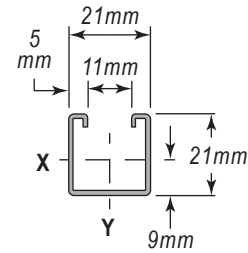
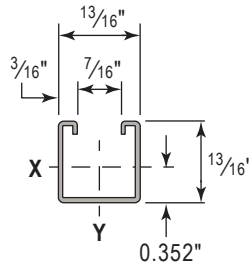
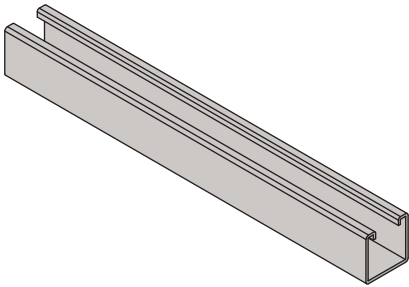


W600 & W601 - 19 Gauge Channel



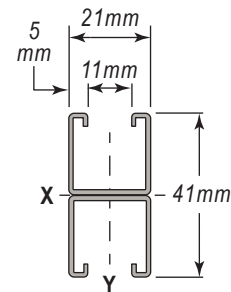
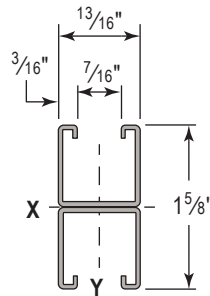
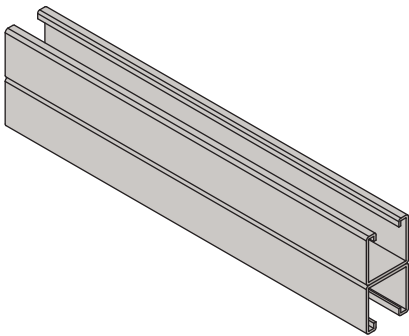
W600: $\frac{13}{16}" \times \frac{13}{16}"$ (21mm x 21mm) & **W601:** $\frac{13}{16}" \times 1\frac{5}{8}"$ (21mm x 41mm)

W600: $\frac{13}{16}" \times \frac{13}{16}"$ (21mm x 21mm)



Available in 10' & 20' Lengths • Finishes: PG, HG, GR & PL

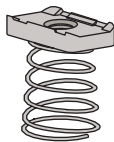
W601: $\frac{13}{16}" \times 1\frac{5}{8}"$ (21mm x 41mm)



Available in 10' & 20' Lengths • Finishes: PG, HG, GR & PL

Related Channel Nuts (See Page 82)

Mini Nut with
Standard Spring





W600 Channel Loads

19 Gauge - $1\frac{3}{16}" \times 1\frac{3}{16}"$ (21mm x 21mm)

Section Properties

| Channel Part No. | Wt./Ft. Lbs. (Kg/M) | Area of Section Sq. in. (Sq. cm) | X-X Axis | | | Y-Y Axis | | |
|------------------|---------------------|----------------------------------|---|---|------------------|---|---|----------------|
| | | | Ix in. ⁴ (Ix cm ⁴) | Sx in. ³ (Sx cm ³) | rx. in. (rx. cm) | Iy in. ⁴ (Iy cm ⁴) | Sy in. ³ (Sy cm ³) | ry in. (ry cm) |
| W600 | 0.36 | 0.107 | 0.009 | 0.020 | 0.295 | 0.012 | 0.029 | 0.333 |
| | (0.54) | (0.69) | (0.37) | (0.33) | (0.75) | (0.50) | (0.48) | (0.85) |

W600 - Allowable Beam Loads

| Span | Max. Uniform Load (W) | Deflection at Load (W) | Uniform Load at Deflection | | |
|------|-----------------------|------------------------|----------------------------|-----------|-----------|
| | | | Span /180 | Span /240 | Span /360 |
| In | Lbs | In | Lbs | Lbs | Lbs |
| 12 | 340 | 0.03 | 340 | 340 | 340 |
| 18 | 230 | 0.06 | 230 | 230 | 180 |
| 24 | 170 | 0.11 | 170 | 150 | 100 |
| 30 | 140 | 0.18 | 130 | 100 | 70 |
| 36 | 110 | 0.24 | 90 | 70 | 50 |
| 42 | 100 | 0.35 | 70 | 50 | 30 |
| 48 | 80 | 0.42 | 50 | 40 | 30 |
| 60 | 70 | 0.72 | NR | NR | NR |
| 72 | 60 | 1.06 | NR | NR | NR |
| 84 | 50 | 1.41 | NR | NR | NR |

| Span | Max. Uniform Load (W) | Deflection at Load (W) | Uniform Load at Deflection | | |
|-------|-----------------------|------------------------|----------------------------|-----------|-----------|
| | | | Span /180 | Span /240 | Span /360 |
| mm | kN | mm | kN | kN | kN |
| 300 | 1.5 | 0.68 | 1.5 | 1.5 | 1.5 |
| 450 | 1.0 | 1.54 | 1.0 | 1.0 | 0.8 |
| 600 | 0.8 | 2.70 | 0.8 | 0.7 | 0.4 |
| 750 | 0.6 | 4.34 | 0.6 | 0.4 | 0.3 |
| 900 | 0.5 | 5.90 | 0.4 | 0.3 | 0.2 |
| 1,050 | 0.4 | 8.52 | 0.3 | 0.2 | 0.1 |
| 1,200 | 0.4 | 11.44 | 0.2 | 0.2 | 0.1 |
| 1,500 | 0.3 | 17.38 | NR | NR | NR |
| 1,800 | 0.3 | 25.74 | NR | NR | NR |
| 2,100 | 0.2 | 34.06 | NR | NR | NR |

W600 - Allowable Column Loads

| Unbraced Height | Max. Slot Face Load | Max. Column Load Applied at C.G. | | | |
|-----------------|---------------------|----------------------------------|----------|---------|---------|
| | | K = 0.65 | K = 0.80 | K = 1.0 | K = 1.2 |
| In | Lbs | Lbs | Lbs | Lbs | Lbs |
| 12 | 700 | 2,050 | 1,880 | 1,630 | 1,400 |
| 18 | 600 | 1,660 | 1,400 | 1,100 | 860 |
| 24 | 490 | 1,300 | 1,010 | 740 | 590 |
| 30 | 400 | 990 | 740 | 560 | 450 |
| 36 | 340 | 770 | 590 | 450 | 370 |
| 42 | 290 | 630 | 490 | 380 | 310 |
| 48 | 260 | 540 | 420 | 330 | 270 |
| 60 | 210 | 410 | 330 | ** | ** |
| 72 | 180 | 340 | 270 | ** | ** |
| 84 | ** | 280 | ** | ** | ** |

| Unbraced Height | Max. Slot Face Load | Max. Column Load Applied at C.G. | | | |
|-----------------|---------------------|----------------------------------|----------|---------|---------|
| | | K = 0.65 | K = 0.80 | K = 1.0 | K = 1.2 |
| mm | kN | kN | kN | kN | kN |
| 300 | 3.1 | 9.2 | 8.4 | 7.3 | 6.3 |
| 450 | 2.7 | 7.5 | 6.3 | 5.0 | 3.9 |
| 600 | 2.2 | 5.9 | 4.6 | 3.4 | 2.7 |
| 750 | 1.8 | 4.5 | 3.4 | 2.5 | 2.0 |
| 900 | 1.5 | 3.5 | 2.7 | 2.0 | 1.7 |
| 1,050 | 1.3 | 2.8 | 2.2 | 1.7 | 1.4 |
| 1,200 | 1.2 | 2.4 | 1.9 | 1.5 | 1.2 |
| 1,500 | 0.9 | 1.9 | 1.5 | ** | ** |
| 1,800 | 0.8 | 1.5 | 1.2 | ** | ** |
| 2,100 | ** | 1.3 | ** | ** | ** |

** KL/r > 200

NR = Not Recommended

Beam loads shown are total uniform load, including the channel weight, for a simple span supported at each end that is adequately laterally braced.

Refer to pages 20 -23 for other beam support conditions.

Refer to page 77 for load reduction factor for an unbraced beam length.



W601 Channel Loads



19 Gauge - $1\frac{3}{16}$ " x $1\frac{5}{8}$ " (21mm x 41mm)

Section Properties

| Channel Part No. | Wt./Ft. Lbs. (Kg/M) | Area of Section Sq. in. (Sq. cm) | X-X Axis | | | Y-Y Axis | | |
|------------------|---------------------|----------------------------------|---|---|------------------|---|---|----------------|
| | | | Ix in. ⁴ (Ix cm ⁴) | Sx in. ³ (Sx cm ³) | rx. in. (rx. cm) | Iy in. ⁴ (Iy cm ⁴) | Sy in. ³ (Sy cm ³) | ry in. (ry cm) |
| W600 | 0.36 | 0.107 | 0.009 | 0.020 | 0.295 | 0.012 | 0.029 | 0.333 |
| | (0.54) | (0.69) | (0.37) | (0.33) | (0.75) | (0.50) | (0.48) | (0.85) |

W601 - Allowable Beam Loads

| Span | Max. Uniform Load (W) | Deflection at Load (W) | Uniform Load at Deflection | | |
|------|-----------------------|------------------------|----------------------------|-----------|-----------|
| | | | Span /180 | Span /240 | Span /360 |
| In | Lbs | In | Lbs | Lbs | Lbs |
| 12 | 280 * | 0.00 | 280 * | 280 * | 280 * |
| 18 | 280 * | 0.02 | 280 * | 280 * | 280 * |
| 24 | 280 * | 0.04 | 280 * | 280 * | 280 * |
| 30 | 280 * | 0.07 | 280 * | 280 * | 280 * |
| 36 | 280 * | 0.13 | 280 * | 280 * | 220 |
| 42 | 270 | 0.20 | 270 | 240 | 160 |
| 48 | 230 | 0.25 | 230 | 180 | 120 |
| 60 | 190 | 0.40 | 160 | 120 | 80 |
| 72 | 160 | 0.58 | 110 | 80 | 50 |
| 84 | 130 | 0.75 | 80 | 60 | 40 |

| Span | Max. Uniform Load (W) | Deflection at Load (W) | Uniform Load at Deflection | | |
|-------|-----------------------|------------------------|----------------------------|-----------|-----------|
| | | | Span /180 | Span /240 | Span /360 |
| mm | kN | mm | kN | kN | kN |
| 300 | 1.2 * | 0.11 | 1.2 * | 1.2 * | 1.2 * |
| 450 | 1.2 * | 0.39 | 1.2 * | 1.2 * | 1.2 * |
| 600 | 1.2 * | 0.92 | 1.2 * | 1.2 * | 1.2 * |
| 750 | 1.2 * | 1.79 | 1.2 * | 1.2 * | 1.2 * |
| 900 | 1.2 * | 3.10 | 1.2 * | 1.2 * | 1.0 |
| 1,050 | 1.2 | 4.74 | 1.2 | 1.1 | 0.8 |
| 1,200 | 1.1 | 6.29 | 1.1 | 0.8 | 0.6 |
| 1,500 | 0.8 | 9.73 | 0.7 | 0.5 | 0.4 |
| 1,800 | 0.7 | 14.16 | 0.5 | 0.4 | 0.3 |
| 2,100 | 0.6 | 19.67 | 0.4 | 0.3 | 0.2 |

W601 - Allowable Column Loads

| Unbraced Height | Max. Slot Face Load | Max. Column Load Applied at C.G. | | | |
|-----------------|---------------------|----------------------------------|----------|---------|---------|
| | | K = 0.65 | K = 0.80 | K = 1.0 | K = 1.2 |
| In | Lbs | Lbs | Lbs | Lbs | Lbs |
| 12 | 1,240 | 4,650 | 4,510 | 4,300 | 4,090 |
| 18 | 1,210 | 4,330 | 4,090 | 3,780 | 3,500 |
| 24 | 1,170 | 3,980 | 3,680 | 3,340 | 3,060 |
| 30 | 1,130 | 3,660 | 3,340 | 3,010 | 2,460 |
| 36 | 1,070 | 3,380 | 3,060 | 2,460 | 1,800 |
| 42 | 990 | 3,140 | 2,690 | 1,900 | 1,320 |
| 48 | 900 | 2,930 | 2,230 | 1,460 | 1,010 |
| 60 | 710 | 2,180 | 1,460 | 930 | ** |
| 72 | 550 | 1,530 | 1,010 | ** | ** |
| 84 | ** | 1,130 | ** | ** | ** |

| Unbraced Height | Max. Slot Face Load | Max. Column Load Applied at C.G. | | | |
|-----------------|---------------------|----------------------------------|----------|---------|---------|
| | | K = 0.65 | K = 0.80 | K = 1.0 | K = 1.2 |
| mm | kN | kN | kN | kN | kN |
| 300 | 5.5 | 20.7 | 20.1 | 19.2 | 18.3 |
| 450 | 5.4 | 19.3 | 18.3 | 16.9 | 15.7 |
| 600 | 5.2 | 17.8 | 16.5 | 14.9 | 13.7 |
| 750 | 5.0 | 16.4 | 14.9 | 13.5 | 11.2 |
| 900 | 4.8 | 15.1 | 13.7 | 11.2 | 8.3 |
| 1,050 | 4.4 | 14.1 | 12.2 | 8.7 | 6.0 |
| 1,200 | 4.0 | 13.2 | 10.2 | 6.7 | 4.6 |
| 1,500 | 3.2 | 9.9 | 6.7 | 4.3 | ** |
| 1,800 | 2.5 | 7.0 | 4.6 | ** | ** |
| 2,100 | 2.0 | 5.2 | 3.4 | ** | ** |

* Load limited by spot weld shear

** KL/r > 200

NR = Not Recommended

Beam loads shown are total uniform load, including the channel weight, for a simple span supported at each end that is adequately laterally braced.

Refer to pages 20 -23 for other beam support conditions.

Refer to page 77 for load reduction factor for an unbraced beam length.

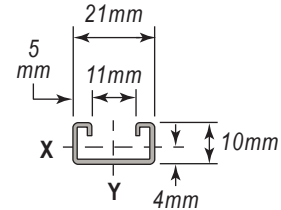
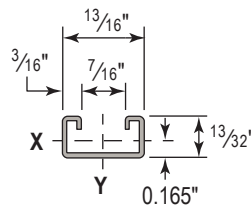
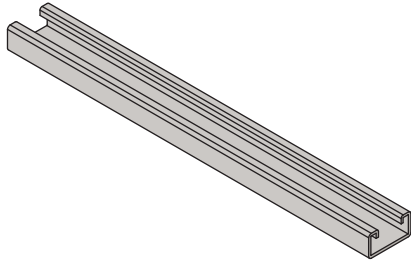




W700 & W701 - 19 Gauge Channel

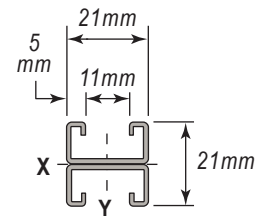
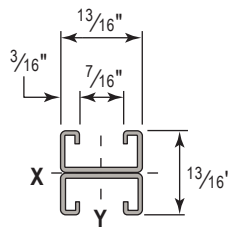
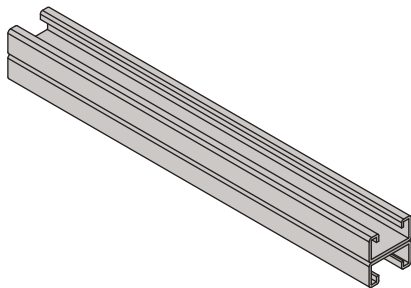
W700: $\frac{13}{16}" \times \frac{13}{32}"$ (21mm x 10mm) & **W701:** $\frac{13}{16}" \times \frac{13}{16}"$ (21mm x 21mm)

W700: $\frac{13}{16}" \times \frac{13}{32}"$ (21mm x 10mm)



Available in 10' & 20' Lengths • Finishes: PG, HG, GR & PL

W701: $\frac{13}{16}" \times \frac{13}{16}"$ (21mm x 21mm)



Available in 10' & 20' Lengths • Finishes: PG, HG, GR & PL

Related Channel Nuts (See Page 82)

Mini Nut
with Short Spring



W700 Channel Loads



19 Gauge - $1\frac{3}{16}" \times 1\frac{3}{32}"$ (21mm x 10mm)

Section Properties

| Channel Part No. | Wt./Ft. Lbs. (Kg/M) | Area of Section Sq. in. (Sq. cm) | X-X Axis | | | Y-Y Axis | | |
|------------------|---------------------|----------------------------------|---|---|------------------|---|---|----------------|
| | | | Ix in. ⁴ (Ix cm ⁴) | Sx in. ³ (Sx cm ³) | rx. in. (rx. cm) | Iy in. ⁴ (Iy cm ⁴) | Sy in. ³ (Sy cm ³) | ry in. (ry cm) |
| W700 | 0.25 | 0.074 | 0.002 | 0.007 | 0.149 | 0.007 | 0.017 | 0.307 |
| | (0.37) | (0.48) | (0.08) | (0.11) | (0.38) | (0.29) | (0.28) | (0.78) |

W700 - Allowable Beam Loads

| Span | Max. Uniform Load (W) | Deflection at Load (W) | Uniform Load at Deflection | | |
|------|-----------------------|------------------------|----------------------------|-----------|-----------|
| | | | Span /180 | Span /240 | Span /360 |
| In | Lbs | In | Lbs | Lbs | Lbs |
| 12 | 110 | 0.05 | 110 | 110 | 70 |
| 18 | 80 | 0.12 | 70 | 50 | 30 |
| 24 | 60 | 0.22 | 40 | 30 | 20 |
| 30 | 50 | 0.35 | 20 | 20 | NR |
| 36 | 40 | 0.48 | 20 | NR | NR |
| 42 | 30 | 0.58 | NR | NR | NR |
| 48 | 30 | 0.86 | NR | NR | NR |
| 60 | 20 | 1.12 | NR | NR | NR |
| 72 | 20 | 1.94 | NR | NR | NR |
| 84 | 20 | 3.08 | NR | NR | NR |

| Span | Max. Uniform Load (W) | Deflection at Load (W) | Uniform Load at Deflection | | |
|-------|-----------------------|------------------------|----------------------------|-----------|-----------|
| | | | Span /180 | Span /240 | Span /360 |
| mm | kN | mm | kN | kN | kN |
| 300 | 0.5 | 1.30 | 0.5 | 0.5 | 0.4 |
| 450 | 0.4 | 2.93 | 0.3 | 0.2 | 0.1 |
| 600 | 0.3 | 5.22 | 0.2 | 0.1 | 0.1 |
| 750 | 0.2 | 8.49 | 0.1 | 0.1 | NR |
| 900 | 0.2 | 11.74 | 0.1 | NR | NR |
| 1,050 | 0.1 | 13.98 | NR | NR | NR |
| 1,200 | 0.1 | 20.86 | NR | NR | NR |
| 1,500 | 0.1 | 27.16 | NR | NR | NR |
| 1,800 | 0.1 | 46.94 | NR | NR | NR |
| 2,100 | 0.1 | 74.54 | NR | NR | NR |

W700 - Allowable Column Loads

| Unbraced Height | Max. Slot Face Load | Max. Column Load Applied at C.G. | | | |
|-----------------|---------------------|----------------------------------|----------|---------|---------|
| | | K = 0.65 | K = 0.80 | K = 1.0 | K = 1.2 |
| In | Lbs | Lbs | Lbs | Lbs | Lbs |
| 12 | 460 | 1,430 | 1,330 | 1,170 | 990 |
| 18 | 410 | 1,190 | 990 | 720 | 500 |
| 24 | 330 | 890 | 630 | 410 | 280 |
| 30 | 260 | 620 | 410 | ** | ** |
| 36 | 200 | 430 | 280 | ** | ** |
| 42 | ** | 310 | ** | ** | ** |
| 48 | ** | ** | ** | ** | ** |
| 60 | ** | ** | ** | ** | ** |
| 72 | ** | ** | ** | ** | ** |
| 84 | ** | ** | ** | ** | ** |

| Unbraced Height | Max. Slot Face Load | Max. Column Load Applied at C.G. | | | |
|-----------------|---------------------|----------------------------------|----------|---------|---------|
| | | K = 0.65 | K = 0.80 | K = 1.0 | K = 1.2 |
| mm | kN | kN | kN | kN | kN |
| 300 | 2.0 | 6.4 | 6.0 | 5.3 | 4.4 |
| 450 | 1.8 | 5.4 | 4.4 | 3.3 | 2.3 |
| 600 | 1.5 | 4.0 | 2.9 | 1.9 | 1.3 |
| 750 | 1.2 | 2.8 | 1.9 | 1.2 | ** |
| 900 | 0.9 | 2.0 | 1.3 | ** | ** |
| 1,050 | ** | 1.4 | ** | ** | ** |
| 1,200 | ** | ** | ** | ** | ** |
| 1,500 | ** | ** | ** | ** | ** |
| 1,800 | ** | ** | ** | ** | ** |
| 2,100 | ** | ** | ** | ** | ** |

** KL/r > 200

NR = Not Recommended

Beam loads shown are total uniform load, including the channel weight, for a simple span supported at each end that is adequately laterally braced.

Refer to pages 20 - 23 for other beam support conditions.

Refer to page 77 for load reduction factor for an unbraced beam length.





W701 Channel Loads

19 Gauge - $1\frac{3}{16}" \times 1\frac{3}{16}"$ (21mm x 21mm)

Section Properties

| Channel Part No. | Wt./Ft. Lbs. (Kg/M) | Area of Section Sq. in. (Sq. cm) | X-X Axis | | | Y-Y Axis | | |
|------------------|---------------------|----------------------------------|---|---|------------------|---|---|----------------|
| | | | Ix in. ⁴ (Ix cm ⁴) | Sx in. ³ (Sx cm ³) | rx. in. (rx. cm) | Iy in. ⁴ (Iy cm ⁴) | Sy in. ³ (Sy cm ³) | ry in. (ry cm) |
| W701 | 0.51 | 0.149 | 0.007 | 0.018 | 0.222 | 0.014 | 0.034 | 0.307 |
| | (0.76) | (0.96) | (0.29) | (0.29) | (0.56) | (0.58) | (0.56) | (0.78) |

W701 - Allowable Beam Loads

| Span | Max. Uniform Load (W) | Deflection at Load (W) | Uniform Load at Deflection | | |
|------|-----------------------|------------------------|----------------------------|-----------|-----------|
| | | | Span /180 | Span /240 | Span /360 |
| In | Lbs | In | Lbs | Lbs | Lbs |
| 12 | 140 * | 0.01 | 140 * | 140 * | 140 * |
| 18 | 140 * | 0.05 | 140 * | 140 * | 140 * |
| 24 | 140 * | 0.12 | 140 * | 120 | 80 |
| 30 | 120 | 0.20 | 100 | 80 | 50 |
| 36 | 100 | 0.28 | 70 | 50 | 40 |
| 42 | 90 | 0.40 | 50 | 40 | 30 |
| 48 | 80 | 0.53 | 40 | 30 | NR |
| 60 | 60 | 0.78 | 30 | NR | NR |
| 72 | 50 | 1.13 | NR | NR | NR |
| 84 | 40 | 1.43 | NR | NR | NR |

| Span | Max. Uniform Load (W) | Deflection at Load (W) | Uniform Load at Deflection | | |
|-------|-----------------------|------------------------|----------------------------|-----------|-----------|
| | | | Span /180 | Span /240 | Span /360 |
| mm | kN | mm | kN | kN | kN |
| 300 | 0.6 * | 0.35 | 0.6 * | 0.6 * | 0.6 * |
| 450 | 0.6 * | 1.20 | 0.6 * | 0.6 * | 0.6 * |
| 600 | 0.6 * | 2.83 | 0.6 * | 0.5 | 0.4 |
| 750 | 0.5 | 4.74 | 0.5 | 0.4 | 0.2 |
| 900 | 0.4 | 6.83 | 0.3 | 0.2 | 0.2 |
| 1,050 | 0.4 | 9.76 | 0.2 | 0.2 | 0.1 |
| 1,200 | 0.4 | 12.96 | 0.2 | 0.1 | NR |
| 1,500 | 0.3 | 18.98 | 0.1 | NR | NR |
| 1,800 | 0.2 | 27.33 | NR | NR | NR |
| 2,100 | 0.2 | 34.72 | NR | NR | NR |

W701 - Allowable Column Loads

| Unbraced Height | Max. Slot Face Load | Max. Column Load Applied at C.G. | | | |
|-----------------|---------------------|----------------------------------|----------|---------|---------|
| | | K = 0.65 | K = 0.80 | K = 1.0 | K = 1.2 |
| In | Lbs | Lbs | Lbs | Lbs | Lbs |
| 12 | 820 | 3,150 | 3,040 | 2,910 | 2,690 |
| 18 | 790 | 2,930 | 2,690 | 2,330 | 1,960 |
| 24 | 740 | 2,570 | 2,210 | 1,710 | 1,250 |
| 30 | 670 | 2,180 | 1,710 | 1,150 | 800 |
| 36 | 580 | 1,770 | 1,250 | 800 | 560 |
| 42 | 490 | 1,390 | 920 | 590 | ** |
| 48 | 420 | 1,070 | 700 | ** | ** |
| 60 | ** | 680 | ** | ** | ** |
| 72 | ** | ** | ** | ** | ** |
| 84 | ** | ** | ** | ** | ** |

| Unbraced Height | Max. Slot Face Load | Max. Column Load Applied at C.G. | | | |
|-----------------|---------------------|----------------------------------|----------|---------|---------|
| | | K = 0.65 | K = 0.80 | K = 1.0 | K = 1.2 |
| mm | kN | kN | kN | kN | kN |
| 300 | 3.6 | 14.1 | 13.6 | 13.0 | 12.1 |
| 450 | 3.5 | 13.1 | 12.1 | 10.5 | 8.9 |
| 600 | 3.3 | 11.6 | 10.0 | 7.8 | 5.7 |
| 750 | 3.0 | 9.8 | 7.8 | 5.3 | 3.7 |
| 900 | 2.6 | 8.1 | 5.7 | 3.7 | 2.5 |
| 1,050 | 2.2 | 6.4 | 4.2 | 2.7 | ** |
| 1,200 | 1.9 | 4.9 | 3.2 | ** | ** |
| 1,500 | ** | 3.2 | ** | ** | ** |
| 1,800 | ** | ** | ** | ** | ** |
| 2,100 | ** | ** | ** | ** | ** |

* Load limited by spot weld shear

** KL/r > 200

NR = Not Recommended

Beam loads shown are total uniform load, including the channel weight, for a simple span supported at each end that is adequately laterally braced.

Refer to pages 20 -23 for other beam support conditions.

Refer to page 77 for load reduction factor for an unbraced beam length.



Lateral Bracing Load Reduction Charts



Introduction

Channel

Channel Nuts
& Hardware

General
Fittings

Pipe & Conduit
Supports

Electrical
Fittings

Spring
Steel

Loop & Ring
Clamps

Beta Clamps
& Z-Clamps

Concrete
Inserts

Rooftop
Supports

Gamma
Pads

Technical
Data

Lateral Bracing Load Reduction Charts

| SPAN (in) | W100 | W101 | W150 | W151 | W200 | W201 | W210 | W211 | W300 | W301 | W400 |
|--------------|------|------|------|------|------|------|------|------|------|------|------|
| 12 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 |
| 24 | 0.99 | 1.00 | 0.98 | 1.00 | 1.00 | 1.00 | 0.99 | 1.00 | 1.00 | 1.00 | 1.00 |
| 36 | 0.88 | 1.00 | 0.85 | 1.00 | 0.93 | 1.00 | 0.88 | 1.00 | 0.96 | 1.00 | 0.94 |
| 48 | 0.77 | 0.98 | 0.70 | 0.96 | 0.87 | 1.00 | 0.77 | 0.98 | 0.91 | 1.00 | 0.88 |
| 60 | 0.66 | 0.92 | 0.54 | 0.90 | 0.82 | 0.96 | 0.66 | 0.93 | 0.87 | 0.98 | 0.82 |
| 72 | 0.57 | 0.87 | 0.44 | 0.83 | 0.77 | 0.92 | 0.57 | 0.87 | 0.84 | 0.95 | 0.78 |
| 84 | 0.50 | 0.81 | 0.37 | 0.75 | 0.74 | 0.88 | 0.50 | 0.81 | 0.81 | 0.91 | 0.74 |
| 96 | 0.45 | 0.75 | 0.33 | 0.68 | 0.70 | 0.85 | 0.45 | 0.76 | 0.78 | 0.88 | 0.71 |
| 108 | 0.42 | 0.69 | 0.29 | 0.60 | 0.67 | 0.81 | 0.41 | 0.70 | 0.76 | 0.85 | 0.68 |
| 120 | 0.39 | 0.64 | 0.27 | 0.53 | 0.65 | 0.77 | 0.38 | 0.64 | 0.74 | 0.82 | 0.65 |

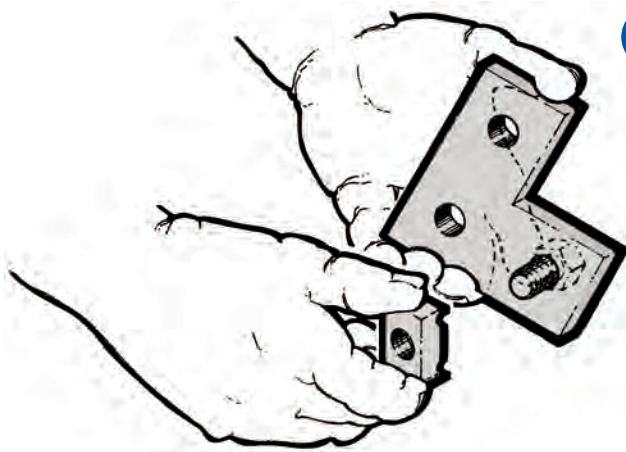
| SPAN (in) | W401 | W500 | W501 | W600 | W601 | W700 | W701 | W800 | W801 | W900 | W901 |
|--------------|------|------|------|------|------|------|------|------|------|------|------|
| 12 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 |
| 24 | 1.00 | 1.00 | 1.00 | 0.80 | 0.99 | 0.95 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 |
| 36 | 1.00 | 0.98 | 1.00 | 0.63 | 0.89 | 0.91 | 0.93 | 1.00 | 1.00 | 1.00 | 1.00 |
| 48 | 0.98 | 0.94 | 0.99 | 0.52 | 0.79 | 0.87 | 0.87 | 1.00 | 0.94 | 1.00 | 1.00 |
| 60 | 0.93 | 0.91 | 0.95 | 0.45 | 0.70 | 0.83 | 0.80 | 1.00 | 0.88 | 0.98 | 0.99 |
| 72 | 0.88 | 0.88 | 0.92 | 0.40 | 0.60 | 0.80 | 0.73 | 0.97 | 0.83 | 0.97 | 0.97 |
| 84 | 0.83 | 0.86 | 0.88 | 0.37 | 0.51 | 0.76 | 0.67 | 0.94 | 0.77 | 0.95 | 0.94 |
| 96 | 0.78 | 0.83 | 0.84 | 0.34 | 0.44 | 0.73 | 0.60 | 0.91 | 0.72 | 0.94 | 0.92 |
| 108 | 0.74 | 0.81 | 0.80 | 0.31 | 0.39 | 0.70 | 0.54 | 0.89 | 0.67 | 0.92 | 0.89 |
| 120 | 0.69 | 0.79 | 0.77 | 0.30 | 0.35 | 0.66 | 0.49 | 0.86 | 0.61 | 0.91 | 0.87 |

| SPAN (mm) | W100 | W101 | W150 | W151 | W200 | W201 | W210 | W211 | W300 | W301 | W400 |
|--------------|------|------|------|------|------|------|------|------|------|------|------|
| 300 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 |
| 600 | 1.00 | 1.00 | 0.99 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 |
| 900 | 0.89 | 1.00 | 0.85 | 1.00 | 0.94 | 1.00 | 0.89 | 1.00 | 0.96 | 1.00 | 0.94 |
| 1,200 | 0.77 | 0.98 | 0.71 | 0.97 | 0.87 | 1.00 | 0.77 | 0.98 | 0.91 | 1.00 | 0.88 |
| 1,500 | 0.67 | 0.93 | 0.56 | 0.90 | 0.82 | 0.97 | 0.67 | 0.93 | 0.87 | 0.98 | 0.83 |
| 1,800 | 0.58 | 0.87 | 0.44 | 0.83 | 0.78 | 0.93 | 0.58 | 0.88 | 0.84 | 0.95 | 0.78 |
| 2,100 | 0.51 | 0.82 | 0.38 | 0.76 | 0.74 | 0.89 | 0.50 | 0.82 | 0.81 | 0.92 | 0.74 |
| 2,400 | 0.46 | 0.76 | 0.33 | 0.69 | 0.71 | 0.85 | 0.45 | 0.76 | 0.79 | 0.88 | 0.71 |
| 2,700 | 0.42 | 0.70 | 0.30 | 0.61 | 0.68 | 0.81 | 0.41 | 0.71 | 0.76 | 0.85 | 0.68 |
| 3,000 | 0.39 | 0.65 | 0.27 | 0.54 | 0.65 | 0.78 | 0.39 | 0.65 | 0.74 | 0.82 | 0.65 |

| SPAN (mm) | W401 | W500 | W501 | W600 | W601 | W700 | W701 | W800 | W801 | W900 | W901 |
|--------------|------|------|------|------|------|------|------|------|------|------|------|
| 300 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 |
| 600 | 1.00 | 1.00 | 1.00 | 0.80 | 0.99 | 0.95 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 |
| 900 | 1.00 | 0.98 | 1.00 | 0.64 | 0.90 | 0.91 | 0.94 | 1.00 | 1.00 | 1.00 | 1.00 |
| 1,200 | 0.98 | 0.94 | 1.00 | 0.52 | 0.80 | 0.87 | 0.87 | 1.00 | 0.94 | 1.00 | 1.00 |
| 1,500 | 0.93 | 0.91 | 0.96 | 0.45 | 0.70 | 0.84 | 0.81 | 1.00 | 0.89 | 0.98 | 1.00 |
| 1,800 | 0.88 | 0.88 | 0.92 | 0.40 | 0.61 | 0.80 | 0.74 | 0.97 | 0.83 | 0.97 | 0.97 |
| 2,100 | 0.84 | 0.86 | 0.88 | 0.37 | 0.52 | 0.77 | 0.68 | 0.94 | 0.78 | 0.95 | 0.95 |
| 2,400 | 0.79 | 0.84 | 0.85 | 0.34 | 0.45 | 0.73 | 0.61 | 0.92 | 0.73 | 0.94 | 0.92 |
| 2,700 | 0.74 | 0.82 | 0.81 | 0.32 | 0.39 | 0.70 | 0.55 | 0.89 | 0.67 | 0.93 | 0.90 |
| 3,000 | 0.70 | 0.80 | 0.77 | 0.30 | 0.35 | 0.67 | 0.49 | 0.86 | 0.62 | 0.91 | 0.87 |



Channel Nut Without Spring Installation

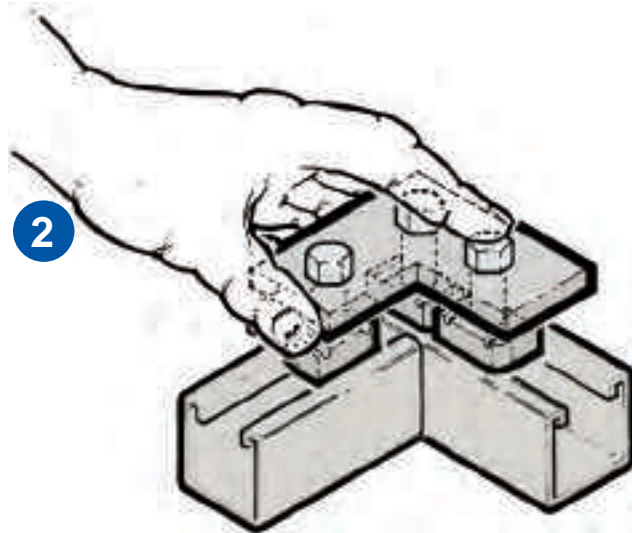


- 1 One at a time, bolts are inserted through the fitting's holes, held in place with a finger while an appropriate **Channel Nut without spring** is engaged to each bolt with one-and-a-half turns, (just enough to keep them attached).

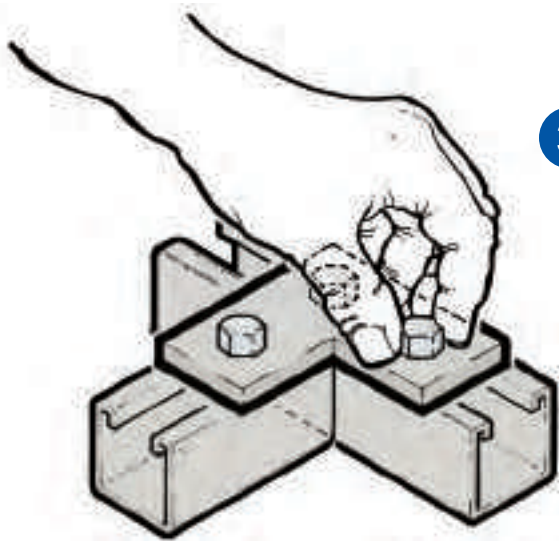
Use caution to select bolt lengths that will not bottom out in channel when fully tightened.

When the entire fitting (in at least one plane) is fitted with Channel Nuts and bolts, align Channel Nut direction (s) to correspond with channel arrangement; place fitting into position.

Channel Nuts without springs should hang below, clear of channel's in-turned edges prior to tightening the bolts.



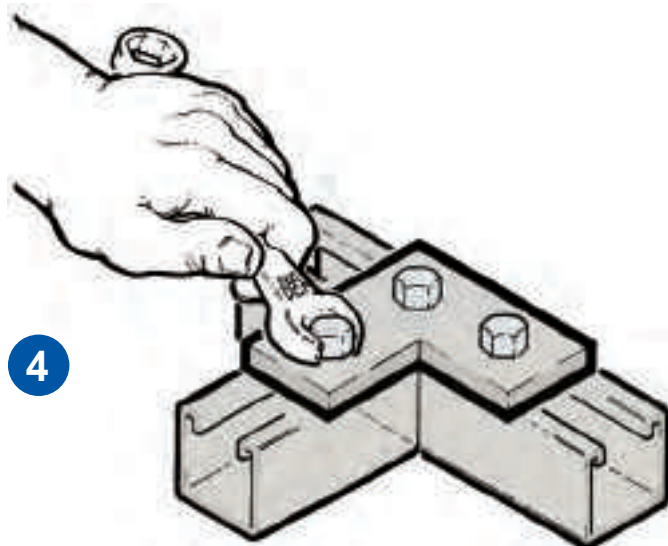
2



3

- All Channel Nut/bolts are finger tightened by pressing down on bolt head, and turning clock-wise. Inserting fingers into channel to align is not required.

Do not tighten by grasping bolt with fingers under the head. If the bolt is grasped in this fashion, this will lift Channel Nut, allowing it to turn and "look" falsely into place between channel's in-turned lips.



4

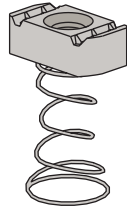
Adjust fitting to final position; check to make sure **Channel Nuts** are still installed correctly with pyramid enhanced grooves engaging the channel's in-turned edges. Finally, fasteners are wrench tightened.

Channel Nuts & Hardware



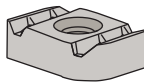
Channel Nuts with Spring

Pages 81 - 82



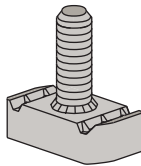
Channel Nuts without Spring

Pages 81 - 82



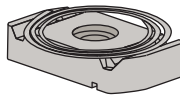
Stud Channel Nuts

Page 82



Channel Nut with Top-Lock Spring

Page 82



Rapid Strut Slide Nut

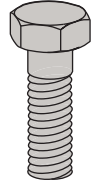
Page 82



| Hardware Material Specifications | | |
|----------------------------------|------------------|---|
| Material | ASTM Designation | ASTM Description |
| Bar Stock: Channel Nuts | A 36 | Merchant quality hot rolled carbon steel bars. |
| | A 29-03 | Steel bars, carbon, hot rolled special quality. |
| Bar Stock | A 569 | Merchant quality hot rolled carbon steel bars. |
| Hardware | A 563 | Carbon and alloy steel nuts. Carbon steel |
| | A 307 | externally threaded standard fasteners. |
| Channel Nuts Stainless Steel | B783 | Sintered 316 - "Domestic Nut" |
| | A240 | Bar Stock 316 - "Import Nut" |
| Aluminum Nuts | B221 | Channel Nuts |

Screws

Page 83



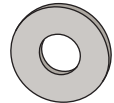
Nuts

Page 83



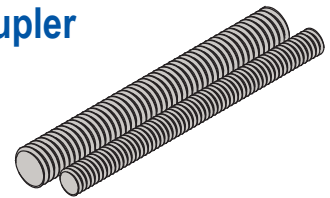
Washers

Page 83



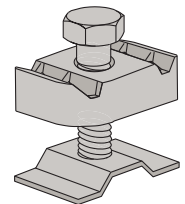
Threaded Rod & Coupler

Page 84



Seismic Rod Stiffener

Page 84

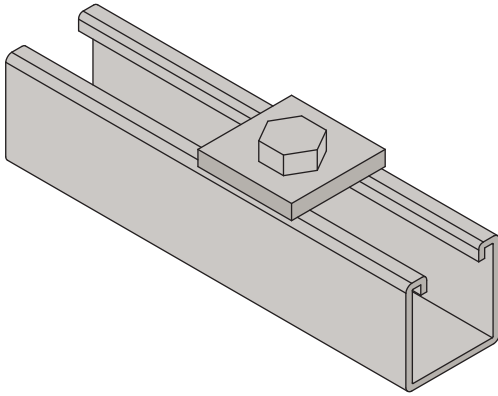


| Hardware Finish Specifications | | |
|--|-------------|--|
| Finish | Finish Code | Description |
| Electroplated | EG | Fittings and hardware supplied as "Electro-Galvanized" in accordance with ASTM B 633. |
| Mill-Galvanized (Pre-Galvanized) | PG | Galvanized steel used in the manufacture of channel sections conforms to ASTM A 653 GR33 G90. Uncoated edges resulted from slitting, punching and channel cut off are present. |
| Hot Dip Galvanized After Fabrication (HDGAF) | HG | Channel and fittings which are hot dip galvanized after fabrication conform to one of the following specifications: ASTM A 123, ASTM A153, or ASTM A386. |
| Special Coatings | PL, GOLD | Other commercially available finishes can be supplied per specification when required to protect applications. |



Channel Nuts

Standard Finish: Electro Galvanized (EG)



Slip And Pull-Out Load Data

| Channel Part No. | Channel Nut | Resistance To Slip (Lbs./Bolt) Safety Factor | | Resistance To Pull-Out (Lbs./Bolt) Safety Factor | |
|------------------|-------------|--|-----|--|-------|
| | | 3 | 5 | 3 | 5 |
| W200 | W2-8 | 1,500 | 900 | 2,000 | 1,200 |
| W210 | W2-8 | 1,000 | 600 | 1,400 | 840 |
| W300 | W2-8 | 1,500 | 900 | 2,000 | 1,200 |
| W500 | W5-8 | 1,000 | 600 | 1,400 | 840 |

Apply Proper Torque

A Channel Nut installed within the last inch of Channel (center of bolt to extreme end of Channel) cannot develop full capacity.

REDUCE ULTIMATE DESIGN LOAD BY 50%.

When installing a Channel Nut near the end of a Channel section, especially within the last inch, remember to true the legs forming the continuous Channel slot before inserting and tightening the Channel Nut.

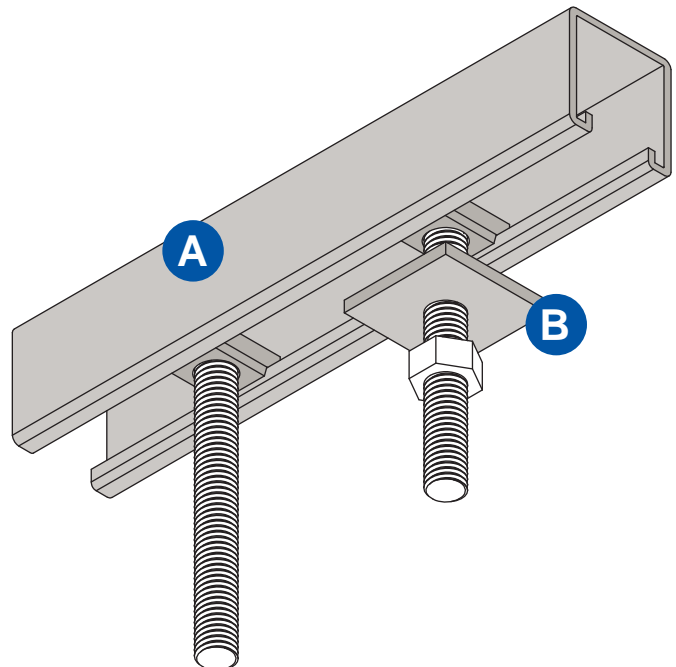
Channel Nuts or their matching threaded fastener that may have been contaminated with oil, wax, petroleum products or any friction reducing medium, will no longer develop a proper torque rating, and may be prone to loosening. To insure proper attachment load rating, properly clean and dry any such contaminated surfaces, paying specific attention to the threaded surfaces. If proper cleaning is not possible, replace the fasteners with uncontaminated stock.

Hanging a section of All Thread Rod directly from a Channel Nut within an overhead mounted section of Channel (without securing with a Fitting or Square Washer and a Hex or Jamb Nut) (Ref. A), does not allow the Channel Nut to function at its proper capacity and could result in the attachment slipping, twisting out or even jumping free of its confinement in a vibration situation. Always capture the Rod and Channel Nut at the face of the Channel as shown (Ref. B). Use proper torque value.

Bolt torque values are given to ensure the proper connection between components. It is important to understand that there is a direct, but not necessarily consistent, relationship between bolt torque and tension in the bolt. Too much tension in the bolt can cause it to break or crush the component parts. Too little tension in the bolt can prevent the connection from developing its full load capacity. The torque values given have been developed over many years of experience and testing.

Design Bolt Torque

| Bolt Size | Foot Pounds |
|------------|-------------|
| 1/4" - 20 | 6 |
| 5/16" - 18 | 11 |
| 3/8" - 16 | 19 |
| 1/2" - 13 | 50 |
| 5/8" - 11 | 100 |
| 3/4" - 10 | 125 |



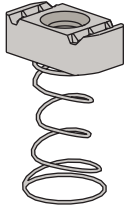
Channel Nuts



Standard Finish: Electro Galvanized (EG)

Channel Nut with Long Spring

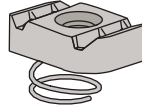
Use with W100 and W150



| Part No. | Size | Thickness |
|----------|-----------|--------------|
| W1-4 | 1/4" - 20 | 1/4" (6mm) |
| W1-6 | 3/8" - 16 | 3/8" (10mm) |
| W1-8 | 1/2" - 13 | 1/2" (13mm) |
| W1-10 | 5/8" - 11 | 7/16" (11mm) |
| W1-12 | 3/4" - 10 | |

Channel Nut with Short Spring

Use with W400, W500, W800, and W900



| Part No. | Size | Thickness |
|----------|------------|-------------|
| W5-0832 | #8 - 32 | 1/4" (6mm) |
| W5-1032 | #10 - 32 | |
| W5-1024 | #10 - 24 | |
| W5-4 | 1/4" - 20 | 3/8" (10mm) |
| W5-5 | 5/16" - 18 | |
| W5-6 | 3/8" - 16 | |
| W5-8 | 1/2" - 13 | |
| W5-10 | 5/8" - 11 | |

Mini Nut with Standard Spring

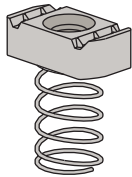
Use with W600



| Part No. | Size | Thickness |
|----------|-----------|--------------|
| W6-0836 | #8 - 36 | 0.150" (4mm) |
| W6-0832 | #8 - 32 | |
| W6-1032 | #10 - 32 | |
| W6-1024 | #10 - 24 | |
| W6-4 | 1/4" - 20 | |

Channel Nut with Standard Spring

Use with W200, W210, and W300



| Part No. | Size | Thickness |
|----------|------------|--------------|
| W2-0832 | #8 - 32 | 1/4" (6mm) |
| W2-1032 | #10 - 32 | |
| W2-1024 | #10 - 24 | |
| W2-4 | 1/4" - 20 | 3/8" (10mm) |
| W2-5 | 5/16" - 18 | |
| W2-6 | 3/8" - 16 | |
| W2-7 | 7/16" - 14 | 1/2" (13mm) |
| W2-8 | 1/2" - 13 | |
| W2-10 | 5/8" - 11 | 7/16" (11mm) |
| W2-12 | 3/4" - 10 | |
| W2-14 | 7/8" - 9 | |

Channel Nut Without Spring

Use with W100, W150, W200, W210, W300, W400, W500, W800, and W900



| Part No. | Use | Size | Thickness |
|-----------|-----|------------|--------------|
| W1-10WS | CCC | 5/8" - 11 | 7/16" (11mm) |
| W2-0832WS | | #8 - 32 | 1/4" (6mm) |
| W2-1032WS | | #10 - 32 | |
| W2-1024WS | | #10 - 24 | |
| W2-4WS | | 1/4" - 20 | 3/8" (10mm) |
| W2-5WS | | 5/16" - 18 | |
| W2-6WS | | 3/8" - 16 | |
| W2-7WS | | 7/16" - 14 | 1/2" (13mm) |
| W2-8WS | CC | 1/2" - 13 | |
| W2-10WS | CC | 5/8" - 11 | 7/16" (11mm) |
| W2-12WS | CC | 3/4" - 10 | |
| W5-8WS | C | 1/2" - 13 | 3/8" (10mm) |
| W5-10WS | C | 5/8" - 11 | |

C = Use with W400 and W500

CC = Not for Use with W400, W500, & W900

CCC = Use with W100 and W150

Mini Nut with Short Spring

Use with W700



| Part No. | Size | Thickness |
|----------|-----------|--------------|
| W7-0836 | #8 - 36 | 0.150" (4mm) |
| W7-0832 | #8 - 32 | |
| W7-1032 | #10 - 32 | |
| W7-1024 | #10 - 24 | |
| W7-4 | 1/4" - 20 | |

Channel Nut With Cone

Use with W100, W150, W200, W210, W300, W400, W500, W800 and W900

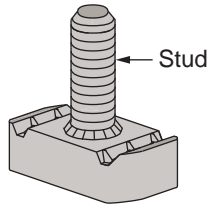


| Part No. | Size | Thickness |
|----------|-----------|-------------|
| W2-4CN | 1/4" - 20 | 1/4" (6mm) |
| W2-6CN | 3/8" - 16 | 3/8" (10mm) |
| W2-8CN | 1/2" - 13 | 1/2" (13mm) |



Stud Nut without Spring

Use with W200, W210, and W300

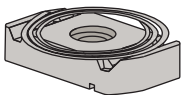


| Part No. | Stud Size |
|-----------|--------------------|
| W4-1SNWS | 1/4" - 20 x 7/8" |
| W4-2SNWS | 1/4" - 20 x 1-1/8" |
| W4-3SNWS | 1/4" - 20 x 1-3/8" |
| W6-1SNWS | 3/8" - 16 x 7/8" |
| W6-2SNWS | 3/8" - 16 x 1-1/8" |
| W6-3SNWS | 3/8" - 16 x 1-3/8" |
| W6-4SNWS | 3/8" - 16 x 1-5/8" |
| W6-5SNWS | 3/8" - 16 x 1-7/8" |
| W6-6SNWS | 3/8" - 16 x 2-1/8" |
| W8-2SNWS | 1/2" - 13 x 1-1/8" |
| W8-3SNWS | 1/2" - 13 x 1-3/8" |
| W8-4SNWS | 1/2" - 13 x 1-5/8" |
| W8-5SNWS | 1/2" - 13 x 1-7/8" |
| W8-6SNWS | 1/2" - 13 x 2-1/8" |
| W10-2SNWS | 5/8" - 11 x 1-1/8" |
| W10-3SNWS | 5/8" - 11 x 1-3/8" |

For Applications In other Channels Consult Factory.

Channel Nut with Top-Lock Spring

Use with W100, W150, W200, W210, W300, W400, W500, W800, and W900

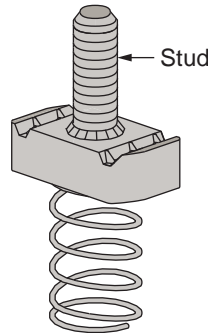


| Part No. | Size | Thickness |
|-----------|------------|-------------|
| W2-0832TL | #8 - 32 | 1/4" (6mm) |
| W2-1032TL | #10 - 32 | |
| W2-1024TL | #10 - 24 | |
| W2-4TL | 1/4" - 20 | 3/8" (10mm) |
| W2-5TL | 5/16" - 18 | |
| W2-6TL | 3/8" - 16 | 1/2" (13mm) |
| W2-8TL | 1/2" - 13 | |
| W5-8TL | 1/2" - 13 | |

c = Not for use with W400 or W500

Stud Nut with Spring

Use with W200, W210, and W300

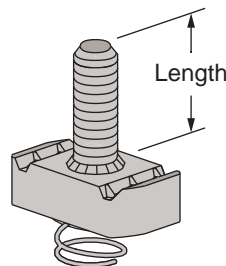


| Part No. | Size |
|----------|--------------------|
| W4-1SN | 1/4" - 20 x 7/8" |
| W4-2SN | 1/4" - 20 x 1-1/8" |
| W4-3SN | 1/4" - 20 x 1-3/8" |
| W6-1SN | 3/8" - 16 x 7/8" |
| W6-2SN | 3/8" - 16 x 1-1/8" |
| W6-3SN | 3/8" - 16 x 1-3/8" |
| W6-4SN | 3/8" - 16 x 1-5/8" |
| W6-5SN | 3/8" - 16 x 1-7/8" |
| W6-6SN | 3/8" - 16 x 2-1/8" |
| W8-2SN | 1/2" - 13 x 1-1/8" |
| W8-3SN | 1/2" - 13 x 1-3/8" |
| W8-4SN | 1/2" - 13 x 1-5/8" |
| W8-5SN | 1/2" - 13 x 1-7/8" |
| W8-6SN | 1/2" - 13 x 2-1/8" |
| W10-2SN | 5/8" - 11 x 1-1/8" |
| W10-3SN | 5/8" - 11 x 1-3/8" |

For Applications In other Channels Consult Factory.

Stud Nut with Short Spring

Use with W400, W500, W800, and W900



| Part No. | Size |
|----------|--------------------|
| W5-3SN | 3/8" - 16 x 1-3/8" |

For Applications In other Channels Consult Factory.

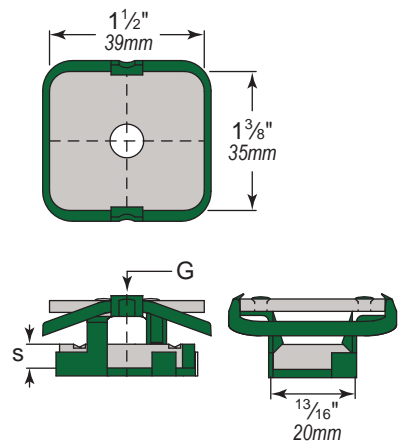
Rapid Strut Slide Nut

Use with W100, W150, W200, W210, W300, W400, W500, W800, and W900



Features and Benefits

- Ready-to-use pre-assembled for a quick installation, that retains assembly in place before final tightening
- Replaces channel nut and fitting with single piece
- Material: metal parts made of steel 1.0332; spring(s) made of POM (polyoxymethylene), green
- Conforms to MFMA Metal Framing Standards (Metal Framing Manufacturers Association)
- Zinc plated



| Part No. | Size | Thickness |
|------------|-----------|-------------|
| TLCSW1/4 | 1/4" - 20 | 1/4" (6mm) |
| TLCSW3/8 | 3/8" - 16 | |
| TLCSW1/2EG | 1/2" - 13 | 3/8" (10mm) |



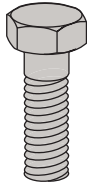
Hardware



Standard Finish: Electro Galvanized (EG)

W7400 - W7415

Hex Head Cap Screws

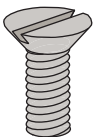


| Part No. | Size UNC |
|----------|-----------------|
| W7400 | 1/4" x 1/2" |
| W7401 | c 1/4" x 3/4" |
| W7402 | c 1/4" x 1" |
| W7403 | 3/8" x 3/4" |
| W7404 | 3/8" x 1" |
| W7405 | c 3/8" x 1-1/4" |
| W7406 | 3/8" x 1-1/2" |
| W7407 | 3/8" x 2" |
| W7408 | 3/8" x 2-1/4" |
| W7409 | 1/2" x 1-5/16" |
| W7410 | 1/2" x 1-1/4" |
| W7411 | 1/2" x 1-1/2" |
| W7412 | 1/2" x 1-3/4" |
| W7413 | 1/2" x 2" |
| W7414 | 1/2" x 2-1/4" |
| W7415 | 1/2" x 2-1/2" |

c = Provided as slotted machine screw

W7420 - W7424

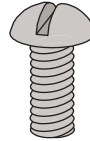
Flathead Machine Screws



| Part No. | Size UNC |
|----------|---------------|
| W7420 | 1/4" x 5/8" |
| W7421 | 5/16" x 1" |
| W7422 | 3/8" x 2" |
| W7423 | 3/8" x 2-1/4" |
| W7424 | 3/8" x 2-1/2" |

W7470 - W7479

Roundhead Machine Screws



| Part No. | Size UNC |
|----------|----------------|
| W7470 | 1/4" x 3/4" |
| W7471 | 1/4" x 1" |
| W7472 | 1/4" x 1-1/4" |
| W7473 | 5/16" x 1" |
| W7474 | 5/16" x 1-1/4" |
| W7475 | 5/16" x 1-1/2" |
| W7476 | 3/8" x 1" |
| W7477 | 3/8" x 1-1/4" |
| W7478 | 3/8" x 1-1/2" |
| W7479 | 3/8" x 2-1/2" |

W7490 - W7492

Kep Nuts



| Part No. | Size UNC |
|----------|----------|
| W7490 | 1/4" |
| W7491 | 5/16" |
| W7492 | 3/8" |

W7480 - W7483

Square Nuts



| Part No. | Size UNC |
|----------|----------|
| W7480 | 1/4" |
| W7481 | 5/16" |
| W7482 | 3/8" |
| W7483 | 1/2" |

W7460 - W7465

Hex Nuts



| Part No. | Size UNC |
|----------|----------|
| W7460 | 1/4" |
| W7461 | 5/16" |
| W7462 | 3/8" |
| W7463 | 1/2" |
| W7464 | 5/8" |
| W7465 | 3/4" |

W7430 - W7433

Lock Washers



| Part No. | Size |
|----------|------|
| W7430 | 1/4" |
| W7431 | 3/8" |
| W7432 | 1/2" |
| W7433 | 5/8" |

W7440 - W7444

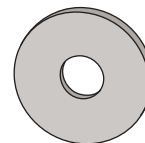
Flat Washers



| Part No. | Size |
|----------|------|
| W7440 | 1/4" |
| W7441 | 3/8" |
| W7442 | 1/2" |
| W7443 | 5/8" |
| W7444 | 3/4" |

W7450 - W7452

Fender Washers



| Part No. | Size |
|----------|---------------|
| W7450 | 1/4" x 1-1/4" |
| W7451 | 3/8" x 1-1/2" |
| W7452 | 1/2" x 1-1/2" |





Threaded Rod

Standard Finish: Electro Galvanized (EG)

W7124 - W7128

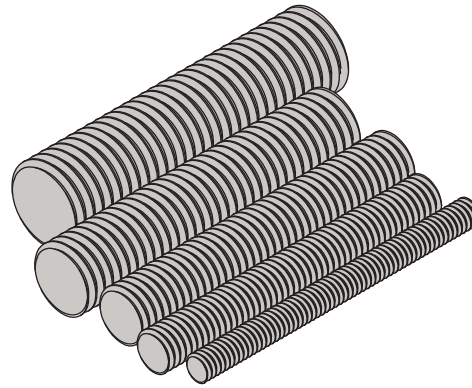
Threaded Rod

Standard Length 10' (3m)

Materials - ASTM A307 Grade A

Rod Loads based on MSS-SP-58

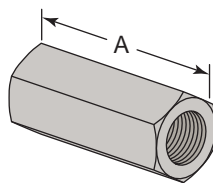
Threaded rod and rod couplers have unified and American coarse screw threads UNC.



| Part No. | Nominal Rod Diameter In. | Rod Loads based on MSS-SP-58 | |
|----------|--------------------------|------------------------------|---|
| | | Root Area of Thread | Max. Safe Load at Rod Temp of 650°F (343°C) |
| | | Sq. In. | Pounds |
| W7124 | 1/4" - 20 | 0.03" | 240 |
| W7125 | 3/8" - 16 | 0.07" | 730 |
| W7126 | 1/2" - 13 | 0.13" | 1,350 |
| W7127 | 5/8" - 11 | 0.20" | 2,160 |
| W7128 | 3/4" - 10 | 0.30" | 3,230 |

W7134 - W7138

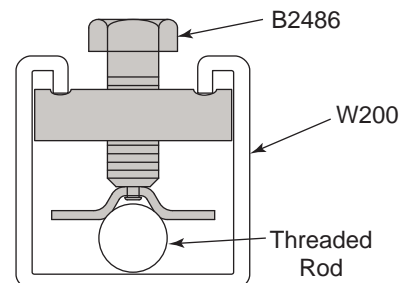
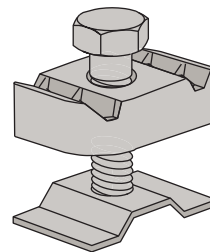
Rod Couplers



| Part No. | Hole Size | A Length |
|----------|------------|---------------|
| W7134 | 1/4" - 20 | 7/8" (22mm) |
| W7134A | 5/16" - 18 | 7/8" (22mm) |
| W7135 | 3/8" - 16 | 1-3/4" (44mm) |
| W7136 | 1/2" - 13 | 1-3/4" (44mm) |
| W7137 | 5/8" - 11 | 2-1/8" (54mm) |
| W7138 | 3/4" - 10 | 2-1/4" (57mm) |

B2486

Seismic Rod Stiffener

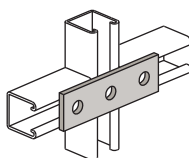


General Fittings



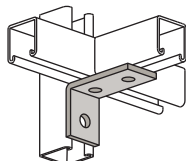
Flat Plate Fittings

Pages 86 - 87



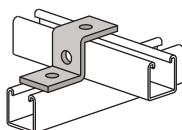
90° Angle Fittings

Pages 88 - 90



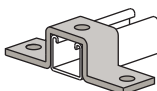
Zee Fittings

Page 91



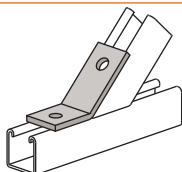
“U” Shape Fittings

Pages 91 - 93



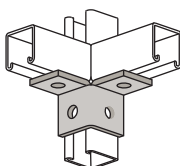
Bracing

Pages 94 - 95



Wing Fittings

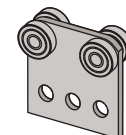
Pages 95 - 96



| Fittings Specifications | | |
|----------------------------------|------------------------------------|--|
| Material | ASTM | ASTM Description |
| Hot Rolled Plate | A 575, A 1011, A 1018, A 576, A638 | Steel, sheet and strip, carbon drawing quality, special killed, hot rolled. |
| Fitting: Steel | A 366, A 36 | Steel carbon, cold rolled sheet, commercial quality structural steel. |
| Strip Steel: Pipe Clamps | A 569 | Steel, sheet and strip, carbon drawing quality, special killed, hot rolled. |
| Stainless Steel (ST304 or ST316) | A 240 TYPE 304 | Heat resisting chromium and chromium-nickel stainless steel plate, sheet, strip for pressure vessel. |
| | A 240 TYPE 316 | |
| Aluminum (AL) | B 221 | Aluminum alloy extruded bar, rod, wire, shape and tube. |

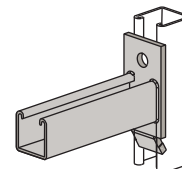
Trolley

Page 97



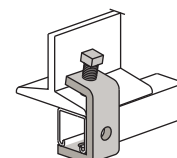
Brackets

Pages 98 - 108



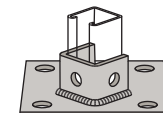
Beam Clamps

Pages 109 - 113



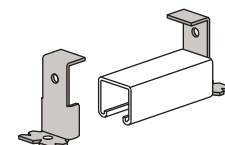
Post Bases

Pages 114 - 115



End Caps

Page 116



| Fitting Finish Specifications | | |
|--|-------------|--|
| Finish | Finish Code | Description |
| Paint-Green Powder Coating | GR | A dark green low gloss powder coating is applied and thoroughly baked after steel has been cleaned and phosphatized. |
| Electroplated | EG | Fittings and hardware supplied as "Electro-Galvanized" in accordance with ASTM B 633. |
| Mill-Galvanized (Pre-Galvanized) | PG | Galvanized steel used in the manufacture of channel sections conforms to ASTM A 653 GR33 G90. Uncoated edges resulted from slitting, punching and channel cut off are present. |
| Hot Dip Galvanized After Fabrication (HDGAF) | HG | Wesanco channel and fittings which are hot dip galvanized after fabrication conform to one of the following specifications. ASTM A 123, ASTM A153, or ASTM A386. |
| Special Coatings | PL, GOLD | Other commercially available finishes can be supplied per specification when required to protect applications. |

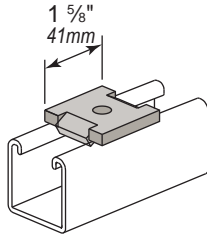
Call ZSi-Foster at (800) 323-7053 or order now at zsi-foster.com

Flat Plate Fittings

Standard Finish: Electro Galvanized (EG)

W5002 to W5006

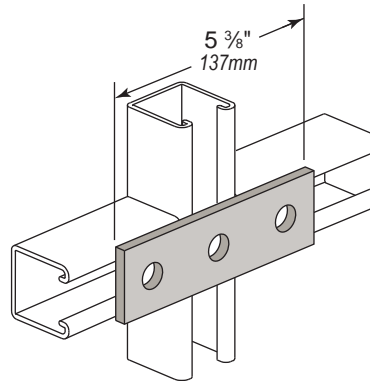
Anti-Rotation Square Washer



| Part No. | Bolt | Hole |
|----------|-------|--------|
| W5002 | 5/16" | 11/32" |
| W5003 | 3/8" | 7/16" |
| W5004 | 1/2" | 9/16" |
| W5005 | 5/8" | 11/16" |
| W5006 | 3/4" | 13/16" |

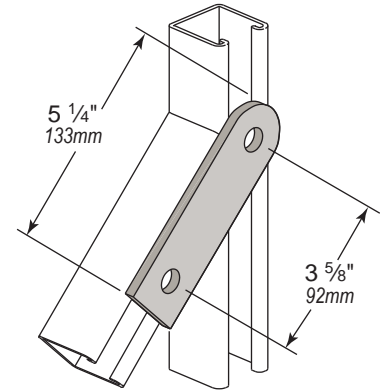
W5008

Three-Hole Splice Plate



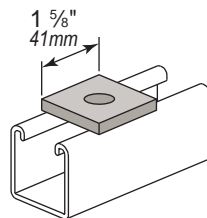
W5011

Two-Hole Swivel Plate



W5052 to W5056

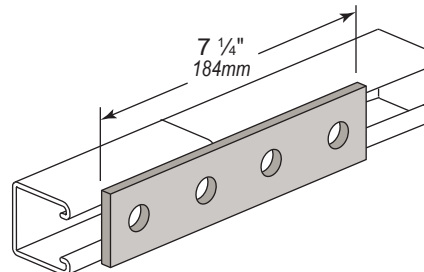
Square Washer



| Part No. | Bolt | Hole |
|----------|-------|--------|
| W5052 | 5/16" | 11/32" |
| W5053 | 3/8" | 7/16" |
| W5054 | 1/2" | 9/16" |
| W5055 | 5/8" | 11/16" |
| W5056 | 3/4" | 13/16" |

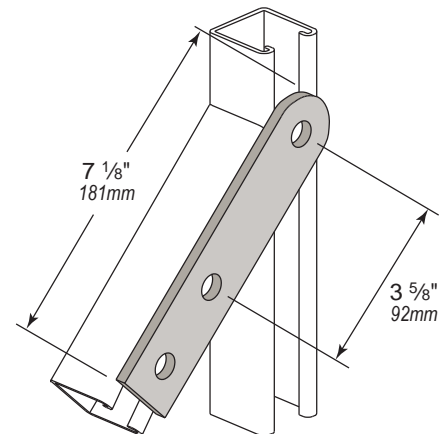
W5009

Four-Hole Splice Plate



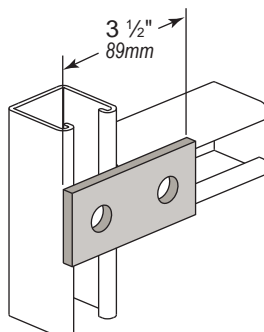
W5012

Three-Hole Swivel Plate



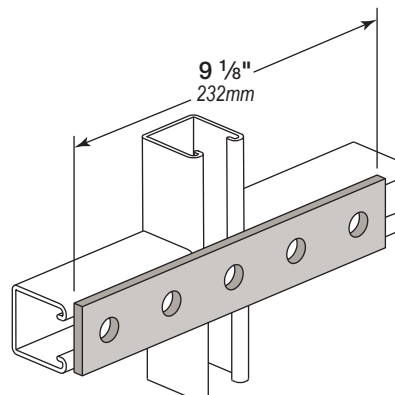
W5007

Two-Hole Splice Plate



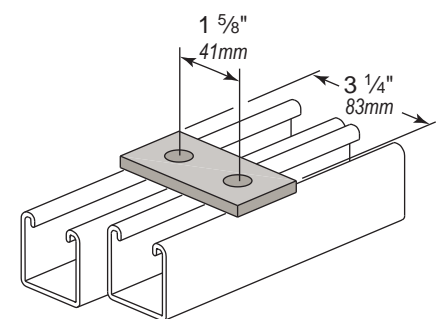
W5010

Five-Hole Splice Plate



W5013

Parallel Splice Plate



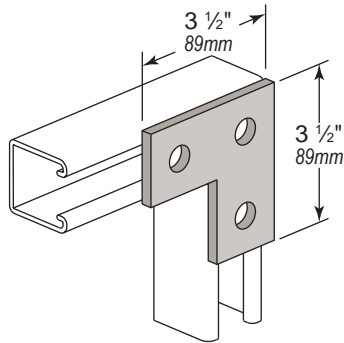
Flat Plate Fittings

Standard Finish: Electro Galvanized (EG)



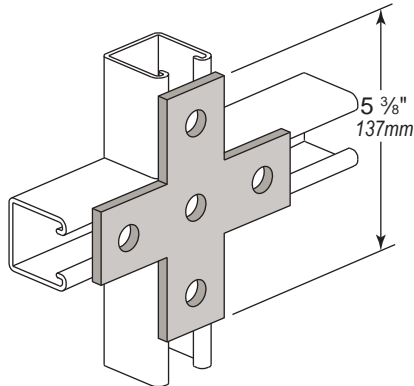
W5021

Three-Hole Flat Angle Plate



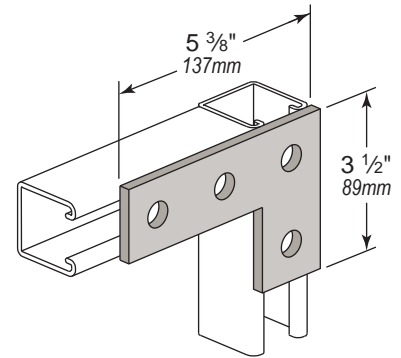
W5023

Five-Hole Cross Plate



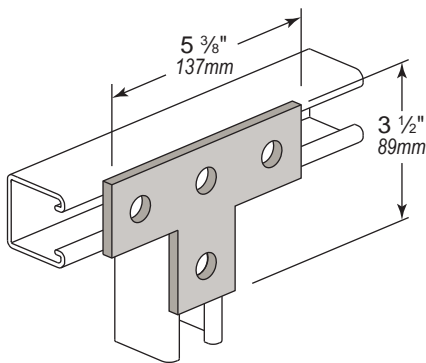
W5025

Four-Hole Extended Angle Flat Plate



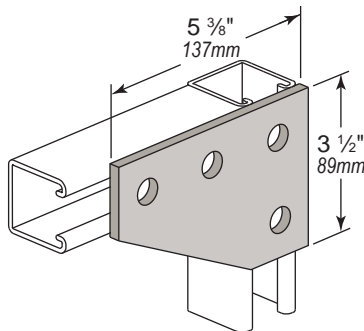
W5022

Four-Hole Tee Plate



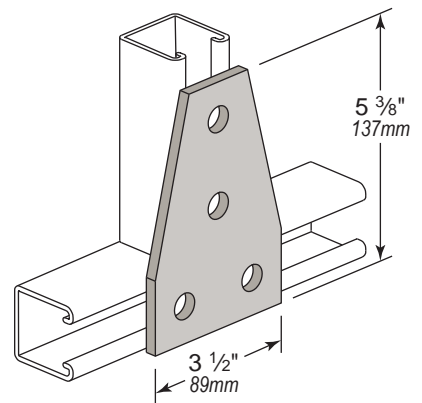
W5024

Four-Hole Corner Plate



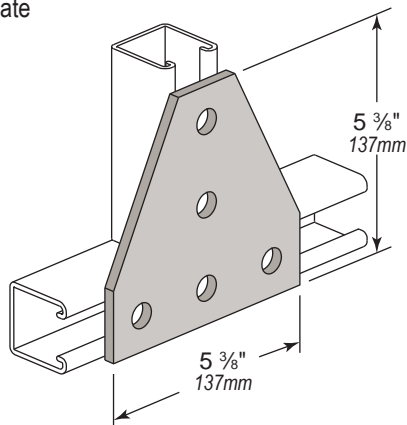
W5026

Four-Hole Gusset Plate



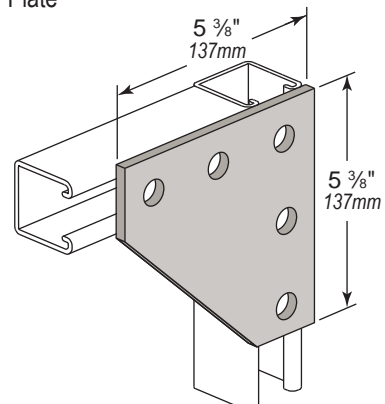
W5027

Five-Hole Gusset Plate



W5028

Five-Hole Corner Plate

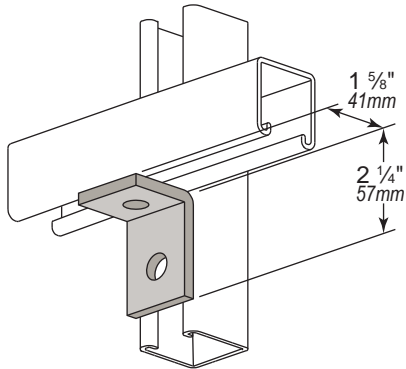


90° Fittings

Standard Finish: Electro Galvanized (EG)

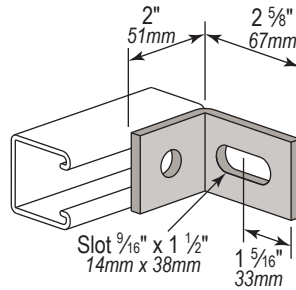
W5102

Two-Hole Rack Connector



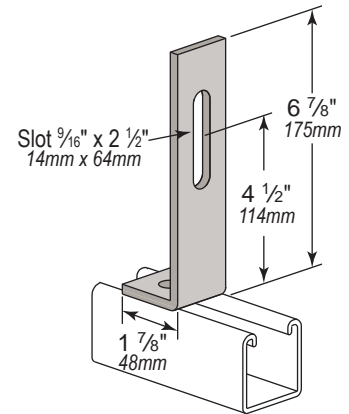
W5105

Two-Hole Horizontal Adjustment Angle



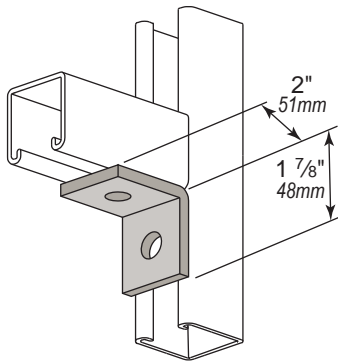
W5108

Two-Hole Adjustment Angle



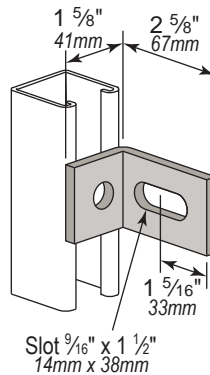
W5103

Two-Hole End Connector



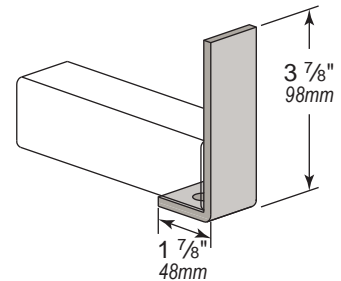
W5106

Two-Hole Vertical Adjustment Angle



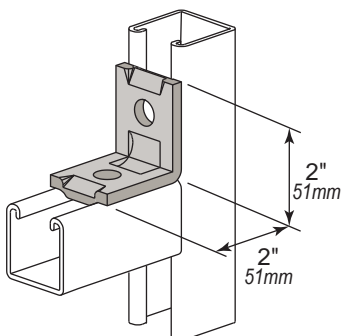
W5160

One-Hole Angle Fitting



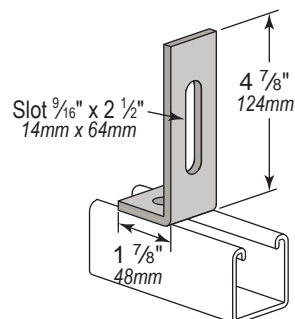
W5104

Two-Hole Angle (Indented)



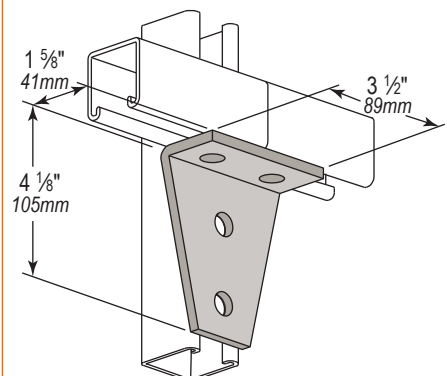
W5107

Two-Hole Adjustment Angle



W5109

Four-Hole Rack Splice Connector



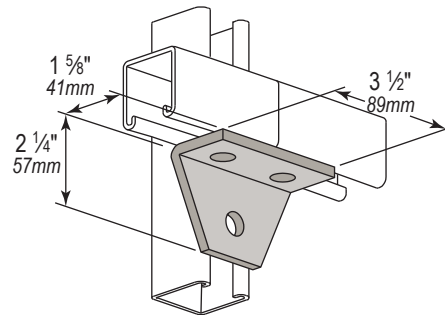
90° Angle Fittings

Standard Finish: Electro Galvanized (EG)



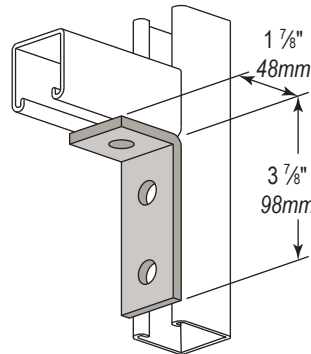
W5110

Three-Hole Rack Splice Connector



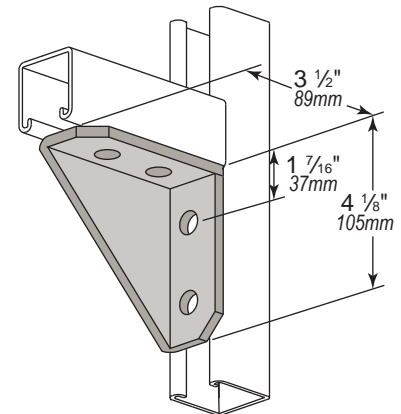
W5113

Three-Hole End Connector



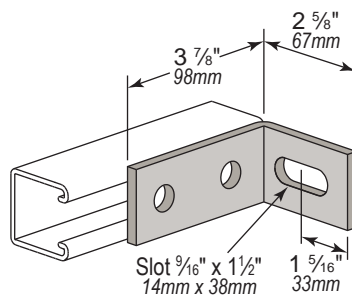
W5121 or W5122

Four-Hole Gusset Corner Angle



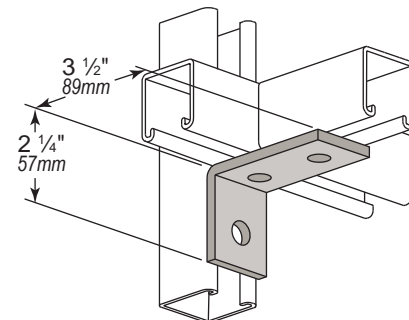
W5111

Three-Hole Adjustment Angle



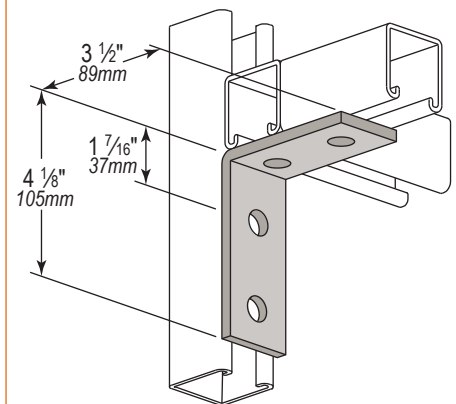
W5115

Three-Hole Rack Corner Angle



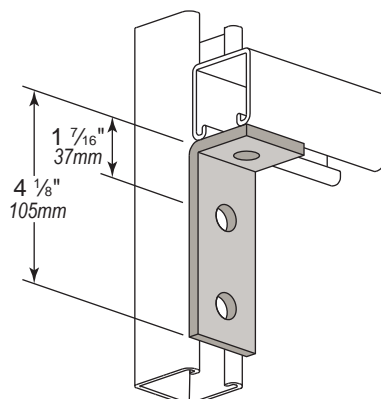
W5123

Four-Hole Rack Corner Angle



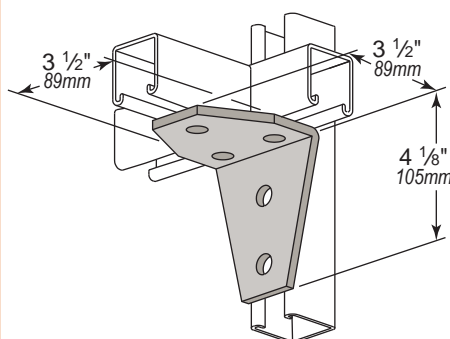
W5112

Three-Hole Rack Connector



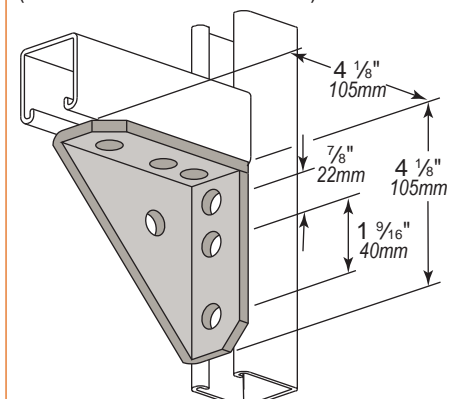
W5117

Five-Hole Corner Splice Connector



W5124 or W5124W

Universal Corner Angle
(W5124W has Welded Corner)



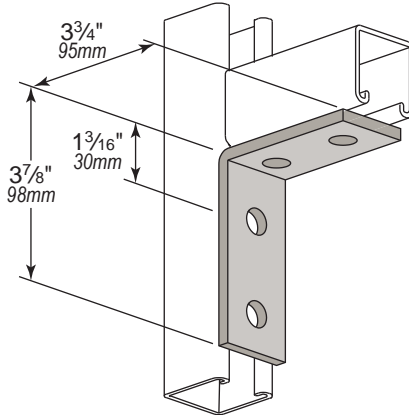


90° Angle Fittings

Standard Finish: Electro Galvanized (EG)

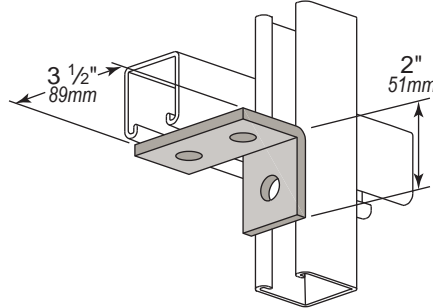
W5125

Four-Hole Corner Connector



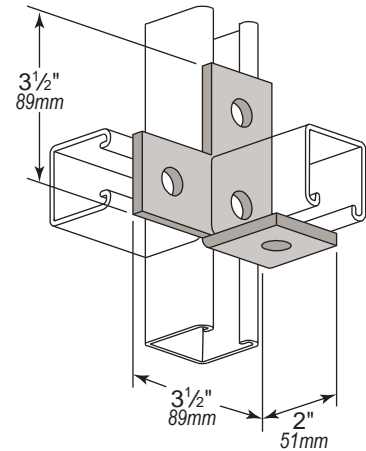
W5135

Three-Hole Left Hand Angle Connector



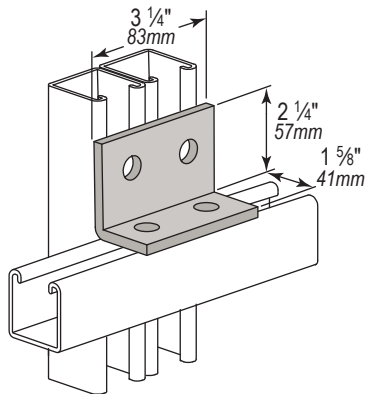
W5140

Four-Hole Left Hand Angle Connector



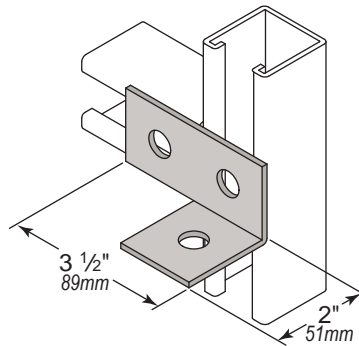
W5126

Four-Hole Connector



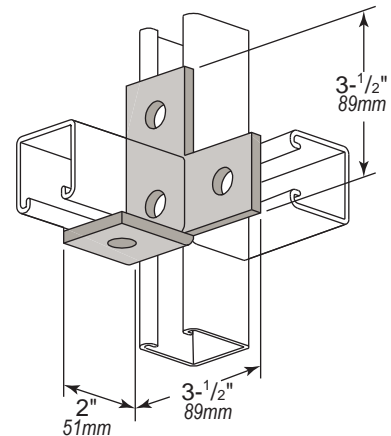
W5136

Three-Hole Right Hand Angle Connector



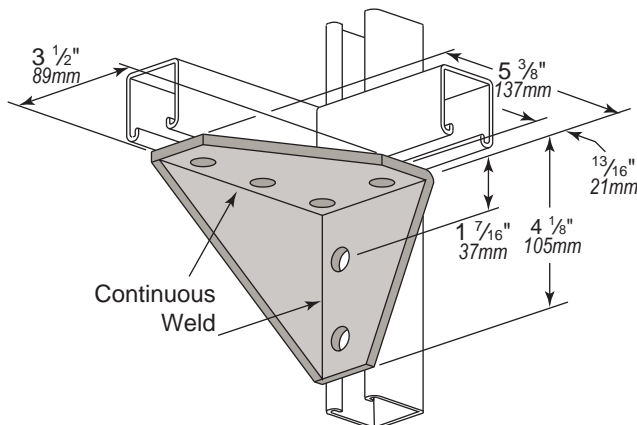
W5141

Four-Hole Right Hand Angle Connector



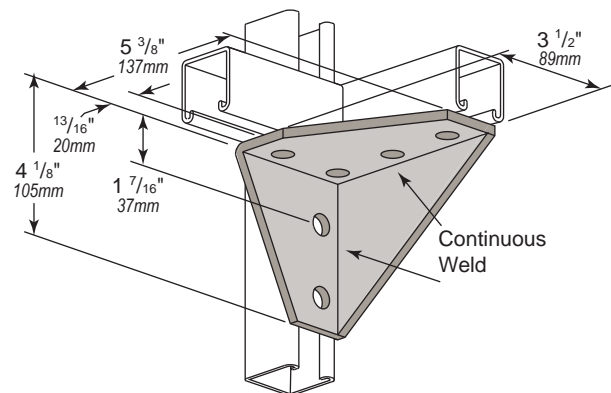
W5156

Six-Hole Left Hand Gusset Corner Angle



W5157

Six-Hole Right Hand Gusset Corner Angle



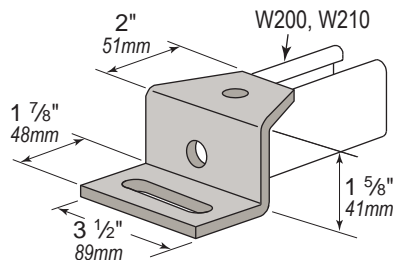
Zee & "U" Shape Fittings



Standard Finish: Electro Galvanized (EG)

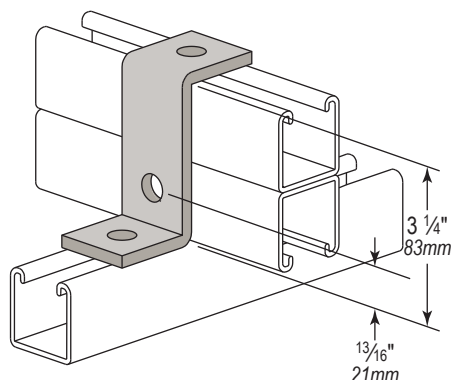
W5202

Slotted Adjustable Zee Connector



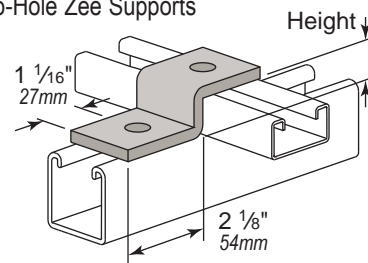
W5210

Three-Hole Zee Supports



W5209 thru W5218

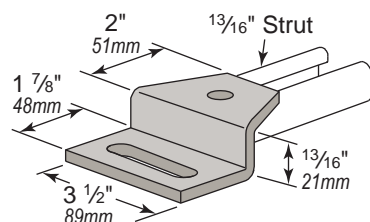
Two-Hole Zee Supports



| Part No. | Use with | Channel Height |
|----------|------------|----------------|
| W5209 | W101 | 4-7/8" (124mm) |
| W5211 | W100 | 2-7/16" (62mm) |
| W5213 | W300 | 1-3/8" (35mm) |
| W5215 | W400, W500 | 13/16" (21mm) |
| W5218 | W800 | 1" (25mm) |

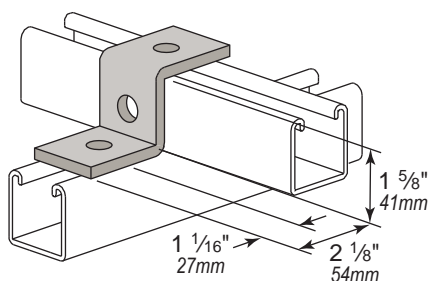
W5205

Slotted Adjustable Zee Connector



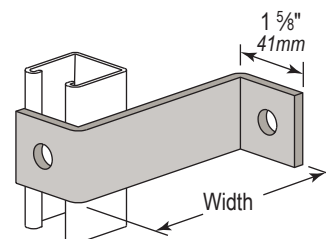
W5212

Three-Hole Zee Supports



W5224 thru W5228

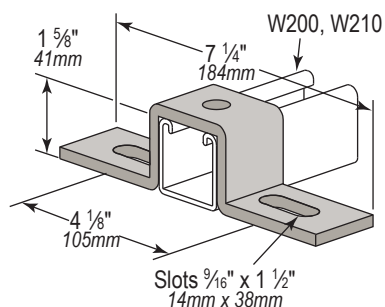
Two-Hole Zee Connectors



| Part No. | Width |
|----------|------------|
| W5224 | 4" (102mm) |
| W5225 | 5" (127mm) |
| W5226 | 6" (152mm) |
| W5227 | 7" (178mm) |
| W5228 | 8" (203mm) |

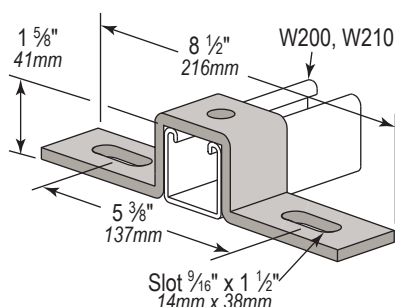
W5307

Slotted "U" Support



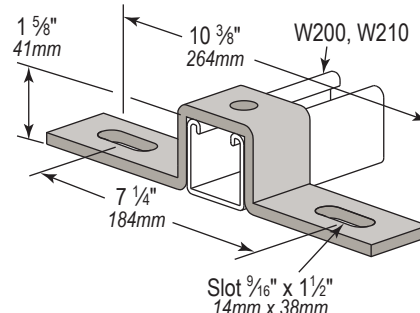
W5308

Slotted "U" Support



W5310

Slotted "U" Support



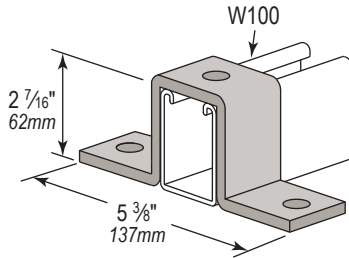


"U" Shape Fittings

Standard Finish: Electro Galvanized (EG)

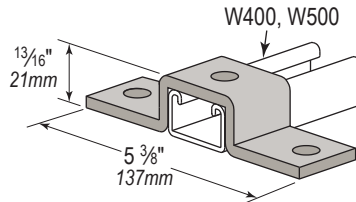
W5311

Three-Hole "U" Supports for W100



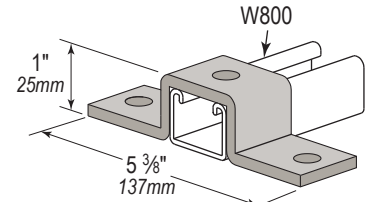
W5315

Three-Hole "U" Supports for W400 or W500



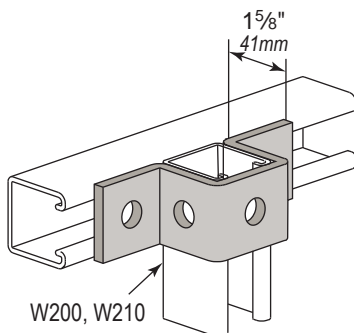
W5318

Three-Hole "U" Support for W800



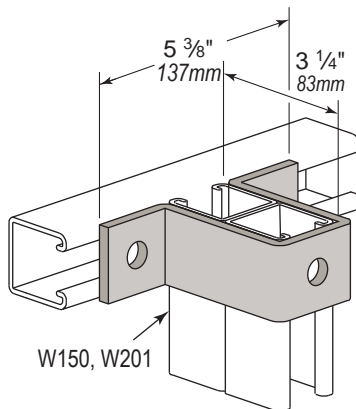
W5312

Five-Hole "U" Supports for W200 or W210



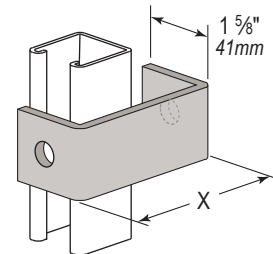
W5316

Three-Hole "U" Supports for W150 or W201



W5324 thru W5328

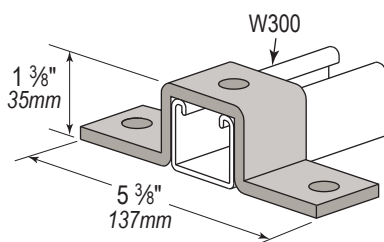
Two-Hole Clevis Connector



| Part No. | X |
|----------|------------|
| W5324 | 4" (102mm) |
| W5325 | 5" (127mm) |
| W5326 | 6" (152mm) |
| W5327 | 7" (178mm) |
| W5328 | 8" (203mm) |

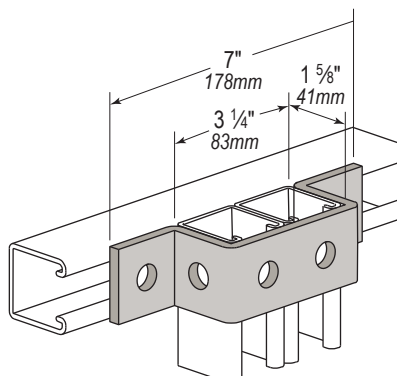
W5313

Three-Hole "U" Supports for W300



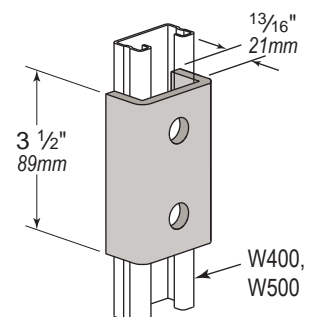
W5317

Six-Hole "U" Support (Double Channel)



W5342

Two-Hole Splice for W400 or W500



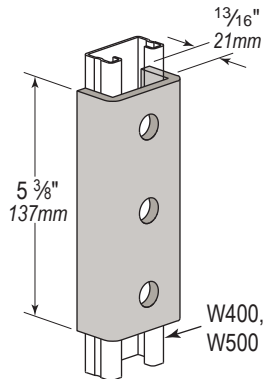
"U" Shape Fittings & Bracing



Standard Finish: Electro Galvanized (EG)

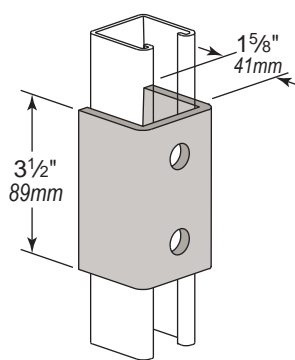
W5343

Three-Hole Splice for W400 or W500



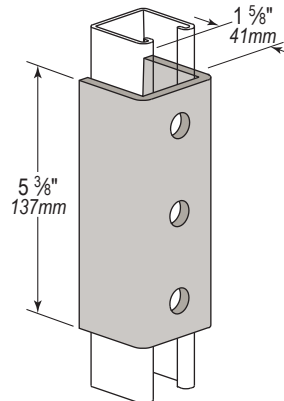
W5344

Two-Hole Splice for W200, W210, W401, or W501



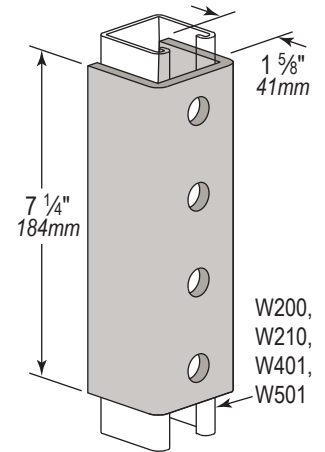
W5346

Three-Hole Splice for W200, W210, W401, or W501



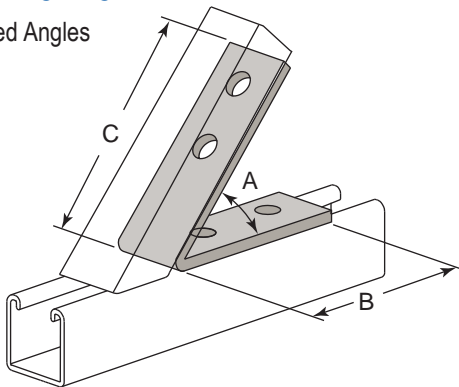
W5345

Four-Hole Splice for W200, W210, W401, or W501



W5413 & W5415

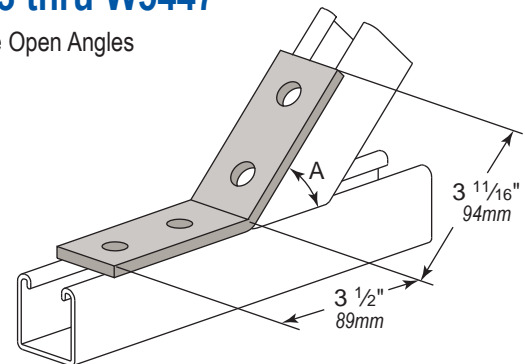
Four-Hole Closed Angles



| Part No. | A | B | C |
|----------|-----|--|--|
| W5413 | 60° | 4- ²¹ / ₃₂ " (118mm) | 4- ⁵ / ₈ " (117mm) |
| W5415 | 45° | 4- ¹⁵ / ₁₆ " (125mm) | 4- ¹¹ / ₃₂ " (110mm) |

W5443 thru W5447

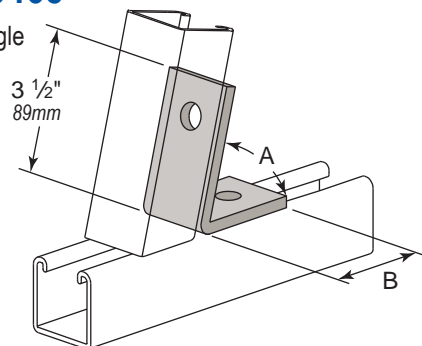
Four-Hole Open Angles



| Part No. | A |
|----------|-----|
| W5443 | 60° |
| W5445 | 45° |
| W5447 | 30° |

W5463 & W5465

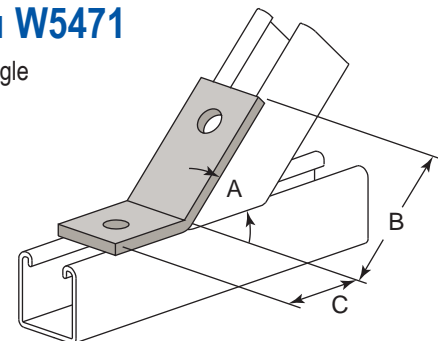
Two-Hole Closed Angle



| Part No. | A | B |
|----------|-----|---|
| W5463 | 60° | 2- ²⁵ / ₃₂ " (71mm) |
| W5465 | 45° | 3- ¹ / ₁₆ " (78mm) |

W5423 thru W5471

Two-Hole Open Angle



| Part No. | A | B | C |
|----------|-----|---|--|
| W5423 | 60° | 3- ³ / ₈ " (86mm) | 1- ⁷ / ₈ " (48mm) |
| W5425 | 45° | 3" (76mm) | 2- ⁵ / ₁₆ " (59mm) |
| W5427 | 30° | 3- ¹ / ₄ " (83mm) | 2- ¹ / ₁₆ " (52mm) |
| W5471 | 15° | 3- ⁵ / ₁₆ " (100mm) | 2- ¹ / ₁₆ " (52mm) |



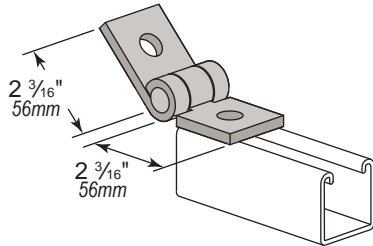


Bracing

Standard Finish: Electro Galvanized (EG)

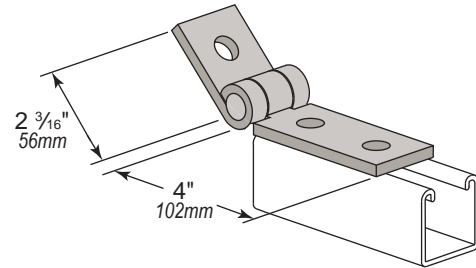
B5490

Two-Hole Adjustable Hinge Connection



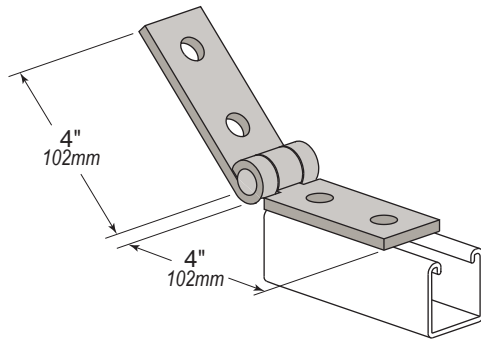
B5491

Three-Hole Adjustable Hinge Connection



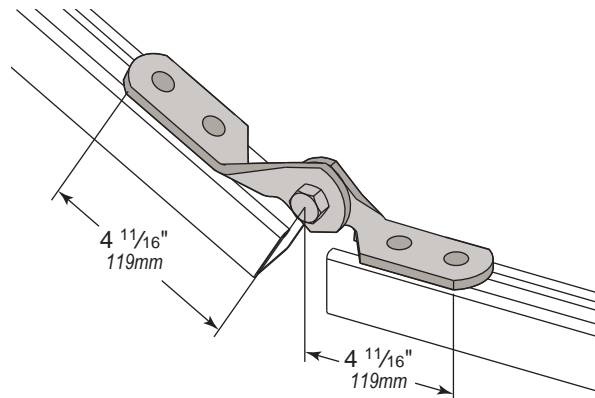
B5492

Four-Hole Adjustable Hinge Connection



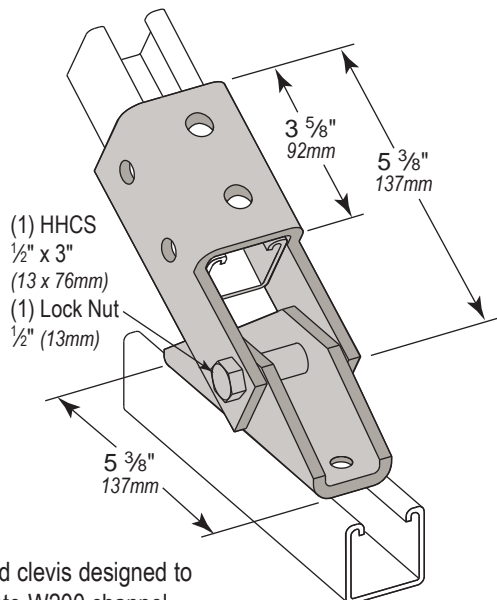
B5495

Four-Hole Adjustable Angle Fitting



W5480

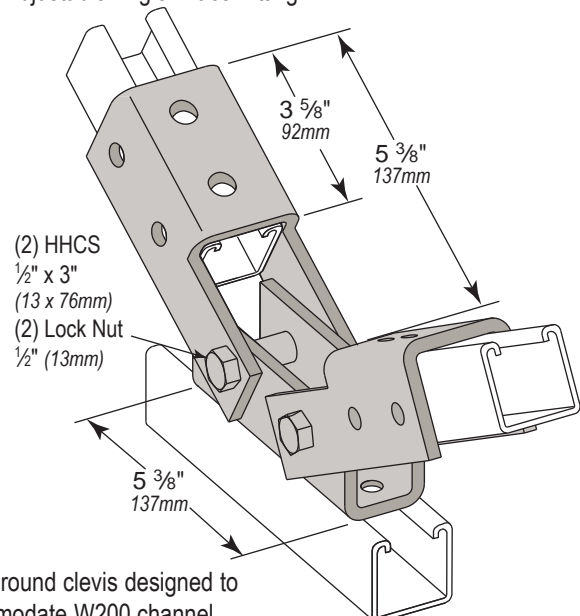
Single Adjustable Angle Brace Fitting



Wrap around clevis designed to accommodate W200 channel

W5485

Double Adjustable Angle Brace Fitting



Wrap around clevis designed to accommodate W200 channel



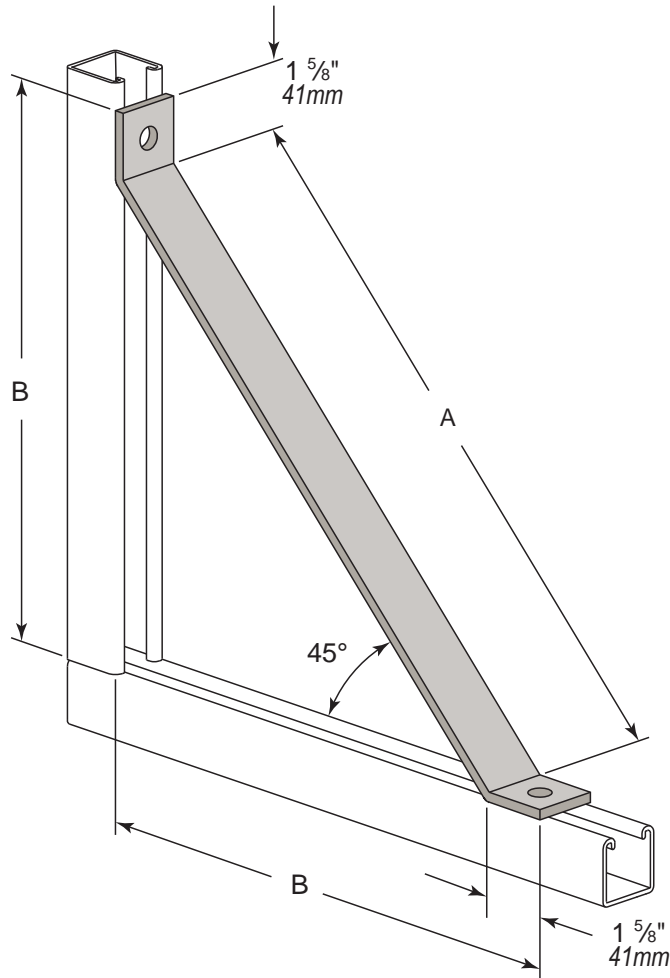
Bracing & Wing Fittings



Standard Finish: Electro Galvanized (EG)

W5472 thru W5475

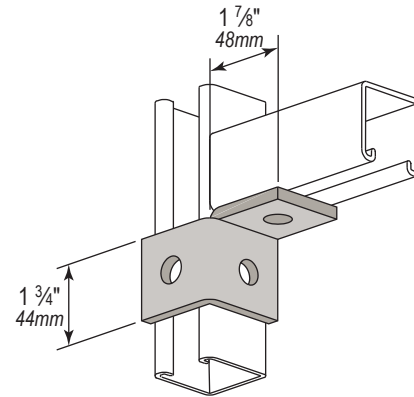
45° Angular Corner Brace



| Part No. | A | B |
|----------|-----------------|-----------------|
| W5472 | 12" (305mm) | 10-1/8" (257mm) |
| W5473 | 16-5/8" (422mm) | 13-3/8" (340mm) |
| W5474 | 18" (457mm) | 14-3/8" (365mm) |
| W5475 | 24" (610mm) | 18-5/8" (473mm) |

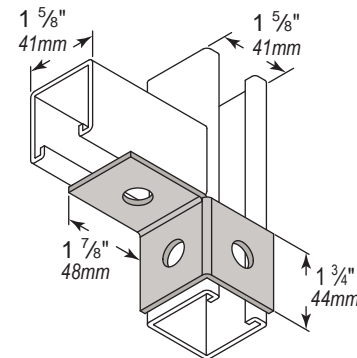
W5510

Three-Hole Right Corner Angle



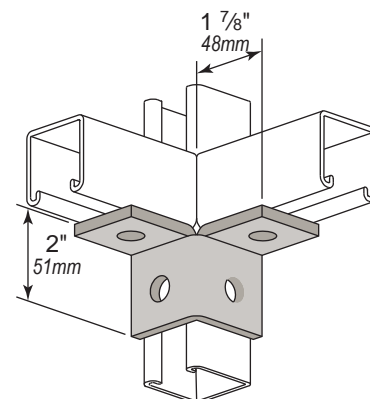
W5511

Three-Hole Left Corner Angle



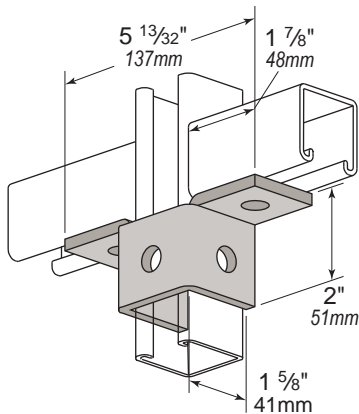
W5512

Four-Hole 90 Degree Corner Angle



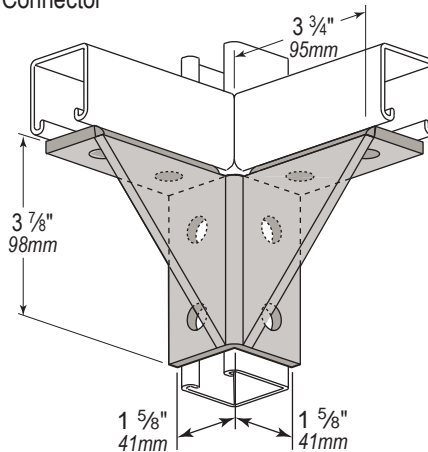
W5513

Five-Hole Two Side Angle Connector



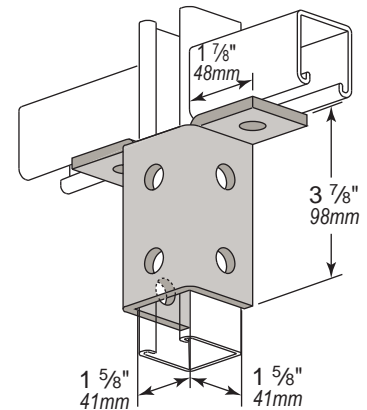
W5516

Eight-Hole Gusseted Corner Angle Connector



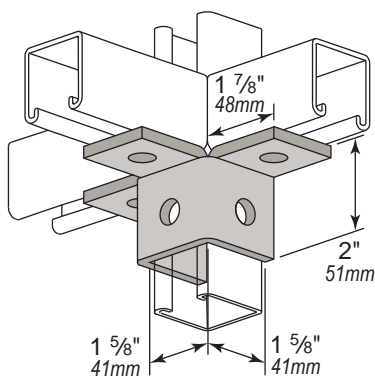
W5519

Eight-Hole Opposing Side Angle Connector



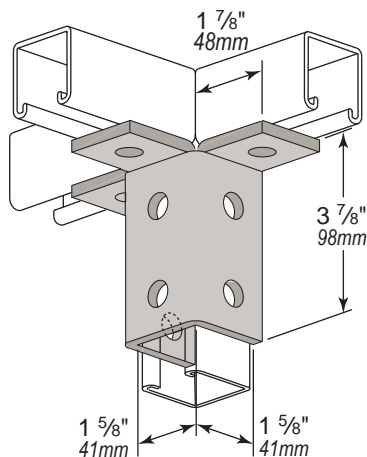
W5514

Six-Hole Three Side Corner Angle Connector



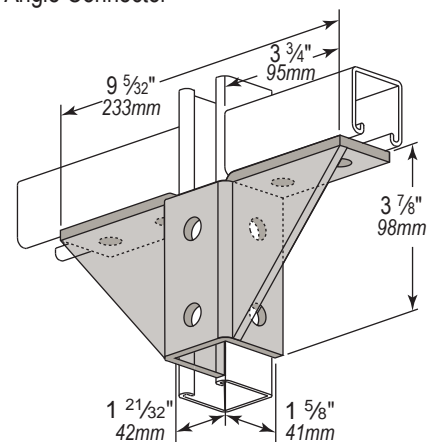
W5517

Nine-Hole Three Side Angle Connector



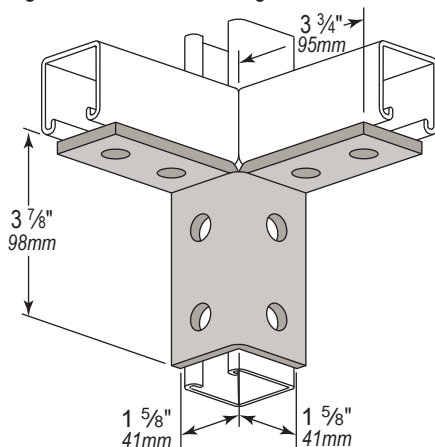
W5520

Ten-Hole Opposing Side Gusseted Angle Connector



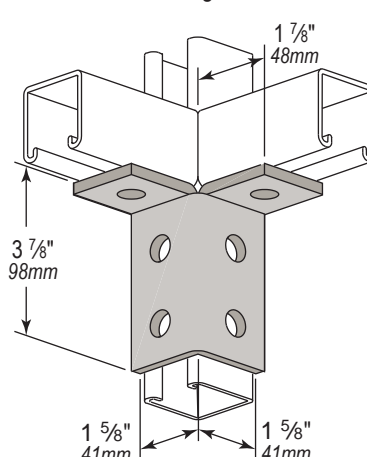
W5515

Eight-Hole 90° Corner Angle Connector



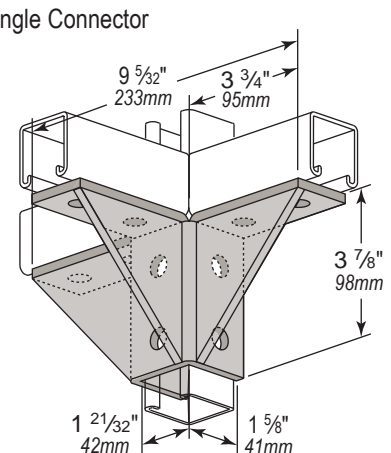
W5518

Six-Hole 90° Corner Angle Connector



W5521

Twelve-Hole Three Side Gusseted Angle Connector



Trolleys

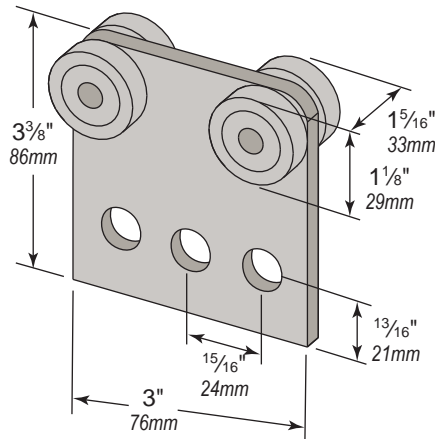


Standard Finish: Electro Galvanized (EG)

W6600

Four-Wheel Trolley

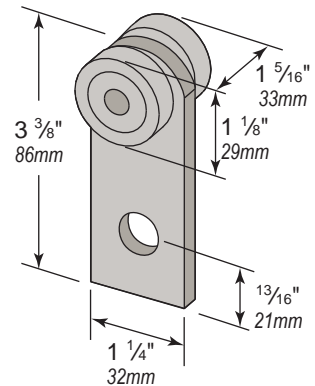
Allowable Load
600lbs (2.67 kN) max.



W6602

Two-Wheel Trolley

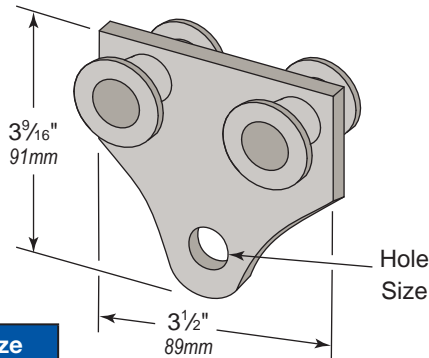
Allowable load
300lbs (2.00 kN) max.



W6601 & W6605

Four-Wheel Trolley

Allowable Load
600lbs (2.67 kN) max.

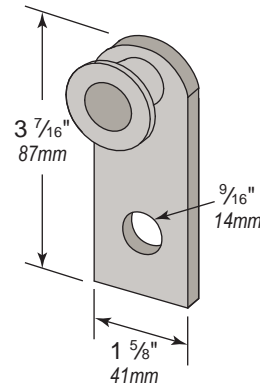


| Part No. | Hole Size |
|----------|---------------|
| W6601 | 1-1/8" (29mm) |
| W6605 | 9/16" (14mm) |

W6606

Two-Wheel Trolley

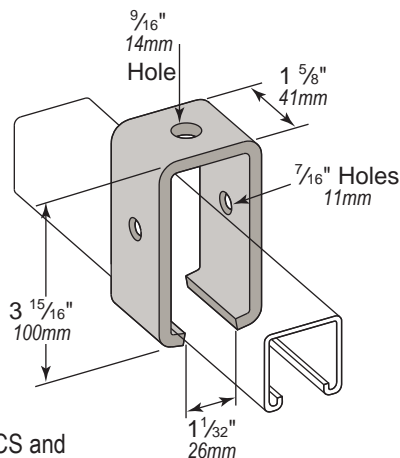
Allowable load
300lbs (2.00 kN) max.



W6604

Trolley Beam
Intermediate Support

Allowable load
1,200Lbs. (5.14 kN)

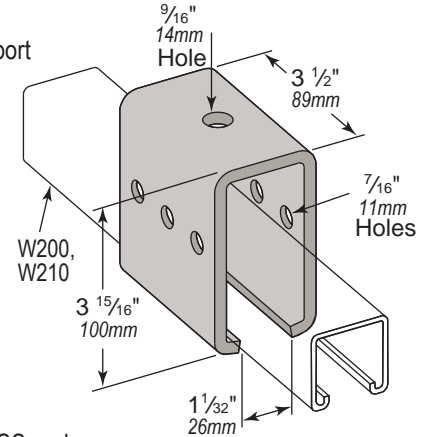


Requires 1/2" x 2-3/4" HHCS and
1/2" Nut and Washer (not included).

W6603

Trolley Beam Joint Support

Allowable load
2,500Lbs. (11.12 kN)



Requires 1/2" x 2-3/4" HHCS and
1/2" Nut and Washers (not included).

Trolley designed to fit W200 and W210 series channel constructed with wear resistant hardened wheels and frictionless needle bearings. Industrial applications include conveyor systems, and work stations requiring the attachment of power tools.





Channel Brackets

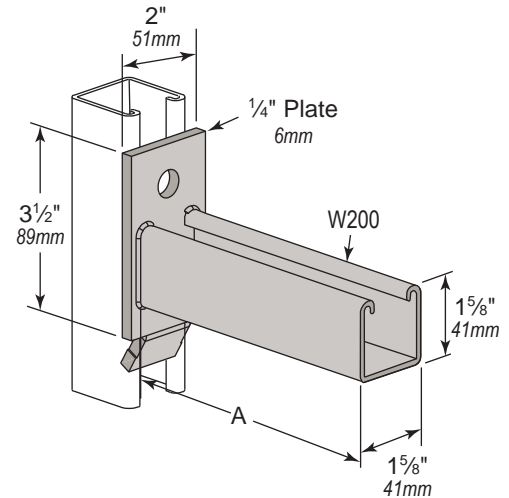
Standard Finish: Electro Galvanized (EG)

W5631 - W5634

One-Hole Anti-Rotation Channel Bracket, Slot Up

| Part No. | A | Design Uniform Load Lbs. (kN) | |
|----------|-------------|----------------------------------|---------------|
| | | W200 | W210 |
| W5631 | 6" (152mm) | 1,200 (5.34 kN) | 800 (3.56 kN) |
| W5632 | 12" (305mm) | 600 (2.67 kN) | 400 (1.78 kN) |
| W5633 | 18" (457mm) | 400 (1.78 kN) | 270 (1.20 kN) |
| W5634 | 24" (610mm) | 300 (1.33 kN) | 200 (0.89 kN) |

Design Uniform Load when attached to listed upright column.
When installed in inverted position use 60% of loads shown.
Safety Factor: 2-½

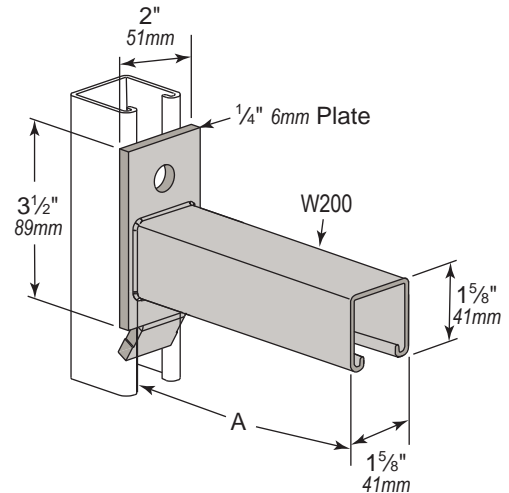


W5635 - W5638

One-Hole Anti-Rotation Channel Bracket, Slot Down

| Part No. | A | Design Uniform Load Lbs. (kN) | |
|----------|-------------|----------------------------------|---------------|
| | | W200 | W210 |
| W5635 | 6" (152mm) | 1,200 (5.34 kN) | 800 (3.56 kN) |
| W5636 | 12" (305mm) | 600 (2.67 kN) | 400 (1.78 kN) |
| W5637 | 18" (457mm) | 400 (1.78 kN) | 270 (1.20 kN) |
| W5638 | 24" (610mm) | 300 (1.33 kN) | 200 (0.89 kN) |

Design Uniform Load when attached to listed upright column.
When installed in inverted position use 60% of loads shown.
Safety Factor: 2-½

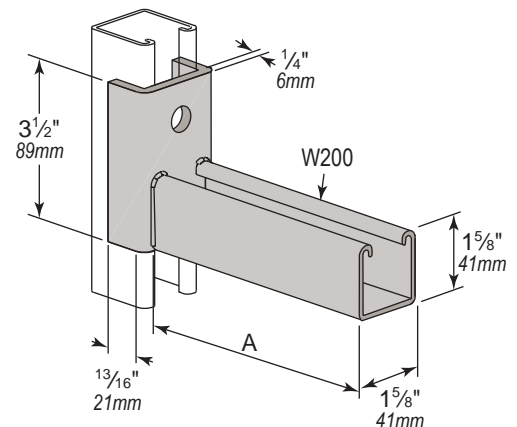


W5641 - W5642

One-Hole Wrap Around Channel Bracket, Slot Up

| Part No. | A | Design Uniform Load Lbs. (kN) | |
|----------|-------------|----------------------------------|-----------------|
| | | W200 | W210 |
| W5641 | 6" (152mm) | 1600 (7.12 kN) | 1,200 (5.34 kN) |
| W5642 | 12" (305mm) | 800 (3.56 kN) | 600 (2.67 kN) |

Design Uniform Load when attached to listed upright column.
Do not install in inverted position.
Safety Factor: 2-½



Note: When brackets are used for mechanical supports, load capacities should conform to American Standard Code for Pressure Piping.



Channel Brackets



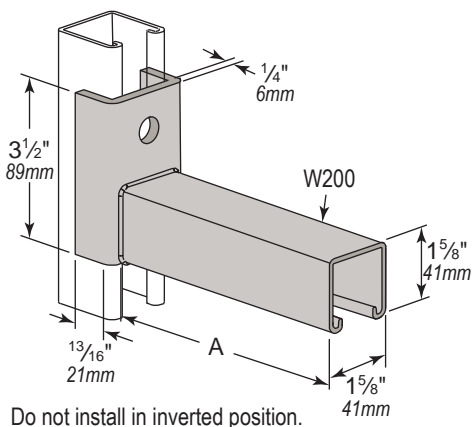
Standard Finish: Electro Galvanized (EG)

W5645 - W5646

One-Hole Wrap Around Channel Bracket, Slot Down

| Part No. | A | Design Uniform Load Lbs. (kN) | |
|----------|-------------|----------------------------------|-----------------|
| | | W200 | W210 |
| W5645 | 6" (152mm) | 1600 (7.12 kN) | 1,200 (5.34 kN) |
| W5646 | 12" (305mm) | 800 (3.56 kN) | 600 (2.67 kN) |

Design Uniform Load when attached to listed upright column.
Safety Factor: 2-1/2

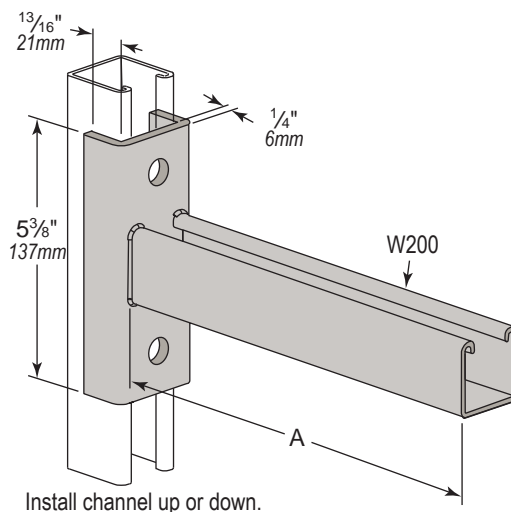


W5647 - W5648

Two-Hole Wrap Around Channel Bracket

| Part No. | A | Design Uniform Load Lbs. (kN) | |
|----------|-------------|----------------------------------|---------------|
| | | W200 | W210 |
| W5647 | 18" (457mm) | 600 (2.67 kN) | 450 (2.00 kN) |
| W5648 | 24" (610mm) | 450 (2.00 kN) | 330 (1.47 kN) |

Design Uniform Load when attached to listed upright column.
Safety Factor: 2-1/2

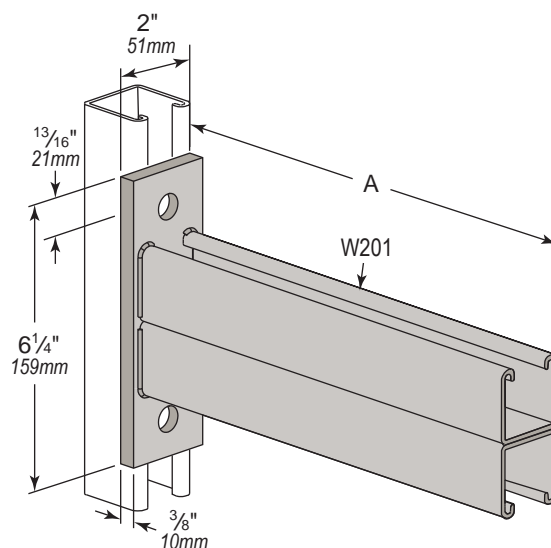


W5652 - W5656

Two-Hole Double Channel Bracket

| Part No. | A | Design Uniform Load Lbs. (kN) | |
|----------|-------------|----------------------------------|----------------|
| | | W200 | W210 |
| W5652 | 12" (305mm) | 2,000 (8.90 kN) | 1400 (6.23 kN) |
| W5653 | 18" (457mm) | 1,300 (5.78 kN) | 900 (4.00 kN) |
| W5654 | 24" (610mm) | 1,000 (4.45 kN) | 700 (3.11 kN) |
| W5655 | 30" (762mm) | 800 (3.56 kN) | 560 (2.49 kN) |
| W5656 | 36" (914mm) | 650 (2.89 kN) | 450 (2.00 kN) |

Design Uniform Load when attached to listed upright column.
Safety Factor: 2-1/2



Note: When brackets are used for mechanical supports, load capacities should conform to American Standard Code for Pressure Piping.





Channel Brackets

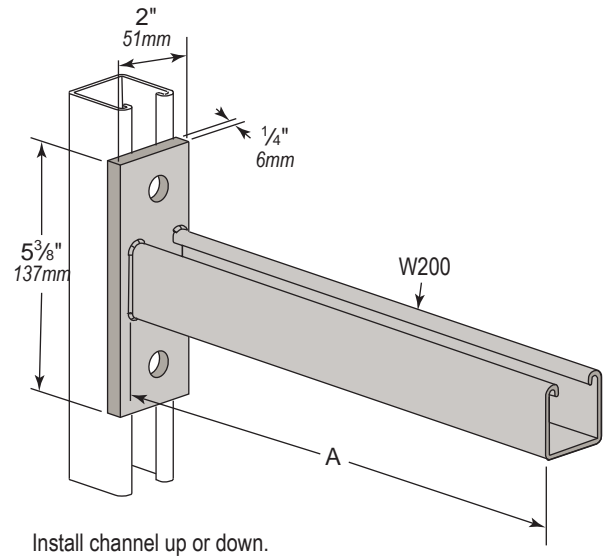
Standard Finish: Electro Galvanized (EG)

W5661 - W5664

Two-Hole Channel Bracket

| Part No. | A | Design Uniform Load Lbs. (kN) |
|----------|-------------|-------------------------------|
| | | W200 |
| W5661 | 6" (152mm) | 1600 (7.12 kN) |
| W5662 | 12" (305mm) | 800 (3.56 kN) |
| W5663 | 18" (457mm) | 550 (2.45 kN) |
| W5664 | 24" (610mm) | 400 (1.78 kN) |

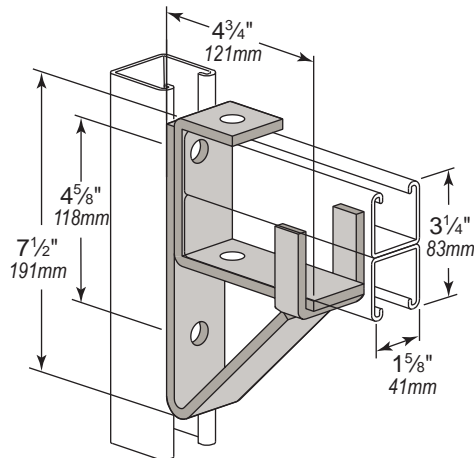
Design Uniform Load when attached to listed upright column.
Safety Factor: 2-1/2



W5650

Bracket Brace Adapter

For use with: W150, W201, or W211



Secure Bracket Arm To Brace Using W2-8 and W7409.
Do Not Use Thru Bolt In Bracket W5650.

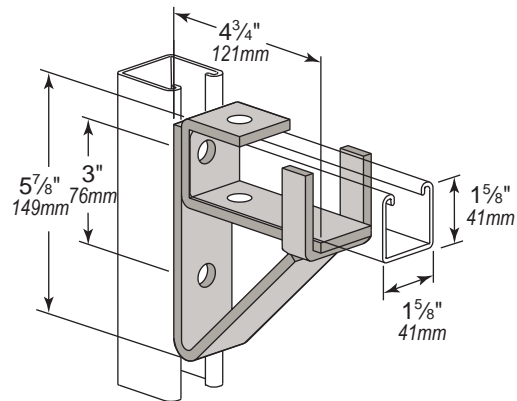
| Part No. | Design Moment In/Lbs (N•m) | |
|----------|----------------------------|-----------------|
| | W201 | W211 |
| W5650 | 12,400 (1401 N•m) | 8,600 (971 N•m) |

Safety Factor: 2-1/2
Safety Factor Applies to Bracket Brace Adapter/Listed Upright Only
and not to Strength of Arm.

W5651

Bracket Brace Adapter

For use with: W200, W210, W401, or W501



Secure Bracket Arm To Brace Using W2-8 and W7409.
Do Not Use Thru Bolt In Bracket W5651.

| Part No. | Design Moment In/Lbs (N•m) | |
|----------|----------------------------|-----------------|
| | W200 | W210 |
| W5651 | 6,000 (678 N•m) | 4,200 (474 N•m) |

Safety Factor: 2-1/2
Safety Factor Applies to Bracket Brace Adapter/Listed Upright Only
and not to Strength of Arm.

Note: When brackets are used for mechanical supports, load capacities should conform to American Standard Code for Pressure Piping.



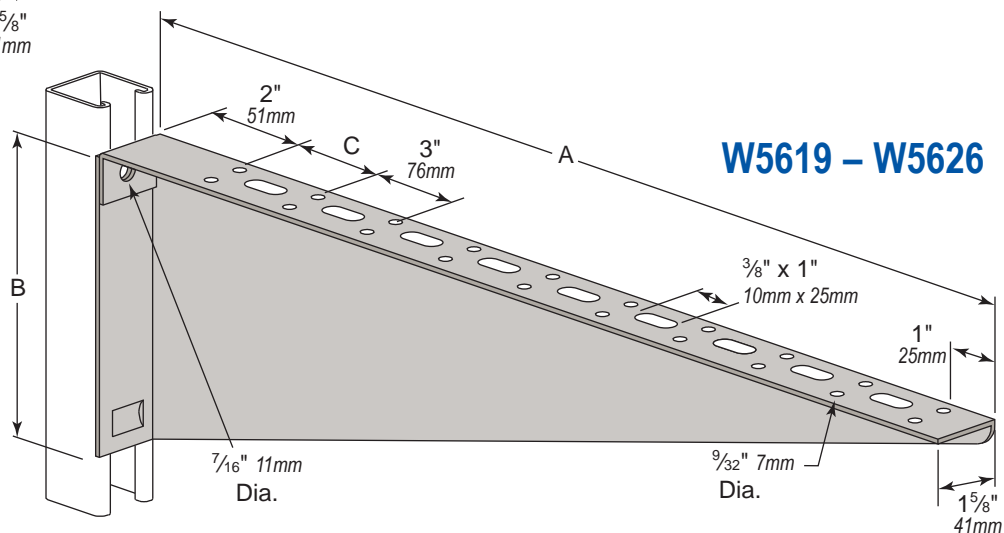
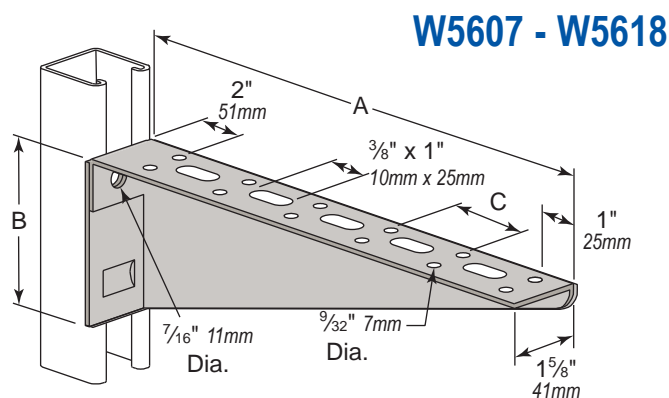
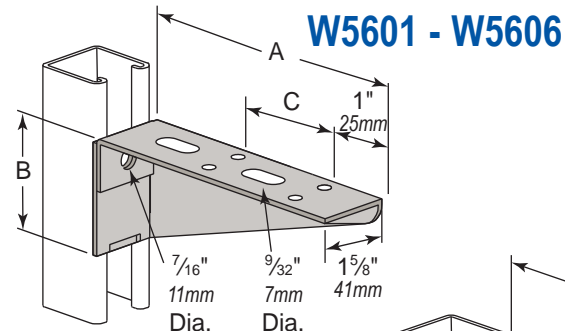
Shelf Brackets



Standard Finish: Electro Galvanized (EG)

Shelf Brackets

Shelf Bracket (Right Hand Illustrated)
Brackets are 12ga steel, electro-galvanized.
Furnished with $\frac{3}{8}$ " x 1" (10mm x 25mm) slotted holes
and $\frac{9}{32}$ " (7mm) round holes



| Part No. | | A | B | C | Design Uniform Load Lbs. (kN) | |
|-----------|------------|-------------|------------------------------|------------------------------|-------------------------------|---------------|
| Left Hand | Right Hand | | | | W200 | W210 |
| W5601 | W5602 | 6" (152mm) | 1- $\frac{15}{16}$ " (49mm) | 3" (76mm) | 300 (1.33 kN) | 250 (1.11 kN) |
| W5603 | W5604 | 8" (203mm) | 2- $\frac{7}{16}$ " (62mm) | 5" (127mm) | | |
| W5605 | W5606 | 10" (254mm) | 2- $\frac{15}{16}$ " (75mm) | 7" (178mm) | | |
| W5607 | W5608 | 12" (305mm) | 3- $\frac{7}{16}$ " (87mm) | 3" (76mm) | 300 (1.33 kN) | 250 (1.11 kN) |
| W5609 | W5610 | 14" (356mm) | 3- $\frac{15}{16}$ " (100mm) | 4" (102mm) | | |
| W5611 | W5612 | 16" (406mm) | 4- $\frac{7}{16}$ " (113mm) | 5" (127mm) | | |
| W5613 | W5614 | 18" (457mm) | 4- $\frac{15}{16}$ " (125mm) | 6" (152mm) | | |
| W5615 | W5616 | 20" (508mm) | 5- $\frac{7}{16}$ " (138mm) | 7" (178mm) | | |
| W5617 | W5618 | 22" (559mm) | 5- $\frac{15}{16}$ " (151mm) | 8" (203mm) | | |
| W5619 | W5620 | 24" (610mm) | 6- $\frac{7}{16}$ " (164mm) | 5" (127mm) | 300 (1.33 kN) | 250 (1.11 kN) |
| W5621 | W5622 | 26" (660mm) | 6- $\frac{15}{16}$ " (176mm) | 5- $\frac{11}{16}$ " (144mm) | | |
| W5623 | W5624 | 28" (711mm) | 7- $\frac{7}{16}$ " (189mm) | 6- $\frac{5}{16}$ " (160mm) | | |
| W5625 | W5626 | 30" (762mm) | 7- $\frac{15}{16}$ " (202mm) | 7" (178mm) | | |

Design Uniform Load when attached to listed upright column.
Safety Factor: 2- $\frac{1}{2}$

Note: When brackets are used for mechanical supports, load capacities should conform to American Standard Code for Pressure Piping.



WARNING: These products can expose you to chemicals including lead, which is known to the State of California to cause cancer, and which is known to cause birth defects or other reproductive harm. For more information go to www.P65Warnings.ca.gov.



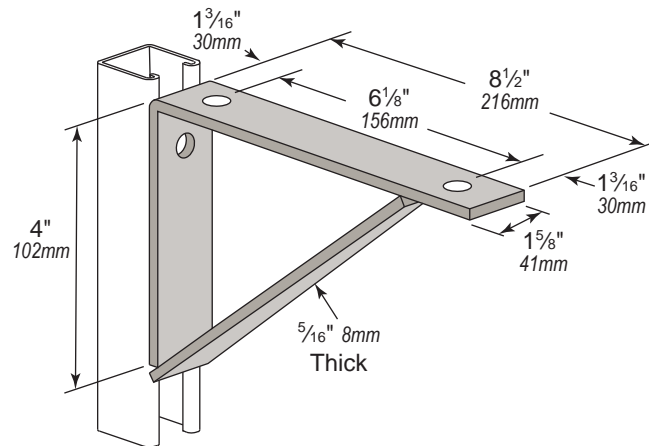
Girder Style Brackets

Standard Finish: Electro Galvanized (EG)

W5669

Girder Style Bracket

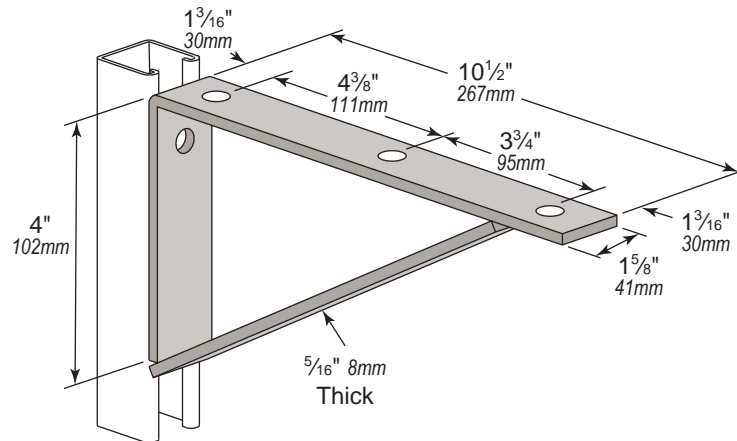
| Part No. | Design Load Lbs. (kN) | |
|---|--------------------------|------------------|
| | W200 12 Gauge | W210 14 Gauge |
| W5669 | 800 (3.56 kN) | 600 (2.67 kN) |
| Design Uniform Load when attached to listed upright column. Safety Factor: 2-1/2 | | |



W5671

Girder Style Bracket

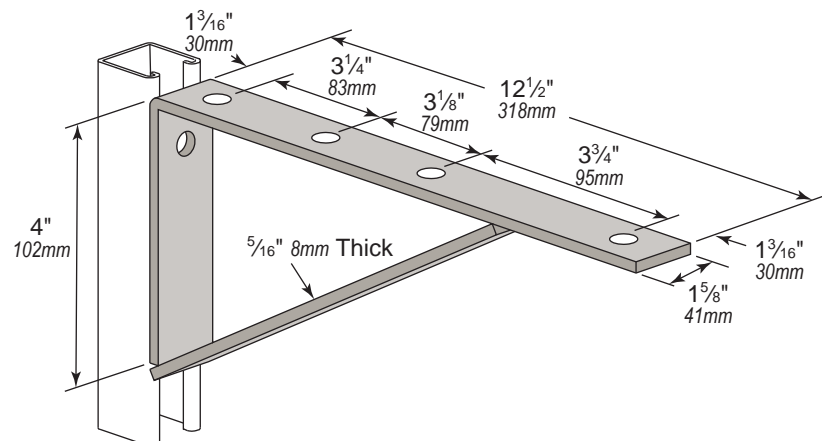
| Part No. | Design Load Lbs. (kN) | |
|---|--------------------------|------------------|
| | W200 12 Gauge | W210 14 Gauge |
| W5671 | 800 (3.56 kN) | 600 (2.67 kN) |
| Design Uniform Load when attached to listed upright column. Safety Factor: 2-1/2 | | |



W5673

Girder Style Bracket

| Part No. | Design Load Lbs. (kN) | |
|---|--------------------------|------------------|
| | W200 12 Gauge | W210 14 Gauge |
| W5673 | 900 (4.00 kN) | 800 (3.56 kN) |
| Design Uniform Load when attached to listed upright column. Safety Factor: 2-1/2 | | |



Note: When brackets are used for mechanical supports, load capacities should conform to American Standard Code for Pressure Piping.



Girder Style and Utility Brackets



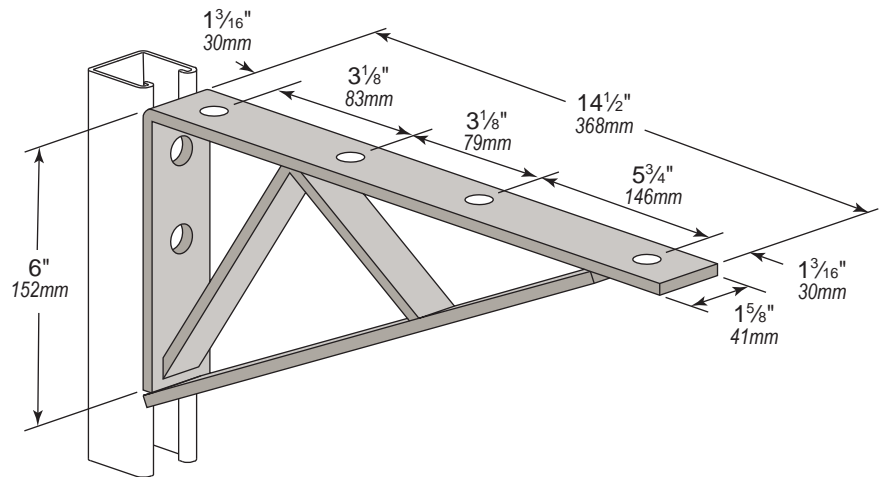
Standard Finish: Electro Galvanized (EG)

W5675

Girder Style Bracket

| Part No. | Design Load Lbs. (kN) | |
|----------|--------------------------|------------------|
| | W200 12 Gauge | W210 14 Gauge |
| W5675 | 900 (4.00 kN) | 800 (3.56 kN) |

Design Uniform Load when attached to listed upright column.
Safety Factor: 2-1/2

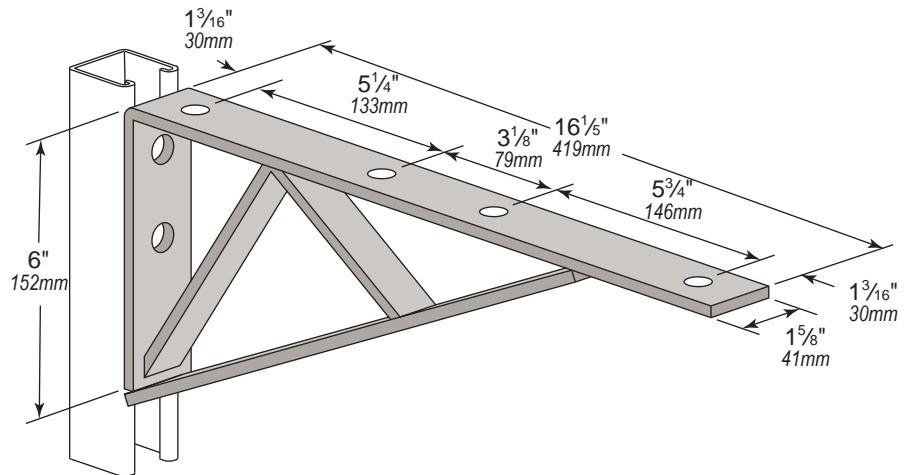


W5677

Girder Style Bracket

| Part No. | Design Load Lbs. (kN) | |
|----------|--------------------------|------------------|
| | W200 12 Gauge | W210 14 Gauge |
| W5677 | 1,200 (5.34 kN) | 900 (4.00 kN) |

Design Uniform Load when attached to listed upright column.
Safety Factor: 2-1/2

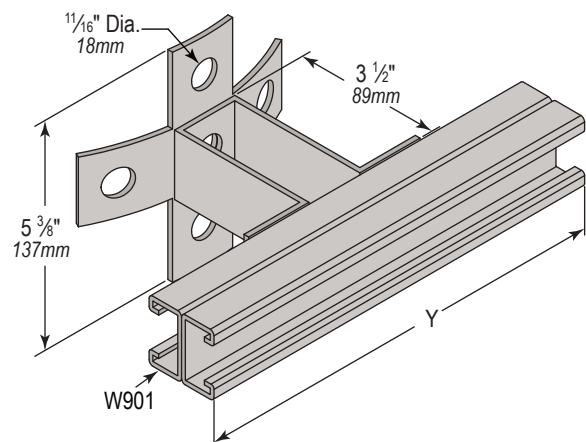


W1007-Y

Diamond Back Extended Riser Bracket with Horizontal Strut

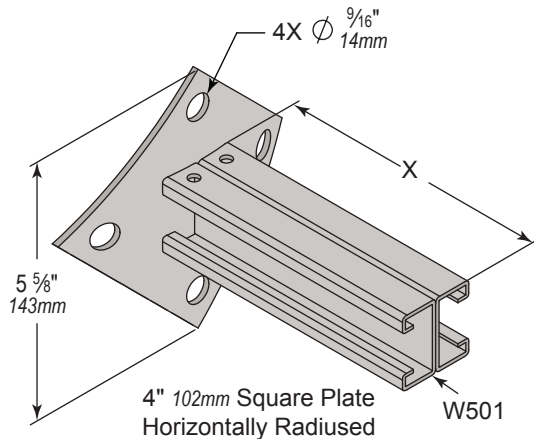
Standard Finish: Hot Dipped Galvanized (HG)
(also available W1007 E-Y with (3) W6162-HG;
each clamp with Everdur hardware)

| Part No. | Y |
|----------|-------------|
| W1007-6 | 6" (152mm) |
| W1007-8 | 8" (203mm) |
| W1007-10 | 10" (254mm) |
| W1007-12 | 12" (305mm) |
| W1007-16 | 16" (406mm) |
| W1007-18 | 18" (457mm) |
| W1007-24 | 24" (610mm) |



W1010-X

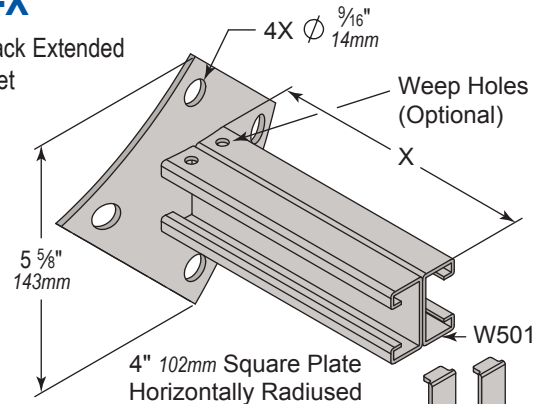
Diamond Back Extended Riser Bracket



| Part No. | X |
|----------|-------------|
| W1010-6 | 6" (152mm) |
| W1010-8 | 8" (203mm) |
| W1010-10 | 10" (254mm) |
| W1010-12 | 12" (305mm) |
| W1010-16 | 16" (406mm) |
| W1010-18 | 18" (457mm) |
| W1010-24 | 24" (610mm) |

W1011-X

Diamond Back Extended Riser Bracket

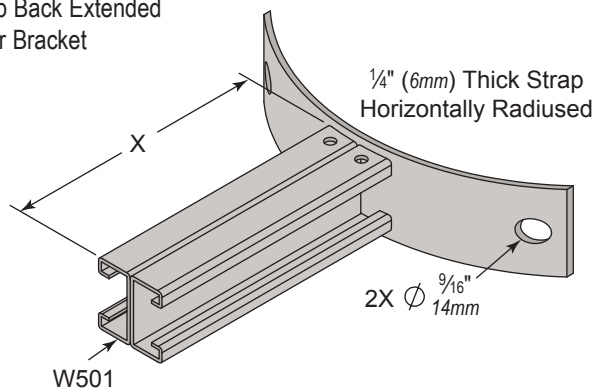


| Part No. | X |
|----------|---------------|
| W1011-6 | 6" (152mm) |
| W1011-8 | 8" (203mm) |
| W1011-10 | 10" (254mm) |
| W1011-12 | 12" (305mm) |
| W1011-16 | 16" (406mm) |
| W1011-18 | 18" (457mm) |
| W1011-24 | 24" (610mm) |
| W1011-30 | 30" (762mm) |
| W1011-36 | 36" (914mm) |
| W1011-40 | 40" (1,016mm) |
| W1011-48 | 48" (1,219mm) |

End Caps
EG Finish

W1012-X

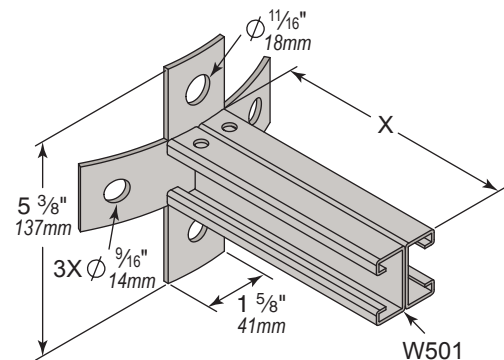
Strap Back Extended Riser Bracket



| Part No. | X |
|----------|-------------|
| W1012-6 | 6" (152mm) |
| W1012-8 | 8" (203mm) |
| W1012-10 | 10" (254mm) |
| W1012-12 | 12" (305mm) |
| W1012-16 | 16" (406mm) |
| W1012-18 | 18" (457mm) |
| W1012-24 | 24" (610mm) |

W1015-X

Cross Back Extended Riser Bracket



| Part No. | X |
|----------|-------------|
| W1015-6 | 6" (152mm) |
| W1015-8 | 8" (203mm) |
| W1015-10 | 10" (254mm) |
| W1015-12 | 12" (305mm) |
| W1015-16 | 16" (406mm) |
| W1015-18 | 18" (457mm) |
| W1015-24 | 24" (610mm) |

Typical: Weep Holes top and bottom add suffix "WH" to part number (optional)



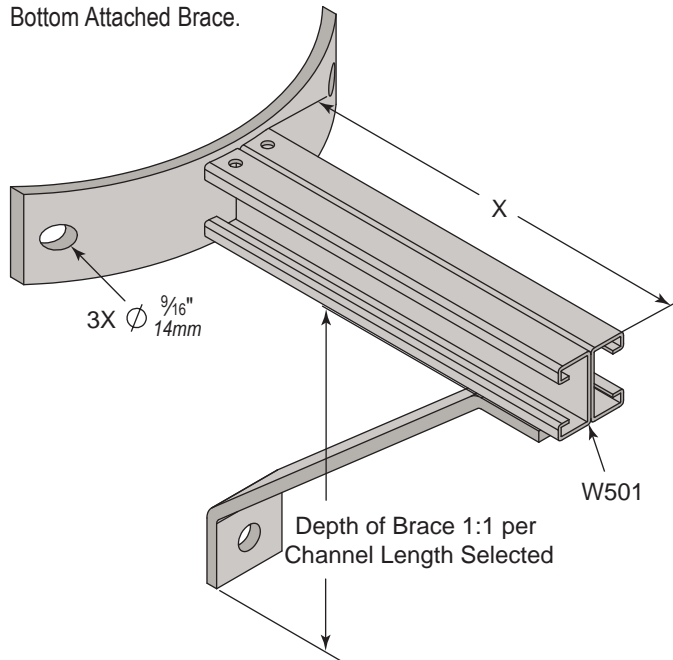
Utility Brackets



Standard Finish: Hot Dip Galvanized (HG)

W1013-X

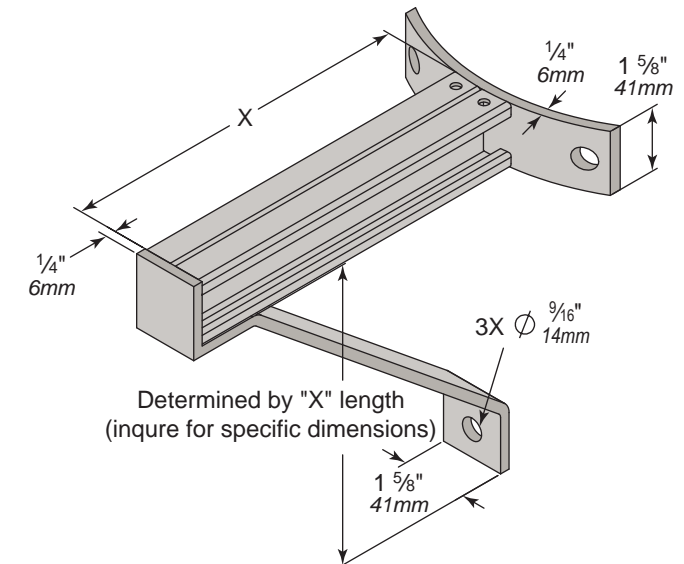
Strap Back Extended Riser Bracket with Bottom Attached Brace.



| Part No. | X |
|----------|-------------|
| W1013-6 | 6" (152mm) |
| W1013-8 | 8" (203mm) |
| W1013-10 | 10" (254mm) |
| W1013-12 | 12" (305mm) |
| W1013-16 | 16" (406mm) |
| W1013-18 | 18" (457mm) |
| W1013-24 | 24" (610mm) |

W1016-X

Strap Back Extended Riser Bracket with End Wrap Brace



| Part No. | X |
|----------|-------------|
| W1016-6 | 6" (152mm) |
| W1016-8 | 8" (203mm) |
| W1016-10 | 10" (254mm) |
| W1016-12 | 12" (305mm) |
| W1016-16 | 16" (406mm) |
| W1016-18 | 18" (457mm) |
| W1016-24 | 24" (610mm) |

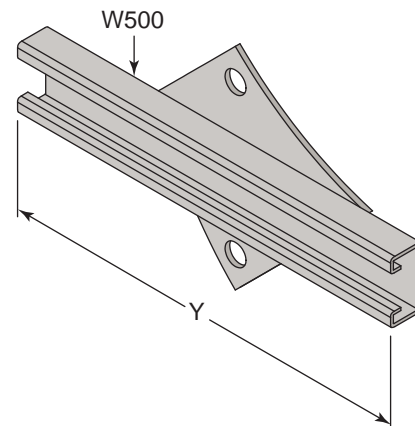
W1019-Y

Low Profile Diamond Back with Horizontal Strut Riser.

Standard channel 4" square plate horizontally radiused (5-5/8" nominal corner to corner).

Welded top and bottom at apex of radiused back plate.

| Part No. | X |
|----------|-------------|
| W1019-6 | 6" (152mm) |
| W1019-8 | 8" (203mm) |
| W1019-10 | 10" (254mm) |
| W1019-12 | 12" (305mm) |
| W1019-16 | 16" (406mm) |
| W1019-18 | 18" (457mm) |
| W1019-24 | 24" (610mm) |



Typical: Weep Holes top and bottom (optional)
Appropriate (hot dipped galvanized) end caps available on any unit (optional)

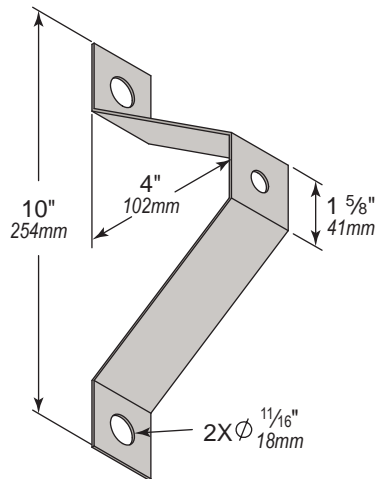




Utility Brackets

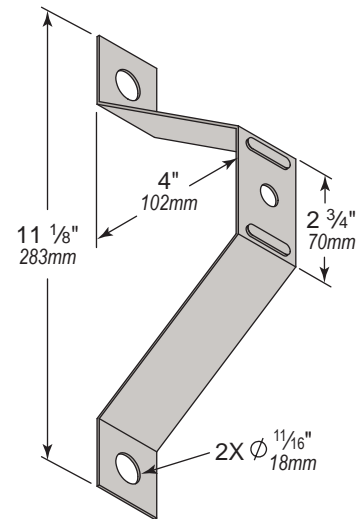
Standard Finish: Hot Dip Galvanized (HG)

W1017



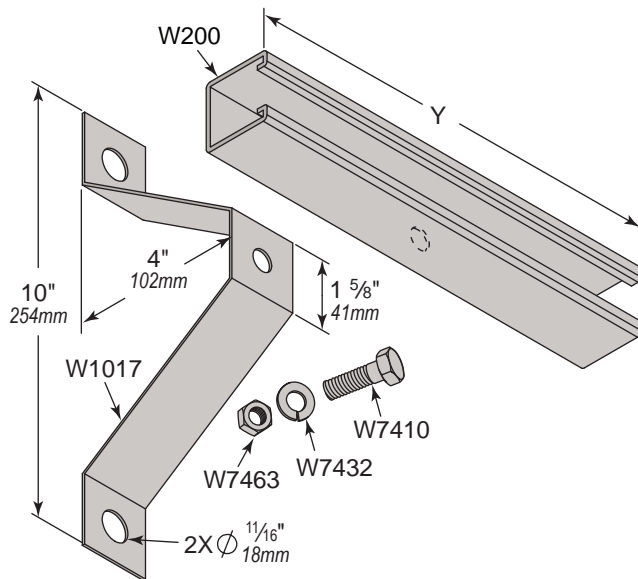
W1017AR

Anti-Rotation Bracket



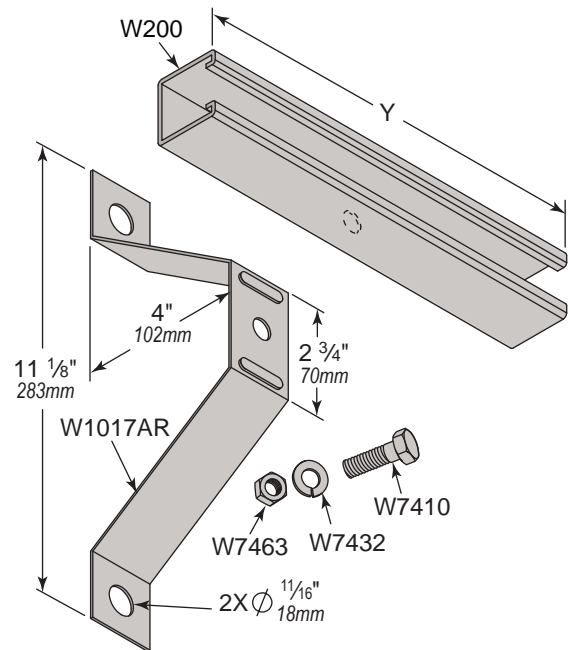
W1017A-Y

Bracket Assembly



W1017ARA-Y

Anti-Rotation Bracket Assembly



| Part No. | Y |
|-----------|-------------|
| W1017A-6 | 6" (152mm) |
| W1017A-8 | 8" (203mm) |
| W1017A-10 | 10" (254mm) |
| W1017A-12 | 12" (305mm) |
| W1017A-16 | 16" (406mm) |
| W1017A-18 | 18" (457mm) |
| W1017A-24 | 24" (610mm) |

| Part No. | Y |
|-------------|-------------|
| W1017ARA-6 | 6" (152mm) |
| W1017ARA-8 | 8" (203mm) |
| W1017ARA-10 | 10" (254mm) |
| W1017ARA-12 | 12" (305mm) |
| W1017ARA-16 | 16" (406mm) |
| W1017ARA-18 | 18" (457mm) |
| W1017ARA-24 | 24" (610mm) |



Utility Brackets

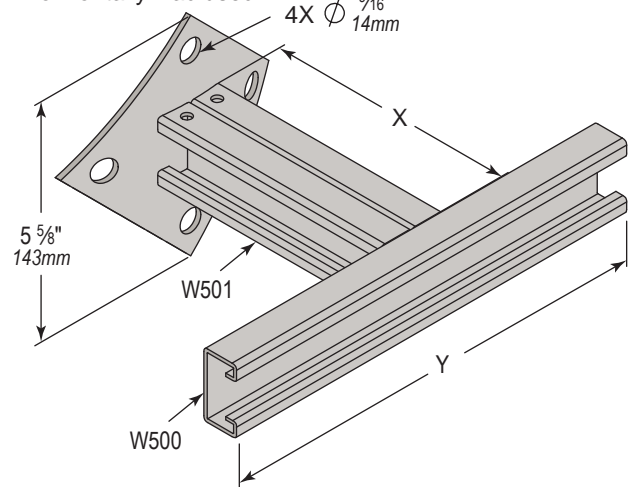


Standard Finish: Hot Dip Galvanized (HG)

W1021-X-Y

Extended Profile Diamond Back
with Horizontal Riser Strut

4" (102mm) Square Plate
Horizontally Radiused



| Part No. | X | Y |
|-------------|----------------|-------------|
| W1021-6-6 | 6" (152mm) | 6" (152mm) |
| W1021-6-8 | | 8" (203mm) |
| W1021-6-10 | | 10" (254mm) |
| W1021-6-12 | | 12" (305mm) |
| W1021-6-16 | | 16" (406mm) |
| W1021-6-18 | | 18" (457mm) |
| W1021-6-24 | | 24" (610mm) |
| W1021-8-6 | 8" (203mm) | 6" (152mm) |
| W1021-8-8 | | 8" (203mm) |
| W1021-8-10 | | 10" (254mm) |
| W1021-8-12 | | 12" (305mm) |
| W1021-8-16 | | 16" (406mm) |
| W1021-8-18 | | 18" (457mm) |
| W1021-8-24 | | 24" (610mm) |
| W1021-10-6 | 10" (254mm) | 6" (152mm) |
| W1021-10-8 | | 8" (203mm) |
| W1021-10-10 | | 10" (254mm) |
| W1021-10-12 | | 12" (305mm) |
| W1021-10-16 | | 16" (406mm) |
| W1021-10-18 | | 18" (457mm) |
| W1021-10-24 | | 24" (610mm) |
| W1021-12-6 | 12" (305mm) | 6" (152mm) |
| W1021-12-8 | | 8" (203mm) |
| W1021-12-10 | | 10" (254mm) |
| W1021-12-12 | | 12" (305mm) |
| W1021-12-16 | | 16" (406mm) |
| W1021-12-18 | | 18" (457mm) |
| W1021-12-24 | | 24" (610mm) |

| Part No. | X | Y |
|-------------|----------------|-------------|
| W1021-16-6 | 16" (406mm) | 6" (152mm) |
| W1021-16-8 | | 8" (203mm) |
| W1021-16-10 | | 10" (254mm) |
| W1021-16-12 | | 12" (305mm) |
| W1021-16-16 | | 16" (406mm) |
| W1021-16-18 | | 18" (457mm) |
| W1021-16-24 | | 24" (610mm) |
| W1021-18-6 | 18" (457mm) | 6" (152mm) |
| W1021-18-8 | | 8" (203mm) |
| W1021-18-10 | | 10" (254mm) |
| W1021-18-12 | | 12" (305mm) |
| W1021-18-16 | | 16" (406mm) |
| W1021-18-18 | | 18" (457mm) |
| W1021-18-24 | | 24" (610mm) |
| W1021-24-6 | 24" (610mm) | 6" (152mm) |
| W1021-24-8 | | 8" (203mm) |
| W1021-24-10 | | 10" (254mm) |
| W1021-24-12 | | 12" (305mm) |
| W1021-24-16 | | 16" (406mm) |
| W1021-24-18 | | 18" (457mm) |
| W1021-24-24 | | 24" (610mm) |

Typical: Weep Holes top and bottom (optional)
Appropriate (hot dipped galvanized) end caps available on any unit (optional)

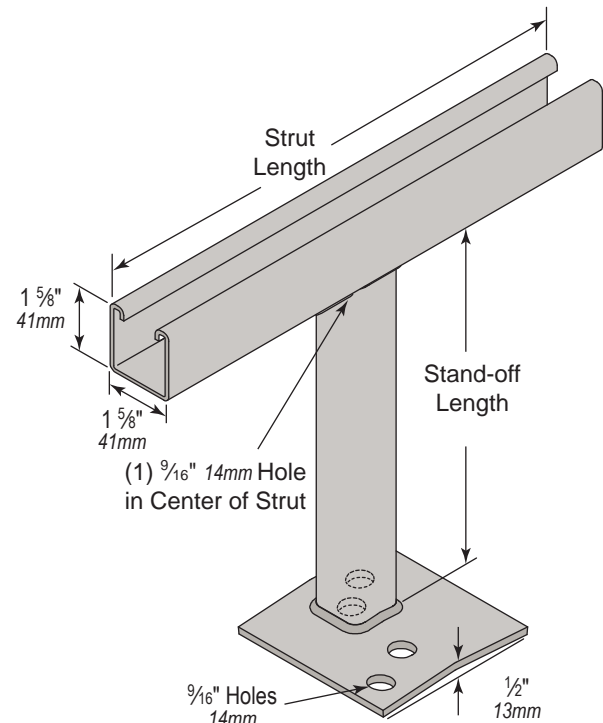
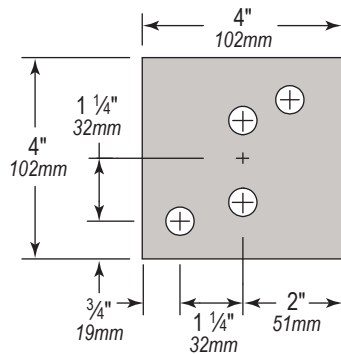


Utility Brackets

Standard Finish: Hot Dip Galvanized (HG)

W1022 Series

Square Tube Stand Off



| Part No. | Stand-off Length | Strut Length |
|------------------|---|--------------|
| W1022-8-1/8 EG | 8 ¹ / ₈ " (206mm) | 12" (305mm) |
| W1022-8-1/8-M EG | 8 ¹ / ₈ " (206mm) | 16" (406mm) |
| W1022-10X12 EG | 10" (254mm) | 12" (305mm) |
| W1022-10X16 EG | 10" (254mm) | 16" (406mm) |
| W1022-12X12 EG | 12" (305mm) | 12" (305mm) |

W1023-Y

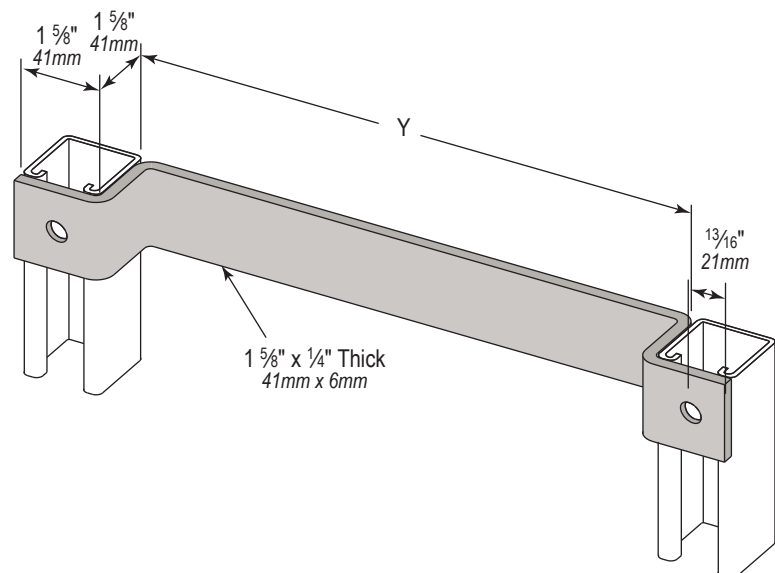
Utility Vault Ladder Rung

Channel (handrail) type per design.

Note: use closure strip in all open channel (handrail) faces

Note: Use of W1017 stand off per design

| Part No. | Y |
|----------|-------------|
| W1023-6 | 6" (152mm) |
| W1023-8 | 8" (203mm) |
| W1023-10 | 10" (254mm) |
| W1023-12 | 12" (305mm) |
| W1023-16 | 16" (406mm) |
| W1023-18 | 18" (457mm) |
| W1023-24 | 24" (610mm) |



Typical: Weep Holes top and bottom (optional)

Appropriate (hot dipped galvanized) end caps available on any unit (optional)



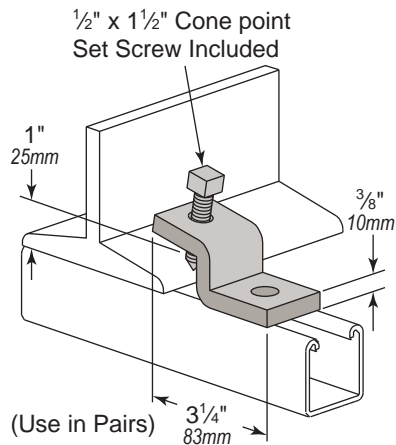
Beam Clamps



Standard Finish: Electro Galvanized (EG)

W5712

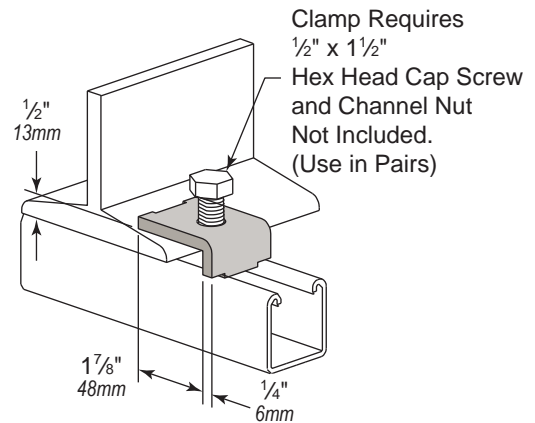
Off-Set Beam Clamp
Use in Pairs



| Part No. | Design Load Lbs. (kN) | |
|----------|-------------------------|-------------------------|
| | W200 1-5/8" x 1-5/8" | W500 1-5/8" x 13/16" |
| W5712 | 600 (2.67 kN) | 500 (2.22 kN) |

W5713

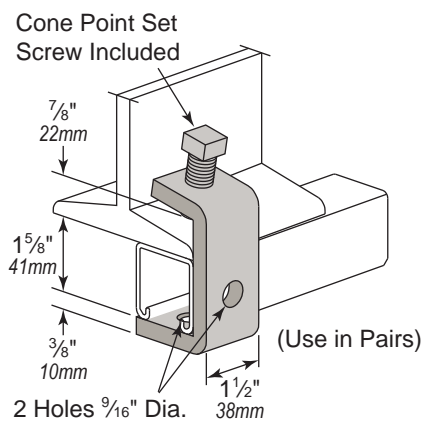
One-Hole Beam Clamp
Use in Pairs



| Part No. | Design Load Lbs. (kN) | |
|----------|-------------------------|-------------------------|
| | W200 1-5/8" x 1-5/8" | W500 1-5/8" x 13/16" |
| W5713 | 600 (2.67 kN) | 500 (2.22 kN) |

W5714

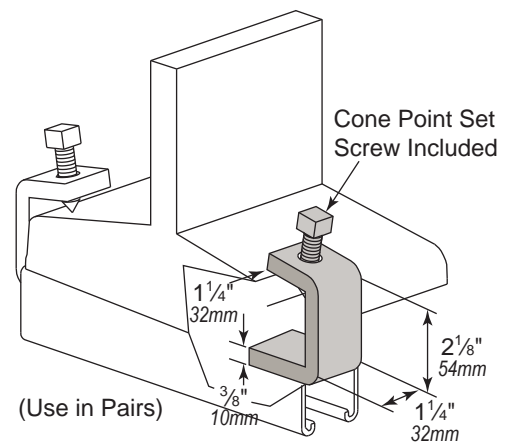
Two-Hole Beam Clamp
Use in Pairs



| Part No. | Design Load Lbs. (kN) |
|----------|-----------------------|
| W5714 | 500 (2.22 kN) |

W5717

Channel Thick Flange Beam Clamp
Use in Pairs



| Part No. | Design Load Lbs. (kN) |
|----------|-----------------------|
| W5717 | 900 (4.00 kN) |

Opposition type clamps to be used in pairs; position against flange(s) dimple beam at set screw (recommended).



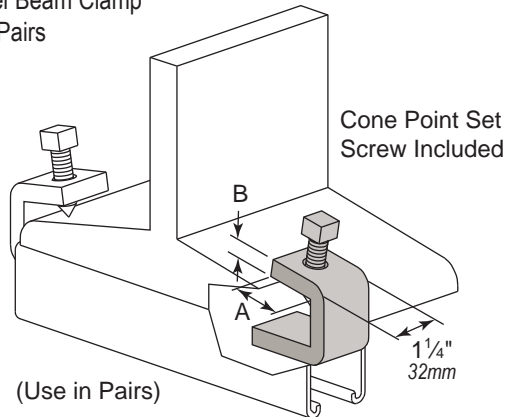


Beam Clamps

Standard Finish: Electro Galvanized (EG)

W5715 or W5716

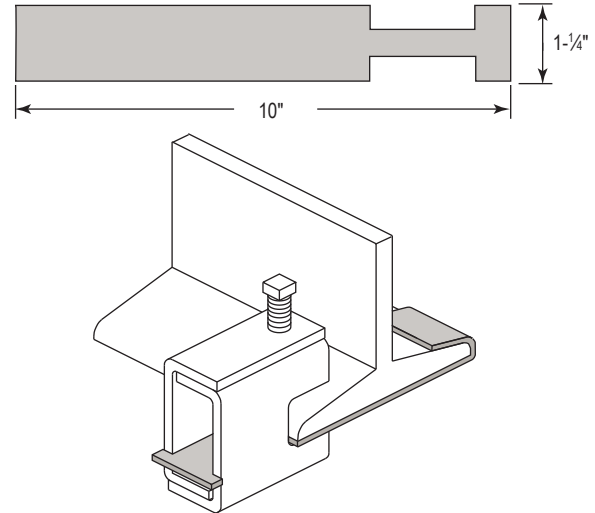
Channel Beam Clamp
Use in Pairs



| Part No. | Duty | A | B | Design Load Lbs. (kN) |
|----------|------------|---------------|-------------|-----------------------|
| W5715 | Light Duty | 1-3/4" (44mm) | 1/4" (6mm) | 450 (2.00 kN) |
| W5716 | Heavy Duty | 1-1/2" (38mm) | 3/8" (10mm) | 1,000 (4.45 kN) |

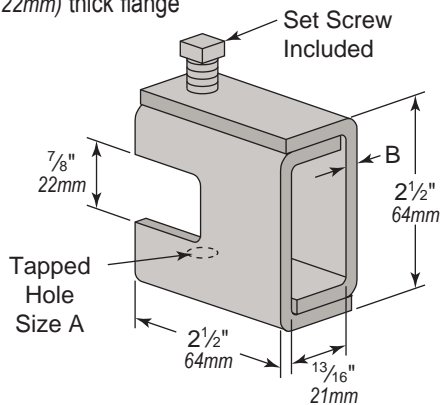
WBC0906

Beam Clamp Strap



W5721 to W5729

Beam Clamp
Up to 7/8" (22mm) thick flange

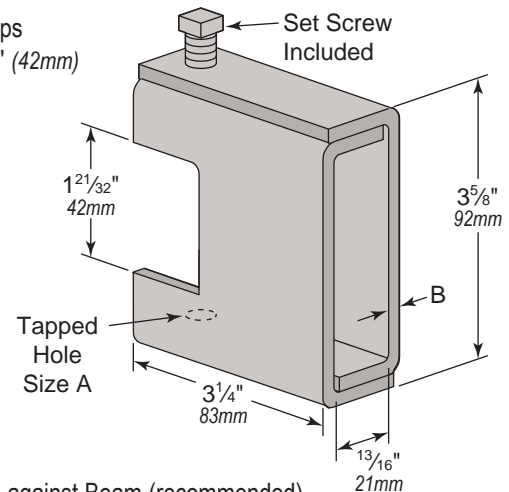


Bottom Rod against Beam (recommended)

| Part No. | A | B | Set Screw | Allowable Load Lbs. (kN) (ea.) |
|----------|----------|-------------|---------------|--------------------------------|
| W5721 | 1/4"-20 | 1/8" (3mm) | 3/8" x 1-1/2" | 650 (2.89 kN) |
| W5722 | 5/16"-18 | | | |
| W5723 | 3/8"-16 | | | |
| W5724 | 3/8"-16 | 3/16" (5mm) | 1/2" x 1-1/2" | 1,100 (4.89 kN) |
| W5725 | 1/2"-13 | | | |
| W5726 | 1/2"-13 | 1/4" (6mm) | 1/2" x 1-1/2" | 1,600 (7.12 kN) |
| W5727 | 5/8"-11 | | | |
| W5728 | 5/8"-11 | 5/16" (8mm) | 5/8" x 1-1/2" | 2,400 (10.68 kN) |
| W5729 | 3/4"-10 | | | |

W5731 to W5739

Beam Clamps
Up to 1-21/32" (42mm) thick flange



Bottom Rod against Beam (recommended)

| Part No. | A | B | Set Screw | Allowable Load Lbs. (kN) (ea.) |
|----------|----------|-------------|-----------|--------------------------------|
| W5731 | 1/4"-20 | 1/8" (3mm) | 3/8" x 2" | 800 (3.56 kN) |
| W5732 | 5/16"-18 | | | |
| W5733 | 3/8"-16 | | | |
| W5734 | 3/8"-16 | 3/16" (5mm) | 1/2" x 2" | 1,300 (5.78 kN) |
| W5735 | 1/2"-13 | | | |
| W5736 | 1/2"-13 | 1/4" (6mm) | 1/2" x 2" | 1,900 (8.45 kN) |
| W5737 | 5/8"-11 | | | |
| W5738 | 5/8"-11 | 5/16" (8mm) | 5/8" x 2" | 2,800 (12.46 kN) |
| W5739 | 3/4"-10 | | | |

Opposition type clamps to be used in pairs; position against flange(s) dimple beam at set screw (recommended).



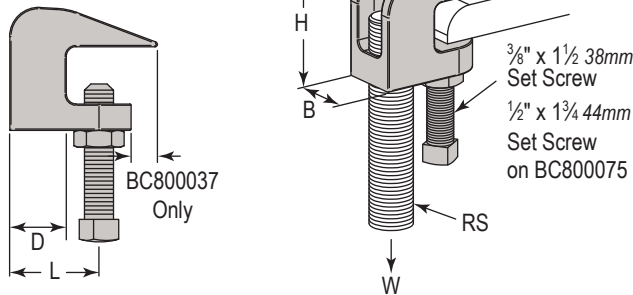
Beam Clamps



Material: Malleable Iron

BC80

Malleable Iron Universal Beam Clamp



Maximum flange thickness of $\frac{5}{8}$ " (16mm)

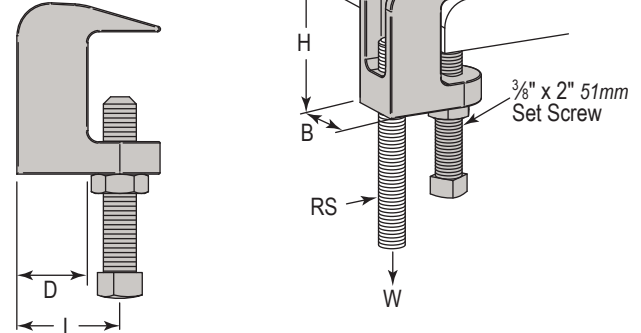
• **Finish:** Plain, Electrogalvanized

| Catalog No. | Rod Size (RS) | Max Load W lbs (kN) | Max Pipe Size in | Dimensions in. | | | |
|-------------|----------------------|---------------------|------------------|---------------------------|-----------------------------|-----------------------------|-------------------------|
| | | | | B | L | H | D |
| BC800037PL | $\frac{3}{8}$ " - 16 | 350 (1.56kN) | 4" (102mm) | $\frac{13}{16}$ " (21mm) | 1- $\frac{1}{4}$ " (32mm) | 1- $\frac{9}{16}$ " (40mm) | $\frac{9}{16}$ " (15mm) |
| BC800037EG | | | | | | | |
| BC800050PL | $\frac{1}{2}$ " - 13 | 470 (2.09kN) | 5" (127mm) | 1" (25mm) | 1- $\frac{3}{8}$ " (35mm) | 1- $\frac{5}{8}$ " (41mm) | $\frac{9}{16}$ " (15mm) |
| BC800050EG | | | | | | | |
| BC800062PL | $\frac{5}{8}$ " - 11 | 550 (2.45kN) | 6" (152mm) | 1- $\frac{1}{8}$ " (29mm) | 1- $\frac{1}{2}$ " (38mm) | 1- $\frac{3}{4}$ " (45mm) | $\frac{7}{8}$ " (22mm) |
| BC800062EG | | | | | | | |
| BC800075PL | $\frac{3}{4}$ " - 10 | 700 (3.11kN) | 8" (203mm) | 1- $\frac{3}{8}$ " (35mm) | 1- $\frac{13}{16}$ " (46mm) | 1- $\frac{13}{16}$ " (46mm) | $\frac{5}{8}$ " (16mm) |
| BC800075EG | | | | | | | |

Note: Do not over tighten set screw

BC81

Wide Mouth Malleable Iron Universal Beam Clamp



Maximum flange thickness of $1\frac{1}{16}$ " (27mm)

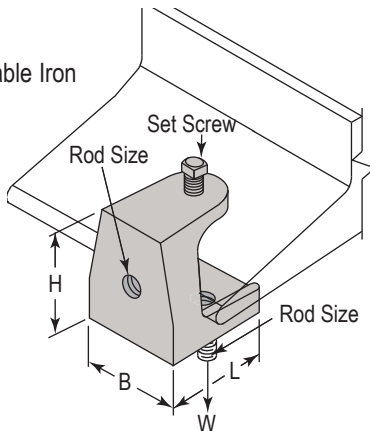
• **Finish:** Plain, Electrogalvanized

| Part No. | Rod Size (RS) | Max Load W lbs (kN) | Max Pipe Size in | Dimensions in. | | | |
|------------|----------------------|---------------------|------------------|---------------------------|----------------------------|-----------------------------|-------------------------|
| | | | | B | L | H | D |
| BC810037PL | $\frac{3}{8}$ " - 16 | 400 (1.78kN) | 4" (102mm) | $\frac{7}{8}$ " (22mm) | 1- $\frac{1}{4}$ " (32mm) | 1- $\frac{15}{16}$ " (49mm) | $\frac{9}{16}$ " (14mm) |
| BC810037EG | | | | | | | |
| BC810050PL | $\frac{1}{2}$ " - 13 | 500 (2.22kN) | 5" (127mm) | $\frac{7}{8}$ " (22mm) | 1- $\frac{1}{4}$ " (32mm) | 2- $\frac{3}{16}$ " (56mm) | $\frac{1}{2}$ " (13mm) |
| BC810050EG | | | | | | | |
| BC810062PL | $\frac{5}{8}$ " - 11 | 600 (2.67kN) | 6" (152mm) | 1- $\frac{1}{4}$ " (32mm) | 1- $\frac{7}{8}$ " (48mm) | 2- $\frac{1}{4}$ " (57mm) | $\frac{7}{8}$ " (22mm) |
| BC810062EG | | | | | | | |
| BC810075PL | $\frac{3}{4}$ " - 10 | 800 (3.56kN) | 8" (203mm) | 1- $\frac{3}{8}$ " (35mm) | 2- $\frac{1}{16}$ " (52mm) | 2- $\frac{1}{2}$ " (64mm) | $\frac{7}{8}$ " (22mm) |
| BC810075EG | | | | | | | |

Note: Do not over tighten set screw

BC90

Electro-galvanized Malleable Iron Rod Support Beam Clamp

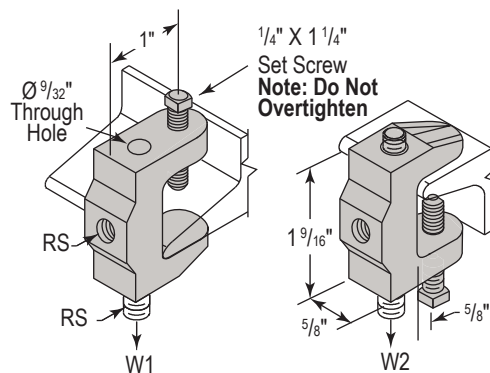


Maximum flange thickness of $\frac{1}{2}$ " (13mm)

| Part No. | Rod Size | Set Screw Size | Dimensions in. | | | Max Load (W) lbs (kN) |
|----------|----------------------|-----------------------|-----------------------------|----------------------------|-----------------------------|-----------------------|
| | | | B | L | H | |
| BC9025EG | $\frac{1}{4}$ " - 20 | $\frac{5}{16}$ " - 18 | 1- $\frac{3}{16}$ " (33 mm) | 1- $\frac{3}{8}$ " (35 mm) | 1- $\frac{3}{8}$ " (35 mm) | 335 (1.49kN) |
| BC9037EG | $\frac{3}{8}$ " - 16 | $\frac{1}{2}$ " - 13 | 2- $\frac{1}{16}$ " (52 mm) | 1- $\frac{7}{8}$ " (48 mm) | 1- $\frac{3}{4}$ " (44 mm) | 525 (2.34kN) |
| BC9050EG | $\frac{1}{2}$ " - 13 | $\frac{1}{2}$ " - 13 | 2- $\frac{1}{2}$ " (64 mm) | 2- $\frac{3}{8}$ " (60 mm) | 2- $\frac{3}{16}$ " (56 mm) | 750 (3.34kN) |

BC91

Electro-galvanized Malleable Iron Universal Beam Clamps



Maximum flange thickness of $\frac{5}{8}$ " (16mm)

| Part No. | Rod Size (RS) | Max Load W1 lbs (kN) | Max Load W2 lbs (kN) |
|-----------|----------------------|----------------------|----------------------|
| BC91025EG | $\frac{1}{4}$ " - 20 | 100 (0.44kN) | 250 (1.11kN) |

Note: The threaded hole on the back side of the clamp is not load rated.



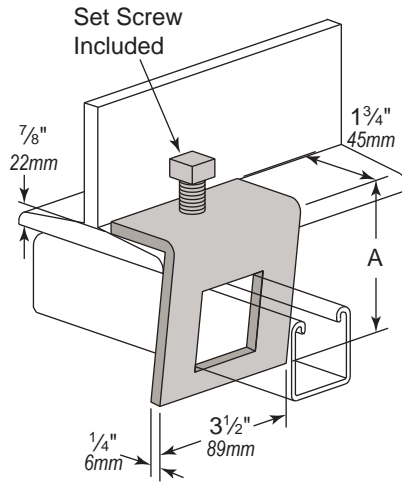


Beam Clamps

Standard Finish: Electro Galvanized (EG)

W5702 to W5705

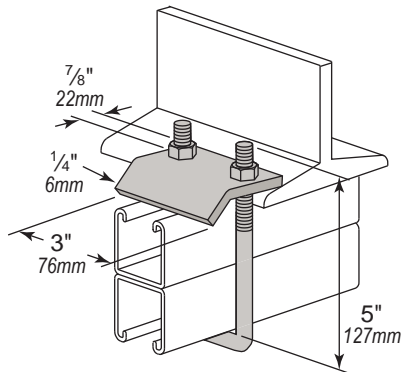
Beam Clamp
(Used In Pairs)



| Part No. | A | Use With Channel | Allowable Loads Lbs. (kN) |
|----------|-----------------|------------------|---------------------------|
| W5702 | 3-1/2" (89mm) | W200, W210 | 480 (2.14 kN) |
| W5703 | 3-1/4" (83mm) | W300 | |
| W5705 | 2-11/16" (68mm) | W500 | |

W5708

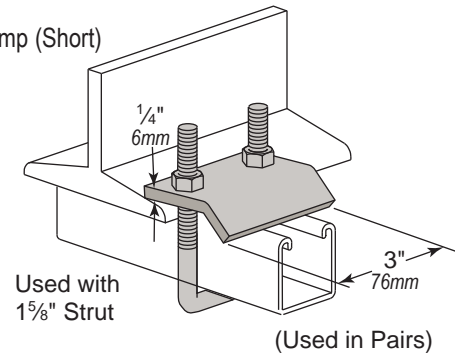
"U" Bolt Beam Clamp (Long)
(Used In Pairs)



| Part No. | Use With Channel | Allowable Load Lbs. (kN) |
|----------|------------------|--------------------------|
| W5708 | W100, W150, W201 | 1,000 (4.45 kN) |

W5709

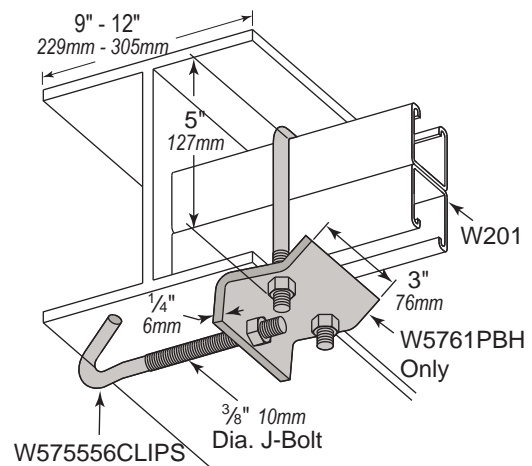
"U" Bolt Beam Clamp (Short)
(Used In Pairs)



| Part No. | Use With Channel | Allowable Load Lbs. (kN) |
|----------|------------------------|--------------------------|
| W5709 | W200, W210, W501, W300 | 1,000 (4.45 kN) |

W5761 Series

U-Bolt Beam Clamp with J-Bolt



- 1" Max. Flange Thickness
- For use with 1-5/8" to 3-1/4" high channel (W150)
- Recommended Torques:
U-Bolt Nuts 150 in-lbs
J-Bolt Nut 60 in-lbs

| Part No. | For Flange Width | Use With Channel |
|----------|---------------------------------|------------------|
| W5761 | 4" thru 5-7/8" (102 thru 149mm) | W150, W201 |
| W5761-9 | 6" thru 9" (152 thru 229mm) | |
| W5761-12 | 9" thru 12" (229 thru 305mm) | |

Uniform loads are based upon opposing style clamps **used in pairs**, installed against the flanges of the beam.
It is recommended that the beam be dimpled at set screw contact location(s)



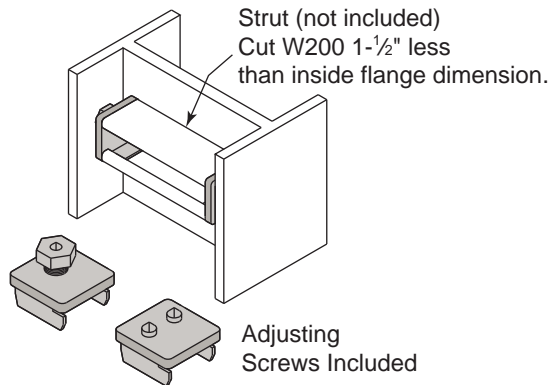
Beam Clamps



Standard Finish: Electro Galvanized (EG)

W5760

Flange To Flange Clamp



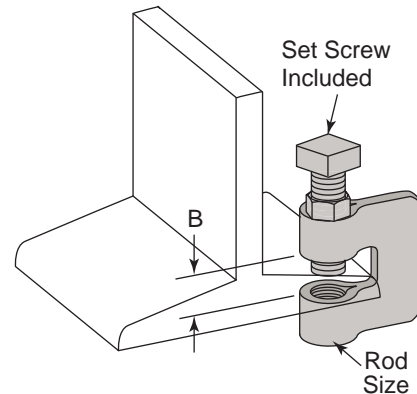
All Rods are shown with jamb nuts or "Locking" provision as recommended

| Part No. | Wt. Lbs/C | Allowable Load Lbs. (kN) |
|----------|------------|--------------------------|
| W5760 | 53 (24 Kg) | 800 (3.56 kN) |

Allowable load capacity for both horizontal and vertical loads

W5741 - W5745

Beam Clamps

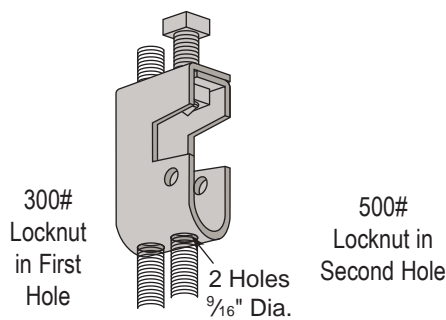


"Bottom Rod" Against Beam (Recommended)

| Part No. | Rod Size | B | Allowable Load Lbs. (kN) (ea.) |
|----------|----------|----------------|--------------------------------|
| W5741 | 3/8" | 3/4" (19mm) | 400 (1.78 kN) |
| W5742 | 1/2" | | 500 (2.22 kN) |
| W5743 | 5/8" | | 550 (2.45 kN) |
| W5744 | 3/4" | 1-1/16" (27mm) | 600 (2.67 kN) |
| W5745 | 7/8" | | 900 (4.00 kN) |

W5750

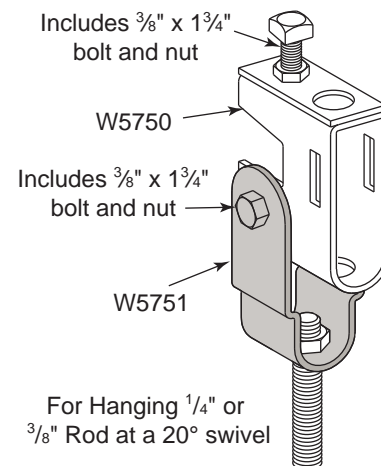
All Purpose Beam Clamp



Provides for hanging rod directly below set screw.
Alternate use provides 1/4", 3/8" or 1/2" rod to be extended from the top to the bottom of the clamp on the end opposite the set screw. 1/4" flat washer must be used with 1/4" rod.

W5751

Swivel Hanger



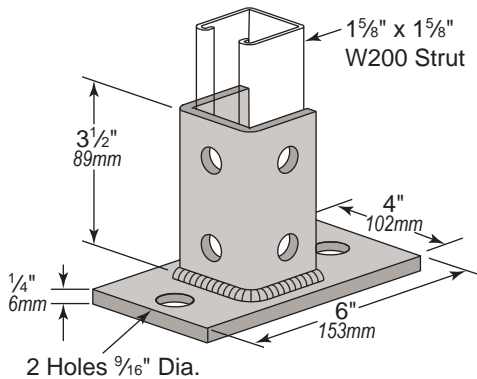
Provides for hanging 1/4" or 3/8" rod with 20° swivel or 1/2" rod without swivel.
1/4" flat washer must be used with 1/4" rod.

It is recommended that the beam be dimpled at set screw contact location(s)



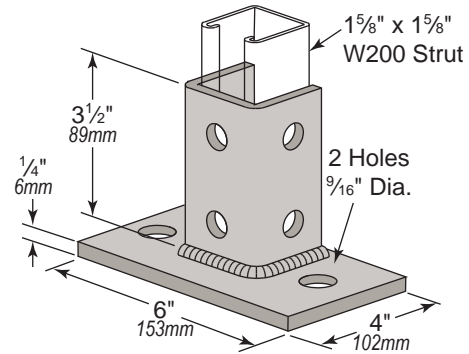
W5810

Rectangular Plate Eight-Hole Post Base
Single Channel Tall Clevis



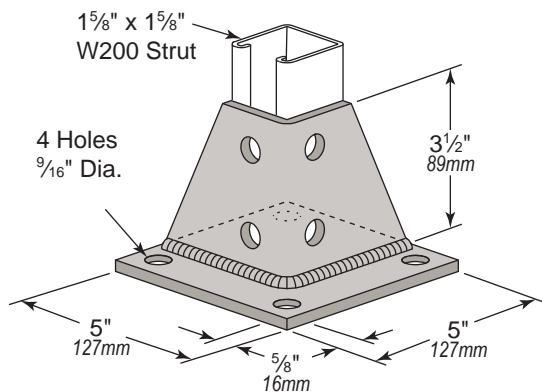
W5810FL

Rectangular Plate Eight-Hole Post Base
Single Channel Tall Clevis



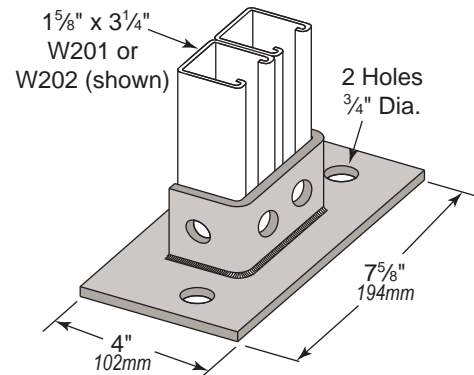
W5811

Eight-Hole Welded Corner Post Base



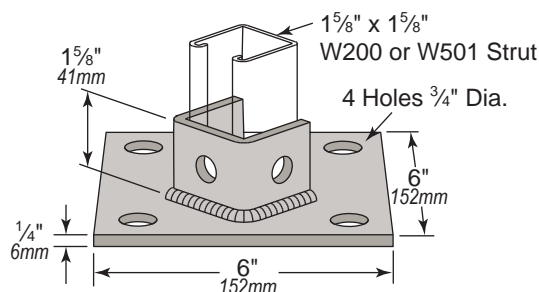
W5812

Rectangular Plate 6 Hole Post Base
Double Channel Short Clevis



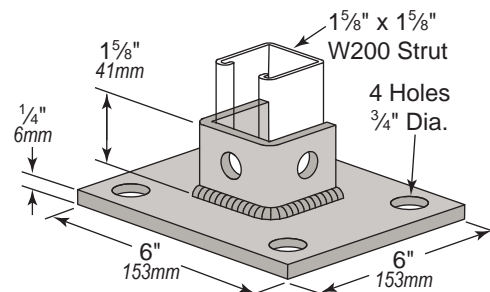
W5813

Seven-Hole Post Base Single Channel Short Clevis



W5813SQ

Seven-Hole Post Base Single Channel Short Clevis



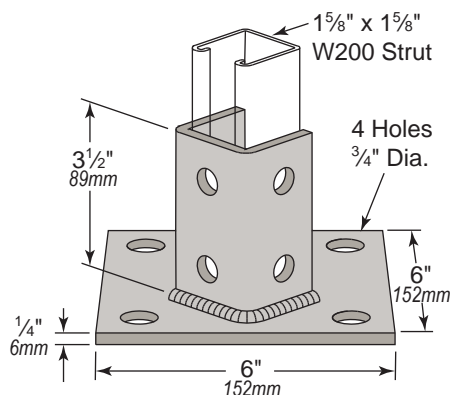
Post Bases



Standard Finish: Electro Galvanized (EG)

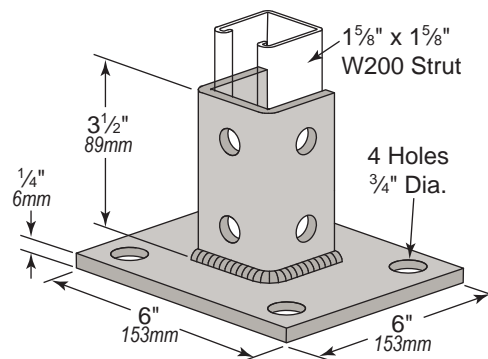
W5814

Ten-Hole Post Base Single Channel Tall Clevis



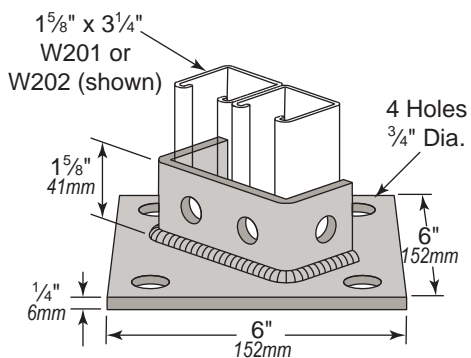
W5814SQ

Ten-Hole Post Base Single Channel Tall Clevis



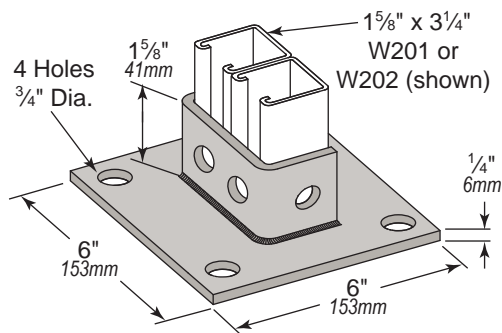
W5815

Eight-Hole Post Base Double Channel Short Clevis



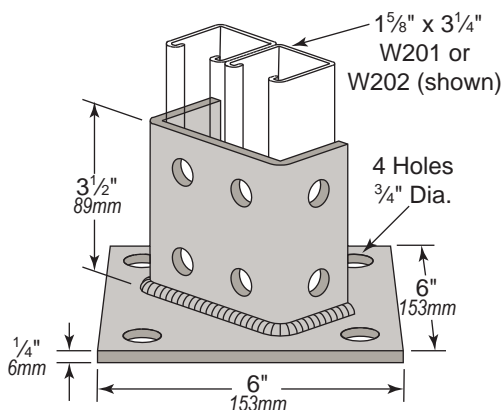
W5815SQ

Eight-Hole Post Base Double Channel Short Clevis



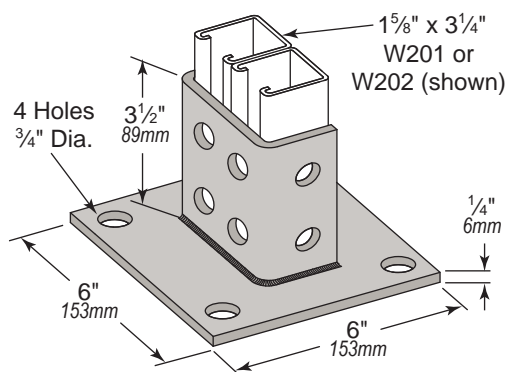
W5816

Twelve-Hole Post Base Double Channel Tall Clevis



W5816SQ

Twelve-Hole Post Base Double Channel Tall Clevis



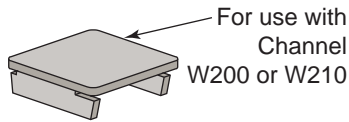


End Caps

Standard Finish: Electro Galvanized (EG)

W5920

Wireway End Cap For W200 or W210 Channel



W5910 thru W5938

UL Listed End Caps

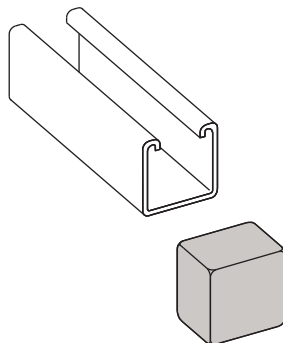


| Part No. | Channel Usage |
|----------|---------------|
| W5910 | W100 |
| W5930 | W200 |
| W5931 | W210 |
| W5933 | W300 |
| W5935 | W500 & W900 |
| W5938 | W800 |

W5900 thru W5935

Cover Plastic End Caps

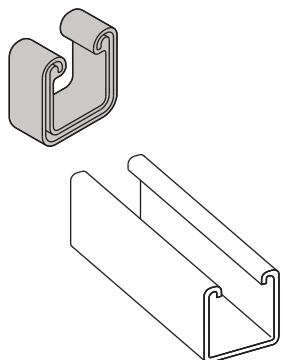
| Part No. Cover | Channel Usage |
|----------------|---------------|
| W5900 | W201 |
| W5930 | W200, W501 |
| W5935 | W500 |



W5900-M thru W5935-M

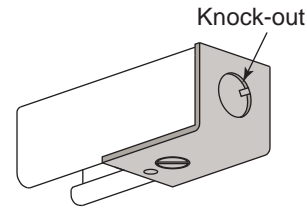
Form Fit Plastic End Caps

| Part No. Form Fit | Channel Usage |
|-------------------|---------------|
| W5900-M | W201 |
| W5930-M | W200 & W210 |
| W5935-M | W500 |



W5940 - W5943

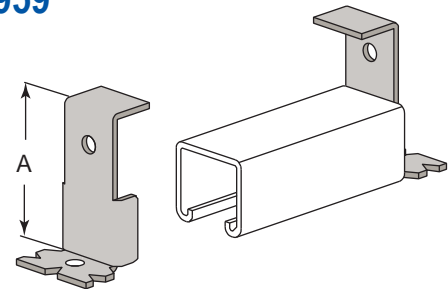
End Cap with knock-outs



| Part No. | Knock-out Size | Channel Usage |
|----------|----------------|---------------|
| W5940 | 1/2" | W200 |
| W5941 | 3/4" | |
| W5942 | 1/2" | W300 |
| W5943 | 3/4" | |

W5952 - W5959

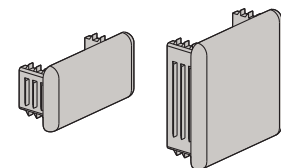
Anchor End Caps



| Part No. | A Height | Channel Usage |
|----------|---------------|---------------|
| W5952 | 3-1/8" (79mm) | W200 |
| W5953 | 2-3/4" (70mm) | W300 |
| W5958 | 2-3/8" (60mm) | W800 |
| W5959 | 2-1/4" (57mm) | W900 |

B5920 & B5925

Polyurethane End Caps



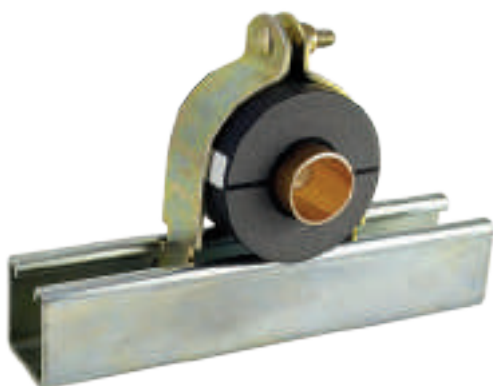
| Part No. | Color | Size | Channel Usage |
|-----------------|-------|-----------------------------|---------------|
| B5920PLASTICRED | Red | 1-5/8" (41mm) | W200, W210 |
| B5925PLASTICRED | | 13/16" (21mm) & 7/8" (22mm) | W500, W900 |
| B5920PLASTICWHT | White | 1-5/8" (41mm) | W200, W210 |
| B5925PLASTICWHT | | 13/16" (21mm) & 7/8" (22mm) | W500, W900 |



Pipe, Tube, & Conduit Supports



Pipe Clamps, Cushioned & Insulated Clamps & Support Saddles



| Pipe Clamp Specifications | | |
|-----------------------------------|----------------|--|
| Material | ASTM | ASTM Description |
| Hot Rolled Plate | A 575 | Steel, sheet and strip, carbon drawing quality, special killed, hot rolled. |
| Fitting (Steel) | A 366 | Steel carbon, cold rolled sheet, commercial quality structural steel. |
| | A 366 | |
| | A 36 | |
| Strip Steel: Pipe Clamps | A 569 | Steel, sheet and strip, carbon drawing quality, special killed, hot rolled. |
| Stainless Steel: (ST304 or ST316) | A 240 TYPE 304 | Heat resisting chromium and chromium-nickel stainless steel plate, sheet, strip for pressure vessel. |
| | A 240 TYPE 316 | |
| Aluminum: (AL) | B 221 | Aluminum alloy extruded bar, rod, wire, shape and tube. |

| Pipe Clamp Finish Specifications | | |
|--|-------------|--|
| Finish | Finish Code | Description |
| Paint-Green Powder Coating | GR | A dark green low gloss powder coating is applied and thoroughly baked after steel has been cleaned and phosphatized. |
| Electroplated | EG | Fittings and hardware supplied as "Electro-Galvanized" in accordance with ASTM B 633. |
| Mill-Galvanized (Pre-Galvanized) | PG | Galvanized steel used in the manufacture of channel sections conforms to ASTM A 653 GR33 G90. Uncoated edges resulted from slitting, punching and channel cut off are present. |
| Hot Dip Galvanized After Fabrication (HDGAF) | HG | Wesanco channel and fittings which are hot dip galvanized after fabrication conform to one of the following specifications. ASTM A 123, ASTM A153, or ASTM A386. |
| Special Coatings | PL, GOLD | Other commercially available finishes can be supplied per specification when required to protect applications. Plain, or Gold (Yellow Zinc Dichromate) |

Call ZSi-Foster at (800) 323-7053 or order now at zsi-foster.com



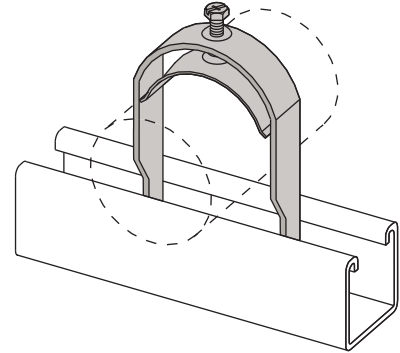
Strut Clamps

Standard Finish: Electro Galvanized (EG)

One-Piece Clamp

Rigid Conduit One Piece Pipe Clamp

| Part No. | O.D. Size |
|----------|---------------|
| BMU050 | 1/2" (13mm) |
| BMU075 | 3/4" (19mm) |
| BMU100 | 1" (25mm) |
| BMU125 | 1-1/4" (32mm) |
| BMU150 | 1-1/2" (38mm) |
| BMU200 | 2" (51mm) |
| BMU250 | 2-1/2" (64mm) |
| BMU300 | 3" (76mm) |
| BMU350 | 3-1/2" (89mm) |
| BMU400 | 4" (102mm) |

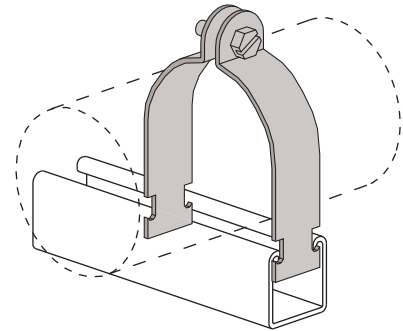


W6025A - W6038A

Thin Wall Conduit Series (E.M.T.)

| Part No. | Nominal Size | O.D. Size | Gauge | Allowable Load Lbs. (kN) (ea.) | Slotted Indented Hex Cap Screw |
|----------|---------------|-----------|-------|--------------------------------|--------------------------------|
| W6025A | 3/8" (10mm) | 0.577" | 16 | 400 (1.78 kN) | 1/4" X 3/4" |
| W6026A | 1/2" (13mm) | 0.706" | 16 | | 1/4" X 3/4" |
| W6028A | 3/4" (19mm) | 0.922" | 16 | | 1/4" X 3/4" |
| W6030A | 1" (25mm) | 1.163" | 14 | 600 (2.67 kN) | 1/4" X 3/4" |
| W6032A | 1-1/4" (32mm) | 1.510" | 14 | | 1/4" X 3/4" |
| W6034A | 1-1/2" (38mm) | 1.740" | 12 | 800 (3.56 kN) | 5/16" X 1" |
| W6038A | 2" (51mm) | 2.197" | 12 | | 5/16" X 1" |

Each clamp consists of two halves, one kept nut and one slotted hex head cap screw.

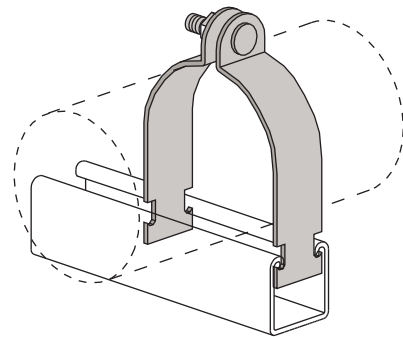


W6056AS - W6068AS

Universal Clamp Series With Welded Stud
(E.M.T. Or Iron Pipe)

| Part No. | EMT Size | EMT O.D. | Rigid Size | Rigid O.D. | Gauge | Allowable Load Lbs. (kN) (ea.) |
|----------|---------------|---------------|---------------|---------------|-------|--------------------------------|
| W6056AS | 1/2" (13mm) | 0.706" (18mm) | 1/2" (13mm) | 0.840" (21mm) | 16 | 400 (1.78 kN) |
| W6058AS | 3/4" (19mm) | 0.922" (23mm) | 3/4" (19mm) | 1.050" (27mm) | 16 | |
| W6060AS | 1" (25mm) | 1.163" (30mm) | 1" (25mm) | 1.315" (33mm) | 14 | |
| W6062AS | 1-1/4" (32mm) | 1.510" (38mm) | 1-1/4" (32mm) | 1.660" (42mm) | 14 | 600 (2.67 kN) |
| W6064AS | 1-1/2" (38mm) | 1.740" (44mm) | 1-1/2" (38mm) | 1.900" (48mm) | 14 | |
| W6068AS | 2" (51mm) | 2.197" (56mm) | 2" (51mm) | 2.370" (60mm) | 14 | |

Each clamp consists of: one kept nut and two halves; one with a secured stud.



Strut Clamps

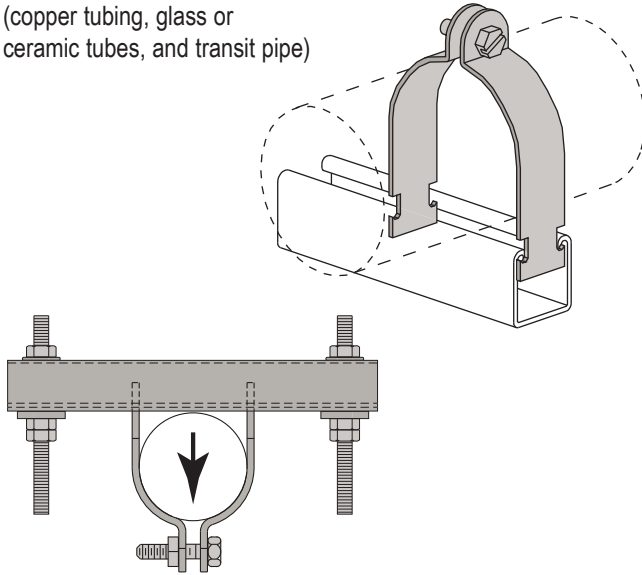


Standard Finish: Electro Galvanized (EG)

W6224A to W6282A

O.D. Tubing Series

(copper tubing, glass or ceramic tubes, and transit pipe)



Allowable Load (Safety Factor: 5)

| Part No. | O.D. Size | Gauge | Allowable Load (ea.) | Slotted Indented Hex Screw |
|----------|---------------|-------|----------------------|----------------------------|
| W6224A | 1/4" (6mm) | 16 | 400 (1.78 kN) | 1/4" x 3/4" |
| W6225A | 3/8" (10mm) | | | |
| W6226A | 1/2" (13mm) | | | |
| W6227A | 5/8" (16mm) | | | |
| W6228A | 3/4" (19mm) | | | |
| W6229A | 7/8" (22mm) | | | |
| W6230A | 1" (25mm) | 14 | 600 (2.67 kN) | 1/4" x 3/4" |
| W6231A | 1-1/8" (29mm) | | | |
| W6232A | 1-1/4" (32mm) | | | |
| W6233A | 1-3/8" (35mm) | | | |
| W6234A | 1-1/2" (38mm) | | | |
| W6235A | 1-5/8" (41mm) | | | |
| W6034A | 1-3/4" (44mm) | 12 | 800 (3.56 kN) | 5/16" x 1" |
| W6237A | 1-7/8" (48mm) | | | |
| W6238A | 2" (51mm) | | | |
| W6239A | 2-1/8" (54mm) | | | |
| W6240A | 2-1/4" (57mm) | | | |
| W6138A | 2-3/8" (60mm) | | | |
| W6242A | 2-1/2" (64mm) | | | |
| W6243A | 2-5/8" (67mm) | | | |
| W6244A | 2-3/4" (70mm) | | | |
| W6142A | 2-7/8" (73mm) | | | |
| W6246A | 3" (76mm) | | | |
| W6247A | 3-1/8" (79mm) | | | |
| W6248A | 3-1/4" (83mm) | | | |
| W6249A | 3-3/8" (86mm) | | | |
| W6146A | 3-1/2" (89mm) | | | |

| Special Materials Pipe Clamps (Universal Clamps excluded) | | |
|--|---------------------------|--------------|
| Material | Add Suffix to Part Number | Example |
| Steel Clamp Everdur Hardware | -E | W6130-E |
| Aluminum | AL | W6130 AL |
| Stainless steel type 304 | st-304 | W6130 st-304 |
| Stainless steel type 316 | st-316 | W6130 st-316 |
| For assembled clamps | -A | W6130-A |
| Stainless Uses: Slotted Ind. Hex Screw and Hex Nut | | |

| Part No. | O.D. Size | Gauge | Allowable Load (ea.) | Slotted Indented Hex Screw |
|----------|----------------|-------|----------------------|----------------------------|
| W6251A | 3-5/8" (92mm) | 11 | 1,000 (4.45 kN) | 3/8" x 1-1/4" |
| W6252A | 3-3/4" (95mm) | | | |
| W6253A | 3-7/8" (98mm) | | | |
| W6150A | 4" (102mm) | | | |
| W6255A | 4-1/8" (105mm) | | | |
| W6256A | 4-1/4" (108mm) | | | |
| W6257A | 4-3/8" (111mm) | | | |
| W6154A | 4-1/2" (114mm) | | | |
| W6259A | 4-5/8" (118mm) | | | |
| W6260A | 4-3/4" (121mm) | | | |
| W6261A | 4-7/8" (124mm) | | | |
| W6262A | 5" (127mm) | | | |
| W6263A | 5-1/8" (130mm) | | | |
| W6264A | 5-1/4" (133mm) | | | |
| W6265A | 5-3/8" (137mm) | | | |
| W6266A | 5-1/2" (140mm) | | | |
| W6267A | 5-5/8" (143mm) | 10 | | |
| W6268A | 5-3/4" (146mm) | | | |
| W6269A | 5-7/8" (149mm) | | | |
| W6270A | 6" (152mm) | | | |
| W6271A | 6-1/4" (159mm) | | | |
| W6271BA | 6-3/8" (162mm) | | | |
| W6271CA | 6-1/2" (165mm) | | | |
| W6275A | 6-5/8" (168mm) | | | |
| W6271DA | 6-3/4" (171mm) | | | |
| W6279A | 6-7/8" (175mm) | | | |
| W6272A | 7" (177mm) | | | |
| W6281A | 7-1/8" (181mm) | | | |
| W6280A | 7-3/8" (187mm) | | | |
| W6281BA | 7-7/8" (200mm) | | | |
| W6274A | 8" (203mm) | | | |
| W6276A | 8-1/8" (206mm) | | | |
| W6276BA | 8-3/8" (213mm) | | | |
| W6277A | 8-1/2" (222mm) | | | |
| W6277CA | 8-3/4" (216mm) | | | |
| W6278A | 10" (254mm) | | | |
| W6282A | 12" (305mm) | | | |





Strut Clamps & Pipe Straps

Standard Finish: Electro Galvanized (EG)

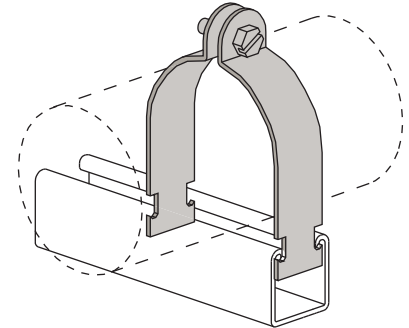
W6125A - W6178A

Rigid Steel Conduit Series (Iron Pipe)

| Part No. | Nominal Size | O.D. Size | Gauge | Allowable Load Lbs. (kN) (ea.) | Slotted Indented Hex Cap Screw |
|----------|---------------|-----------|-------|--------------------------------|--------------------------------|
| W6125A | 3/8" (10mm) | 0.675" | 16 | 400 (1.78 kN) | 1/4" x 3/4" |
| W6126A | 1/2" (13mm) | 0.840" | 16 | | 1/4" x 3/4" |
| W6128A | 3/4" (19mm) | 1.050" | 14 | | 1/4" x 3/4" |
| W6130A | 1" (25mm) | 1.315" | 14 | 600 (2.67 kN) | 1/4" x 3/4" |
| W6132A | 1-1/4" (32mm) | 1.660" | 14 | | 1/4" x 1" |
| W6134A | 1-1/2" (38mm) | 1.900" | 12 | | 5/16" x 1" |
| W6138A | 2" (51mm) | 2.375" | 12 | 800 (3.56 kN) | 5/16" x 1" |
| W6142A | 2-1/2" (64mm) | 2.875" | 12 | | 5/16" x 1" |
| W6146A | 3" (76mm) | 3.500" | 12 | | 5/16" x 1" |
| W6150A | 3-1/2" (89mm) | 4.000" | 11 | 1,000 (4.45 kN) | 3/8" x 1-1/4" |
| W6154A | 4" (102mm) | 4.500" | 11 | | 3/8" x 1-1/4" |
| W6162A | 5" (127mm) | 5.563" | 11 | | 3/8" x 1-1/4" |
| W6170A | 6" (152mm) | 6.625" | 10 | | 3/8" x 1-1/4" |
| W6174A | 8" (203mm) | 8.625" | 10 | | 3/8" x 1-1/4" |
| W6176A | 10" (254mm) | 10.750" | 10 | | 3/8" x 1-1/4" |
| W6178A | 12" (305mm) | 12.750" | 10 | | 3/8" x 1-1/4" |

Each clamp consists of two halves, one kept nut and one slotted hex head cap screw.

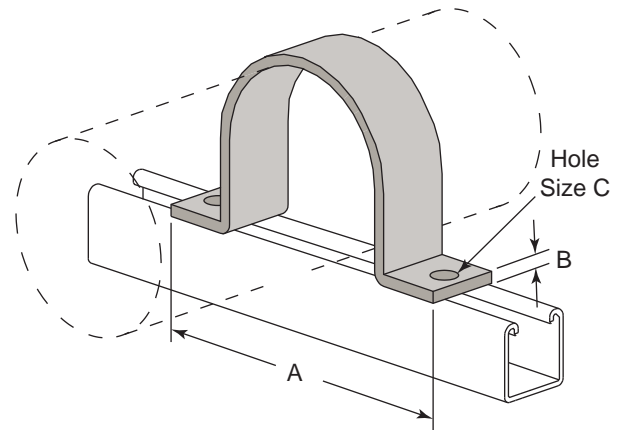
Ref: page 240 for Special Materials Specification



W7826 - W7870

Standard Pipe Straps

| Part No. | Pipe Size | A Length | B Material Thickness | C Hole Size |
|----------|-----------|------------------|----------------------|----------------|
| W7826 | 1/2" | 3" (76mm) | 1/8" (3.2mm) | 9/32" (7.1mm) |
| W7828 | 3/4" | 3-1/4" (83mm) | | |
| W7830 | 1" | 3-9/16" (90mm) | | |
| W7832 | 1-1/4" | 3-13/16" (97mm) | | |
| W7834 | 1-1/2" | 4-1/16" (103mm) | | |
| W7838 | 2" | 5-13/16" (148mm) | 1/4" (6.4mm) | 7/16" (11.1mm) |
| W7842 | 2-1/2" | 6-1/4" (159mm) | | |
| W7846 | 3" | 7" (178mm) | | |
| W7850 | 3-1/2" | 7-7/8" (200mm) | | |
| W7854 | 4" | 8" (203mm) | | |
| W7862 | 5" | 9-1/8" (232mm) | | |
| W7870 | 6" | 10-5/16" (262mm) | | |



Requires machine screw and channel nuts (not included) order separately.



J-Hanger & Tube Clamps

Standard Finish: Electro Galvanized (EG)



W4050 to W4400

J-Hanger

Finish: Electro Galvanized (standard) or Stainless Steel

Size Range: 1/2" thru 4" (13mm to 102mm) Pipe

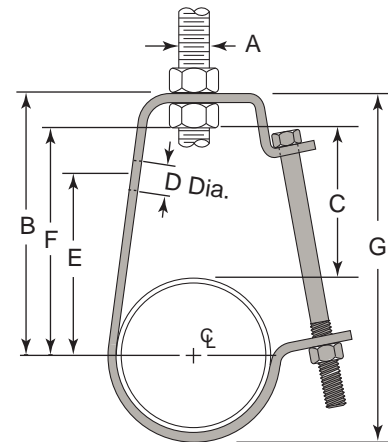
Material: Carbon Steel

Function: Can be suspended by hanger rod or attached to a wall. "T" slot in hanger permits side bolt to be installed after installation and setting of pipe.

Approvals: Conforms to Manufacturers Standardization Society SP-69, Type 5.

Maximum Temperature: 650° F (343°C)

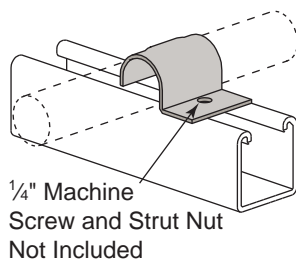
Finish: Carbon Steel



| Part No. | Pipe Size | A Rod Size | B | C | D | E | F | Bolt Size | G | Stock Size | Max. Rec. Load Lbs. (kN) |
|----------|-----------|------------|---------------------------------|--------------------------------|---------------|--------------------------------|---------------------------------|-----------|---------------------------------|---------------|---------------------------------|
| W4050 | ½" | ⅜" | 2-⅝" (67 mm) | 1-¾" (44 mm) | ⅞" (11 mm) | 1-½" (38 mm) | 1-⅟ ₁₆ " (49 mm) | ¼" | 3-⅟ ₃₂ " (80 mm) | 12 ga. x ¾" | 400 (1.78 kN) |
| W4075 | ¾" | | 2-⅞" (73 mm) | 1-⅞" (48 mm) | | 1-⅟ ₁₆ " (43 mm) | 2-⅞" (54 mm) | | 3-½" (89 mm) | | |
| W4100 | 1" | | 2-⅟ ₁₆ " (75 mm) | 1-⅟ ₁₆ " (49 mm) | | 1-⅟ ₁₆ " (46 mm) | 2-⅟ ₁₆ " (59 mm) | | 3-⅟ ₁₆ " (94 mm) | | |
| W4125 | 1-¼" | | 3-¼" (83 mm) | 2" (51 mm) | | 2-⅟ ₁₆ " (52 mm) | 2-⅟ ₈ " (67 mm) | | 4-⅟ ₈ " (105 mm) | | |
| W4150 | 1-½" | | 3-⅟ ₁₆ " (90 mm) | 2-⅟ ₁₆ " (56 mm) | | 2-⅟ ₁₆ " (62 mm) | 2-⅟ ₈ " (73 mm) | | 4-⅟ ₈ " (117 mm) | | |
| W4200 | 2" | | 3-⅟ ₁₆ " (94 mm) | 2-⅟ ₈ " (54 mm) | | 2-⅟ ₁₆ " (65 mm) | 3-⅟ ₁₆ " (78 mm) | | 5" (127 mm) | | |
| W4250 | 2-½" | ½" | 4-⅟ ₁₆ " (113 mm) | 2-⅟ ₁₆ " (62 mm) | ⅞" (14 mm) | 3-⅟ ₁₆ " (81 mm) | 3-⅟ ₈ " (92 mm) | ⅜" | 6" (152 mm) | 12 ga. x 1-¼" | 500 (2.22 kN) |
| W4300 | 3" | | 4-⅟ ₁₆ " (122 mm) | 2-⅟ ₁₆ " (65 mm) | | 3-½" (89 mm) | 4-⅟ ₁₆ " (103 mm) | | 6-⅟ ₃₂ " (169 mm) | ⅜" x 1-¼" | |
| W4350 | 3-½" | | 5-⅟ ₈ " (130 mm) | 2-⅟ ₈ " (67 mm) | | 3-¾" (95 mm) | 4-⅟ ₈ " (111 mm) | | 7-⅟ ₁₆ " (186 mm) | | |
| W4400 | 4" | ⅝" | 6-⅟ ₈ " (156 mm) | 3-⅟ ₁₆ " (81 mm) | | | 4-⅟ ₈ " (117 mm) | | 5-⅟ ₁₆ " (132 mm) | | 8-⅟ ₁₆ " (217 mm) |

W7724 - W7730

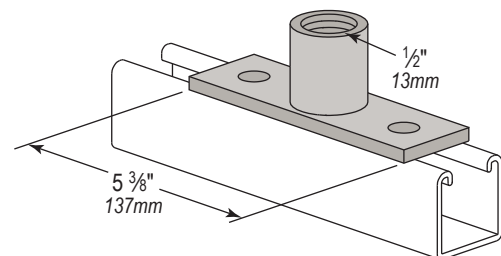
One-Hole Tubing Clamps



| Part No. | O.D. Tube Size |
|----------|----------------|
| W7724 | 1/4" |
| W7724A | 5/16" |
| W7725 | 3/8" |
| W7726 | 1/2" |
| W7727 | 5/8" |
| W7728 | 3/4" |
| W7729 | 7/8" |
| W7730 | 1" |

W2470-50

Pipe Coupling Fitting





Cush-A-Nator®

Cush-A-Nator®



Cush-A-Nator
Standard
-50°F to 275°F

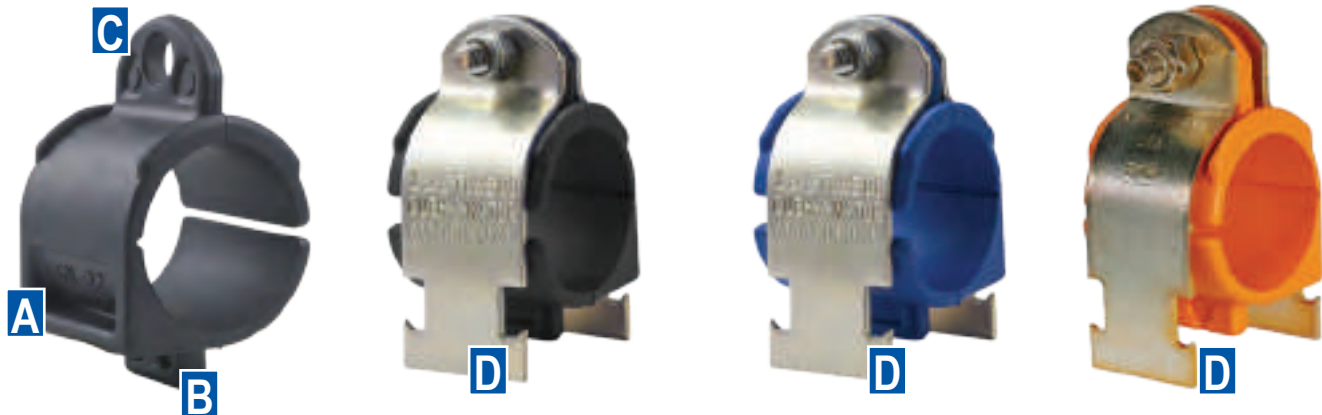
Cush-A-Nator
High Temp
-65°F to 340°F

Cush-A-Nator
High Intensity Temp
-65°F to 400°F



New Cush-A-Nator High Intensity Temp
has a service temperature of
-65°F to 400°F

The Cush-A-Nator® is designed to provide the user with a choice of the highest heat range resistance of any cushion on the market or simply the advanced features of a superior design.
The Cush-A-Nator is designed and manufactured in Michigan.



Features

A Thumb Drive

The Cush-A-Nator has the exclusive "Thumb Drive" that provides the installer a gripping point to easily open the cushion with the help of leverage tabs and a living hinge. Easy and effortlessly to install.

B Self-Alignment

Cushion can be opened and placed over the pipe or tube and rotated into place while on the channel and automatically aligned with the channel opening ready for clamping.

Cush-A-Nator® is manufactured under U.S. patents #9074715, #D702113, #D710190, and European Community patents #0013843410001, #0013843410002, and a United Kingdom patent pending.

C Pressure Control

The Cush-A-Nator cushion has a built in squeeze control as part of the cushion design. The side opening and the squeeze control tab provides evenly distributed pressure around the tube or pipe.

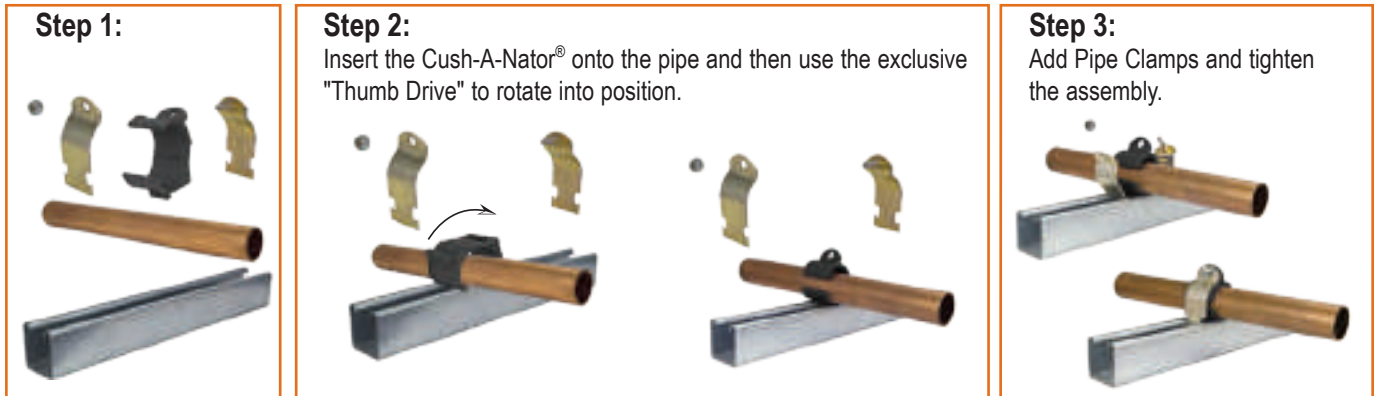
D Complete Clamping Unit

The Cush-A-Nator is the only strut mounted cushion that is mechanically connected to the supporting steel clamp because the bolt passes through the squeeze control tab forming the single unit connection. This design helps prevent the cushion from excess vibration by being attached directly to the clamp.

Installation examples shown on next page



Cush-A-Nator® – New Installations



Cush-A-Nator® – Retrofit / Replacement Applications

A key feature of the Cush-A-Nator is this ability to place the cushion and rotate into position. **Perfect for retrofit applications!**

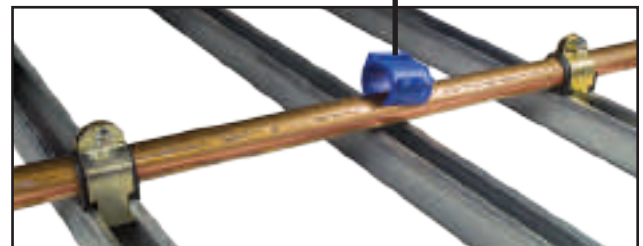
Retrofit - The Common Problem

Replacing a cushion within a long pipe run poses a problem. Clamps before and after the one to be replaced prohibit the pipe from being raised so that the new cushion can be installed correctly. All too often a work-around is used which compromises the connection.

Retrofit - The Perfect Solution

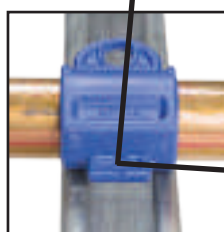
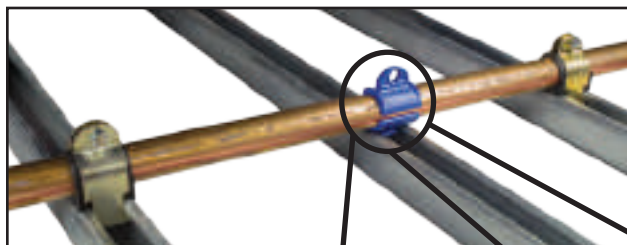
Step 1: Remove Bad Cushion.

Step 2: The Cush-A-Nator can be installed without raising the pipe. The unique "Thumb Drive" allows you to rotate the Cush-A-Nator into position.

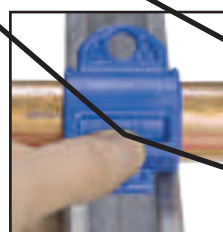


Step 3: Rotated into place while on the channel and the Self-Alignment tab automatically aligns with the channel opening ready for clamping.

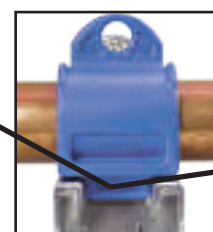
Step 3: Add Pipe Clamps and tighten the assembly.



Rotate into Position



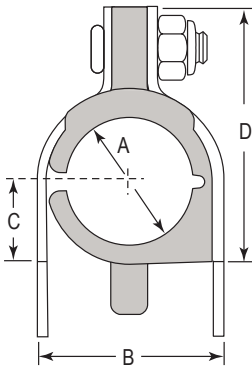
Thumb Drive



"Self-Alignment"



Cush-A-Nator® Standard (CN) has an operating range of -50°F to 275°F (-45°C to 135°C).



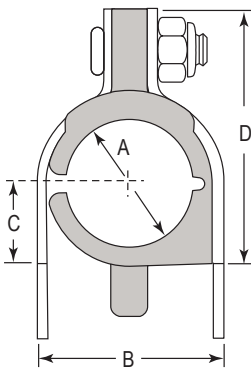
| Cush-A-Nator® Standard (CN) Tube Part No. | | | O.D. Tube Size | Dimensions (inches) | | | |
|--|----------|----------|-------------------|---------------------|---------------|--------------|---------------|
| Steel | SS304 | SS316 | | A | B | C | D |
| CN04 | CN04SS | CN04S6 | 1/4" | 0.25" (6mm) | 0.62" (16mm) | 0.27" (7mm) | 0.98" (25mm) |
| CN06 | CN06SS | CN06S6 | 3/8" | 0.37" (9mm) | 0.82" (21mm) | 0.33" (8mm) | 1.13" (29mm) |
| CN08 | CN08SS | CN08S6 | 1/2" | 0.50" (13mm) | 0.94" (24mm) | 0.40" (10mm) | 1.34" (34mm) |
| CN10 | CN10SS | CN10S6 | 5/8" | 0.62" (16mm) | 1.06" (27mm) | 0.46" (12mm) | 1.54" (39mm) |
| CN12 | CN12SS | CN12S6 | 3/4" | 0.75" (19mm) | 1.20" (30mm) | 0.52" (13mm) | 1.68" (43mm) |
| CN14 | CN14SS | CN14S6 | 7/8" | 0.87" (22mm) | 1.31" (33mm) | 0.58" (15mm) | 1.82" (46mm) |
| CN16 | CN16SS | CN16S6 | 1" | 1.00" (25mm) | 1.44" (37mm) | 0.65" (17mm) | 1.95" (50mm) |
| CN18 | CN18SS | CN18S6 | 1 1/8" | 1.12" (28mm) | 1.57" (40mm) | 0.70" (18mm) | 2.08" (53mm) |
| CN20 | CN20SS | CN20S6 | 1 1/4" | 1.25" (32mm) | 1.70" (43mm) | 0.77" (20mm) | 2.21" (56mm) |
| CN32M | CN32MSS | CN32MS6 | 32mm | 32mm | 1.51" (38mm) | 0.76" (19mm) | 2.55" (65mm) |
| CN22 | CN22SS | CN22S6 | 1 3/8" | 1.37" (35mm) | 1.82" (46mm) | 0.83" (21mm) | 2.34" (59mm) |
| CN24 | CN24SS | CN24S6 | 1 1/2" | 1.50" (38mm) | 1.95" (50mm) | 0.90" (23mm) | 2.47" (63mm) |
| CN26 | CN26SS | CN26S6 | 1 5/8" | 1.62" (41mm) | 2.07" (53mm) | 0.96" (24mm) | 2.60" (66mm) |
| CN28 | CN28SS | CN28S6 | 1 3/4" | 1.75" (45mm) | 2.20" (56mm) | 1.02" (26mm) | 2.73" (69mm) |
| CN30 | CN30SS | CN30S6 | 1 7/8" | 1.87" (48mm) | 2.32" (59mm) | 1.09" (28mm) | 2.86" (73mm) |
| CN32 | CN32SS | CN32S6 | 2" | 2.00" (51mm) | 2.45" (62mm) | 1.15" (29mm) | 3.04" (77mm) |
| CN34 | CN34SS | CN34S6 | 2 1/8" | 2.12" (54mm) | 2.57" (65mm) | 1.27" (32mm) | 3.23" (82mm) |
| CN36 | CN36SS | CN36S6 | 2 1/4" | 2.25" (57mm) | 2.82" (72mm) | 1.41" (36mm) | 3.67" (93mm) |
| CN38 | CN38SS | CN38S6 | 2 3/8" | 2.37" (60mm) | 2.82" (72mm) | 1.41" (36mm) | 3.67" (93mm) |
| CN40 | CN40SS | CN40S6 | 2 1/2" | 2.50" (64mm) | 2.94" (75mm) | 1.46" (37mm) | 3.79" (96mm) |
| CN42 | CN42SS | CN42S6 | 2 5/8" | 2.62" (66mm) | 3.07" (78mm) | 1.53" (39mm) | 3.92" (100mm) |
| CN46 | CN46SS | CN46S6 | 2 7/8" | 2.87" (73mm) | 3.32" (84mm) | 1.66" (42mm) | 4.17" (106mm) |
| CN75M | CN75MSS | CN75MS6 | 75mm | 75mm | 3.37" (86mm) | 1.69" (43mm) | 4.68" (119mm) |
| CN48 | CN48SS | CN48S6 | 3" | 3.00" (76mm) | 3.57" (91mm) | 1.78" (45mm) | 4.42" (112mm) |
| CN50 | CN50SS | CN50S6 | 3 1/8" | 3.12" (79mm) | 3.57" (91mm) | 1.78" (45mm) | 4.42" (112mm) |
| CN56 | CN56SS | CN56S6 | 3 1/2" | 3.50" (89mm) | 3.95" (100mm) | 1.97" (50mm) | 4.79" (122mm) |
| CN90M | CN90MSS | CN90MS6 | 90mm | 90mm | 3.86" (98mm) | 1.94" (49mm) | 5.23" (133mm) |
| CN64 | CN64SS | CN64S6 | 4" | 4.00" (102mm) | 4.45" (113mm) | 2.28" (58mm) | 5.11" (130mm) |
| CN66 | CN66SS | CN66S6 | 4 1/8" | 4.12" (105mm) | 4.57" (116mm) | 2.34" (59mm) | 5.54" (141mm) |
| CN110M | CN110MSS | CN110MS6 | 110mm | 110mm | 4.99" (127mm) | 2.81" (71mm) | 6.38" (162mm) |
| CN72 | CN72SS | CN72S6 | 4 1/2" | 4.50" (114mm) | 4.95" (126mm) | 2.53" (64mm) | 5.92" (150mm) |
| CN125M | CN125MSS | CN125MS6 | 125mm | 125mm | 5.61" (142mm) | 2.81" (71mm) | 7.00" (178mm) |
| CN96 | CH96SS | CN96S6 | 6" | 6.00" (152mm) | 6.62" (168mm) | 3.31" (84mm) | 7.63" (194mm) |
| CN160M | CN160MSS | CN160MS6 | 160mm | 160mm | 6.62" (168mm) | 3.31" (84mm) | 7.63" (194mm) |

| Cush-A-Nator® Standard (CN) Pipe Part No. | | | Pipe Size | Dimensions (inches) | | | |
|--|---------|---------|--------------|---------------------|---------------|--------------|---------------|
| Steel | SS304 | SS316 | | A | B | C | D |
| CN14P | CN14PSS | CN14PS6 | 1/2" | 0.840" (21mm) | 1.29" (33mm) | 0.58" (15mm) | 1.82" (46mm) |
| CN17P | CN17PSS | CN17PS6 | 3/4" | 1.050" (27mm) | 1.57" (40mm) | 0.70" (18mm) | 2.08" (53mm) |
| CN21P | CN21PSS | CN21PS6 | 1" | 1.315" (33mm) | 1.76" (45mm) | 0.81" (21mm) | 2.34" (59mm) |
| CN30P | CN30PSS | CN30PS6 | 1 1/2" | 1.900" (48mm) | 2.32" (59mm) | 1.09" (28mm) | 2.86" (73mm) |
| CN38P | CN38PSS | CN38PS6 | 2" | 2.375" (60mm) | 2.82" (72mm) | 1.41" (36mm) | 3.67" (93mm) |
| CN46P | CN46PSS | CN46PS6 | 2 1/2" | 2.875" (73mm) | 3.32" (84mm) | 1.66" (42mm) | 4.17" (106mm) |
| CN56P | CN56PSS | CN56PS6 | 3" | 3.500" (89mm) | 3.95" (100mm) | 1.97" (50mm) | 4.79" (122mm) |
| CN64P | CN64PSS | CN64PS6 | 3 1/2" | 4.000" (102mm) | 4.45" (113mm) | 2.28" (58mm) | 5.11" (130mm) |
| CN72P | CN72PSS | CN72PS6 | 4" | 4.500" (114mm) | 4.95" (126mm) | 2.53" (64mm) | 5.92" (150mm) |

Contact Factory for Additional Sizes



Cush-A-Nator® High Temp (HT) has service temperatures of -65°F to 340°F (-53°C to 170°C).



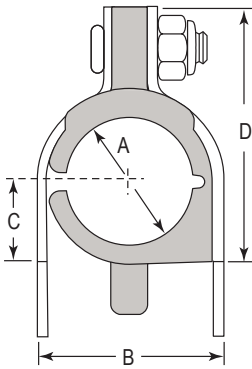
| Cush-A-Nator® High Temp (HT) Tube Part No. | | | O.D. Tube Size | Dimensions (inches) | | | |
|---|----------|----------|----------------------|---------------------|---------------|--------------|---------------|
| Steel | SS304 | SS316 | | A | B | C | D |
| HT04 | HT04SS | HT04S6 | 1/4" | 0.25" (6mm) | 0.62" (16mm) | 0.27" (7mm) | 0.98" (25mm) |
| HT06 | HT06SS | HT06S6 | 3/8" | 0.37" (9mm) | 0.82" (21mm) | 0.33" (8mm) | 1.13" (29mm) |
| HT08 | HT08SS | HT08S6 | 1/2" | 0.50" (13mm) | 0.94" (24mm) | 0.40" (10mm) | 1.34" (34mm) |
| HT10 | HT10SS | HT10S6 | 5/8" | 0.62" (16mm) | 1.06" (27mm) | 0.46" (12mm) | 1.54" (39mm) |
| HT12 | HT12SS | HT12S6 | 3/4" | 0.75" (19mm) | 1.20" (30mm) | 0.52" (13mm) | 1.68" (43mm) |
| HT14 | HT14SS | HT14S6 | 7/8" | 0.87" (22mm) | 1.31" (33mm) | 0.58" (15mm) | 1.82" (46mm) |
| HT16 | HT16SS | HT16S6 | 1" | 1.00" (25mm) | 1.44" (37mm) | 0.65" (17mm) | 1.95" (50mm) |
| HT18 | HT18SS | HT18S6 | 1 1/8" | 1.12" (28mm) | 1.57" (40mm) | 0.70" (18mm) | 2.08" (53mm) |
| HT20 | HT20SS | HT20S6 | 1 1/4" | 1.25" (32mm) | 1.70" (43mm) | 0.77" (20mm) | 2.21" (56mm) |
| HT32M | HT32MSS | HT32MS6 | 32mm | 32mm | 1.51" (38mm) | 0.76" (19mm) | 2.55" (65mm) |
| HT22 | HT22SS | HT22S6 | 1 3/8" | 1.37" (35mm) | 1.82" (46mm) | 0.83" (21mm) | 2.34" (59mm) |
| HT24 | HT24SS | HT24S6 | 1 1/2" | 1.50" (38mm) | 1.95" (50mm) | 0.90" (23mm) | 2.47" (63mm) |
| HT26 | HT26SS | HT26S6 | 1 5/8" | 1.62" (41mm) | 2.07" (53mm) | 0.96" (24mm) | 2.60" (66mm) |
| HT28 | HT28SS | HT28S6 | 1 3/4" | 1.75" (45mm) | 2.20" (56mm) | 1.02" (26mm) | 2.73" (69mm) |
| HT30 | HT30SS | HT30S6 | 1 7/8" | 1.87" (48mm) | 2.32" (59mm) | 1.09" (28mm) | 2.86" (73mm) |
| HT32 | HT32SS | HT32S6 | 2" | 2.00" (51mm) | 2.45" (62mm) | 1.15" (29mm) | 3.04" (77mm) |
| HT34 | HT34SS | HT34S6 | 2 1/8" | 2.12" (54mm) | 2.57" (65mm) | 1.27" (32mm) | 3.23" (82mm) |
| HT36 | HT36SS | HT36S6 | 2 1/4" | 2.25" (57mm) | 2.82" (72mm) | 1.41" (36mm) | 3.67" (93mm) |
| HT38 | HT38SS | HT38S6 | 2 3/8" | 2.37" (60mm) | 2.82" (72mm) | 1.41" (36mm) | 3.67" (93mm) |
| HT40 | HT40SS | HT40S6 | 2 1/2" | 2.50" (64mm) | 2.94" (75mm) | 1.46" (37mm) | 3.79" (96mm) |
| HT42 | HT42SS | HT42S6 | 2 5/8" | 2.62" (66mm) | 3.07" (78mm) | 1.53" (39mm) | 3.92" (100mm) |
| HT46 | HT46SS | HT46S6 | 2 7/8" | 2.87" (73mm) | 3.32" (84mm) | 1.66" (42mm) | 4.17" (106mm) |
| HT75M | HT75MSS | HT75MS6 | 75mm | 75mm | 3.37" (86mm) | 1.69" (43mm) | 4.68" (119mm) |
| HT48 | HT48SS | HT48S6 | 3" | 3.00" (76mm) | 3.57" (91mm) | 1.78" (45mm) | 4.42" (112mm) |
| HT50 | HT50SS | HT50S6 | 3 1/8" | 3.12" (79mm) | 3.57" (91mm) | 1.78" (45mm) | 4.42" (112mm) |
| HT56 | HT56SS | HT56S6 | 3 1/2" | 3.50" (89mm) | 3.95" (100mm) | 1.97" (50mm) | 4.79" (122mm) |
| HT90M | HT90MSS | HT90MS6 | 90mm | 90mm | 3.86" (98mm) | 1.94" (49mm) | 5.23" (133mm) |
| HT64 | HT64SS | HT64S6 | 4" | 4.00" (102mm) | 4.45" (113mm) | 2.28" (58mm) | 5.11" (130mm) |
| HT66 | HT66SS | HT66S6 | 4 1/8" | 4.12" (105mm) | 4.57" (116mm) | 2.34" (59mm) | 5.54" (141mm) |
| HT110M | HT110MSS | HT110MS6 | 110mm | 110mm | 4.99" (127mm) | 2.81" (71mm) | 6.38" (162mm) |
| HT72 | HT72SS | HT72S6 | 4 1/2" | 4.50" (114mm) | 4.95" (126mm) | 2.53" (64mm) | 5.92" (150mm) |
| HT125M | HT125MSS | HT125MS6 | 125mm | 125mm | 5.61" (142mm) | 2.81" (71mm) | 7.00" (178mm) |
| HT96 | HT96SS | HT96S6 | 6" | 6.00" (152mm) | 6.62" (168mm) | 3.31" (84mm) | 7.63" (194mm) |
| HT160M | HT160MSS | HT160MS6 | 160mm | 160mm | 6.62" (168mm) | 3.31" (84mm) | 7.63" (194mm) |

| Cush-A-Nator® High Temp (HT) Pipe Part No. | | | Pipe Size | Dimensions (inches) | | | |
|---|---------|---------|--------------|---------------------|---------------|--------------|---------------|
| Steel | SS304 | SS316 | | A | B | C | D |
| HT14P | HT14PSS | HT14PS6 | 1/2" | 0.840" (21mm) | 1.29" (33mm) | 0.58" (15mm) | 1.82" (46mm) |
| HT17P | HT17PSS | HT17PS6 | 3/4" | 1.050" (27mm) | 1.57" (40mm) | 0.70" (18mm) | 2.08" (53mm) |
| HT21P | HT21PSS | HT21PS6 | 1" | 1.315" (33mm) | 1.76" (45mm) | 0.81" (21mm) | 2.34" (59mm) |
| HT30P | HT30PSS | HT30PS6 | 1 1/2" | 1.900" (48mm) | 2.32" (59mm) | 1.09" (28mm) | 2.86" (73mm) |
| HT38P | HT38PSS | HT38PS6 | 2" | 2.375" (60mm) | 2.82" (72mm) | 1.41" (36mm) | 3.67" (93mm) |
| HT46P | HT46PSS | HT46PS6 | 2 1/2" | 2.875" (73mm) | 3.32" (84mm) | 1.66" (42mm) | 4.17" (106mm) |
| HT56P | HT56PSS | HT56PS6 | 3" | 3.500" (89mm) | 3.95" (100mm) | 1.97" (50mm) | 4.79" (122mm) |
| HT64P | HT64PSS | HT64PS6 | 3 1/2" | 4.000" (102mm) | 4.45" (113mm) | 2.28" (58mm) | 5.11" (130mm) |
| HT72P | HT72PSS | HT72PS6 | 4" | 4.500" (114mm) | 4.95" (126mm) | 2.53" (64mm) | 5.92" (150mm) |

Contact Factory for Additional Sizes



Cush-A-Nator® High Intensity Temp (HIT) has service temperatures of -65°F to 400°F (-53°C to 204°C).



| Cush-A-Nator® High Intensity Temp (HIT) Tube Part No. | | | O.D. Tube Size | Dimensions (inches) | | | |
|--|-----------|-----------|----------------------|---------------------|---------------|--------------|---------------|
| Steel | SS304 | SS316 | | A | B | C | D |
| HIT04 | HIT04SS | HIT04S6 | 1/4" | 0.25" (6mm) | 0.62" (16mm) | 0.27" (7mm) | 0.98" (25mm) |
| HIT06 | HIT06SS | HIT06S6 | 3/8" | 0.37" (9mm) | 0.82" (21mm) | 0.33" (8mm) | 1.13" (29mm) |
| HIT08 | HIT08SS | HIT08S6 | 1/2" | 0.50" (13mm) | 0.94" (24mm) | 0.40" (10mm) | 1.34" (34mm) |
| HIT10 | HIT10SS | HIT10S6 | 5/8" | 0.62" (16mm) | 1.06" (27mm) | 0.46" (12mm) | 1.54" (39mm) |
| HIT12 | HIT12SS | HIT12S6 | 3/4" | 0.75" (19mm) | 1.20" (30mm) | 0.52" (13mm) | 1.68" (43mm) |
| HIT14 | HIT14SS | HIT14S6 | 7/8" | 0.87" (22mm) | 1.31" (33mm) | 0.58" (15mm) | 1.82" (46mm) |
| HIT16 | HIT16SS | HIT16S6 | 1" | 1.00" (25mm) | 1.44" (37mm) | 0.65" (17mm) | 1.95" (50mm) |
| HIT18 | HIT18SS | HIT18S6 | 1 1/8" | 1.12" (28mm) | 1.57" (40mm) | 0.70" (18mm) | 2.08" (53mm) |
| HIT20 | HIT20SS | HIT20S6 | 1 1/4" | 1.25" (32mm) | 1.70" (43mm) | 0.77" (20mm) | 2.21" (56mm) |
| HIT32M | HIT32MSS | HIT32MS6 | 32mm | 32mm | 1.51" (38mm) | 0.76" (19mm) | 2.55" (65mm) |
| HIT22 | HIT22SS | HIT22S6 | 1 3/8" | 1.37" (35mm) | 1.82" (46mm) | 0.83" (21mm) | 2.34" (59mm) |
| HIT24 | HIT24SS | HIT24S6 | 1 1/2" | 1.50" (38mm) | 1.95" (50mm) | 0.90" (23mm) | 2.47" (63mm) |
| HIT26 | HIT26SS | HIT26S6 | 1 5/8" | 1.62" (41mm) | 2.07" (53mm) | 0.96" (24mm) | 2.60" (66mm) |
| HIT28 | HIT28SS | HIT28S6 | 1 3/4" | 1.75" (45mm) | 2.20" (56mm) | 1.02" (26mm) | 2.73" (69mm) |
| HIT30 | HIT30SS | HIT30S6 | 1 7/8" | 1.87" (48mm) | 2.32" (59mm) | 1.09" (28mm) | 2.86" (73mm) |
| HIT32 | HIT32SS | HIT32S6 | 2" | 2.00" (51mm) | 2.45" (62mm) | 1.15" (29mm) | 3.04" (77mm) |
| HIT34 | HIT34SS | HIT34S6 | 2 1/8" | 2.12" (54mm) | 2.57" (65mm) | 1.27" (32mm) | 3.23" (82mm) |
| HIT36 | HIT36SS | HIT36S6 | 2 1/4" | 2.25" (57mm) | 2.82" (72mm) | 1.41" (36mm) | 3.67" (93mm) |
| HIT38 | HIT38SS | HIT38S6 | 2 3/8" | 2.37" (60mm) | 2.82" (72mm) | 1.41" (36mm) | 3.67" (93mm) |
| HIT40 | HIT40SS | HIT40S6 | 2 1/2" | 2.50" (64mm) | 2.94" (75mm) | 1.46" (37mm) | 3.79" (96mm) |
| HIT42 | HIT42SS | HIT42S6 | 2 5/8" | 2.62" (66mm) | 3.07" (78mm) | 1.53" (39mm) | 3.92" (100mm) |
| HIT46 | HIT46SS | HIT46S6 | 2 7/8" | 2.87" (73mm) | 3.32" (84mm) | 1.66" (42mm) | 4.17" (106mm) |
| HIT75M | HIT75MSS | HIT75MS6 | 75mm | 75mm | 3.37" (86mm) | 1.69" (43mm) | 4.68" (119mm) |
| HIT48 | HIT48SS | HIT48S6 | 3" | 3.00" (76mm) | 3.57" (91mm) | 1.78" (45mm) | 4.42" (112mm) |
| HIT50 | HIT50SS | HIT50S6 | 3 1/8" | 3.12" (79mm) | 3.57" (91mm) | 1.78" (45mm) | 4.42" (112mm) |
| HIT56 | HIT56SS | HIT56S6 | 3 1/2" | 3.50" (89mm) | 3.95" (100mm) | 1.97" (50mm) | 4.79" (122mm) |
| HIT90M | HIT90MSS | HIT90MS6 | 90mm | 90mm | 3.86" (98mm) | 1.94" (49mm) | 5.23" (133mm) |
| HIT64 | HIT64SS | HIT64S6 | 4" | 4.00" (102mm) | 4.45" (113mm) | 2.28" (58mm) | 5.11" (130mm) |
| HIT66 | HIT66SS | HIT66S6 | 4 1/8" | 4.12" (105mm) | 4.57" (116mm) | 2.34" (59mm) | 5.54" (141mm) |
| HIT110M | HIT110MSS | HIT110MS6 | 110mm | 110mm | 4.99" (127mm) | 2.81" (71mm) | 6.38" (162mm) |
| HIT72 | HIT72SS | HIT72S6 | 4 1/2" | 4.50" (114mm) | 4.95" (126mm) | 2.53" (64mm) | 5.92" (150mm) |
| HIT125M | HIT125MSS | HIT125MS6 | 125mm | 125mm | 5.61" (142mm) | 2.81" (71mm) | 7.00" (178mm) |
| HIT96 | HIT96SS | HIT96S6 | 6" | 6.00" (152mm) | 6.62" (168mm) | 3.31" (84mm) | 7.63" (194mm) |
| HIT160M | HIT160MSS | HIT160MS6 | 160mm | 160mm | 6.62" (168mm) | 3.31" (84mm) | 7.63" (194mm) |

| Cush-A-Nator® High Intensity Temp (HIT) Pipe Part No. | | | Pipe Size | Dimensions (inches) | | | |
|--|----------|----------|--------------|---------------------|---------------|--------------|---------------|
| Steel | SS304 | SS316 | | A | B | C | D |
| HIT14P | HIT14PSS | HIT14PS6 | 1/2" | 0.840" (21mm) | 1.29" (33mm) | 0.58" (15mm) | 1.82" (46mm) |
| HIT17P | HIT17PSS | HIT17PS6 | 3/4" | 1.050" (27mm) | 1.57" (40mm) | 0.70" (18mm) | 2.08" (53mm) |
| HIT21P | HIT21PSS | HIT21PS6 | 1" | 1.315" (33mm) | 1.76" (45mm) | 0.81" (21mm) | 2.34" (59mm) |
| HIT30P | HIT30PSS | HIT30PS6 | 1 1/2" | 1.900" (48mm) | 2.32" (59mm) | 1.09" (28mm) | 2.86" (73mm) |
| HIT38P | HIT38PSS | HIT38PS6 | 2" | 2.375" (60mm) | 2.82" (72mm) | 1.41" (36mm) | 3.67" (93mm) |
| HIT46P | HIT46PSS | HIT46PS6 | 2 1/2" | 2.875" (73mm) | 3.32" (84mm) | 1.66" (42mm) | 4.17" (106mm) |
| HIT56P | HIT56PSS | HIT56PS6 | 3" | 3.500" (89mm) | 3.95" (100mm) | 1.97" (50mm) | 4.79" (122mm) |
| HIT64P | HIT64PSS | HIT64PS6 | 3 1/2" | 4.000" (102mm) | 4.45" (113mm) | 2.28" (58mm) | 5.11" (130mm) |
| HIT72P | HIT72PSS | HIT72PS6 | 4" | 4.500" (114mm) | 4.95" (126mm) | 2.53" (64mm) | 5.92" (150mm) |

Contact Factory for Additional Sizes



Cush-A-Clamp®



Gold Electro-Galvanized Steel

Stainless Steel



The "Living Hinge" allows the cushion to be spread apart for quick, easy installation.

CUSH-A-CLAMP — Channel mounted clamping systems are ideal for multiple line runs, while absorbing shock and vibration, reducing unwanted noise, and preventing galvanic corrosion. Cush-A-Clamp fits any standard 1-5/8" wide channel.

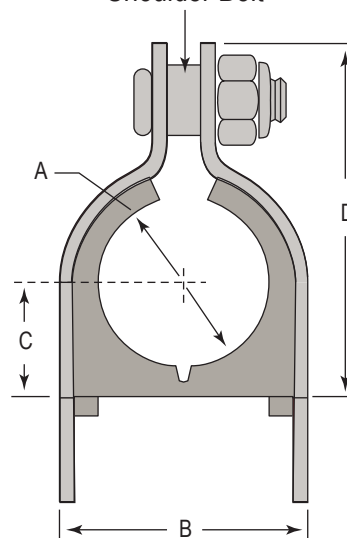
Assembly consisting of steel clamp with locknut and thermoplastic elastomer cushion. All parts are marked for easy identification and packaged for small lot or bulk use. When specified, Cush-A-Clamp assemblies up to 2", are available individually packaged.

THE CLAMP — Features a unique shoulder stud which is securely fastened to one clamp half. Steel clamps for tube sizes up to 1-3/8" have the "Controlled Squeeze™" design which eliminates over-tightening and rotation while a nylon-insert nut assures a positive lock. Clamps are available in steel (with electro-dichromate finish), and stainless steel type 304. (Contact factory for type 316).

THE CUSHION — Made from a thermoplastic elastomer, it's built tough to withstand the effects of most oils, chemicals and industrial cleaning compounds, in temperatures from -50°F to 275°F. Interlock edges and channel locator legs ensure that the cushion remains in place.

INSTALLATION — One man, one tool time savings. Retrofits can be added without disassembly. The "Living Hinge" allows the cushion to be spread apart for quick, easy installation on sizes from 1/4" through 1-3/4".

Controlled Squeeze Shoulder Bolt



| Loading Values Mounted in Standard 12 Gage Channel | | | | | |
|--|-----------------|-------------------|---------------|------------|---------|
| Nut | Torque (in-lbs) | Products | Pullout (lbs) | Slip (lbs) | |
| | | | | Along | Through |
| 1/4" | 40 | 004T008 - 022T026 | 1,000 | 100 | 100 |
| 5/16" | 60 | 024T028 - 050N056 | 2,200 | 200 | 200 |
| 3/8" | 150 | 053N050 - 106N114 | 3,600 | 600 | 350 |

Loads are the same for Stainless Steel Clamps (Example 024NS028)





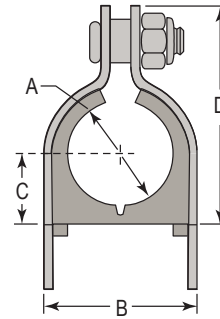
Cush-A-Clamp®



Gold Electro-Galvanized Steel



Stainless Steel

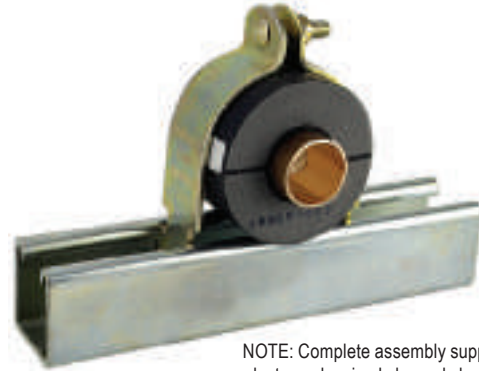


| Steel Part No. | Stainless Steel Part No. | Dimension "A" | | | Dimensions (inches) | | | |
|----------------|--------------------------|--------------------------|--------------------------|----------------|---------------------|---------------|--------------|---------------|
| | | *Copper and Steel Tubing | Copper Water Pipe (Nom.) | Nom. Pipe Size | A | B | C | D |
| 004T008 | 004NS008 | 1/4" | - | - | 0.25" (6mm) | 0.62" (16mm) | 0.27" (7mm) | 0.98" (25mm) |
| 006T010 | 006NS010 | 3/8" | 1/4" | - | 0.37" (9mm) | 0.82" (21mm) | 0.33" (8mm) | 1.13" (29mm) |
| 008T012 | 008NS012 | 1/2" | 3/8" | - | 0.50" (13mm) | 0.94" (24mm) | 0.40" (10mm) | 1.34" (34mm) |
| 009N012 | 009NS012 | - | - | 1/4" | 0.54" (14mm) | 0.98" (25mm) | 0.43" (11mm) | 1.34" (34mm) |
| 010T014 | 010NS014 | 5/8" | 1/2" | - | 0.62" (16mm) | 1.06" (27mm) | 0.46" (12mm) | 1.54" (39mm) |
| 011N014 | 011NS014 | - | - | 3/8" | 0.67" (17mm) | 1.13" (29mm) | 0.49" (12mm) | 1.54" (39mm) |
| 012T016 | 012NS016 | 3/4" | 5/8" | - | 0.75" (19mm) | 1.20" (30mm) | 0.52" (13mm) | 1.68" (43mm) |
| 014N018 | 014NS018 | - | - | 1/2" | 0.84" (21mm) | 1.29" (33mm) | 0.58" (15mm) | 1.82" (46mm) |
| 014T018 | 014NS018 | 7/8" | 3/4" | - | 0.87" (22mm) | 1.31" (33mm) | 0.58" (15mm) | 1.82" (46mm) |
| 016T020 | 016NS020 | 1" | - | - | 1.00" (25mm) | 1.44" (37mm) | 0.65" (17mm) | 1.95" (50mm) |
| 017N022 | 017NS022 | - | - | 3/4" | 1.05" (27mm) | 1.57" (40mm) | 0.70" (18mm) | 2.08" (53mm) |
| 018T022 | 018NS022 | 1-1/8" | 1" | - | 1.12" (28mm) | 1.57" (40mm) | 0.70" (18mm) | 2.08" (53mm) |
| 020T024 | 020NS024 | 1-1/4" | - | - | 1.25" (32mm) | 1.70" (43mm) | 0.77" (20mm) | 2.21" (56mm) |
| 021N026 | 021NS026 | - | - | 1" | 1.31" (33mm) | 1.76" (45mm) | 0.81" (21mm) | 2.34" (59mm) |
| 022T026 | 022NS026 | 1-3/8" | 1-1/4" | - | 1.37" (35mm) | 1.82" (46mm) | 0.83" (21mm) | 2.34" (59mm) |
| 024N028 | 024NS028 | 1-1/2" | - | - | 1.50" (38mm) | 1.95" (50mm) | 0.90" (23mm) | 2.47" (63mm) |
| 026N030 | 026NS030 | 1-5/8" | 1-1/2" | - | 1.62" (41mm) | 2.07" (53mm) | 0.96" (24mm) | 2.60" (66mm) |
| 027N032 | 027NS032 | - | - | 1-1/4" | 1.66" (42mm) | 2.17" (55mm) | 0.99" (25mm) | 2.73" (69mm) |
| 028N032 | 028NS032 | 1-3/4" | - | - | 1.75" (44mm) | 2.2" (56mm) | 1.02" (26mm) | 2.73" (69mm) |
| 030N034 | 030NS034 | 1-7/8" | - | 1-1/2" | 1.90" (48mm) | 2.32" (59mm) | 1.09" (28mm) | 2.86" (73mm) |
| 032N036 | 032NS036 | 2" | - | - | 2.00" (51mm) | 2.45" (62mm) | 1.15" (29mm) | 3.04" (77mm) |
| 034N040 | 034NS040 | 2-1/8" | 2" | - | 2.12" (54mm) | 2.57" (65mm) | 1.27" (32mm) | 3.23" (82mm) |
| 038N042 | 038NS042 | 2-1/4" | - | - | 2.37" (60mm) | 2.82" (72mm) | 1.41" (36mm) | 3.67" (93mm) |
| 038N044 | 038NS044 | 2-3/8" | - | 2" | 2.37" (60mm) | 2.82" (72mm) | 1.41" (36mm) | 3.67" (93mm) |
| 040N046 | 040NS046 | 2-1/2" | - | - | 2.50" (64mm) | 2.94" (75mm) | 1.46" (37mm) | 3.79" (96mm) |
| 042N048 | 042NS048 | 2-5/8" | 2-1/2" | - | 2.62" (67mm) | 3.07" (78mm) | 1.53" (39mm) | 3.92" (100mm) |
| 046N052 | 046NS052 | 2-7/8" | - | 2-1/2" | 2.87" (73mm) | 3.32" (84mm) | 1.66" (42mm) | 4.17" (106mm) |
| 050N054 | 050NS054 | 3" | - | - | 3.00" (76mm) | 3.57" (91mm) | 1.78" (45mm) | 4.42" (112mm) |
| 050N056 | 050NS056 | 3-1/8" | 3" | - | 3.12" (79mm) | 3.57" (91mm) | 1.78" (45mm) | 4.42" (112mm) |
| 053N060 | 053NS060 | 3-5/16" | - | - | 3.31" (84mm) | 3.96" (101mm) | 1.90" (48mm) | 4.75" (121mm) |
| 056N062 | 056NS062 | 3-1/2" | - | 3" | 3.50" (89mm) | 3.95" (100mm) | 1.97" (50mm) | 4.79" (122mm) |
| 058N064 | 058NS064 | 3-5/8" | 3-1/2" | - | 3.62" (92mm) | 4.20" (107mm) | 2.03" (52mm) | 5.11" (130mm) |
| 064N072 | 064NS072 | 4" | - | 3-1/2" | 4.00" (102mm) | 4.45" (113mm) | 2.28" (58mm) | 5.11" (130mm) |
| 066N074 | 066NS074 | 4-1/8" | 4" | - | 4.12" (105mm) | 4.57" (116mm) | 2.34" (59mm) | 5.54" (141mm) |
| 069N076 | 069NS076 | 4-5/16" | - | - | 4.34" (110mm) | 4.96" (126mm) | 2.40" (61mm) | 5.84" (148mm) |
| 072N080 | 072NS080 | 4-1/2" | - | 4" | 4.50" (114mm) | 4.95" (126mm) | 2.53" (64mm) | 5.92" (150mm) |
| 082N090 | 082NS090 | 5-1/8" | 5" | - | 5.12" (130mm) | 5.57" (141mm) | 2.84" (72mm) | 6.54" (166mm) |
| 089N096 | 089NS096 | - | - | 5" | 5.56" (141mm) | 6.01" (153mm) | 3.06" (78mm) | 6.92" (176mm) |
| 096N106 | 096NS106 | 6" | - | - | 6.00" (152mm) | 6.57" (167mm) | 3.34" (85mm) | 7.54" (192mm) |
| 098N106 | 098NS106 | 6-1/8" | 6" | - | 6.12" (155mm) | 6.57" (167mm) | 3.34" (85mm) | 7.54" (192mm) |
| 106N114 | 106NS114 | - | - | 6" | 6.62" (168mm) | 7.07" (180mm) | 3.59" (91mm) | 8.23" (209mm) |

*Tube O.D. is Cushion I.D. Design load deflection data available on request.



Airtight Crush-Resistant Insulation Clamp



NOTE: Complete assembly supplied with gold electro-galvanized channel clamp and hardware

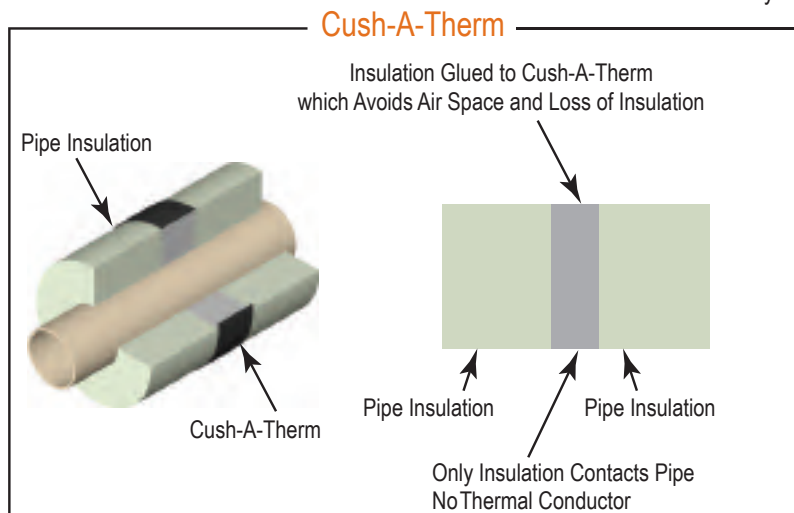
Cush-A-Therm Clamp is a perfect crush-resistant airtight seal for chilled refrigeration or mechanical pipe lines that require continuous insulation.

The rigid foam construction has an insulating tape inner lining which supports tube and absorbs vibration of operating pipe lines.

The outer cover consists of a special rubber coating which seals the cushion after installation in order to prevent condensation.

It's strong closed-cell structure is ideal for liquid cooling lines to prevent condensation, save energy, and maintain the vapor barrier.

- Temperature range: -70°F to +250°F (-56.7°C to +121°C)
- Flammability is Self-Extinguishing as tested under ASTM D 635
- Maintains thermal barrier protection
- Tested in Conformance with ASTM E84 (UL 723, NFPA 255) having results of 0 FSI (Flame Spread Index) and 50 SDI (Smoke Developed Index)
- Prevents condensation
- Properly supports pipe and tube
- Absorbs vibration
- Polyurethane foam laminated with a rubber lining



ASHRAE Insulation Recommendations

Cush-A-Therm is designed to meet the ASHRAE recommendations for insulation for mechanical systems which indicate that insulated pipe hangers should provide the following:

1. Complete sealing of pipe against water vapor ingress
2. No energy transfer of cold to supporting clamp to prevent condensation of water and possible growth of mold. If the support encasing the insulation is in contact with the pipe or tube and supported by a metallic clamp, which is not protected by insulation, below ambient temperatures will be transferred to the clamp causing energy transfer and condensation.
3. No interruption of the insulation envelope
4. Limit or avoid compression at support location

ASHRAE Section 23.13-23.14 further states "when the goal is avoiding compression of low-compressive-strength insulation products, it is recommended to use high-strength insulation inserts made of a product that offers the desired compressive strength and other necessary performance properties. Other higher-strength materials that are not thermal insulation material and interrupt the insulation envelope, or do not allow complete sealing of an insulation system against water vapor ingress are not recommended for supporting insulated piping on pipe hangers. Note that wood blocks have poor thermal conductivity and are not recommended, especially for cold pipe systems."

Insulated cold piping should receive special attention when exposed to ambient or unconditioned air. The Cush-A-Therm is a product that seals out air, and insulates the pipe/tube from the supporting clamp, and is therefore in compliance with the 2013 ASHRAE insulation recommendations.

ZSi-Foster Engineering Catalog

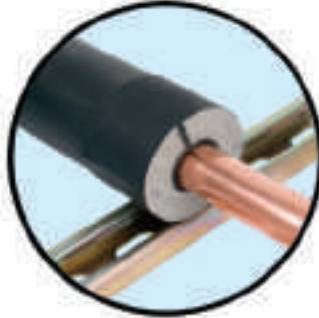


WARNING: These products can expose you to chemicals including lead, which is known to the State of California to cause cancer, and which is known to cause birth defects or other reproductive harm. For more information go to www.P65Warnings.ca.gov.

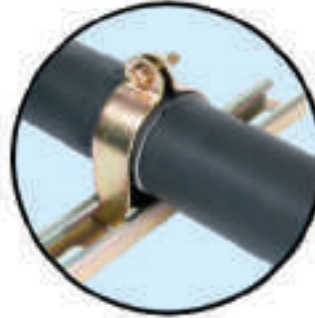
INSTALLATION IS AS EASY AS 1-2-3!



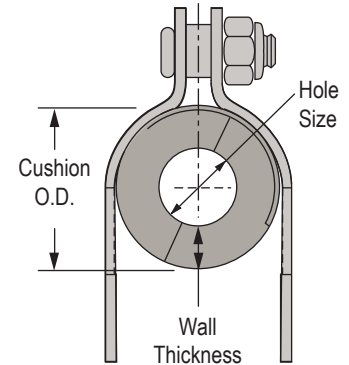
1. Insulation slides over pipes.
Self adhesive surfaces provide seal.



2 Put in place and glue to insulation.



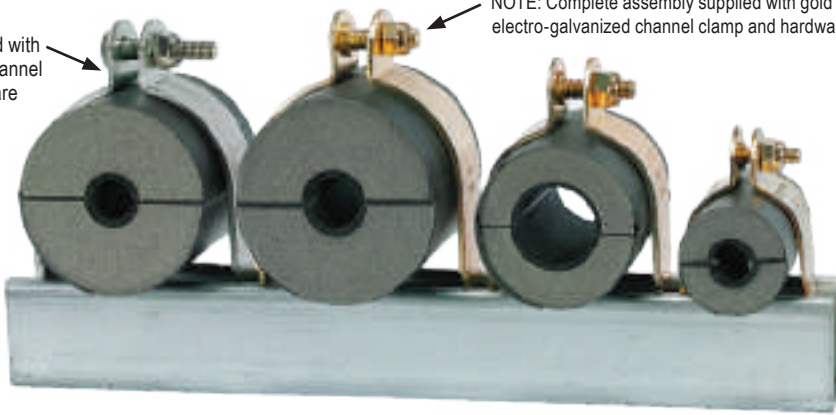
3. Wrap and seal with ProTape.



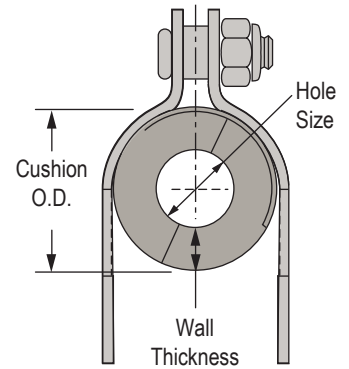
| Dimensions (Inches) | | | | | Nominal 1/2" (13mm) Wall Thickness | | | | Nominal 3/4" (19mm) Wall Thickness | | | |
|---------------------|-------------|-----------|--------|----------------|------------------------------------|-----------|-----------|-------------------------|------------------------------------|-----------|-----------|-------------------------|
| Hole Size | Copper I.D. | Pipe O.D. | IPS | Len. | Part No. | | | Cushion O.D. | Part No. | | | Cushion O.D. |
| | | | | | Steel | SS 304 | SS 316 | | Steel | SS 304 | SS 316 | |
| 1/4" (6mm) | - | 1/4" | - | 2.953" (75mm) | UX1412 | UX1412SS | UX1412S6 | 1 1/4" (1.250") (32mm) | UX1434 | UX1434SS | UX1434S6 | 1 3/4" (1.750") (45mm) |
| 3/8" (10mm) | 1/4" | 3/8" | - | | UX3812 | UX3812SS | UX3812S6 | 1 5/8" (1.375") (35mm) | UX3834 | UX3834SS | UX3834S6 | 1 7/8" (1.875") (48mm) |
| 1/2" (13mm) | 3/8" | 1/2" | 1/4" | | UX1212 | UX1212SS | UX1212S6 | 1 1/2" (1.500") (38mm) | UX1234 | UX1234SS | UX1234S6 | 2" (2.000") (51mm) |
| 5/8" (16mm) | 1/2" | 5/8" | 3/8" | 2.953" (75mm) | UX5812 | UX5812SS | UX5812S6 | 1 5/8" (1.625") (41mm) | UX5834 | UX5834SS | UX5834S6 | 2 1/8" (2.125") (54mm) |
| 3/4" (19mm) | 5/8" | 3/4" | - | | UX3412 | UX3412SS | UX3412S6 | 1 3/4" (1.750") (45mm) | UX3434 | UX3434SS | UX3434S6 | 2 1/4" (2.250") (57mm) |
| 7/8" (22mm) | 3/4" | 7/8" | 1/2" | | UX7812 | UX7812SS | UX7812S6 | 1 7/8" (1.875") (48mm) | UX7834 | UX7834SS | UX7834S6 | 2 3/8" (2.375") (60mm) |
| 1-1/8" (29mm) | 1" | 1 1/8" | 3/4" | 2.953" (75mm) | UX11812 | UX11812SS | UX11812S6 | 2 1/8" (2.125") (54mm) | UX11834 | UX11834SS | UX11834S6 | 2 5/8" (2.625") (67mm) |
| 1-3/8" (35mm) | 1 1/4" | 1 3/8" | 1" | | UX13812 | UX13812SS | UX13812S6 | 2 3/8" (2.375") (60mm) | UX13834 | UX13834SS | UX13834S6 | 2 7/8" (2.875") (73mm) |
| 1-5/8" (41mm) | 1 1/2" | 1 5/8" | 1 1/4" | | UX15812 | UX15812SS | UX15812S6 | 2 5/8" (2.625") (67mm) | UX15834 | UX15834SS | UX15834S6 | 3 1/8" (3.125") (79mm) |
| 1-7/8" (48mm) | - | 1 7/8" | - | 2.953" (75mm) | UX17812 | UX17812SS | UX17812S6 | 2 7/8" (2.875") (73mm) | UX17834 | UX17834SS | UX17834S6 | 3 3/8" (3.375") (86mm) |
| 2-1/8" (54mm) | 2" | 2 1/8" | - | | UX21812 | UX21812SS | UX21812S6 | 3 1/8" (3.125") (79mm) | UX21834 | UX21834SS | UX21834S6 | 3 5/8" (3.625") (92mm) |
| 2-3/8" (60mm) | 2 1/4" | 2 3/8" | 2" | | UX23812 | UX23812SS | UX23812S6 | 3 3/8" (3.375") (86mm) | UX23834 | UX23834SS | UX23834S6 | 3 7/8" (3.875") (98mm) |
| 2-5/8" (67mm) | 2 1/2" | 2 5/8" | - | 3.937" (100mm) | UX25812 | UX25812SS | UX25812S6 | 3 5/8" (3.625") (92mm) | UX25834 | UX25834SS | UX25834S6 | 4 1/8" (4.125") (105mm) |
| 2-7/8" (73mm) | - | 2 7/8" | 2 1/2" | | UX27812 | UX27812SS | UX27812S6 | 3 7/8" (3.875") (98mm) | UX27834 | UX27834SS | UX27834S6 | 4 3/8" (4.375") (111mm) |
| 3-1/8" (79mm) | 3" | 3 1/8" | - | | UX31812 | UX31812SS | UX31812S6 | 4 1/8" (4.125") (105mm) | UX31834 | UX31834SS | UX31834S6 | 4 5/8" (4.625") (118mm) |
| 3-1/2" (89mm) | - | 3 1/2" | 3" | 3.937" (100mm) | UX31212 | UX31212SS | UX31212S6 | 4 1/2" (4.500") (114mm) | UX31234 | UX31234SS | UX31234S6 | 5" (5.000") (127mm) |
| 3-5/8" (92mm) | 3 1/2" | 3 5/8" | - | | UX35812 | UX35812SS | UX35812S6 | 4 5/8" (4.625") (118mm) | UX35834 | UX35834SS | UX35834S6 | 5 1/8" (5.125") (130mm) |
| 4-1/8" (105mm) | 4" | 4 1/8" | 3 1/2" | | UX41812 | UX41812SS | UX41812S6 | 5 1/8" (5.125") (130mm) | UX41834 | UX41834SS | UX41834S6 | 5 5/8" (5.625") (143mm) |



NOTE: Complete assembly supplied with Stainless Steel channel clamp and hardware



NOTE: Complete assembly supplied with gold electro-galvanized channel clamp and hardware



| Hole Size | Nominal 1" (25mm) Wall Thickness | | | | Nominal 1-1/2" (38mm) Wall Thickness | | | | Nominal 2" (51mm) Wall Thickness | | | |
|----------------|----------------------------------|-----------|-----------|-------------------------|--------------------------------------|-----------|-----------|-------------------------|----------------------------------|-----------|-----------|-------------------------|
| | Part No. | | | Cushion O.D. | Part No. | | | Cushion O.D. | Part No. | | | Cushion O.D. |
| | Steel | SS 304 | SS 316 | | Steel | SS 304 | SS 316 | | Steel | SS 304 | SS 316 | |
| 1/4" (6mm) | UX1410 | UX1410SS | UX1410S6 | 2 1/4" (2.250") (57mm) | UX1415 | UX1415SS | UX1415S6 | 3 1/4" (3.250") (83mm) | - | - | - | - |
| 3/8" (10mm) | UX3810 | UX3810SS | UX3810S6 | 2 3/8" (2.375") (60mm) | UX3815 | UX3815SS | UX3815S6 | 3 3/8" (3.375") (86mm) | - | - | - | - |
| 1/2" (13mm) | UX1210 | UX1210SS | UX1210S6 | 2 1/2" (2.500") (64mm) | UX1215 | UX1215SS | UX1215S6 | 3 1/2" (3.500") (89mm) | - | - | - | - |
| 5/8" (16mm) | UX5810 | UX5810SS | UX5810S6 | 2 5/8" (2.625") (67mm) | UX5815 | UX5815SS | UX5815S6 | 3 5/8" (3.625") (92mm) | UX5820 | UX5820SS | UX5820S6 | 4 5/8" (4.625") (118mm) |
| 3/4" (19mm) | UX3410 | UX3410SS | UX3410S6 | 2 3/4" (2.750") (70mm) | UX3415 | UX3415SS | UX3415S6 | 3 3/4" (3.750") (95mm) | UX3420 | UX3420SS | UX3420S6 | 4 3/4" (4.750") (121mm) |
| 7/8" (22mm) | UX7810 | UX7810SS | UX7810S6 | 2 7/8" (2.875") (73mm) | UX7815 | UX7815SS | UX7815S6 | 3 7/8" (3.875") (98mm) | UX7820 | UX7820SS | UX7820S6 | 4 7/8" (4.875") (124mm) |
| 1-1/8" (29mm) | UX11810 | UX11810SS | UX11810S6 | 3 1/8" (3.125") (79mm) | UX11815 | UX11815SS | UX11815S6 | 4 1/8" (4.125") (105mm) | UX11820 | UX11820SS | UX11820S6 | 5 1/8" (5.125") (130mm) |
| 1-3/8" (35mm) | UX13810 | UX13810SS | UX13810S6 | 3 3/8" (3.375") (86mm) | UX13815 | UX13815SS | UX13815S6 | 4 3/8" (4.375") (111mm) | UX13820 | UX13820SS | UX13820S6 | 5 3/8" (5.375") (137mm) |
| 1-5/8" (41mm) | UX15810 | UX15810SS | UX15810S6 | 3 5/8" (3.625") (92mm) | UX15815 | UX15815SS | UX15815S6 | 4 5/8" (4.625") (118mm) | UX15820 | UX15820SS | UX15820S6 | 5 5/8" (5.625") (143mm) |
| 1-7/8" (48mm) | UX17810 | UX17810SS | UX17810S6 | 3 7/8" (3.875") (98mm) | UX17815 | UX17815SS | UX17815S6 | 4 7/8" (4.875") (124mm) | UX17820 | UX17820SS | UX17820S6 | 5 7/8" (5.875") (149mm) |
| 2-1/8" (54mm) | UX21810 | UX21810SS | UX21810S6 | 4 1/8" (4.125") (105mm) | UX21815 | UX21815SS | UX21815S6 | 5 1/8" (5.125") (130mm) | UX21820 | UX21820SS | UX21820S6 | 6 1/8" (6.125") (156mm) |
| 2-3/8" (60mm) | UX23810 | UX23810SS | UX23810S6 | 4 3/8" (4.375") (111mm) | UX23815 | UX23815SS | UX23815S6 | 5 3/8" (5.375") (137mm) | UX23820 | UX23820SS | UX23820S6 | 6 3/8" (6.375") (162mm) |
| 2-5/8" (67mm) | UX25810 | UX25810SS | UX25810S6 | 4 5/8" (4.625") (118mm) | UX25815 | UX25815SS | UX25815S6 | 5 5/8" (5.625") (143mm) | UX25820 | UX25820SS | UX25820S6 | 6 5/8" (6.625") (168mm) |
| 2-7/8" (73mm) | UX27810 | UX27810SS | UX27810S6 | 4 7/8" (4.875") (124mm) | UX27815 | UX27815SS | UX27815S6 | 5 7/8" (5.875") (149mm) | UX27820 | UX27820SS | UX27820S6 | 6 7/8" (6.875") (175mm) |
| 3-1/8" (79mm) | UX31810 | UX31810SS | UX31810S6 | 5 1/8" (5.125") (130mm) | UX31815 | UX31815SS | UX31815S6 | 6 1/8" (6.125") (156mm) | UX31820 | UX31820SS | UX31820S6 | 7 1/8" (7.125") (181mm) |
| 3-1/2" (89mm) | UX31210 | UX31210SS | UX31210S6 | 5 1/2" (5.500") (140mm) | UX31215 | UX31215SS | UX31215S6 | 6 1/2" (6.500") (165mm) | UX31220 | UX31220SS | UX31220S6 | 7 1/2" (7.500") (191mm) |
| 3-5/8" (92mm) | UX35810 | UX35810SS | UX35810S6 | 5 5/8" (5.625") (143mm) | UX35815 | UX35815SS | UX35815S6 | 6 5/8" (6.625") (168mm) | UX35820 | UX35820SS | UX35820S6 | 7 5/8" (7.625") (196mm) |
| 4-1/8" (105mm) | UX41810 | UX41810SS | UX41810S6 | 6 1/8" (6.125") (156mm) | UX41815 | UX41815SS | UX41815S6 | 7 1/8" (7.125") (181mm) | UX41820 | UX41820SS | UX41820S6 | 8 1/8" (8.125") (206mm) |



Cal-Clamp Crush Resistant Insulation



MODEL “HWP” & “HWT” - For Hot or Cold applications

- Works equally well on both hot and cold lines.
- Includes the strut clamps required for installation with strut.
- Special order insulation lengths, double sheet metal wrap, load bearing plates, and alternate sheet metal gauges are available upon request.



MODEL “CWP” & “CWT” - For applications requiring a wet lag insulation

- Insulations extends 1" beyond sheet metal.
- The minimum length for our “CWP” insert is 6" .
- Includes the strut clamps required for installation with strut.
- Special order insulation lengths, double sheet metal wrap, load bearing plates, and alternate sheet metal gauges are available upon request.

| Maximum Allowable Load (lbs) | |
|------------------------------|--------|
| Pipe Size | HW/CWP |
| 1/2" | 51 |
| 3/4" | 62 |
| 1" | 72 |
| 1-1/4" | 92 |
| 1-1/2" | 123 |
| 2" | 164 |
| 2-1/2" | 225 |
| 3" | 276 |
| 4" | 388 |
| 5" | 500 |
| 6" | 612 |
| 8" | 827 |
| 10" | 1102 |
| 12" | 1326 |

| Insulation Length Specification (in.) | | | | | | |
|---------------------------------------|----------------------|---------------|--------------|---------------|--------------|---------------|
| I.P.S. NOMINAL | Insulation Thickness | | | | | |
| | 1" (25mm) | 1½" (38mm) | 2" (51mm) | 2½" (64mm) | 3" (76mm) | 4" (102mm) |
| ½" to 1½" | 4" (102mm) | | | | | 6" (152mm) |
| 2" | 6" (152mm) | | | | | |
| 2-½" to 6" | 6" (152mm) | | | | | 9" (229mm) |
| 8" to 10" | 9" (229mm) | | | | | |
| 12" to 18" | 12" (305mm) | | | | | |

*CWP Model Inserts have a minimum length of 6" (152mm)

**Larger Sizes Available Upon Request

Material:

- Asbestos Free Calcium Silicate (Cellular Glass and Polyurethane also available upon request), treated for water resistance, encased in a 360 degree A-653 Galvanized Sheet Metal jacket (304SS and 316SS available upon request).
- Minimum 140 psi (9.65 bar) compressive strength. Working Temperature is 42°F to 1200°F. (5.6°C to 649°C) Lower temps upon request.

| Sheet Metal Gauge ¹ | | | | | | |
|--------------------------------|----------------------|---------------|--------------|---------------|--------------|---------------|
| I.P.S. NOMINAL | Insulation Thickness | | | | | |
| | 1" (25mm) | 1½" (38mm) | 2" (51mm) | 2½" (64mm) | 3" (76mm) | 4" (102mm) |
| ½" to 1-½" | 24 ga. | | | 20 ga. | | |
| 2" to 5" | 20 ga. | | | | | |
| 6" | 20 ga. | | | | 16 ga. | |
| 8" to 24" | 16 ga. | | | | | |

¹A double thickness of sheet metal is recommended on the lower half when used with rollers or when hanger span exceeds ten feet.



Hot or Cold Applications - Model HWP & HWT

Model "HWP" Pipe Sizes

For Hot or Cold applications. (Strut Clamp included)

| Model HWP, Pipe Sizes, Insulation and Strut Clamps | | | | | | | | | | | | | |
|--|-------------------|------------|-------------------|-----------|-------------------|------------|-------------------|-----------|-------------------|------------|-------------------|-----------|-------------------|
| IPS | Pipe OD | 1½" (13mm) | | 1" (25mm) | | 1½" (38mm) | | 2" (51mm) | | 2½" (64mm) | | 3" (76mm) | |
| | | Part No. | Insul. O.D. | Part No. | Insul. O.D. | Part No. | Insul. O.D. | Part No. | Insul. O.D. | Part No. | Insul. O.D. | Part No. | Insul. O.D. |
| ¾" | 1.05" (27mm) | HWP3412 | 2.16" (55mm) | HWP3410 | 2.82" (72mm) | HWP3415 | 3.95" (100mm) | HWP3420 | 4.95" (126mm) | HWP3425 | 5.95" (151mm) | HWP3430 | 6.95" (177mm) |
| 1" | 1.315" (33mm) | HWP112 | 2.41" (61mm) | HWP110 | 3.45" (88mm) | HWP115 | 4.45" (113mm) | HWP120 | 5.51" (140mm) | HWP125 | 6.51" (165mm) | HWP130 | 7.51" (191mm) |
| 1¼" | 1.66" (42mm) | HWP11412 | 2.72" (69mm) | HWP11410 | 3.45" (88mm) | HWP11415 | 4.95" (126mm) | HWP11420 | 5.51" (140mm) | HWP11425 | 6.51" (165mm) | HWP11430 | 7.51" (191mm) |
| 1½" | 1.99" (51mm) | HWP11212 | 2.99" (76mm) | HWP11210 | 3.95" (100mm) | HWP11215 | 4.95" (126mm) | HWP11220 | 6.57" (167mm) | HWP11225 | 7.57" (192mm) | HWP11230 | 8.57" (218mm) |
| 2" | 2.375" (60mm) | HWP212 | 3.42" (87mm) | HWP210 | 4.45" (113mm) | HWP215 | 5.51" (140mm) | HWP220 | 6.57" (167mm) | HWP225 | 7.57" (192mm) | HWP230 | 8.57" (218mm) |
| 2½" | 2.875" (73mm) | HWP21212 | 3.93" (100mm) | HWP21210 | 4.95" (126mm) | HWP21215 | 6.57" (167mm) | HWP21220 | 7.57" (192mm) | HWP21225 | 8.57" (218mm) | HWP21230 | 9.57" (243mm) |
| 3" | 3.5" (89mm) | HWP312 | 4.56" (116mm) | HWP310 | 5.51" (140mm) | HWP315 | 6.57" (167mm) | HWP320 | 7.57" (192mm) | HWP325 | 8.57" (218mm) | HWP330 | 9.57" (243mm) |
| 3½" | 4" (102mm) | HWP31212 | 5.07" (129mm) | HWP31210 | 6.57" (167mm) | HWP31215 | 7.57" (192mm) | HWP31220 | 8.57" (218mm) | HWP31225 | 9.57" (243mm) | HWP31230 | 10.7" (272mm) |
| 4" | 4.5" (114mm) | HWP412 | 5.57" (141mm) | HWP410 | 6.57" (167mm) | HWP415 | 7.57" (192mm) | HWP420 | 8.57" (218mm) | HWP425 | 9.57" (243mm) | HWP430 | 10.7" (272mm) |
| 5" | 5.563" (141mm) | HWP512 | 6.64" (169mm) | HWP510 | 7.57" (192mm) | HWP515 | 8.57" (218mm) | HWP520 | 9.57" (243mm) | HWP525 | 10.7" (272mm) | HWP530 | 11.7" (297mm) |
| 6" | 6.625" (168mm) | HWP612 | 7.71" (196mm) | HWP610 | 8.57" (218mm) | HWP615 | 9.57" (243mm) | HWP620 | 10.7" (272mm) | HWP625 | 11.7" (297mm) | HWP630 | 12.7" (323mm) |
| 8" | 8.625" (219mm) | HWP812 | 9.74" (247mm) | HWP810 | 10.7" (272mm) | HWP815 | 11.7" (297mm) | HWP820 | 12.7" (323mm) | HWP825 | 13.95" (354mm) | HWP830 | 14.95" (380mm) |
| 10" | 10.75" (273mm) | HWP1012 | 11.87" (301mm) | HWP1010 | 12.7" (323mm) | HWP1015 | 13.95" (354mm) | HWP1020 | 14.95" (380mm) | HWP1025 | 15.95" (405mm) | HWP1030 | 16.95" (431mm) |
| 12" | 12.75" (324mm) | HWP1212 | 13.88" (353mm) | HWP1210 | 14.95" (380mm) | HWP1215 | 15.95" (405mm) | HWP1220 | 16.95" (431mm) | HWP1225 | 17.95" (456mm) | HWP1230 | 18.95" (481mm) |

Model "HWT" Tube Sizes

For Hot or Cold applications. (Strut Clamp included)

| Model HWT, Copper Tube Sizes, Insulation and Strut Clamps | | | | | | | | | | | | | |
|---|---------|-----------|------------------|-----------|------------------|------------|------------------|-----------|------------------|------------|------------------|-----------|------------------|
| Copper Tube | Tube OD | ½" (13mm) | | 1" (25mm) | | 1½" (38mm) | | 2" (51mm) | | 2½" (64mm) | | 3" (76mm) | |
| | | Part No. | Insul. O.D. | Part No. | Insul. O.D. | Part No. | Insul. O.D. | Part No. | Insul. O.D. | Part No. | Insul. O.D. | Part No. | Insul. O.D. |
| ½" | ⅝" | HWT5812 | 1.66" (42mm) | HWT5810 | 2.82" (72mm) | HWT5815 | 3.45" (88mm) | - | - | - | - | - | - |
| ¾" | ⅞" | HWT7812 | 1.92" (49mm) | HWT7810 | 2.82" (72mm) | HWT7815 | 3.95" (100mm) | HWT7820 | 4.95" (126mm) | - | - | - | - |
| 1" | 1-⅛" | HWT11812 | 2.16" (55mm) | HWT11810 | 2.82" (72mm) | HWT11815 | 3.95" (100mm) | HWT11820 | 4.95" (126mm) | - | - | - | - |
| 1¼" | 1-⅜" | HWT13812 | 2.41" (61mm) | HWT13810 | 3.45" (88mm) | HWT13815 | 4.45" (113mm) | HWT13820 | 5.51" (140mm) | - | - | - | - |
| 1½" | 1-⅝" | HWT15812 | 2.72" (69mm) | HWT15810 | 3.45" (88mm) | HWT15815 | 4.95" (126mm) | HWT15820 | 5.51" (140mm) | - | - | - | - |
| 2" | 2-⅛" | HWT21812 | 3.16" (80mm) | HWT21810 | 3.95" (100mm) | HWT21815 | 4.95" (126mm) | HWT21820 | 6.57" (167mm) | HWT21825 | 7.57" (192mm) | HWT21830 | 8.57" (218mm) |
| 2½" | 2-⅝" | HWT25812 | 3.66" (93mm) | HWT25810 | 4.45" (113mm) | HWT25815 | 5.51" (140mm) | HWT25820 | 6.57" (167mm) | HWT25825 | 7.57" (192mm) | HWT25830 | 8.57" (218mm) |
| 3" | 3-⅛" | HWT31812 | 4.16" (106mm) | HWT31810 | 4.95" (126mm) | HWT31815 | 6.57" (167mm) | HWT31820 | 7.57" (192mm) | HWT31825 | 8.57" (218mm) | HWT31830 | 9.57" (243mm) |
| 4" | 4-⅛" | HWT41812 | 5.16" (131mm) | HWT41810 | 6.57" (167mm) | HWT41815 | 7.57" (192mm) | HWT41820 | 8.57" (218mm) | HWT41825 | 9.57" (243mm) | HWT41830 | 10.7" (272mm) |
| 5" | 5-⅛" | HWT51812 | 6.16" (156mm) | HWT51810 | 7.57" (192mm) | HWT51815 | 8.57" (218mm) | HWT51820 | 9.57" (243mm) | HWT51825 | 10.7" (272mm) | HWT51830 | 11.7" (297mm) |
| 6" | 6-⅛" | HWT61812 | 7.16" (182mm) | HWT61810 | 8.57" (218mm) | HWT61815 | 9.57" (243mm) | HWT61820 | 10.7" (272mm) | HWT61825 | 11.7" (297mm) | HWT61830 | 12.7" (323mm) |





Cal-Clamp Insulation

Wet Lag Applications - Model CWP & CWT

Model "CWP" Pipe Sizes

For applications requiring a wet lag insulation. Insulations extends 1" beyond metal. (Strut Clamp included)

| Model CWP, Pipe Sizes, Insulation and Strut Clamps | | | | | | | | | | | | | |
|--|-------------------|-------------|-------------------|-----------|-------------------|---------------|-------------------|-----------|-------------------|---------------|-------------------|-----------|-------------------|
| IPS | Pipe OD | 1/2" (13mm) | | 1" (25mm) | | 1 1/2" (38mm) | | 2" (51mm) | | 2 1/2" (64mm) | | 3" (76mm) | |
| | | Part No. | Insul. O.D. | Part No. | Insul. O.D. | Part No. | Insul. O.D. | Part No. | Insul. O.D. | Part No. | Insul. O.D. | Part No. | Insul. O.D. |
| 3/4" | 1.05" (27mm) | CWP3412 | 2.16" (55mm) | CWP3410 | 2.82" (72mm) | CWP3415 | 3.95" (100mm) | CWP3420 | 4.95" (126mm) | - | - | - | - |
| 1" | 1.315" (33mm) | CWP112 | 2.41" (61mm) | CWP110 | 3.45" (88mm) | CWP115 | 4.45" (113mm) | CWP120 | 5.51" (140mm) | - | - | - | - |
| 1 1/4" | 1.66" (42mm) | CWP11412 | 2.72" (69mm) | CWP11410 | 3.45" (88mm) | CWP11415 | 4.95" (126mm) | CWP11420 | 5.51" (140mm) | - | - | - | - |
| 1 1/2" | 1.99" (51mm) | CWP11212 | 2.99" (76mm) | CWP11210 | 3.95" (100mm) | CWP11215 | 4.95" (126mm) | CWP11220 | 6.57" (167mm) | CWP11225 | 7.57" (192mm) | CWP11230 | 8.57" (218mm) |
| 2" | 2.375" (60mm) | CWP212 | 3.42" (87mm) | CWP210 | 4.45" (113mm) | CWP215 | 5.51" (140mm) | CWP220 | 6.57" (167mm) | CWP225 | 7.57" (192mm) | CWP230 | 8.57" (218mm) |
| 2 1/2" | 2.875" (73mm) | CWP21212 | 3.93" (100mm) | CWP21210 | 4.95" (126mm) | CWP21215 | 6.57" (167mm) | CWP21220 | 7.57" (192mm) | CWP21225 | 8.57" (218mm) | CWP21230 | 9.57" (243mm) |
| 3" | 3.5" (89mm) | CWP312 | 4.56" (116mm) | CWP310 | 5.51" (140mm) | CWP315 | 6.57" (167mm) | CWP320 | 7.57" (192mm) | CWP325 | 8.57" (218mm) | CWP330 | 9.57" (243mm) |
| 3 1/2" | 4" (102mm) | CWP31212 | 5.07" (129mm) | CWP31210 | 6.57" (167mm) | CWP31215 | 7.57" (192mm) | CWP31220 | 8.57" (218mm) | CWP31225 | 9.57" (243mm) | CWP31230 | 10.7" (272mm) |
| 4" | 4.5" (114mm) | CWP412 | 5.57" (141mm) | CWP410 | 6.57" (167mm) | CWP415 | 7.57" (192mm) | CWP420 | 8.57" (218mm) | CWP425 | 9.57" (243mm) | CWP430 | 10.7" (272mm) |
| 5" | 5.563" (141mm) | CWP512 | 6.64" (169mm) | CWP510 | 7.57" (192mm) | CWP515 | 8.57" (218mm) | CWP520 | 9.57" (243mm) | CWP525 | 10.7" (272mm) | CWP530 | 11.7" (297mm) |
| 6" | 6.625" (168mm) | CWP612 | 7.71" (196mm) | CWP610 | 8.57" (218mm) | CWP615 | 9.57" (243mm) | CWP620 | 10.7" (272mm) | CWP625 | 11.7" (297mm) | CWP630 | 12.7" (323mm) |
| 8" | 8.625" (219mm) | CWP812 | 9.74" (247mm) | CWP810 | 10.7" (272mm) | CWP815 | 11.7" (297mm) | CWP820 | 12.7" (323mm) | CWP825 | 13.95" (354mm) | CWP830 | 14.95" (380mm) |
| 10" | 10.75" (273mm) | CWP1012 | 11.87" (301mm) | CWP1010 | 12.7" (323mm) | CWP1015 | 13.95" (354mm) | CWP1020 | 14.95" (380mm) | CWP1025 | 15.95" (405mm) | CWP1030 | 16.95" (431mm) |
| 12" | 12.75" (324mm) | CWP1212 | 13.88" (353mm) | CWP1210 | 14.95" (380mm) | CWP1215 | 15.95" (405mm) | CWP1220 | 16.95" (431mm) | CWP1225 | 17.95" (456mm) | CWP1230 | 18.95" (481mm) |

Model "CWT" Tube Sizes

For applications requiring a wet lag insulation. Insulations extends 1" beyond metal. (Strut Clamp included)

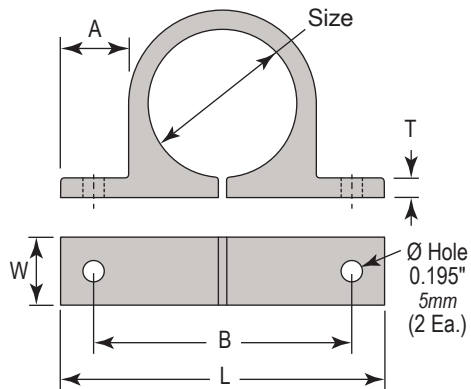
| Model CWT, Copper Tube Sizes, Insulation and Strut Clamps | | | | | | | | | | | | | |
|---|---------|-------------|------------------|-----------|------------------|---------------|------------------|-----------|------------------|---------------|------------------|-----------|------------------|
| Copper Tube | Tube OD | 1/2" (13mm) | | 1" (25mm) | | 1 1/2" (38mm) | | 2" (51mm) | | 2 1/2" (64mm) | | 3" (76mm) | |
| | | Part No. | Insul. O.D. | Part No. | Insul. O.D. | Part No. | Insul. O.D. | Part No. | Insul. O.D. | Part No. | Insul. O.D. | Part No. | Insul. O.D. |
| 1/2" | 5/8" | CWT5812 | 1.66" (42mm) | CWT5810 | 2.82" (72mm) | CWT5815 | 3.45" (88mm) | - | - | - | - | - | - |
| 3/4" | 7/8" | CWT7812 | 1.92" (49mm) | CWT7810 | 2.82" (72mm) | CWT7815 | 3.95" (100mm) | CWT7820 | 4.95" (126mm) | - | - | - | - |
| 1" | 1 1/8" | CWT11812 | 2.16" (55mm) | CWT11810 | 2.82" (72mm) | CWT11815 | 3.95" (100mm) | CWT11820 | 4.95" (126mm) | - | - | - | - |
| 1 1/4" | 1 3/8" | CWT13812 | 2.41" (61mm) | CWT13810 | 3.45" (88mm) | CWT13815 | 4.45" (113mm) | CWT13820 | 5.51" (140mm) | - | - | - | - |
| 1 1/2" | 1 5/8" | CWT15812 | 2.72" (69mm) | CWT15810 | 3.45" (88mm) | CWT15815 | 4.95" (126mm) | CWT15820 | 5.51" (140mm) | - | - | - | - |
| 2" | 2 1/8" | CWT21812 | 3.16" (80mm) | CWT21810 | 3.95" (100mm) | CWT21815 | 4.95" (126mm) | CWT21820 | 6.57" (167mm) | CWT21825 | 7.57" (192mm) | CWT21830 | 8.57" (218mm) |
| 2 1/2" | 2 5/8" | CWT25812 | 3.66" (93mm) | CWT25810 | 4.45" (113mm) | CWT25815 | 5.51" (140mm) | CWT25820 | 6.57" (167mm) | CWT25825 | 7.57" (192mm) | CWT25830 | 8.57" (218mm) |
| 3" | 3 1/8" | CWT31812 | 4.16" (106mm) | CWT31810 | 4.95" (126mm) | CWT31815 | 6.57" (167mm) | CWT31820 | 7.57" (192mm) | CWT31825 | 8.57" (218mm) | CWT31830 | 9.57" (243mm) |
| 4" | 4 1/8" | CWT41812 | 5.16" (131mm) | CWT41810 | 6.57" (167mm) | CWT41815 | 7.57" (192mm) | CWT41820 | 8.57" (218mm) | CWT41825 | 9.57" (243mm) | CWT41830 | 10.7" (272mm) |
| 5" | 5 1/8" | CWT51812 | 6.16" (156mm) | CWT51810 | 7.57" (192mm) | CWT51815 | 8.57" (218mm) | CWT51820 | 9.57" (243mm) | CWT51825 | 10.7" (272mm) | CWT51830 | 11.7" (297mm) |
| 6" | 6 1/8" | CWT61812 | 7.16" (182mm) | CWT61810 | 8.57" (218mm) | CWT61815 | 9.57" (243mm) | CWT61820 | 10.7" (272mm) | CWT61825 | 11.7" (297mm) | CWT61830 | 12.7" (323mm) |



Cush-a-Glide™

Cush-A-Glide is designed for fast installation of copper tube or pipe, and can be easily installed in seconds with fasteners of your choice. Just spread the clamp apart placing it over the top of a tube or pipe and fasten one side. Push in the opposite side to the desired tightness, allowing for expansion and contraction, then fasten the other side.

- Allows for expansion and contraction of copper tube and pipe
- Excellent alternative to stainless or galvanized clamps
- Fits tightly and securely against mounting surfaces
- Made from trusted high quality TPE material
- One piece molded split ring design
- Suitable for indoor or outdoor applications
- Temperature range of -50°F to 275°F (-45°C to 135°C)
- Will not rust and prevents and eliminates galvanic corrosion
- Made in the USA



| Part No. | Pipe, Hose or Tube Size | Size | Dimensions – inches | | | | |
|----------|-------------------------|---------------|---------------------|---------------|---------------|--------------|---------------|
| | | | A | B | L | T Thickness | W |
| CAGB04 | 1/4" | 0.245" (6mm) | 0.500" (13mm) | 1.000" (25mm) | 1.465" (37mm) | 0.110" (3mm) | 0.375" (10mm) |
| CAGB06 | 3/8" | 0.370" (9mm) | | 1.125" (29mm) | 1.590" (40mm) | | |
| CAGB08 | 1/2" | 0.495" (13mm) | | 1.250" (32mm) | 1.715" (44mm) | | |
| CAGB10 | 5/8" | 0.620" (16mm) | 0.563" (14mm) | 1.500" (38mm) | 2.045" (52mm) | 0.150" (4mm) | 0.500" (13mm) |
| CAGB14 | 7/8" | 0.870" (22mm) | | 1.750" (44mm) | 2.295" (58mm) | | |
| CAGB18 | 1 1/8" | 1.120" (28mm) | 0.625" (16mm) | 2.125" (54mm) | 2.730" (69mm) | 0.180" (5mm) | 0.625" (16mm) |
| CAGB20 | 1 1/4" | 1.250" (32mm) | | 2.250" (57mm) | 2.855" (73mm) | | |
| CAGB22 | 1 3/8" | 1.370" (35mm) | | 2.375" (60mm) | 2.980" (76mm) | | |
| CAGB26 | 1 5/8" | 1.620" (41mm) | | 2.625" (67mm) | 3.230" (82mm) | | |
| CAGB34 | 2 1/8" | 2.120" (54mm) | | 3.125" (79mm) | 3.730" (95mm) | | 0.750" (19mm) |





Omega Series™

Omega Series™

The **Omega Series™** clamp assembly retains, guides, protects, and uniformly spaces line runs. Attached with two standard fasteners to any flat surface, the Omega Series™ clamp eliminates the use of special channels, providing a savings in both space and cost. They go up fast, lines are rigid, and look neat.

THE CLAMP — Steel with gold electro-dichromate finish, or stainless steel type 304.

THE CUSHION — Manufactured from a thermoplastic elastomer, it's built tough to withstand the effects of most oils, chemicals and industrial cleaning compounds. Interlock edge ensures that the cushion remains in place.



Stainless Steel



Assembly consists of clamp and thermoplastic elastomer cushion. Fasteners not included.

Standard Temperature: -50°F to 275°F (-45°C to 135°C)

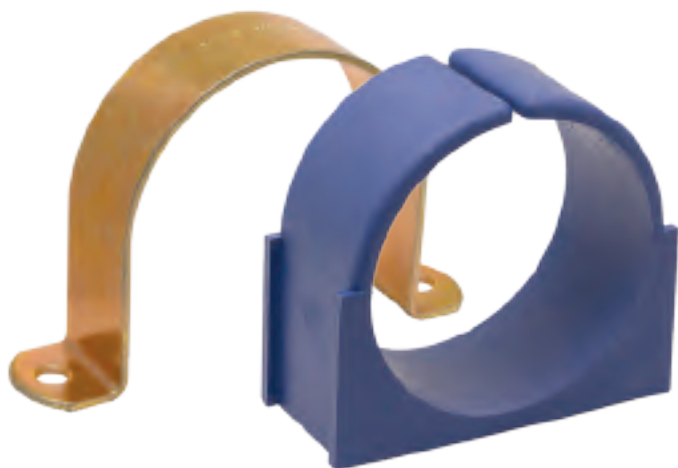
Stainless Steel



Gold Electro-Galvanized Steel

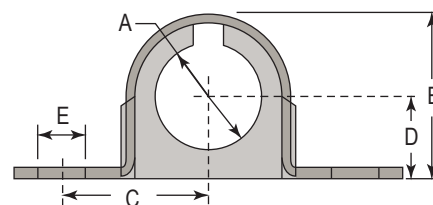
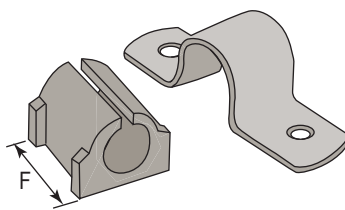


Omega Series Extreme Temperature: -65°F to 340°F (-53°C to 170°C)



Standard

Extreme Temp



| Steel Part No. | | Stainless Steel Part No. | | Copper & Steel Tubing O.D. | Copper Water Pipe (Nom.) | Pipe Size (Nom.) | Dimensions (inches) | | | | | | Hanging Design Load |
|-----------------|--------------|--------------------------|--------------|------------------------------|--------------------------|--|---------------------|---------------|---------------|--------------|--------------|-------|---------------------|
| Standard Black | Extreme Blue | Standard Black | Extreme Blue | | | | A | B | C | D | E | F | |
| 004M007 | HT004M007 | 004MS007 | HT004MS007 | 1/4" | - | - | 0.25" (6mm) | 0.48" (12mm) | 0.60" (15mm) | 0.22" (6mm) | 0.26" (7mm) | 0.78" | 50 (0.22 kN) |
| 006M008 | HT006M008 | 006MS008 | HT006MS008 | 3/8" | 1/4" | - | 0.37" (9mm) | 0.62" (16mm) | 0.66" (17mm) | 0.31" (8mm) | | 0.81" | |
| 008M011 | HT008M011 | 008MS011 | HT008MS011 | 1/2" | 3/8" | 1/4" | 0.50" (13mm) | 0.81" (21mm) | 0.83" (21mm) | 0.40" (10mm) | | | |
| 010M013 | HT010M013 | 010MS013 | HT010MS013 | 5/8" | 1/2" | 3/8" | 0.62" (16mm) | 0.93" (24mm) | 0.85" (22mm) | 0.46" (12mm) | | | |
| 012M015 | HT012M015 | 012MS015 | HT012MS015 | 3/4" | 5/8" | - | 0.75" (19mm) | 1.02" (26mm) | 0.90" (23mm) | 0.50" (13mm) | | | |
| 014M017 | HT014M017 | 014MS017 | HT014MS017 | 7/8" | 3/4" | 1/2" | 0.87" (22mm) | 1.12" (28mm) | 1.03" (26mm) | 0.53" (13mm) | | | |
| 016M019 | HT016M019 | 016MS019 | HT016MS019 | 1" | - | - | 1.00" (25mm) | 1.24" (31mm) | 1.04" (26mm) | 0.59" (15mm) | | | |
| 018M020 | HT018M020 | 018MS020 | HT018MS020 | - | - | 3/4" | 1.05" (27mm) | 1.40" (36mm) | 1.11" (28mm) | 0.70" (18mm) | | | |
| 018M021 | HT018M021 | 018MS021 | HT018MS021 | 1-1/8" | 1" | - | 1.12" (28mm) | 1.40" (36mm) | 1.17" (30mm) | 0.70" (18mm) | | | |
| 020M024 | HT020M024 | 020MS024 | HT020MS024 | 1-1/4" | - | - | 1.25" (32mm) | 1.60" (41mm) | 1.20" (30mm) | 0.77" (20mm) | | | |
| 021M026 | HT021M026 | 021MS026 | HT021MS026 | - | - | 1" | 1.31" (33mm) | 1.71" (43mm) | 1.28" (33mm) | 0.81" (21mm) | 0.34" (9mm) | | 200 (0.89 kN) |
| 022M026 | HT022M026 | 022MS026 | HT022MS026 | 1-3/8" | 1-1/4" | - | 1.37" (35mm) | 1.71" (43mm) | 1.28" (33mm) | 0.83" (21mm) | | | |
| 024M028 | HT024M028 | 024MS028 | HT024MS028 | 1-1/2" | - | - | 1.50" (38mm) | 1.85" (47mm) | 1.36" (35mm) | 0.90" (23mm) | | | |
| 026M030 | HT026M030 | 026MS030 | HT026MS030 | 1-5/8" | 1-1/2" | - | 1.62" (41mm) | 1.98" (50mm) | 1.43" (36mm) | 0.96" (24mm) | | | |
| 027M032 | HT027M032 | 027MS032 | HT027MS032 | - | - | 1-1/4" | 1.66" (42mm) | 2.12" (54mm) | 1.55" (39mm) | 0.99" (25mm) | | | |
| 028M032 | HT028M032 | 028MS032 | HT028MS032 | 1-3/4" | - | - | 1.75" (44mm) | 2.12" (54mm) | 1.55" (39mm) | 1.02" (26mm) | | | |
| 030M034 | HT030M034 | 030MS034 | HT030MS034 | 1-7/8" | - | 1-1/2" | 1.87" (47mm) | 2.25" (57mm) | 1.64" (42mm) | 1.09" (28mm) | | | |
| 032M036 | HT032M036 | 032MS036 | HT032MS036 | 2" | - | - | 2.00" (51mm) | 2.38" (60mm) | 1.69" (43mm) | 1.15" (29mm) | | | |
| 034M040 | HT034M040 | 034MS040 | HT034MS040 | 2-1/8" | - | - | 2.12" (54mm) | 2.62" (67mm) | 1.86" (47mm) | 1.27" (32mm) | | | |
| 038M044 | HT038M044 | 038MS044 | HT038MS044 | 2-3/8" | - | 2" | 2.37" (60mm) | 2.88" (73mm) | 1.94" (49mm) | 1.41" (36mm) | | | |
| 040M046 | HT040M046 | 040MS046 | HT040MS046 | 2-1/2" | - | - | 2.50" (64mm) | 3.00" (76mm) | 2.00" (51mm) | 1.47" (37mm) | 0.43" (11mm) | | 400 (1.78 kN) |
| 042M048 | HT042M048 | 042MS048 | HT042MS048 | 2-5/8" | 2-1/2" | - | 2.62" (67mm) | 3.13" (80mm) | 2.07" (53mm) | 1.53" (39mm) | | | |
| 046M052 | HT046M052 | 046MS052 | HT046MS052 | 2-7/8" | - | 2-1/2" | 2.87" (73mm) | 3.38" (86mm) | 2.19" (56mm) | 1.65" (42mm) | | | |
| 050M056 | HT050M056 | 050MS056 | HT050MS056 | 3-1/8" | 3" | - | 3.12" (79mm) | 3.68" (93mm) | 2.32" (59mm) | 1.78" (45mm) | | | |
| 056M062 | HT056M062 | 056MS062 | HT056MS062 | 3-1/2" | - | 3" | 3.50" (89mm) | 4.06" (103mm) | 2.50" (64mm) | 1.97" (50mm) | | | |
| 058M064 | HT058M064 | 058MS064 | HT058MS064 | 3-5/8" | 3-1/2" | - | 3.62" (92mm) | 4.19" (106mm) | 2.57" (65mm) | 2.03" (52mm) | | | |
| 064M072 | HT064M072 | 064MS072 | HT064MS072 | 4" | - | 3-1/2" | 4.00" (102mm) | 4.68" (119mm) | 2.82" (72mm) | 2.28" (58mm) | | | |
| 066M074 | HT066M074 | 066MS074 | HT066MS074 | 4-1/8" | 4" | - | 4.12" (105mm) | 4.84" (123mm) | 3.05" (77mm) | 2.34" (59mm) | | | |
| 072M080 | HT072M080 | 072MS080 | HT072MS080 | 4-1/2" | - | 4" | 4.50" (114mm) | 5.22" (133mm) | 3.24" (82mm) | 2.53" (64mm) | | | |
| 082M090 | HT082M090 | 082MS090 | HT082MS090 | 5-1/8" | 5" | - | 5.12" (130mm) | 5.82" (148mm) | 3.55" (90mm) | 2.84" (72mm) | | | |
| 089M096 | HT089M096 | 089MS096 | HT089MS096 | - | - | 5" | 5.56" (141mm) | 6.31" (160mm) | 4.00" (102mm) | 3.06" (78mm) | 0.56" (14mm) | | 1,200 (5.34 kN) |
| 098M106 | HT098M106 | 098MS106 | HT098MS106 | 6-1/8" | 6" | - | 6.12" (155mm) | 6.90" (175mm) | 4.31" (109mm) | 3.34" (85mm) | | | |
| 106M114 | HT106M114 | 106MS114 | HT106MS114 | - | - | 6" | 6.62" (168mm) | 7.39" (188mm) | 4.56" (116mm) | 3.58" (91mm) | | | |
| PART NO. SUFFIX | | | | Cushions | | Example | | | | | | | |
| NONE | | | | Thermoplastic elastomer | | 004M007 (STEEL) - 004MS007 (STAINLESS STEEL) | | | | | | | |
| N | - | N | - | Flame Retardant | | 004M007N (STEEL) - 004MS007N (STAINLESS STEEL) | | | | | | | |
| NH | - | NH | - | Flame Retardant Halogen Free | | 004M007NH (STEEL) - 004MS007NH (STAINLESS STEEL) | | | | | | | |

Note: Fasteners not included.





Alpha Series™ Standard & Extreme Temp

Alpha Series™

Standard

Extreme Temp



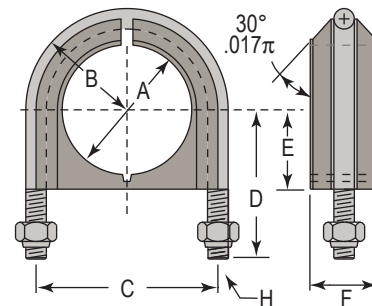
-50°F to 275°F
(-45°C to 135°C)



-65°F to 340°F
(-53°C to 170°C)

Designed for the tough jobs, the **Alpha Series™** U-Bolt Assembly secures pipe runs to any flat surface. The cushion design provides total load distribution, allowing the U-Bolt to become a full contact hanger, eliminating knife-edge loading. The U-Bolt traps and secures the cushion in place to prevent lateral movement, while nylon insert locknuts provide a positive lock.

Alpha Series™ U-Bolt Assembly conforms to MIL-S-901D for shock testing.



½" thru 6" assembly

| Assembly Part No. | | Tube Size (O.D.) | Dimensions (Inches) | | | | | | | Torque | Design Load Lbs. (kN) | Slip Thru |
|-------------------|-----------------|---------------------------|-------------------------|-----------------|------------------|------------------|-----------------|-----------------|----------------|----------|-----------------------------|--------------|
| Standard Black | Extreme Blue | | A Dia. | B Radius | C | D | E | F | H Bolt Size | | | |
| UB7/8TA | HTUB7/8TA | 7/8" | 0.875" (22mm) | 0.80" (20mm) | 1.60" (41mm) | 1.50" (38mm) | 0.67" (17mm) | 0.68" (17mm) | 1/4"-20 UNC-2B | 100 | 485 (2.16 kN) | 500 |
| UB1TA | HTUB1TA | 1" | 1.00" (25mm) | 0.90" (23mm) | 1.80" (46mm) | 1.60" (41mm) | 0.78" (20mm) | 0.68" (17mm) | 1/4"-20 UNC-2B | | | 500 |
| UB11/4TA | HTUB1-1/4TA | 1-1/4" | 1.25" (32mm) | 1.02" (26mm) | 2.05" (52mm) | 1.70" (43mm) | 0.91" (23mm) | 0.68" (17mm) | 1/4"-20 UNC-2B | | | 500 |
| UB13/8TA | HTUB1-3/8TA | 1-3/8" | 1.375" (35mm) | 1.02" (26mm) | 2.05" (52mm) | 1.70" (43mm) | 0.91" (23mm) | 0.68" (17mm) | 1/4"-20 UNC-2B | | | 500 |
| UB2TA | HTUB2TA | 2" | 2.00" (51mm) | 1.40" (36mm) | 2.80" (71mm) | 2.20" (56mm) | 1.19" (30mm) | 1.24" (31mm) | 3/8"-16 UNC-2B | 150 | 1,220 (5.43 kN) | 500 |
| UB3TA | HTUB3TA | 3" | 3.00" (76mm) | 1.95" (50mm) | 3.90" (99mm) | 3.00" (76mm) | 1.69" (43mm) | 1.24" (31mm) | 1/2"-13 UNC-2B | 200 | 2,260 (10.05 kN) | 500 |
| UB4TA | HTUB4TA | 4" | 4.00" (102mm) | 2.52" (64mm) | 5.05" (128mm) | 3.70" (94mm) | 2.25" (57mm) | 1.24" (31mm) | 1/2"-13 UNC-2B | | | 500 |
| UB5TA | HTUB5TA | 5" | 5.00" (127mm) | 3.25" (83mm) | 6.56" (167mm) | 4.50" (114mm) | 3.03" (77mm) | 1.24" (31mm) | 1/2"-13 UNC-2B | | | 500 |
| UB6TA | HTUB6TA | 6" | 6.00" (152mm) | 3.87" (98mm) | 7.75" (197mm) | 5.40" (137mm) | 3.56" (90mm) | 1.44" (37mm) | 5/8"-11 UNC-2B | 250 | 3,620 (16.10 kN) | 500 |
| SUFFIX | | Clamp | Cushion | | | | | | | Example | | |
| NONE | | Electro-galvanized | Thermoplastic elastomer | | | | | | | UB½PA | | |
| 6 | | Stainless Steel, Type 316 | Thermoplastic elastomer | | | | | | | UB½PA6 | | |
| N6 | – | Stainless Steel, Type 316 | | | | | | | | UB½PAN6 | | |
| N | – | Electro-galvanized | | | | | | | | UB½PAN | | |
| NH | – | Electro-galvanized | | | | | | | | UB½PANH | | |
| NH6 | – | Stainless Steel, Type 316 | | | | | | | | UB½PANH6 | | |



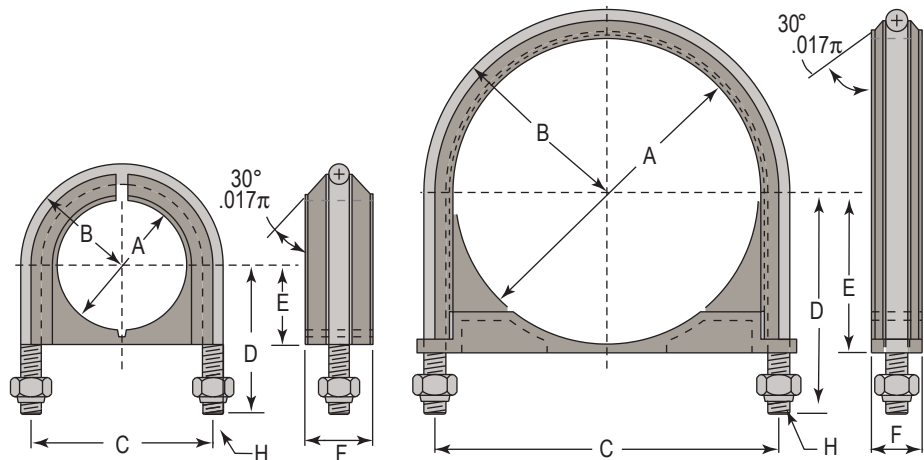
Alpha Series™ Standard & Extreme Temp



Standard



Extreme Temp



1/2" thru 6" assembly

8" thru 12" assembly – Two piece cushion design

| Assembly Part No. | | Pipe Size (Nom.) | Dimensions (Inches) | | | | | | | Torque | Design Load Lbs. (kN) | Slip Thru |
|-------------------|--------------|---------------------------|---------------------|------------------|--|------------------|------------------|-----------------|----------------|--------|--------------------------|-----------|
| Standard Black | Extreme Blue | | A Dia. | B Radius | C | D | E | F | H | | | |
| UB1/2PA | HTUB1/2PA | 1/2" | 0.840" (21mm) | 0.80" (20mm) | 1.60 (41mm) | 1.50" (38mm) | 0.67" (17mm) | 0.68" (17mm) | 1/4"-20 UNC-2B | 100 | 485 (2.16 kN) | 500 |
| UB3/4PA | HTUB3/4PA | 3/4" | 1.05" (27mm) | 0.90" (23mm) | 1.80 (46mm) | 1.60" (41mm) | 0.78" (20mm) | 0.68" (17mm) | 1/4"-20 UNC-2B | | | 500 |
| UB1PA | HTUB1PA | 1" | 1.31" (33mm) | 1.02" (26mm) | 2.05 (52mm) | 1.70" (43mm) | 0.91" (23mm) | 0.68" (17mm) | 1/4"-20 UNC-2B | | | 500 |
| UB1-1/4PA | HTUB1-1/4PA | 1-1/4" | 1.66" (42mm) | 1.27" (32mm) | 2.55 (65mm) | 2.10" (53mm) | 1.08" (27mm) | 1.24" (31mm) | 3/8"-16 UNC-2B | 150 | 1,220 (5.43 kN) | 500 |
| UB1-1/2PA | HTUB1-1/2PA | 1-1/2" | 1.90" (48mm) | 1.40" (36mm) | 2.80 (71mm) | 2.20" (56mm) | 1.19" (30mm) | 1.24" (31mm) | 3/8"-16 UNC-2B | | | 500 |
| UB2PA | HTUB2PA | 2" | 2.37" (60mm) | 1.67" (42mm) | 3.35 (85mm) | 2.50" (64mm) | 1.45" (37mm) | 1.24" (31mm) | 3/8"-16 UNC-2B | | | 500 |
| UB2-1/2PA | HTUB2-1/2PA | 2-1/2" | 2.87" (73mm) | 1.95" (50mm) | 3.90 (99mm) | 3.00" (76mm) | 1.69" (43mm) | 1.24" (31mm) | 1/2"-13 UNC-2B | 200 | 2,260 (10.05 kN) | 500 |
| UB3PA | HTUB3PA | 3" | 3.50" (89mm) | 2.27" (58mm) | 4.55 (116mm) | 3.30" (84mm) | 2.00" (51mm) | 1.24" (31mm) | 1/2"-13 UNC-2B | | | 500 |
| UB3-1/2PA | HTUB3-1/2PA | 3-1/2" | 4.00" (102mm) | 2.52" (64mm) | 5.05 (128mm) | 3.70" (94mm) | 2.25" (57mm) | 1.24" (31mm) | 1/2"-13 UNC-2B | | | 500 |
| UB4PA | HTUB4PA | 4" | 4.50" (114mm) | 2.50" (64mm) | 5.50 (140mm) | 3.90" (99mm) | 2.50" (64mm) | 1.24" (31mm) | 1/2"-13 UNC-2B | | | 500 |
| UB5PA | HTUB5PA | 5" | 5.56" (141mm) | 3.25" (83mm) | 6.56 (167mm) | 4.50" (114mm) | 3.03" (77mm) | 1.24" (31mm) | 1/2"-13 UNC-2B | 250 | 3,620 (16.10 kN) | 500 |
| UB6PA | HTUB6PA | 6" | 6.62" (168mm) | 3.87" (98mm) | 7.75 (197mm) | 5.40" (137mm) | 3.56" (90mm) | 1.44" (37mm) | 5/8"-11 UNC-2B | | | 500 |
| UB8PA | HTUB8PA | 8" | 8.62" (219mm) | 4.85" (123mm) | 9.82 (249mm) | 6.40" (163mm) | 4.56" (116mm) | 1.44" (37mm) | 5/8"-11 UNC-2B | | | 500 |
| UB10PA | HTUB10PA | 10" | 10.75" (273mm) | 6.08" (154mm) | 12.16 (309mm) | 7.70" (196mm) | 5.68" (144mm) | 1.65" (42mm) | 3/4"-10 UNC-2B | | | 275 |
| UB12PA | HTUB12PA | 12" | 12.75" (324mm) | 7.13" (181mm) | 14.25 (362mm) | 8.7" (221mm) | 6.68" (170mm) | 1.65" (42mm) | 3/4"-10 UNC-2B | 500 | | |
| SUFFIX | | Clamp | | | Cushion | | | | Example | | | |
| NONE | | Electro-galvanized | | | Thermoplastic elastomer | | | | UB1/2PA | | | |
| 6 | | Stainless Steel, Type 316 | | | Thermoplastic elastomer | | | | UB1/2PA6 | | | |
| N6 | – | Stainless Steel, Type 316 | | |  Flame Retardant | | | | UB1/2PAN6 | | | |
| N | – | Electro-galvanized | | | | | | | UB1/2PAN | | | |
| NH | – | Electro-galvanized | | |  Flame Retardant Halogen Free | | | | UB1/2PANH | | | |
| NH6 | – | Stainless Steel,Type 316 | | | | | | | UB1/2PANH6 | | | |





Cush-A-Claw®

Cush-A-Claw®



Strut Mounted

| Insert | Twist & Lock | Position Pipe | Snap In |
|--------|--------------|---------------|---------|
| | | | |



Surface Mounted

| Position | Mount w/Screw | Position Pipe | Snap In |
|---|--|---------------|---------|
| | | | |
| Side grooves provide Centering guide | Counter-sunk hole allows tightening of any type of #10 fastener | | |

The **Cush-A-Claw** Grabs on to your Tube, Pipe, or Hose and holds it in place. The unique one piece patented design allows for quick, simple, and easy installation. It will not rust because it's molded from the same choice TPE Material of some of our other products that you've come to know and trust.

- Easy Snap-in Installation of Tube, Pipe, or Hose
- Sure Grip Strut Base easily rotates into strut
- Will not rust
- Non Conducting
- Saves Time and Money
- Temp Range: -50° to 275° F (-45°C to 135°C)
- Works Great Indoors or Outdoors
- Seven Sizes of Tube and Three Sizes of EMT
- Designed for Light Duty Loads and Applications
- Prevents Galvanic Corrosion of Dissimilar Metals
- An Excellent Alternative to Steel, Stainless Steel, or Galvanized Clamps.

| O.D. Tube Size | | | EMTS Conduit Sizes | | |
|-----------------------|----------------------------|------------------|--------------------------|----------------------------|----------------|
| Strut Mount Part # | Surface Mount Part # | Size O.D. | Strut Mount Part # | Surface Mount Part # | Size O.D. |
| CL-04 | CLS-04 | 1/4" (6mm) | EMT-1/2 | EMTS-1/2 | 1/2" (18mm) |
| CL-06 | CLS-06 | 3/8" (10mm) | EMT-3/4 | EMTS-3/4 | 3/4" (23mm) |
| CL-08 | CLS-08 | 1/2" (13mm) | EMT-1 | EMTS-1 | 1" (30mm) |
| CL-10 | CLS-10 | 5/8" (16mm) | | | |
| CL-12 | CLS-12 | 3/4" (19mm) | | | |
| CL-14 | CLS-14 | 7/8" (22mm) | | | |
| CL-18 | CLS-18 | 1 1/8" (29mm) | | | |

75 Lbs. Load
(Safety Factor: 3)



Cush-A-Claw® is manufactured under U.S. patent #D631739, #D679177, and European Community patent #0011520030001, #0011520030002, #0011520030003, #0011520030004, #0011520030005, #0011520030006, #0011520030007



Cush-A-Clip® & Cush-A-Click

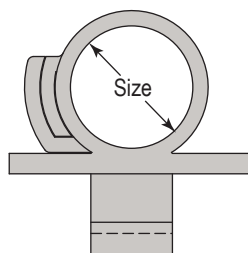


Cush-A-Clip®



A Simple, Economical, Lightweight Hanger For Supporting Tubing

- Manufactured from polyamide alloy
- U.L. Rated
- Sizes from $\frac{3}{8}$ " to $1\frac{1}{8}$ "
- One piece design makes installation a snap.
- No nuts to tighten, no parts to lose.
- Temperatures from -40°F to 275°F (-40°C to 135°C)
- Secure but non-tightening design allows for expansion, greatly reducing joint fractures

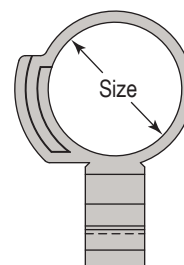


| Part No. | Tube O.D. |
|-----------|-------------------------|
| RPC-3/8 | $\frac{3}{8}$ " (10mm) |
| RPC-1/2 | $\frac{1}{2}$ " (13mm) |
| RPC-5/8 | $\frac{5}{8}$ " (16mm) |
| RPC-3/4 | $\frac{3}{4}$ " (19mm) |
| RPC-7/8 | $\frac{7}{8}$ " (22mm) |
| RPC-1-1/8 | $1\frac{1}{8}$ " (29mm) |

Cush-A-Click

The great advantage with the **Cush-A-Click** is it retains an unbroken vapor barrier seal, eliminating the problem of sweating on metal fittings. The Cush-A-Click is ideal for the installation of refrigeration systems allowing the barrier seal to run the length of the pipe work without cutting the insulation material. The Cush-A-Click quickly secures both the pipe and the insulation.

- Time and labor savings
- Simple, secure installation of refrigeration and plumbing pipe work
- No break insulation material
- Corrosion resistance
- Light weight

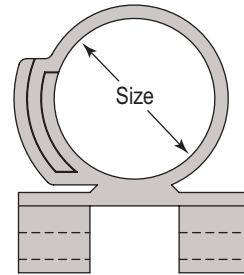


| Part No. | Standard Copper | Metric Copper | Copper Tube | | Condensate Drain |
|----------|------------------|---------------|--|--|------------------|
| | (no insulation) | | with $\frac{3}{8}$ " (10mm) Insulation | with $\frac{1}{2}$ " (13mm) Insulation | |
| CAC12 | $\frac{3}{4}$ " | - | - | - | - |
| CAC14 | $\frac{7}{8}$ " | 22mm | - | - | yes |
| CAC16 | 1" | - | $\frac{1}{4}$ " tube | - | - |
| CAC18 | $1\frac{1}{8}$ " | 28mm | $\frac{3}{8}$ " tube | - | - |
| CAC20 | $1\frac{1}{4}$ " | - | $\frac{1}{2}$ " tube | $\frac{1}{4}$ " tube | - |
| CAC22 | $1\frac{3}{8}$ " | - | $\frac{5}{8}$ " tube | $\frac{3}{8}$ " tube | yes |
| CAC24 | $1\frac{1}{2}$ " | - | $\frac{7}{8}$ " tube | $\frac{5}{8}$ " tube | - |
| CAC26 | $1\frac{5}{8}$ " | 42mm | $1\frac{1}{8}$ " tube | $\frac{3}{4}$ " tube | yes |
| CAC32 | 2" | - | - | $\frac{7}{8}$ " tube | - |
| CAC34 | $2\frac{1}{8}$ " | 54mm | $1\frac{3}{8}$ " tube | $1\frac{1}{8}$ " tube | yes |

Inside diameter: Certain clips have two or more positions to accommodate both metric and standard sizes



Quick-Clip



Quick-Clip's unique one-piece composite polyamide alloy design combines strength with light weight. It will overcome the problems of using cable ties for piping, electrical, optical and network cabling.

- Quick-Clip locates easily on $\frac{3}{8}$ " rod
- No breaks in insulation material
- Fast and easy installation, saves time and money
- Single handed installation
- Manufactured from a composite polyamide, tested from -40°F to $+275^{\circ}\text{F}$, (-40°C to $+135^{\circ}\text{C}$) makes it ideal for network cables
- Studding panel inserts.



| CLAMPING RANGE | | | | | |
|----------------|------------------|---------------|--|--|------------------|
| Part No. | Standard Copper | Metric Copper | Copper Tube | | Condensate Drain |
| | (no insulation) | | with $\frac{3}{8}$ " (10mm) Insulation | with $\frac{1}{2}$ " (13mm) Insulation | |
| QC12 | $\frac{3}{4}$ " | - | - | - | - |
| QC14 | $\frac{7}{8}$ " | 22mm | - | - | yes |
| QC16 | 1" | - | $\frac{1}{4}$ " tube | - | - |
| QC18 | $1\frac{1}{8}$ " | 28mm | $\frac{3}{8}$ " tube | - | - |
| QC20 | $1\frac{1}{4}$ " | - | $\frac{1}{2}$ " tube | $\frac{1}{4}$ " tube | - |
| QC22 | $1\frac{3}{8}$ " | - | $\frac{5}{8}$ " tube | $\frac{3}{8}$ " tube | yes |
| QC24 | $1\frac{1}{2}$ " | - | $\frac{7}{8}$ " tube | $\frac{5}{8}$ " tube | - |
| QC26 | $1\frac{5}{8}$ " | 42mm | $1\frac{1}{8}$ " tube | $\frac{3}{4}$ " tube | yes |
| QC32 | 2" | - | - | $\frac{7}{8}$ " tube | - |
| QC34 | $2\frac{1}{8}$ " | 54mm | $1\frac{3}{8}$ " tube | $1\frac{1}{8}$ " tube | yes |

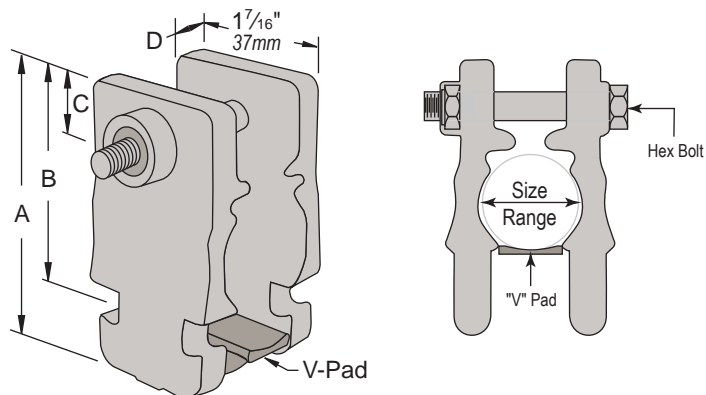
Inside diameter: Certain clips have two or more positions to accommodate both metric and standard sizes



Slide onto threaded rod, twist to engage.
Insert pipe and clip to lock.



Cush-A-Grip



FEATURES:

- Ten sizes of tube, five sizes of pipe
- Diameters from .25" to 1.31"

ADVANTAGES:

- Reduces inventory SKU's
- Simplifies take-offs and requirements on projects using both tube and pipe sizes
- Easy installation, non-conducting
- Permissible outdoors
- Temp. range: -40°F to +380°F (-40°C to 193°C)
- No galvanic reaction, Will not rust

BENEFITS:

- Lowers overall inventory costs
- Works with screw or nut driver
- Resists vibration
- Use in place of steel clamps with steel tube
- Multi-environmental
- Covers a wide range of applications and maintains thermal barrier
- For use on copper tube
- Use in place of stainless, aluminum, PVC or hot dipped galvanized clamps



| Part No. | O.D. Tube Sizes | | | Pipe Sizes | Metric Sizes | Diameters (in) |
|----------|-----------------|--------|--------|-------------|--------------|----------------|
| CG-10 | 1/4" | 3/8" | 1/2" | 1/4" | 6mm – 14mm | 0.25 – 0.54 |
| CG-20 | 5/8" | 3/4" | 7/8" | 3/8" – 1/2" | 15mm – 22mm | 0.62 – 0.87 |
| CG-30 | 7/8" | 1" | 1-1/8" | 3/4" | 22mm – 28mm | 0.87 – 1.12 |
| CG-40 | 1" | 1-1/8" | 1-1/4" | 3/4" – 1" | 26mm – 32mm | 1.00 – 1.31 |

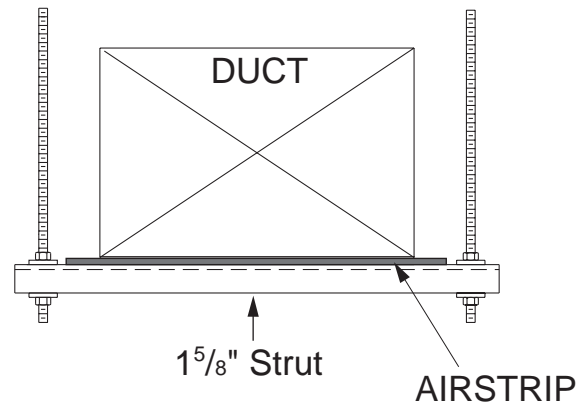
| Part No. | Nominal Pipe Size | Dimensions | | | | Hex Head Cap Screw & Lock Nut |
|----------|-------------------|--------------------|--------------------|-----------------|----------------|-------------------------------|
| | | "A" | "B" | "C" | "D" | |
| CG-10 | 1/4" | 1-15/16" (49mm) | 1-3/8" (35mm) | 3/8" (10mm) | 3/16" (5mm) | 1/4"-20 x 1-1/2" |
| CG-20 | 3/8" | 2-3/8" (60mm) | 1-5/8" (41mm) | 7/16" (11mm) | 1/4" (6mm) | 1/4"-20 x 2" |
| CG-30 | 1/2" | 2-9/16" (65mm) | 1-13/16" (46mm) | 7/16" (11mm) | 5/16" (8mm) | 1/4"-20 x 2" |
| CG-40 | 3/4" | 2-11/16" (68mm) | 1-15/16" (49mm) | 7/16" (11mm) | 5/16" (8mm) | 1/4"-20 x 2" |





AIRSTRIP®

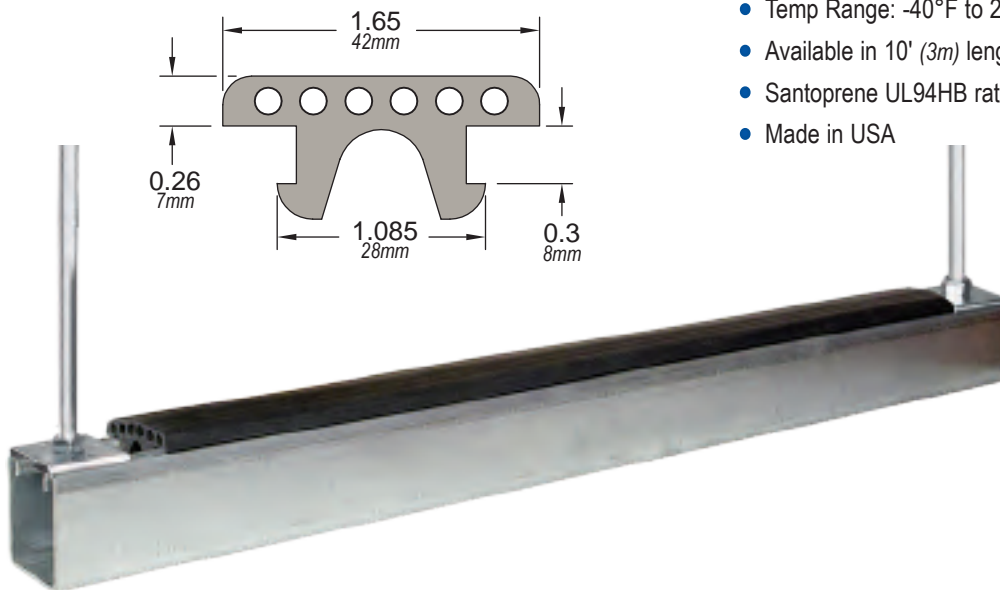
AIRSTRIP®



The AIRSTRIP is designed to dampen the noise and vibration that can occur between piping or duct work and the supporting channel. Made from 64 Durometer Santoprene, the AIRSTRIP 1 is light weight, dependable, and long-lasting.

| Part No. | Max. Load Lbs. per Lineal In. | | Length | |
|----------|-------------------------------|-------------|--------|------|
| | Lbs. | (kg/25.4mm) | Ft. | (m) |
| AS1 | 40 | 18.1 | 10 | 3.05 |

- Temp Range: -40°F to 250°F (-40°C to 121°C)
- Available in 10' (3m) lengths
- Santoprene UL94HB rated
- Made in USA



Installs simply by pushing into place

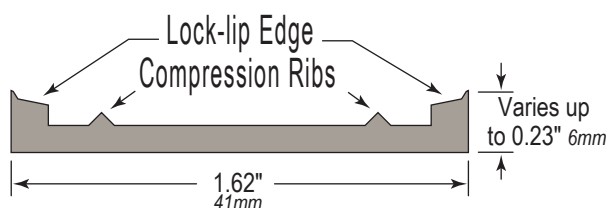
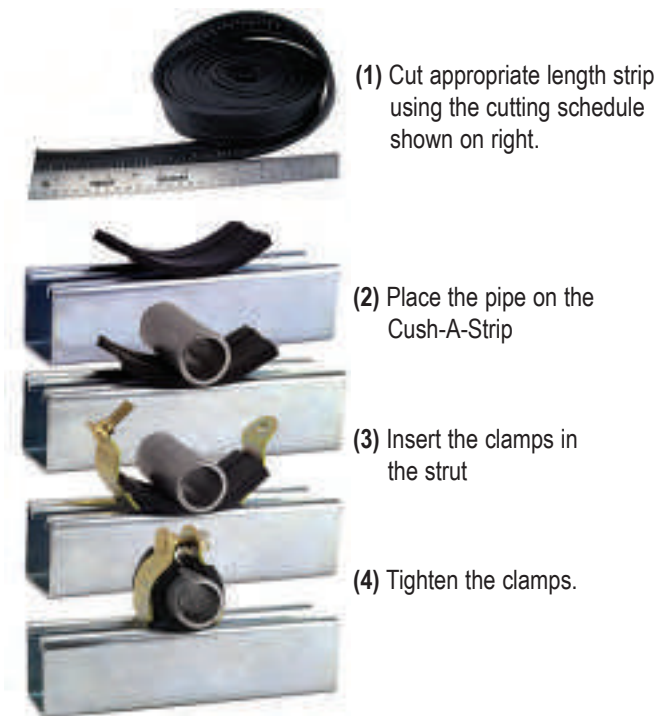


To remove, squeeze the tabs at the end and push up



Cush-A-Strip™

- Manufactured from a thermoplastic elastomer, Cush-A-Strip is designed for use from -50°F to 275°F.
- Easy Stocking – Packaged in 20 foot rolls in an E-Z dispenser box for convenience in handling and storage. **Cush-A-Strip roll part number is S-716**
- Easy Measuring – Marked in 1/4" increments for fast measuring and cutting, while eliminating waste.
- Lock-lip edges ensure that Cush-A-Strip will remain in place with a balanced grip.
- Clamps ordered separately. They are available with a standard bolt and nylon lock nut in steel (electro-dichromate), and stainless steel, in sizes ranging from 1/4" tube to 6" pipe.



Cush-A-Strip™ Cutting Guide

| Clamp Part No. | | Dimensions (Inches) | | | |
|-------------------|--------------------------|---------------------|----------------|------------------|------------------|
| Gold Plated Steel | Stainless Steel Type 304 | Clamp Size O.D. | Tube Size O.D. | Pipe Size (Nom.) | Cutting Schedule |
| TG008C | NS008 | 1/2" | 1/4" | – | 7/8" |
| TG010C | NS010 | 5/8" | 3/8" | – | 1-1/8" |
| TG012C | NS012 | 3/4" | 1/2" | 1/4" | 1-1/2" |
| TG014C | NS014 | 7/8" | 5/8" | 3/8" | 2" |
| TG016C | NS016 | 1" | 3/4" | – | 2-1/4" |
| TG018C | NS018 | 1-1/8" | 7/8" | 1/2" | 3" |
| TG020C | NS020 | 1-1/4" | 1" | 3/4" | 3-1/4" |
| TG022C | NS022 | 1-3/8" | 1-1/8" | – | 3-5/8" |
| TG024C | NS024 | 1-1/2" | 1-3/16" | – | 3-7/8" |
| TG024C | NS024 | 1-1/2" | 1-1/4" | 1" | 4" |
| TG026C | NS026 | 1-5/8" | 1-3/8" | – | 4-1/2" |
| NG028C | CS028 | 1-3/4" | 1-1/2" | – | 4-7/8" |
| NG030C | CS030 | 1-7/8" | 1-5/8" | 1-1/4" | 5-1/4" |
| NG032C | CS032 | 2" | 1-3/4" | – | 5-1/2" |
| NG034C | CS034 | 2-1/8" | 1-7/8" | 1-1/2" | 6" |
| NG036C | CS036 | 2-1/4" | 2" | – | 6-3/8" |
| NG038C | CS038 | 2-3/8" | 2-1/8" | – | 6-3/4" |
| NG040C | CS040 | 2-1/2" | 2-1/4" | – | 7-1/4" |
| NG042C | CS042 | 2-5/8" | 2-3/8" | 2" | 7-1/2" |
| NG044C | CS044 | 2-3/4" | 2-1/2" | – | 8" |
| NG048C | CS048 | 3" | 2-3/4" | – | 8-3/4" |
| NG050C | CS050 | 3-1/8" | 2-7/8" | 2-1/2" | 9-1/4" |
| NG054C | CS054 | 3-1/4" | 3" | – | 9-1/2" |
| NG060C | CS060 | 3-3/4" | 3-1/2" | 3" | 11" |
| NG068C | CS068 | 4-1/4" | 4" | 3-1/2" | 12-1/4" |
| NG076C | CS076 | 4-3/4" | 4-1/2" | 4" | 14" |
| NG092C | CS092 | 5-3/4" | – | 5" | 15-1/2" |
| NG110C | CS110 | 6-7/8" | – | 6" | 18-1/2" |

* Gold Plated Steel Clamps Supplied with Fixed Stud and Nylon Lock Nut

* Stainless Steel Clamps Supplied with fixed Stud and Nylon Lock Nut from 1/2" through 1-3/4" Sizes and 1-7/8" through 6-7/8" Sizes are supplied with a Loose Bolt and Hex Nut



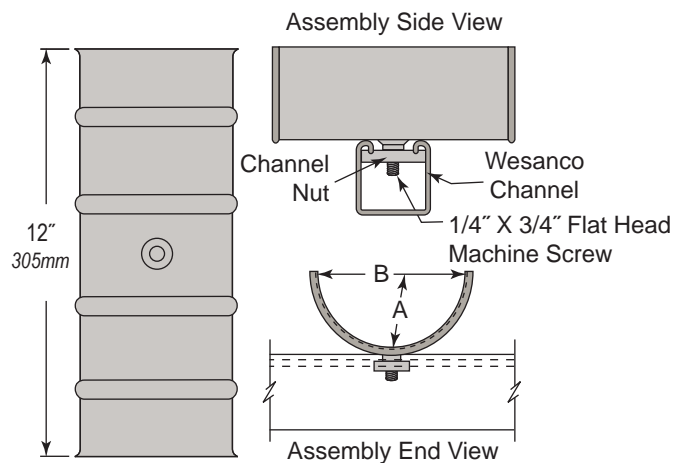
Saddle-Up

Insulation Saddle

The Saddle-Up Pipe Insulation Saddle is a formed metal shield designed to allow insulated refrigeration pipe or tubing to pass through the support without need to compromise the vapor barrier and protects from crushing or damage at hanger and support locations. Made from 20 gage electro-galvanized steel the ribbed design along its 12" (305mm) length offers the superior support needed to spread out loading on insulation which reduces the potential for internal cavity creation between the pipe and insulation. The Z-Strut mounting option provides a time tested secure and safe attachment method so there is no need for other tie downs to the support.

FEATURES:

- Shipped with all necessary hardware to attach to Z-Strut or any other industry standard 1 5/8" (41mm) wide strut channel.
- Features flared edges to protect pipe insulation jacketing.
- Each Saddle individually marked with part number
- Counter Sunk attachment Hole and Flat Head Machine Screw prevent possible damage to insulation.
- Electro-Galvanized Steel provides excellent rust protection and has no exposed fabricated edges.



| Dimensions (Inches) | | | 1/2" (13mm) Insulation | | 3/4" (19mm) Insulation | | 1" (25mm) Insulation | | 1 1/2" (38mm) Insulation | |
|---------------------|----------------|---------------|------------------------|--------------------|------------------------|--------------------|----------------------|--------------------|--------------------------|--------------------|
| Part No. | B Width | A Radius | OD Tube Size | OD With Insulation | OD Tube Size | OD With Insulation | OD Tube Size | OD With Insulation | OD Tube Size | OD With Insulation |
| SD150 | 1 1/2" (38mm) | 3/4" (19mm) | 3/8" | 1 3/8" (35mm) | — | — | — | — | — | — |
| | | | 1/2" | 1 1/2" (38mm) | — | — | — | — | — | — |
| SD200 | 2" (51mm) | 1" (25mm) | 5/8" | 1 5/8" (41mm) | 3/8" | 1 7/8" (48mm) | — | — | — | — |
| | | | 3/4" | 1 3/4" (45mm) | 1/2" | 2" (51mm) | — | — | — | — |
| | | | 7/8" | 1 7/8" (48mm) | — | — | — | — | — | — |
| SD250 | 2 1/2" (64mm) | 1 1/4" (32mm) | 1 1/8" | 2 1/8" (54mm) | 5/8" | 2 1/8" (54mm) | 3/8" | 2 3/8" (60mm) | — | — |
| | | | 1 3/8" | 2 3/8" (60mm) | 3/4" | 2 1/4" (57mm) | 1 1/2" | 2 1/2" (64mm) | — | — |
| | | | — | — | 7/8" | 2 3/8" (60mm) | — | — | — | — |
| SD300 | 3" (76mm) | 1 1/2" (38mm) | 1 5/8" | 2 5/8" (67mm) | 1 1/8" | 2 5/8" (67mm) | 5/8" | 2 5/8" (67mm) | — | — |
| | | | — | — | 1 3/8" | 2 7/8" (73mm) | 3/4" | 2 3/4" (70mm) | — | — |
| | | | — | — | — | — | 7/8" | 2 7/8" (73mm) | — | — |
| SD350 | 3 1/2" (89mm) | 1 3/4" (45mm) | 2 1/8" | 3 1/8" (79mm) | 1 5/8" | 3 1/8" (79mm) | 1 1/8" | 3 1/8" (79mm) | 3/8" | 3 3/8" (86mm) |
| | | | 2 3/8" | 3 3/8" (86mm) | — | — | 1 3/8" | 3 3/8" (86mm) | 1 1/2" | 3 1/2" (89mm) |
| SD450 | 4 1/2" (114mm) | 2 1/4" (57mm) | 2 5/8" | 3 5/8" (86mm) | 2 1/8" | 3 5/8" (92mm) | 1 5/8" | 3 5/8" (92mm) | 5/8" | 3 5/8" (92mm) |
| | | | — | — | 2 3/8" | 3 7/8" (98mm) | — | — | 3/4" | 3 3/4" (95mm) |
| | | | — | — | — | — | — | — | 7/8" | 3 7/8" (98mm) |
| | | | 3 1/8" | 4 1/8" (105mm) | 2 5/8" | 4 1/8" (105mm) | 2 1/8" | 4 1/8" (105mm) | 1 1/8" | 4 1/8" (105mm) |
| | | | — | — | — | — | 2 3/8" | 4 3/8" (111mm) | 1 3/8" | 4 3/8" (111mm) |
| SD550 | 5 1/2" (140mm) | 2 3/4" (70mm) | 3 5/8" | 4 5/8" (118mm) | 3 1/8" | 4 5/8" (118mm) | 2 5/8" | 4 5/8" (118mm) | 1 5/8" | 4 5/8" (118mm) |
| | | | 4 1/8" | 5 1/8" (130mm) | 3 5/8" | 5 1/8" (130mm) | 3 1/8" | 5 1/8" (130mm) | 2 1/8" | 5 1/8" (130mm) |
| | | | — | — | — | — | — | — | 2 3/8" | 5 3/8" (143mm) |
| SD650 | 6 1/2" (165mm) | 3 1/4" (83mm) | — | — | 4 1/8" | 5 5/8" (143mm) | 3 5/8" | 5 5/8" (143mm) | 2 5/8" | 5 5/8" (143mm) |
| | | | — | — | — | — | 4 1/8" | 6 1/8" (156mm) | 3 1/8" | 6 1/8" (156mm) |

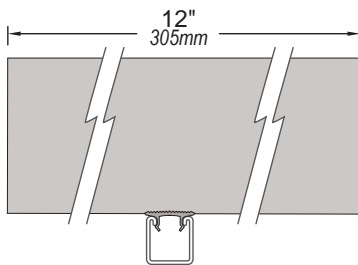
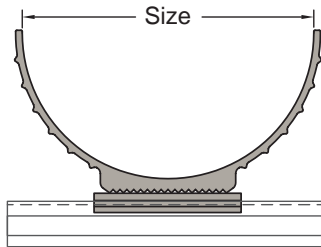


Snap-A-Saddle®

Strut Mount Plastic Insulation Saddle



Snaps easily into channel



| Part No. | | Nominal Inside Opening |
|----------|-------|------------------------|
| Black | White | |
| SB225 | SW225 | 2 1/4" (57mm) |
| SB325 | SW325 | 3 1/4" (83mm) |
| SB425 | SW425 | 4 1/4" (108mm) |
| SB525 | SW525 | 5 1/4" (133mm) |
| SB625 | SW625 | 6 1/4" (159mm) |
| SB825 | SW825 | 8 5/8" (219mm) |

The Snap-A-Saddle provides an easy way to attach insulated pipes to support channel, with one step, tool-free installation.



- Temp Range: -50° to 275°F (-46° to 135° C)
- Available in both black and white
- UL94-HB1 Rated TPV Material
- Made in USA
- Easy Installation
- Standard 12" (305mm) lengths. Special lengths available upon request



| Snap-A-Saddle Size Guide - Copper Tubing | | | | | |
|--|----------------------|-------------|-----------|---------------|-----------|
| Tubing Size | Insulation Thickness | | | | |
| | 1/2" (13mm) | 3/4" (19mm) | 1" (25mm) | 1 1/2" (38mm) | 2" (51mm) |
| 1/4" | S*225 | S*225 | S*325 | S*425 | S*525 |
| 3/8" | | | | | |
| 1/2" | | | | | |
| 5/8" | | | | | |
| 3/4" | | | | | |
| 1" | S*325 | S*325 | S*425 | S*525 | S*625 |
| 1 1/4" | | | | | |
| 1 1/2" | | | | | |
| 2" | | | | | |
| 2 1/2" | | | | | |
| 3" | S*425 | S*525 | S*625 | S*825 | S*825 |
| 3 1/2" | | | | | |
| 4" | | | | | |

* Add "B" for Black or "W" for White

| Snap-A-Saddle Size Guide - Schedule 40/80 Pipe | | | | | |
|--|----------------------|-------------|-----------|---------------|-----------|
| Pipe Size | Insulation Thickness | | | | |
| | 1/2" (13mm) | 3/4" (19mm) | 1" (25mm) | 1 1/2" (38mm) | 2" (51mm) |
| 1/4" | S*225 | S*325 | S*425 | S*525 | S*625 |
| 3/8" | | | | | |
| 1/2" | | | | | |
| 3/4" | | | | | |
| 1" | | | | | |
| 1 1/4" | S*325 | S*425 | S*525 | S*625 | S*825 |
| 1 1/2" | | | | | |
| 2" | | | | | |
| 2 1/2" | S*425 | S*525 | S*625 | S*825 | S*825 |
| 3" | | | | | |
| 3 1/2" | | | | | |
| 4" | S*625 | S*825 | S*825 | S*825 | S*825 |
| | | | | | |

* Add "B" for Black or "W" for White

Snap-A-Saddle® is manufactured under U.S. patents #D753468 and Canadian patents #163550



WARNING: These products can expose you to chemicals including lead, which is known to the State of California to cause cancer, and which is known to cause birth defects or other reproductive harm. For more information go to www.P65Warnings.ca.gov.



Snap-A-Saddle Pro™

Insulated Pipe Saddle for Mounting on Strut

Its revolutionary design allows for pipe movement within the support, eliminating common problems related to traditional pipe saddles: rotation, displacement and thermal insulation damages.



Breakthrough Innovation

Snap-a-Saddle Pro™ is designed to accommodate movement of the pipes generated by thermal expansion and vibration. With its unique sliding design at each end, Snap-a-Saddle Pro easily and effectively cradles and protects pipes allowing them to expand and vibrate without damaging their insulation.

Snap-a-Saddle Pro permanently eliminates insulation tears, refrigerant leaks, condensing, and freezing. It holds up to the highest quality standards of the industry.

Setting the Standard

Made of high quality, ultra-resistant polypropylene, Snap-a-Saddle Pro™ is today's most practical and economical solution to standardize pipe installations, improve appearance, and completely eliminate premature insulation tears, costly leaks, and loss of refrigerated merchandise caused by inadequate suspension systems.

Fastest Installation In The Industry

60% faster than metal or plastic shields

80% faster than clamps and collars

Keeps Thermal Bridge Intact

Eliminates insulation compression

Tool-Free Installation

One simple click is all it takes

Maintains Pipe Insulation Properties

Eliminates displacement and/or failing of pipe support, leading to refrigerant leaks

Maintains Liquid Line In Place

Eliminates refrigerant leaks



Snap-A-Saddle Pro™



Insulated Pipe Saddle for Mounting on Strut

Snap-A-Saddle Pro™

Insulated Pipe Saddle



Introduction

Channel

Channel Nuts
& Hardware

General
Fittings

Pipe & Conduit
Supports

Electrical
Fittings

Spring
Steel

Loop & Ring
Clamps

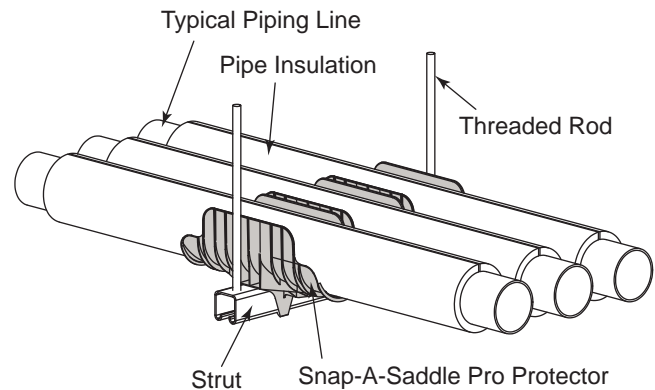
Beta Clamps
& Z-Clamps

Concrete
Inserts

Rooftop
Supports

Gamma
Pads

Technical
Data



Applications:

Refrigeration, Air Conditioning and Plumbing

Installation:

Tool-Free, "Clips" directly on standard 1-5/8" x 1-5/8" (41mm x 41mm) strut channel.

Suited for horizontal pipe installation.

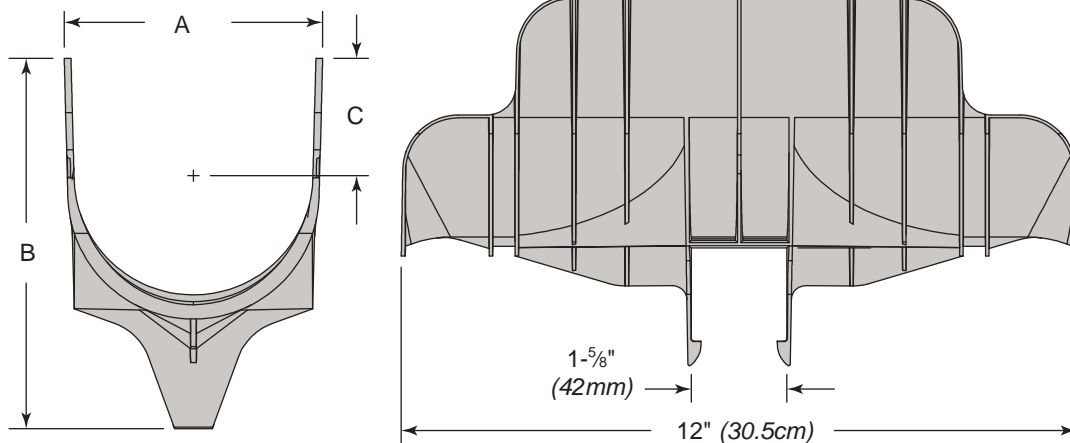
Certification:

UL classified for USA (UL-723 (ASTM E 84)) and ULC listed for Canada (ULC-S102.2).

Material:

Polypropylene copolymer

- UV resistant
- Operating temperature -40° to 178°F (-40° to 81°C)
- Paintable (preserves mechanical properties even after painting)
- Non-adhesive surface for linear expansion of thermal insulation. SAS825B & SAS825W have 20% glass filled material for additional strength.



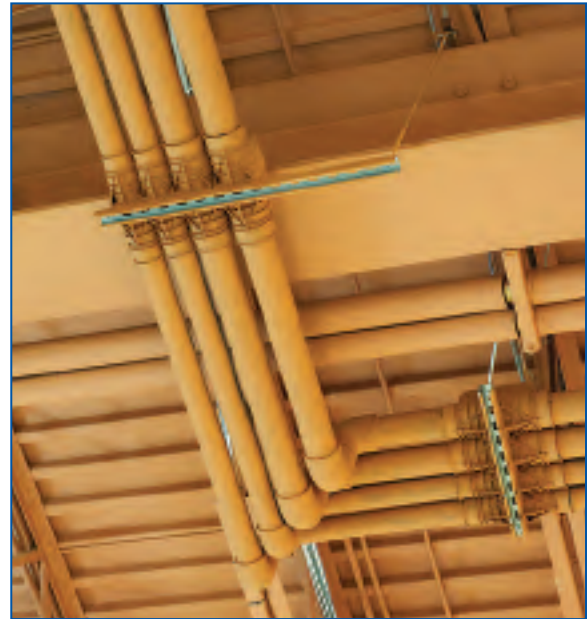
| Part No. | | A | B | C |
|----------|---------|---------------|----------------|---------------|
| Black | White | | | |
| SAS225B | SAS225W | 2.25" (57mm) | 4.56" (116mm) | 1.09" (28mm) |
| SAS325B | SAS325W | 3.25" (82mm) | 5.57" (140mm) | 1.59" (40mm) |
| SAS425B | SAS425W | 4.25" (108mm) | 6.59" (167mm) | 2.09" (53mm) |
| SAS525B | SAS525W | 5.25" (133mm) | 7.57" (192mm) | 2.58" (66mm) |
| SAS625B | SAS625W | 6.25" (159mm) | 8.57" (218mm) | 3.09" (78mm) |
| SAS825B | SAS825W | 8.25" (204mm) | 11.04" (280mm) | 4.27" (108mm) |





Snap-A-Saddle Pro™

Insulated Pipe Saddle for Mounting on Strut



| Copper Tube Size | Insulation Thickness | | | | |
|---------------------|----------------------|-----------|-----------|------------|-----------|
| | ½" (13mm) | ¾" (19mm) | 1" (25mm) | 1½" (38mm) | 2" (50mm) |
| ¼" (6.4 mm) | SAS225 | SAS225 | SAS325 | SAS425 | SAS525 |
| ⅜" (9.5 mm) | | | | | |
| ½" (13 mm) | | | | | |
| ⅝" (16 mm) | | | | | |
| ¾" (19 mm) | | | | | |
| ⅞" (22 mm) | SAS325 | SAS325 | SAS425 | SAS525 | SAS625 |
| 1-⅛" (29 mm) | | | | | |
| 1-⅜" (35 mm) | | | | | |
| 1-⅝" (41 mm) | SAS425 | SAS425 | SAS525 | SAS625 | SAS825 |
| 2-⅛" (54 mm) | | | | | |
| 2-⅝" (67 mm) | | | | | |
| 4-⅛" (105 mm) | SAS525 | SAS525 | SAS625 | SAS825 | - |
| 5-⅛" (130 mm) | | SAS625 | SAS825 | | |

| Schedule 40/80 Pipe Size | Insulation Thickness | | | | |
|--------------------------|----------------------|-------------|-----------|---------------|-----------|
| | 1/2" (13mm) | 3/4" (19mm) | 1" (25mm) | 1 1/2" (38mm) | 2" (50mm) |
| 1/4" (6.4 mm) | SAS225 | SAS225 | SAS325 | SAS425 | SAS525 |
| 3/8" (9.5 mm) | | | | | |
| 1/2" (13 mm) | | | | | |
| 3/4" (19 mm) | | | | | |
| 1" (25 mm) | | | | | |
| 1-1/4" (31 mm) | SAS325 | SAS325 | SAS425 | SAS525 | SAS625 |
| 1-1/2" (38 mm) | | | | | |
| 2" (50 mm) | | | | | |
| 2-1/2" (63 mm) | | | | | |
| 3" (75 mm) | | | | | |
| 3-1/2" (88 mm) | SAS525 | SAS525 | SAS625 | SAS825 | SAS825 |
| 4" (100 mm) | | | | | |
| 5" (127 mm) | | | | | |
| 6" (152 mm) | | | | | |



Snap-A-Saddle Pro Multi™

Adaptable Insulated Pipe Saddle



Snap-A-Saddle Pro Multi™ Adapts To Your Needs!

Allows use on various sizes of strut, H-Beam, floor-mount, Clevis and steel angle mountings
Adapts to different suspension systems, simply by swapping clipping adapters.



Breakthrough Innovation

Piping installations require different types of suspension systems, which vary in size. This new design adapts to various sizes of strut, H-Beam, floor-mount, clevis hangers, and steel angles. Thanks to the interchangeable bottom adapters, Snap-a-Saddle Pro Multi eliminates the hassle and headaches of compatibility problems you've been dealing with for so long!

Standardize Your Installation

Snap-a-Saddle Pro Multi™ makes the installer's job easier while standardizing piping installations and improving appearance. Whether you are looking at new or existing installations, the Snap-a-Saddle Pro Multi clip-on adapters will adapt to both the suspension system and the selected size of saddle core.

One Part Suits Multiple Uses

Simply change adapters

Fastest Installation In The Industry

40% Faster than metal or plastic shields

80% Faster than clamps and collars

Keeps Thermal Bridge Intact

Prevents insulation damage and compression

Tool-Free Installation

One simple click is all it takes

Maintains Pipe Insulation Properties

Permanent solution to displacement and/or falling of pipe support

Maintains Liquid Line In Place

Eliminates refrigerant leaks





Snap-A-Saddle Pro Multi™

Adaptable Insulated Pipe Saddle

Snap-A-Saddle Pro Multi™

Adaptable Insulated Pipe Saddle



Applications:

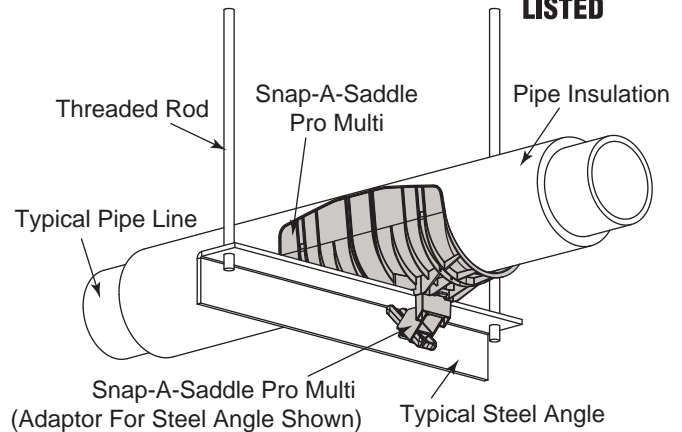
Plumbing, Mechanical, Refrigeration, and Air Conditioning

Installation:

Tool-Free, suited for horizontal pipe installation.

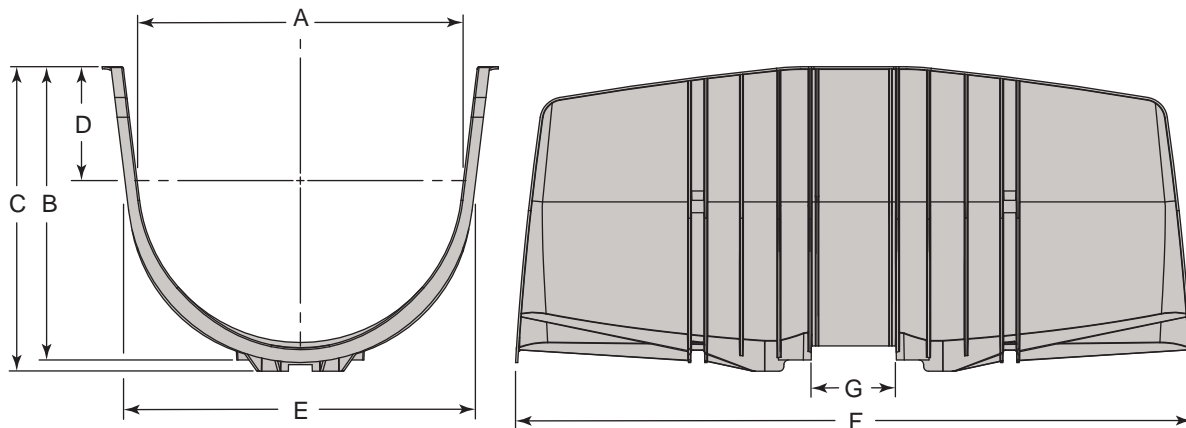
Certification:

UL classified for USA (UL-723 (ASTM E 84)) and
ULC listed for Canada (ULC-S102.2).



Material:

- Polypropylene 20% glass filled
- UV resistant
- Operating temperature -40° to 178°F (-40° to 81°C)
- Paintable (preserves mechanical properties even after painting)
- Non-adhesive surface for linear expansion of thermal insulation.



| Part No. Grey | A | B | C | D | E | F Length | G |
|------------------|----------------|---------------|---------------|--------------|----------------|-------------|--------------|
| SASM250G | 2.34" (60mm) | 1.92" (49mm) | 2.33" (59mm) | 0.40" (10mm) | 2.45" (62mm) | 12" (305mm) | 1.20" (30mm) |
| SASM350G | 3.45" (88mm) | 3.17" (81mm) | 3.58" (91mm) | 1.09" (28mm) | 3.56" (90mm) | | 1.48" (38mm) |
| SASM450G | 4.50" (114mm) | 3.89" (99mm) | 4.19" (106mm) | 1.17" (30mm) | 4.61" (117mm) | | 1.75" (44mm) |
| SASM550G | 5.56" (140mm) | 4.90" (124mm) | 5.20" (132mm) | 1.66" (42mm) | 5.75" (146mm) | | 1.78" (45mm) |
| SASM650G | 6.46" (165mm) | 5.96" (151mm) | 6.26" (159mm) | 2.18" (55mm) | 6.75" (171mm) | | 2.08" (53mm) |
| SASM850G | 8.65" (219mm) | 7.83" (199mm) | 8.13" (207mm) | 3.04" (77mm) | 8.75" (222mm) | 18" (457mm) | 2.26" (57mm) |
| SASM1050G | 10.65" (271mm) | 7.80" (198mm) | 8.10" (206mm) | 1.76" (45mm) | 10.59" (269mm) | 23" (584mm) | |
| SASM1250G | 12.65" (321mm) | 9.18" (233mm) | 9.48" (241mm) | 2.14" (54mm) | 12.52" (318mm) | | |

The use of the Stabilizer Adapter with 10" SASM1050G and 12" SASM1250G Saddles is suggested for additional support.

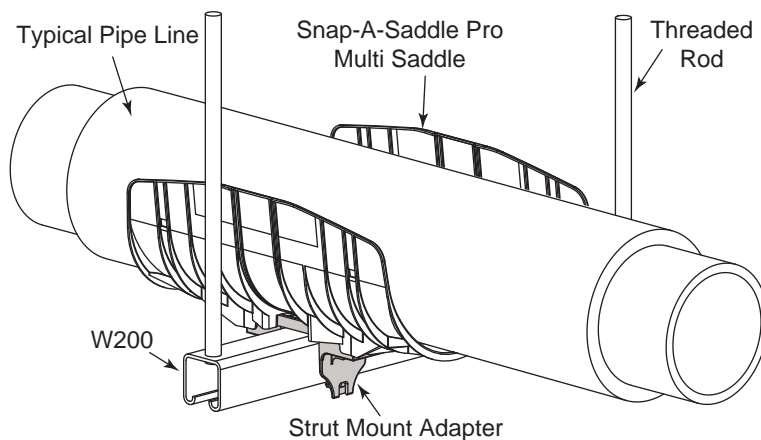
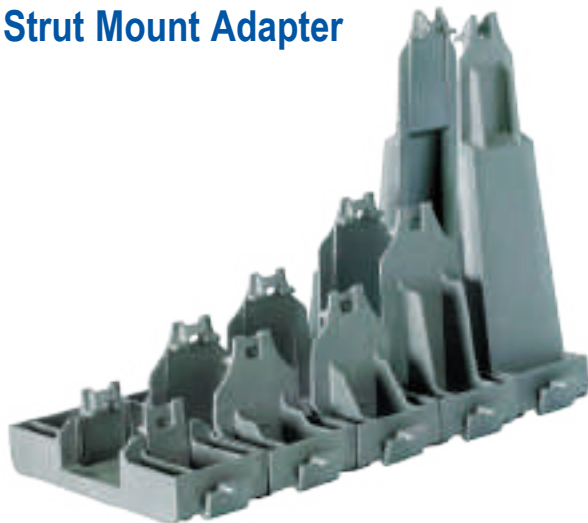


Snap-A-Saddle Pro Multi™ - Adapters

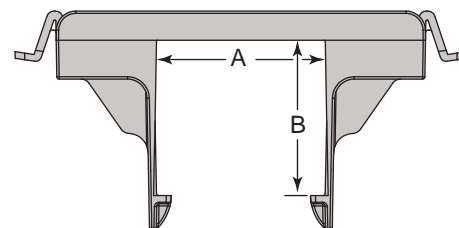


Adaptable Insulated Pipe Saddle

Strut Mount Adapter



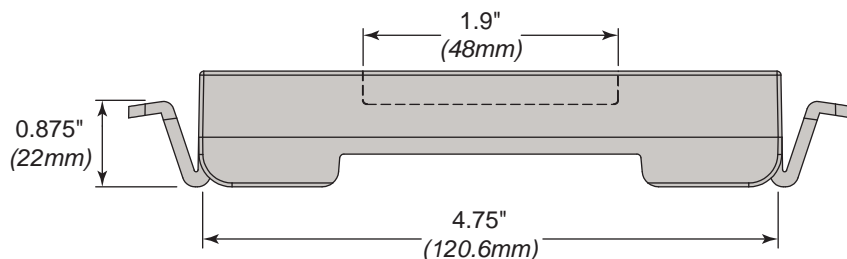
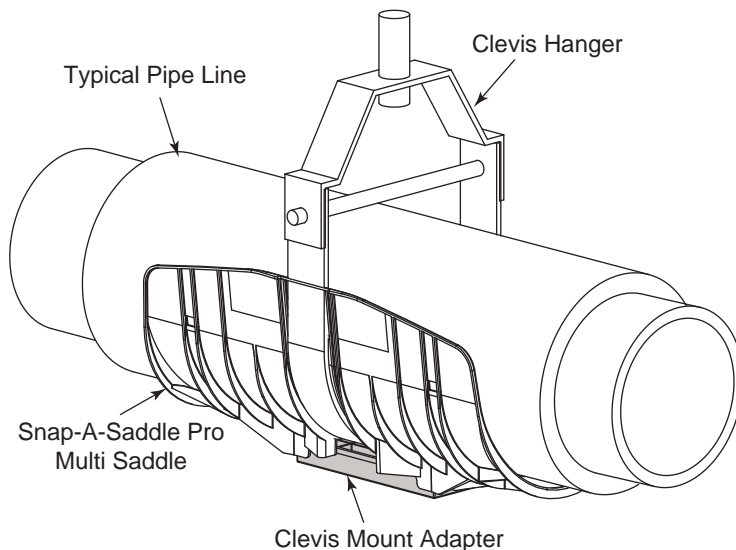
| Part No. | A | B | Use with Wesanco Channel |
|-------------|--|---|--------------------------|
| SASM30X30G | 1- ³ / ₁₆ " (30mm) | 1- ³ / ₁₆ " (30mm) | - |
| SASM31X43G | 1- ⁵ / ₆₄ " (31mm) | 1- ¹¹ / ₁₆ " (43mm) | - |
| SASM40X38G | 1- ⁹ / ₁₆ " (40mm) | 1- ¹ / ₂ " (38mm) | - |
| SASM42X20G | 1- ⁵ / ₈ " (41mm) | ¹³ / ₁₆ " (21mm) | W400, W500 |
| SASM42X42G | | 1- ⁵ / ₈ " (41mm) | W200, W210, W401, W501 |
| SASM42X84G | | 3- ¹ / ₄ " (165mm) | W201, W211, W150 |
| SASM42X166G | | 6- ¹ / ₂ " (165mm) | W151 |
| SASM4D21G | 2- ¹ / ₈ " (54mm) | 1- ¹ / ₁₆ " (27mm) | - |
| SASM4D22G | | 2- ¹ / ₈ " (54mm) | - |



The use of the Stabilizer Adapter with 10" SASM1050G and 12" SASM1250G Saddles is suggested for additional support.

SASMCLEVISG

Clevis Mount Adapter



SnapShock™ can be attached to Clevis Mount Adapter.

Stabilizer can be attached with Clevis Mount Adapter

Clevis Mount Adapter is utilized with Floor Adapter assembly.



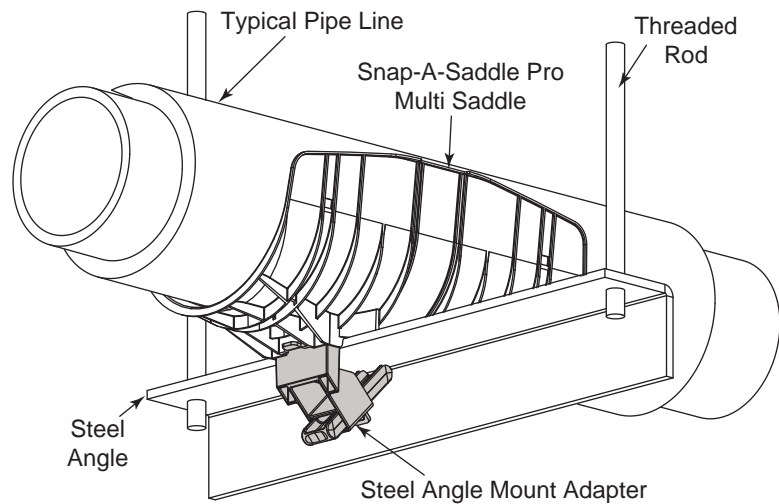
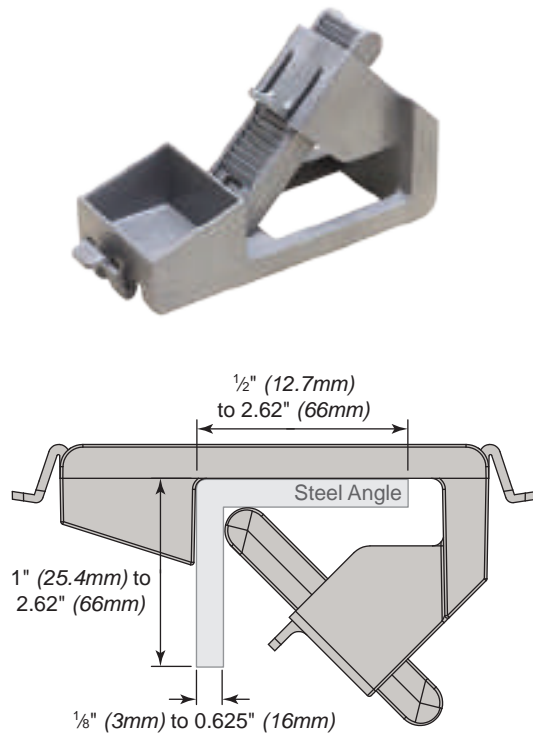


Snap-A-Saddle Pro Multi™ - Adapters

Adaptable Insulated Pipe Saddle

SASM2-5/8G

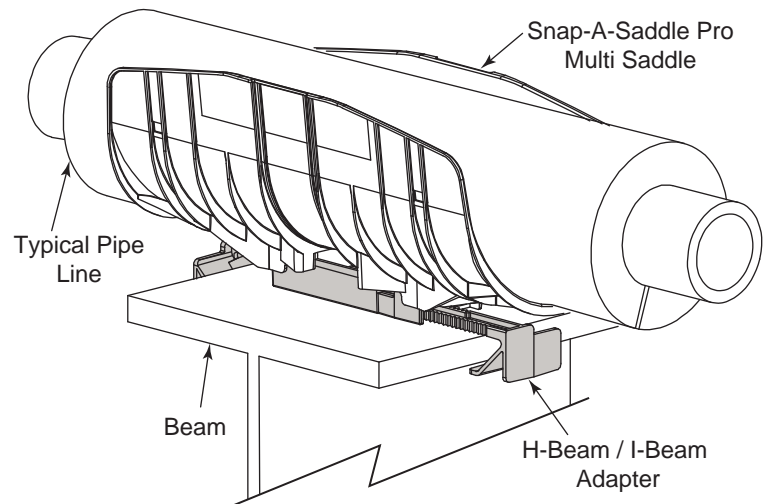
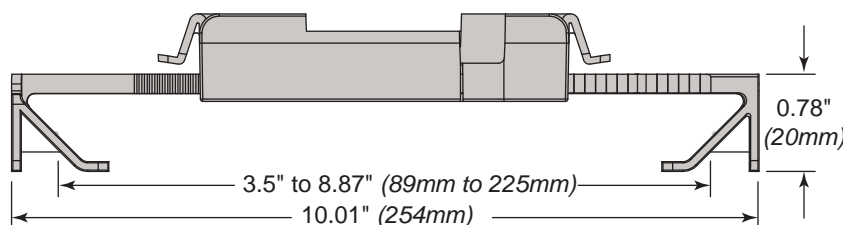
Steel Angle Mount Adapter



The use of the Stabilizer Adapter with 10" SASM1050G and 12" SASM1250G Saddles is suggested for additional support.

SASMHBAMG

H-Beam / I-Beam Adapter



The use of the Stabilizer Adapter with 10" SASM1050G and 12" SASM1250G Saddles is suggested for additional support.

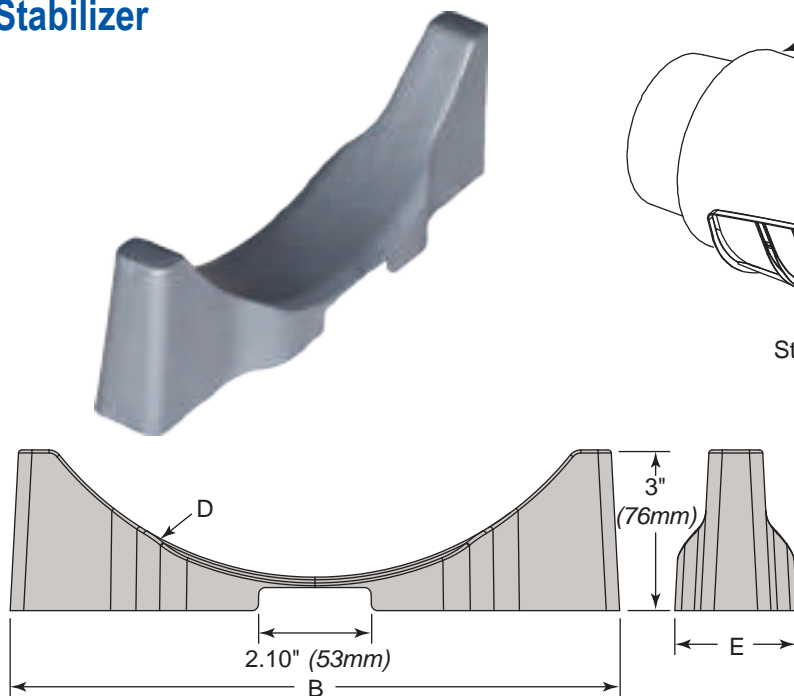


Snap-A-Saddle Pro Multi™ - Adapters

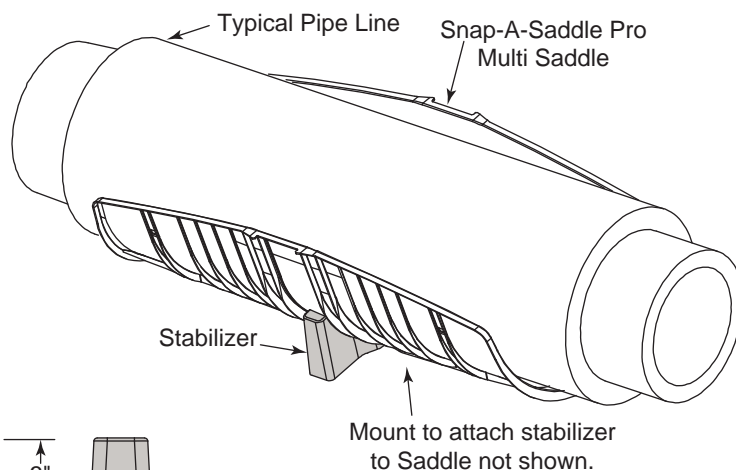


Adaptable Insulated Pipe Saddle

Stabilizer



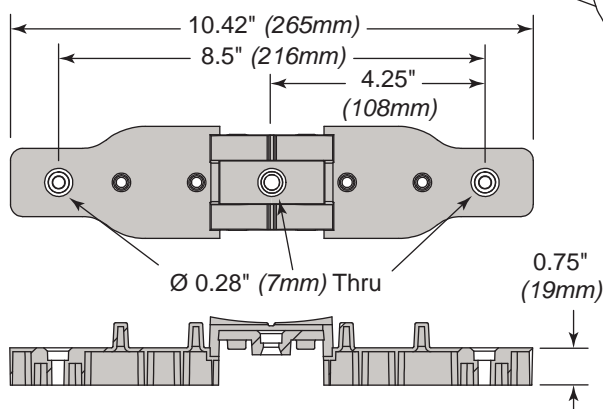
| Part Number | B | D | E | Compatible Only with Saddle |
|----------------------|----------------|-------|--------------|-----------------------------|
| SASMSTAB1050G | 10.34" (263mm) | R5.13 | 2.24" (57mm) | SASM1050G |
| SASMSTAB1250G | 11.38" (289mm) | R6.13 | 2.28" (58mm) | SASM1250G |



Stabilizer is attached to Saddle with Strut Mount, Steel Angle, H & I-Beam and Clevis Mount adapters.

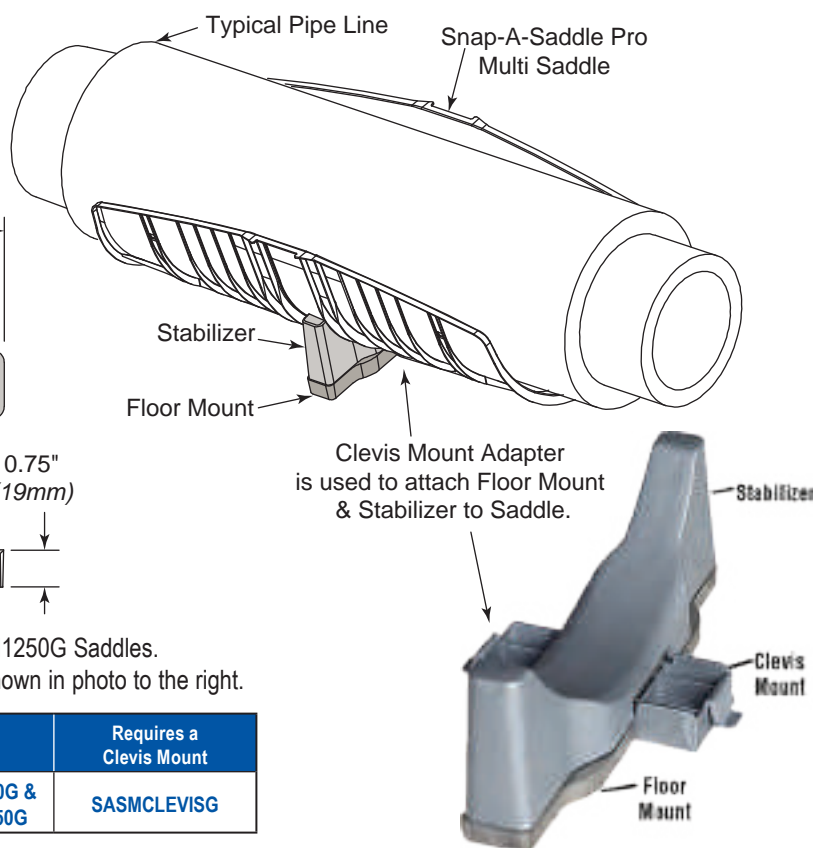
The use of this Stabilizer Adapter with 10" SASM1050G and 12" SASM1250G Saddles is suggested for additional support.

Floor Adapter



Floor Mount works with 10" SASM1050G and 12" SASM1250G Saddles.
Requires the Stabilizer and Clevis Mount Adapters as shown in photo to the right.

| Part Number | Compatible Only with Saddle | Requires a Stabilizer | Requires a Clevis Mount |
|------------------------|----------------------------------|--|-------------------------|
| SASMFLOOR10-12G | SASM1050G & SASM1250G | SASMSTAB1050G & SASMSTAB1250G | SASMCLEVISG |



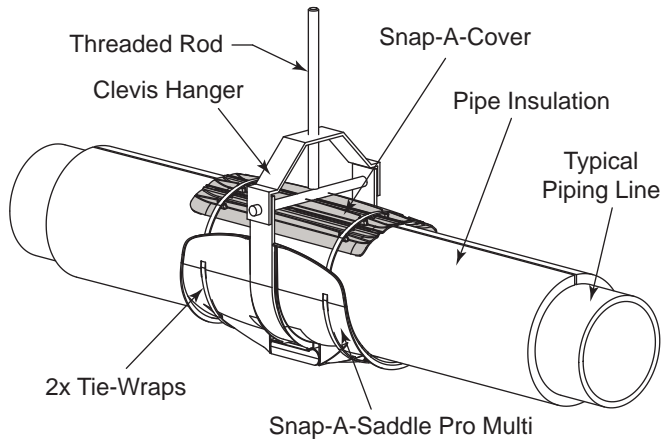
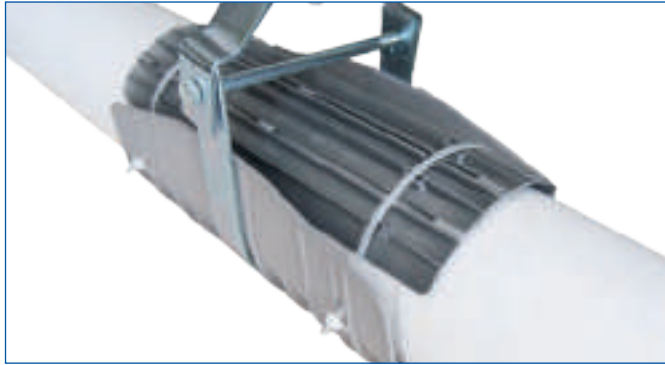


Snap-A-Cover™

Cover for Insulated Pipe Saddle

Snap-A-Cover™

Insulated Pipe Saddle Cover



Applications:

Refrigeration, Air Conditioning and Plumbing

Installation:

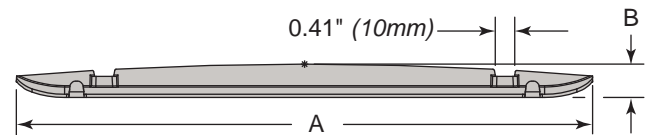
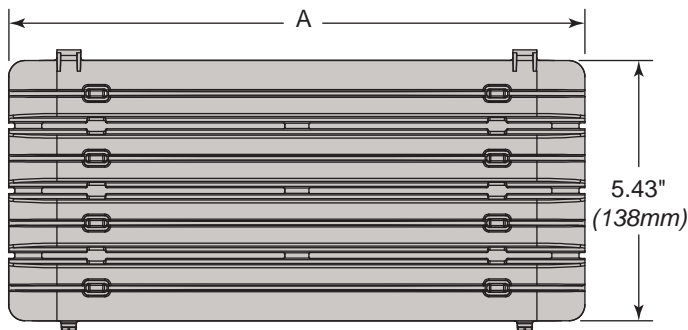
Tool-Free, Suited for vertical or horizontal pipe installation.

Certification:

UL classified for USA (UL-723 (ASTM E 84)) and ULC listed for Canada (ULC-S102.2).

Material:

- Polypropylene
- UV resistant
- Operating temperature -40° to 178°F (-40° to 81°C)
- Paintable (preserves mechanical properties even after painting)
- Non-adhesive surface for linear expansion of thermal insulation.



| Part Number | Color | Use With Snap-A-Saddle Pro Part Numbers | A | B |
|-------------|-------|---|-------------|--------------|
| SACX25B | Black | SAS225B, SAS325B, SAS425B, SAS525B, SAS625B | 12" (305mm) | 0.83" (21mm) |
| SACX25W | White | SAS225W, SAS325W, SAS425W, SAS525W, SAS625W | | |
| SAC825B | Black | SAS825B | | |
| SAC825W | White | SAS825W | | |

| Part Number | Color | Use With Snap-A-Saddle Pro Multi Part Numbers | A | B |
|-------------|-------|--|-------------|----------------|
| SACX50G | Grey | SASM250G, SASM350G, SASM450G, SASM550G, SASM650G | 12" (305mm) | 0.83" (21mm) |
| SACL50G | Grey | SASM850G, SASM1050G, SASM1250G | 18" (457mm) | 0.77" (19.5mm) |



Magnetic Shock Detection Device

SnapShock™

Applications:

Refrigeration, Air Conditioning and Plumbing

Installation:

Tool-Free, clips directly into the Clevis adapter of the Snap-A-Saddle Pro Multi™

Certification:

UL classified for USA (UL-723 (ASTM E 84) and ULC listed for Canada (ULC-S102.2).

Material:

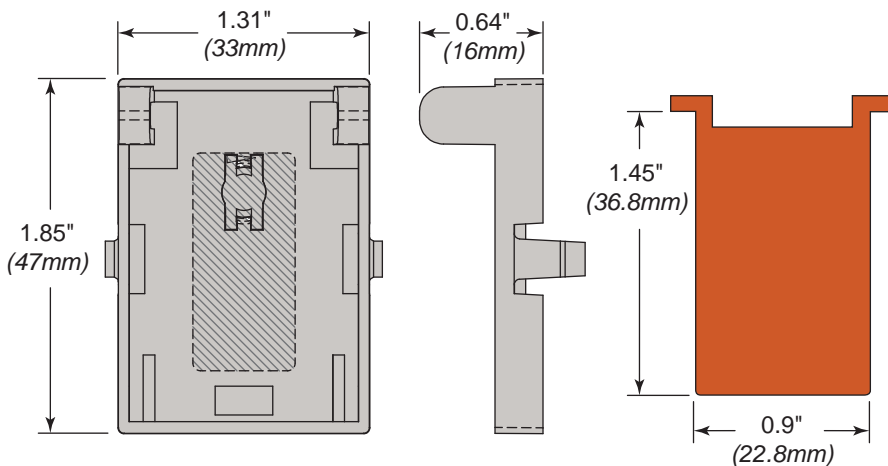
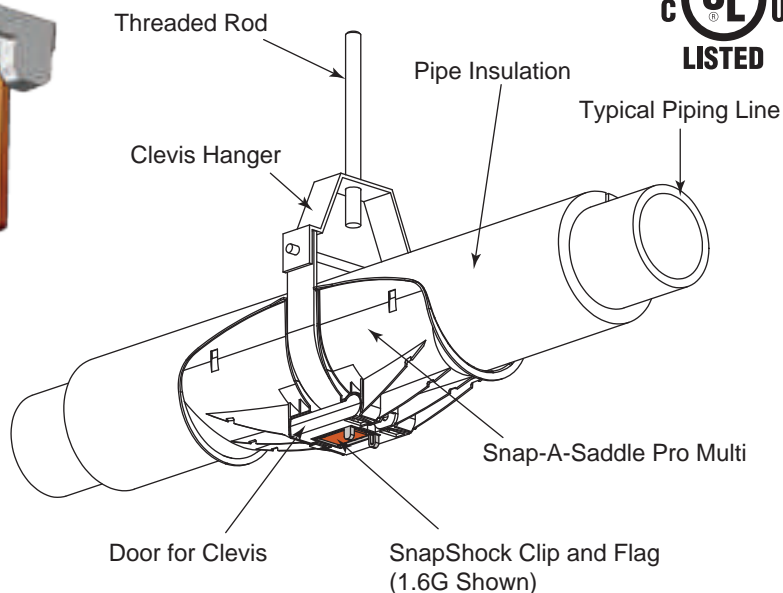
- Polypropylene 20% glass filled
- UV resistant
- Operating temperature -40° to 178°F (-40° to 81°C)



Each color coded flag will trigger at a different shock intensity. Flags are easily interchangeable for different shock tolerance. Flag thickness varies by shock intensity.

- 1.8G
(Downward Allowable Stress Design)
- 1.6G
(Downward Allowable Stress Design)
- 1.4G
(Downward Allowable Stress Design)

SnapShock is sold by the set. Each set is supplied complete with all three flags.



Install Flag



Set Flag to Arm



Activated Flag Indicates Shock Issue





Snap-A-Clip™

Dual-Strap Fastener for Clevis Hanger Cross-Bolt

Snap-A-Clip™



Applications:

Refrigeration, Air Conditioning, Plumbing,
Electrical and Communication

Installation:

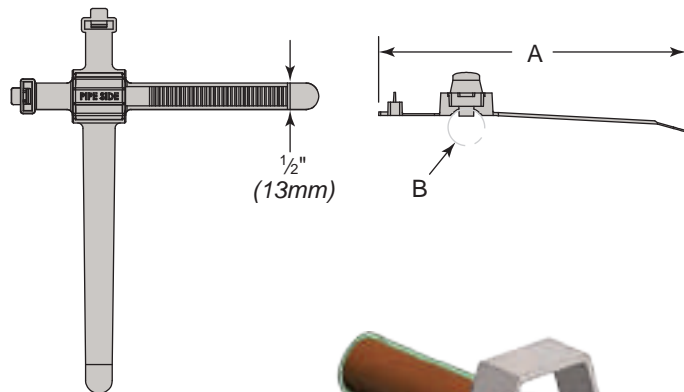
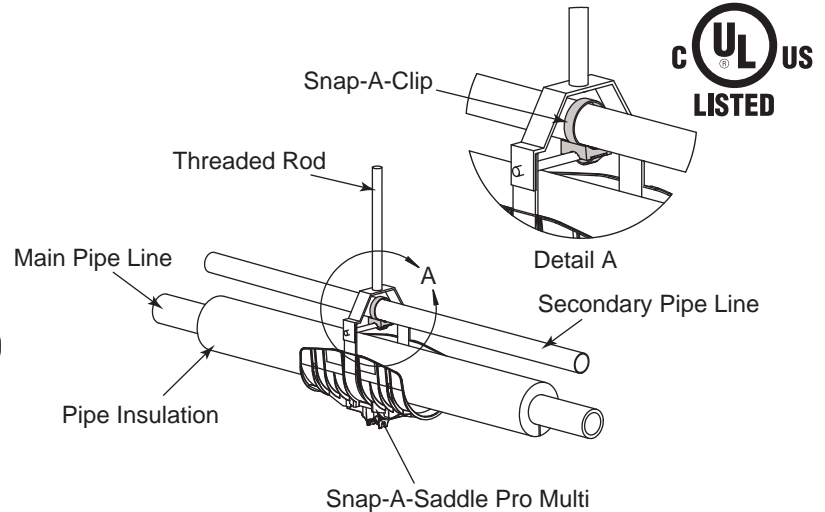
Tool-Free, Tie-wrap style

Certification:

UL classified for USA (UL-723 (ASTM E 84)) and
ULC listed for Canada (ULC-S102.2).

Material:

- Polypropylene
- UV resistant
- Operating temperature -40° to 178°F (-40° to 81°C)
- Paintable (preserves mechanical properties even after painting)



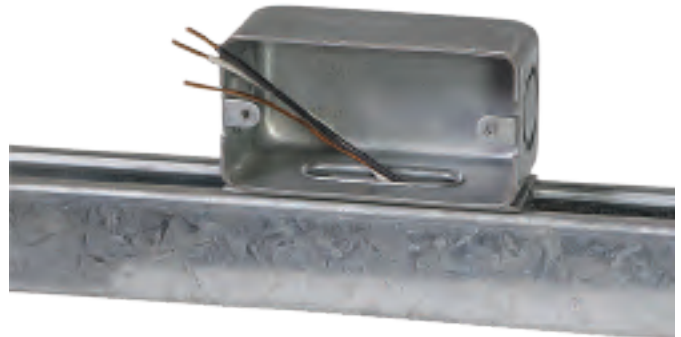
| Part Number | For Pipe OD | A | B |
|-------------|------------------|---------------|--------------|
| SASP050B | 1/4" - 1/2" | 5.62" (143mm) | 0.68" (17mm) |
| SASP125B | 5/8" - 1-1/4" | 5.77" (147mm) | 1.25" (32mm) |
| SASP175B | 1-5/16" - 1-3/4" | 6.20" (158mm) | 1.75" (45mm) |
| SASP225B | 1-3/4" - 2-1/4" | 6.20" (158mm) | 1.71" (44mm) |

| Bolt Diameter | Pipe Diameter | | | | | | | | | |
|-----------------|---------------|-------------|-------------|-------------|-----------|---------------|---------------|---------------|-----------|---------------|
| | 1/4" (6mm) | 1/2" (13mm) | 5/8" (16mm) | 3/4" (19mm) | 1" (25mm) | 1-1/4" (39mm) | 1-1/2" (38mm) | 1-3/4" (45mm) | 2" (51mm) | 2-1/4" (57mm) |
| 1/4" (6.3mm) | SASP050B | SASP050B | - | - | - | - | - | - | - | - |
| 5/16" (7.9mm) | | | SASP125B | SASP125B | SASP125B | SASP125B | SASP175B | SASP225B | SASP225B | - |
| 3/8" (9.5mm) | | | | | | | | | | - |
| 1/2" (12.7mm) | | | | | | | | | | - |
| 11/16" (17.5mm) | | | | | | | | | | SASP225B |



WARNING: These products can expose you to chemicals including lead, which is known to the State of California to cause cancer, and which is known to cause birth defects or other reproductive harm. For more information go to www.P65Warnings.ca.gov.

Electrical Fittings



Channel Raceways

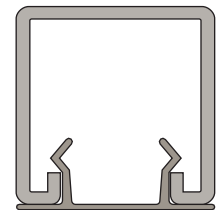
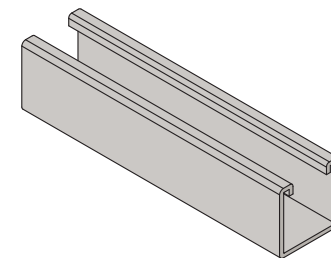


W200, W210, W300, W500, W200KO, W210KO, W300KO, W500KO, W200SS, W210SS, W300SS, W500SS, W200SL, W210SL, W300SL, W500SL, W200H, W210H, W300H, and W500H

Maximum Number of Wires

Also suitable for the number of wires in table below when installed to support and supply electric discharge type lighting fixtures when raceway wiring is suitable for at least 70°C and clearance between fixture and raceway is at least 1/8". In all cases, a snap-in cover is required to complete the raceway enclosure.

Wire Types: R, RH, RU, RW, T, or TW

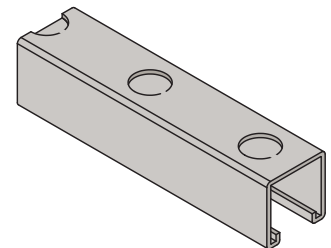


Channel with Knock-Outs

7/8" (22mm) Knock-outs are punched on 6" (152mm) centers.

Add "KO" to channel number.

Example: W200KO



| Wire Size AWG | W200, W200KO W210, W210KO | W300, W300KO | W500, W500KO |
|------------------|------------------------------|-----------------|-----------------|
| 14 | 10 | 10 | 6 |
| 12 | 10 | 10 | 6 |
| 10 | 8 | 6 | - |
| 8 | 6 | 4 | - |
| 6 | 3 | 2 | - |

| Electrical Specifications | | |
|---------------------------|-------|---|
| Material | ASTM | ASTM Description |
| Hot Rolled Plate | A 575 | Steel, sheet and strip, carbon drawing quality, special killed, hot rolled. |
| Fitting (Steel) | A 366 | Steel carbon, cold rolled sheet, commercial quality structural steel. |
| | A 366 | |
| | A 36 | |

| Electrical Finish Specifications | | |
|---|----------------|--|
| Finish | Finish Code | Description |
| Paint-Green Powder Coating | GR | A dark green low gloss powder coating is applied and thoroughly baked after steel has been cleaned and phosphatized. |
| Electroplated | EG | Fittings and hardware supplied as "Electro-Galvanized" in accordance with ASTM B 633. |
| Mill-Galvanized (Pre-Galvanized) | PG | Galvanized steel used in the manufacture of Wesanco channel sections conforms to ASTM A 653 GR33 G90. Uncoated edges resulted from slitting, punching and channel cut off are present. |
| Hot Dip Galvanized After Fabrication (HDGAF) | HG | Wesanco channel and fittings which are hot dip galvanized after fabrication conform to one of the following specifications.: ASTM A 123, ASTM A153, or ASTM A386. |
| Special Coatings | PL, GOLD | Other commercially available finishes can be supplied per specification when required to protect applications. |

Call ZSi-Foster at (800) 323-7053 or order now at zsi-foster.com

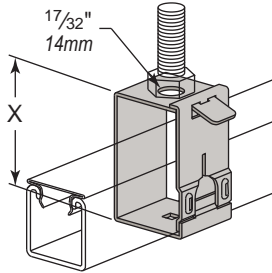


Electrical Accessories

Standard Finish: Electro-Galvanized

W6420 & W6422

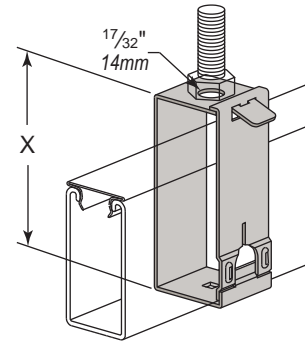
Single Channel Fixture Hanger



| Part No. | I.D. X |
|----------|------------|
| W6420 | 3" (76mm) |
| W6422 | 4" (102mm) |

W6424 & W6426

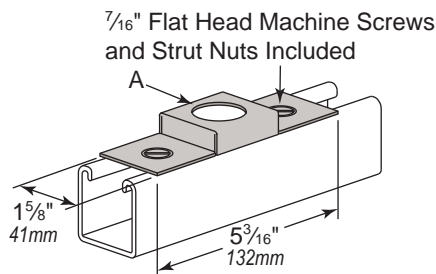
Double Channel Fixture Hanger



| Part No. | I.D. "X" |
|----------|------------------|
| W6424 | 4-15/16" (125mm) |
| W6426 | 5-15/16" (151mm) |

W6442 & W6443

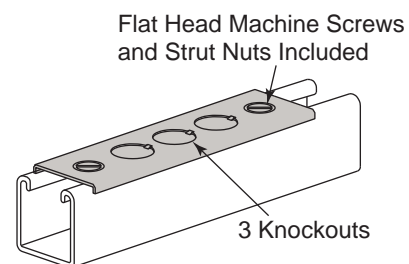
Conduit Connector



| Part No. | Use with Conduit | I.D. "A" |
|----------|------------------|-----------------|
| W6442 | 1/2" | 7/8" (22 mm) |
| W6443 | 3/4" | 1-3/32" (28 mm) |

W6449

Outlet Box Connection Fitting



Assembly includes Wesanco nuts and Flat Head Machine Screws



Electrical Accessories

Standard Finish: Electro-Galvanized

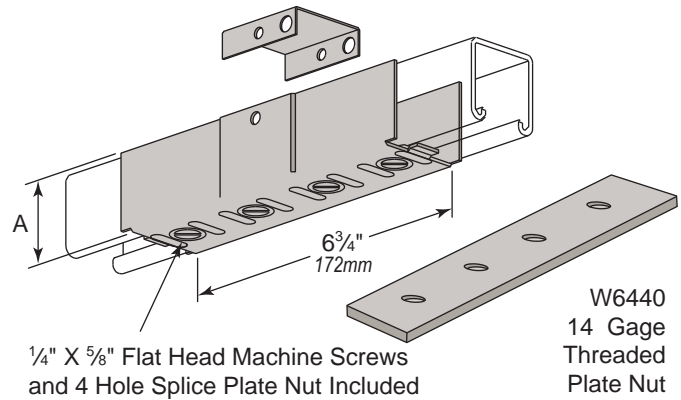


W6432 to W6435

Four-Hole Raceway Splice Fitting
(With W6439/40 Attachment Plates)

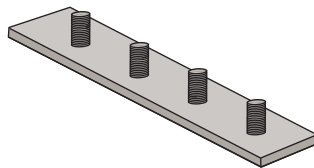


| Part No. | A | Use with Channel |
|----------|--|------------------|
| W6432 | 1- ⁵ / ₈ " (41mm) | W200, W210 |
| W6433 | 1- ³ / ₈ " (35mm) | W300 |
| W6435 | 1- ³ / ₁₆ " (21mm) | W400, W500 |



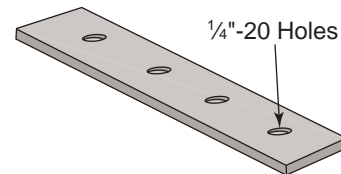
W6439

Standard Raceway Stud Plate



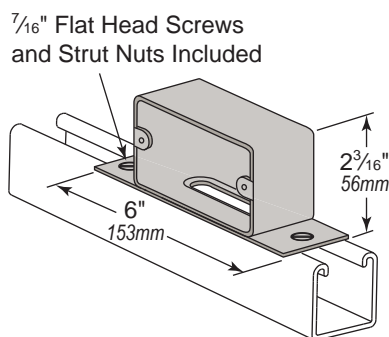
W6440

Four-hole Tapped Splice Plate
(opt.) with 4 Screws



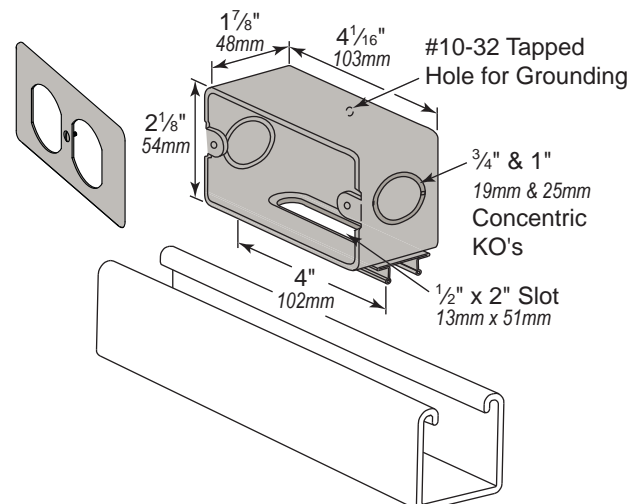
W6445

Receptacle Box



B6445S

Snap-A-Box



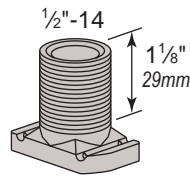


Electrical Accessories

Standard Finish: Electro-Galvanized

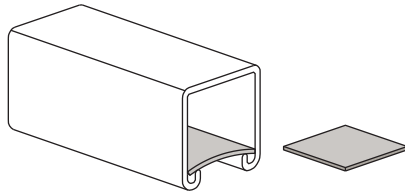
W6462

Aluminum Wiring Stud $\frac{1}{2}$ "-14 Thread $1\frac{1}{8}$ " Long



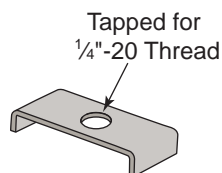
W6469

Fiber Wire Retainer



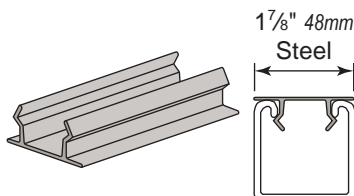
W6461

Fixture Nut



W6500

Closure Strip (19 Ga.)

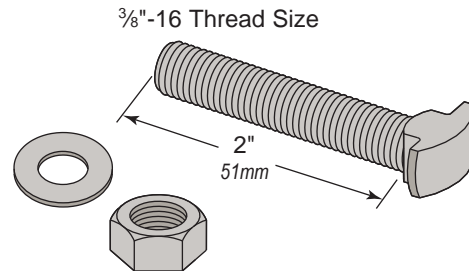


Use of W6500 Closure Strip with UL listed channel completes UL Listed surface metal raceway.

Standard finish: PG

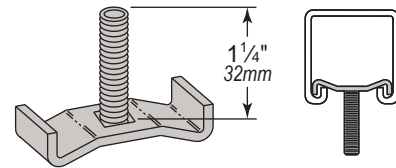
W6463

Shoulder Bolt $\frac{3}{8}$ " x 2"



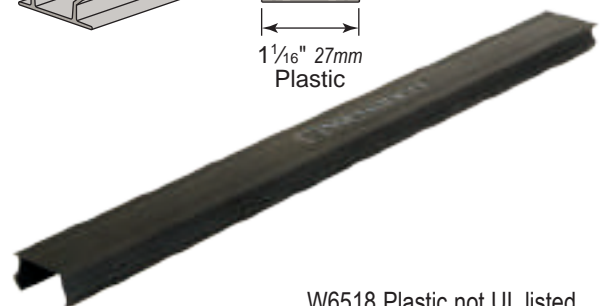
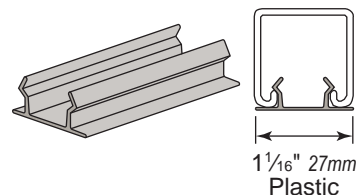
W6460

Fixture Stud



W6500PLASTIC

Plastic Closure Strip



W6518 Plastic not UL listed



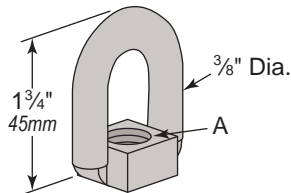
Swivel Hangers



Standard Finish: Electro-Galvanized

W6905 & W6906

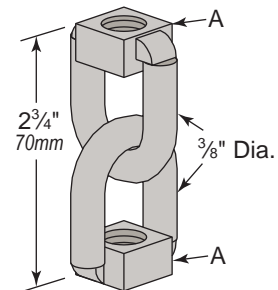
Eyelet



| Part No. | A Size |
|----------|---------|
| W6905 | 3/8"-16 |
| W6906 | 1/2"-13 |

W6915 & W6916

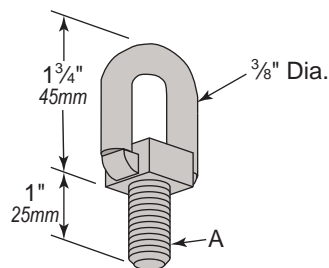
Swivel Joint



| Part No. | A Size |
|----------|---------|
| W6915 | 3/8"-16 |
| W6916 | 1/2"-13 |

W6910 & W6911

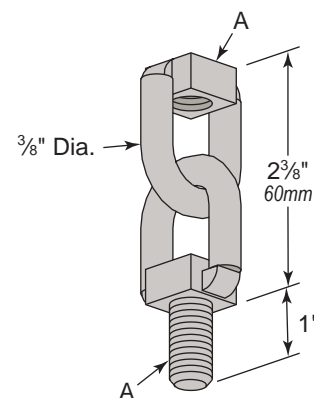
Eyelet With Stud



| Part No. | A Size |
|----------|---------|
| W6910 | 3/8"-16 |
| W6911 | 1/2"-13 |

W6920 & W6921

Swivel Joint with Stud



| Part No. | A Size |
|----------|---------|
| W6920 | 3/8"-16 |
| W6921 | 1/2"-13 |





Porce-A-Clamp®

Porce-A-Clamp®

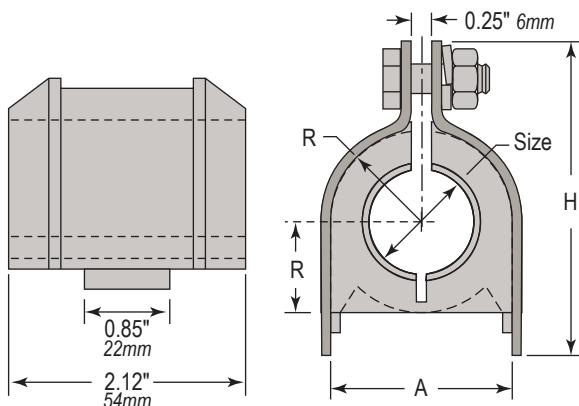
Cable Clamp






The hinged cushion allows easy installation of the wire, but the components will not get separated and lost or broken.

Replaces Porcelain and Maple Cable Clamp. Assembly consists of thermoplastic elastomer cushion with plated or stainless steel clamp. Plated steel and stainless are both supplied with Silicon Bronze bolt and nut.

- Non-breakable material
- Chemical and UV resistant
- **U.L. Listed** - Burning stops within 10 seconds after two applications of ten seconds each of a flame to a test bar with no flaming drips.
- Plated Steel, or Stainless steel clamps
- Tapered flange to protect cable
- Dielectric strength 640 volts per mil
- One piece cushion design, available with Flame retardant / Halogen Free cushions
- Silicon Bronze Hardware used to Breakup the Magnetic field around the Cable at the Clamping Location.



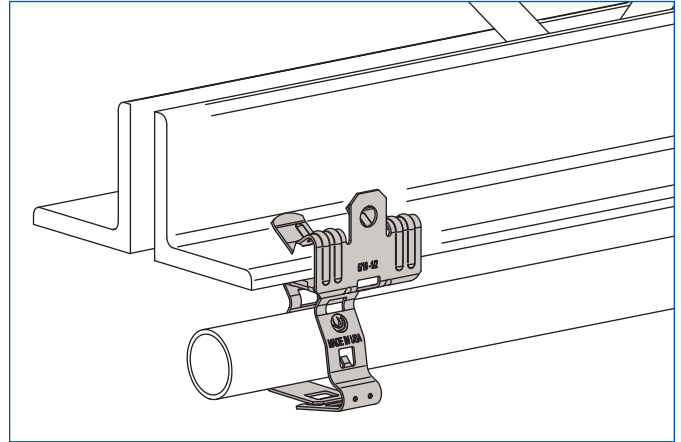
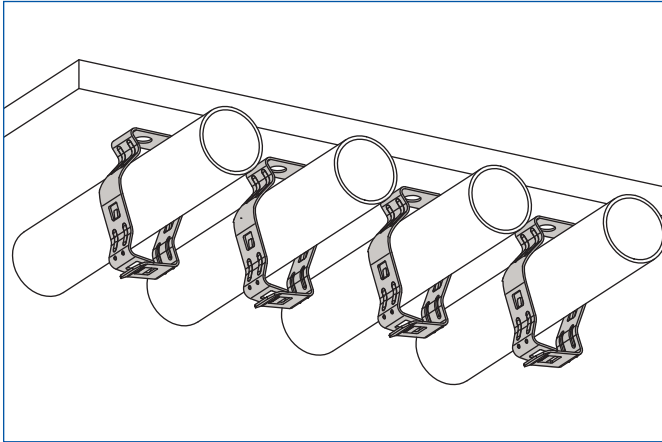
| Part No. | Dimensions (In.) | | | Total Assy. Height - H |
|---|---|---|-----------------|---------------------------|
| | Hole Dia. | A | R | |
| 006CC018 | 3⁄8" | 1.12" (28mm) | 0.56" (14mm) | 1.82" (46mm) |
| 008CC018 | 1⁄2" | | | |
| 010CC018 | 5⁄8" | | | |
| 012CC026 | 3⁄4" | 1.62" (41mm) | 0.81" (21mm) | 2.34" (59mm) |
| 014CC026 | 7⁄8" | | | |
| 016CC026 | 1" | | | |
| 018CC026 | 1-1⁄8" | | | |
| 020CC034 | 1-1⁄4" | 2.12" (54mm) | 1.06" (27mm) | 2.86" (73mm) |
| 022CC034 | 1-3⁄8" | | | |
| 024CC034 | 1-1⁄2" | | | |
| 026CC034 | 1-5⁄8" | | | |
| 028CC042 | 1-3⁄4" | 2.62" (67mm) | 1.31" (33mm) | 3.50" (89mm) |
| 030CC042 | 1-7⁄8" | | | |
| 032CC042 | 2" | | | |
| 034CC042 | 2-1⁄8" | | | |
| 036CC050 | 2-1⁄4" | 3.12" (79mm) | 1.56" (40mm) | 4.05" (103mm) |
| 038CC050 | 2-3⁄8" | | | |
| 040CC050 | 2-1⁄2" | | | |
| 042CC050 | 2-5⁄8" | | | |
| 044CC058 | 2-3⁄4" | 3.62" (92mm) | 1.81" (46mm) | 4.75" (121mm) |
| 046CC058 | 2-7⁄8" | | | |
| 048CC058 | 3" | | | |
| 050CC058 | 3-1⁄8" | | | |
| 052CC066 | 3-1⁄4" | 4.12" (105mm) | 2.06" (52mm) | 5.125" (130mm) |
| 054CC066 | 3-3⁄8" | | | |
| 056CC066 | 3-1⁄2" | | | |
| 058CC066 | 3-5⁄8" | | | |
| 060CC074 | 3-3⁄4" | 4.62" (117mm) | 2.31" (59mm) | 5.54" (141mm) |
| 062CC074 | 3-7⁄8" | | | |
| 064CC074 | 4" | | | |
| 066CC074 | 4-1⁄8" | | | |
| 068CC080 | 4-1⁄4" | 5.00" (127mm) | 2.50" (64mm) | 5.92" (150mm) |
| 070CC080 | 4-3⁄8" | | | |
| 072CC080 | 4-1⁄2" | | | |
|  SUFFIX | Note: All clamps have Silicon Bronze Hardware | | | |
| | Clamp | Cushion | | Example |
| Z | Plated Steel |  | | 006CC018Z |
| S | Stainless Steel | | | 006CC018S |
| ZH | Plated Steel |  | | 006CC018ZH |
| SH | Stainless Steel | | | 006CC018SH |



Spring Steel



Electrical Positioning and Support Products




The ZSi-Foster Silva-Guard Finish

Superior Corrosion Resistance

The ZSi-Foster Silva-Guard finish provides one of the highest levels of corrosion resistance for spring steel fasteners available on the market. ZSi-Foster Silva-Guard coating is extremely consistent providing a finish that combines superior appearance and outstanding protection.

This aesthetically pleasing appearance is particularly important for installations in highly visible areas, such as open ceilings.

SG Finish is  Listed for indoor, outdoor, wet, and dry applications.

Innovative Three Step Coating System

The ZSi-Foster Silva-Guard finish is a three step coating system that is RoHS, WEEE, and ELV compliant.

- The first step is surface preparation involving a process designed to improve the coating adhesion.
- The second step is a base coat designed to self-heal from nicks and scratches as well as sacrifice itself instead of the fastener base material.
- The third step is a topcoat designed to be an additional protective barrier.

| Spring Steel Specifications | |
|-----------------------------|---|
| Material | ASTM Description |
| Spring Steel | Cold Roll, ASTM A684 Grade 1055 Spring Steel |
| Carbon Steel | ASTM A1011-00 SS GR 33 or ASTM A1011-00CS Type B |

| Spring Steel Finish Specifications | | |
|--|-------------|--|
| Finish | Finish Code | Description |
| ZSi-Foster Silva-Guard | SG | ZSi-Foster Silva-Guard coating is a multi-step process that meets the 1000 hour salt spray test per ASTM B117 and DIN 50021. Silva-Guard coating is WEEE, ELV and RoHS compliant. SG Finish is approved for outdoor as well as indoor applications. It is a chrome free duplex coating system that combines an inorganic zinc-rich basecoat with an aluminum-rich organic topcoat. |
| Electroplated Zinc or Electro-Galvanized | EG | This coating is standard for most ZSi-Foster products. Electro-Galvanized products meet ASTM B633 SC1 or SC3, Type III. Electroplating deposits zinc on the surface of the steel by electrolysis from a bath of zinc salts. |
| Pre-galvanized Zinc | PG | ASTM A653 G-90 Pre-galvanized zinc is produced by continuously rolling steel coils or sheets through molten zinc at the mills. |

Call ZSi-Foster at (800) 323-7053 or order now at zsi-foster.com

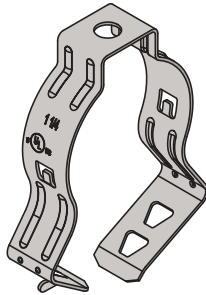


Conduit and Cable Support

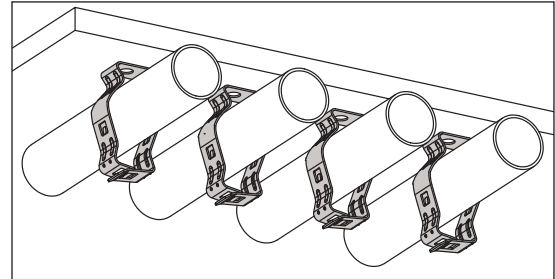
Standard Finish: Silva-Guard (SG)

CC/CCT

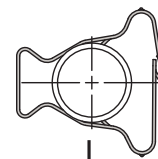
Conduit Clips



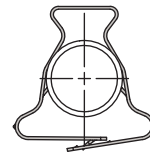
- For vertical or horizontal conduit and pipe applications.
- Threaded version can be used with 1/4"-20 threaded rods.
- **Material:** Spring Steel
- **Finish:** Silva-Guard



| Part No. | Mounting Hole | Conduit Size |
|----------|---------------------|-------------------------|
| CC812 | 9/32" Thru Hole | 1/2" or 3/4" EMT, Rigid |
| CCT812 | 1/4"-20 Thread Form | |
| CC16 | 9/32" Thru Hole | 1" EMT, Rigid |
| CCT16 | 1/4"-20 Thread Form | |
| CC20 | 9/32" Thru Hole | 1-1/4" EMT, Rigid |
| CCT20 | 1/4"-20 Thread Form | |
| CC24 | 9/32" Thru Hole | 1-1/2" EMT, Rigid |
| CCT24 | 1/4"-20 Thread Form | |
| CC32 | 9/32" Thru Hole | 2" EMT, Rigid |
| CCT32 | 1/4"-20 Thread Form | |



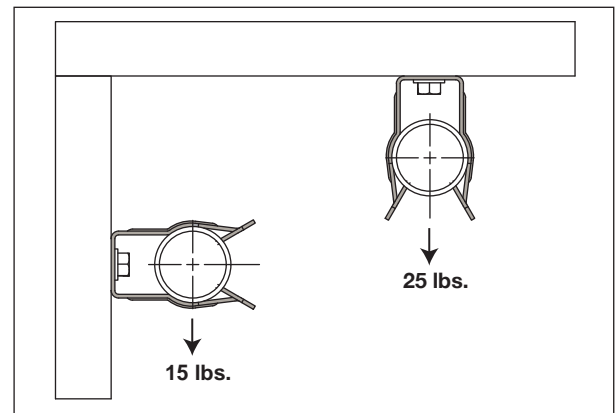
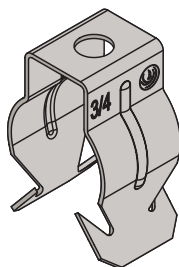
30 lbs



120 lbs

CCP

Conduit "Push In" Clips



- Eliminates need for conduit offset bending.
- For vertical or horizontal conduit and pipe applications.
- Simple Push-in design
- **Material:** Spring Steel
- **Finish:** Silva-Guard

| Part No. | Mounting Hole | Conduit Size |
|----------|-----------------|-----------------------|
| CCP8 | 9/32" Thru Hole | 1/2" EMT |
| CCP12 | | 3/4" EMT, 1/2", Rigid |
| CCP16 | | 1" EMT, 3/4" Rigid |



Conduit and Cable Support

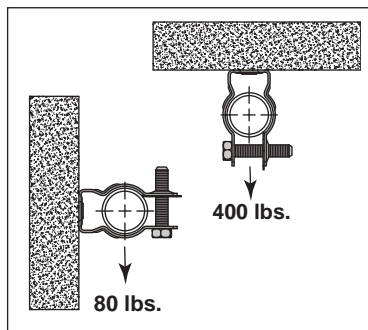
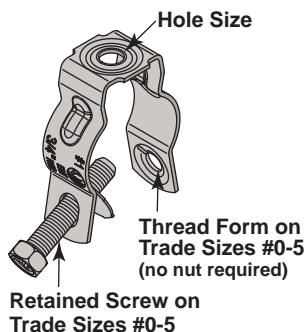


Standard Finish: Silva-Guard (SG)



PCH

Pipe and Conduit Hanger



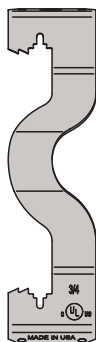
| Part No. | Trade Size | Conduit Size | | Hole Size |
|----------|------------|--------------|------------|-----------|
| | | EMT | Rigid | |
| PCH0 | 0 | 1/2" | 3/8", 1/2" | 1/4" |
| PCH1 | 1 | 3/4" | 3/4" | 1/4" |
| PCH2 | 2 | 1" | 1" | 1/4" |
| PCH2.5 | 2.5 | 1-1/4" | - | 1/4" |
| PCH3 | 3 | 1-1/2" | 1-1/4" | 1/4" |
| PCH4 | 4 | - | 1-1/2" | 5/16" |
| PCH5 | 5 | 2" | 2" | 5/16" |
| PCH6 * | 6 | 2-1/2" | 2-1/2" | 5/16" |
| PCH7 * | 7 | 3" | 3" | 5/16" |
| PCH8 * | 8 | 3-1/2" | 3-1/2" | 5/16" |
| PCH9 * | 9 | 4" | 4" | 5/16" |

* EG finish and pan head, hex nut hardware.

- PCH #0-5 come with retained combo head screw and thread form.
- Combo head screw allows Robertson, Phillips, Slotted and Hex drivers.
- Supports vertical and horizontal installations of 3/8" - 4" Pipe and Conduit.
- 1/4"-20 Thread Form Hole Size available. Add suffix TF to Catalog Number.
- Also available in 304 and 316 Stainless Steel.
- **Material:** Steel
- **Finish:** Pregalvanized

WC/WCBW

Wing Clip Conduit Hanger



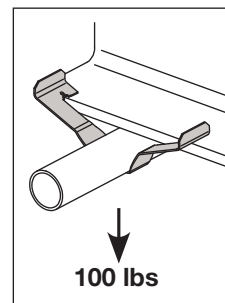
| Conduit Size | #12 & #10 Wire | #9 & #8 Wire | 3/16" & 1/4" Rod | 1/8" Thru 1/4" Flange | 5/16" Thru 3/8" Flange | 7/16" Thru 1/2" Flange |
|--------------|----------------|--------------|------------------|-----------------------|------------------------|------------------------|
| 1/2" EMT | WC8 | WC8 | WC8 | WC8 | WC12 | WC12 |
| 1/2" RIGID | | | | | | |
| 3/4" EMT | WC12 | WC12 | WC12 | WC12 | WC16 | WC16 |
| 3/4" RIGID | | | | | | |
| 1" EMT | - | WC16 | WC16 | WC16 | WC20 | WC20 |
| 1" RIGID | - | | | | | |
| 1-1/4" EMT | - | WC20 | WC20 | WC20 | - | - |

WC clip shown

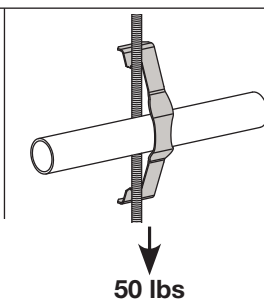
| MC/AC Cable Size | #12, #10, #9 & #8 Wire |
|-------------------------|------------------------|
| 14 - 2 (.433-.475 O.D.) | WCBW |
| 14 - 3 (.453-.500 O.D.) | WCBW |
| 12 - 2 (.467-.475 O.D.) | WCBW |
| 12 - 3 (.489-.535 O.D.) | WCBW |
| WCBW For Position Only | |

- Supports conduit and pipe to a rod, wire, or flange.
- No installation tools required.
- Box Qty 100 for all sizes.
- **Material:** Spring Steel
- **Finish:** Silva-Guard

Flange Installation



Wire or Rod Installation



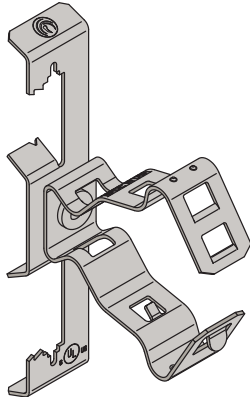


Conduit and Cable Support

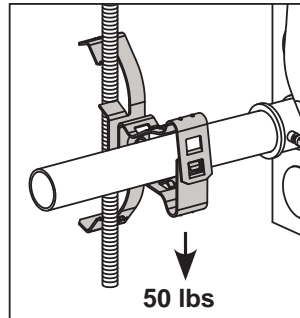
Standard Finish: Silva-Guard (SG)

MFC

Multi-Function Clip with Assemblies



Wire or Rod Installation

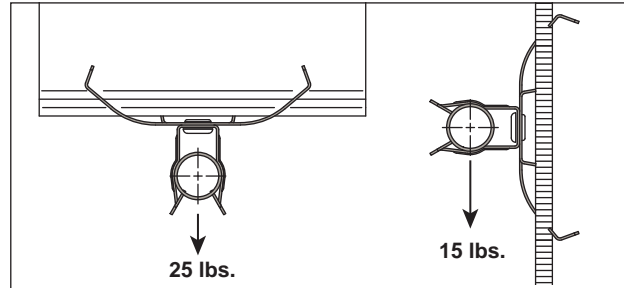
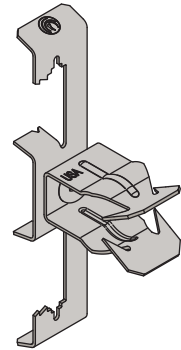


- Supports conduit and pipe to a rod, wire or flange.
- No tools required. Easy adjustment after installation.
- **Material:** Spring Steel
- **Finish:** Silva-Guard

| Part No. | Flange Size | Threaded Rod Size | Conduit Size or Threads |
|----------|-------------|-------------------|-------------------------|
| MFC812 | 1/8" - 3/8" | 1/4" Threaded Rod | 1/2" EMT, Rigid |
| MFC16 | | | 3/4" EMT, Rigid |
| | | | 1" EMT, Rigid |

MFCCCP

Multi-Function Clip with Conduit "Push In" Clip

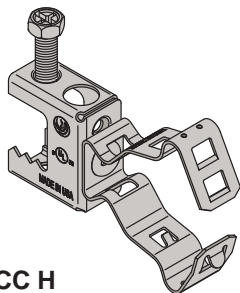


- No tools required for installation of conduit.
- Supports conduit to a rod, wire or flange.
- **Material:** Spring Steel
- **Finish:** Silva-Guard

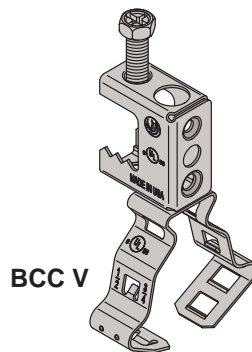
| Part No. | Flange Size | Wire or Rod Size | Conduit Size |
|----------|-------------|--|----------------------|
| MFCCCP8 | 1/8" - 3/8" | #12 - 1/4" wire or rod with or without Threads | 1/2" EMT |
| MFCCCP12 | | | 3/4" EMT, 1/2" Rigid |
| MFCCCP16 | | | 1" EMT, 3/4" Rigid |

BCC

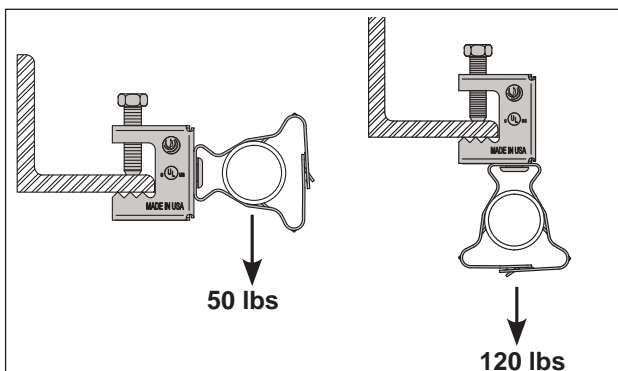
Beam Clamp with Conduit Clip



BCC H



BCC V



| Part No. | Conduit Size |
|----------|------------------------|
| BCC812HM | 1/2" & 3/4" EMT, Rigid |
| BCC16HM | 1" EMT, Rigid |
| BCC20HM | 1-1/4" EMT, Rigid |
| BCC24HM | 1-1/2" EMT, Rigid |
| BCC32HM | 2" EMT, Rigid |
| BCC812VM | 1/2" & 3/4" EMT, Rigid |
| BCC16VM | 1" EMT, Rigid |
| BCC20CM | 1-1/4" EMT, Rigid |
| BCC24VM | 1-1/2" EMT, Rigid |
| BCC32VM | 2" EMT, Rigid |



- Eliminates offset bending of conduit.
- For installation on 1/2" maximum flanges.
- Included combo head screw allows Robertson, Phillips/Slotted and Hex drivers.
- Conduit clip rotates 360 degrees.
- For support of conduit per NEC 344.30(B).
- **Material:** Spring Steel
- **Finish:** Silva-Guard



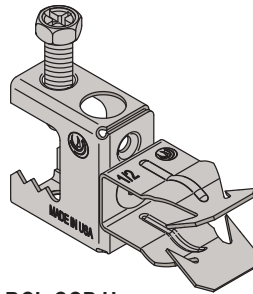
Conduit and Cable Support



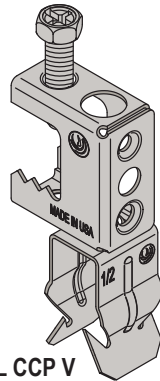
Standard Finish: Silva-Guard (SG)

BCL CCP

Beam Clamp with Conduit "Push In" Clip

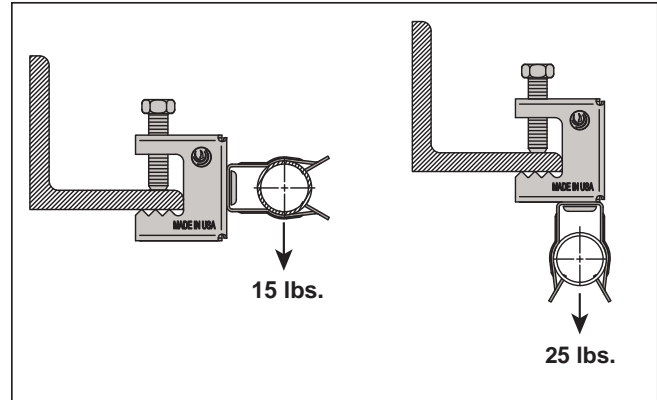


BCL CCP H



BCL CCP V

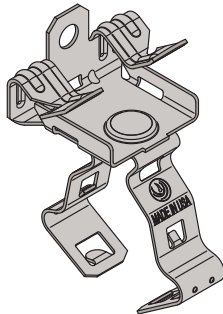
- Eliminates offset bending of conduit.
- For installation on 1/2" maximum flanges.
- Included combo head screw allows Robertson, Phillips/Slotted and Hex drivers.
- Conduit clip rotates 360 degrees.
- **Material:** Spring Steel
- **Finish:** Silva-Guard



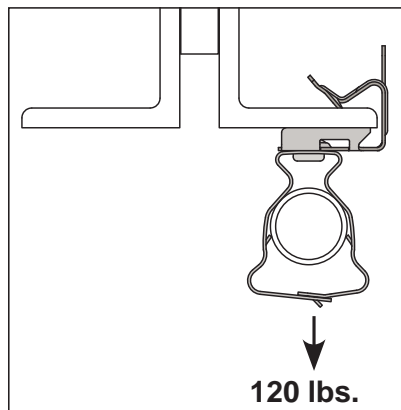
| Part No. | Conduit Size |
|------------|----------------------|
| BCLCCP8HM | 1/2" EMT |
| BCLCCP12HM | 3/4" EMT, 1/2" Rigid |
| BCLCCP16HM | 1" EMT, 3/4" Rigid |
| BCLCCP8VM | 1/2" EMT |
| BCLCCP12VM | 3/4" EMT, 1/2" Rigid |
| BCLCCP16VM | 1" EMT, 3/4" Rigid |

FH C

Flange Clip with Conduit Clip



- Supports pipe and conduit from beam flanges.
- Conduit clip rotates 360 degrees.
- Flange thickness range stamped on part.
- Only a hammer required for installation.
- **Material:** Spring Steel
- **Finish:** Silva-Guard



| Part No. | Min. - Max. Flange Thickness | Conduit Size |
|------------|------------------------------|------------------------|
| FH24CC812 | 1/8" - 1/4" (3mm - 6mm) | 1/2" & 3/4" EMT, Rigid |
| FH58CC812 | 5/16" - 1/2" (8mm - 13mm) | |
| FH912CC812 | 9/16" - 3/4" (14mm - 19mm) | |
| FH24CC16 | 1/8" - 1/4" (3mm - 6mm) | 1" EMT, Rigid |
| FH58CC16 | 5/16" - 1/2" (8mm - 13mm) | |
| FH912CC16 | 9/16" - 3/4" (14mm - 19mm) | |
| FH23CC20 | 1/8" - 1/4" (3mm - 6mm) | 1-1/4" EMT, Rigid |
| FH58CC20 | 5/16" - 1/2" (8mm - 13mm) | |
| FH912CC20 | 9/16" - 3/4" (14mm - 19mm) | |
| FH24CC24 | 1/8" - 1/4" (3mm - 6mm) | 1-1/2" EMT, Rigid |
| FH58CC24 | 5/16" - 1/2" (8mm - 13mm) | |
| FH912CC24 | 9/16" - 3/4" (14mm - 19mm) | |
| FH24CC32 | 1/8" - 1/4" (3mm - 6mm) | 2" EMT, Rigid |
| FH58CC32 | 5/16" - 1/2" (8mm - 13mm) | |
| FH912CC32 | 9/16" - 3/4" (14mm - 19mm) | |



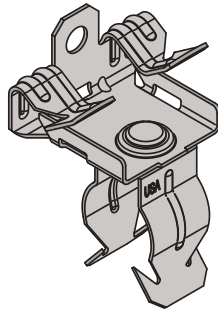


Conduit and Cable Support

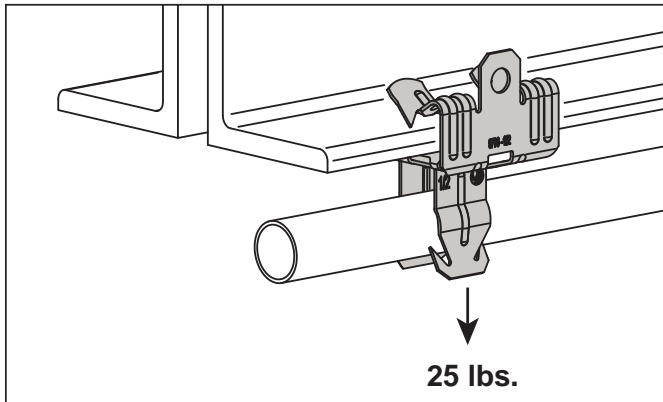
Standard Finish: Silva-Guard (SG)

FH CCP

Flange Clip with
Conduit "Push In" Clip



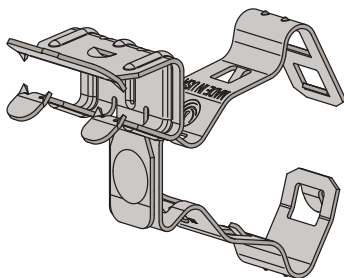
- Supports conduit from beam flanges.
- Conduit clip rotates 360 degrees.
- Flange thickness range stamped on part.
- Only a hammer required for installation.
- **Material:** Spring Steel
- **Finish:** Silva-Guard



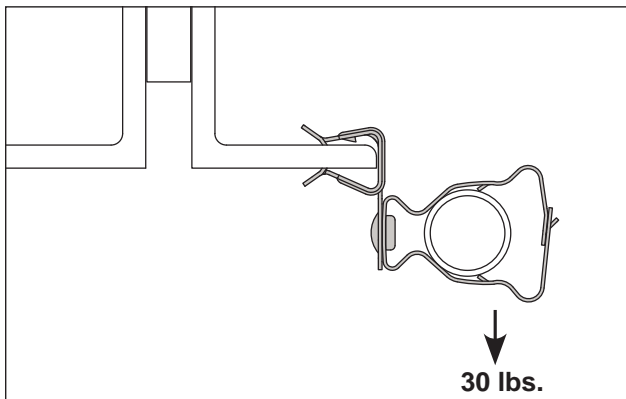
| Part No. | Min. - Max. Flange Thickness | Conduit Size |
|------------|--|--|
| FH24CCP8 | $\frac{1}{8}$ " - $\frac{1}{4}$ " (3mm - 6mm) | $\frac{1}{2}$ " EMT |
| FH58CCP8 | $\frac{5}{16}$ " - $\frac{1}{2}$ " (8mm - 13mm) | |
| FH912CCP8 | $\frac{9}{16}$ " - $\frac{3}{4}$ " (14mm - 19mm) | |
| FH24CCP12 | $\frac{1}{8}$ " - $\frac{1}{4}$ " (3mm - 6mm) | $\frac{3}{4}$ " EMT, $\frac{1}{2}$ " Rigid |
| FH58CCP12 | $\frac{5}{16}$ " - $\frac{1}{2}$ " (8mm - 13mm) | |
| FH912CCP12 | $\frac{9}{16}$ " - $\frac{3}{4}$ " (14mm - 19mm) | |
| FH24CCP16 | $\frac{1}{8}$ " - $\frac{1}{4}$ " (3mm - 6mm) | 1" EMT, $\frac{3}{4}$ " Rigid |
| FH58CCP16 | $\frac{5}{16}$ " - $\frac{1}{2}$ " (8mm - 13mm) | |
| FH912CCP16 | $\frac{9}{16}$ " - $\frac{3}{4}$ " (14mm - 19mm) | |

FHS C

Flange Clip Side Mount with Conduit Clip



- Supports pipe and conduit from beam flanges.
- Flange thickness range stamped on part.
- Only a hammer required for installation.
- **Material:** Spring Steel
- **Finish:** Silva-Guard



| Part No. | Min. - Max. Flange Thickness | Conduit Size |
|-------------|--|--|
| FHS24CC812 | $\frac{1}{8}$ " - $\frac{1}{4}$ " (3mm - 6mm) | $\frac{1}{2}$ " & $\frac{3}{4}$ " EMT, Rigid |
| FHS58CC812 | $\frac{5}{16}$ " - $\frac{1}{2}$ " (8mm - 13mm) | |
| FHS912CC812 | $\frac{9}{16}$ " - $\frac{3}{4}$ " (14mm - 19mm) | |
| FHS24CC16 | $\frac{1}{8}$ " - $\frac{1}{4}$ " (3mm - 6mm) | 1" EMT, Rigid |
| FHS58CC16 | $\frac{5}{16}$ " - $\frac{1}{2}$ " (8mm - 13mm) | |
| FHS912CC16 | $\frac{9}{16}$ " - $\frac{3}{4}$ " (14mm - 19mm) | |
| FHS24CC20 | $\frac{1}{8}$ " - $\frac{1}{4}$ " (3mm - 6mm) | 1- $\frac{1}{4}$ " EMT, Rigid |
| FHS58CC20 | $\frac{5}{16}$ " - $\frac{1}{2}$ " (8mm - 13mm) | |
| FHS912CC20 | $\frac{9}{16}$ " - $\frac{3}{4}$ " (14mm - 19mm) | |
| FHS24CC24 | $\frac{1}{8}$ " - $\frac{1}{4}$ " (3mm - 6mm) | 1- $\frac{1}{2}$ " EMT, Rigid |
| FHS58CC24 | $\frac{5}{16}$ " - $\frac{1}{2}$ " (8mm - 13mm) | |
| FHS912CC24 | $\frac{9}{16}$ " - $\frac{3}{4}$ " (14mm - 19mm) | |
| FHS24CC32 | $\frac{1}{8}$ " - $\frac{1}{4}$ " (3mm - 6mm) | 2" EMT, Rigid |
| FHS58CC32 | $\frac{5}{16}$ " - $\frac{1}{2}$ " (8mm - 13mm) | |
| FHS912CC32 | $\frac{9}{16}$ " - $\frac{3}{4}$ " (14mm - 19mm) | |



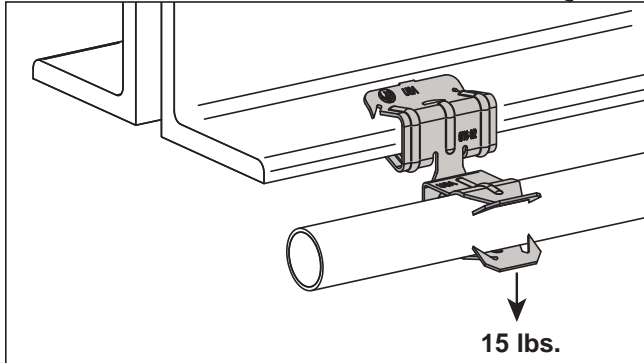
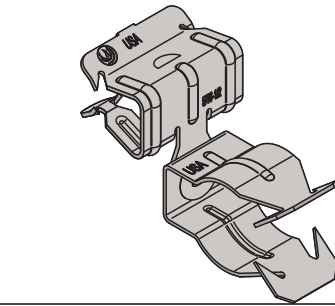
Conduit and Cable Support



Standard Finish: Silva-Guard (SG)

FHS CCP

Flange Clip Side Mount
with Conduit "Push In" Clip

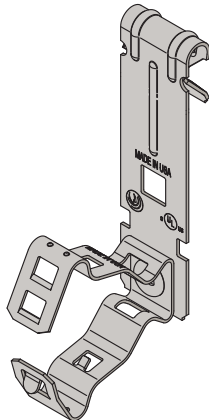


- Supports conduit from beam flanges.
- Flange thickness range stamped on part.
- Only a hammer required for installation.
- **Material:** Spring Steel
- **Finish:** Silva-Guard

| Part No. | Min. - Max. Flange Thickness | Conduit Size |
|-------------|--|--|
| FHS24CCP8 | $\frac{1}{8}$ " - $\frac{1}{4}$ " (3mm - 6mm) | $\frac{1}{2}$ " EMT |
| FHS58CCP8 | $\frac{5}{16}$ " - $\frac{1}{2}$ " (8mm - 13mm) | |
| FHS912CCP8 | $\frac{9}{16}$ " - $\frac{3}{4}$ " (14mm - 19mm) | |
| FHS24CCP12 | $\frac{1}{8}$ " - $\frac{1}{4}$ " (3mm - 6mm) | $\frac{3}{4}$ " EMT, $\frac{1}{2}$ " Rigid |
| FHS58CCP12 | $\frac{5}{16}$ " - $\frac{1}{2}$ " (8mm - 13mm) | |
| FHS912CCP12 | $\frac{9}{16}$ " - $\frac{3}{4}$ " (14mm - 19mm) | |
| FHS24CCP16 | $\frac{1}{8}$ " - $\frac{1}{4}$ " (3mm - 6mm) | 1" EMT, $\frac{3}{4}$ " Rigid |
| FHS58CCP16 | $\frac{5}{16}$ " - $\frac{1}{2}$ " (8mm - 13mm) | |
| FHS912CCP16 | $\frac{9}{16}$ " - $\frac{3}{4}$ " (14mm - 19mm) | |

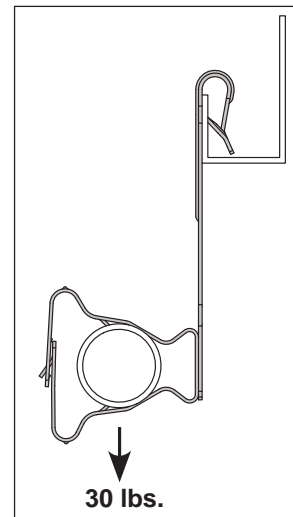
FHV CC

Flange Hanger with Conduit Clip



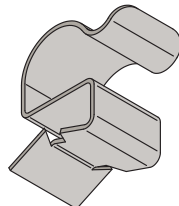
- Supports pipe and conduit from bar joist's and "C" purlin's.
- Compatible with many industry standard installation tools.
- $\frac{1}{16}$ " - $\frac{1}{4}$ " flange thickness range.
- **Material:** Spring Steel
- **Finish:** Silva-Guard

| Part No. | Min. - Max. Flange Thickness | Conduit Size |
|-----------|------------------------------------|--|
| FHV3CC812 | $\frac{1}{16}$ " - $\frac{1}{4}$ " | $\frac{1}{2}$ " & $\frac{3}{4}$ " EMT, Rigid |
| FHV3CC16 | $\frac{1}{16}$ " - $\frac{1}{4}$ " | 1" EMT, Rigid |

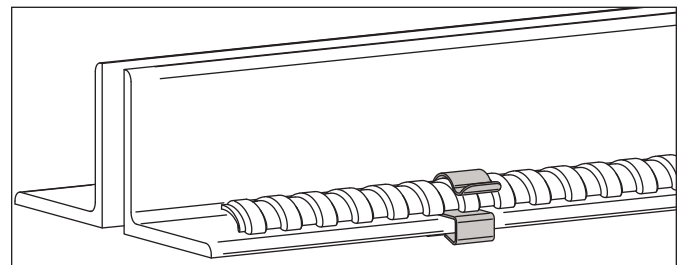


CFC

Conduit Clip to Flange



| Part No. | Flange Thickness | Cable O.D. |
|----------|-------------------------------------|-------------|
| CFC2D | $\frac{1}{16}$ " - $\frac{3}{16}$ " | 0.46 - 0.56 |
| CFC4D | $\frac{3}{16}$ " - $\frac{9}{32}$ " | 0.46 - 0.56 |
| CFC4E | | 0.50 - 0.72 |
| CFC8D | $\frac{5}{16}$ " - $\frac{1}{2}$ " | 0.46 - 0.56 |
| CFC8E | | 0.50 - 0.72 |



- Supports flexible conduit and cable from flanges.
- Simple Push-in clip design.
- **Material:** Steel
- **Finish:** Electro-Galvanized





Conduit and Cable Support

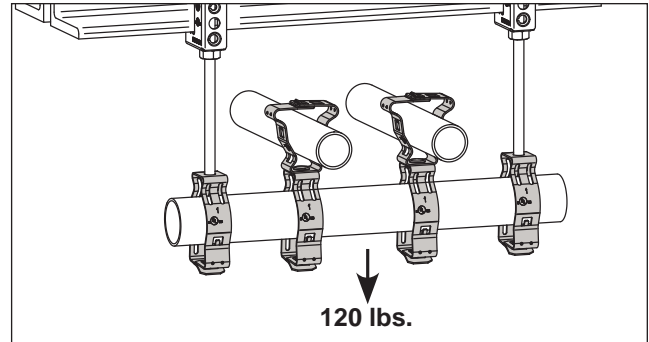
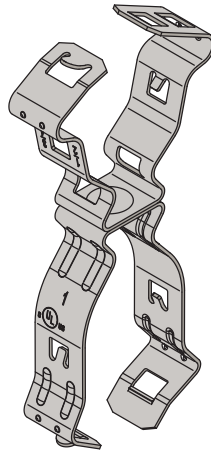
Standard Finish: Silva-Guard (SG)

CC CC

Conduit Clip
with Conduit Clip



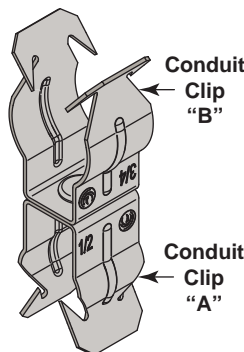
- No screws or bolts required.
- For lightweight trapeze systems.
- Conduit clip rotates 360 degrees.
- **Material:** Spring Steel
- **Finish:** Silva-Guard



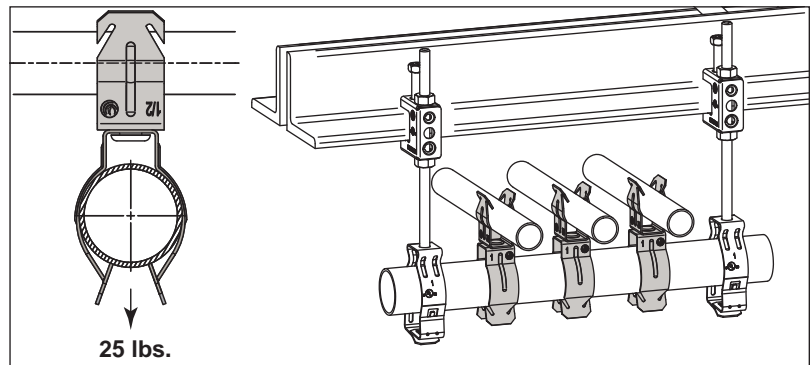
| Part No. | Conduit Clip |
|-----------|-------------------------|
| CC16CC812 | 1/2" or 3/4" EMT, Rigid |
| CC16CC16 | 1" EMT, Rigid |
| CC16CC20 | 1-1/4" EMT, Rigid |
| CC16CC24 | 1-1/2" EMT, Rigid |
| CC16CC32 | 2" EMT, Rigid |

CCP CCP

Conduit "Push In" Clip with Conduit "Push In" Clip



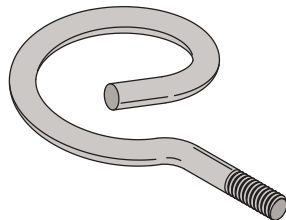
- No tools required for conduit installation.
- For lightweight trapeze systems.
- Conduit clips rotate 360 degrees.
- **Material:** Spring Steel
- **Finish:** Silva-Guard



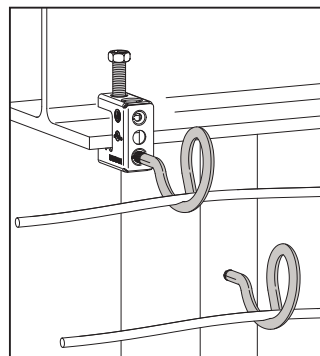
| Part No. | Conduit Clip "A" | Conduit Clip "B" |
|------------|----------------------|----------------------|
| CCP8CCP8 | 1/2" EMT | 1/2" EMT |
| CCP8CCP12 | | 3/4" EMT, 1/2" Rigid |
| CCP8CCP16 | | 1" EMT, 3/4" Rigid |
| CCP12CCP12 | 3/4" EMT, 1/2" Rigid | 3/4" EMT, 1/2" Rigid |
| CCP12CCP16 | | 1" EMT, 3/4" Rigid |
| CCP16CCP16 | 1" EMT, 3/4" Rigid | 1" EMT, 3/4" Rigid |

BR

Bridle Ring



- Supports low voltage communication cable.
- Compatible with many other fasteners for support from purlin, T-grid, drop wire, and beam flanges.
- **Material:** Steel
- **Finish:** Electro-galvanized



| Part No. | Ring Size I.D. | Thread Size |
|----------|----------------|-----------------|
| BR1012 | 3/4" | #10-24 |
| BR1020 | 1-1/4" | #10-24 |
| BR2520 | | 1/4"-20 |
| BR2520WS | | 1/4" Wood Screw |
| BR1032 | 2" | #10-24 |
| BR2532 | | 1/4"-20 |
| BR2532WS | | 1/4" Wood Screw |



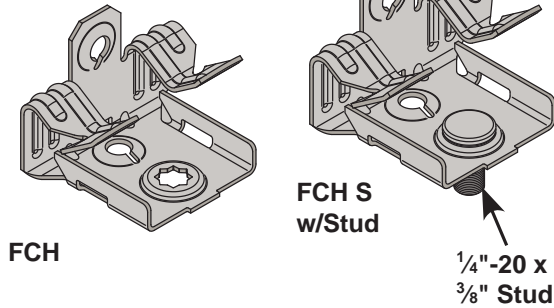
Structural Attachment

Standard Finish: Silva-Guard (SG)

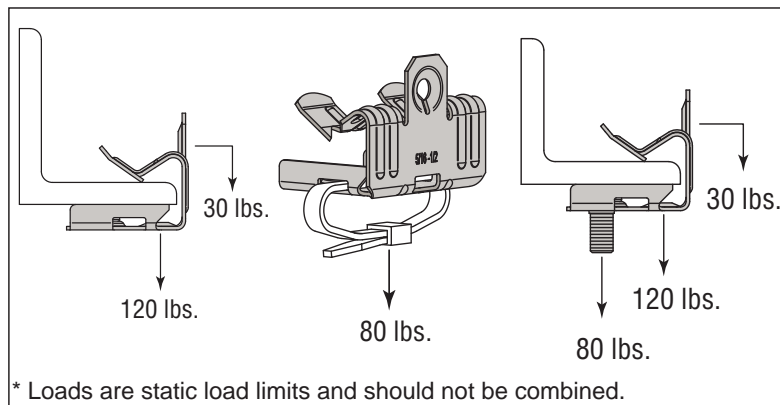


FCH

Flange Clip



- Multi use beam clamp used to support threaded rod, electrical boxes, and bridal rings from beam flanges.
- Beam clamp with stud is for supporting electrical boxes from beam flanges.
- Punched holes provided for zip tie applications.
- 1/4"-20 thread forms permit threaded rod applications.
- Only a hammer required for installation.
- **Material:** Spring Steel
- **Finish:** Silva-Guard

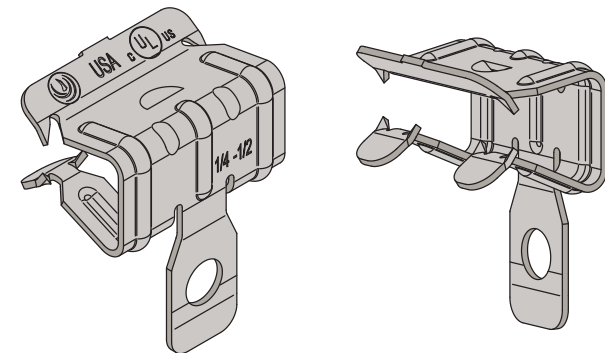


* Loads are static load limits and should not be combined.

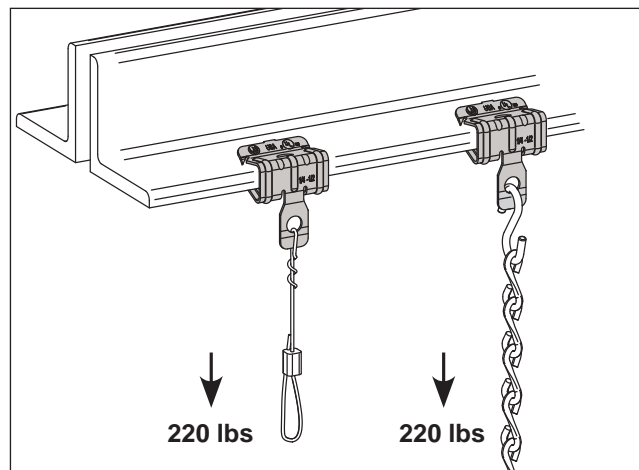
| Part No. | Flange Thickness |
|----------|----------------------------|
| FCH24 | 1/8" - 1/4" (3mm - 6mm) |
| FCH58 | 5/16" - 1/2" (8mm - 13mm) |
| FCH912 | 9/16" - 3/4" (14mm - 19mm) |
| FCH24S | 1/8" - 1/4" (3mm - 6mm) |
| FCH58S | 5/16" - 1/2" (8mm - 13mm) |
| FCH912S | 9/16" - 3/4" (14mm - 19mm) |

FSM

Flange Clip Side Mount



| Part No. | Flange Thickness | Hole Size |
|----------|----------------------------|------------------|
| FSM24 | 1/8" - 1/4" (3mm - 6mm) | 9/32" (7.1mm) |
| FSM58 | 5/16" - 1/2" (8mm - 13mm) | |
| FSM912 | 9/16" - 3/4" (14mm - 19mm) | |



- Beam clamp with hole for supporting tie wire and jack chain to beam flanges.
- Only a hammer required for installation.
- **Material:** Spring Steel
- **Finish:** Silva-Guard



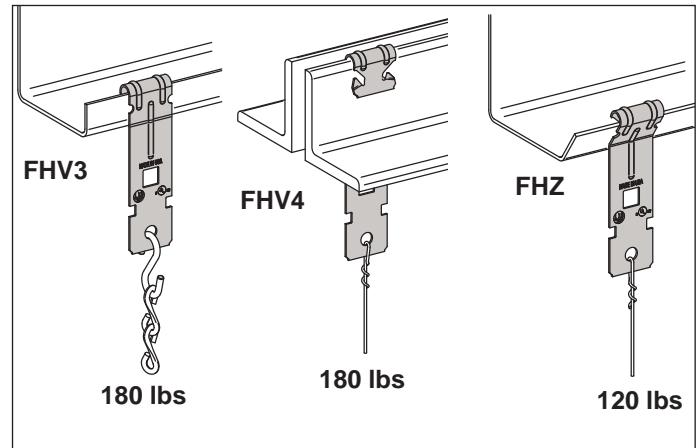
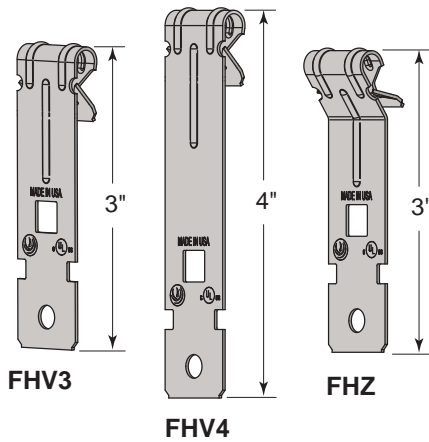


Structural Attachment

Standard Finish: Silva-Guard (SG)

FVZ, FHZ

Flange Hanger for Purlins and Bar Joists

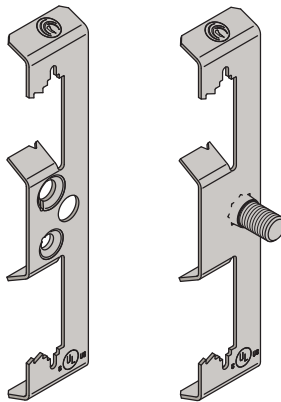


- **FHV3:** Flange clip with hole for supporting tie wire and jack chain to bar joist's and "C" purlin's.
- **FHV4:** Extra long flange clip with hole for supporting tie wire and jack chain to tall bar joist's and "C" purlin's.
- **FHZ:** Angled flange clip with hole for supporting tie wire and jack chain to "Z" purlin's.
- Compatible with many industry standard installation tools.
- **Material:** Spring Steel
- **Finish:** Silva-Guard

| Part No. | Min. - Max. Flange Thickness | Hole Size |
|----------|------------------------------|------------------|
| FHV3 | 1/16" - 1/4" (2mm - 6mm) | 9/32" (7.1mm) |
| FHV4 | | |
| FHZ | | |

MFC

Multi-Function Clip with Assemblies



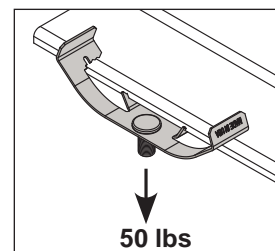
MFC

MFCS

| Part No. | Flange Size | Threaded Rod Size | Conduit Size or Threads |
|----------|-------------|-------------------|--|
| MFC | 1/8" - 3/8" | 1/4" Threaded Rod | 9/32" - hole, 1/4" - 20 and 10-24 thread form |
| MFCS | 1/8" - 3/8" | 1/4" Threaded Rod | 1/4" - 20 staked stud with nut (UL listed box support) |

- **MFC:** Supports #10-24 and 1/4"-20 bridal rings to rod and wire.
- **MFCS:** Supports electrical boxes to rod and wire.
- No tools required. Easy adjustment after installation.
- **Material:** Spring Steel
- **Finish:** Silva-Guard

Flange Installation



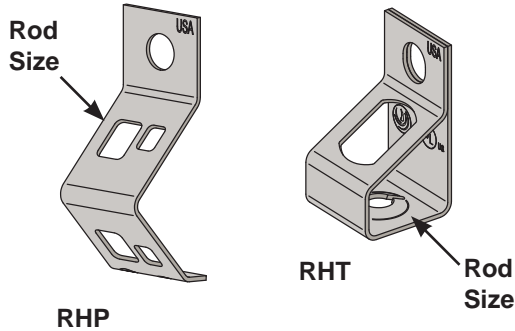
Structural Attachment

Standard Finish: Silva-Guard (SG)



RHP RHT

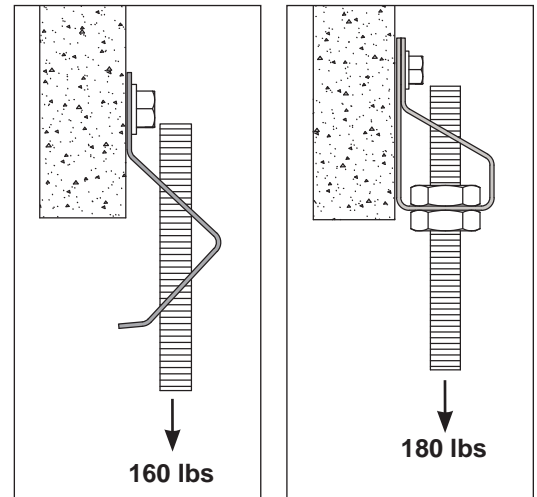
Rod Hanger Push Install or Rod Hanger Thread Install



- **RHP:** Suspends plain and threaded rod from vertical surfaces, and provides easy adjustment of rod after installation.
- **RHT:** Suspends threaded rod from vertical surfaces.
- **Material:** Spring Steel
- **Finish:** Silva-Guard

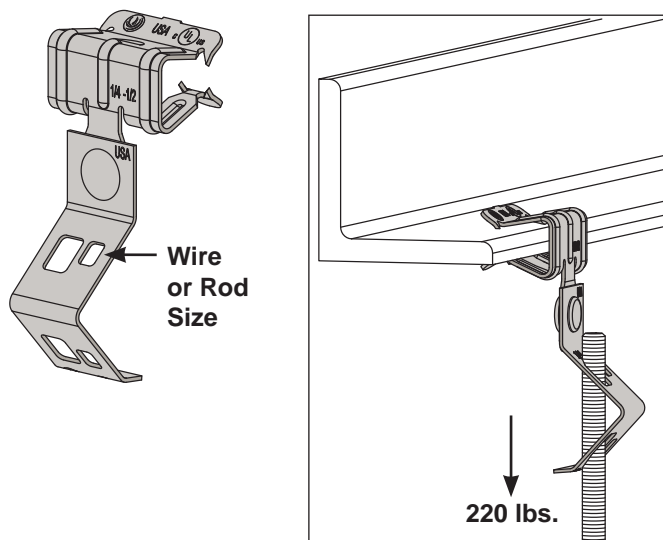
| Part No. | Rod Size |
|---------------|---|
| RHP4 | #8 Wire or 1/4" Plain or Threaded Rod |
| RHP6 | 3/8" Plain or Threaded Rod |
| RHT4T | 1/4" - 20 Thread Form |
| RHT6T | 3/8" - 16 Thread Form |
| RHT6 * | 1 3/32" Thru Hole for 1/4" or 3/8" Threaded Rod |

* Nuts sold separately



FH P

Flange Clip Side Mount with Rod Hanger Push Install



- Suspends plain and threaded rod from beam flanges.
- Easy adjustment of rod after installation.
- Flange thickness range stamped on part.
- Only a hammer required for installation.
- **Material:** Spring Steel
- **Finish:** Silva-Guard

| Part No. | Minimum - Maximum Flange Thickness | Wire/ Rod Size |
|------------------|------------------------------------|---------------------|
| FH24RHP4 | 1/8" - 1/4" (3mm - 6mm) | #8 Wire or 1/4" Rod |
| FH58RHP4 | 5/16" - 1/2" (8mm - 13mm) | |
| FH912RHP4 | 9/16" - 3/4" (14mm - 19mm) | |
| FH24RHP6 | 1/8" - 1/4" (3mm - 6mm) | 3/8" Rod |
| FH58RHP6 | 5/16" - 1/2" (8mm - 13mm) | |
| FH912RHP6 | 9/16" - 3/4" (14mm - 19mm) | |



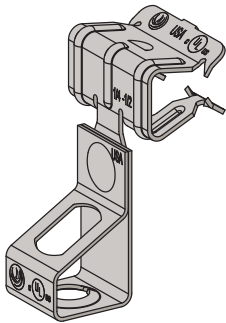


Structural Attachment

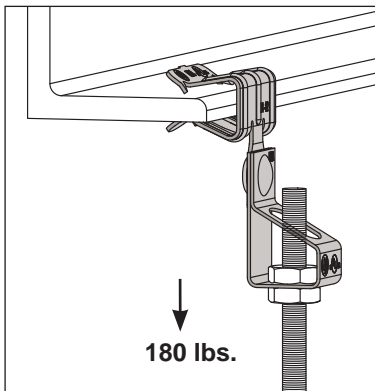
Standard Finish: Silva-Guard (SG)

FH RHT

Flange Clip Side Mount with Rod Hanger Thread Install



- Suspends threaded rod from beam flanges.
- Flange thickness range stamped on part.
- **Material:** Spring Steel
- **Finish:** Silva-Guard

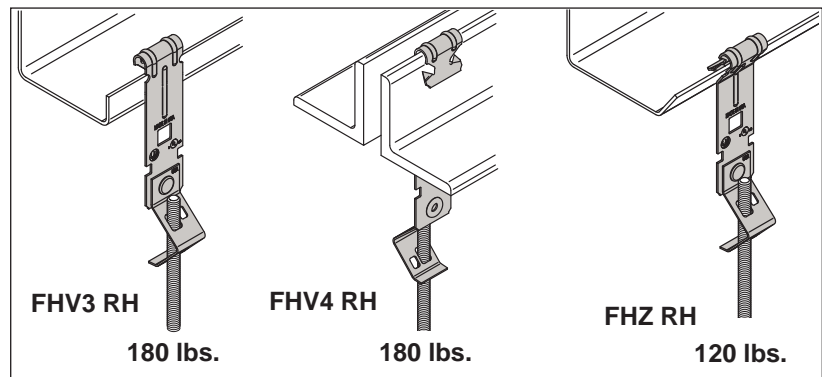
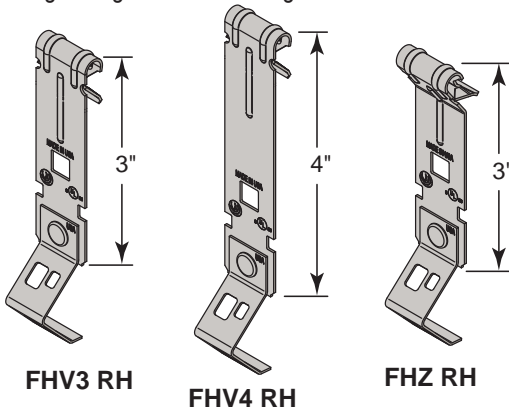


| Part No. | Min. - Max. Flange Thickness | Hole Size |
|----------------------------|------------------------------|--|
| FH24RH4T | 1/8" - 1/4" (3mm - 6mm) | 1/4" - 20 Thread Form |
| FH58RH4T | 5/16" - 1/2" (8mm - 13mm) | |
| FH912RH4T | 9/16" - 3/4" (14mm - 19mm) | |
| FH24RH6T | 1/8" - 1/4" (3mm - 6mm) | 3/8" - 16 Thread Form |
| FH58RH6T | 5/16" - 1/2" (8mm - 13mm) | |
| FH912RH6T | 9/16" - 3/4" (14mm - 19mm) | |
| FH24RH6 * | 1/8" - 1/4" (3mm - 6mm) | 13/32" thru hole for 1/4" or 3/8" Threaded Rod |
| FH58RH6 * | 5/16" - 1/2" (8mm - 13mm) | |
| FH912RH6 * | 9/16" - 3/4" (14mm - 19mm) | |

* 2 nuts required (sold separately)

FBZ RH

Flange hanger with Rod Hanger Push Install



- **FBV3:** Suspends plain and threaded rod from bar joist's and "C" purlin's.
- **FBV4:** Extra long clip suspends plain and threaded rod from bar joist's.
- **FBZ:** Angled clip suspends plain and threaded rod from "Z" purlin's.
- Easy adjustment of rod after installation.
- Compatible with many industry standard installation tools.

- **Material:** Spring Steel
- **Finish:** Silva-Guard

| Part No. | Wire / Rod Size | Min. - Max. Flange Thickness |
|-------------------------|---------------------------------------|------------------------------|
| FBV3RH4 | #8 Wire or 1/4" Plain or Threaded Rod | 1/16" - 1/4" |
| FBV3RH6 | 3/8" Plain or Threaded Rod | |
| FBV4RH4 | #8 Wire or 1/4" Plain or Threaded Rod | 1/16" - 1/4" |
| FBV4RH6 | 3/8" Plain or Threaded Rod | |
| FBZRH4 | #8 Wire or 1/4" Plain or Threaded Rod | 1/16" - 1/4" |
| FBZRH6 | 3/8" Plain or Threaded Rod | |

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www.zsi-foster.com



WARNING: These products can expose you to chemicals including lead, which is known to the State of California to cause cancer, and which is known to cause birth defects or other reproductive harm. For more information go to www.P65Warnings.ca.gov.

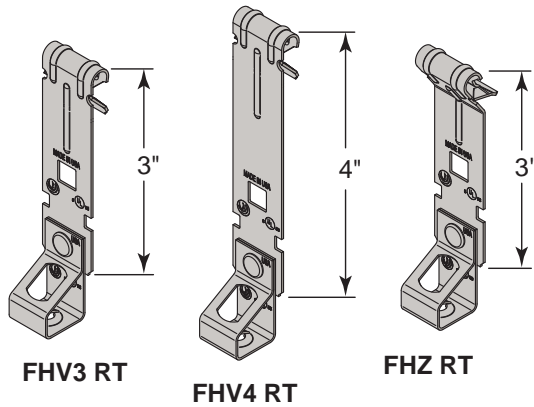
Structural Attachment

Standard Finish: Silva-Guard (SG)

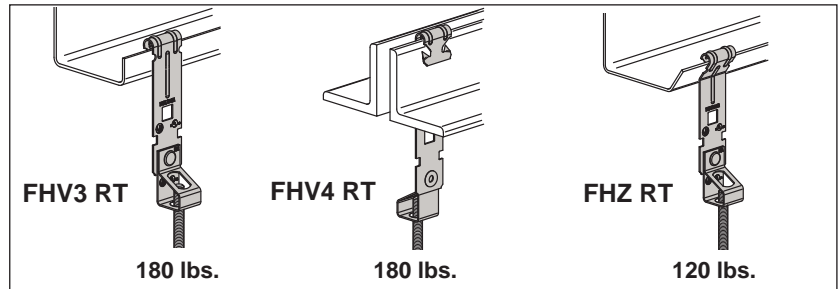


FVZ RT

Flange Hanger with Rod Hanger Threaded Install



- **FHV3 RT:** Suspends threaded rod from bar joist's and "C" purlin's.
- **FHV4 RT:** Extra long clip suspends threaded rod from bar joist's.
- **FHZ RT:** Angled clip suspends threaded rod from "Z" purlin's.
- Compatible with many industry standard installation tools.
- **Material:** Spring Steel
- **Finish:** Silva-Guard

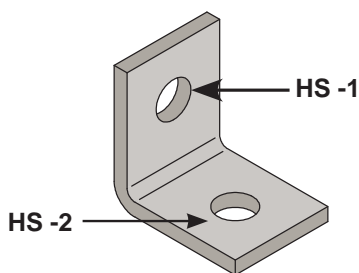


| Part No. | Rod Size | Min. - Max. Flange Thickness |
|---------------------------|--|------------------------------|
| FHV3RH4T | 1/4"-20 Thread Form | 1/16" - 1/4" |
| FHV3RH6T | 3/8"-16 Thread Form | |
| FHV3RH6 * | 13/32" Thru Hole for 1/4" or 3/8" Threaded Rod | |
| FHV4RH4T | 1/4"-20 Thread Form | 1/16" - 1/4" |
| FHV4RH6T | 3/8"-16 Thread Form | |
| FHV4RH6 * | 13/32" Thru Hole for 1/4" or 3/8" Threaded Rod | |
| FHZRH4T | 1/4"-20 Thread Form | 1/16" - 1/4" |
| FHZRH6T | 3/8"-16 Thread Form | |
| FHZRTH6 * | 13/32" Thru Hole for 1/4" or 3/8" Threaded Rod | |

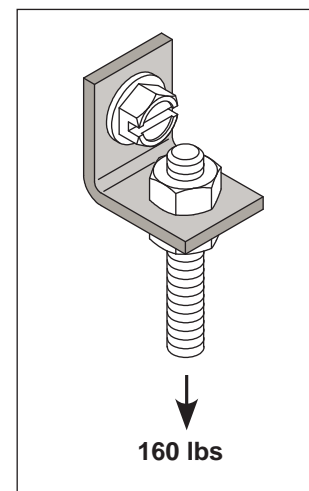
* Nuts sold separately

AB

Angle Bracket



- Accepts wire, chain and rod drops from concrete or wood.
- **Material:** Steel
- **Finish:** Pregalvanized



| Part No. | HS - 1 | HS - 2 |
|----------------------|---------------|-----------------|
| AB04 | 9/32" (7.1mm) | 9/32" (7.1mm) |
| AB06 | 9/32" (7.1mm) | 13/32" (10.3mm) |



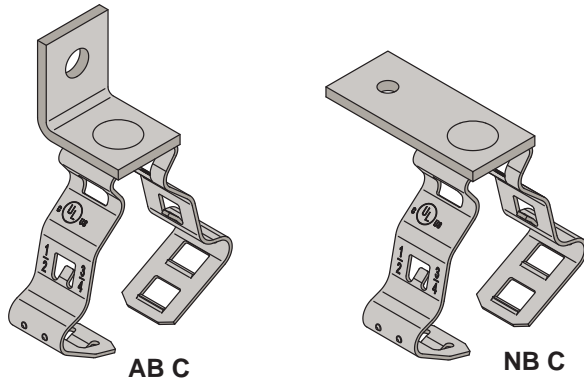


Structural Attachment

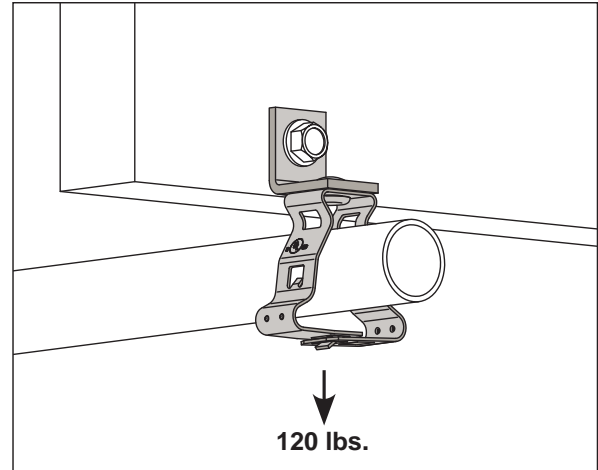
Standard Finish: Silva-Guard (SG)

AB C, NB C

Angle Bracket and Nail Bracket with Conduit Clip



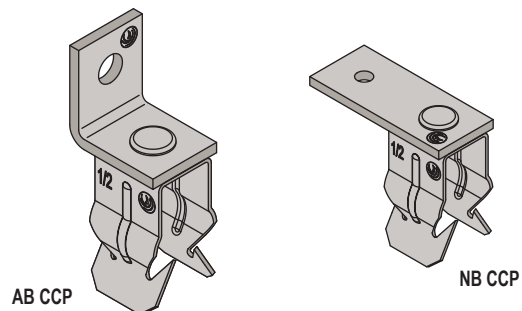
- **AB C:** Supports horizontal runs of conduit through metal studs and prevents conduit from rattling in wall.
- **NB C:** Attaches conduit to wood, concrete and steel, works with power tools and nails.
- Conduit clip rotates 360 degrees.
- **Material:** Steel & Spring Steel
- **Finish:** Pregalvanized & Silva-Guard



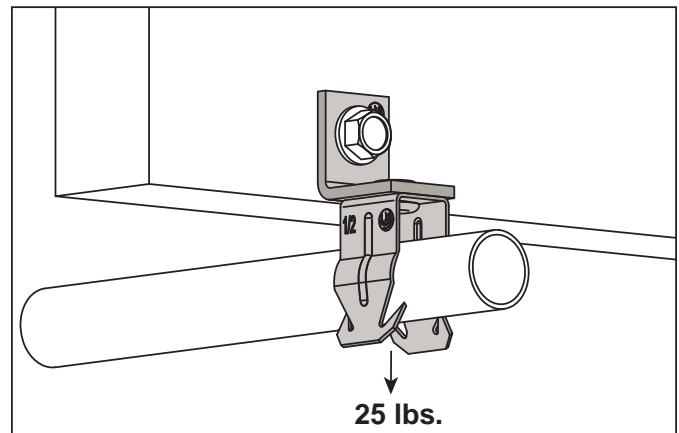
| Part No. | Conduit Size | Hole Size |
|----------|-------------------------|-----------|
| ABCC812 | 1/2" or 3/4" EMT, Rigid | 9/32" |
| NBCC812 | 1/2" or 3/4" EMT, Rigid | 3/16" |

AB CCP, NB CCP

Angle and Nail Bracket with Conduit "Push In" Clip



- **AB CCP:** Supports horizontal runs of conduit through metal studs and prevents conduit from rattling in wall.
- **NB CCP:** Attaches conduit to wood, concrete and steel, works with power tools and nails.
- Conduit clip rotates 360 degrees.
- **Material:** Steel & Spring Steel
- **Finish:** Pregalvanized & Silva-Guard



| Part No. | Conduit Size | Hole Size |
|----------|----------------------|-----------|
| ABCCP8 | 1/2" EMT | 9/32" |
| ABCCP12 | 3/4" EMT, 1/2" Rigid | |
| NBCCP8 | 1/2" EMT | 3/16" |
| NBCCP12 | 3/4" EMT, 1/2" Rigid | |



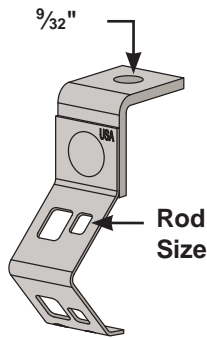
Structural Attachment

Standard Finish: Silva-Guard (SG)

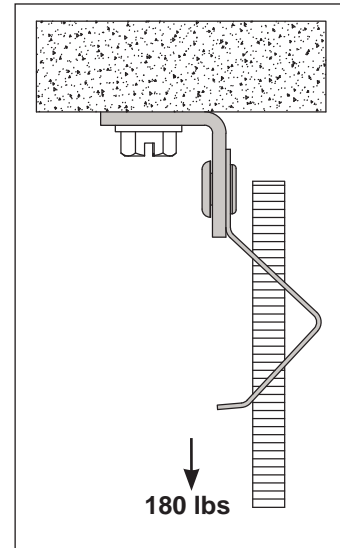


ABR

Angle Bracket with Rod Hanger Push Install



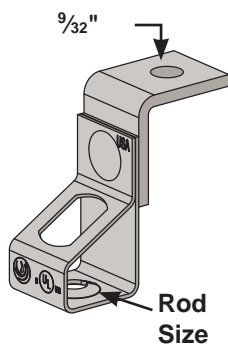
- Attaches to concrete, wood and steel.
- Suspends plain and threaded rod from horizontal surfaces.
- Easy adjustment of rod after installation.
- **Material:** Steel & Spring Steel
- **Finish:** Pregalvanized & Silva-Guard



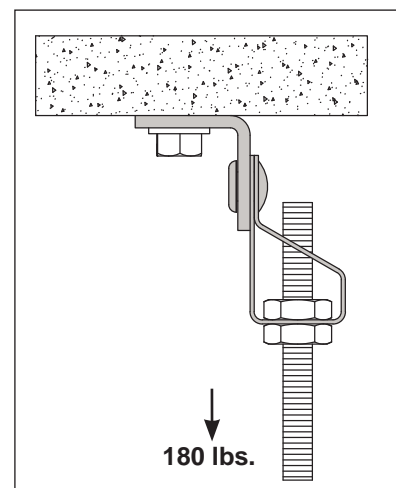
| Part No. | Rod Size |
|----------|---------------------------------------|
| ABRH4 | #8 Wire or 1/4" Plain or Threaded Rod |
| ABRH6 | 3/8" Plain or Threaded Rod |

ABR T

Angle Bracket with Rod Hanger Thread Install



- Attaches to concrete, wood and steel.
- Suspends threaded rod from horizontal surfaces.
- **Material:** Steel & Spring Steel
- **Finish:** Pregalvanized & Silva-Guard



| Part No. | Rod Size |
|----------|--|
| ABRH4T | 1/4 - 20 Thread Form |
| ABRH6T | 3/8 - 16 Thread Form |
| ABRTH6 * | 13/32" Thru Hole for 1/4" or 3/8" Threaded Rod |

* Nuts sold separately



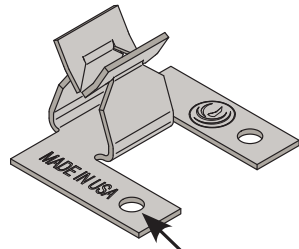


Structural Attachment

Standard Finish: Silva-Guard (SG) or Electrogalvanized (EG)

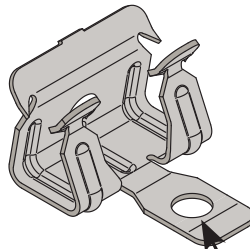
PSP, FSM

Pipe Sleeve Positioner



PSP

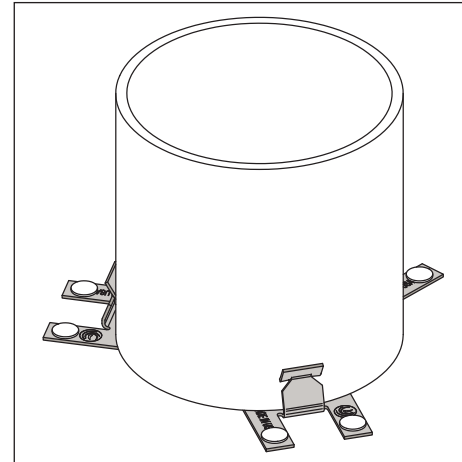
For 1/8" screw
or nail



FSM

For 1/4" screw or
nail

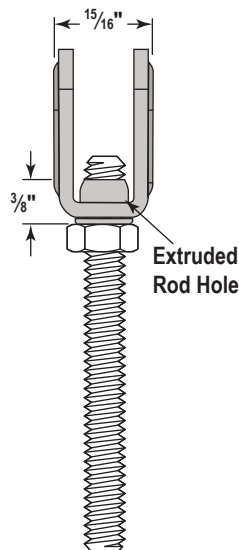
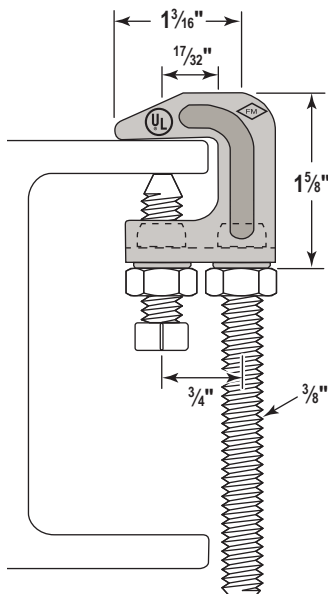
| Part No. | Sleeve Diameter | Pipe Wall Thickness | Min./Max. Sleeve Thickness Range |
|----------|--------------------------|---------------------|----------------------------------|
| PSP2-6 | 2" - 6" (51mm - 152mm) | Schedule #40 Pipe | 0" - 5/16" (0 - 8mm) |
| PSPA | Any Dia. | Up to 5/16" (8mm) | |
| FSM58 | 6" (152mm) | Schedule #80 Pipe | 1/4" - 1/2" (6mm - 13mm) |
| FSM58 | 8" - 10" (203mm - 254mm) | Schedule #40 Pipe | 1/2" - 3/4" (13mm - 19mm) |
| FSM912 | 9" - 14" (229mm - 356mm) | Schedule #80 Pipe | |



- Use to position pipe sleeves during concrete pours.
- Only a hammer required for installation.
- **Material:** Spring Steel
- **Finish:** Silva-Guard

Silver Claw

Beam Clamp



- Carbon Steel - Avoids Hydrogen Embrittlement
- Extruded Rod Hole - More Threads Captured
- Made in USA - Meets Requirements for Buy America
- Handles 3/8" Threaded Rod
- Attaches to 3/4" (19mm) Beam or Bar Joist
- Open Back for Easy Inspection and Adjustment
- 3/4" (19mm) Flange Beam
- Zinc Electroplate
- Installs in Upright Position
- Torque Value = 60 in-lbs
- Made in USA
- UL Listed for Top of Beam
- FM Approved for NFPA 13, Maximum Rated Pipe Size
- Complies with Manufacturers Standardization Society SP-69 (Type 19 & 23) and Federal Specification WW-H-171E



| Part No. | Rod Size | Max. Load |
|----------|----------|-----------|
| SCL037EG | 3/8" | 400 Lbs. |



Structural Attachment

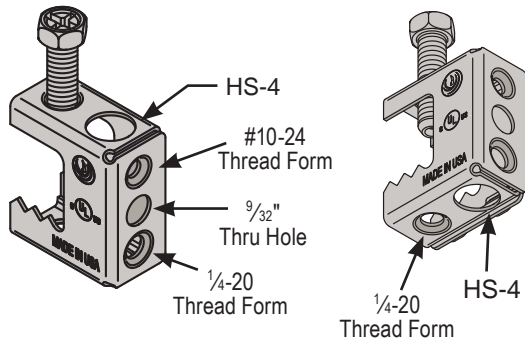


Standard Finish: Silva-Guard (SG) or Electrogalvanized (EG)



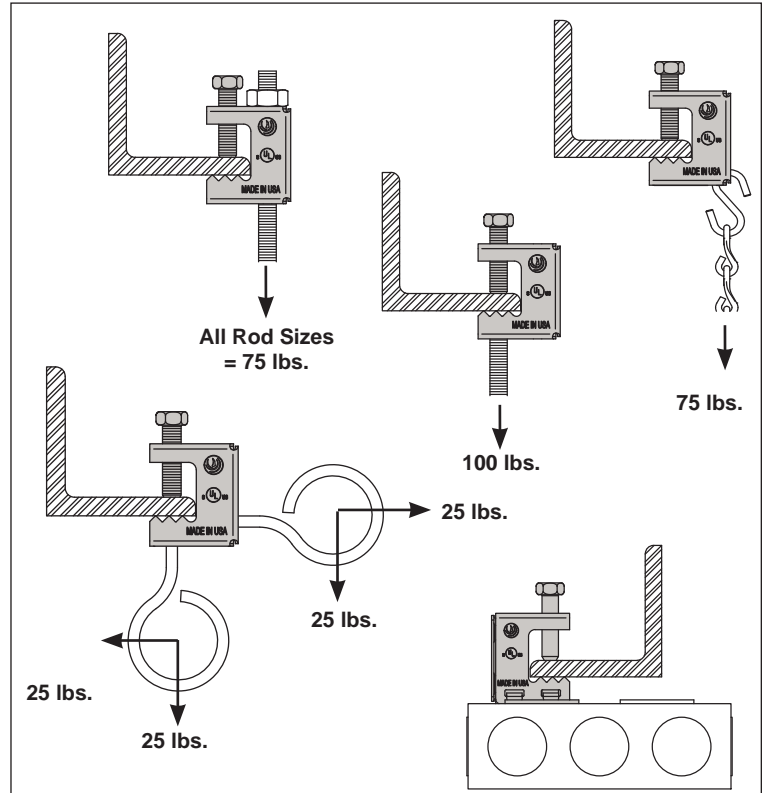
BCL

Beam Clamp



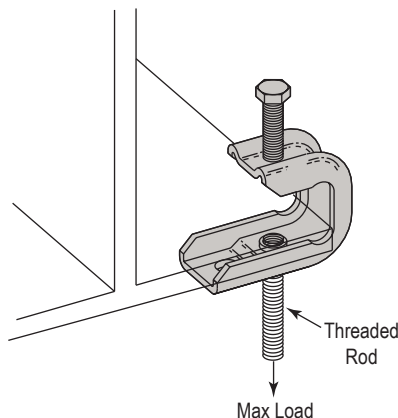
- UL Listed for box support.
- For installation on $\frac{1}{2}$ " maximum beam flanges.
- Included combo head set screw allows Robertson, Phillips/Slotted and Hex drivers.
- Accepts "S" hooks, threaded rod and bridal rings.
- **Material:** Spring Steel
- **Finish:** Silva-Guard

| Part No. | Max. Flange Thickness | HS-4 |
|----------|-----------------------|--|
| BCL | $\frac{1}{2}$ " | $\frac{13}{32}$ " Thru Hole for $\frac{1}{4}$ " or $\frac{3}{8}$ " Rod |



BC92

Light Duty – Beam Clamps



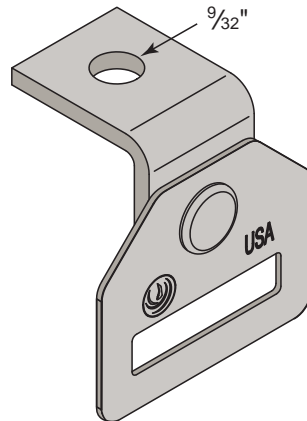
- **Material:** Carbon Steel
- **Finish:** Electrogalvanized

| Part No. | Rod Size | Max Flange Thickness | Max Load (W) lbs |
|-----------|--------------------|-------------------------|------------------|
| BC92025EG | $\frac{1}{4}$ "-20 | $\frac{5}{8}$ " (16 mm) | 100 (0.44kN) |
| BC92037EG | $\frac{3}{8}$ "-16 | $\frac{3}{4}$ " (19 mm) | 200 (0.89kN) |

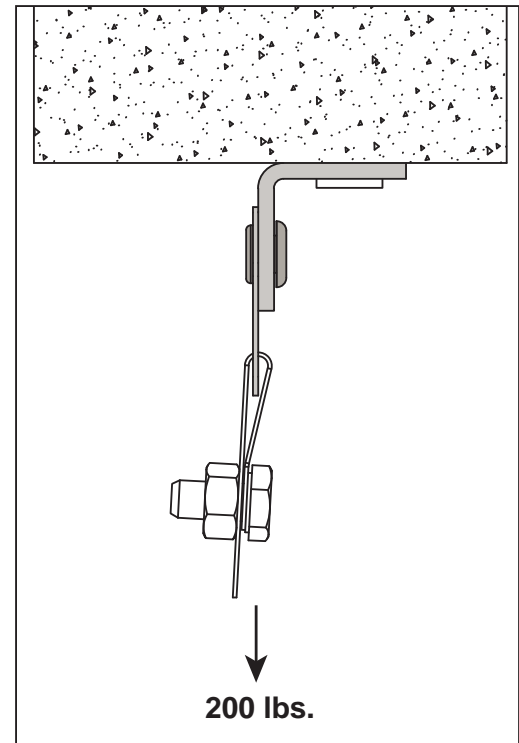


ABSHP

Angle Bracket with Strap Hanger

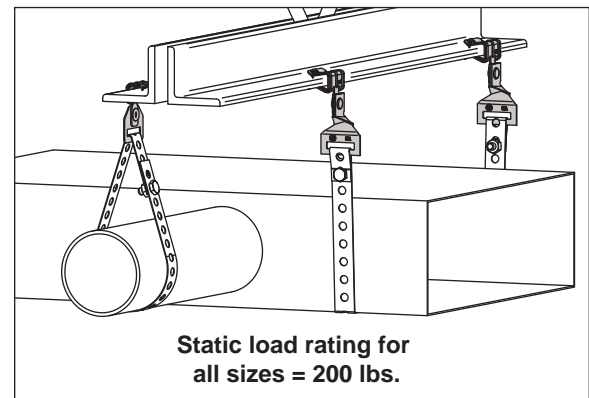
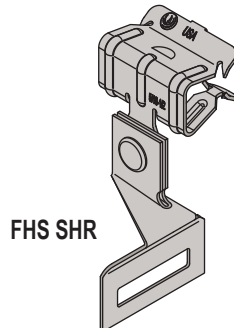
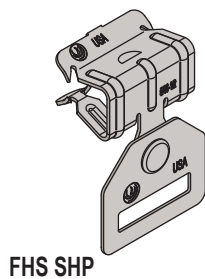


- Supports pipe or duct with strapping.
- Fits strap up to 1" wide.
- **Material:** Steel & Spring Steel
- **Finish:** Pregalvanized & Silva-Guard



FHS SH

Flange Clip Side Mount with Strap Hanger



- Supports pipe or duct with strapping from beam flanges.
- Fits strap up to 1" wide.
- Flange thickness range stamped on part.
- Only a hammer required for installation.
- **Material:** Spring Steel
- **Finish:** Silva-Guard

| Part No. | Min. - Max. Flange Thickness |
|-----------|--|
| FHS24SHP | $\frac{1}{8}$ " - $\frac{1}{4}$ " (3mm - 6mm) |
| FHS58SHP | $\frac{5}{16}$ " - $\frac{1}{2}$ " (8mm - 13mm) |
| FHS912SHP | $\frac{9}{16}$ " - $\frac{3}{4}$ " (14mm - 19mm) |
| FHS24SHR | $\frac{1}{8}$ " - $\frac{1}{4}$ " (3mm - 6mm) |
| FHS58SHR | $\frac{5}{16}$ " - $\frac{1}{2}$ " (8mm - 13mm) |
| FHS912SHR | $\frac{9}{16}$ " - $\frac{3}{4}$ " (14mm - 19mm) |



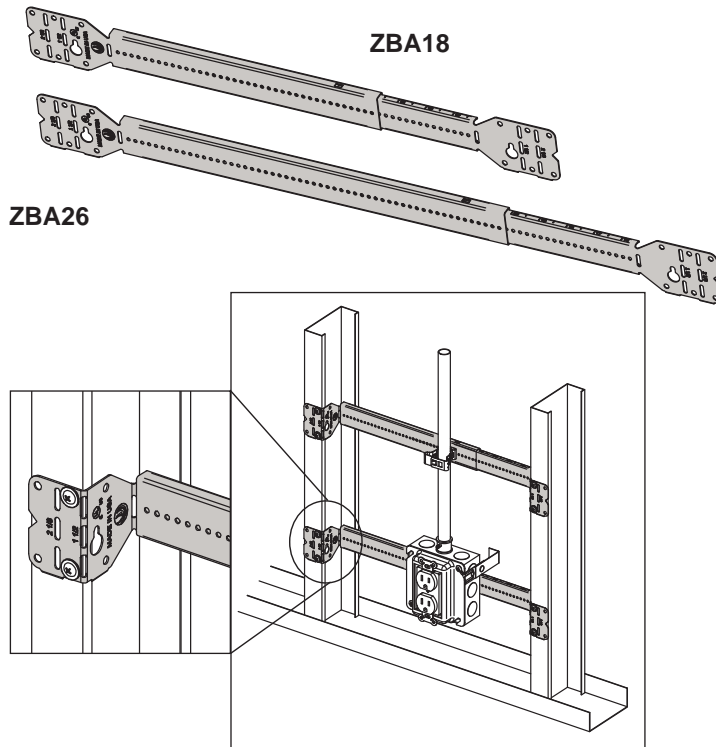
Stud Wall Applications

Standard Finish: Pregalvanized (PG)



ZBA Z-Bracket

Adjustable Screw Gun Bracket for Wood or Metal Studs

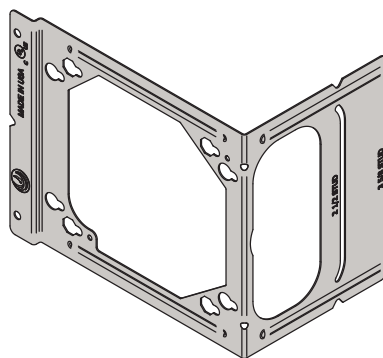


- Complete adjustability for infinite stud spacings.
- Requires only a screw gun to install.
- Pre-punched holes allow easy box or conduit attachment.
- Stud spacing scale stamped on bracket for precise preassembly.
- Locking tabs prevent disassembly.
- Use with SDTSLP8X1/2 screws, see page 187.
- **Material:** Steel
- **Finish:** Pregalvanized

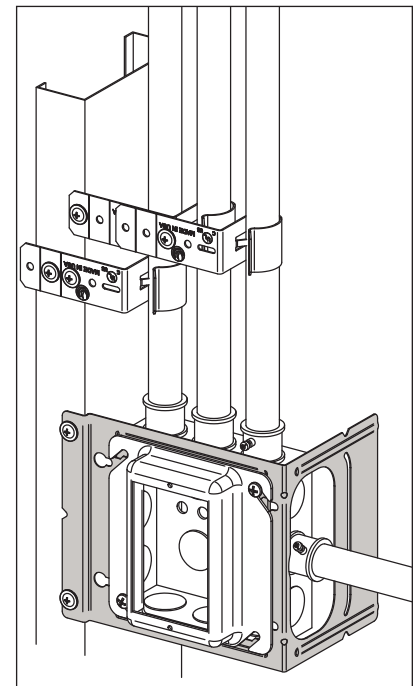
| Part No. | Stud Centers | Distance Between Studs | Box Depth |
|----------|--------------------------------|------------------------------------|------------------------------------|
| ZBA18PG | 11" to 18" (279mm to 457mm) | 10" to 16-3/4" (254mm to 425mm) | 1-1/2" or 2-1/8" (38mm or 54mm) |
| ZBA26PG | 16" to 26" (406mm to 660mm) | 14" to 25-1/4" (356mm to 641mm) | |

BBSM

Electrical Box Bracket for Wood or Metal Studs



- Used to attach 4" and 4-11/16" outlet boxes to wood or metal studs.
- Large cutouts provided for conduit and fittings.
- Integral farside support prevents outlet box movement.
- Use with SDTSLP8X1/2 screws, see page 187
- **Material:** Steel
- **Finish:** Pregalvanized



| Part No. | Outlet Boxes | Box Depths | Stud Depths |
|----------|--|---|----------------------------------|
| BBSM | 4" (102mm) Square, 4-11/16" (119mm) Square and Low Voltage Plaster Rings | 1-1/4", 1-1/2", and 2-1/8" Deep (32mm, 38mm, and 54mm) | 2-1/2", 3-5/8" (64 mm, 92 mm) |



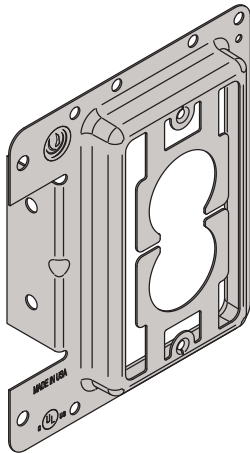


LVMN

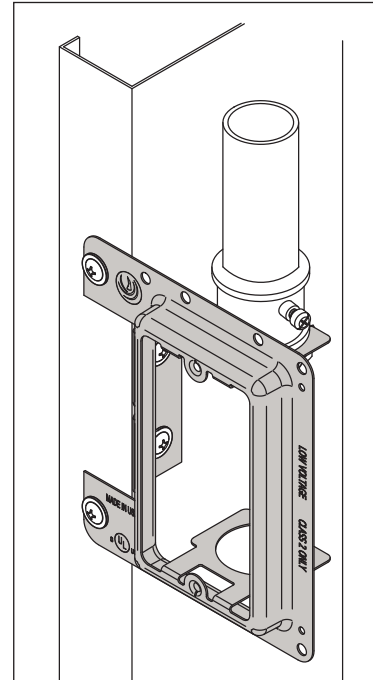
Low Voltage Mounting Plate for New Construction

Stud Wall Applications

Standard Finish: Pregalvanized (PG)



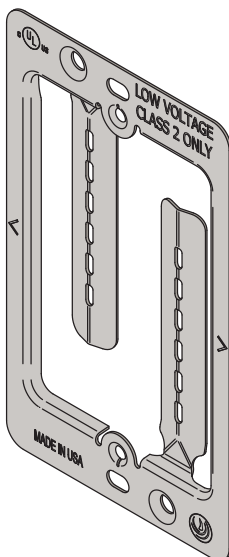
- Wood or Metal Studs
- New work design requires a screw gun for installation.
- Inner tabs allow $\frac{3}{4}$ " EMT or $\frac{1}{2}$ " EMT with reducer fitting for conduit applications if required.
- Can be mounted vertically or horizontally on wood or metal studs.
- Replaces electrical box in Class 2 low voltage installations.
- Use with SDTSLP8X1/2 screws, see page 187
- **Material:** Steel
- **Finish:** Pregalvanized



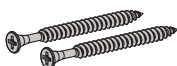
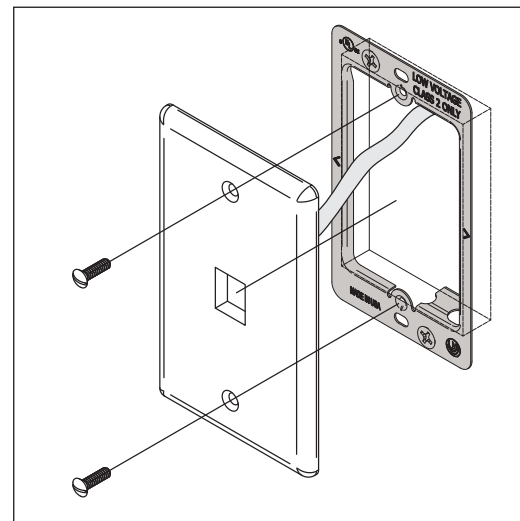
| Part No. | Drywall Thickness |
|----------|--|
| LVMN | $\frac{1}{2}$ " thru $\frac{5}{8}$ " (13mm to 16mm) |

LVMS

Low Voltage Mounting Plate with Screws for Existing Construction



- Old work design requires a drywall saw and screw driver for installation.
- Provided screws make a more secure bracket installation.
- Replaces electrical box in Class 2 low voltage installations.
- **Material:** Steel
- **Finish:** Pregalvanized



| Part No. | Drywall Thickness |
|----------|---|
| LVMS | $\frac{1}{2}$ " thru 1- $\frac{1}{4}$ " (13mm to 32mm) |



Stud Wall Applications

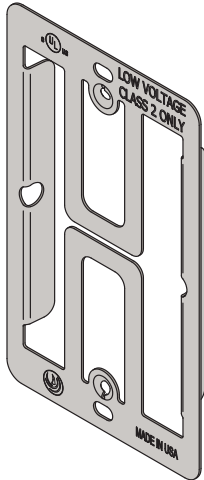


Standard Finish: Pregalvanized (PG) or Silva-Guard (SG)

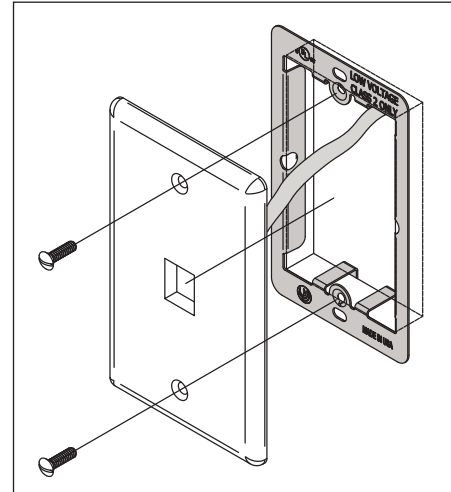


LVMP

Low Voltage Mounting Plate for Existing Construction



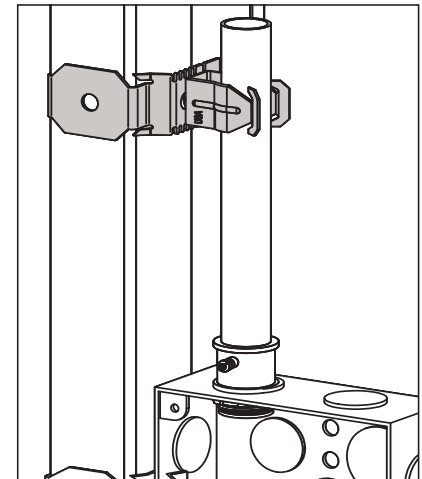
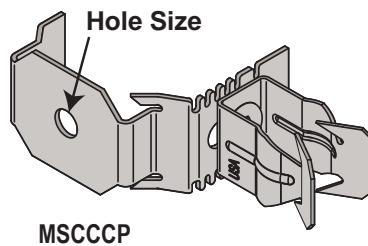
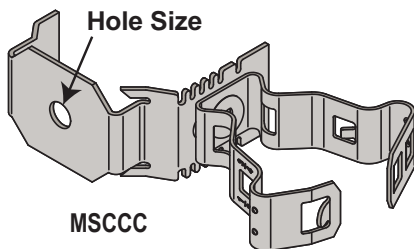
- Old work design requires a drywall saw and screw driver for installation.
- Replaces electrical box in Class 2 low voltage installations.
- **Material:** Steel
- **Finish:** Pregalvanized



| Part No. | Drywall Thickness |
|----------|------------------------------------|
| LVMP | 1/2" thru 1-1/4" (13mm to 32mm) |

MSC CC CCP

Metal Stud Clip with Conduit Clip & Conduit "Push In" Clip



- Supports pipe and conduit to studs.
- Hole provided for additional support.
- Use with SDTSLP8X1/2 screws, see page 187
- **Material:** Spring Steel
- **Finish:** Silva-Guard

| Part No. | Hole Size | Conduit Size |
|-------------|-----------|-------------------------|
| * MSCCC8-12 | 9/32" | 1/2" or 3/4" EMT, Rigid |
| * MSCCC16 | | 1" EMT, Rigid |
| * MSCCC20 | | 1-1/4" EMT, Rigid |
| MSCCCP8 | 9/32" | 1/2" EMT |
| MSCCCP12 | | 3/4" EMT, 1/2" Rigid |
| MSCCCP16 | | 1" EMT, 3/4" Rigid |
| | | |

* NOTE: UL Listed



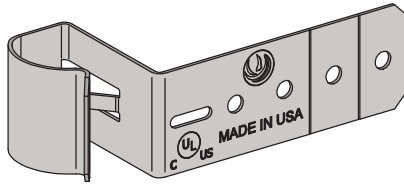


Stud Wall Applications

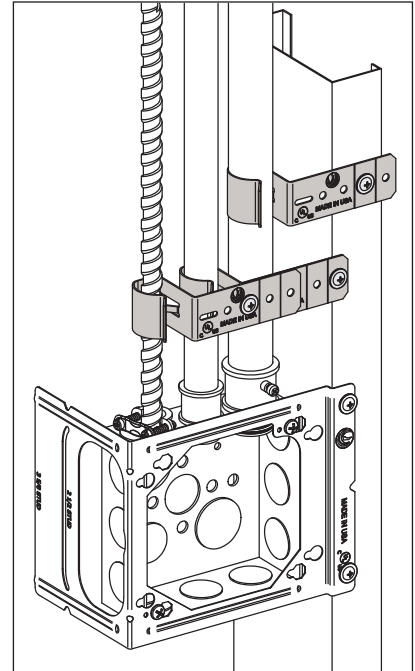
Standard Finish: Pregalvanized (PG) or Silva-Guard (SG)

CTS

Conduit Clip to Wood or Metal Stud



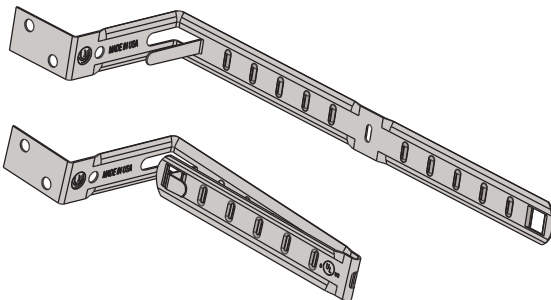
- Eliminates offset bending of conduit.
- Aligns conduit with standard knockouts.
- Accommodates EMT and MC/AC cable.
- Complies with NEC 358.30(A), conduit support within 36" of an electrical box.
- For use with wood and metal studs. Use with SDTSLP8X1/2 screws, see page 187
- **Material:** Spring Steel
- **Finish:** Silva-Guard



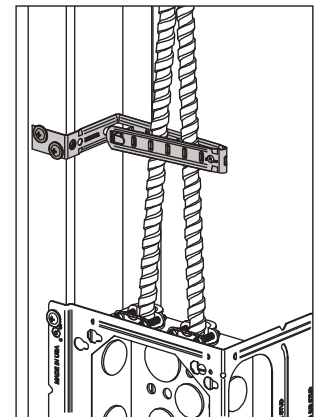
| Part No. | Box Depth | MC/AC Cable Size | Conduit Size |
|----------|---------------|------------------------|---------------------------------------|
| CTS812 | 1-1/2" (38mm) | 14-2, 14-3, 12-2, 12-3 | 1/2" or 3/4" EMT MC/AC (13mm or 19mm) |

CSSTS

Cable Support Strap for Wood or Metal Studs



- Integral ribs used to maintain cable separation.
- Complies with NEC 300.4(D).
- For use with wood and metal studs.
- Use with SDTSLP8X1/2 screws, see page 187
- **Material:** Steel
- **Finish:** Pregalvanized



| Part No. | Cable Type | Cable Size | Cables per Fastener | Description |
|----------|--|--|---------------------|---|
| CSSTS | Romex™ and Non-Metallic Sheathed Cable | 14-2, 12-2, 10-2, 14-3, 12-3, and 10-3 with ground | 6 Max. | To Attach Romex Non-Metallic Sheathed Cable, AC, BX, and MC Cable to Wood or Metal Stud |
| | | 8-2 and 6-2 with ground | 4 Max. | |
| | Metal Clad (MC) Cable | 14-2, 12-2, 10-2, 14-3, 12-3, 10-3, 14-4, 12-4, and 10-4 with ground | 4 Max. | |



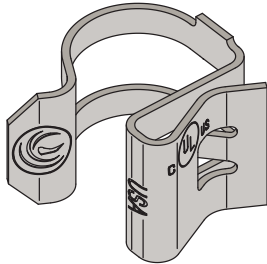
Stud Wall Applications



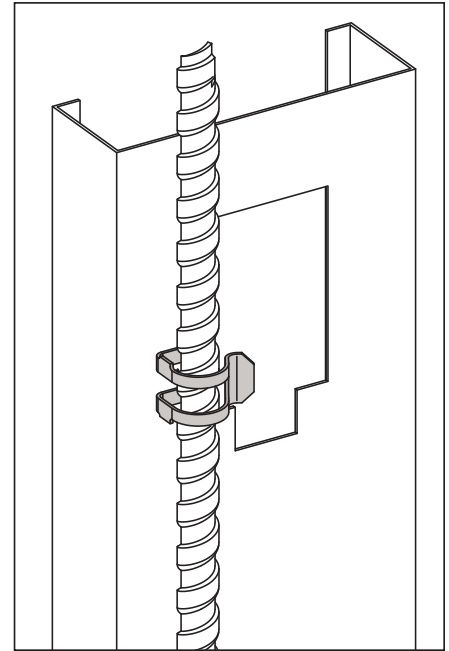
Standard Finish: Silva-Guard (SG) or Electrogalvanized (EG)

CCMS

MC/AC Cable Clip to Metal Stud



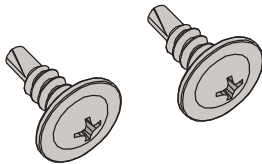
- Cable clip attaches MC/AC cable to metal studs.
- No tools required for application.
- **Material:** Spring Steel
- **Finish:** Silva-Guard



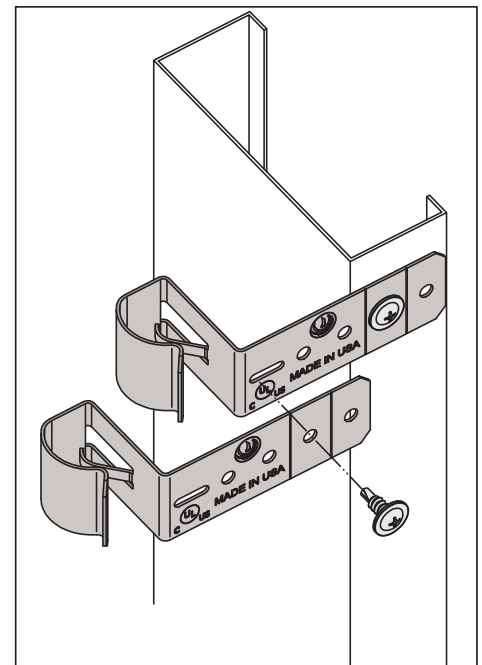
| Part No. | Cable Type | Cable Size | Description |
|----------|-------------|------------------------|--------------------------------|
| CCMS | MC/AC Cable | 14-2, 14-3, 12-2, 12-3 | MC/AC Cable Clip to Metal Stud |

SDTSLP8X1/2

Self Drilling and Tapping Screw



- #8 x 1/2" Long Self drilling and tapping, low profile screws
- Thin head prevents drywall bulge.
- #2 phillips driver for screw gun use.
- **Material:** Steel
- **Finish:** Electrogalvanized



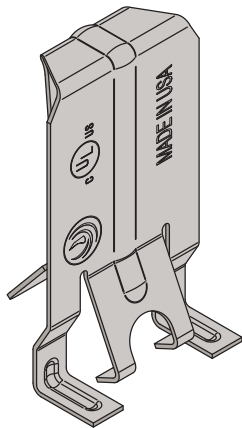


Ceiling and Acoustical Applications

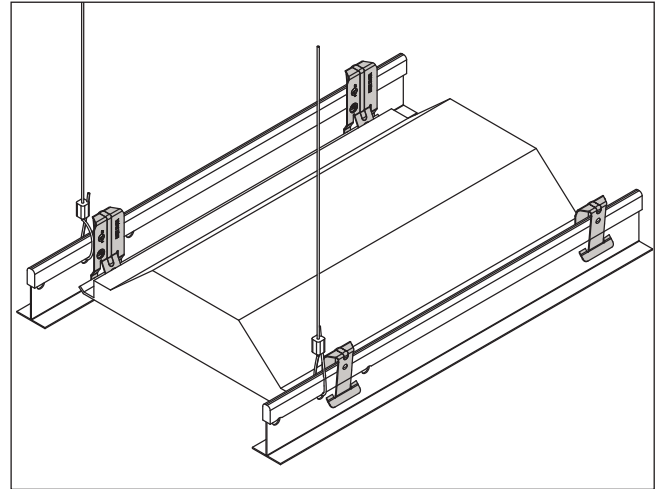
Standard Finish: Silva-Guard (SG)

SCT

Support Clip for Troffer Lights & Lay-Ins



- Four clips per fixture required per UL listing.
- Compatible with straight lip or upturned lip fixtures.
- Tall grid compatible.
- **Material:** Spring Steel
- **Finish:** Silva-Guard



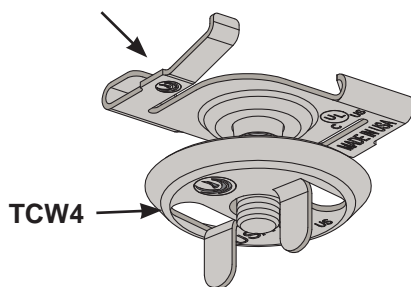
| Part No. | Description |
|----------|---|
| SCT15 | Support clip for securing troffers, lay-ins and air diffusers to T-Grid |

TCB, TCS

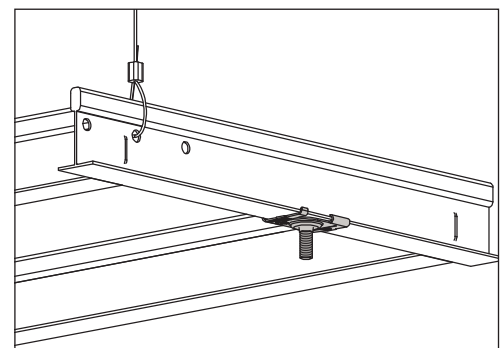
Twist Clip with Wing Nut



TCB16



- Use to attach lighting to main T-bars.
- Simple twist on design eliminates the need for installation tools.
- Will not damage T-grid.
- **Material:** Spring Steel
- **Finish:** Silva-Guard



| Part No. | Stud Length | Description | Static Load Limit per Fastener |
|----------|-------------|------------------------------------|--------------------------------|
| TCB16 | 5/8" | 15/16" Tee Twist Clip with Stud | 50 Lbs. |
| TCW4 | — | 1/4"-20 Twist Clip Wing Nut | 100 Lbs. |
| TCS16 | 5/8" | 15/16" Tee Twist Clip and Wing Nut | 50 Lbs. |



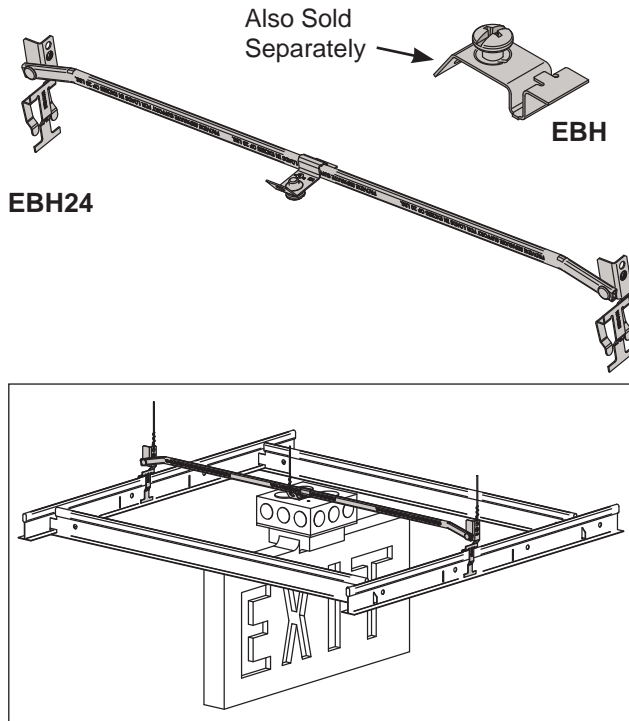
Ceiling and Acoustical Applications

Standard Finish: Silva-Guard (SG)



EBH

Electrical Box Hanger with Box Mounting Clip

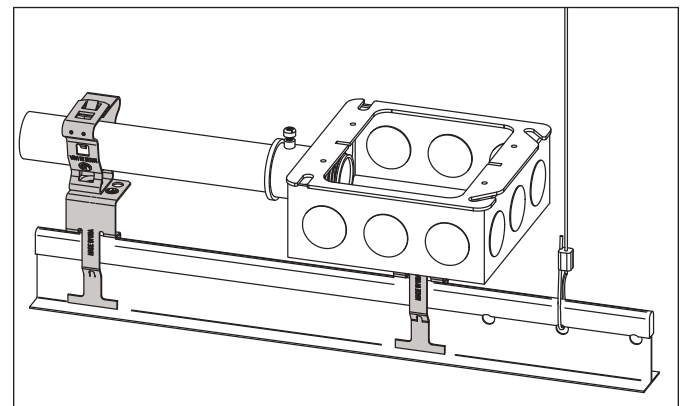
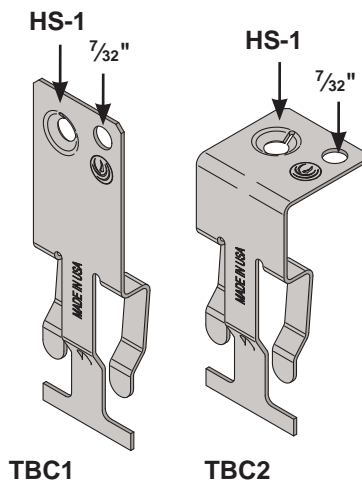


| Part No. | Description |
|----------|--|
| EBH24 | Complete assembly to flush mount a 1-1/2" box with or without 3/4" device ring or 2-1/8" box to ceiling tile. Used for 24" on center T-grid spacing. |
| EBH | Box mounting clip and screw for attaching one or multiple boxes to EB 24 assembly. |

- Complete hanger assembly for supporting an electrical box above T-grid.
- Multiple holes provided for drop wire securement to building structure.
- Dual height feature permits 1-1/2" electrical box with or without 3/4" device ring and 2-1/8" box to be flush mounted with ceiling tile.
- Included mounting clip and 1/4" screw is compatible with standard knock-out configurations.
- **Material:** Steel & Spring Steel
- **Finish:** Pregalvanized & Silva-Guard

TBC

T-Bar Clip



- Attaches outlet boxes and conduit clips above T-grid.
- 7/32" hole provided for drop wire.
- Clip snaps onto T-bar. No tools required.
- **Material:** Spring Steel
- **Finish:** Silva-Guard

| Part No. | HS-1 |
|----------|-----------------------|
| TBC1 | 1/4" x 20 Thread Form |
| TBC2 | 1/4" x 20 Thread Form |



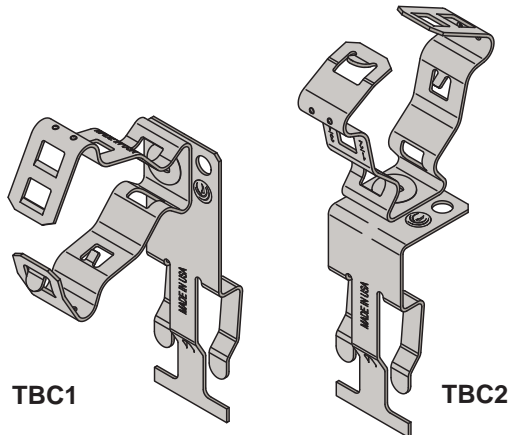


Ceiling and Acoustical Applications

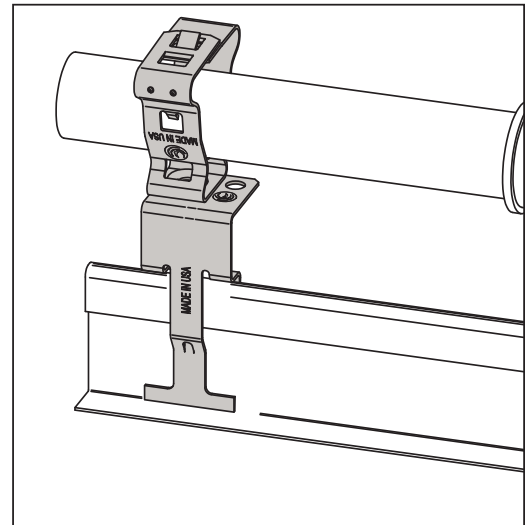
Standard Finish: Silva-Guard (SG)

TB C

T-Bar Clip with Conduit Clip



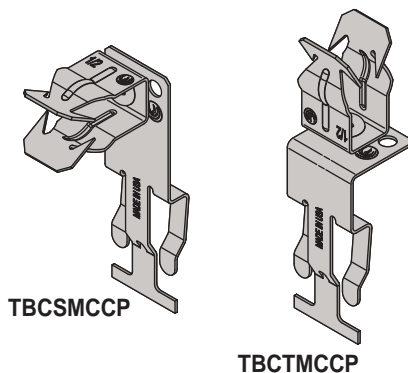
- Supports pipe and conduit above T-bars. Conduit clip rotates 360 degrees.
- No screws or bolts required. No installation tools required.
- 7/32" Hole provided for drop wire.
- **Material:** Spring Steel
- **Finish:** Silva-Guard



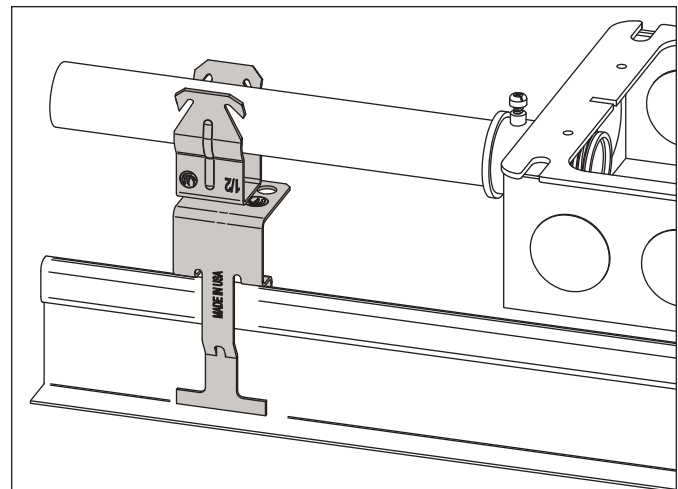
| Part No. | Conduit Size |
|----------|-------------------------|
| TBC1C812 | 1/2" or 3/4" EMT, Rigid |
| TBC1C16 | 1" EMT, Rigid |
| TBC2C812 | 1/2" or 3/4" EMT, Rigid |
| TBC2C16 | 1" EMT, Rigid |

TBC SMCCP, TMCCP

T-Bar Clip with Conduit "Push In" Clip



- Supports pipe and conduit above T-bars.
- Conduit clip rotates 360 degrees.
- No screws, bolts or installation tools required.
- 7/32" hole provided for drop wire.
- **Material:** Spring Steel
- **Finish:** Silva-Guard



| Part No. | Mount | Conduit Size |
|------------|------------|----------------------|
| TBCSMCCP8 | Side Mount | 1/2" EMT |
| TBCSMCCP12 | | 3/4" EMT, 1/2" Rigid |
| TBCSMCCP16 | | 1" EMT, 3/4" Rigid |
| TBCTMCCP8 | Top Mount | 1/2" EMT |
| TBCTMCCP12 | | 3/4" EMT, 1/2" Rigid |
| TBCTMCCP16 | | 1" EMT, 3/4" Rigid |



Loop and Ring Clamps



ZSi-Foster Offers a Full Range of Loop, Ring & Cable Clamps

SPN Loop Clamps

Plated Steel $\frac{1}{2}$ " (13mm) Wide
Page 192



SPW Loop Clamps

Plated Steel $\frac{3}{4}$ " (19mm) Wide
Page 193



SPD Loop Clamps

2-Tube Cushioned Cable Clamps,
Plated Steel $\frac{3}{4}$ " (19mm) Wide
Page 193



SPH Cush-A-Ring Clamps

SPH Cush-A-Ring Clamp for
Copper Tube or Steel Tube or Pipe
Page 194



SPP Cush-A-Ring Clamps

SPP Cush-A-Ring Clamp for
PEX, CPVC, or PVC Pipe
Page 195



SVN Loop Clamps

Vinyl Dipped - Galvanized Steel
 $\frac{1}{2}$ " (13mm) Wide
Page 196



LVZ Loop Clamps

Vinyl Dipped Galvanized Steel
1" (24mm) Wide
Page 197



SVW Loop Clamps

Vinyl Dipped Galvanized Steel
 $\frac{3}{4}$ " (19mm) Wide
Page 196



SSN Loop Clamps

Stainless Steel $\frac{1}{2}$ " (13mm) Wide
Page 198



Cable Clamps

Plastic Cable Clamps
Page 198



HVN Loop Clamps

Vinyl Dipped Galvanized Steel
 $\frac{1}{2}$ " (13mm) Wide
Page 199



HSN Loop Clamps

Stainless Steel $\frac{1}{2}$ " (13mm) Wide
Page 199



Python Series

Zinc Plated Steel
Page 200



Python II Series

Stainless Steel Type 316
Page 200

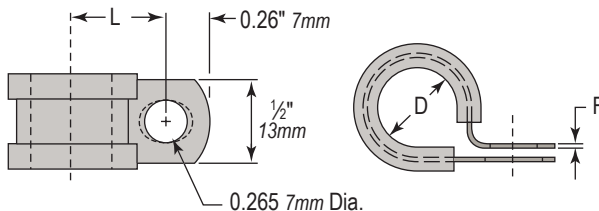


SPN Loop Clamps

Plated Steel Loop Clamps 1/2" (13mm) Wide



- Light to medium duty steel clamp
- E.P.D.M. cushion for electrical insulation and vibration absorption
- Steel clamps are zinc electroplated for corrosion resistance
- Some sizes available in aluminum. Contact factory for details.
- Temperature range -50°F to +275°F (-45°C to 135°C)



| Plated Steel Part No. | Stainless Steel Part No. | Dimensions (in) | | |
|-----------------------|--------------------------|-----------------|---------------|--------------|
| | | D Size | L | F |
| SPN-03 | SPN-03SS | 3/16" (5mm) | 0.499" (13mm) | 0.032" (1mm) |
| SPN-04 | SPN-04SS | 1/4" (6mm) | 0.530" (13mm) | |
| SPN-05 | SPN-05SS | 5/16" (8mm) | 0.561" (14mm) | |
| SPN-06 | SPN-06SS | 3/8" (10mm) | 0.592" (15mm) | |
| SPN-07 | SPN-07SS | 7/16" (11mm) | 0.623" (16mm) | |
| SPN-08 | SPN-08SS | 1/2" (13mm) | 0.655" (17mm) | |
| SPN-09 | SPN-09SS | 9/16" (14mm) | 0.749" (19mm) | |
| SPN-10 | SPN-10SS | 5/8" (16mm) | 0.780" (20mm) | |
| SPN-11 | SPN-11SS | 11/16" (17mm) | 0.811" (21mm) | |
| SPN-12 | SPN-12SS | 3/4" (19mm) | 0.840" (21mm) | |
| SPN-14 | SPN-14SS | 7/8" (22mm) | 0.889" (23mm) | |
| SPN-16 | SPN-16SS | 1" (25mm) | 0.952" (24mm) | |
| SPN-18 | SPN-18SS | 1-1/8" (29mm) | 1.030" (26mm) | |
| SPN-20 | SPN-20SS | 1-1/4" (32mm) | 1.093" (28mm) | |
| SPN-22 | SPN-22SS | 1-3/8" (35mm) | 1.155" (29mm) | |
| SPN-24 | SPN-24SS | 1-1/2" (38mm) | 1.218" (31mm) | |
| SPN-26 | SPN-26SS | 1-5/8" (41mm) | 1.280" (33mm) | |
| SPN-28 | SPN-28SS | 1-3/4" (44mm) | 1.343" (34mm) | |
| SPN-30 | SPN-30SS | 1-7/8" (48mm) | 1.405" (36mm) | 0.040" (1mm) |
| SPN-32 | SPN-32SS | 2" (51mm) | 1.476" (37mm) | |
| SPN-34 | SPN-34SS | 2-1/8" (5mm) | 1.538" (39mm) | |
| SPN-36 | SPN-36SS | 2-1/4" (57mm) | 1.661" (42mm) | |
| SPN-38 | SPN-38SS | 2-3/8" (60mm) | 1.663" (42mm) | |
| SPN-40 | SPN-40SS | 2-1/2" (64mm) | 1.728" (44mm) | |
| SPN-42 | SPN-42SS | 2-5/8" (67mm) | 1.788" (45mm) | |
| SPN-48 | SPN-48SS | 3" (76mm) | 1.976" (50mm) | |
| SPN-52 | SPN-52SS | 3-1/4" (83mm) | 2.100" (53mm) | |
| SPN-56 | SPN-56SS | 3-1/2" (89mm) | 2.226" (57mm) | |
| SPN-64 | SPN-64SS | 4" (102mm) | 2.476" (63mm) | |



SPW & SPD Loop Clamps



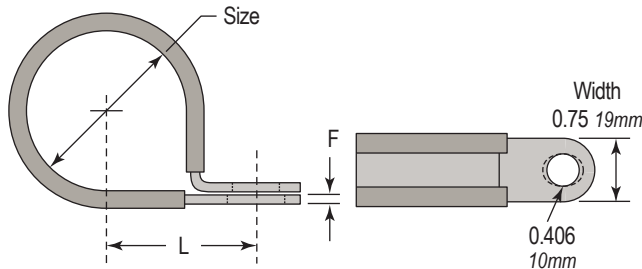
SPW Loop Clamps

Plated Steel $\frac{3}{4}$ " (19mm) Wide



- Light to medium duty steel clamp
- E.P.D.M. cushion for electrical insulation and vibration absorption
- Steel clamps are zinc electroplate for corrosion resistance
- Color - Silver with black durable cushion.
- Temperature range -50°F to +275°F (-45°C to 135°C)

Available in stainless steel. Some sizes available in aluminum.
Contact factory for details.

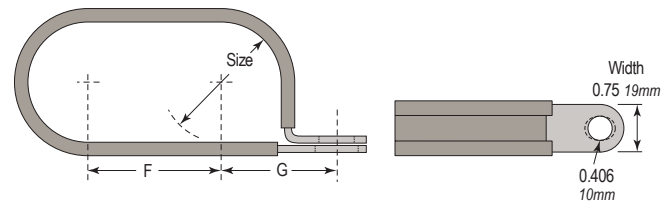


| Part No. | Size in | Dimensions (in) | |
|----------|-------------------------------|-------------------|-----------------|
| | | L | F |
| SPW-04 | $\frac{1}{4}$ " (6 mm) | 0.639" (16 mm) | 0.031" (1mm) |
| SPW-06 | $\frac{3}{8}$ " (10 mm) | 0.702" (18 mm) | |
| SPW-07 | $\frac{7}{16}$ " (11 mm) | 0.732" (19 mm) | |
| SPW-08 | $\frac{1}{2}$ " (13 mm) | 0.764" (19 mm) | |
| SPW-09 | $\frac{9}{16}$ " (14 mm) | 0.795" (20 mm) | |
| SPW-10 | $\frac{5}{8}$ " (16 mm) | 0.827" (21 mm) | |
| SPW-12 | $\frac{3}{4}$ " (19 mm) | 0.889" (23 mm) | |
| SPW-14 | $\frac{7}{8}$ " (22 mm) | 0.952" (24 mm) | |
| SPW-16 | 1" (25 mm) | 1.014" (26 mm) | 0.050" (1mm) |
| SPW-18 | 1- $\frac{1}{8}$ " (29 mm) | 1.090" (28 mm) | |
| SPW-20 | 1- $\frac{1}{4}$ " (32 mm) | 1.159" (29 mm) | |
| SPW-24 | 1- $\frac{1}{2}$ " (38 mm) | 1.284" (33 mm) | |
| SPW-26 | 1- $\frac{5}{8}$ " (41 mm) | 1.346" (34 mm) | |
| SPW-28 | 1- $\frac{3}{4}$ " (44 mm) | 1.409" (36 mm) | |
| SPW-30 | 1- $\frac{7}{8}$ " (48 mm) | 1.471" (37 mm) | |
| SPW-32 | 2" (51 mm) | 1.534" (39 mm) | |
| SPW-36 | 2- $\frac{1}{4}$ " (57 mm) | 1.659" (42 mm) | |
| SPW-40 | 2- $\frac{1}{2}$ " (64 mm) | 1.784" (45 mm) | |
| SPW-48 | 3" (76 mm) | 2.034" (52 mm) | |

SPD Loop Clamps

2-Tube Cushioned Cable Clamps, Plated Steel $\frac{3}{4}$ " (19mm) Wide

- Medium duty steel clamp that can be slipped over two tubes or multiple wires and closed with a bolt at assembly.
- Steel clamps are zinc electroplate for corrosion resistance
- E.P.D.M. cushion for electrical insulation and vibration absorption
- Temperature range -50°F to +275°F (-45°C to 135°C)



| Part No. | Size In. | Dimensions (in) | |
|----------|-------------------------------|-------------------|-------------------|
| | | F | G |
| SPD-08 | $\frac{1}{2}$ " (13 mm) | 0.50" (13 mm) | 0.764" (19 mm) |
| SPD-12 | $\frac{3}{4}$ " (19 mm) | 0.75" (19 mm) | 0.889" (23 mm) |
| SPD-16 | 1" (25 mm) | 1.00" (25 mm) | 1.014" (26 mm) |
| SPD-20 | 1- $\frac{1}{4}$ " (29 mm) | 1.125" (29 mm) | 1.159" (29 mm) |

Available in stainless steel. Some sizes available in aluminum.
Contact factory for details.



SPH Cush-A-Ring Clamps

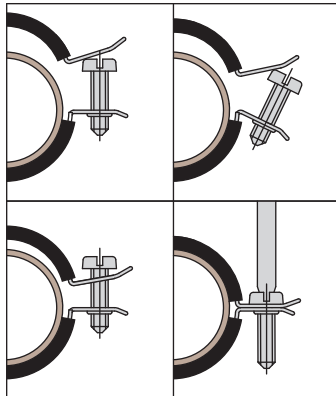
SPH Cush-A-Ring Clamp for Copper Tube or Steel Tube or Pipe



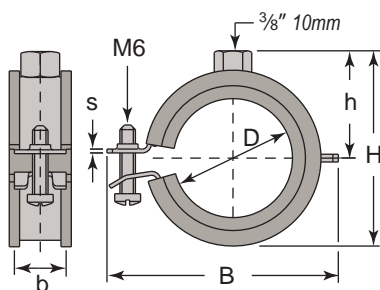
The **Cush-A-Ring** is a unique rubber lined hanger for copper and steel tube or pipe. The SPH-1 thru SPH-10 is a two-part clamp that has a hinged side with a single screw locking system. The quick locking system is easy to close with one hand, which makes it

easier and faster for installation. The noise insulating rubber lining is made of UV-resistant EPDM rubber. The Cush-A-Ring is zinc plated for corrosion resistance.

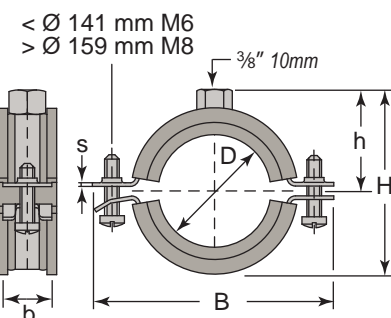
- Rubber lined, noise insulated
- With quick locking system
- Clamp easy to close with one hand
- UV-resistant black EPDM rubber lining
- Zinc plated
- ASTM E-84
- Meets - Buy America Act



SPH-1 thru SPH-10



SPH-11 thru SPH-14



| Part No. | Dimensions (in) | | | | | | |
|--|-----------------|-------------------|------------------|------------------|------------------|------------------|------------|
| | D (mm) | IP | CT | B | H | h | b x s (mm) |
| SPH-1 | 11 – 14 | 1/4" (6mm) | 3/8" (10mm) | 1.9" (48mm) | 1.4" (36mm) | 0.87" (22mm) | 20 x 1.25 |
| SPH-2 | 15 – 18 | 3/8" (10mm) | 1/2" (13mm) | 1.9" (48mm) | 1.4" (36mm) | 0.87" (22mm) | |
| SPH-3 | 20 – 23 | 1/2" (13mm) | 3/4" (19mm) | 2.2" (56mm) | 1.6" (41mm) | 0.94" (24mm) | |
| SPH-4 | 25 – 28 | 3/4" (19mm) | 1" (25mm) | 2.4" (61mm) | 1.8" (46mm) | 1.10" (28mm) | |
| SPH-5 | 31 – 35 | 1" (25mm) | 1-1/4" (32mm) | 2.6" (66mm) | 2.0" (51mm) | 1.20" (30mm) | |
| SPH-6 | 40 – 43 | 1-1/4" (32mm) | 1-1/2" (38mm) | 3.0" (76mm) | 2.4" (61mm) | 1.30" (33mm) | |
| SPH-7 | 48 – 53 | 1-1/2" (38mm) | - | 3.3" (84mm) | 2.6" (66mm) | 1.50" (38mm) | |
| SPH-8 | 54 – 56 | - | 2" (51mm) | 3.5" (89mm) | 2.8" (71mm) | 1.60" (41mm) | |
| SPH-9 | 57 – 63 | 2" (51mm) | - | 3.7" (94mm) | 3.1" (79mm) | 1.70" (43mm) | |
| SPH-10 | 64-70 | - | 2-1/2" (64mm) | 4.5" (114mm) | 3.9" (99mm) | 2.20" (56mm) | 23 x 2.00 |
| Below parts have 2 bolt configurations | | | | | | | |
| SPH-11 | 73-80 | 2-1/2" (64 mm) | 3" (76 mm) | 5.0" (127 mm) | 4.3" (109 mm) | 2.40" (61 mm) | 23 x 2.00 |
| SPH-12 | 83-91 | 3" (76 mm) | - | 5.4" (137 mm) | 4.8" (122 mm) | 2.60" (66 mm) | 25 x 2.50 |
| SPH-13 | 100- 105 | - | 4" (102 mm) | 6.0" (152 mm) | 5.3" (135 mm) | 2.90" (74 mm) | |
| SPH-14 | 108-114 | 4" (102 mm) | - | 6.3" (160 mm) | 5.7" (145 mm) | 3.10" (79 mm) | |

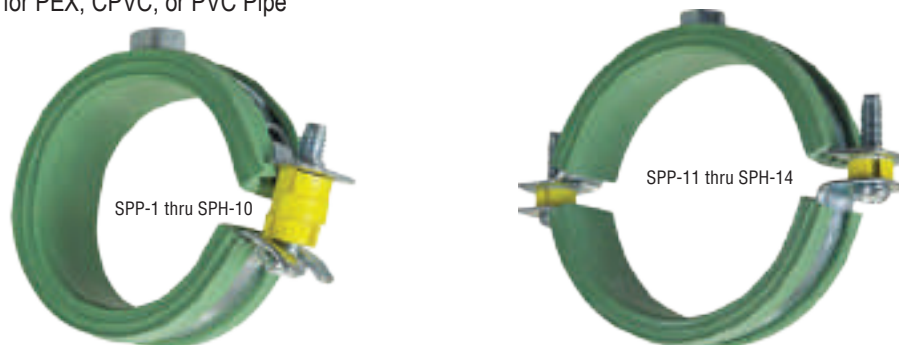


SPP Cush-A-Ring Clamps



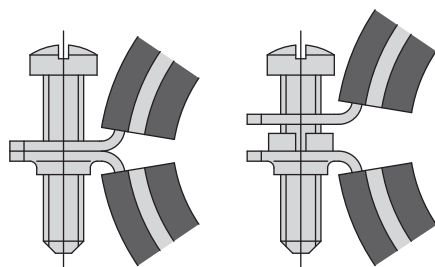
SPP Cush-A-Ring Clamps

SPP Cush-A-Ring Clamp for PEX, CPVC, or PVC Pipe

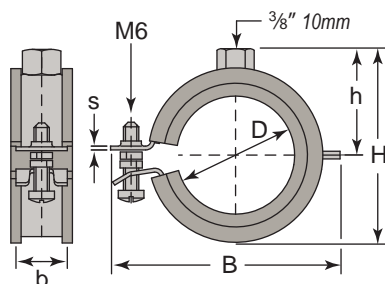


The **Cush-A-Ring** is a unique rubber lined hanger for PEX, CPVC, and PVC pipe. The SPP-1 thru SPP-10 has a two-part clamp with a hinged side and a single screw locking system. The quick locking system is easy to close with one hand, which makes it easier and faster for installation. The noise insulating rubber lining is made of UV-resistant EPDM rubber. The Cush-A-Ring is zinc plated for corrosion resistance.

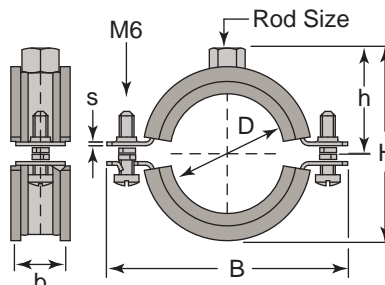
- With quick locking system
- Clamp easy to close with one hand
- Specially formulated, green, UV, and age resistant EPDM rubber lining
- Perfect for PEX, Fusion, CPVC, and PVC pipe
- ASTM E-84
- Complies with MSS SP-58 and SP-69
- Material steel, zinc plated



SPP-1 thru SPP-9



SPP-10 thru SPP-14



| Part No. | Dimensions (in) | | | | | | |
|--|-----------------|------------------------------|------------------------------|-----------------|-----------------|-----------------|---------------------------|
| | D | IP | CT | B | H | h | Rod Size |
| SPP-2 | 15 – 18 | $\frac{3}{8}$ " (10mm) | $\frac{1}{2}$ " (13mm) | 1.9" (48mm) | 1.4" (36mm) | 0.87" (22mm) | $\frac{3}{8}$ " (10mm) |
| SPP-3 | 20 – 23 | $\frac{1}{2}$ " (13mm) | $\frac{3}{4}$ " (19mm) | 2.2" (56mm) | 1.7" (43mm) | 0.94" (24mm) | |
| SPP-4 | 25 – 28 | $\frac{3}{4}$ " (19mm) | 1" (25mm) | 2.4" (61mm) | 1.9" (48mm) | 1.0" (25mm) | |
| SPP-5 | 31 – 35 | 1" (25mm) | 1- $\frac{1}{4}$ " (32mm) | 2.6" (66mm) | 2.2" (56mm) | 1.2" (30mm) | |
| SPP-6 | 40 – 43 | 1- $\frac{1}{4}$ " (32mm) | 1- $\frac{1}{2}$ " (38mm) | 3.0" (76mm) | 2.6" (66mm) | 1.3" (33mm) | |
| SPP-7 | 48 – 53 | 1- $\frac{1}{2}$ " (38mm) | - | 3.3" (84mm) | 3.0" (76mm) | 1.5" (38mm) | |
| SPP-8 | 54 – 56 | - | 2" (51mm) | 3.5" (89mm) | 3.0" (76mm) | 1.6" (41mm) | |
| SPP-9 | 60 – 65 | 2" (51mm) | - | 4.3" (109mm) | 3.4" (86mm) | 1.7" (43mm) | |
| SPP-10 | 70 – 76 | 2- $\frac{1}{2}$ " (64mm) | - | 4.9" (124mm) | 4.1" (104mm) | 2.2" (56mm) | |
| Below parts have 2 bolt configurations | | | | | | | |
| SPP-11 | 86 – 91 | 3" (76mm) | - | 5.4" (137mm) | 4.6" (117mm) | 2.4" (61mm) | $\frac{3}{8}$ " (10mm) |
| SPP-12 | 110 – 114 | 4" (102mm) | - | 6.3" (160mm) | 5.8" (147mm) | 2.9" (74mm) | |
| SPP-13 | 124 – 132 | - | - | 6.8" (173mm) | 5.9" (150mm) | 3.1" (79mm) | $\frac{1}{2}$ " (13mm) |
| SPP-14 | 155 – 160 | - | - | 8.0" (203mm) | 7.4" (188mm) | 3.9" (99mm) | |

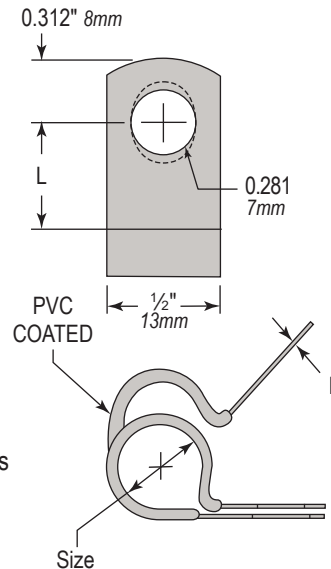


SVN Loop Clamps

Vinyl Dipped - Galvanized Steel $\frac{1}{2}$ " (13mm) Wide



- Medium duty steel clamp that can be slipped over a tube or wire and closed with a bolt at assembly. Holes provide easy alignment. Its pre-developed shape allows for proper closing and excellent fit of the clamp.
- Galvanized Steel
- PVC coated, black color
- Temperature range -25°F to +160°F (-32°C to +71°C)



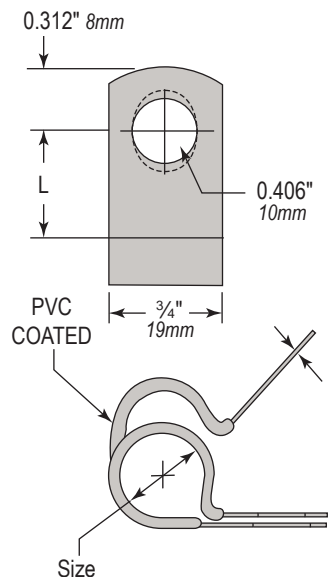
| Part No. | Size in. | Dimensions (in) | |
|----------|---------------------------|-----------------|--------------|
| | | L | F |
| SVN-03 | $\frac{3}{16}$ " (5mm) | 0.500" (13mm) | 0.032" (1mm) |
| SVN-04 | $\frac{1}{4}$ " (6mm) | 0.531" (13mm) | |
| SVN-05 | $\frac{5}{16}$ " (8mm) | 0.562" (14mm) | |
| SVN-06 | $\frac{3}{8}$ " (10mm) | 0.593" (15mm) | |
| SVN-08 | $\frac{1}{2}$ " (13mm) | 0.656" (17mm) | 0.048" (1mm) |
| SVN-09 | $\frac{9}{16}$ " (14mm) | 0.687" (17mm) | |
| SVN-10 | $\frac{5}{8}$ " (16mm) | 0.718" (18mm) | |
| SVN-12 | $\frac{3}{4}$ " (19mm) | 0.781" (20mm) | |
| SVN-14 | $\frac{7}{8}$ " (22mm) | 0.843" (21mm) | |
| SVN-16 | 1" (25mm) | 0.906" (23mm) | |
| SVN-18 | 1- $\frac{1}{8}$ " (29mm) | 0.968" (25mm) | |

SVW Loop Clamps

Vinyl Dipped Galvanized Steel $\frac{3}{4}$ " (19mm) Wide



- Medium duty steel clamp that can be slipped over a tube or wire and closed with a bolt at assembly. Holes provide easy alignment. Its pre developed shape allows for proper closing and excellent fit of the clamp..
- Galvanized Steel
- PVC coated, black color
- Temperature range -25°F to +160°F (-32°C to +71°C)



| Part No. | Size in. | Dimensions (in) | |
|----------|---------------------------|-----------------|--------------|
| | | L | F |
| SVW-04 | $\frac{1}{4}$ " (6mm) | 0.656" (17mm) | 0.032" (1mm) |
| SVW-05 | $\frac{5}{16}$ " (8mm) | 0.562" (14mm) | |
| SVW-06 | $\frac{3}{8}$ " (10mm) | 0.0718" (2mm) | |
| SVW-08 | $\frac{1}{2}$ " (13mm) | 0.781" (20mm) | 0.048" (1mm) |
| SVW-09 | $\frac{9}{16}$ " (14mm) | 0.812" (21mm) | |
| SVW-10 | $\frac{5}{8}$ " (16mm) | 0.843" (21mm) | |
| SVW-12 | $\frac{3}{4}$ " (19mm) | 0.906" (23mm) | |
| SVW-13 | $\frac{13}{16}$ " (21mm) | 0.937" (24mm) | |
| SVW-14 | $\frac{7}{8}$ " (22mm) | 0.968" (25mm) | |
| SVW-15 | $\frac{15}{16}$ " (24mm) | 1.000" (25mm) | |
| SVW-16 | 1" (25mm) | 1.031" (26mm) | |
| SVW-18 | 1- $\frac{1}{8}$ " (29mm) | 1.092" (28mm) | |
| SVW-20 | 1- $\frac{1}{4}$ " (32mm) | 1.156" (29mm) | |
| SVW-22 | 1- $\frac{3}{8}$ " (35mm) | 1.218" (31mm) | |



LVZ Loop Clamps

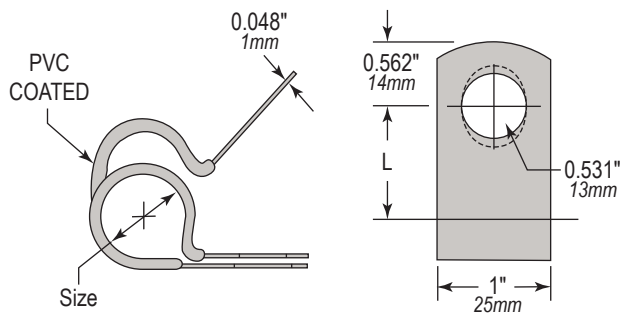


LVZ Loop Clamps

Vinyl Dipped Galvanized Steel 1" (25mm) Wide



- Heavy duty steel clamp
- Galvanized Steel
- PVC coated, black color
- Temperature range -25°F to +160°F (-32°C to +71°C)



| Part No. | Size in. | L |
|----------|--------------------|------------------|
| LVZ-18 | 1-1/8" (29mm) | 1.218" (31mm) |
| LVZ-19 | 1-3/16" (30mm) | 1.250" (32mm) |
| LVZ-20 | 1-1/4" (32mm) | 1.281" (33mm) |
| LVZ-21 | 1-5/16" (33mm) | 1.312" (33mm) |
| LVZ-24 | 1-1/2" (38mm) | 1.406" (36mm) |
| LVZ-25 | 1-9/16" (40mm) | 1.437" (36mm) |
| LVZ-28 | 1-3/4" (44mm) | 1.531" (39mm) |
| LVZ-29 | 1-13/16" (46mm) | 1.562" (40mm) |
| LVZ-32 | 2" (51mm) | 1.687" (43mm) |
| LVZ-33 | 2-1/16" (52mm) | 1.718" (44mm) |
| LVZ-36 | 2-1/4" (57mm) | 1.812" (46mm) |
| LVZ-40 | 2-1/2" (64mm) | 1.937" (49mm) |
| LVZ-42 | 2-5/8" (67mm) | 2.000" (51mm) |
| LVZ-44 | 2-3/4" (70mm) | 2.062" (52mm) |
| LVZ-46 | 2-7/8" (73mm) | 2.125" (54mm) |
| LVZ-57 | 3-9/16" (90mm) | 2.437" (62mm) |





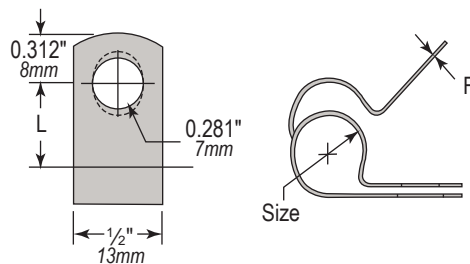
SSN & Cable Loop Clamps

SSN Loop Clamps

Stainless Steel $\frac{1}{2}$ " (13mm) Wide



- Medium duty steel clamp that can be slipped over a tube or wire and closed with a bolt at assembly. Holes provide easy alignment. Its pre-developed shape allows for proper closing and excellent fit.
- Stainless steel, type 301 or 304

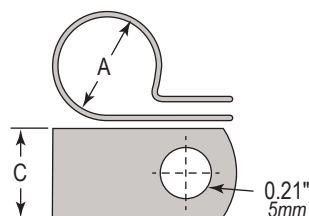


| Part No. | Size in. | Dimensions (in) | |
|----------|------------------------------|------------------|-----------------|
| | | L | F |
| SSN-03 | $\frac{3}{16}$ " (5mm) | 0.500" (13mm) | 0.032" (1mm) |
| SSN-04 | $\frac{1}{4}$ " (6mm) | 0.531" (13mm) | |
| SSN-05 | $\frac{5}{16}$ " (8mm) | 0.562" (14mm) | |
| SSN-06 | $\frac{3}{8}$ " (10mm) | 0.593" (15mm) | |
| SSN-08 | $\frac{1}{2}$ " (13mm) | 0.656" (17mm) | 0.048" (1mm) |
| SSN-09 | $\frac{9}{16}$ " (14mm) | 0.687" (17mm) | |
| SSN-10 | $\frac{5}{8}$ " (16mm) | 0.718" (18mm) | |
| SSN-12 | $\frac{3}{4}$ " (19mm) | 0.781" (20mm) | |
| SSN-14 | $\frac{7}{8}$ " (22mm) | 0.843" (21mm) | |
| SSN-16 | 1" (25mm) | 0.906" (23mm) | |
| SSN-18 | 1- $\frac{1}{8}$ " (29mm) | 0.968" (25mm) | |

Cable Clamps



Cable Clamps are perfect for securing wires and cables in the electric, automotive and aircraft industries.



| Part No. | A (in.) | C (in.) |
|-----------|------------------|------------------|
| CC3-1/8 | 0.130" (3mm) | 0.358" (9mm) |
| CC3-3/16 | 0.189" (5mm) | |
| CC3-1/4 | 0.260" (7mm) | |
| CC3-5/16 | 0.307" (8mm) | |
| CC3-3/8 | 0.382" (10mm) | 0.362" (9mm) |
| CC5-1/8 | 0.114" (3mm) | 0.500" (13mm) |
| CC5-1/4 | 0.232" (6mm) | |
| CC5-3/8 | 0.358" (9mm) | |
| CC5-1/2 | 0.480" (12mm) | |
| CC5-9/16 | 0.543" (14mm) | |
| CC5-3/4 | 0.732" (19mm) | |
| CC5-7/8 | 0.858" (22mm) | |
| CC5-1-1/8 | 1.100" (28mm) | |

UV Black also available upon request Closed Bottom



HVN & HSN Loop Clamps

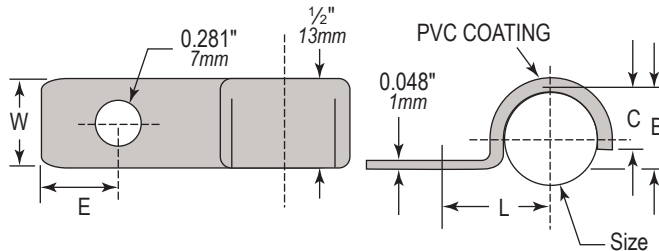


HVN Loop Clamps

Vinyl Dipped Galvanized Steel



- Black vinyl plastic coated (PVC)
- Galvanized Steel for corrosion resistance
- Temperature range -25°F to +160°F (-32°C to +71°C)



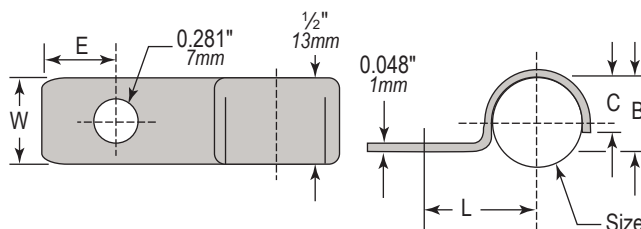
| Part No. | Size in. | Dimensions (in) | | | | |
|----------|-----------------|------------------|-----------------|------------------|------------------|----------------|
| | | L | E | B | C | W |
| HVN-04 | 1/4" (6mm) | 0.500" (13mm) | 0.250" (6mm) | 0.250" (6mm) | 0.188" (5mm) | 1/2" (13mm) |
| HVN-05 | 5/16" (8mm) | 0.531" (13mm) | 0.312" (8mm) | 0.312" (8mm) | 0.218" (6mm) | 5/8" (16mm) |
| HVN-06 | 3/8" (10mm) | 0.562" (14mm) | 0.312" (8mm) | 0.375" (10mm) | 0.281" (7mm) | |
| HVN-08 | 1/2" (13mm) | 0.687" (17mm) | 0.312" (8mm) | 0.500" (13mm) | 0.343" (9mm) | |
| HVN-09 | 9/16" (14mm) | 0.750" (19mm) | 0.312" (8mm) | 0.562" (14mm) | 0.437" (11mm) | |
| HVN-10 | 5/8" (16mm) | 0.812" (21mm) | 0.312" (8mm) | 0.625" (16mm) | 0.406" (10mm) | |
| HVN-12 | 3/4" (19mm) | 0.875" (22mm) | 0.312" (8mm) | 0.750" (19mm) | 0.468" (12mm) | |

HSN Loop Clamps

Stainless Steel



- Stainless steel, Type 301 or 304



| Part No. | Size in. | Dimensions (in) | | | | |
|----------|-----------------|------------------|-----------------|------------------|------------------|----------------|
| | | L | E | B | C | W |
| HSN-04 | 1/4" (6mm) | 0.500" (13mm) | 0.250" (6mm) | 0.250" (6mm) | 0.188" (5mm) | 1/2" (13mm) |
| HSN-05 | 5/16" (8mm) | 0.531" (13mm) | 0.312" (8mm) | 0.312" (8mm) | 0.218" (6mm) | 5/8" (16mm) |
| HSN-06 | 3/8" (10mm) | 0.562" (14mm) | 0.312" (8mm) | 0.375" (10mm) | 0.281" (7mm) | |
| HSN-08 | 1/2" (13mm) | 0.687" (17mm) | 0.312" (8mm) | 0.500" (13mm) | 0.343" (9mm) | |
| HSN-09 | 9/16" (14mm) | 0.750" (19mm) | 0.312" (8mm) | 0.562" (14mm) | 0.437" (11mm) | |
| HSN-10 | 5/8" (16mm) | 0.812" (21mm) | 0.312" (8mm) | 0.625" (16mm) | 0.406" (10mm) | |
| HSN-12 | 3/4" (19mm) | 0.875" (22mm) | 0.312" (8mm) | 0.750" (19mm) | 0.468" (12mm) | |





Python Cable Clamps

Python Series

STRONG: Load is applied at right angles to ensure tight fit. Python hose clamps keep their grip on the hose and can be reused. Rolled up band edges ensure a smooth transition between band and hose. Hexagonal screw head with drive slot makes for easy accessibility.



| Python – Zinc Plated | | |
|----------------------|----------|---|
| Zinc Plated Part No. | SAE Size | Clamping Range |
| | | in. |
| PY-3 | 3 | $\frac{5}{16}$ " – $\frac{9}{16}$ " (8mm – 14mm) |
| PY-4 | 4 | $\frac{7}{16}$ " – $\frac{11}{16}$ " (11mm – 17mm) |
| PY-6 | 6 | $\frac{1}{2}$ " – $\frac{13}{16}$ " (13mm – 20mm) |
| PY-8 | 8 | $\frac{5}{8}$ " – $\frac{15}{16}$ " (15mm – 24mm) |
| PY-10 | 10 | $\frac{3}{4}$ " – $1\frac{1}{8}$ " (19mm – 28mm) |
| PY-12 | 12 | $\frac{7}{8}$ " – $1\frac{1}{4}$ " (22mm – 32mm) |
| PY-16 | 16 | $1\frac{1}{8}$ " – $1\frac{1}{2}$ " (26mm – 38mm) |
| PY-20 | 20 | $1\frac{1}{4}$ " – $1\frac{3}{4}$ " (32mm – 44mm) |
| PY-24 | 24 | $1\frac{1}{2}$ " – 2" (38mm – 50mm) |
| PY-28 | 28 | $1\frac{3}{4}$ " – $2\frac{1}{4}$ " (44mm – 56mm) |
| PY-32 | 32 | 2" – $2\frac{9}{16}$ " (50mm – 65mm) |
| PY-40 | 40 | $2\frac{5}{16}$ " – 3" (58mm – 75mm) |
| PY-44 | 44 | $2\frac{11}{16}$ " – $3\frac{3}{8}$ " (68mm – 85mm) |
| PY-52 | 52 | 3" – $3\frac{3}{4}$ " (77mm – 95mm) |
| PY-64 | 64 | $3\frac{7}{16}$ " – $4\frac{7}{16}$ " (87mm – 112mm) |
| PY-80 | 80 | $4\frac{1}{8}$ " – $5\frac{7}{16}$ " (104mm – 138mm) |
| PY-96 | 96 | $5\frac{1}{8}$ " – $6\frac{1}{2}$ " (130mm – 165mm) |
| PY-104 | 104 | $5\frac{7}{8}$ " – $7\frac{1}{8}$ " (150mm – 180mm) |
| PY-122 | 122 | $6\frac{7}{8}$ " – $8\frac{1}{8}$ " (175mm – 205mm) |
| PY-138 | 138 | $7\frac{7}{8}$ " – $9\frac{1}{8}$ " (200mm – 231mm) |
| PY-154 | 154 | $8\frac{7}{8}$ " – $10\frac{1}{16}$ " (226mm – 256mm) |
| PY-170 | 170 | $9\frac{7}{8}$ " – $11\frac{1}{8}$ " (251mm – 282mm) |
| PY-186 | 186 | $10\frac{7}{8}$ " – $12\frac{1}{8}$ " (277mm – 307mm) |

The **Python II** provides greater clamping force with less trouble than heavy-duty T-Bolt type clamps.

- Lower cost than T-Bolts with superb performance.
- Thicker band for greater tensile strength.
- Greater clamping range than T-Bolt $1\frac{1}{2}$ " clamping range over 2" diameter
- 316 stainless steel
- Non perforated band with embossed threads safely seals without cutting the hose.



| PYTHON II – Stainless Steel Type 316 | |
|--------------------------------------|---|
| Part No. | Clamping Range |
| | in. |
| PY-331 | $\frac{5}{16}$ " – $\frac{9}{16}$ " (8mm – 14mm) |
| PY-431 | $\frac{7}{16}$ " – $\frac{11}{16}$ " (11mm – 17mm) |
| PY-631 | $\frac{1}{2}$ " – $\frac{13}{16}$ " (13mm – 20mm) |
| PY-831 | $\frac{5}{8}$ " – $\frac{15}{16}$ " (15mm – 24mm) |
| PY-1031 | $\frac{3}{4}$ " – $1\frac{1}{8}$ " (19mm – 28mm) |
| PY-1231 | $\frac{7}{8}$ " – $1\frac{1}{4}$ " (22mm – 32mm) |
| PY-1631 | $1\frac{1}{16}$ " – $1\frac{1}{2}$ " (26mm – 38mm) |
| PY-2031 | $1\frac{1}{4}$ " – $1\frac{3}{4}$ " (32mm – 44mm) |
| PY-2431 | $1\frac{1}{2}$ " – 2" (38mm – 50mm) |
| PY-2831 | $1\frac{1}{4}$ " – $2\frac{1}{4}$ " (32 – 57mm) |
| PY-3231 | $1\frac{1}{2}$ " – $2\frac{1}{2}$ " (38 – 64mm) |
| PY-3631 | $1\frac{3}{4}$ " – $2\frac{3}{4}$ " (44 – 70mm) |
| PY-4031 | 2" – 3" (51 – 76mm) |
| PY-4431 | $2\frac{1}{4}$ " – $3\frac{1}{4}$ " (57 – 83mm) |
| PY-4831 | $2\frac{1}{2}$ " – $3\frac{1}{2}$ " (64 – 89mm) |
| PY-5231 | $2\frac{3}{4}$ " – $3\frac{3}{4}$ " (70 – 95mm) |
| PY-5631 | 3" – 4" (76 – 102mm) |
| PY-6031 | $3\frac{1}{4}$ " – $4\frac{1}{4}$ " (83 – 108mm) |
| PY-6431 | $3\frac{1}{2}$ " – $4\frac{1}{2}$ " (89 – 114mm) |
| PY-7231 | $3\frac{1}{2}$ " – 5" (89 – 127mm) |
| PY-8031 | 4" – $5\frac{1}{2}$ " (102 – 140mm) |
| PY-8831 | $4\frac{1}{2}$ " – 6" (114 – 152mm) |
| PY-9631 | 5" – $6\frac{1}{2}$ " (127 – 165mm) |
| PY-10431 | $5\frac{1}{2}$ " – 7" (140 – 178mm) |
| PY-11231 | 6" – $7\frac{1}{2}$ " (152 – 191mm) |
| PY-12031 | $6\frac{1}{2}$ " – 8" (165 – 203mm) |
| PY-12831 | 7" – $8\frac{1}{2}$ " (178 – 216mm) |
| PY-13831 | $7\frac{5}{8}$ " – $9\frac{1}{8}$ " (194 – 232mm) |
| PY-15431 | $8\frac{5}{8}$ " – $10\frac{1}{8}$ " (219 – 257mm) |
| PY-17031 | $9\frac{5}{8}$ " – $11\frac{1}{8}$ " (244 – 282mm) |
| PY-18631 | $10\frac{5}{8}$ " – $12\frac{1}{8}$ " (270 – 307mm) |



Beta Clamps and Z-Clamps



Ideal for Clamping Pipe, Tube, Hose, & Electrical Cables



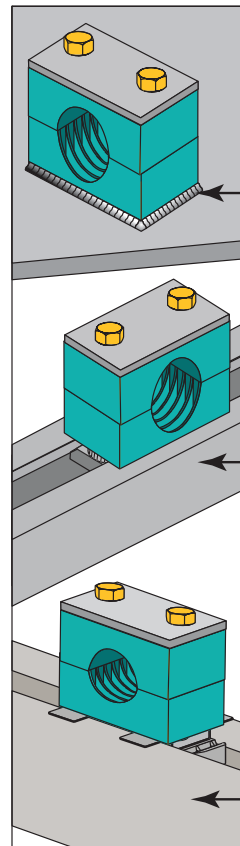
Beta Clamps are ideal for clamping pipe, tube, hose, and electric cables. They are an economical and easy way of securing them in all types of terrestrial, marine, O.E.M. and Industrial applications. Thanks to the advanced features and the breadth and depth of our product offering, Beta Clamps are used in all areas of industrial, mobile and marine hydraulics, general industrial pipe construction, the field of press technology, instrumentation and control technology, and many more.

- Beta Clamps offer shock-absorption, vibration dampening and noise reducing properties.
- Beta Clamps feature a practical and economical design which make for quick, easy pipe installation and layout.
- Upper and lower clamp half are identical.
- Ribs in clamp bore are designed to absorb shock and vibration in the direction of the tube axis.
- Clamp Body Standard – Polypropylene (Green Color) -22°F to 194°F (-30°C to +90°C)
- Aluminum Clamp Body is available for use in high heat applications.

CLAMP COMPONENTS – The other metallic components of the clamps are manufactured in:

- Lower and upper plates: steel, stainless steel type 304
- Screw bolts: steel, S40C, stainless steel type 304

ZSi-Foster's Beta Clamps offer an installation option for all of your application needs.



Common Welded Method

Install by welding the weld plate to existing steel

Din Rail Mounted

Attach to C-Rail using ZSi C-Rail Nuts

Strut Mounted

Attach to Wesanco Channel using our exclusive Channel Adapter Nut

Call ZSi-Foster at (800) 323-7053 or order now at zsi-foster.com

Beta Standard (Pages 204 - 205)



- For standard hydraulics and systems with less than 1,500 psi (103 bar) without dynamic loads
- Polypropylene cushion
- Steel components

Beta Heavy (Pages 206 - 207)



- For systems with greater than 1,500 psi (103 bar) operating pressure, operations with pressure surges, and applications with wide temperature fluctuations.
- Absorbs high levels of shock, noise, and vibration
- Polypropylene cushion & steel components

Beta Twin (Pages 208 - 209)



- For standard hydraulics, general pipe construction and electrical cables
- Polypropylene cushion
- Steel components

Beta Smoothie (Page 210)



- Reduces wear on hose connection caused by vibration and surge.
- Chamfered and smooth core protects hose cover and extends hose life.
- Uses Beta Standard hardware
- Polypropylene cushion
- Steel components

Beta Smoothie Twin (Page 211)



- Reduces wear on hose connection caused by vibration and surge.
- Chamfered and smooth core protects hose cover and extends hose life.
- Uses Beta Twin hardware
- Polypropylene cushion
- Steel components

Beta Special Metals (Pages 204, 205, 208)



- Aluminum cushions with steel components are used in high heat applications up to 500°F (260°C)
- Stainless steel clamp hardware with polypropylene cushion are used in applications where external corrosion is a concern.

Beta Rubber Inserts (Pages 212 - 213)



- Available in standard and heavy
- One cushion block provides flexible size range of cushioning.
- Smooth bore core can be used on hose, or for vibration reduction

Beta Adapter (Page 214)



- Allows a clamping junction to be inserted into hydraulic lines.
- The adapter body is offered in two sizes for use with the Z-Clamp adapter inserts.



Z-Clamp - Overview



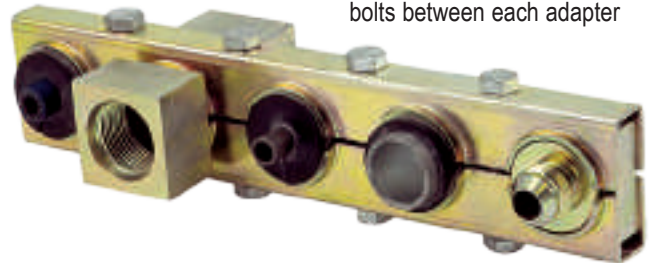
Z-Clamp Units

The **Z-Clamp** is designed to maintain a consistent center line dimension for horizontal clamping or vertical stackable clamping applications. The Z-Clamp maintains that center line while accommodating the same, or different diameter tubing, hose or pipe. Suited for all types of hydraulic hose, tubing, and pipe clamping applications, the Z-Clamp provides yet another alternative to the broadest cushion clamping product line in the world.

A Z-Clamp consists of an adapter framework which is offered in two versions. One has mounting bolts between each adapter insert and the other has two additional mounting bolts at each end of the frame.

Z-Clamps (Pages 215 - 216)

Standard framework, bolts between each adapter



Z-Clamps can be stacked for even more line clamping ability.



Outside hole framework, bolts between each adapter and two additional bolts at each end

Z-Clamp and Beta Adapters

Optional Adapters

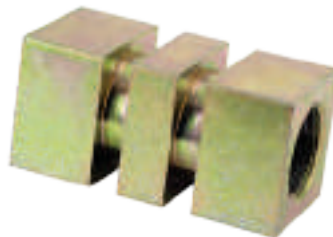
Female Junction Adapter (Page 218)



O-Ring Face Seal (Page 217)



Rubber Split Bushings (Page 218)



Beta Adapters (Page 214)

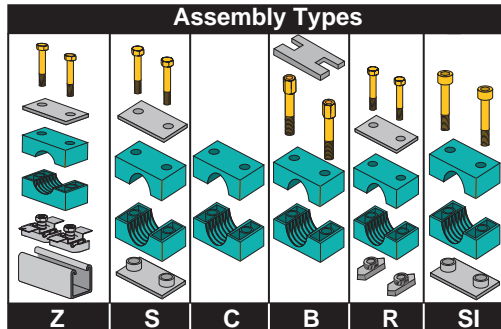


The Z-Clamp inserts are also used with the Beta Adapter.

37° Flare Male Junction Adapter (Page 218)

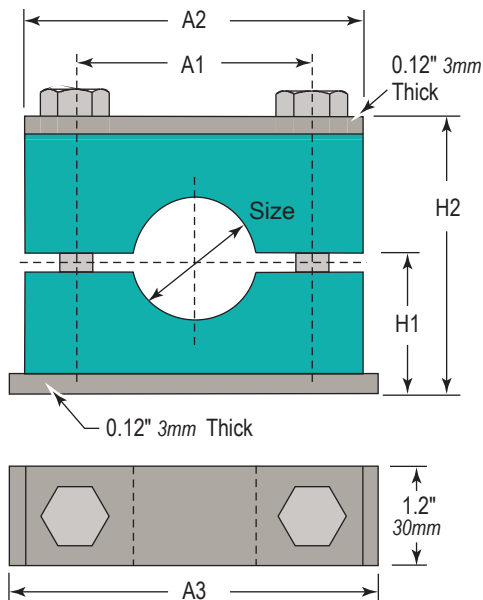


Standard Series Beta Clamps



- Cushions are Polypropylene (Green Color)
- Recommended for systems with less than 1,500 psi (103 bar) without dynamic loads.
- Use for standard hydraulics, general pipe construction, electrical cables, and general duty piping applications subject to moderate levels of shock and vibration.
- Aluminum cushions are used in higher heat applications up to 500°F (260°C).


INSTALLATION - Refer to pages 253 - 256 for complete installation guide.



Steel with
Polypropylene
Cushion



Steel with Aluminum Cushion

| Group | Part No. * | Tube Size | Pipe Size | Metric Size | Dimensions - inch (mm) | | | | | Bolt | |
|--------|---|---|-----------------|-------------|------------------------|-----------------------|----------------|-----------------|------------------|----------------|---|
| | | | | | A1 | A2 | A3 | H1 | H2 | | |
| S1 | S1004 | ¼" (0.250) | — | — | 0.78" (20) | 1.34" (34) | 1.41" (36) | 0.62" (16) | 1.25" (32) | ¼"-20 x 1¼" | |
| | S1006 | ⅜"(0.375) | — | — | | | | | | | |
| | SM1006 | — | — | 6mm | | | | | | | |
| | S1007 | — | ⅛" (0.405) | — | | | | | | | |
| | SM1008 | — | — | 8mm | | | | | | | |
| | SM1012 | — | — | 12mm | | | | | | | |
| S2 | S2008 | ½" (0.500) | — | — | 1.02" (26) | 1.57" (40) | 1.65" (42) | 0.76" (19.5) | 1.54" (39) | ¼"-20 x 1⅝" | |
| | S2009 | — | ¼" (0.540) | — | | | | | | | |
| | S2010 | ⅝" (0.625) | — | — | | | | | | | |
| | S2011 | — | ⅜" (0.675) | — | | | | | | | |
| | SM2014 | — | — | 14mm | | | | | | | |
| | SM2015 | — | — | 15mm | | | | | | | |
| | SM2018 | — | — | 18mm | | | | | | | |
| S3 | S3012 | ¾" (0.750) | — | — | 1.29" (33) | 1.96" (50) | 2.04" (52) | 0.80" (20.5) | 1.61" (41) | ¼"-20 x 1½" | |
| | S3014 | — | ½" (0.840) | — | | | | | | | |
| | S3015 | ⅞" (0.875) | — | — | | | | | | | |
| | S3016 | 1" (1.000) | — | — | | | | | | | |
| | SM3020 | — | — | 20mm | | | | | | | |
| | SM3025 | — | — | 25mm | | | | | | | |
| | S4 | S4017 | — | ¾" (1.050) | | | | | | | — |
| S4018 | | 1⅛" (1.125) | — | — | | | | | | | |
| SM4030 | | — | — | 30mm | | | | | | | |
| S5 | S5020 | 1¼" (1.250) | — | — | 2.04" (52) | 2.75" (70) | 2.83" (72) | 1.25" (32) | 2.52" (64) | ¼"-20 x 2½" | |
| | S5021 | — | 1" (1.315) | — | | | | | | | |
| | S5024 | 1½" (1.500) | — | — | | | | | | | |
| | S5027 | — | 1¼" (1.660) | — | | | | | | | |
| | SM5035 | — | — | 35mm | | | | | | | |
| S6 | S6028 | 1¾" (1.750) | — | — | 2.59" (66) | 3.38" (86) | 3.46" (88) | 1.41" (36) | 2.83" (72) | ¼"-20 x 2¾" | |
| | S6030 | — | 1½" (1.900) | — | | | | | | | |
| | S6032 | 2" (2.000) | — | — | | | | | | | |
| S7 | S7038 | — | 2" (2.375) | — | 3.70" (94) | 4.75" (121) | 4.81" (122) | 2.00" (51) | 4.05" (103) | ¼"-20 x 4" | |
| | S7036 | 2¼" (2.250) | — | — | | | | | | | |
| | S7040 | 2½" (2.500) | — | — | | | | | | | |
| | S7044 | 2¾" (2.750) | — | — | | | | | | | |
| | S7048 | 3" (3.000) | — | — | | | | | | | |
| |  SUFFIX | *For additional sizes contact factory. Note: Add assembly type to part number. Example: S1004S-SS provides the complete assembly as shown with stainless steel components. NOTE: SM (metric) only available in Steel with Polypropylene (green) cushion. | | | | | | | | | |
| | | Components | | | Cushion | | | Example | | | |
| | | none | Steel | | | Polypropylene (green) | | | S1004S | | |
| | | -AL | Steel | | | Aluminum | | | S1004S-AL | | |
| | | -SS | Stainless Steel | | | Polypropylene (green) | | | S1004S-SS | | |

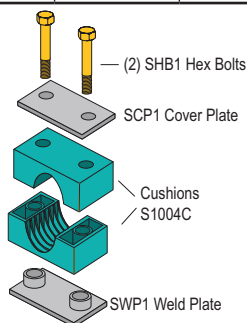


Beta Clamps - Standard

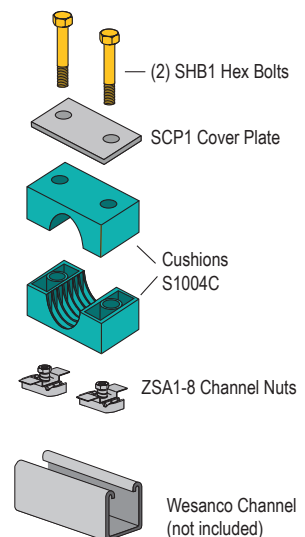
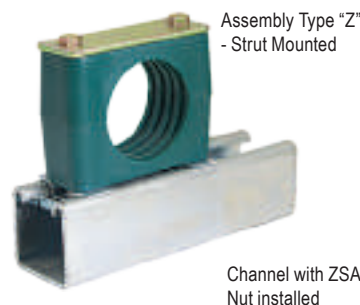


| STANDARD SERIES COVER PLATE | | | STANDARD SERIES SAFETY PLATE | | |
|---|--------|------------------------------------|---|------------|--|
|  | SCP1 | Use with Group S1 |  | SP1 | Use with Group S1 |
| | SCP2 | Use with Group S2 | | SP2 | Use with Group S2 |
| | SCP3 | Use with Group S3 | | SP3 | Use with Group S3 |
| | SCP4 | Use with Group S4 | | SP4 | Use with Group S4 |
| | SCP5 | Use with Group S5 | | SP5 | Use with Group S5 |
| | SCP6 | Use with Group S6 | | SP6 | Use with Group S6 |
| | SCP7 | Use with Group S7 | | SP7 | Use with Group S7 |
| HEX BOLT (Two required per assembly) | | | STANDARD SERIES CAP SCREW (Two required per assembly) | | |
|  | SHB1 | Use with Group S1 |  | SC1 | Use with Group S1 |
| | SHB2 | Use with Group S2 | | SC2 | Use with Group S2 |
| | SHB3 | Use with Group S3 | | SC3 | Use with Group S3 |
| | SHB4 | Use with Group S4 | | SC4 | Use with Group S4 |
| | SHB5 | Use with Group S5 | | SC5 | Use with Group S5 |
| | SHB6 | Use with Group S6 | | SC6 | Use with Group S6 |
| | SHB7 | Use with Group S7 | | SC7 | Use with Group S7 |
| STANDARD SERIES WELD PLATE | | | STACKING BOLTS - (Two required per assembly) | | |
|  | SWP1 | Use with Group S1 |  | SB1 | Use with Group S1 |
| | SWP2 | Use with Group S2 | | SB2 | Use with Group S2 |
| | SWP3 | Use with Group S3 | | SB3 | Use with Group S3 |
| | SWP4 | Use with Group S4 | | SB4 | Use with Group S4 |
| | SWP5 | Use with Group S5 | | SB5 | Use with Group S5 |
| | SWP6 | Use with Group S6 | | SB6 | Use with Group S6 |
| | SWP7 | Use with Group S7 | | SB7 | Use with Group S7 |
| STRUT NUT - For connection to Wesanco Channel (Two required per assembly) | | | WESANCO CHANNEL | | |
|  | ZSA1-8 | Use with Groups S1-S7 |  See Pages 28 - 77 for channel information | W200, W210 | 1 ⁵ / ₈ " x 1 ⁵ / ₈ " (41mm x 41mm) |
| | | | | W400, W500 | 1 ⁵ / ₈ " x 1 ³ / ₁₆ " (41mm x 11mm) |
| | | | | W800 | 1 ⁵ / ₈ " x 1" (41mm x 25mm) |
| | | | | W900 | 1 ⁵ / ₈ " x 7/ ₈ " (41mm x 22mm) |
| C-RAIL NUTS - (Two required per single assembly) | | | C-RAIL | | |
|  | SRN1-6 | 1/4" Nut Use with SCR-1 & SCR-2 |  | SCR-1 | 39" (1 meter) |
| | | | | SCR-2 | 78" (2 meter) |
| | | |  | | |

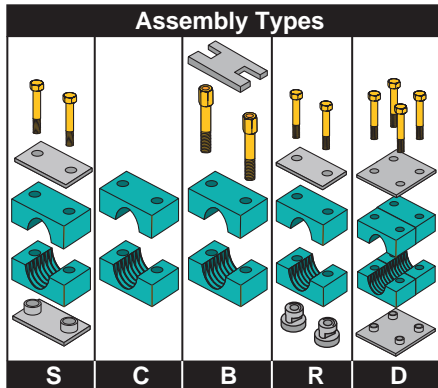
| Welded Ordering Example - S1004S | | |
|----------------------------------|----------|-------------|
| "S" Assembly Includes | | |
| Quantity | Part No. | Description |
| 1 Each | SWP1 | Weld Plate |
| 1 Each | SCP1 | Cover Plate |
| 2 Each | SHB1 | Hex Bolts |
| 1 Set | S1004C | Cushions |



| Strut Mounted Ordering Example - S1004Z | | |
|---|----------|--------------|
| "Z" Assembly Includes | | |
| Quantity | Part No. | Description |
| 2 Each | SHB1 | Hex Bolts |
| 1 Each | SCP1 | Cover Plate |
| 1 Set | S1004C | Cushions |
| 2 Each | ZSA1-8 | Channel Nuts |

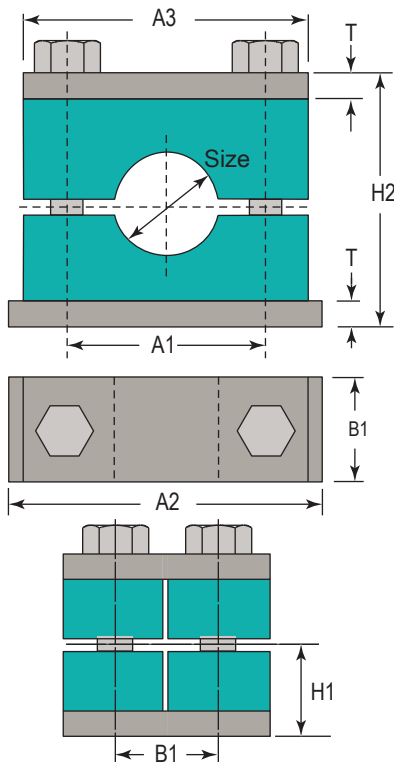


Heavy Series Beta Clamps



- Recommended systems with greater than 1,500 psi (103 bar) operating pressure, operations with pressure surges, and applications with wide temperature fluctuations.
- Absorbs high levels of shock, noise, and vibration
- Cushions are polypropylene (Green color) or Aluminum.
- Aluminum cushions are used in higher heat applications up to 500°F (260°C).

INSTALLATION - Refer to pages 253 - 256 for complete installation guide.



Steel with
Polypropylene
Cushion



Steel with
Aluminum
Cushion

| Group | Part No. | Tube Size | Pipe Size | Dimensions-inch(mm) | | | | | | | Hex Bolt |
|---|----------|-----------------|----------------|-----------------------|--------------|------------------------------|-------------|-------------|--------------|------------|------------------|
| | | | | A1 | A2 | A3 | B1 | H1 | H2 | T | |
| H3 | H3004 | 1/4" (0.250) | — | 1.29" (33) | 2.87" (73) | 2.16" (55) | 1.18" (30) | 0.94" (24) | 1.88" (48) | 0.31" (8) | 3/8"-16 x 1-3/4" |
| | H3006 | 3/8" (0.375) | — | | | | | | | | |
| | H3007 | — | 1/8" (0.405) | | | | | | | | |
| | H3008 | 1/2" (0.500) | — | | | | | | | | |
| | H3009 | — | 1/4" (0.540) | | | | | | | | |
| | H3010 | 5/8" (0.625) | — | | | | | | | | |
| H4 | H3011 | — | 3/8" (0.675) | 1.77" (45) | 3.34" (85) | 2.75" (70) | 1.18" (30) | 1.25" (32) | 2.51" (64) | 0.31" (8) | 3/8"-16 x 2-1/4" |
| | H4012 | 3/4" (0.750) | — | | | | | | | | |
| | H4014 | — | 1/2" (0.840) | | | | | | | | |
| | H4015 | 7/8" (0.875) | — | | | | | | | | |
| | H4016 | 1" (1.000) | — | | | | | | | | |
| | H4017 | — | 3/4" (1.050) | | | | | | | | |
| H5 | H5020 | 1 1/4" (1.250) | — | 2.36" (60) | 3.93" (100) | 3.30" (84) | 1.18" (30) | 1.49" (38) | 2.99" (76) | 0.31" (8) | 3/8"-16 x 2-3/4" |
| | H5021 | — | 1" (1.315) | | | | | | | | |
| | H5024 | 1 1/2" (1.500) | — | | | | | | | | |
| | H5027 | — | 1 1/4" (1.660) | | | | | | | | |
| H6 | H6028 | 1 3/4" (1.750) | — | 3.54" (90) | 5.90" (150) | 4.52" (115) | 1.77" (45) | 2.16" (55) | 4.33" (110) | 0.39" (10) | 1/2"-13 x 4" |
| | H6030 | — | 1 1/2" (1.900) | | | | | | | | |
| | H6032 | 2" (2.000) | — | | | | | | | | |
| | H6034 | 2 1/4" (2.250) | — | | | | | | | | |
| | H6038 | 2 3/8" (2.375) | 2" (2.375) | | | | | | | | |
| | H6040 | 2 1/2" (2.500) | — | | | | | | | | |
| H7 | H7044 | 2 3/4" (2.750) | — | 4.80" (122) | 7.08" (180) | 5.98" (152) | 2.36" (60) | 2.75" (70) | 5.51" (140) | 0.39" (10) | 5/8"-11 x 5-1/4" |
| | H7046 | — | 2 1/2" (2.870) | | | | | | | | |
| | H7050 | 3" (3.000) | — | | | | | | | | |
| | H7056 | — | 3" (3.500) | | | | | | | | |
| | H7057 | 3 1/2" (3.500) | — | | | | | | | | |
| H8 | H8072 | — | 4" (4.500) | 6.61" (168) | 8.86" (225) | 8.07" (205) | 3.15" (80) | 3.94" (100) | 7.87" (200) | 0.59" (15) | M20 x 190mm |
| H9 | H9089 | — | 5" (5.563) | 8.07" (221) | 10.63" (270) | 9.92" (252) | 3.54" (90) | 4.53" (115) | 9.06" (230) | 0.59" (15) | M24 x 220mm |
| | H9106 | — | 6" (6.625) | | | | | | | | |
| H10 | H10137 | — | 8" (8.625) | 10.43" (265) | 13.39" (340) | 12.60" (320) | 4.72" (120) | 6.30" (160) | 12.60" (320) | 0.98" (25) | M30 x 300mm |
| H11 | H11170 | — | 10" (10.750) | 15.55" (395) | 20.47" (520) | 18.35" (466) | 6.30" (160) | 9.25" (235) | 18.50" (470) | 1.18" (30) | M30 x 450mm |
| <p>*For additional sizes contact factory. Note: Add assembly type to part number. Example: H3004S-SS provides the complete assembly as shown with stainless steel components.</p> | | | | | | | | | | | |
| SUFFIX | | Components | | Cushion | | Example (complete assembly): | | | | | |
| NONE | | Steel | | Polypropylene (green) | | H3004S | | | | | |
| -AL | | Steel | | Aluminum | | H3004S-AL | | | | | |
| -SS | | Stainless Steel | | Polypropylene (green) | | H3004S-SS | | | | | |

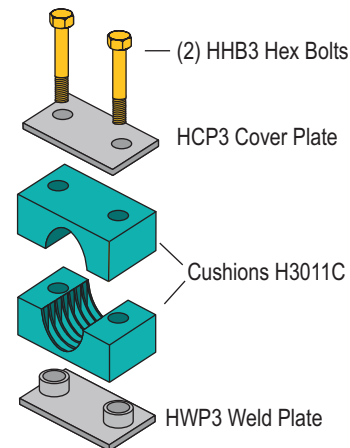


Beta Clamps - Heavy

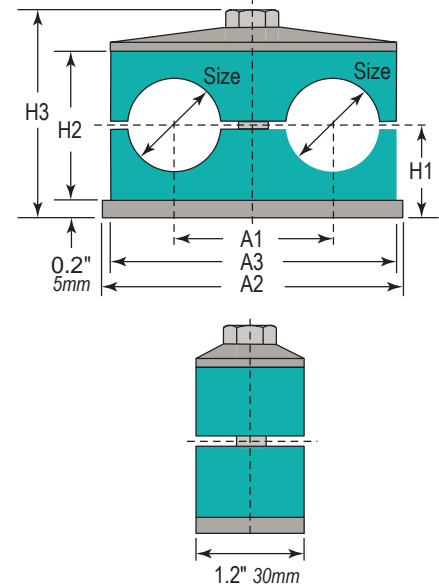
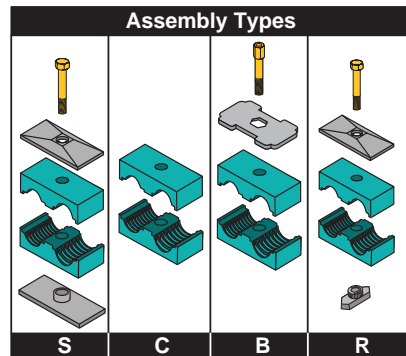


| HEAVY SERIES COVER PLATE | | | HEAVY SERIES SAFETY PLATE | | | C-RAIL NUTS (Two required per single assembly) | | |
|---|------|----------------|---|------|----------------|---|--|------------------------------|
|  | HCP3 | Use w/Group H3 |  | HSP3 | Use w/Group H3 |  | HRN-3-5 | 3/8" Nut, Use w/Groups H3-H5 |
| | HCP4 | Use w/Group H4 | | HSP4 | Use w/Group H4 | | HRN-6 | 7/16" Nut, Use w/Group H6 |
| | HCP5 | Use w/Group H5 | | HSP5 | Use w/Group H5 | | Note: Rail mounted stacking kit is only available on groups H3, H4, and H5 | |
| | HCP6 | Use w/Group H6 | | HSP6 | Use w/Group H6 | | | |
| | HCP7 | Use w/Group H7 | | HSP7 | Use w/Group H7 | | | |
| | HCP8 | Use w/Group H8 | | HSP8 | Use w/Group H8 | | | |
| | HCP9 | Use w/Group H9 | | HSP9 | Use w/Group H9 | | | |
| HEAVY SERIES HEX BOLTS (Two required per single assembly) | | | HEAVY SERIES STACKING BOLTS (Two required per single assembly) | | | C-RAIL | | |
|  | HHB3 | Use w/Group H3 |  | HSB3 | Use w/Group H3 |  | HCR-1 | 39" (1 meter) |
| | HHB4 | Use w/Group H4 | | HSB4 | Use w/Group H4 | | HCR-2 | 78" (2 meter) |
| | HHB5 | Use w/Group H5 | | HSB5 | Use w/Group H5 | |  1.6" 40mm 0.5" 13mm 0.20" 5mm 0.87" 22mm | |
| | HHB6 | Use w/Group H6 | | HSB6 | Use w/Group H6 | | | |
| | HHB7 | Use w/Group H7 | | HSB7 | Use w/Group H7 | | | |
| | HHB8 | Use w/Group H8 | | HSB8 | Use w/Group H8 | | | |
| | HHB9 | Use w/Group H9 | | HSB9 | Use w/Group H9 | | | |
| HEAVY SERIES WELD PLATE | | | HEAVY SERIES DOUBLE WELD PLATE | | | HEAVY SERIES DOUBLE COVER PLATE | | |
|  | HWP3 | Use w/Group H3 |  | HDP3 | Use w/Group H3 |  | DCP3 | Use w/Group H3 |
| | HWP4 | Use w/Group H4 | | HDP4 | Use w/Group H4 | | DCP4 | Use w/Group H4 |
| | HWP5 | Use w/Group H5 | | HDP5 | Use w/Group H5 | | DCP5 | Use w/Group H5 |
| | HWP6 | Use w/Group H6 | | HDP6 | Use w/Group H6 | | DCP6 | Use w/Group H6 |
| | HWP7 | Use w/Group H7 | | HDP7 | Use w/Group H7 | | DCP7 | Use w/Group H7 |
| | HWP8 | Use w/Group H8 | | | | | | |
| | HWP9 | Use w/Group H9 | | | | | | |

| Welded Ordering Example | | |
|-------------------------|----------|-------------|
| H3004S | | |
| Assembly Includes | | |
| Quantity | Part No. | Description |
| 1 Each | HWP3 | Weld Plate |
| 1 Each | HCP3 | Cover Plate |
| 2 Each | HHB3 | Hex Bolts |
| 1 Set | H3011C | Cushions |




Twin Series Beta Clamps



BETA CLAMPS TWIN SERIES are ideal for general-duty applications subject to moderate levels of shock and vibration. Cushions in this series are Polypropylene (Green Color).

Call factory for additional sizes and cushion materials.



INSTALLATION - Refer to pages 253 - 256 for complete installation guide.

| Group | Steel Part No. | Tube Size | Pipe Size | Dimensions - inch (mm) | | | | | | WT/ 100 | Hex Bolt |
|-------|---|--|----------------|------------------------|-------------|-------------|--------------|------------|--------------|--------------|-------------------|
| | | | | A1 | A2 | A3 | H1 | H2 | H3 | | |
| T1 | T1004 | 1/4" (0.250) | | 0.78" (20) | 1.45" (37) | 1.41" (36) | 0.72" (18.5) | 1.06" (27) | 1.69 " (43) | 21 (9.5 Kg) | 1/4"-20 x 1-3/8" |
| | T1006 | 3/8"(0.375) | | | | | | | | 21 (9.5 Kg) | |
| | T1007 | | 1/8" (0.405) | | | | | | | 21 (9.5 Kg) | |
| T2 | T2008 | 1/2" (0.500) | | 1.14" (29) | 2.16" (55) | 2.08" (53) | 0.70" (18) | 1.02" (26) | 1.71" (43.5) | 31 (14 Kg) | 5/16"-18 x 1-3/8" |
| | T2009 | | 1/4" (0.540) | | | | | | | 31 (14 Kg) | |
| | T2010 | 5/8" (0.625) | | | | | | | | 31 (14 Kg) | |
| | T2011 | | 3/8" (0.675) | | | | | | | 31 (14 Kg) | |
| T3 | T3012 | 3/4" (0.750) | | 1.41" (36) | 2.75" (70) | 2.63" (67) | 0.92" (23.5) | 1.45" (37) | 2.14" (54.5) | 40 (18 Kg) | 5/16"-18 x 1-3/4" |
| | T3014 | | 1/2" (0.840) | | | | | | | 39 (17.6 Kg) | |
| | T3015 | 7/8" (0.875) | | | | | | | | 39 (17.6 Kg) | |
| | T3016 | 1" (1.000) | | | | | | | | 38 (17.2 Kg) | |
| T4 | T4017 | | 3/4" (1.050) | 1.77" (45) | 3.34" (85) | 3.22" (82) | 1.02" (26) | 1.65" (42) | 2.34" (59.5) | 49 (22.2 Kg) | 5/16"-18 x 2" |
| | T4018 | 1-1/8" (1.125) | | | | | | | | 49 (22.2 Kg) | |
| T5 | T5020 | 1-1/4" (1.250) | | 2.20" (56) | 4.33" (110) | 4.17" (106) | 1.25" (32) | 2.12" (54) | 2.81" (71.5) | 65 (29.4 Kg) | 5/16"-18 x 2-3/8" |
| | T5021 | | 1" (1.315) | | | | | | | 65 (29.4 Kg) | |
| | T5024 | 1-1/2" (1.500) | | | | | | | | 64 (29 Kg) | |
| | T5027 | | 1-1/4" (1.660) | | | | | | | 62 (28.1 Kg) | |
| |  | * For additional sizes contact factory. Note: Add assembly type to part number. Example: T1004S-SS provides the complete assembly as shown with stainless steel components. | | | | | | | | | |
| | SUFFIX | Components | | Cushion | | | | Example | | | |
| | none | Steel | | Polypropylene (green) | | | | T1004S | | | |
| | SS | Stainless Steel | | Polypropylene (green) | | | | T1004S-SS | | | |

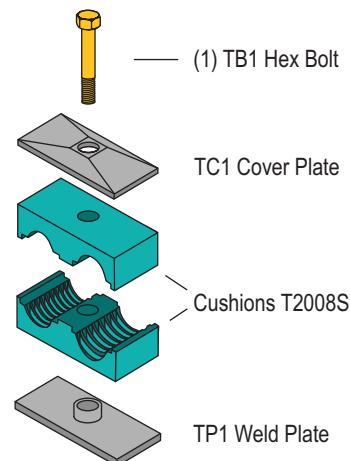


Beta Clamps - Twin



| TWIN SERIES COVER PLATE | | | TWIN SERIES SAFETY PLATE | | |
|--|-------------|-------------------|--|---------------|---------------------------------------|
|  | TC1 | Use with Group T1 |  | TSP1 | Use with Group T1 |
| | TC2 | Use with Group T2 | | TSP2-5 | Use with Group T2 thru T5 |
| | TC3 | Use with Group T3 | | | |
| | TC4 | Use with Group T4 | | | |
| | TC5 | Use with Group T5 | | | |
| TWIN HEX BOLT | | | C-RAIL NUT | | |
|  | TB1 | Use with Group T1 |  | SRN1-6 | 1/4" Nut, Use with Group T1 |
| | TB2 | Use with Group T2 | | TRN2-5 | 5/16" Nut, Use with Group T2 to T5 |
| | TB3 | Use with Group T3 | | | |
| | TB4 | Use with Group T4 | | | |
| | TB5 | Use with Group T5 | | | |
| TWIN STACKING BOLT | | | C-RAIL | | |
|  | TSB1 | Use with Group T1 |  | SCR1 | 39" (1 meter) |
| | TSB2 | Use with Group T2 | | SCR2 | 78" (2 meter) |
| | TSB3 | Use with Group T3 | | | |
| | TSB4 | Use with Group T4 | | | |
| | TSB5 | Use with Group T5 | | | |
| TWIN SERIES WELD PLATE | | |  <p>1.1" 28mm 0.4" 11mm 0.08" 2mm 0.4" 11mm</p> | | |
|  | TP1 | Use with Group T1 | | | |
| | TP2 | Use with Group T2 | | | |
| | TP3 | Use with Group T3 | | | |
| | TP4 | Use with Group T4 | | | |
| | TP5 | Use with Group T5 | | | |

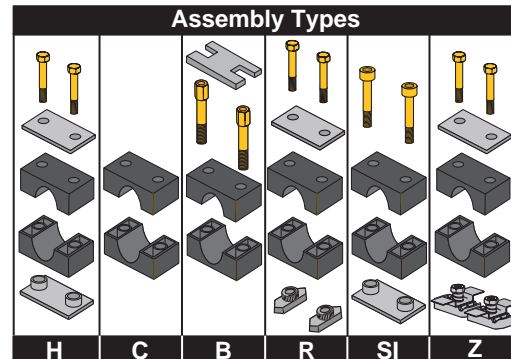
| Welded Ordering Example | | |
|-------------------------|---------------|-------------|
| T2008S | | |
| Assembly Includes | | |
| Quantity | Part No. | Description |
| 1 Each | TP1 | Weld Plate |
| 1 Each | TC1 | Cover Plate |
| 1 Each | TB1 | Hex Bolts |
| 1 Set | T2008S | Cushions |





Beta Clamps - "Smoothie"

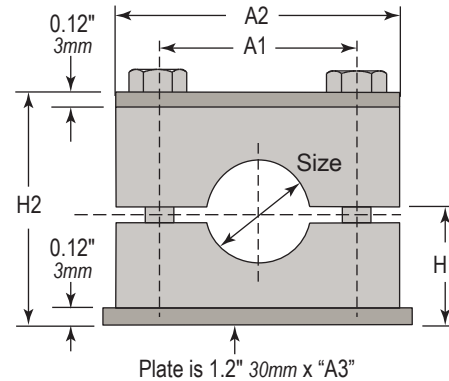
"Smoothie" Standard Series Beta Clamp



Beta "Smoothie" is ideal for general-duty applications where there is a need to reduce wear on hose connection caused by vibration and surge.

- Chamfered and smooth core protects hose cover and extends the life of the hose
- Uses Standard Beta hardware
- Reduces wear on hose connection caused by vibration and surge

INSTALLATION - Refer to pages 253 - 256 for complete installation guide.



| Group | Part No. | SAE 100R1 Hose Size | Dimensions (Inches) | | | | | WT/ 100 | Bolt |
|-------|----------|---------------------|---------------------|--------------|--------------|--------------|---------------|--------------|--------------------|
| | | | A1 | A2 | A3 | H1 | H2 | | |
| S2 | S2004H | 1/4" (0.53) | 1.02" (26mm) | 1.57" (40mm) | 1.65" (42mm) | 0.76" (19mm) | 1.535" (39mm) | 20 (9 Kg) | 1/4" - 20 x 1 3/8" |
| | S2006H | 3/8" (0.69) | 1.02" (26mm) | 1.57" (40mm) | 1.65" (42mm) | 0.76" (19mm) | 1.535" (39mm) | 20 (9 Kg) | |
| S3 | S3008H | 1/2" (0.81) | 1.29" (33mm) | 1.96" (50mm) | 2.04" (52mm) | 0.80" (20mm) | 1.61" (41mm) | 25 (11.3 Kg) | 1/4" - 20 x 1 1/2" |
| | S3010H | 5/8" (0.93) | 1.29" (33mm) | 1.96" (50mm) | 2.04" (52mm) | 0.80" (20mm) | 1.61" (41mm) | 25 (11.3 Kg) | |
| S4 | S4012H | 3/4" (1.10) | 1.57" (40mm) | 2.28" (58mm) | 2.36" (60mm) | 0.94" (24mm) | 1.88" (48mm) | 29 (13.1 Kg) | 1/4" - 20 x 1 3/4" |
| S5 | S5016H | 1" (1.42) | 2.05" (52mm) | 2.75" (70mm) | 2.83" (72mm) | 1.25" (32mm) | 2.52" (64mm) | 39 (17.6 Kg) | 1/4" - 20 x 2 1/2" |

*For additional sizes and stainless steel contact factory.

Note: For configurations other than "H", Add Assembly type to Part No.

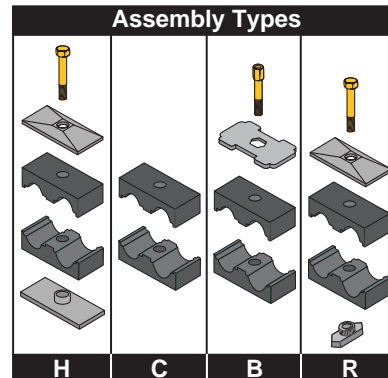
Example: **S2004H** provides the complete assembly as shown and **S2004H-Z** provides the "Z" assembly as shown



Beta Clamps - "Smoothie"



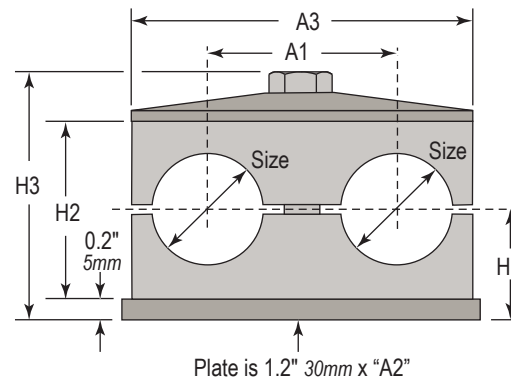
"Smoothie" Twin Series Beta Clamp



Beta "Smoothie" is ideal for general-duty applications where there is a need to reduce wear on hose connection caused by vibration and surge.

- Chamfered and smooth core protects hose cover and extends the life of the hose
- Uses Standard Beta Twin hardware
- Reduces wear on hose connection caused by vibration and surge

INSTALLATION - Refer to pages 253 - 256 for complete installation guide.



| Group | Part No. | SAE 100R1 Hose Size | Dimensions (Inches) | | | | | | WT/ 100 | Bolt |
|-------|----------|---------------------|---------------------|------------------|------------------|-----------------|-----------------|-----------------|-----------------|---------------------|
| | | | A1 | A2 | A3 | H1 | H2 | H3 | | |
| T2 | T2004H | 1/4" (0.53) | 1.14" (29mm) | 2.16" (55mm) | 2.08" (53mm) | 0.70" (18mm) | 1.02" (26mm) | 1.71" (43mm) | 31 (14 Kg) | 5/16" – 18 x 1 3/8" |
| | T2006H | 3/8" (0.69) | 1.14" (29mm) | 2.16" (55mm) | 2.08" (53mm) | 0.70" (18mm) | 1.02" (26mm) | 1.71" (43mm) | 31 (14 Kg) | |
| T3 | T3008H | 1/2" (0.81) | 1.41" (36mm) | 2.75" (70mm) | 2.63" (67mm) | 0.92" (23mm) | 1.45" (37mm) | 2.14" (54mm) | 39 (17.6 Kg) | 5/16" – 18 x 1 3/4" |
| T4 | T4010H | 5/8" (0.93) | 1.77" (45mm) | 3.34" (85mm) | 3.22" (82mm) | 1.02" (26mm) | 1.65" (42mm) | 2.34" (59mm) | 49 (22.2 Kg) | 5/16" – 18 x 2" |
| | T4012H | 3/4" (1.10) | 1.77" (45mm) | 3.34" (85mm) | 3.22" (82mm) | 1.02" (26mm) | 1.65" (42mm) | 2.34" (59mm) | 49 (22.2 Kg) | |
| T5 | T5016H | 1" (1.42) | 2.2" (56mm) | 4.33" (110mm) | 4.17" (106mm) | 1.25" (32mm) | 2.12" (54mm) | 2.81" (71mm) | 65 (29.4 Kg) | 5/16" – 18 x 2 3/8" |

*For additional sizes and stainless steel contact factory.

Note: For configurations other than "H", Add Assembly type to Part No.

Example: T2004H provides the complete assembly as shown and T2004H-B provides the "B" assembly as shown

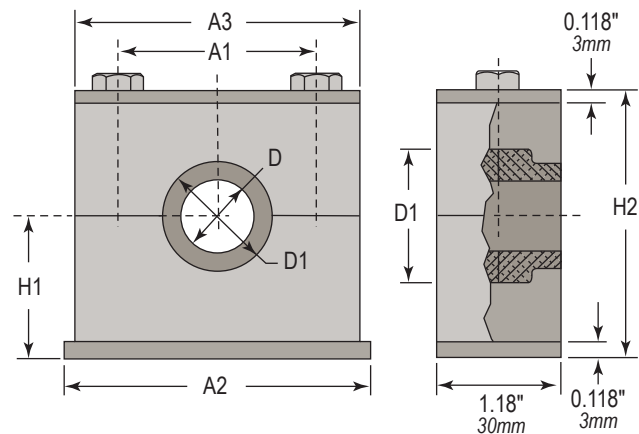
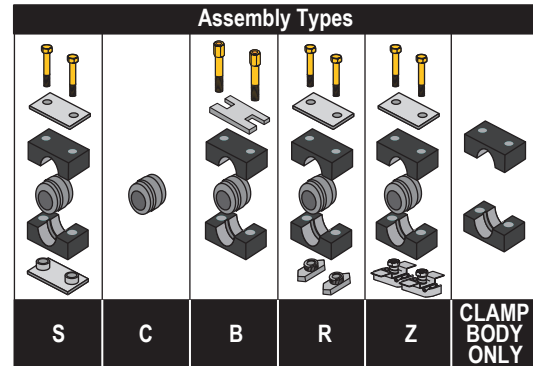


Standard Rubber Insert Beta Clamps



- One cushion block provides flexible size range of cushioning.
- Smooth bore core can be used on hose, or for vibration reduction
- Broad range of metric sizes.
- Maintains center line when used in groups.

INSTALLATION - Refer to pages 253 - 256 for complete installation guide.



| Group | Part No. | Bore Size Ø D | | Tube O.D. | Pipe Size | Nom. Size Hose O.D. Min - Max | Dimensions – inches (mm) | | | | | | | Bolt Size |
|-------|----------|----------------------------|------|-----------|-----------|-------------------------------|--------------------------|---------------|-------------------|---------------|---------------|---------------|---------------|------------------------|
| | | in | (mm) | | | | D | D1 | H1 | H2 | A1 | A2 | A3 | |
| S4 | SM4006RI | 0.24" | 6 | - | - | 0.22" - 0.24" | 1.00" (25.5) | 1.22" (31) | 0.925 " (23.5) | 1.85" (47) | 1.57" (40) | 2.32" (59) | 2.24" (57) | 1/4"-20 x 1 3/4" |
| | SM4008RI | 0.32" | 8 | 1/16" | - | 0.30" - 0.32" | | | | | | | | |
| | S4007RI | 0.39" | 10 | - | 1/8" | 0.37" - 0.39" | | | | | | | | |
| | SM4012RI | 0.47" | 12 | - | - | 0.45" - 0.47" | | | | | | | | |
| | S4008RI | 0.50" | 12.7 | 1/2" | - | 0.48" - 0.50" | | | | | | | | |
| | SM4014RI | 0.55" | 14 | - | - | 0.53" - 0.55" | | | | | | | | |
| | SM4015RI | 0.59" | 15 | - | - | 0.57" - 0.59" | | | | | | | | |
| | S4010RI | 0.63" | 16 | 5/8" | - | 0.61" - 0.63" | | | | | | | | |
| | S4011RI | 0.68" | 17.2 | - | 3/8" | 0.66" -0.68" | | | | | | | | |
| | S4012RI | 0.75" | 19 | 3/4" | - | 0.73" - 0.75" | | | | | | | | |
| | S4C | Clamp Body Only (Group S4) | | | | | | | | | | | | |
| S6 | S6014RI | 0.79" | 20 | - | 1/2" | 0.77" - 0.79" | 1.54" (39) | 1.81" (46) | 1.40" (35.5) | 2.80" (71) | 2.60" (66) | 3.46" (88) | 3.39" (86) | 1/4"-20 x 2-3/4" |
| | S6015RI | 0.87" | 22 | 7/8" | - | 0.85" - 0.87" | | | | | | | | |
| | S6016RI | 0.98" | 25 | 1" | - | 0.96" - 0.98" | | | | | | | | |
| | S6017RI | 1.06" | 26.9 | - | 3/4" | 1.04" - 1.06" | | | | | | | | |
| | SM6028RI | 1.10" | 28 | - | - | 1.08" - 1.10" | | | | | | | | |
| | SM6030RI | 1.18" | 30 | - | - | 1.16" - 1.18" | | | | | | | | |
| | S6020RI | 1.26" | 32 | 1 1/4" | - | 1.24" - 1.26" | | | | | | | | |
| | S6C | Clamp Body Only (Group S5) | | | | | | | | | | | | |

*For additional sizes and stainless steel contact factory.

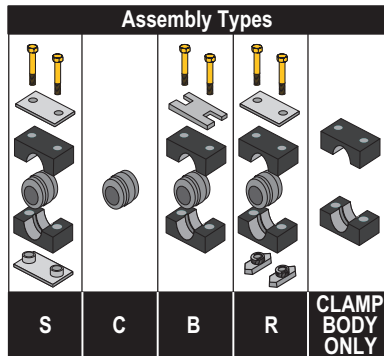
Note: Add Assembly type to Part No.- **Example: SM4006RIS** provides the complete assembly as shown



Beta Clamps - Heavy Rubber Insert

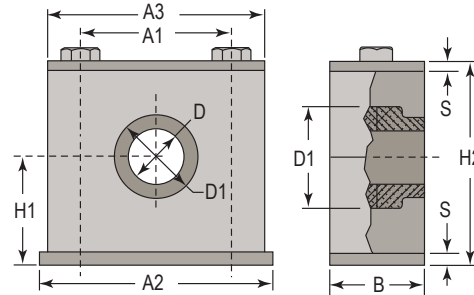


Heavy Rubber Insert Beta Clamps



INSTALLATION - Refer to pages 253 - 256 for complete installation guide.

- One block provides flexible size range of cushioning.
- Smooth bore core for hose, or vibration reduction.
- Broad range of metric sizes.
- Maintains center line when used in groups.
- For high pressure hydraulics and heavy duty operations.
- Used for intermittent load and high oil speeds.
- Increase size range over standard series.



| Group | Part No. | Bore Ø D in. (mm) | Tube O.D. | Pipe Size | Nom. Size Hose O.D. | Dimensions –inches (mm) | | | | | | | | | Bolt Size |
|-------|----------------------------|----------------------------|--------------|--------------|------------------------|-------------------------|-----------------|---------------|-----------------|----------------|-----------------|----------------|----------------|---------------|--------------------|
| | | | | | | D | D1 | B | H1 | H2 | A1 | A2 | A3 | S | |
| H4 | HM4006RI | 0.24" (6) | - | - | 0.22" - 0.24" | 1.00" (25.5) | 1.24" (31.5) | 1.18" (30) | 1.22" (31) | 2.44" (62) | 1.77" (45) | 3.35" (85) | 2.76" (70) | 0.32" (8) | 3⁄8"-16x 2-1⁄4" |
| | HM4008RI | 0.32" (8) | 1⁄16" | - | 0.30" - 0.32" | | | | | | | | | | |
| | H4007RI | 0.39" (10) | - | 1⁄8" | 0.37" - 0.39" | | | | | | | | | | |
| | HM4012RI | 0.47" (12) | - | - | 0.45" - 0.47" | | | | | | | | | | |
| | H4008RI | 0.50" (12.7) | 1⁄2" | - | 0.48" - 0.50" | | | | | | | | | | |
| | HM4014RI | 0.55" (14) | - | - | 0.53" - 0.55" | | | | | | | | | | |
| | HM4015RI | 0.59" (15) | - | - | 0.57" - 0.59" | | | | | | | | | | |
| | H4010RI | 0.63" (16) | 5⁄8" | - | 0.61" - 0.63" | | | | | | | | | | |
| | H4011RI | 0.68" (17.2) | - | 3⁄8" | 0.66" -0.68" | | | | | | | | | | |
| | H4012RI | 0.75" (19) | 3⁄4" | - | 0.73" - 0.75" | | | | | | | | | | |
| H4C | Clamp Body Only (Group H4) | | | | | | | | | | | | | | |
| H5 | H5014RI | 0.79" (20) | - | 1⁄2" | 0.77" - 0.79" | 1.54" (39) | 1.83" (46.5) | 1.18" (30) | 1.46" (37) | 2.91" (74) | 2.36" (60) | 3.94" (100) | 3.35" (85) | 0.32" (8) | 3⁄8"-16x 2-3⁄4" |
| | H5015RI | 0.87" (22) | 7⁄8" | - | 0.85" - 0.87" | | | | | | | | | | |
| | H5016RI | 0.98" (25) | 1" | - | 0.96" - 0.98" | | | | | | | | | | |
| | H5017RI | 1.06" (26.9) | - | 3⁄4" | 1.04" - 1.06" | | | | | | | | | | |
| | HM5028RI | 1.10" (28) | - | - | 1.08" - 1.10" | | | | | | | | | | |
| | HM5030RI | 1.18" (30) | - | - | 1.16" - 1.18" | | | | | | | | | | |
| | H5020RI | 1.26" (32) | 1 1⁄4" | - | 1.24" - 1.26" | | | | | | | | | | |
| H5C | Clamp Body Only (Group H5) | | | | | | | | | | | | | | |
| H6 | H6021RI | 1.33" (33.7) | - | 1" | 1.31" - 1.33" | 2.56" (65) | 2.91" (74) | 1.77" (45) | 2.11" (53.5) | 4.21" (107) | 3.56" (90.5) | 5.51" (140) | 4.53" (115) | 0.39" (10) | 1⁄2"-13x 4" |
| | HM6035RI | 1.38" (35) | - | - | 1.36" - 1.38" | | | | | | | | | | |
| | H6024RI | 1.50" (38) | 1 1⁄2" | - | 1.48" - 1.50" | | | | | | | | | | |
| | HM6040RI | 1.58" (40) | - | - | 1.56" - 1.58" | | | | | | | | | | |
| | H6027RI | 1.65" (42) | - | 1 1⁄4" | 1.63" - 1.65" | | | | | | | | | | |
| | HM6045RI | 1.79" (45.5) | - | - | 1.77" - 1.79" | | | | | | | | | | |
| | H6030RI | 1.89" (48) | - | 1 1⁄2" | 1.87" - 1.89" | | | | | | | | | | |
| | H6032RI | 2.01" (51) | 2" | - | 1.99" - 2.01" | | | | | | | | | | |
| | H6034RI | 2.10" (53.4) | 2 1⁄8" | - | 2.08" - 2.10" | | | | | | | | | | |
| | HM6056RI | 2.22" (56.4) | - | - | 2.2" - 2.22" | | | | | | | | | | |
| H6C | Clamp Body Only (Group H6) | | | | | | | | | | | | | | |
| H7 | H7038RI | 2.36" (60) | - | 2" | 2.34" - 2.36" | 3.50" (89) | 3.86" (98) | 2.36" (60) | 2.70" (68.5) | 5.39" (137) | 4.80" (122) | 7.09" (180) | 5.98" (152) | 0.39" (10) | 5⁄8"-11x 5-1⁄4" |
| | HM7065RI | 2.56" (65) | - | - | 2.54" - 2.56" | | | | | | | | | | |
| | HM7070RI | 2.76" (70) | - | - | 2.74" - 2.76" | | | | | | | | | | |
| | H7046RI | 2.87" (73) | - | 2 1⁄2" | 2.85" - 2.87" | | | | | | | | | | |
| | H7050RI | 2.99" (76) | 3" | - | 2.97" - 2.99" | | | | | | | | | | |
| H7C | Clamp Body Only (Group H7) | | | | | | | | | | | | | | |
| H8 | HM8083RI | 3.27" (83) | - | - | 3.19" - 3.27" | 4.57" (116) | 5.20" (132) | 3.15" (80) | 3.88" (98.5) | 7.76" (197) | 6.61" (168) | 8.86" (225) | 8.07" (205) | 0.59" (15) | 3⁄4"-10x 7-1⁄2" |
| | H8056RI | 3.50" (89) | 3 1⁄2" | 3" | 3.43" - 3.50" | | | | | | | | | | |
| | H8C | Clamp Body Only (Group H8) | | | | | | | | | | | | | |

*For additional sizes and stainless steel contact factory.

Note: Add Assembly type to Part No.- **Example: HM4006RI** provides the complete assembly as shown

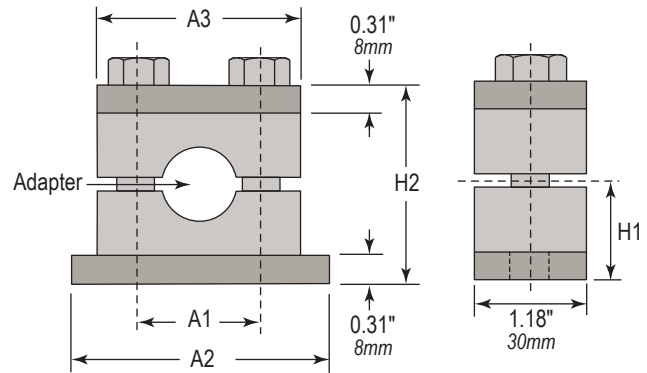


WARNING: These products can expose you to chemicals including lead, which is known to the State of California to cause cancer, and which is known to cause birth defects or other reproductive harm. For more information go to www.P65Warnings.ca.gov.



Beta Adapter

Beta Adapter



The **BETA-ADAPTER** allows a clamping junction to be inserted into virtually any hydraulic line. The exclusive square bodied junction adapter design can be used with metallic tubing or hydraulic hose ends. It provides a point of union for hydraulic runs which transition from one form of conveyance to another (i.e. hose to tubing). Once inserted into the customized Beta-Adapter clamp body, the junction point is securely clamped fighting the effects of vibration, insuring a leak-free system.

- Beta-Adapter cushions can also be used with rubber inserts.
- Z-Clamp split bushings from Group 1 can be utilized with the basic Beta-Adapter Group 4 cushion.
- Z-Clamp bushings from Group 2 coincide with Group 5 Beta-Adapter assemblies.
- The split bushings provide extra vibration absorption for delicate clamping surfaces.

INSTALLATION - Refer to page 257 for complete installation guide.



| Group | A1 | A2 | A3 | H1 | H2 | Hex Bolt |
|----------------------------|-----------------|------------------|-----------------|-----------------|-----------------|---------------------|
| Group 1 H4 BETA | 1.77" (45mm) | 3.34" (85mm) | 2.75" (70mm) | 1.25" (32mm) | 2.51" (64mm) | 3/8"-16 x 2-1/4" |
| Group 2 H5 BETA | 2.36" (60mm) | 3.93" (100mm) | 3.30" (84mm) | 1.49" (38mm) | 2.99" (76mm) | 3/8"-16 x 2-3/4" |

| | | Tube Size | Group 1 (H4) Part No. | Group 2 (H5) Part No. |
|--|--|-----------|---|---|
| | 37° JIC | 1/4" | H4MJA1-4-S | H5MJA2-4-S |
| | | 3/8" | H4MJA1-6-S | H5MJA2-6-S |
| | | 1/2" | H4MJA1-8-S | H5MJA2-8-S |
| | | 5/8" | H4MJA1-10S | H5MJA2-10S |
| | | 3/4" | — | H5MJA2-12S |
| | | 5/8" | — | H5MJA2-14S |
| | O-Ring Face Seal | 1" | — | H5MJA2-16S |
| | | 3/8" | H4MJO1-6-S | H5MJO2-6-S |
| | | 1/2" | H4MJO1-8-S | H5MJO2-8-S |
| | | 5/8" | H4MJO1-10S | H5MJO2-10S |
| | Female Junction | 3/4" | — | H5MJO2-12S |
| | | 1" | — | H5MJO2-16S |
| | | 1/2" | H4FJA1-8-S | — |
| | Female Pipe | 3/4" | — | H5FJA2-12S |
| | | 3/8" NPT | H4FJA1-6P-S | H5FJA2-12P-S |
| | Beta Cushions Only (Set of Two) | — | H4JCN-C | H5JCN-C |
| | Z-Clamp Split Bushing | — | HAC-1 (1-1/2" Series) Can be used | HAC-2 (2" Series) Can be used |

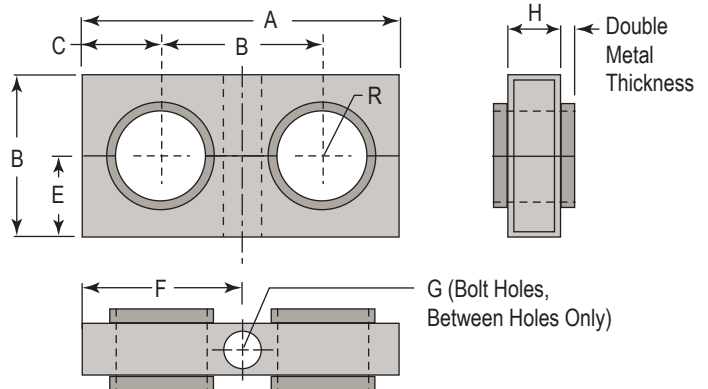


Z-Clamp - Standard



Z-CLAMP

Inside Hole Clamp Units
Multiple Line Clamping System



The standard Z-Clamp unit features an anchor bolt between each of the adapter inserts.

The junction adapter provides break points in lines allowing for shorter hose and tubing runs reducing leaks at connection points by securing the adapter against vibration within the Z-Clamp units. These break points may also serve as securely clamped changeover points between hose and tube, and vice versa.

- Stackable for space conservation
- Maintains consistent center line dimensions between lines both horizontally and vertically (in a stacking application)
- Mix and match pipe, tube, hose and junction adapters
- Suited for all types of hydraulic applications
- Available in standard and outside hole mounting configurations

INSTALLATION - Refer to page 257 for complete installation guide.

Note: Adapters and Hardware are ordered separately. Please see pages 217 - 220 for selection of these items.



| Part No. | # Adapter Holes | # Bolts | A | B | C | E | F | G | H | R |
|---|-----------------|---------|----------------------|----------------|-------------------|-----------------|-------------------|-------------------|-------------------|-------------------|
| HAC1 Series 1½" 14 Gauge | | | | | | | | | | |
| HAC1-2 | 2 | 1 | 2.938" (75mm) | 1.5" (38mm) | 0.719" (18mm) | 0.75" (19mm) | 1.469" (37mm) | 0.344" (9mm) | 0.550" (14mm) | 0.422" (11mm) |
| HAC1-3 | 3 | 2 | 4.406" (112mm) | | 0.719" (18mm) | | 1.469" (37mm) | | | |
| HAC1-4 | 4 | 3 | 5.940" (151mm) | | 0.719" (18mm) | | 1.469" (37mm) | | | |
| HAC1-5 | 5 | 4 | 7.140" (181mm) | | 0.594" (15mm) | | 1.343" (34mm) | | | |
| HAC1-6 | 6 | 5 | 8.938" (227mm) | | 0.719" (18mm) | | 1.469" (37mm) | | | |
| HAC1-7 | 7 | 6 | 10.188" (259mm) | | 0.594" (15mm) | | 1.343" (34mm) | | | |
| HAC1-32 | 32 | 31 | 48.000" (1219mm) | | - | | - | | | |
| HAC2 Series 2" 14 Gauge | | | | | | | | | | |
| HAC2-2 | 2 | 1 | 3.875" (98 mm) | 2" (51 mm) | 0.938" (24 mm) | 1" (25mm) | 1.938" (49 mm) | 0.344" (9mm) | 0.550" (14mm) | 0.594" (15 mm) |
| HAC2-3 | 3 | 2 | 5.641" (143 mm) | | 0.844" (22 mm) | | 1.844" (47 mm) | | | |
| HAC2-4 | 4 | 3 | 7.891" (200 mm) | | 0.938" (24 mm) | | 1.938" (49 mm) | | | |
| HAC2-5 | 5 | 4 | 9.672" (246 mm) | | 0.844" (22 mm) | | 1.844" (47 mm) | | | |
| HAC2-6 | 6 | 5 | 11.672" (296 mm) | | 0.813" (21 mm) | | 1.813" (46 mm) | | | |
| HAC2-7 | 7 | 6 | 13.625" (346 mm) | | 0.813" (21 mm) | | 1.813" (46 mm) | | | |
| HAC2-24 | 24 | 23 | 48.000" (1219mm) | | - | | - | | | |
| HAC3 Series 3" 11 Gauge | | | | | | | | | | |
| HAC3-2 | 2 | 1 | 6.766" (172 mm) | 3" (76 mm) | 1.875" (48 mm) | 1.5" (38 mm) | 3.375" (86 mm) | 0.406" (10 mm) | 0.750" (19 mm) | 1.063" (27 mm) |
| HAC3-3 | 3 | 2 | 8.703" (221 mm) | | 1.406" (36 mm) | | 2.984" (76 mm) | | | |
| HAC3-4 | 4 | 3 | 11.703" (297 mm) | | 1.406" (36 mm) | | 2.797" (71 mm) | | | |
| HAC3-5 | 5 | 4 | 14.703" (373 mm) | | 1.406" (36 mm) | | 2.859" (73 mm) | | | |
| HAC3-6 | 6 | 5 | 17.703" (450 mm) | | 1.406" (36 mm) | | 2.859" (73 mm) | | | |
| HAC3-16 | 16 | 15 | 48.000" (1219 mm) | | - | | - | | | |
| NOTE: Hardware & Adapters not included. | | | | | | | | | | |

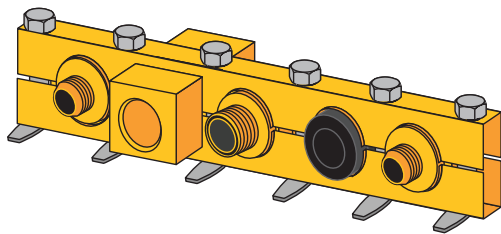




Z-Clamp - Outside Holes

Z-CLAMP

Outside Hole Clamp Units

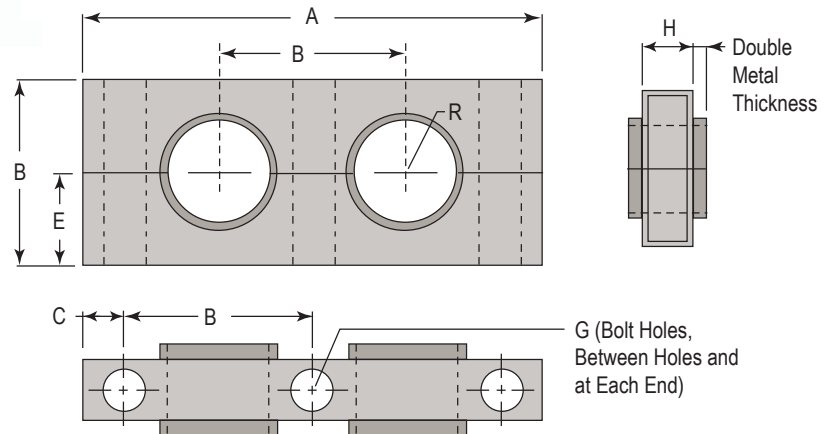


Note: Adapters and Hardware are ordered separately. Please see pages 217 - 220 for selection of these items.



- Stackable for space conservation
- Maintains consistent center line dimensions between lines both horizontally and vertically (in a stacking application)
- Mix and match pipe, tube, hose, and junction adapters
- Suited for all types of hydraulic applications
- Available in standard and outside hole mounting configurations

INSTALLATION - Refer to page 257 for complete installation guide.



| Part No. | # Adapter Holes | # Bolts | A | B | C | E | G | H | R |
|-----------------|-----------------|---------|---------------------|-----------------|-------------------|------------------|-------------------|-------------------|-------------------|
| HAC1 Series 1½" | | | | | | | | | |
| HAC1-1-2 | 1 | 2 | 2.188" (56 mm) | 1.5" (38 mm) | 0.344" (9 mm) | 0.75" (19 mm) | 0.344" (9 mm) | 0.550" (14 mm) | 0.422" (11 mm) |
| HAC1-2-3 | 2 | 3 | 3.797" (96 mm) | | 0.391" (10 mm) | | | | |
| HAC1-3-4 | 3 | 4 | 5.297" (135 mm) | | 0.391" (10 mm) | | | | |
| HAC1-4-5 | 4 | 5 | 6.797" (173 mm) | | 0.391" (10 mm) | | | | |
| HAC1-5-6 | 5 | 6 | 8.297" (211 mm) | | 0.391" (10 mm) | | | | |
| HAC2 Series 2" | | | | | | | | | |
| HAC2-1-2 | 1 | 2 | 2.656" (67 mm) | 2" (51 mm) | 0.328" (8 mm) | 1" (25 mm) | 0.344" (9 mm) | 0.550" (14 mm) | 0.594" (15 mm) |
| HAC2-2-3 | 2 | 3 | 4.766" (121 mm) | | 0.391" (9 mm) | | | | |
| HAC2-3-4 | 3 | 4 | 6.797" (173 mm) | | 0.391" (9 mm) | | | | |
| HAC2-4-5 | 4 | 5 | 8.297" (211 mm) | | 0.391" (9 mm) | | | | |
| HAC3 Series 3" | | | | | | | | | |
| HAC3-1-2 | 1 | 2 | 4.000" (102 mm) | 3" (76 mm) | 0.500" (13 mm) | 1.5" (38 mm) | 0.406" (10 mm) | 0.750" (19 mm) | 1.063" (27 mm) |
| HAC3-2-3 | 2 | 3 | 6.859" (174 mm) | | 0.422" (11 mm) | | | | |
| HAC3-3-4 | 3 | 4 | 9.859" (250 mm) | | 0.422" (11 mm) | | | | |
| HAC3-4-5 | 4 | 5 | 12.859" (327 mm) | | 0.422" (11 mm) | | | | |

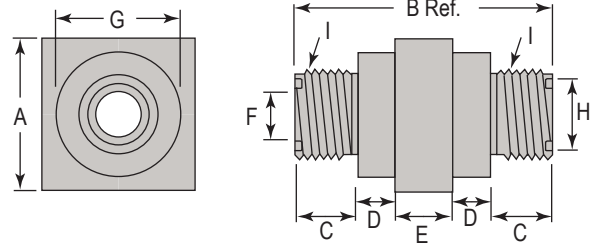


O-Ring Face Seal



For use with Beta Adapters
and Z-Clamps

- Offered in a wide range of sizes in JIC, NPT, SAE, and ORFS thread configurations.
- Zinc plated to prevent corrosion
- Clamping at the fitting prevents loosening and other vibration related leaks



| Part No. | Tube Size | Dimensions – inches | | | | | | | | |
|----------|-----------|---------------------|------------------|-------------------|-------------------|------------------|------------------|------------------|---------------|-------------------|
| | | A | B. | C | D | E | F. | G | I (Thread) | H |
| MJO-1-6 | 3/8" | 1.00" (25 mm) | 1.96" (50 mm) | 0.43" (11 mm) | 0.28" (7 mm) | 0.54" (14 mm) | 0.26" (7 mm) | 0.84" (21 mm) | 11/16"-16 | 0.496" (13 mm) |
| MJO-1-8 | 1/2" | 1.00" (25 mm) | 2.10" (53 mm) | 0.50" (13 mm) | 0.28" (7 mm) | 0.54" (14 mm) | 0.38" (10 mm) | 0.84" (21 mm) | 13/16"-16 | 0.621" (16 mm) |
| MJO-1-10 | 5/8" | 1.00" (25 mm) | 2.30" (58 mm) | 10.60" (15 mm) | 0.28" (7 mm) | 0.54" (14 mm) | 0.48" (12 mm) | 0.84" (21 mm) | 1"-14 | 0.748" (19 mm) |
| MJO-2-6 | 3/8" | 1.50" (38 mm) | 2.08" (53 mm) | 0.43" (11 mm) | 0.34" (9 mm) | 0.54" (14 mm) | 0.26" (7 mm) | 1.20" (31 mm) | 11/16"-16 | 0.496" (13mm) |
| MJO-2-8 | 1/2" | 1.50" (38 mm) | 2.22" (56 mm) | 0.50" (13 mm) | 0.34" (9 mm) | 0.54" (14 mm) | 0.38" (10 mm) | 1.20" (31 mm) | 13/16"-16 | 0.621" (16 mm) |
| MJO-2-10 | 5/8" | 1.50" (38 mm) | 2.42" (61 mm) | 0.60" (15 mm) | 0.34" (9 mm) | 0.54" (14 mm) | 0.48" (12 mm) | 1.20" (31 mm) | 1"-14 | 0.748" (19 mm) |
| MJO-2-12 | 3/4" | 1.50" (38 mm) | 2.52" (64 mm) | 0.65" (17 mm) | 0.34" (9 mm) | 0.54" (14 mm) | 0.61" (15 mm) | 1.20" (31 mm) | 1-3/16"-12 | 0.873" (22 mm) |
| MJO-2-16 | 1" | 1.50" (38 mm) | 2.58" (66 mm) | 0.68" (17 mm) | 0.34" (9 mm) | 0.54" (14 mm) | 0.81" (21 mm) | 1.20" (31 mm) | 1-7/16"-12 | 1.058" (27 mm) |
| MJO-3-20 | 1-1/4" | 2.25" (57 mm) | 2.98" (76 mm) | 0.68" (17 mm) | 0.437" (11 mm) | 0.75" (19 mm) | 1.02" (26 mm) | 2.12" (54 mm) | 1-11/16"-12 | 1.309" (33 mm) |
| MJO-3-24 | 1-1/2" | 2.25" (57 mm) | 2.98" (78 mm) | 0.68" (17 mm) | 0.437" (11 mm) | 0.75" (19 mm) | 1.26" (32 mm) | 2.12" (54 mm) | 2"-12 | 1.621" (41 mm) |





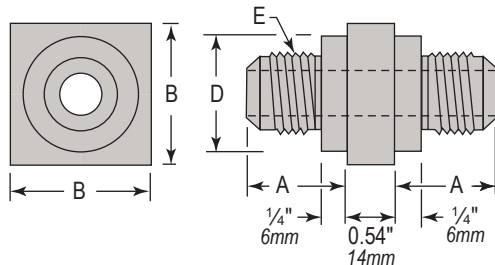
Z-Clamp - Adapters

37° Flare Male Junction Adapter



For use with Beta Adapters and Z-Clamps

- Offered in a wide range of sizes in JIC, NPT, SAE, and ORFS thread configurations.
- Zinc plated to prevent corrosion
- Clamping at the fitting prevents loosening and other vibration related leaks



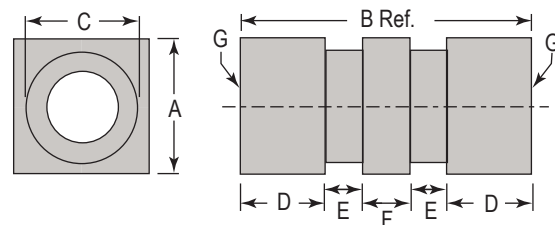
| Part No. | Tube Size | Dimensions – Inches | | | E (Thread) |
|------------|-----------|---------------------|----------------|------------------|------------|
| | | A | B | D | |
| 1½" Series | | | | | |
| MJA-1-4 | ¼" | 0.76" (19 mm) | 1" (25 mm) | 0.84" (21 mm) | 7/16"-20 |
| MJA-1-6 | 3/8" | 0.76" (19 mm) | 1" (25 mm) | 0.84" (21 mm) | 9/16"-18 |
| MJA-1-8 | ½" | 0.87" (22 mm) | 1" (25 mm) | 0.84" (21 mm) | ¾"-16 |
| MJA-1-10 | 5/8" | 0.96" (24 mm) | 1" (25 mm) | 0.84" (21 mm) | 7/8"-14 |
| 2" Series | | | | | |
| MJA-2-4 | ¼" | 0.76" (19 mm) | 1½" (38 mm) | 1.20" (30 mm) | 7/16"-20 |
| MJA-2-6 | 3/8" | 0.76" (19 mm) | 1½" (38 mm) | 1.20" (30 mm) | 9/16"-18 |
| MJA-2-8 | ½" | 0.87" (22 mm) | 1½" (38 mm) | 1.20" (30 mm) | ¾"-16 |
| MJA-2-10 | 5/8" | 0.96" (24 mm) | 1½" (38 mm) | 1.20" (30 mm) | 7/8"-14 |
| MJA-2-12 | ¾" | 1.07" (27 mm) | 1½" (38 mm) | 1.20" (30 mm) | 11/16"-12 |
| MJA-2-14 | 7/8" | 1.10" (28 mm) | 1½" (38 mm) | 1.20" (30 mm) | 13/16"-12 |
| MJA-2-16 | 1" | 1.10" (28 mm) | 1½" (38 mm) | 1.20" (30 mm) | 15/16"-12 |

Female Junction Adapter



For Use With Beta Adapters & Z-CLAMPS

- Offered in a wide range of sizes in JIC, NPT, SAE, and ORFS thread configurations.
- Zinc plated to prevent corrosion
- Clamping at the fitting prevents loosening and other vibration related leaks



| Part No. | Dimensions – Inches | | | | | | G (Thread) |
|-------------------|---------------------|---------------------|------------------|------------------|------------------|------------------|----------------|
| | A | B | C | D | E | F | |
| FJA-1-6-P | 1" (25 mm) | 2-13/16" (71 mm) | 0.84" (21 mm) | 0.84" (21 mm) | 0.30" (8 mm) | 0.54" (13 mm) | 3/8" N.P.T. |
| FJA-2-12-P | 1-1/2" (38 mm) | 3-1/8" (79 mm) | 1.20" (30 mm) | 0.97" (25 mm) | 0.32" (8 mm) | 0.54" (13 mm) | ¾" N.P.T. |
| FJA-3-20-P | 2-1/4" (57 mm) | 2-5/8" (67 mm) | 2.12" (54 mm) | 0.49" (12 mm) | 0.45" (11 mm) | 0.74" (19 mm) | 1¼" N.P.T. |
| FJA-1-8 | 1" (25 mm) | 2-13/16" (71 mm) | 0.84" (21 mm) | 0.84" (21 mm) | 0.30" (8 mm) | 0.54" (13 mm) | ¾"-16 SAE |
| FJA-2-12 | 1-1/2" (38 mm) | 3-1/8" (79 mm) | 1.20" (30 mm) | 0.97" (25 mm) | 0.32" (8 mm) | 0.54" (13 mm) | 1-1/16"-12 SAE |
| FJA-3-20 | 2-1/4" (57 mm) | 2-5/8" (67 mm) | 2.12" (54 mm) | 0.49" (12 mm) | 0.45" (11 mm) | 0.74" (19 mm) | 1-5/8"-12 SAE |

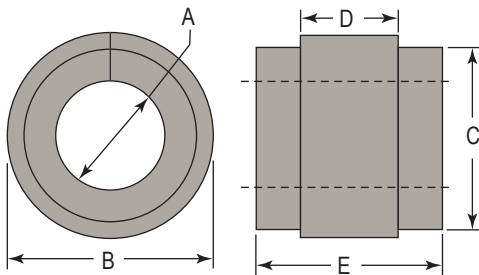


Anti-Vibration Split Rubber Bushings



For use with Beta Adapters
and Z-Clamps

- Unique "grip" design secures cushion in place
- High quality EPDM rubber provides superior vibration damping with excellent oil resistance.



| Part No. | Tube Size | Pipe Size | A | B | C | D | E |
|------------------|-----------|-----------|----------------|-------------------|-------------------|-------------------|-------------------|
| HAC-1 Series 1½" | | | | | | | |
| G-1-4 | ¼" | — | 0.235" (6 mm) | 0.975" (25 mm) | 0.875" (22 mm) | 0.50" (13 mm) | 1.312" (33 mm) |
| G-1-6 | ⅜" | — | 0.360" (9 mm) | | | | |
| G-1-8 | ½" | — | 0.485" (12 mm) | | | | |
| G-1-10 | ⅝" | — | 0.610" (15 mm) | | | | |
| G-1-12 | ¾" | — | 0.735" (19 mm) | | | | |
| HAC-2 Series 2" | | | | | | | |
| G-2-4 | ¼" | — | 0.235" (6 mm) | 1.350" (34 mm) | 1.250" (32 mm) | 0.50" (13 mm) | 1.312" (33 mm) |
| G-2-6 | ⅜" | — | 0.360" (9 mm) | | | | |
| G-2-8 | ½" | — | 0.485" (12 mm) | | | | |
| G-2-4P | — | ¼" | 0.525" (13 mm) | | | | |
| G-2-10 | ⅝" | — | 0.610" (15 mm) | | | | |
| G-2-6P | — | ⅜" | 0.660" (17 mm) | | | | |
| G-2-12 | ¾" | — | 0.735" (19 mm) | | | | |
| G-2-8P | — | ½" | 0.825" (21 mm) | | | | |
| G-2-14 | ⅞" | — | 0.860" (22 mm) | | | | |
| G-2-16 | 1" | — | 0.985" (25 mm) | | | | |
| G-2-12P | — | ¾" | 1.035" (26 mm) | | | | |
| HAC-3 Series 3" | | | | | | | |
| G-3-4 | ¼" | — | 0.234" (6 mm) | 2.287" (58 mm) | 2.187" (56 mm) | 0.750" (19 mm) | 1.750" (44 mm) |
| G-3-6 | ⅜" | — | 0.360" (9 mm) | | | | |
| G-3-8 | ½" | — | 0.485" (12 mm) | | | | |
| G-3-4P | — | ¼" | 0.525" (13 mm) | | | | |
| G-3-10 | ⅝" | — | 0.610" (15 mm) | | | | |
| G-3-6P | — | ⅜" | 0.660" (17 mm) | | | | |
| G-3-12 | ¾" | — | 0.735" (19 mm) | | | | |
| G-3-8P | — | ½" | 0.825" (21 mm) | | | | |
| G-3-14 | ⅞" | — | 0.860" (22 mm) | | | | |
| G-3-16 | 1" | — | 0.985" (25 mm) | | | | |
| G-3-12P | — | ¾" | 1.035" (26 mm) | | | | |
| G-3-20 | 1-¼" | — | 1.235" (31 mm) | | | | |
| G-3-16P | — | 1" | 1.300" (33 mm) | | | | |
| G-3-24 | 1-½" | — | 1.485" (38 mm) | | | | |
| G-3-20P | — | 1-¼" | 1.645" (42 mm) | | | | |
| G-3-24P | — | 1-½" | 1.885" (48 mm) | | | | |
| G-3-32 | 2" | — | 1.985" (50 mm) | | | | |



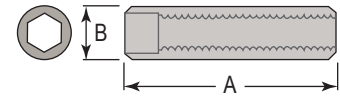


Z-Clamp - Hardware

Socket Head Stacking Nut



| Part No. | HAC Series | A | B Dia. | Thread Size |
|----------|------------|-------------------|-------------------|-------------|
| S-1 | 1 | 1.335" (34 mm) | 1/2" (13 mm) | 5/16"-18 |
| S-2 | 2 | 1.800" (46 mm) | 1/2" (13 mm) | 5/16"-18 |
| S-3 | 3 | 2.780" (71 mm) | 11/16" (17 mm) | 3/8" |

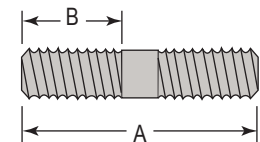


Thread Adapter

(Install Or Stack)



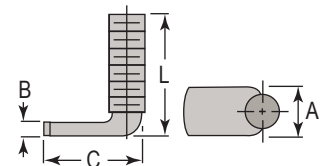
| Part No. | HAC Series | A | B | Thread Size |
|----------|------------|------------------|------------------|-------------|
| T-1 | 1 & 2 | 1.38" (35 mm) | 0.63" (16 mm) | 5/16"-18 |
| T-3 | 3 | 2.00" (51 mm) | 0.88" (22 mm) | 3/8"-16 |



Weld Nut



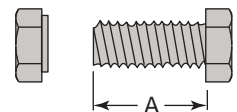
| Part No. | HAC Series | Thread Size | A | B | C | L |
|----------|------------|-------------|-------------------|------------------|-------------------|------------------|
| W-1/W-2 | HAC 1 | 5/16"-18 | 0.437" (11 mm) | 0.12" (3 mm) | 0.875" (22 mm) | 3/4" (19 mm) |
| W-1/W-2 | HAC 2 | 5/16"-18 | 0.437" (11 mm) | 0.12" (3 mm) | 0.875" (22 mm) | 3/4" (19 mm) |
| W-3 | HAC 3 | 3/8"-16 | 0.531" (13 mm) | 0.151" (4 mm) | 1.00" (25 mm) | 1.00" (25 mm) |



Hex Bolt and Hex Nut



| Part No. | Type | HAC Series | Thread Size | A |
|----------|------|------------|-------------|--------------|
| HB-1 | Bolt | HAC 1 & 2 | 5/16"-18 | 3/4" (19 mm) |
| HN-1 | Nut | | | — |
| HB-3 | Bolt | HAC 3 | 3/8"-16 | 1" (25 mm) |
| HN-3 | Nut | | | — |



Lock Washer



| Part No. | HAC Series | Size |
|----------|------------|-----------------|
| HW-1 | HAC 1 & 2 | 5/16" (8 mm) |
| HW-3 | HAC 3 | 3/8" (10 mm) |



Concrete Inserts



| Channel Material Specifications | | | |
|---------------------------------|-----------------|--------------------|--|
| Material | Material Code | ASTM Designation | ASTM Description |
| Hot Rolled: Channel | Use Finish Code | A 1011SS GR33 | Hot rolled carbon steel sheet and strip, structural quality. |
| Cold Rolled: Channel | | A 1008SS GR33 | Cold rolled carbon sheet steel. |
| Stainless Steel: Channel | ST304 | A 240 TYPE 304 | Heat resisting chromium and chromium-nickel stainless steel plate, sheet, strip for pressure vessel. |
| | ST316 | A 240 TYPE 316 | |
| Aluminum: Channel | AL | B 221 TYPE 6063 T6 | Aluminum alloy extruded bar, rod, wire, shape and tube. |

| Channel Finish Specifications | | |
|--------------------------------------|-------------|--|
| Finish | Finish Code | Description |
| Paint-Green Powder Coating | GR | A dark green low gloss powder coating is applied and thoroughly baked after steel has been cleaned and phosphatized. |
| Electroplated | EG | Fittings and hardware supplied as "Electro-Galvanized" in accordance with ASTM B 633. |
| Mill-Galvanized (Pre-Galvanized) | PG | Galvanized steel used in the manufacture of Wesanco channel sections conforms to ASTM A 653 GR33 G90. Uncoated edges resulted from slitting, punching and channel cut off are present. |
| Hot Dip Galvanized After Fabrication | HG | Wesanco channel and fittings which are hot dip galvanized after fabrication conform to one of the following specifications: ASTM A 123, ASTM A153, or ASTM A386. |
| Special Coatings | PL, GOLD | Other commercially available finishes can be supplied per specification when required to protect applications. |

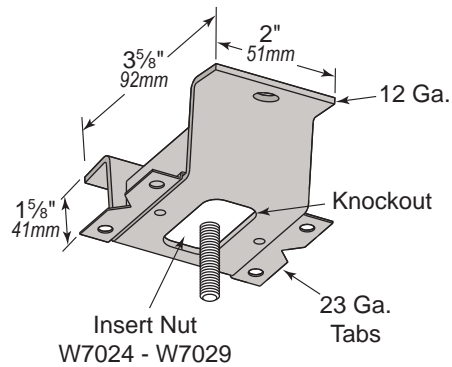
Call ZSi-Foster at (800) 323-7053 or order now at zsi-foster.com



Concrete Inserts

W7000

Spot Concrete Insert



Standard Finish:
Electro Galvanized

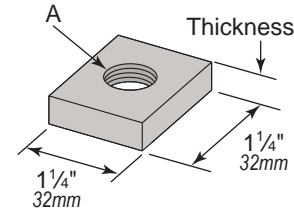
Designed to be used with spot concrete insert nuts W7024 - W7029

A $\frac{7}{8}$ " x $1\frac{5}{8}$ " knock-out is removed after concrete pour. The spot concrete insert nut is placed in the slot, and then the rod is screwed into the nut. The nut is secured in place by turning the rod. Lateral adjustment is made by loosening the nut and relocating. When selecting rod size, refer to "Load Ratings" of Thread Hanger Rods" chart on page 84.

| Part No. | Allowable Load Lbs. (kN) |
|---|-----------------------------|
| W7000 | 800 (3.56 kN) |
| Safety Factor: 5 based on adequate concrete | |

W7024 to W7029

Spot Concrete Insert Nuts



Standard Finish:
Electro Galvanized

| Part No. | Thickness | Tapped "A" Size |
|----------|---|--------------------|
| W7024 | $\frac{1}{4}$ " | $\frac{1}{4}$ "-20 |
| W7025 | $\frac{3}{8}$ " | $\frac{3}{8}$ "-16 |
| W7026 | Specify $\frac{3}{8}$ " or $\frac{1}{2}$ " Standard is $\frac{1}{2}$ " | $\frac{1}{2}$ "-13 |
| W7027 | | $\frac{5}{8}$ "-11 |
| W7028 | | $\frac{3}{4}$ "-10 |

Continuous Concrete Insert Part Number Selection Chart

For All Inserts on Pages 223 thru 226

| Continuous Concrete Insert Part Number Descriptions | | | | |
|--|-----------------|--|-----------------|-----------------------|
| Base Profile Part Number | Add Option Code | Description of Options | Add Finish Code | Completed Part Number |
| W7270 | N | Insert Only | PG | W7270NPG |
| W7270 | C | Insert and End Caps Only | PG | W7270CPG |
| W7270 | F | Insert, Tape, and Foam Only | PG | W7270FPG |
| W7270 | FC | Insert, Tape, Foam and End Caps | PG | W7270FCPG |
| W7270 | E | Insert, Tape, and Ethafoam Only | PG | W7270EPG |
| W7270 | EC | Insert, Tape, Ethafoam, and End Caps | PG | W7270ECPG |
| W7270 | W | Insert and Welded Strip Only | PG | W7270WPG |
| W7270 | WC | Insert, Welded Strip, and End Caps ** | PG | W7270WCPG |
| W7270 | WCC | Insert, Welded Strip, Closure Strip, and End Caps ** | PG | W7270WCCPG |
| ** Note: When using welded strip, plastic end caps will be used. | | | | |



Continuous Concrete Inserts



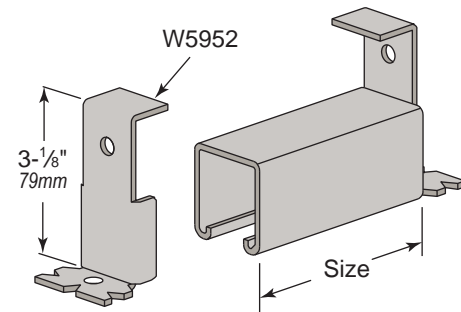
W200 - 1-5/8" x 1-5/8" - 12 Gauge

W7250 to W7252

Concrete Insert

| Part No. | Size | Allowable Load Lbs. (kN) |
|----------|------------|-----------------------------|
| W7250 | 4" (102mm) | 800 (3.56 kN) |
| W7251 | 6" (152mm) | 1,000 (4.45 kN) |
| W7252 | 8" (203mm) | 1,200 (5.34 kN) |

Comes with either Foam Filler or a W6500 Plastic Closure Strip.

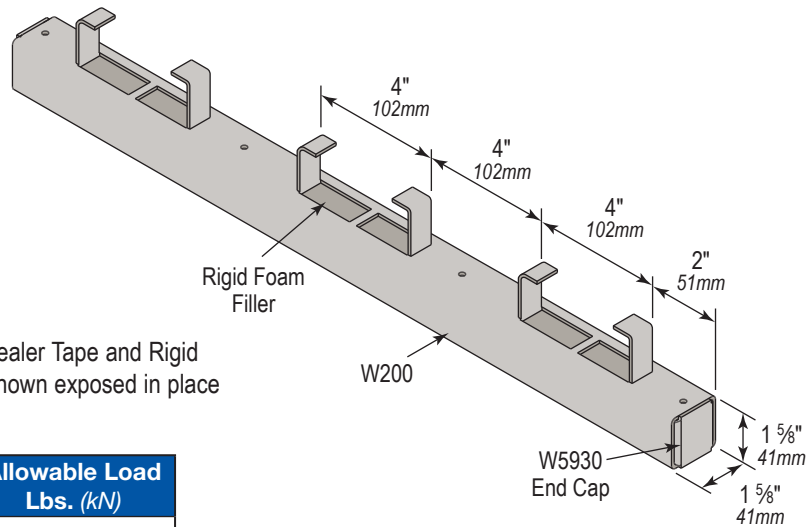


W7253 to W7270

Continuous Inserts

When ordering specify finish. Available in plain, pre-galvanized, hot dip galvanized after fabrication, type 304 and 316 stainless steel.

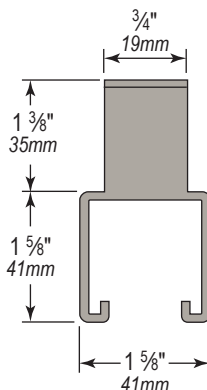
Waterproof Sealer Tape and Rigid Foam Filler shown exposed in place



| Part No. | Size | End Cap | Allowable Load Lbs. (kN) |
|----------|--------------|---------|-----------------------------|
| W7253 * | 12" (305mm) | W5952 | 2,000 (8.90 kN) |
| W7254 | 16" (406mm) | W5930 | |
| W7255 | 20" (508mm) | | |
| W7256 | 24" (610mm) | | |
| W7257 | 32" (813mm) | | |
| W7257A | 36" (914mm) | | |
| W7258 | 40" (1016mm) | | |
| W7259 | 4' (1.2m) | | |
| W7260 | 5' (1.5m) | | |
| W7261 | 6' (1.8m) | | |
| W7262 | 7' (2.1m) | | |
| W7263 | 8' (2.4m) | | |
| W7264 | 9' (2.7m) | | |
| W7265 | 10' (3m) | | |
| W7266 | 12' (3.6m) | | |
| W7267 | 14' (4.2m) | | |
| W7268 | 16' (4.8m) | | |
| W7269 | 18' (5.4m) | | |
| W7270 | 20' (6.1m) | | |

* W7253 utilizes tab channel (punched & anchor caps)

* W7253 utilizes tab channel (punched & anchor caps)



Concentrated load on the end 2" (51mm) of W7252 thru W7270 should not exceed 1000#. Inserts must be surrounded by sufficient concrete to conform to design shear stress. Concrete insert should be nailed to form every 16" to 24" (406mm to 635mm).

Refer to page 222 for continuous concrete insert part number selection chart to build complete part number based on desired options.





Continuous Concrete Inserts

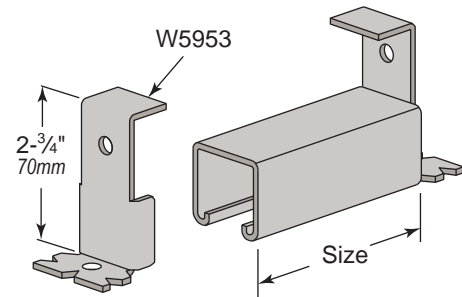
W300 - 1-5/8" x 1-3/8" - 12 Gauge

W7350 to W7352

Concrete Insert

| Part No. | Size | Allowable Load Lbs. (kN) |
|----------|------------|-----------------------------|
| W7350 | 4" (102mm) | 800 (3.56 kN) |
| W7351 | 6" (152mm) | 1,000 (4.45 kN) |
| W7352 | 8" (203mm) | 1,200 (5.34 kN) |

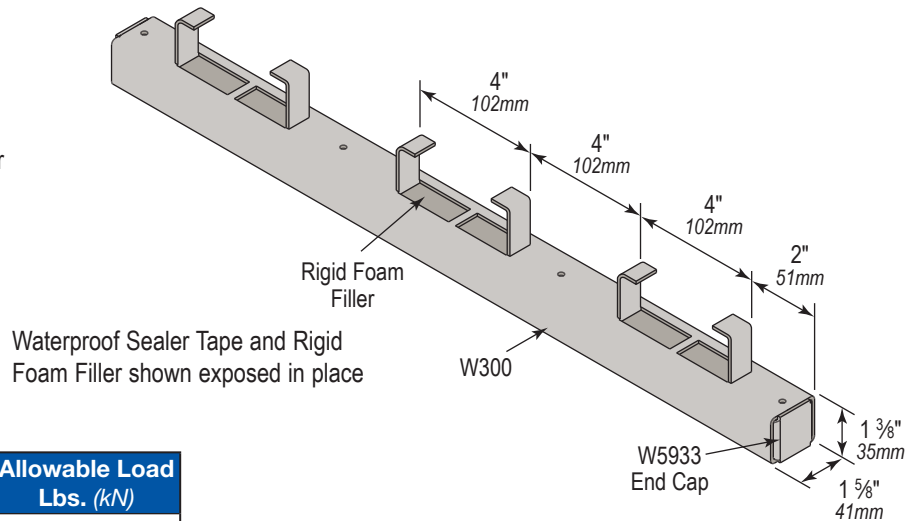
Comes with either Foam Filler or a W6500 Plastic Closure Strip.



W7353 to W7370

12 Gauge, Continuous Concrete Inserts

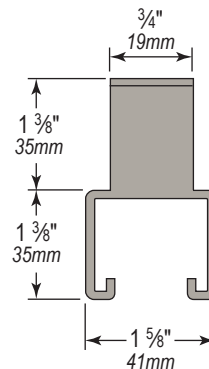
When ordering specify finish. Available in plain, pre-galvanized, hot dip galvanized after fabrication, 304 and 316 stainless steel.



| Part No. | Size | End Caps | Allowable Load Lbs. (<i>kN</i>) |
|----------|--------------|----------|--------------------------------------|
| W7353 * | 12" (305mm) | W5953 | 2,000 (8.90 kN) |
| W7354 | 16" (406mm) | W5933 | |
| W7355 | 20" (508mm) | | |
| W7356 | 24" (610mm) | | |
| W7357 | 32" (813mm) | | |
| W7357A | 36" (914mm) | | |
| W7358 | 40" (1016mm) | | |
| W7359 | 4' (1.2m) | | |
| W7360 | 5' (1.5m) | | |
| W7361 | 6' (1.8m) | | |
| W7362 | 7' (2.1m) | | |
| W7363 | 8' (2.4m) | | |
| W7364 | 9' (2.7m) | | |
| W7365 | 10' (3m) | | |
| W7366 | 12' (3.6m) | | |
| W7367 | 14' (4.2m) | | |
| W7368 | 16' (4.8m) | | |
| W7369 | 18' (5.4m) | | |
| W7370 | 20' (6.1m) | | |

* W7353 utilizes tab channel (punched & anchor caps)

* W7353 utilizes tab channel (punched & anchor caps)



Concentrated load on the end 2" (51mm) of W7352 thru W7370 should not exceed 1,000#. Inserts must be surrounded by sufficient concrete to conform to design shear stress. Concrete insert should be nailed to form every 16" to 24" (406mm to 635mm).

Refer to page 222 for continuous concrete insert part number selection chart to build complete part number based on desired options.



Continuous Concrete Inserts



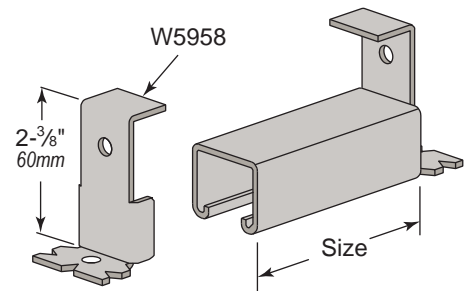
W800 - 1-5/8" x 1" - 12 Gauge

W7550 to W7552

Concrete Insert

| Part No. | Size | Allowable Load Lbs. (kN) |
|----------|------------|-----------------------------|
| W7550 | 4" (102mm) | 500 (2.22 kN) |
| W7551 | 6" (152mm) | 750 (3.34 kN) |
| W7552 | 8" (203mm) | 1,000 (4.45 kN) |

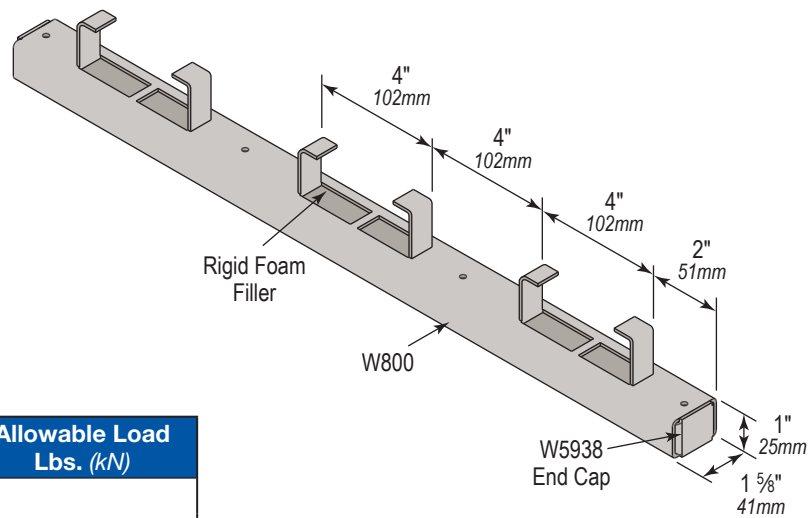
Comes with either Foam Filler or a W6500Plastic Closure Strip.



W7553 to W7570

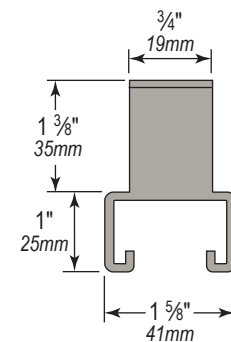
12 Gauge, Continuous Concrete Inserts

When ordering specify finish. Available in plain, pre-galvanized, hot dip galvanized after fabrication, 304 and 316 stainless steel.



| Part No. | Size | End Caps | Allowable Load Lbs. (kN) |
|----------|--------------|----------|-----------------------------|
| W7553 * | 12" (305mm) | W5958 | 1,500 (6.67 kN) |
| W7554 | 16" (406mm) | W5938 | |
| W7555 | 20" (508mm) | | |
| W7556 | 24" (610mm) | | |
| W7557 | 32" (813mm) | | |
| W7557A | 36" (914mm) | | |
| W7558 | 40" (1016mm) | | |
| W7559 | 4' (1.2m) | | |
| W7560 | 5' (1.5m) | | |
| W7561 | 6' (1.8m) | | |
| W7562 | 7' (2.1m) | | |
| W7563 | 8' (2.4m) | | |
| W7564 | 9' (2.7m) | | |
| W7565 | 10' (3m) | | |
| W7566 | 12' (3.6m) | | |
| W7567 | 14' (4.2m) | | |
| W7568 | 16' (4.8m) | | |
| W7569 | 18' (5.4m) | | |
| W7570 | 20' (6.1m) | | |

* W7553 utilizes tab channel (punched & anchor caps)



Concentrated load on the end 2" (51mm) of W7552 thru W7570 should not exceed 750#. Inserts must be surrounded by sufficient concrete to conform to design shear stress. Concrete insert should be nailed to form every 16" to 24" (406mm to 635mm).

Refer to page 222 for continuous concrete insert part number selection chart to build complete part number based on desired options.





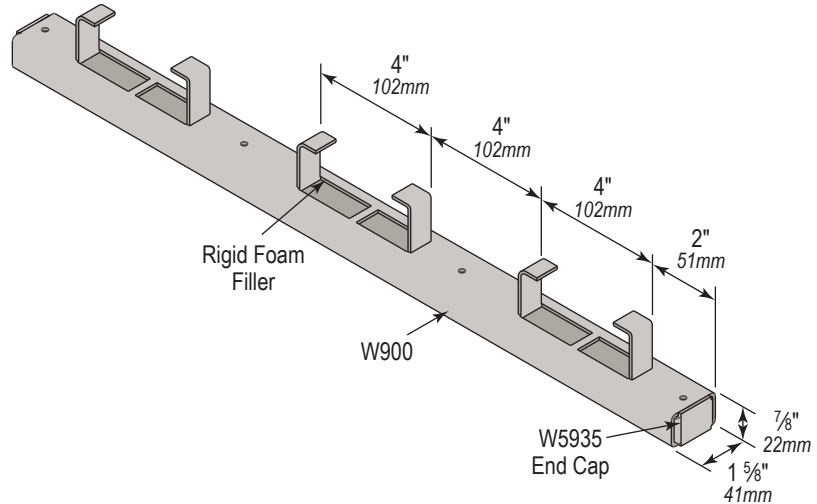
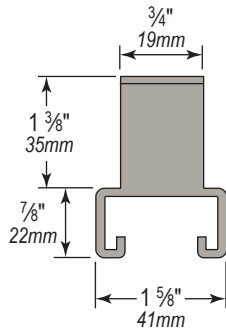
Continuous Concrete Inserts

W900 - 1-5/8" x 7/8" - 12 Gauge

W7954 to W7970

12 Gauge, Continuous Concrete Inserts

When ordering specify finish. Available in plain, pre-galvanized, hot dip galvanized after fabrication, 304 and 316 stainless steel.



| Part No. | Size | Allowable Load Lbs. (kN) |
|----------|--------------|-----------------------------|
| W7954 | 16" (406mm) | 1,500 (6.67 kN) |
| W7955 | 20" (508mm) | |
| W7956 | 24" (610mm) | |
| W7957 | 32" (813mm) | |
| W7957A | 36" (914mm) | |
| W7958 | 40" (1016mm) | |
| W7959 | 4' (1.2m) | |
| W7960 | 5' (1.5m) | |
| W7961 | 6' (1.8m) | |
| W7962 | 7' (2.1m) | |
| W7963 | 8' (2.4m) | |
| W7964 | 9' (2.7m) | |
| W7965 | 10' (3m) | |
| W7966 | 12' (3.6m) | |
| W7967 | 14' (4.2m) | |
| W7968 | 16' (4.8m) | |
| W7969 | 18' (5.4m) | |
| W7970 | 20' (6.1m) | |

* W75953 utilizes tab channel (punched & anchor caps)

Concentrated load on the end 2" (51mm) of W7954 thru W7970 should not exceed 750#. Inserts must be surrounded by sufficient concrete to conform to design shear stress. Concrete insert should be nailed to form every 16" to 24" (406mm to 635mm).

Refer to page 222 for continuous concrete insert part number selection chart to build complete part number based on desired options.



Cush-A-Block® Rooftop Supports



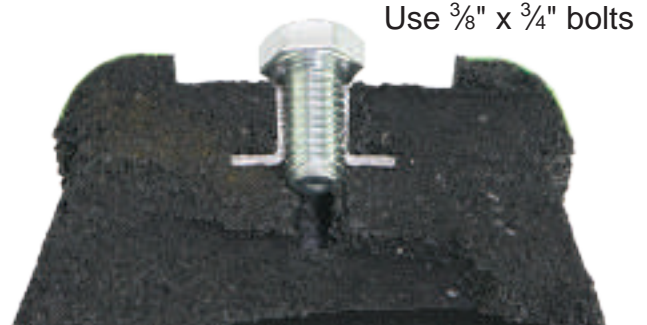
75% Faster Strut Install and Change-Out

Built-in Channel Guide



Straight Strut Installation

Embedded Fasteners



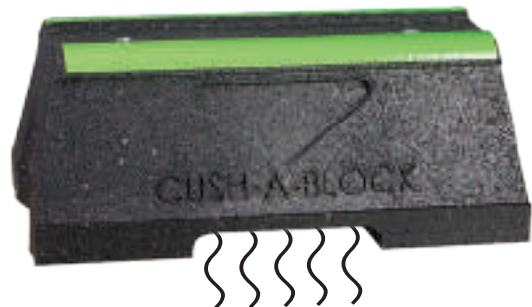
No Rust on the Roof

Easy-carry Hand Grip



Simple to Lift and Carry

Water Flow-through



Helps Prevent Mold and Ice Dams

- 100% Recycled Rubber Qualifies for LEED Credits
- Meets the Buy America Act and American Reinvestment Recovery Act
- Resistant to Freeze and Thaw

- Dampens Vibrations
- Compatible with Most Rooftop Materials
- Eco-Green Reflective Safety Strip Won't Peel or Flake

Cush-A-Block is manufactured under U.S. patent D824749 and one pending, and Canadian patents #175942 and one pending

Solar Racking | Pipe & Conduit | HVAC | Rooftop Walkways

The channel for Cush-A-Block support assemblies includes a variety of options. The strut can be made in special lengths, finishes, and alloys including Aluminum, Stainless Steel both 304 & 316, PVC coated, Powder coated, Zinc Trivalent Chromium, Pre-Galvanized and Hot Dipped Galvanized.

Embedded nut eliminates any thru holes and prevents leaks or any rust from forming on the underside of the fastener.



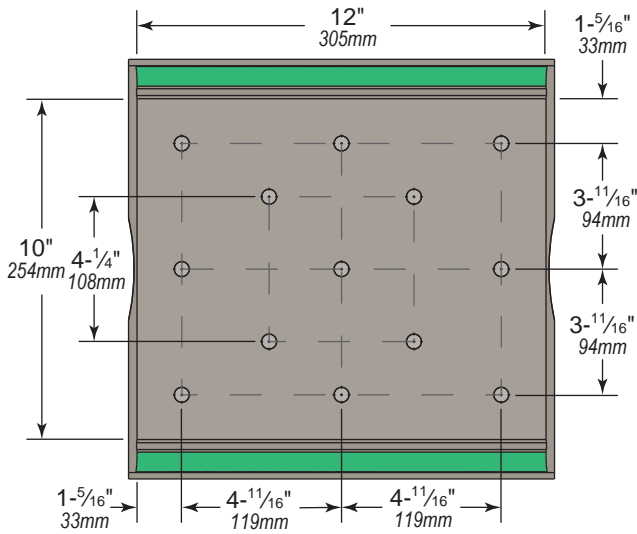
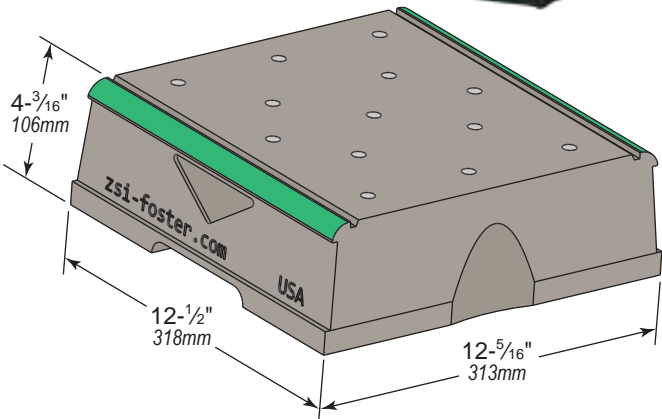
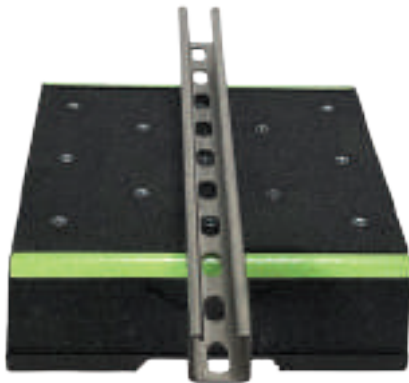
Call ZSi-Foster at (800) 323-7053 or order now at zsi-foster.com



Cush-A-Block® “Biggie” Rooftop Supports

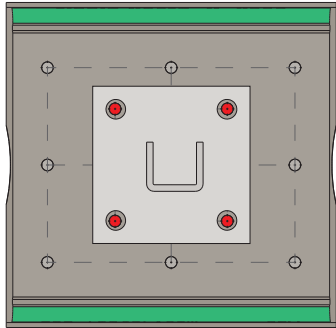
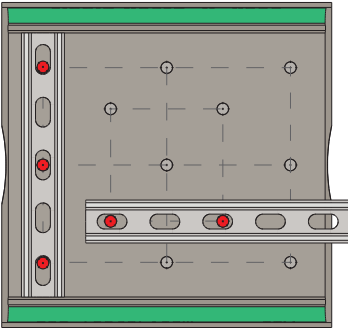
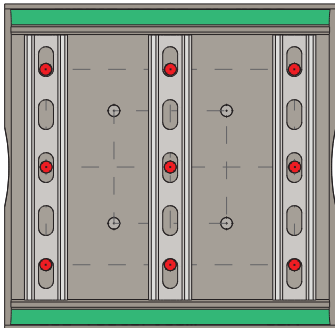
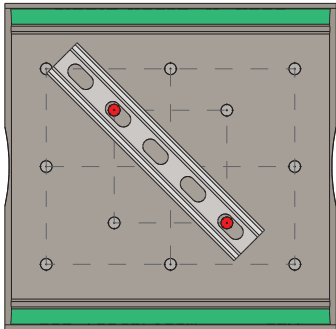
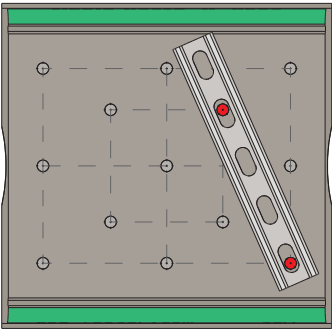
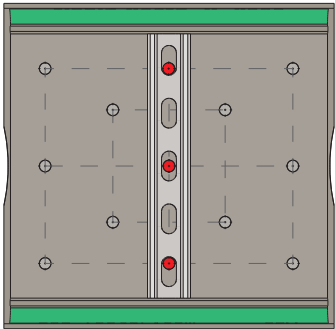
CBB “Biggie” Series

Plain Base



| CBB “Biggie” Block Base | |
|--|---------------------------------|
| Part No. | Uniform Load Capacity Lbs (kN)* |
| CBB | 7,500 * (33.36 kN) |
| * This load is only for the capacity of the components in this assembly. Please consult roofing manufacturer or engineer for roof load capacity. | |

Embedded Fastener Layout Provides an Amazing Variety of Channel or Fitting Options



WARNING: These products can expose you to chemicals including lead, which is known to the State of California to cause cancer, and which is known to cause birth defects or other reproductive harm. For more information go to www.P65Warnings.ca.gov.

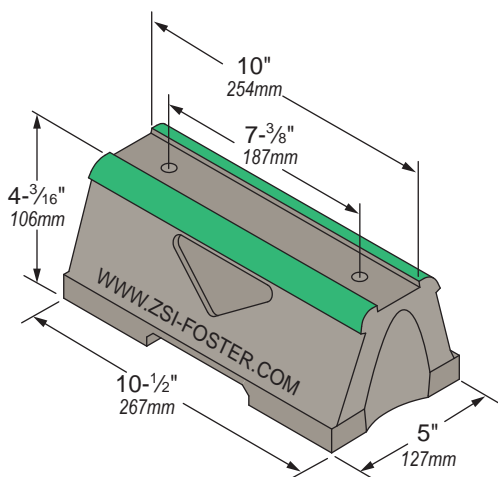
Cush-A-Block® Rooftop Supports



Standard Finish: Pre-galvanized (PG) or Hot Dipped Galvanized (HG)

CBN Series

Plain Base



Note: The embedded fasteners are conveniently spaced to allow attachment of slotted channel.

The CBN-Base Rooftop Support is UV resistant and suitable for installation on most types of roofing material or other flat surfaces. Can be used as a curb (sleeper) replacement. Screw fasteners can be used to attach one or two hole pipe straps or a piece of strut (not included).

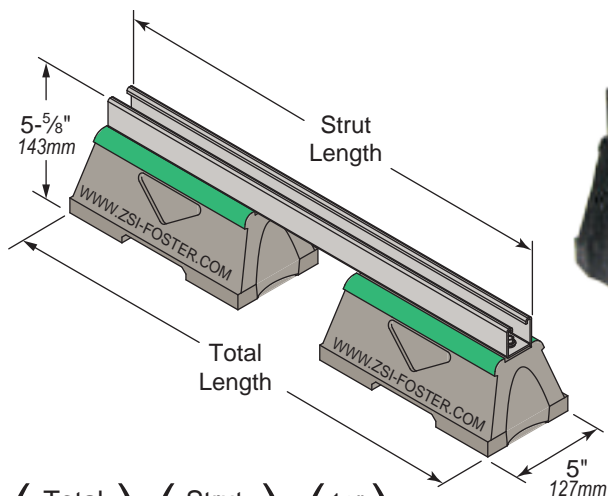
CBN-Base Series

| Part No. | Uniform Load Capacity Lbs (kN)* |
|------------|---------------------------------|
| CBN | 2,500 * (11.12 kN) |

* This load is only for the capacity of the components in this assembly. Please consult roofing manufacturer or engineer for roof load capacity.

CBN-BR Bridge Series

Support With Channel



$$\left(\text{Total Length} \right) = \left(\text{Strut Length} \right) + \left(\frac{1}{2} \text{ inch} \right) \left(13 \text{ mm} \right)$$

Like all of the Cush-A-Block supports, the CBN-BR Bridge Rooftop Supports are perfect for supporting natural gas and refrigeration piping systems, cable tray, electrical conduit, multiple lines, HVAC equipment and many other applications.

The CBN-BR Series provides a longer mounting surface with strut lengths up to 60" (1.5m). Custom lengths are available upon request.

Standard strut mount pipe clamps are used to secure the pipes.



CBN-BR Bridge Series Supports with 1 5/8" (41mm) Pre-Galv. or Hot Dip Galv. Steel Channel

| Part No. | Strut Length | Total Length | Uniform Load Lbs (kN)* |
|----------------|--------------|-----------------|------------------------|
| CBN28BR | 28" (711mm) | 28 1/2" (724mm) | 1,491* (6.63 kN) |
| CBN36BR | 36" (914mm) | 36 1/2" (927mm) | 1,160* (5.15 kN) |
| CBN42BR | 42" (1m) | 42 1/2" (1.08m) | 994* (4.42 kN) |
| CBN50BR | 50" (1.2m) | 50 1/2" (1.28m) | 835* (3.71 kN) |
| CBN60BR | 60" (1.5m) | 60 1/2" (1.54m) | 696* (3.09 kN) |

* This load is only for the capacity of the components in this assembly. Please consult roofing manufacturer or engineer for roof load capacity.



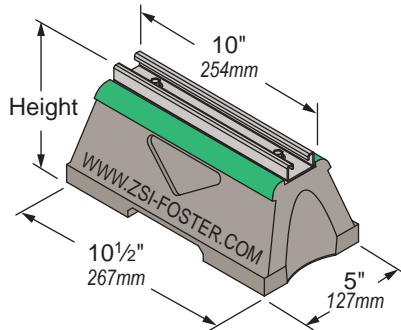


Cush-A-Block® Rooftop Supports

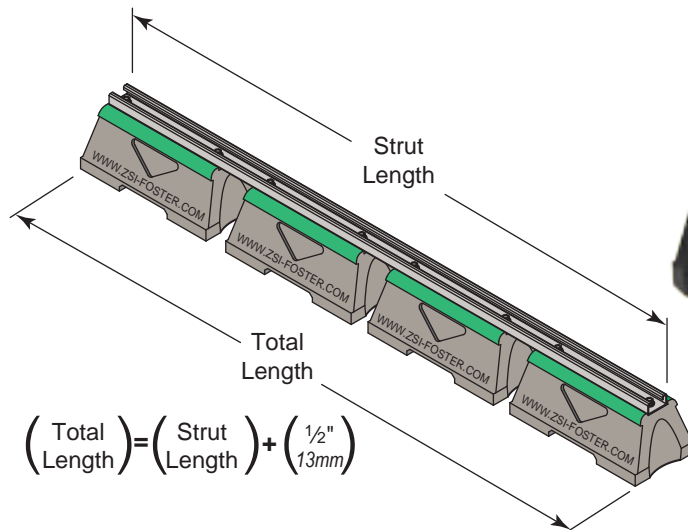
Standard Finish: Pre-galvanized (PG) or Hot Dipped Galvanized (HG)

CBN Series

Support With Metal Channel



Shown with $1\frac{3}{16}$ " Strut



CBN2RD shown with two bases

The CBN Series provides a longer mounting surface with strut lengths up to 46.82" (1.2m). Custom lengths are available upon request

| Part No. | No. of Bases | Height | Strut Length | Total Length | Uniform Load Lbs (kN)* |
|---|--------------|--|-----------------------------|------------------------------------|------------------------|
| CBN-Support With $1\frac{3}{16}$ " (21mm) Pre-Galv. or Hot Dip Galv. Steel Channel | | | | | |
| CBN1S | 1 | $4\text{--}\frac{13}{16}$ " (122mm) | 10" (254mm) | $10\text{--}\frac{1}{2}$ " (267mm) | 2,500 * (11.12 kN) |
| CBN2S | 2 | | 23- $\frac{1}{2}$ " (597mm) | 24" (610mm) | 5,000 * (22.24 kN) |
| CBN3S | 3 | | 35- $\frac{1}{2}$ " (902mm) | 36" (914mm) | 7,500 * (33.36 kN) |
| CBN4S | 4 | | 47- $\frac{1}{2}$ " (1.2m) | 48" (1.2m) | 10,000 * (44.48 kN) |
| CBN-Support With $1\text{--}\frac{5}{8}$ " (41mm) Pre-Galv. or Hot Dip Galv. Steel Channel | | | | | |
| CBN1D | 1 | $5\text{--}\frac{5}{8}$ " (143mm) | 10" (254mm) | $10\text{--}\frac{1}{2}$ " (267mm) | 2,500 * (11.12 kN) |
| CBN2D | 2 | | 23- $\frac{1}{2}$ " (597mm) | 24" (610mm) | 5,000 * (22.24 kN) |
| CBN3D | 3 | | 35- $\frac{1}{2}$ " (902mm) | 36" (914mm) | 7,500 * (33.36 kN) |
| CBN4D | 4 | | 47- $\frac{1}{2}$ " (1.2m) | 48" (1.2m) | 10,000 * (44.48 kN) |
| CBN Support With $2\text{--}\frac{7}{16}$ " (62mm) Pre-Galv. or Hot Dip Galv. Steel Channel | | | | | |
| CBN1RD | 1 | $6\text{--}\frac{7}{16}$ " (164mm) | 10" (254mm) | $10\text{--}\frac{1}{2}$ " (267mm) | 2,500 * (11.12 kN) |
| CBN2RD | 2 | | 23- $\frac{1}{2}$ " (597mm) | 24" (610mm) | 5,000 * (22.24 kN) |
| CBN3RD | 3 | | 35- $\frac{1}{2}$ " (902mm) | 36" (914mm) | 7,500 * (33.36 kN) |
| CBN4RD | 4 | | 47- $\frac{1}{2}$ " (1.2m) | 48" (1.2m) | 10,000 * (44.48 kN) |
| * This load is only for the capacity of the components in this assembly. Please consult roofing manufacturer or engineer for roof load capacity. | | | | | |



Cush-A-Block® Rooftop Supports

Standard Finish: Pre-galvanized (PG) or Hot Dipped Galvanized (HG)



CBN-EX Series

Support With Raised Channel

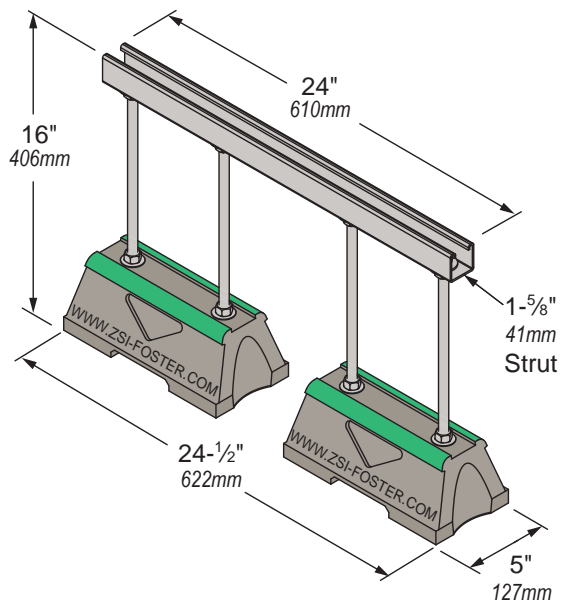
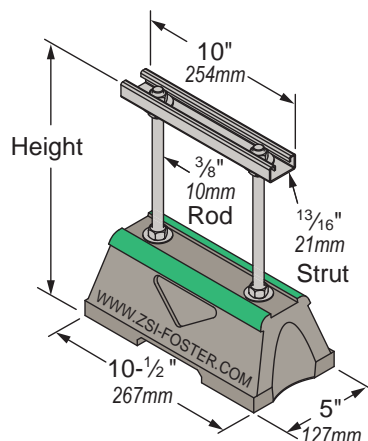
CBN-BR Extension Rooftop Supports are perfect for supporting natural gas and refrigeration piping systems, cable tray, electrical conduit, multiple lines, HVAC equipment and many other applications.

Standard strut mount pipe clamps are used to secure the pipes. Custom lengths are available upon request.

CBN8EX,
CBN12EX



CBN16EX



CBN-EX Extension Series Support with $\frac{3}{8}$ " Threaded Rod
Extension and Pre-Galv. or Hot Dip Galv. Steel Channel

| Part No. | No. of Bases | Height | Strut Size | Uniform Load Lbs (kN) * |
|----------|--------------|-------------|-----------------------------|----------------------------|
| CBN8EX | 1 | 8" (203mm) | $\frac{13}{16}$ " (21mm) | 1,000 * (4.44 kN) |
| CBN12EX | 1 | 12" (305mm) | | 1,000 * (4.44 kN) |
| CBN16EX | 2 | 16" (406mm) | $1\frac{5}{8}$ " (41mm) | 2,000 * (8.89 kN) |

* This load is only for the capacity of the components in this assembly.
Please consult roofing manufacturer or engineer for roof load capacity.





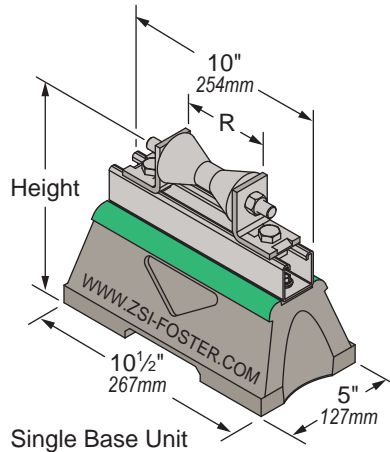
Cush-A-Block® Rooftop Supports

Standard Finish: Pre-galvanized (PG) or Hot Dipped Galvanized (HG)

CBN-PRB Series

Support With Pipe Roller

The CBN-PRB Rooftop Supports are designed for superior support of natural gas and refrigeration pipes. The roller allows for longitudinal movements of the pipe. This support is suitable for most types of roofing material or other flat surfaces.



CBN-PRB Roller-Series with 1-5/8" (41mm)
Pre-Galv or Hot Dip Galv. Steel Channel with Rollers

| Part No. | R Pipe Size (O.D.) | Height | Height to Roller Center | No. of Bases | Base Length | Strut Length | Uniform Load Lbs (kN)* |
|----------|--------------------------|------------------|----------------------------|-----------------|----------------|--------------------|---------------------------|
| CBN1PRB | 1" to 2" | 8" (203mm) | 7" (178mm) | 1 | 10-1/2" | 10" (254mm) | 2,500 * (11.12 kN) |
| CBN2PRB | 2" to 3-1/2" | | | | | | |
| CBN3PRB | 4" to 6" | 8-1/8" (206mm) | 8-1/4" (210mm) | 2 | 24" | 23-1/2" (597mm) | 2,500 * (11.12 kN) |
| CBN4PRB | 8" to 10" | 10-5/16" (262mm) | | | | | |

* This load is only for the capacity of the components in this assembly.
Please consult roofing manufacturer or engineer for roof load capacity.



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Cush-A-Block® Rooftop Supports

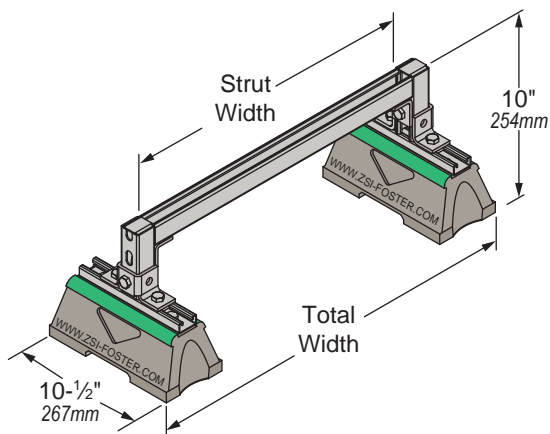


Standard Finish: Pre-galvanized (PG) or Hot Dipped Galvanized (HG)



CBN-RB Series

Support With Raised Bridge Medium Support



The CBN-RB Medium Rooftop Supports can support natural gas and refrigeration piping systems, cable tray, electrical conduit, multiple lines, HVAC equipment and many other applications. They are designed for rooftop applications requiring a heavier load bearing capacity, and are suitable for most types of roofing material or other flat surfaces. Custom lengths are available upon request.

Standard strut mount pipe clamps are used to secure the pipes.



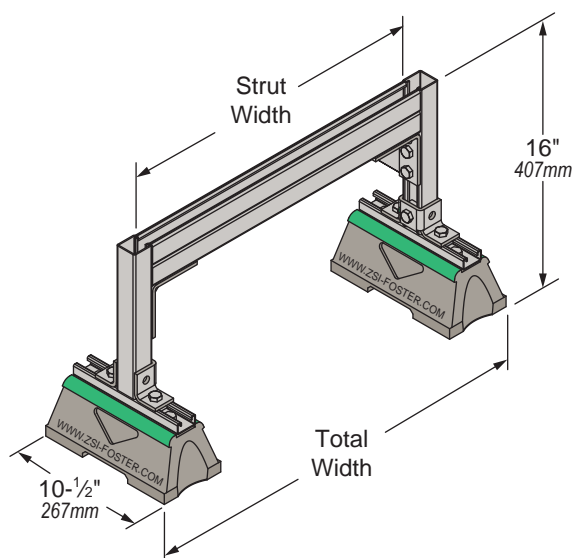
Raised Bridge Medium Support with 2 CBN Bases & 1-5/8" (41mm) Pre-Galv or Hot Dip Galv. Steel Channel

| Part No. | Total Width | Strut Width | Uniform Load Lbs (kN)* |
|---------------|----------------|-------------|------------------------|
| CBN1RB | 18.65" (474mm) | 12" (305mm) | 3,000 * (13.34 kN) |
| CBN2RB | 30.65" (779mm) | 24" (610mm) | 1,500 * (6.67 kN) |

* This load is only for the capacity of the components in this assembly. Please consult roofing manufacturer or engineer for roof load capacity.

CBN-RB Series

Support With Raised Channel Heavy Support



The CBN-RB Heavy Rooftop Supports is designed for rooftop applications requiring a heavier load bearing capacity. It is suitable for most types of roofing material or other flat surfaces. Custom lengths are available upon request.

Standard strut mount pipe clamps are used to secure the pipes.



Raised Bridge Heavy Support with 2 CBN Bases & 3-1/4" (83mm) Back-to-Back Pre-Galv or Hot Dip Galv. Steel Channel

| Part No. | Total Width | Strut Width | Uniform Load Lbs (kN)* |
|---------------|----------------|-------------|------------------------|
| CBN3RB | 30.65" (779mm) | 24" (610mm) | 2,500†* (15.56 kN) |
| CBN4RB | 42.65" (1.1m) | 36" (914mm) | 2,500†* (14.45 kN) |

* This load is only for the capacity of the components in this assembly.
 † Beam load is limited by weld shear
 Please consult roofing manufacturer or engineer for roof load capacity.





Cush-A-Block® Rooftop Supports

Standard Finish: Pre-galvanized (PG) or Hot Dipped Galvanized (HG)

CBN-DS Series

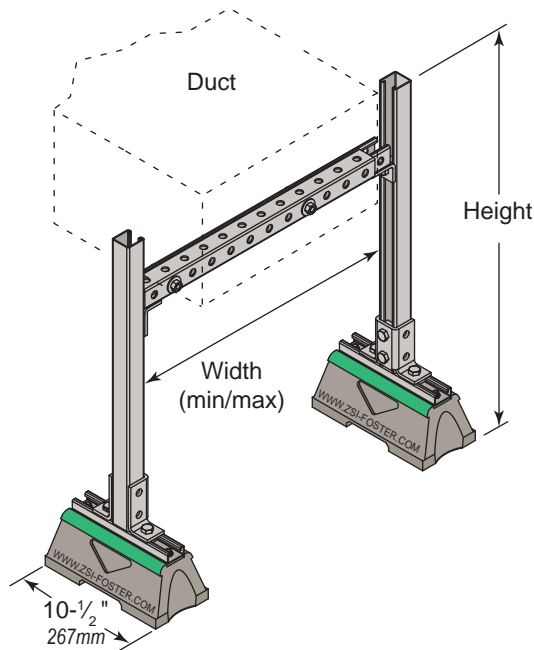
Adjustable Width Duct Support



The CBN-DS Series is designed specifically for supporting duct work. The telescopic cross beam provides easy width and height adjustments.

A wide range of support widths are provided from 19-¹/₄" to 103-⁵/₈" (489mm to 2.6m)

Standard strut mount pipe clamps are used to secure the pipes.



**CBN-DS Duct Support Series With Adjustable Width and Height
with 1-⁵/₈" (41mm) Pre-Galv or Hot Dip Galv. Steel Channel**

| Part No. | Width | | Height | Uniform Load at Min. Width Lbs(kN) * |
|---------------|---|---|-----------------|--------------------------------------|
| | Min. | Max. | | |
| CBN1DS | 19- ¹ / ₄ " (489mm) | 26- ³ / ₄ " (679mm) | 28.813" (732mm) | 1,909 * (8.49 kN) |
| CBN2DS | 24- ⁷ / ₈ " (632mm) | 39- ⁷ / ₈ " (1m) | | 1,477 * (6.57 kN) |
| CBN3DS | 38" (987mm) | 62- ³ / ₈ " (1.6m) | | 967 * (4.30 kN) |
| CBN4DS | 62- ³ / ₈ " (1.6m) | 103- ⁵ / ₈ " (2.6m) | | 589 * (2.62 kN) |
| CBN5DS | 19- ¹ / ₄ " (489mm) | 26- ³ / ₄ " (679mm) | 36" (914mm) | 1,909 * (8.49 kN) |
| CBN6DS | 24- ⁷ / ₈ " (632mm) | 39- ⁷ / ₈ " (1m) | | 1,477 * (6.57 kN) |
| CBN7DS | 38" (987mm) | 62- ³ / ₈ " (1.6m) | | 967 * (4.30 kN) |
| CBN8DS | 62- ³ / ₈ " (1.6m) | 103- ⁵ / ₈ " (2.6m) | | 589 * (2.62 kN) |

* This load is only for the capacity of the components in this assembly.
Please consult roofing manufacturer or engineer for roof load capacity.



Cush-A-Block® Rooftop Supports



Standard Finish: Pre-galvanized (PG) or Hot Dipped Galvanized (HG)

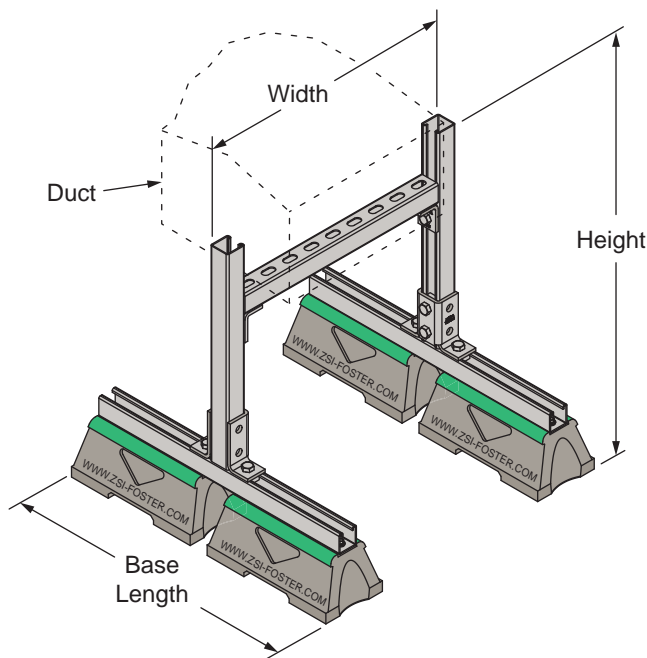


CBN-DSFW Series

Fixed Width Duct Support

The CBN-DSFW Series is designed specifically for supporting duct work. The cross beam provides easy size adjustments. Custom lengths are available upon request.

Standard strut mount pipe clamps are used to secure the pipes.



| CBN-DSFW Duct Support Series With Fixed Width & Adjustable Height with 1-5/8" (41mm) Pre-Galv or Hot Dip Galv. Steel Channel | | | | | |
|---|-------------|-------------|-------------|--------------|---------------------------------|
| Model No. | Height | Width | Base Length | No. of Bases | Uniform Load Capacity Lbs(kN) * |
| CBN1-DSFW | 23" (584mm) | 18" (457mm) | 24" (610mm) | 4 | 2042 * (9.08 kN) |
| CBN2-DSFW | | 24" (610mm) | | | 1531 * (6.81 kN) |
| CBN3-DSFW | | 36" (914mm) | | | 1021 * (4.54 kN) |
| CBN4-DSFW | | 48" (1.2m) | | | 766 * (3.40 kN) |
| CBN5-DSFW | 29" (737mm) | 18" (457mm) | 24" (610mm) | 4 | 2042 * (9.08 kN) |
| CBN6-DSFW | | 24" (610mm) | | | 1531 * (6.81 kN) |
| CBN7-DSFW | | 36" (914mm) | | | 1021 * (4.54 kN) |
| CBN8-DSFW | | 48" (1.2m) | | | 766 * (3.40 kN) |
| CBN9-DSFW | 41" (1m) | 18" (457mm) | 24" (610mm) | 4 | 2042 * (9.08 kN) |
| CBN10-DSFW | | 24" (610mm) | | | 1531 * (6.81 kN) |
| CBN11-DSFW | | 36" (914mm) | | | 1021 * (4.54 kN) |
| CBN12-DSFW | | 48" (1.2m) | | | 766 * (3.40 kN) |
| CBN13-DSFW | 53" (1.3m) | 18" (457mm) | 36" (914mm) | 6 | 2042 * (9.08 kN) |
| CBN14-DSFW | | 24" (610mm) | | | 1531 * (6.81 kN) |
| CBN15-DSFW | | 36" (914mm) | | | 1021 * (4.54 kN) |
| CBN16-DSFW | | 48" (1.2m) | | | 766 * (3.40 kN) |

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Please consult roofing manufacturer or engineer for roof load capacity.



WARNING: These products can expose you to chemicals including lead, which is known to the State of California to cause cancer, and which is known to cause birth defects or other reproductive harm. For more information go to www.P65Warnings.ca.gov.

Introduction

Channel

Channel Nuts
& Hardware

General
Fittings

Pipe & Conduit
Supports

Electrical
Fittings

Spring
Steel

Loop & Ring
Clamps

Beta Clamps
& Z-Clamps

Concrete
Inserts

Rooftop
Supports

Gamma
Pads

Technical
Data

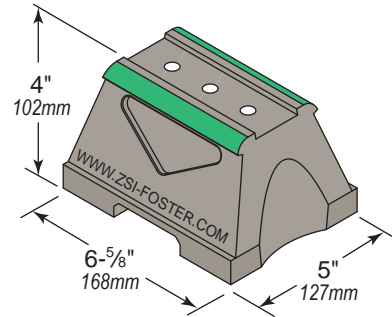


Cush-A-Block® Mini Rooftop Supports

Standard Finish: Pre-galvanized (PG) or Hot Dipped Galvanized (HG)

CBM

Cush-A-Block Mini



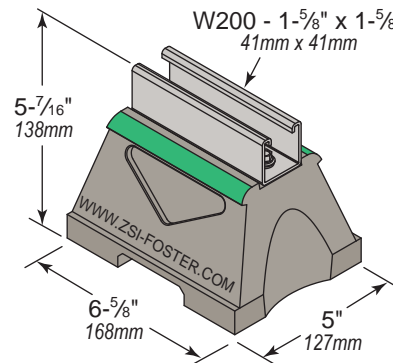
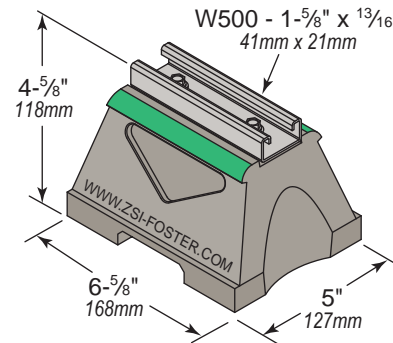
CBM-Base Series

| Part No. | Uniform Load Capacity (Lbs) * |
|------------|-------------------------------|
| CBM | 400 (1.78 kN) |

* This load is only for the capacity of the components in this assembly. Please consult roofing manufacturer or engineer for roof load capacity.

CBM Series

Support with Metal Channel



| Part No. | Uniform Load Capacity (Lbs) * |
|---|-------------------------------|
| CBM-Support with 13/16" (21mm) Pre-Galv or Hot Dip Galv. Steel Channel | |
| CBM1S | 400 (1.78 kN) |
| CBM-Support with 1-5/8" (41mm) Pre-Galv or Hot Dip Galv. Steel Channel | |
| CBM1D | 400 (1.78 kN) |

* This load is only for the capacity of the components in this assembly. Please consult roofing manufacturer or engineer for roof load capacity.



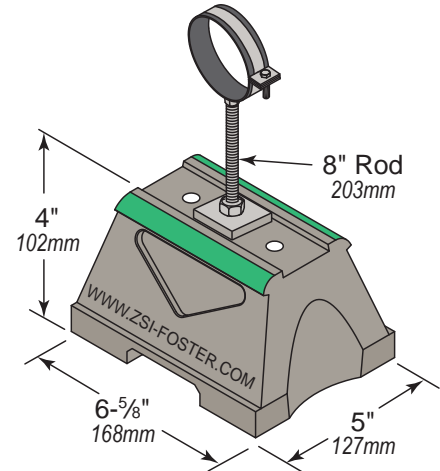
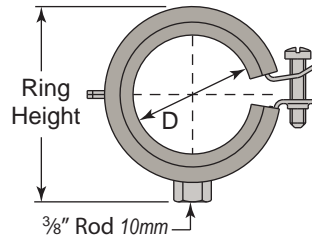
Cush-A-Block® Mini Rooftop Supports

Standard Finish: Electro-Galvanized (EG)



CBMPH Series

Support with Raised SPH Cush-A-Ring Clamp for Copper Tube or Steel Tube or Pipe



| CBMPH Series Cush-A-Block Mini with Raised SPH Cush-A-Ring Clamp for Copper or Steel Tube or Pipe | | | | | |
|---|--------------------------------|-----|-----|---------------|----------------------------|
| Part No. | D | IP | CT | Ring Height | Uniform Load Lbs (kN) * |
| CBMPH1 | 0.433" - 0.551" (11 - 14mm) | 1¼" | ⅜" | 1.4" (36mm) | 125 (0.56 kN) |
| CBMPH2 | 0.591" - 0.709" (15 - 18mm) | ⅜" | ½" | 1.4" (36mm) | |
| CBMPH3 | 0.787" - 0.906" (20 - 23mm) | ½" | ¾" | 1.6" (41mm) | |
| CBMPH4 | 0.984" - 1.102" (25 - 28mm) | ¾" | 1" | 1.8" (46mm) | |
| CBMPH5 | 1.22" - 1.378" (31 - 35mm) | 1" | 1¼" | 2.0" (51mm) | |
| CBMPH6 | 1.575" - 1.693" (40 - 43mm) | 1¼" | 1½" | 2.4" (61mm) | |
| CBMPH7 | 1.89" - 2.087" (48 - 53mm) | 1½" | - | 2.6" (66mm) | |
| CBMPH8 | 2.126" - 2.205" (54 - 56mm) | - | 2" | 2.8" (71mm) | |
| CBMPH9 | 2.244" - 2.48" (57 - 63mm) | 2" | - | 3.1" (79mm) | |
| CBMPH10 | 2.52" - 2.756" (64 - 70mm) | - | 2½" | 3.9" (99mm) | |
| Below parts have 2 bolt configuration SPH Clamps | | | | | |
| CBMPH11 | 2.874" - 3.15" (73 - 80mm) | 2½" | 3" | 4.3" (109 mm) | 125 (0.56 kN) |
| CBMPH12 | 3.268" - 3.583" (83 - 91mm) | 3" | - | 4.8" (122 mm) | |
| CBMPH13 | 3.937" - 4.134" (100 - 105 mm) | - | 4" | 5.3" (135 mm) | |
| CBMPH14 | 4.252" - 4.488" (108 - 114mm) | 4" | - | 5.7" (145 mm) | |
| * This load is only for the capacity of the components in this assembly. Please consult roofing manufacturer or engineer for roof load capacity. | | | | | |

* This load is only for the capacity of the components in this assembly.
Please consult roofing manufacturer or engineer for roof load capacity.

See Page 194 for more information on the SPH Cush-A-Ring Clamps



WARNING: These products can expose you to chemicals including lead, which is known to the State of California to cause cancer, and which is known to cause birth defects or other reproductive harm. For more information go to www.P65Warnings.ca.gov.

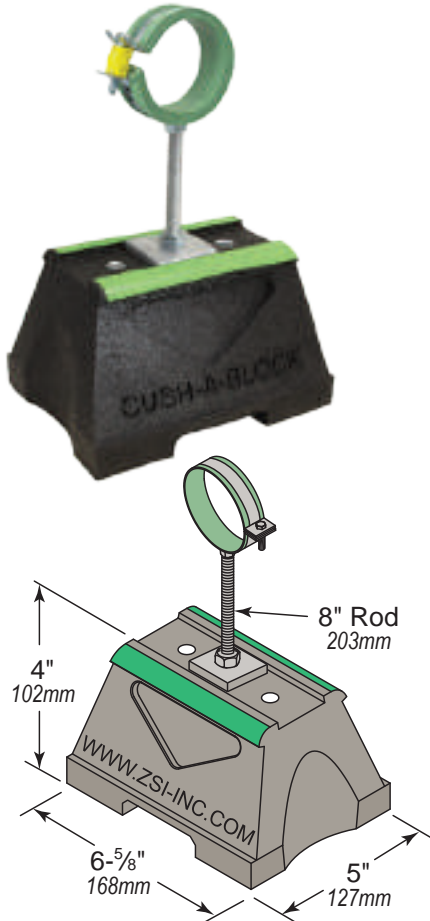
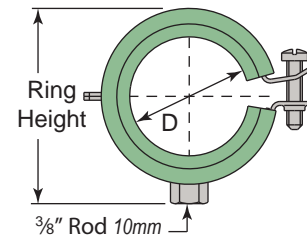


Cush-A-Block® Mini Rooftop Supports

Standard Finish: Electro-Galv. (EG), Pre-Galv. (PG), or Hot Dip Galv. (HG)

CBMPP Series

Support with Raised SPP Cush-A-Ring Clamp for PEX, CPVC, or PVC Pipe



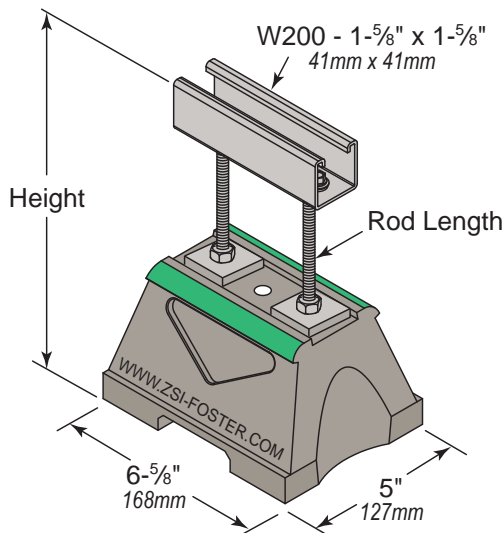
| CBMPP Series Cush-A-Block Mini with Raised SPP Cush-A-Ring Clamp for PEX, CPVC or PVC Pipe | | | | | |
|---|-------------------------------|------------|------|--------------|---------------------|
| Part No. | D (mm) | PVC / CPVC | PEX | Ring Height | Load Capacity (Lbs) |
| CBMPP2 | 0.591" - 0.709" (15 - 18mm) | 3⁄8" | 1⁄2" | 1.4" (36mm) | 125 (0.56 kN) |
| CBMPP3 | 0.787" - 0.906" (20 - 23mm) | 1⁄2" | 3⁄4" | 1.7" (43mm) | |
| CBMPP4 | 0.984" - 1.102" (25 - 28mm) | 3⁄4" | 1" | 1.9" (48mm) | |
| CBMPP5 | 1.22" - 1.378" (31 - 35mm) | 1" | 1¼" | 2.2" (56mm) | |
| CBMPP6 | 1.575" - 1.693" (40 - 43mm) | 1¼" | 1½" | 2.6" (66mm) | |
| CBMPP7 | 1.89" - 2.087" (48 - 53mm) | 1½" | - | 3.0" (76mm) | |
| CBMPP8 | 2.126" - 2.205" (54 - 56mm) | - | 2" | 3.0" (76mm) | |
| CBMPP9 | 2.362" - 2.559" (60 - 65mm) | 2" | - | 3.4" (86mm) | |
| CBMPP10 | 2.756" - 2.992" (70 - 76mm) | 2½" | - | 4.1" (104mm) | |
| Below parts have 2 bolt configuration SPP Clamps | | | | | |
| CBMPP11 | 3.386" - 3.583" (86 - 91mm) | 3" | - | 4.6" (117mm) | 125 (0.56 kN) |
| CBMPP12 | 4.331" - 4.488" (110 - 114mm) | 4" | - | 5.8" (147mm) | |
| * This load is only for the capacity of the components in this assembly. Please consult roofing manufacturer or engineer for roof load capacity. | | | | | |

* This load is only for the capacity of the components in this assembly. Please consult roofing manufacturer or engineer for roof load capacity.

See Page 195 for more information on the SPP Cush-A-Ring Clamps

CBM REX Series

Support with Raised 1-5/8" Metal Channel



| CBM-Support Extension with 3/8" Threaded Rod Extension & 1-5/8" (41mm) Pre-Galv or Hot Dip Galv. Steel Channel | | | |
|--|-------------|------------|-------------------------|
| Part No. | Height | Rod Length | Uniform Load Lbs (kN) * |
| CBM10REX | 10" (254mm) | 6" (152mm) | 175 (0.78 kN) |
| CBM12REX | 12" (305mm) | 8" (203mm) | 175 (0.78 kN) |

* This load is only for the capacity of the components in this assembly. Please consult roofing manufacturer or engineer for roof load capacity.



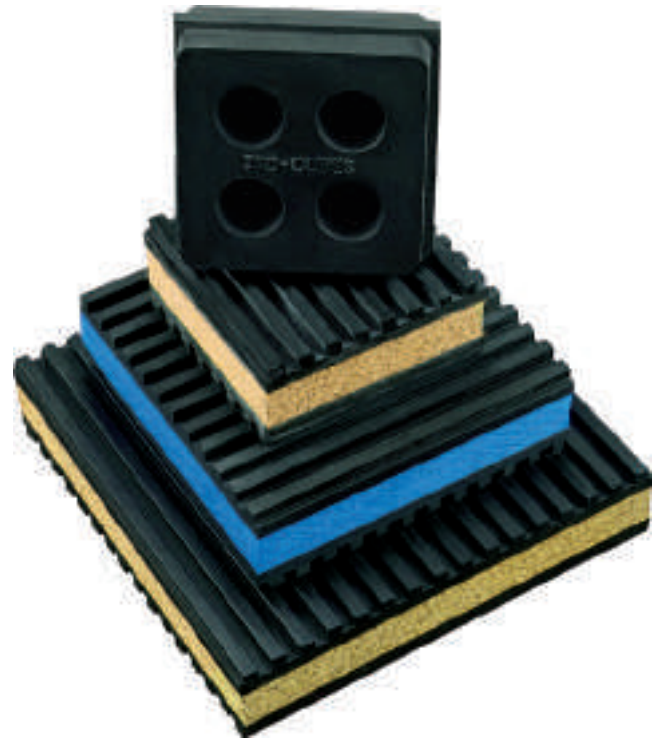
GAMMA Anti-Vibration Pads



Vibration Isolation Products from ZSi-Foster

When installing pipe, tube, hose, or equipment the effects of vibration, shock, surge, galvanic corrosion and unwanted noise are a major concern. Improperly cushioned equipment, pipe, tube, or hose invites failure and potential problems. New developments in cushioned clamping and vibration isolation products from ZSi-Foster provide the proper solutions to combat these effects.

ZSi-Foster's products have earned a well-deserved reputation for unparalleled quality and effectiveness. As industry develops new needs, ZSi-Foster can and will respond with superior quality products and innovative solutions.



EXTREME



STANDARD

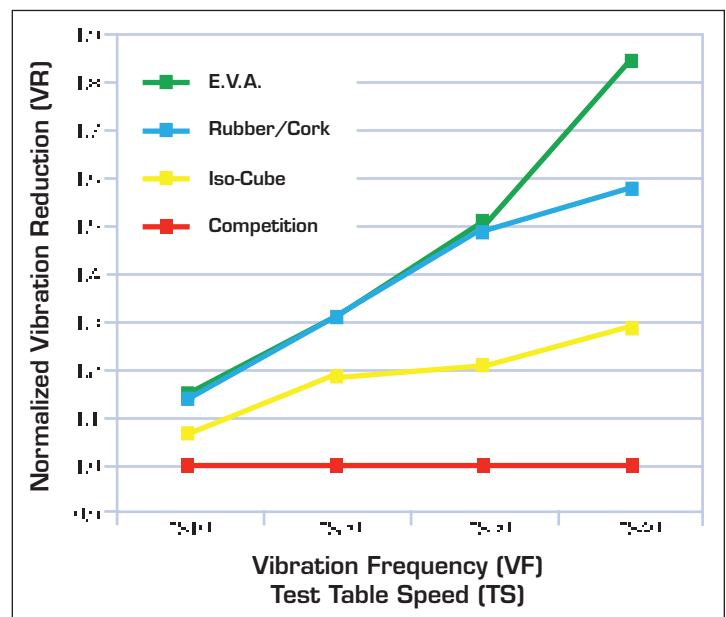


ISO-CUBE



SHIELD

ANTI-VIBRATION PAD PERFORMANCE



Call ZSi-Foster at (800) 323-7053 or order now at zsi-foster.com



GAMMA Anti-Vibration Pads

GAMMA Shield

Rubber Mat

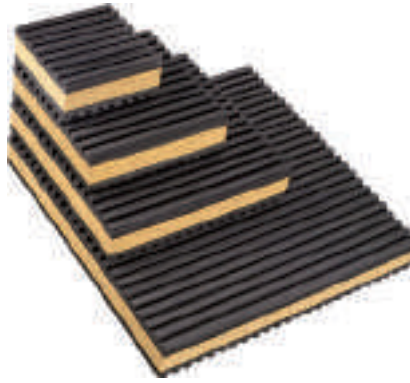
Shields equipment from vibration and movement when lesser amounts of vibration absorption is needed.



| Part No. | Description |
|----------|--|
| AR-2 | 2" x 2" x $\frac{3}{8}$ " (51mm x 51mm x 10mm) All Rubber AV Pad |
| AR-3 | 3" x 3" x $\frac{3}{8}$ " (76mm x 76mm x 10mm) All Rubber AV Pad |
| AR-4 | 4" x 4" x $\frac{3}{8}$ " (102mm x 102mm x 10mm) All Rubber AV Pad |
| AR-6 | 6" x 6" x $\frac{3}{8}$ " (152mm x 152mm x 10mm) All Rubber AV Pad |
| AR-18 | 18" x 18" x $\frac{3}{8}$ " (457mm x 457mm x 10mm) All Rubber AV Pad |

GAMMA Standard Pad

The Industry Standard Highest quality elastomeric oil resistant padding. Designed to withstand 50 psi (3.4 bar). The rubber pads are corrugated on both sides and laminated to the cork center.



| Part No. | Description |
|----------|---|
| AC-2 | 2" x 2" x $\frac{7}{8}$ " (51mm x 51mm x 22mm) Cork / Rubber AV Pad |
| AC-3 | 3" x 3" x $\frac{7}{8}$ " (76mm x 76mm x 22mm) Cork / Rubber AV Pad |
| AC-4 | 4" x 4" x $\frac{7}{8}$ " (102mm x 102mm x 22mm) Cork / Rubber AV Pad |
| AC-6 | 6" x 6" x $\frac{7}{8}$ " (152mm x 152mm x 22mm) Cork / Rubber AV Pad |
| AC-18 | 18" x 18" x $\frac{7}{8}$ " (457mm x 457mm x 22mm) Cork / Rubber AV Pad |

ISO - Cube

Solid Rubber Tough

Natural rubber pads designed to reduce vibration and noise emanating from refrigeration or AC equipment. Circular design offers a suction cup effect eliminating the need to bolt the pads down. A standard 18" (457mm) pad divides into eighty-one 2" (51mm) segments which may be cut or torn into smaller pads. The 50 durometer pads will withstand a load of 180 psi (12.4 bar) with great resiliency.



| Part No. | Description |
|----------|---|
| AS-2 | 2" x 2" x $\frac{3}{4}$ " (51mm x 51mm x 19mm) ISO-Cube |
| AS-18 | 18" x 18" x $\frac{3}{4}$ " (457mm x 457mm x 19mm) ISO-Cube |

GAMMA Extreme Pad

The **BEST** Performer E.V.A. (Extreme Vibration Attenuation) is the latest generation in vibration dampening technology. In the most severe vibration extremes, testing shows the E.V.A. pad outperforms cork and rubber by greater than 3:1 and outperforms our competitor's "waffle" pad by greater than 8:1! The enhanced performance comes from the special composite foam center which is structurally more sound than cork. E.V.A. is not affected by oils or chemicals that can break down cork and is much more effective at vibration dampening than solid rubber. Designed to withstand 50 psi (3.4 bar). Choose E.V.A. to get the best of both worlds!



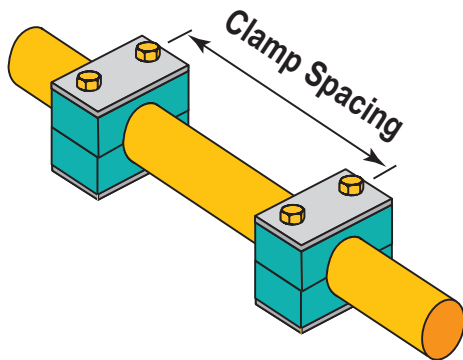
| Part No. | Description |
|----------|---|
| AV-2 | 2" x 2" x $\frac{7}{8}$ " (51mm x 51mm x 22mm) E.V.A. Pad |
| AV-3 | 3" x 3" x $\frac{7}{8}$ " (76mm x 76mm x 22mm) E.V.A. Pad |
| AV-4 | 4" x 4" x $\frac{7}{8}$ " (102mm x 102mm x 22mm) E.V.A. Pad |
| AV-6 | 6" x 6" x $\frac{7}{8}$ " (152mm x 152mm x 22mm) E.V.A. Pad |
| AV-18 | 18" x 18" x $\frac{7}{8}$ " (457mm x 457mm x 22mm) E.V.A. Pad |



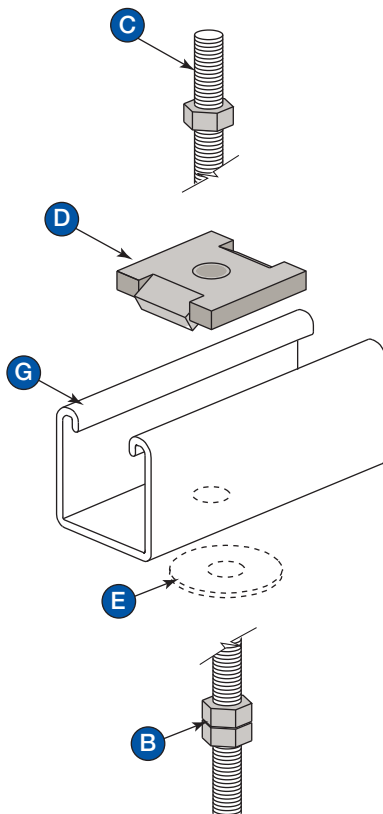
Technical Data



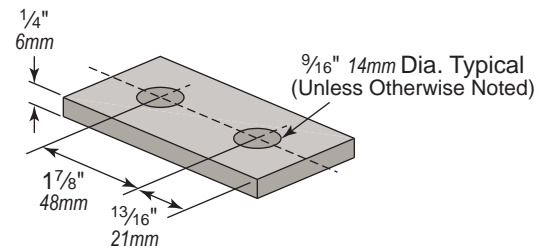
Beta Clamp Technical Data



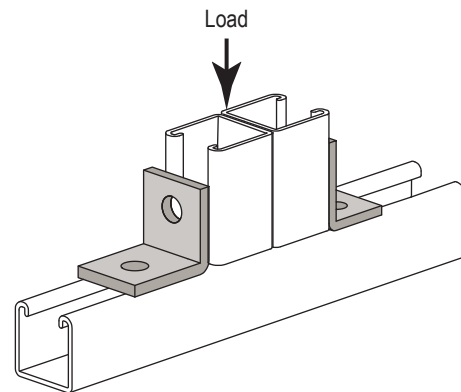
Safe Thru-Bolting and Trapeze Information



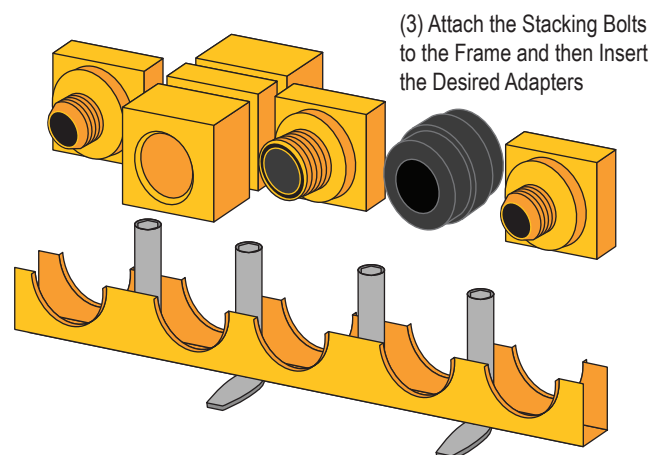
Design & Dimensional Information



Channel Engineering Data Crush Load for Channel



Installation Instructions





Material Specifications - Special Metals

Stainless Steel Channel

Wesanco Channels W100, W150, W200, W210, W500, W800, and W900 are available as roll formed sections in stainless steel, conforming to ASTM A 240 Type 304, or ASTM A 240 Type 316.

To order add "ST304" or "ST316" to channel designation.

Examples: W500SSST304, W200ST316.

Aluminum Channel

Wesanco Channels W200, W201, and W500 are available as extruded aluminum sections type 6063T6, conforming to ASTM B221. To order add "AL" to channel designation.

Example: W201AL.

Stainless Steel Nuts (Channel Type)

Wesanco Channel Nuts W2-4, W2-6 and W2-8 are available in Type 316 Stainless Steel.

- Sintered 316 - "Domestic Nut" ASTM: B783
- Bar Stock 316 - "Import Nut" ASTM: A240

To order add "ST" to nut designation. Example: W2-8ST316

Aluminum Nuts (Channel Type)

Available by special order. Consult factory for details. ASTM B221.

Aluminum Stainless and Copper Plated Pipe Clamps

Wesanco Pipe Clamps are available from stock in Stainless Steel Types 304 and 316 and by special order in Aluminum and Copper Plated. Consult factory for details.

Aluminum Engineering Data

To determine the appropriate beam load capacity for extruded Aluminum Channel Sections, refer to Channel Engineering Data, page 27 thru 77 in this catalog and multiply published values by 40%. To determine the approximate pull out slip load of Wesanco Channel Nuts in extruded Aluminum Channel sections, refer to page 80 in this catalog and multiply the resistance to slip value by 75% and the resistance to pull out value by 50%.

Stainless Steel Engineering Data

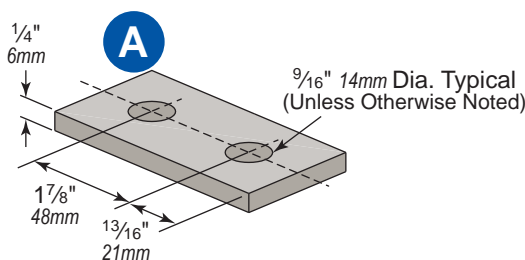
The properties of section for stainless steel channels are the same as shown starting on page 27 of this catalog for mild steel channel. Load ratings for stainless steel channel meet or exceed corresponding mild steel ratings published throughout this catalog.

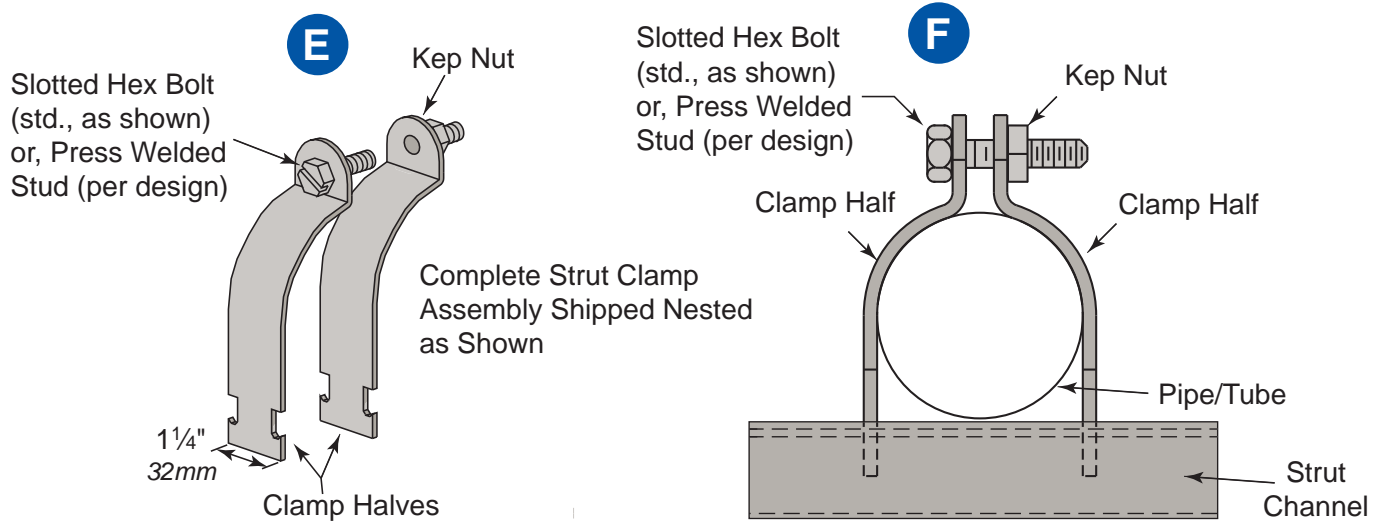
The majority of fittings, are designed to engage at the face of continuous slot channel sections, anywhere along this 1-5/8" surface. Incorporation of either the "H" (9/16" holes, 1-7/8" on center) or the "SS" (9/16" x 1-1/8" - 2" on center short slot) configuration has been considered in the fittings' design, especially in hole spacing and placement.

TYPICAL FITTING DIMENSIONS AND CONTROL DATA (BAR STOCK AND PLATE FABRICATED COMPONENTS)

Unless otherwise indicated:

- **Width:** 1-5/8" (1.625") unless otherwise specified.
- **Thickness:** 1/4" (material utilized is within nominal tolerance range).
- **Lengths:** As specified on drawing(s).
- **Hole Dimension:** 9/16" (unless specified otherwise).
- **Hole Placement:** 9/16" Diameter holes are aligned along a single or single intersecting centerline (CL), which bisects the 1-5/8" (1.625") wide material (flat stock) dimension.
- **Hole Lead-In/Centering:** The 9/16" Diameter holes are located in from leading edges (leading edge to hole center) 13/16" (0.813"). This lead-in dimension controls subsequent center to center positioning and unless otherwise specified or controlled by a fittings gross dimension along a specific axis, field holes are 1-7/8" (1.875") center to center along the material's centerline (CL). Dimension from trailing hole center to trailing edge will also be 13/16" (0.813"). (ref drawing: A)
- **Bend Design:** Design of each individual bend in this wide selection of fittings has been developed to maximize the material's strength while reducing stress at those bend points. This allows for cohesive nesting with the formed edge radiuses of the channel sections. This design detail provides a minimum tolerance envelope to assure a clean accurate fit and ease of assembly into structural strut/fitting elements.
- **Flat Fittings:** Without any bend from that single plane: For use with channel sections: arranged and co-dependently utilized in a double axis or parallel single axis, single plane situation.





Clamp halves are pushed laterally into place. Ninety degrees to the channel face and touching the pipe element sides. The bolt and nut are installed. The grip design at the channel lips tightens during assembly, securely holding the Strut Clamp assembly in-place.

FITTING DIMENSIONS AND CONTROL DATA (STRIP I GAUGE MATERIAL FORMED PIPE CLAMP HALVES):

Unless otherwise indicated:

- **Materials width:** 1-1/4" (1.250") side to side, forming two identically matching strut clamp sides. (Ref: E and F)
- **Thickness:** Gauge dimensional material is utilized, specific to each individual strut clamp size. Ref. Part Number I Size chart for each style clamp. (Ref: E)
- **Material length:** Specific lengths of material required to fabricate each size strut clamp is not provided. The bolt tang also varies from clamp size to size and style to style.
- **Channel twist-grip feature:** Each clamp half is formed with an in-line, twist-on feature, allowing close proximity installation with a simple insert-twist maneuver. The clamp halves are pushed laterally into place, ninety degrees to the channel face and touching the pipe element sides, and the bolt / nut is installed. The grip design at the channel lip's tightens during assembly, securely holding the strut clamp assembly in place. (Ref: E and F)
- **Hole dimension / Placement:** The receiving hole and bolt pass-thru hole(s) positioned in the punched tang(s), (except in the studded version clamps) are identical sized with standard practice clearance tolerances. Placement and size of holes to accommodate the mechanical studs are similarly positioned for strength and utilization in an appropriately sized punched tang.
- **Bolt dimensions:** National Coarse Sized threaded mild steel hex head/slotted bolts are utilized; dimensions vary from clamp size to clamp size. Ref: Number / Size chart for each style clamp. (Ref: E)
- **Stud attachment:** The mild steel, ASTM conformant National Coarse Size threaded studs, are press fit into an appropriately sized receiving hole and then high resistance welded in place to further secure them against accidental loosening while the Kep nuts are turned into position (use per specific part data call-out).
- **Kep hex nuts** are utilized on all direct contact clamps; .

NOTE: Illustrations of Components throughout are representational. Utilize specific data as shown.

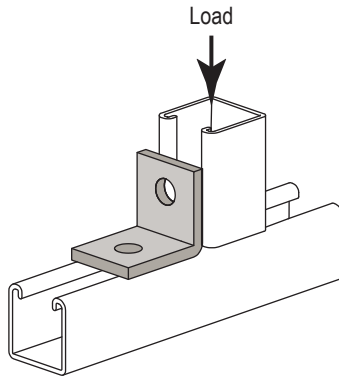
Channel Engineering Data

Crush Load for Channel

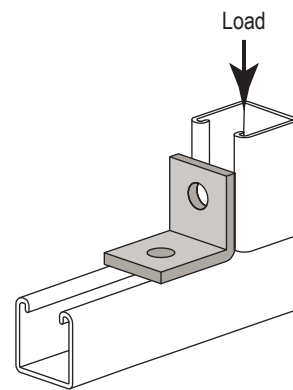


Load Data for Channel Sections, Subject to Crushing Loads

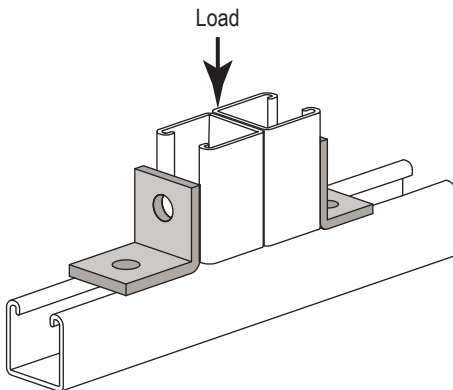
These values are based on a minimum yield point of 33,000 PSI at safety factor of 1.85.



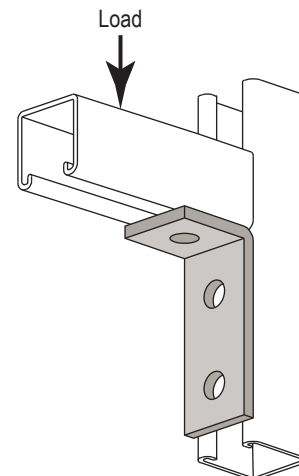
| Part No. | Channel Gauge | Reaction Load Lbs. (kN) |
|----------|---------------|-------------------------|
| W200 | 12 | 7,000# (31.14 kN) |
| W210 | 14 | 3,600# (16.01 kN) |
| W300 | 12 | 6,900# (30.69 kN) |
| W500 | 14 | 3,400# (15.12 kN) |



| Part No. | Channel Gauge | Reaction Load Lbs. (kN) |
|----------|---------------|-------------------------|
| W200 | 12 | 2,900# (12.90 kN) |
| W210 | 14 | 1,500# (6.67 kN) |
| W300 | 12 | 2,800# (12.46 kN) |
| W500 | 14 | 1,400# (6.23 kN) |



| Part No. | Channel Gauge | Reaction Load Lbs. (kN) |
|----------|---------------|-------------------------|
| W200 | 12 | 7,000# (31.14 kN) |
| W210 | 14 | 3,600# (16.01 kN) |
| W300 | 12 | 6,900# (30.69 kN) |
| W500 | 14 | 3,400# (15.12 kN) |



| Part No. | Channel Gauge | Reaction Load Lbs. (kN) |
|----------|---------------|-------------------------|
| W200 | 12 | 2,900# (12.90 kN) |
| W210 | 14 | 1,500# (6.67 kN) |
| W300 | 12 | 2,800# (12.46 kN) |
| W500 | 14 | 1,400# (6.23 kN) |

Channel Engineering Data

Point Load

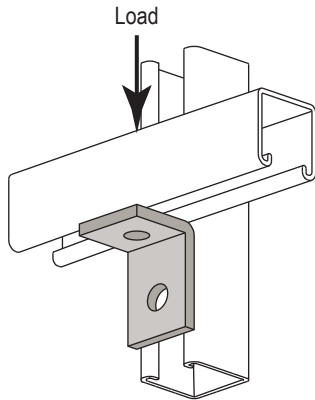
Design Load Data for Wesanco Channel Connections

Load diagrams indicate two design loads;
 one for 12 gage sections (listed as W200) and
 one for 14 gage sections (listed as W210)
 Safety factor = 2-1/2 based on ultimate strength of connection.

90° Fittings

(When used in position shown)

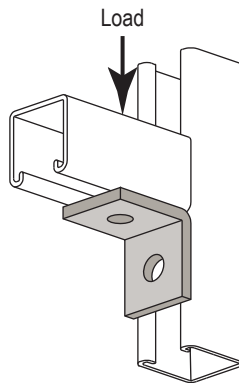
W5102



| Part No. | Design Load Lbs. (kN) |
|----------|--------------------------|
| W200 | 500# (2.22 kN) |

W5103

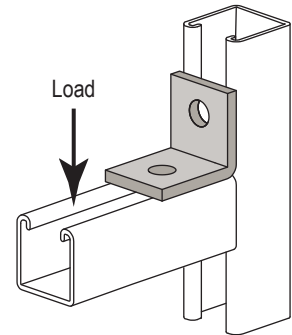
Both Ends Supported



| Part No. | Design Load Lbs. (kN) |
|----------|--------------------------|
| W200 | 1,500# (6.67 kN) |
| W210 | 1,000# (4.45 kN) |

W5103

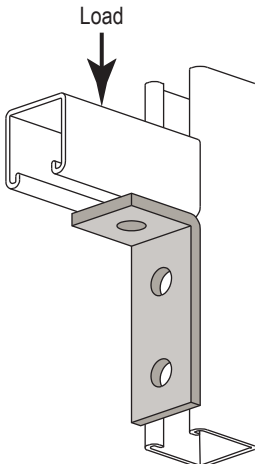
Both Ends Supported



| Part No. | Design Load Lbs. (kN) |
|----------|--------------------------|
| W200 | 1,000# (4.45 kN) |
| W210 | 650# (2.89 kN) |

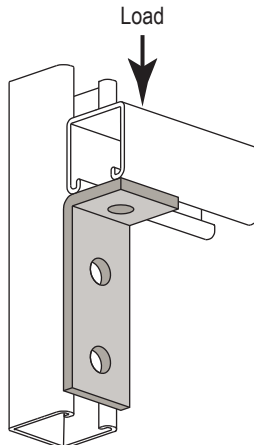
W5113

Both Ends Supported



| Part No. | Design Load in LBS. |
|----------|------------------------|
| W200 | 2,000# (8.90 kN) |
| W210 | 1,500# (6.67 kN) |

W5112

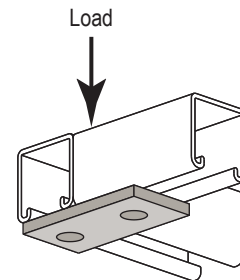


| Part No. | Design Load Lbs. (kN) |
|----------|--------------------------|
| W200 | 500# (2.22 kN) |

Flat Plate Fittings

W5007

Both Ends Supported



| Part No. | Design Load in LBS. |
|----------|------------------------|
| W200 | 1,000# (4.45 kN) |
| W210 | 800# (3.56 kN) |

Channel Engineering Data

Uniform Load - 90° Fittings

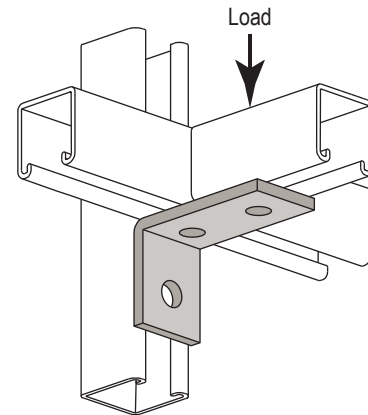


Design Load Data for Wesanco Channel Connections

Load diagrams indicate two design loads;
 one for 12 gage sections (listed as W200) and
 one for 14 gage sections (listed as W210)
 Safety factor = 2-1/2 based on ultimate strength of
 connection.

W5115

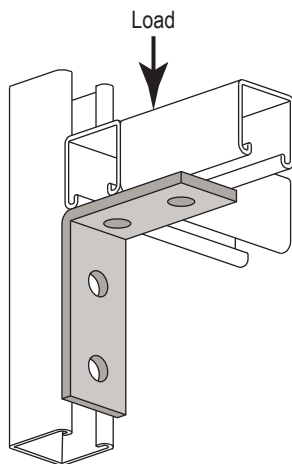
Both Ends Supported



| Part No. | Channel Gauge | Design Load Lbs. (kN) |
|----------|---------------|-----------------------|
| W200 | 12 | 1,500# |
| W210 | 14 | 1,000# |

W5123

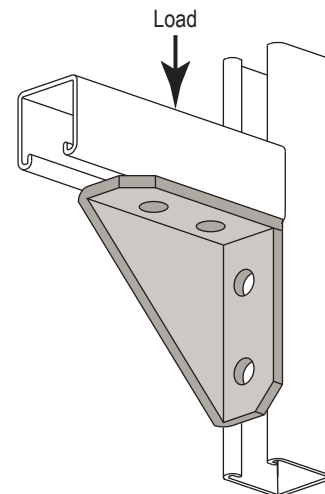
Both Ends Supported



| Part No. | Channel Gauge | Design Load Lbs. (kN) |
|----------|---------------|-----------------------|
| W200 | 12 | 2,000# |
| W210 | 14 | 2,000# |

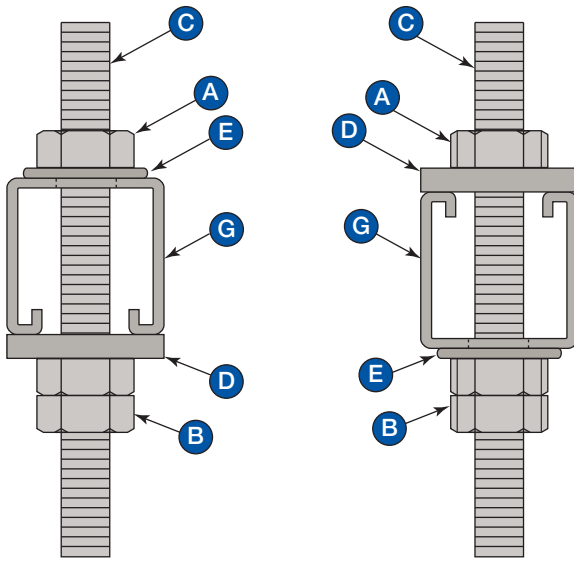
W5121 - W5122

Both Ends Supported

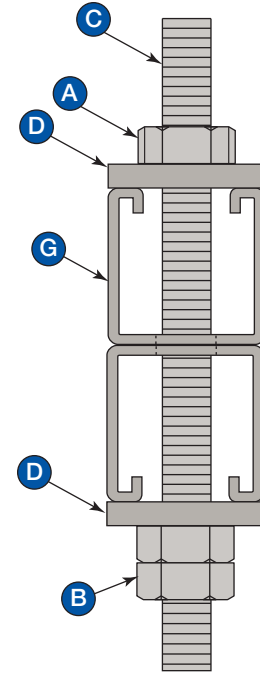


| Part No. | Channel Gauge | Design Load Lbs. (kN) |
|----------|---------------|-----------------------|
| W200 | 12 | 2,000# |
| W210 | 14 | 2,000# |

Safe Thru-Bolting and Trapeze Information



Single Section Perforated Channel

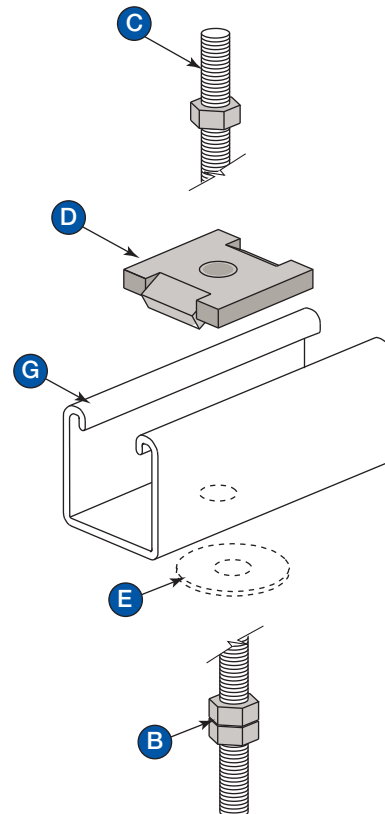


Double Section Perforated Channel

Common Components

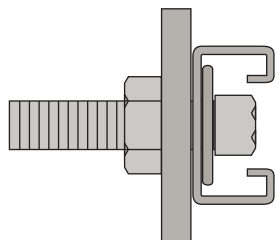
- A: Top Hex Nut
- B: Bottom Double Hex Nuts
- C: All Thread Rod
- D: Flat Fitting (W5004 With Indents Shown).
- E: Fender or "Cut" Washer. (Recommended).
- F: (Not Shown) Lock Washer (S), Kep Nut(S), or Other Security Measures as Required.
- G: Perforated Strut (Recommended).

Over tightening face supported through bolted all thread rod or other mechanical fasteners can distort the channel section beyond its intended maximum safe configuration causing serious distortion and possible failure. Utilize bolting security measures to prevent accidental loosening.

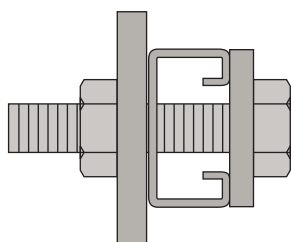


Bolted Channel

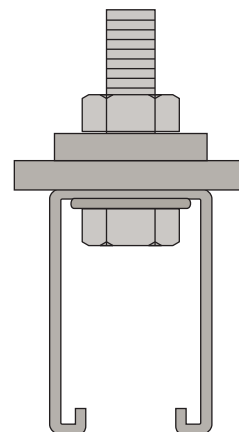
Attachment Information



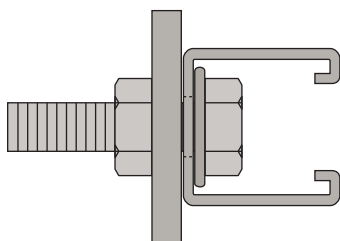
Shallow channel bolted thru from inside to backing plate with $\frac{1}{2}$ " dia. Allen head bolt and washer; hex nut behind.



Shallow channel bolted thru from face to backing plate with $\frac{1}{4}$ " face fitting and $\frac{1}{2}$ " hex bolt; hex nut behind.



Deep style channel bolted thru from inside to beam flange utilizing $\frac{1}{2}$ " dia. hex bolt washer (inside channel), beveled washer and hex nut on top of flange.

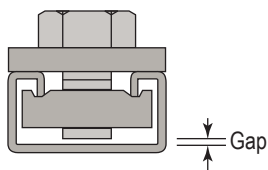


1- $\frac{5}{8}$ " Deep channel type bolted thru from inside to backing plate with $\frac{3}{8}$ " dia. hex bolt, and washer; hex nut behind.

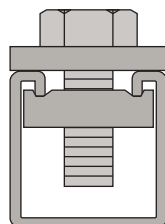
Do not over tighten faced thru bolts.
Utilize bolting security measures to prevent accidental loosening.

OVER TIGHTENING CAUTION

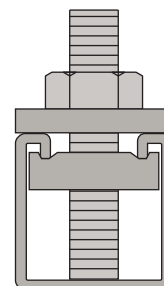
Over tightening "bottoming" a threaded fastener against the bottom of a channel section will result in serious damage and possible failure. Use proper length fasteners and leave a slight gap; fastener face to channel surface.



Shallow channel with $\frac{1}{4}$ " thick fitting and $\frac{15}{16}$ " max. bolt length.



1- $\frac{5}{8}$ " Channel with $\frac{1}{4}$ " fitting and 1- $\frac{1}{4}$ " working length bolt.



1- $\frac{5}{8}$ " Deep Channel with $\frac{1}{4}$ " thick fitting and $\frac{1}{2}$ " all thread.



Electrical Installation

Instructions

These surface metal raceways are intended for use in the installation of electrical wiring using external joiners. The number, type and size of conductors, which may be installed in these raceways, are tabulated in table below.

Fluorescent and Incandescent Lighting

Consult your local, state and federal electrical code for all installations

While the metal wire raceway cover provides electrical continuity to the base and ground wires, if screws are required, they are to be installed in the field. Installation shall conform to Strut-Type Channel Raceway and Fittings UL5B.O

| Wire | | Maximum Number of Electrical Wires (at 40% fill) | | | | | |
|-----------------|-------|--|-------------------------------|-------------------------------|-------------------------------|-------------------------------|-------------------------------|
| Type | Gauge | W150 1½" x 3¼" 12 gauge | W100 1½" x 2⅞" 12 gauge | W200 1½" x 1½" 12 gauge | W210 1½" x 1½" 14 gauge | W300 1½" x 1¾" 12 gauge | W400 1½" x 1⅜" 16 gauge |
| FEP, FEPB | 14 | 172 | 127 | 81 | 81 | 67 | 36 |
| | 12 | 126 | 92 | 59 | 59 | 49 | 26 |
| | 10 | 90 | 66 | 42 | 42 | 35 | 19 |
| | 8 | 51 | 38 | 24 | 24 | 20 | 11 |
| | 6 | 24 | 17 | 11 | 12 | 9 | 5 |
| RH, RHH, RHW | 14 | 52 | 38 | 24 | 26 | 20 | 12 |
| | 12 | 45 | 33 | 21 | 22 | 17 | 10 |
| | 10 | 37 | 27 | 17 | 18 | 14 | 8 |
| | 8 | 20 | 14 | 9 | 10 | 7 | 4 |
| | 6 | 14 | 10 | 6 | 7 | 5 | 3 |
| T, TW | 14 | 124 | 91 | 58 | 58 | 48 | 26 |
| | 12 | 95 | 70 | 45 | 45 | 37 | 20 |
| | 10 | 69 | 51 | 33 | 33 | 27 | 14 |
| | 8 | 36 | 26 | 17 | 18 | 14 | 8 |
| | 6 | 21 | 15 | 9 | 10 | 8 | 5 |
| THHN, THWN | 14 | 178 | 131 | 84 | 84 | 69 | 37 |
| | 12 | 130 | 95 | 61 | 61 | 50 | 27 |
| | 10 | 82 | 60 | 38 | 38 | 32 | 17 |
| | 8 | 46 | 34 | 21 | 22 | 17 | 10 |
| | 6 | 33 | 24 | 15 | 16 | 12 | 7 |
| THW | 14 | 82 | 61 | 39 | 39 | 32 | 17 |
| | 12 | 66 | 49 | 31 | 31 | 26 | 14 |
| | 10 | 52 | 38 | 24 | 24 | 20 | 11 |
| | 8 | 29 | 21 | 13 | 14 | 11 | 6 |
| | 6 | 21 | 15 | 10 | 10 | 8 | 5 |
| XHHW | 14 | 124 | 91 | 58 | 58 | 48 | 26 |
| | 12 | 95 | 70 | 45 | 45 | 37 | 20 |
| | 10 | 71 | 52 | 33 | 33 | 28 | 15 |
| | 8 | 37 | 27 | 17 | 19 | 14 | 8 |
| | 6 | 27 | 20 | 13 | 14 | 10 | 6 |

Maximum Number Of Wires

Also suitable for the number of wires in table below when installed to support and supply electric discharge type lighting fixtures when raceway wiring is suitable for at least 70°C and clearance between fixture and raceway is at least ⅛". In all cases, a snap-in cover is required to complete the raceway enclosure.

Wire Types - R, RH, T, THW, TW, TF, RUH, and RUW

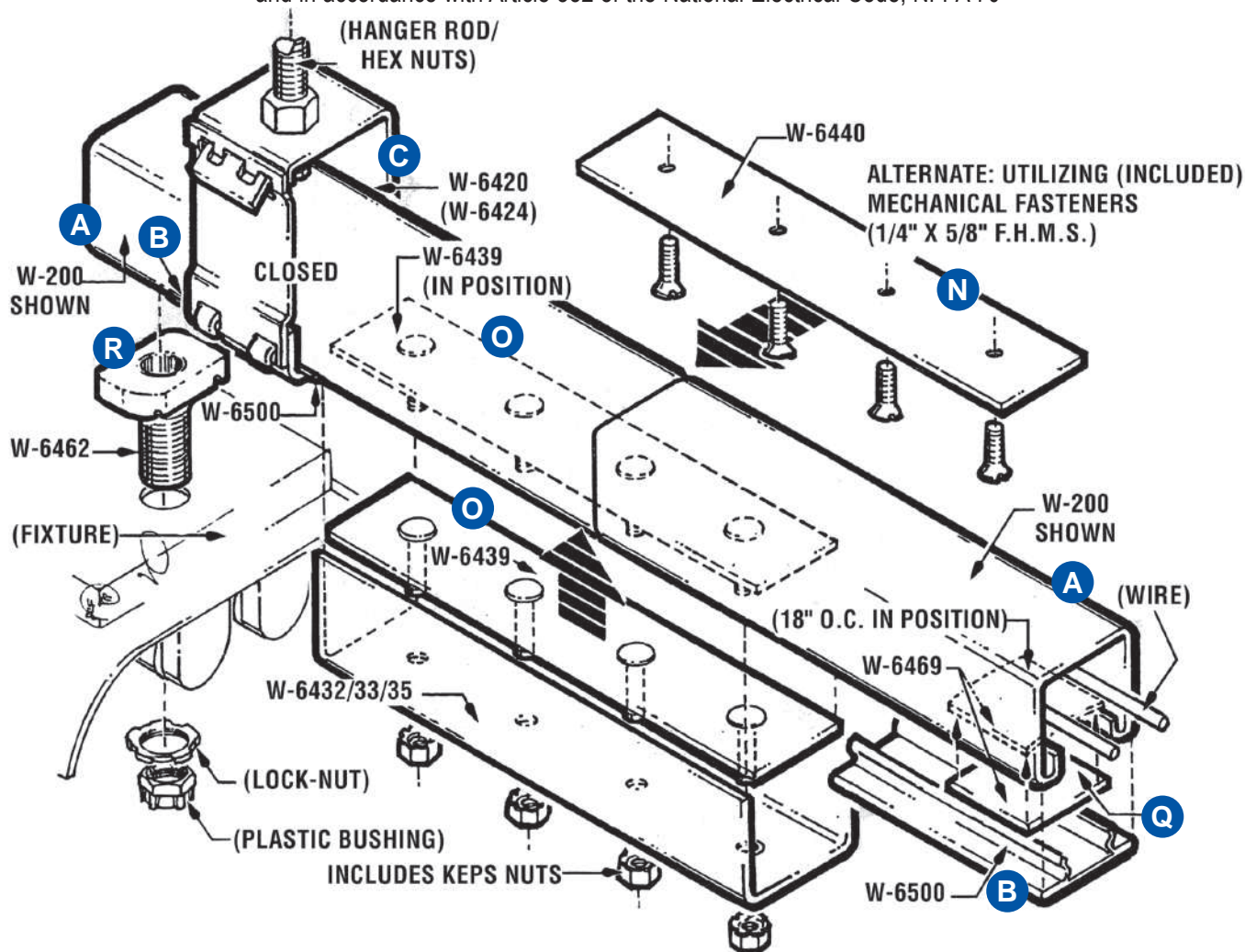
| Wire Size AWG | W200, W200KO W210, W210KO | W300, W300KO | W500, W500KO |
|------------------|------------------------------|-----------------|-----------------|
| 14 | 10 | 10 | 6 |
| 12 | 10 | 10 | 6 |
| 10 | 8 | 6 | - |
| 8 | 6 | 4 | - |
| 6 | 3 | 2 | - |

Electrical Installation

Instructions



These installation instructions cover strut-type channel raceway and fittings for use only in dry locations, and in accordance with Article 352 of the National Electrical Code, NFPA 70



A.... W200 (shown) Raceway Base (pages 34-39)

Also included are Catalog Numbers W210, W300, W500, W210KO, W300KO, and W500KO.

B.... W6500 (shown) Wire Raceway Cover (page 162)

Snap-on type (0.04" thick). Cover must be used to close $\frac{7}{8}$ " slot in raceway base to comply with Underwriters Laboratories® approved installation

C.... W6420 (W6422) Channel Hanger (page 160)

1. Attach hanger from hanger rod using hex nuts (not included)
2. Place wiring in raceway base
3. Install raceway base into pre-hung fixture hanger
4. Lock fixture hanger by snapping the door closed
5. Install wire raceway cover

N.... W6440 - Four Hole Tapped Raceway Plate for Flush Mounting. (page 161)

Install as illustrated using $\frac{1}{4}$ " x $\frac{5}{8}$ " flat head machine screws included.

O.... W6439 - Standard Raceway Stud Plate (page 161)

For use with four hole raceway splice fitting (W6432 - W6435). Install with $\frac{1}{4}$ " KEP nuts supplied.

P.... W6432, W6433, W6435 - Four Hole Raceway Splice Fitting. (page 161)

Use with either standard Raceway stud plate W6439 or retainers as required to provide adequate support; no greater than $\frac{1}{8}$ " on center

Q.... W6469 - Fiber Wire Retainers. (page 162)

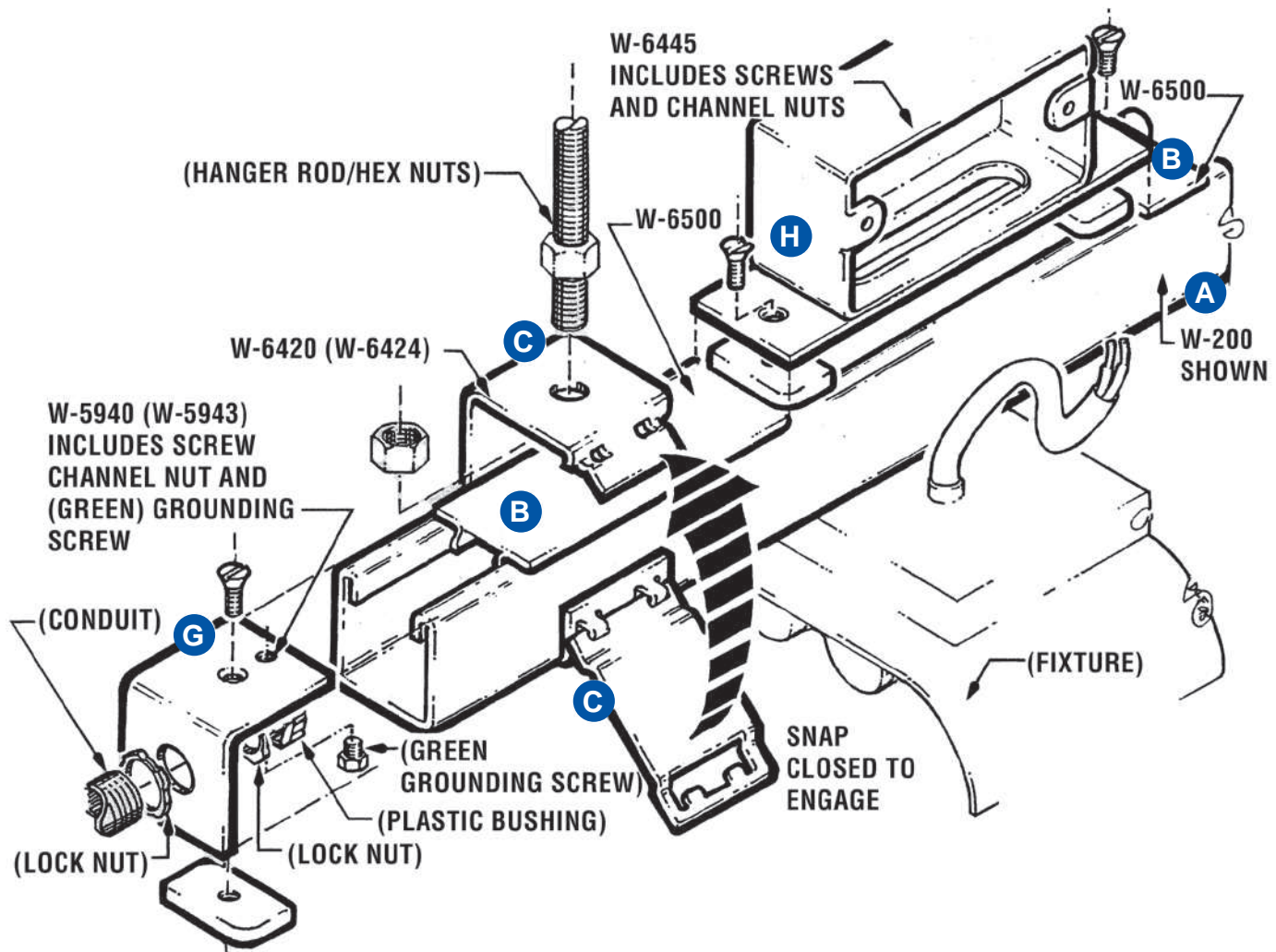
Use retainers as required to provide adequate support; no greater than $\frac{1}{8}$ " on center

R.... W6462 - Aluminum Wiring Stud (1 $\frac{1}{8}$ " (29mm) long 1/2"-14 Thread) (page 162)

Fits channel open slot. Install with lock nut and plastic bushing, align and tighten securely.

See maximum number of wires tables on page 248. – Always Consult your local, state and federal electrical code for all installations

Electrical Installation Instructions



A.... W200 (shown) Raceway Base (pages 34-39)

Also included are Catalog Numbers W210, W300, W500, W210KO, W300KO, and W500KO.

B.... W6500 (shown) Wire Raceway Cover (page 162)

Snap-on type (0.040" thick). Cover must be used to close $\frac{7}{8}$ " slot in raceway base to comply with Underwriters Laboratories® approved installation

C.... W6420 (W6422) Channel Hanger (page 160)

1. Attach hanger from hanger rod using hex nuts (not included)
2. Place wiring in raceway base
3. Install raceway base into pre-hung fixture hanger
4. Lock fixture hanger by snapping the door closed
5. Install wire raceway cover.

G.... W5940 End Cap with Knockout (page 116) (W5941, W5942 and W5943)

1. Position end cap as shown
2. Affix with screw and channel nut supplied
3. Attach grounding wire with green #10 screw (supplied).

H.... W6445 Receptacle Box (page 161)

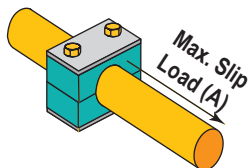
Assembly includes channel nuts and flat head machine screw. Install as shown. Does not include receptacle cover or outlet component.

See maximum number of wires tables on page 248. – Always Consult your local, state and federal electrical code for all installations

Beta Clamp Technical Data



Maximum Slip Load



Max. Pipe Slip indicates that Sliding starts when the specified values (A) are reached.

Beta Standard Series

| ZSI (DIN) | Hex Head Bolt UNC Thread (Metric ISO) | Polypropylene | | Polyamide | | Aluminium | |
|-----------|---------------------------------------|-------------------------------|-------------------------|-------------------------------|-------------------------|-------------------------------|-------------------------|
| | | Tightening Torque ft•lb (N•m) | Max. Pipe Slip lbf (kN) | Tightening Torque ft•lb (N•m) | Max. Pipe Slip lbf (kN) | Tightening Torque ft•lb (N•m) | Max. Pipe Slip lbf (kN) |
| S1 (1) | 1/4" - 20 UNC (M6) | 6 (8) | 247 (11) | 7 (10) | 157 (7) | 9 (12) | 944 (42) |
| S2 (2) | | | 292 (13) | | 180 (8) | | 967 (43) |
| S3 (3) | | | 315 (14) | | 360 (16) | | 1,101 (49) |
| S4 (4) | | | 337 (15) | | 382 (17) | | 1,124 (50) |
| S5 (5) | | | 427 (19) | | 450 (20) | | 1,641 (73) |
| S6 (6) | | | 450 (20) | | 562 (25) | | 2,000 (89) |
| S7 (7) | | | 517 (23) | | 719 (32) | | - |

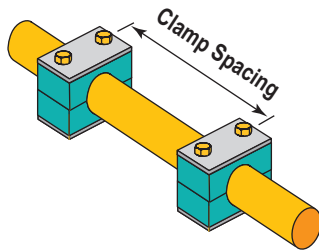
Beta Heavy Series

| ZSI (DIN) | Hex Head Bolt UNC Thread (Metric ISO) | Polypropylene | | Polyamide | | Aluminium | |
|-----------|---------------------------------------|-------------------------------|-------------------------|-------------------------------|-------------------------|-------------------------------|-------------------------|
| | | Tightening Torque ft•lb (N•m) | Max. Pipe Slip lbf (kN) | Tightening Torque ft•lb (N•m) | Max. Pipe Slip lbf (kN) | Tightening Torque ft•lb (N•m) | Max. Pipe Slip lbf (kN) |
| H3 (1) | 3/8" - 16 (M10) | 9 (12) | 360 (16) | 15 (20) | 944 (42) | 22 (30) | 2,720 (121) |
| H4 (2) | | 9 (12) | 652 (29) | 15 (20) | 1,044 (45) | 22 (30) | 3,395 (151) |
| H5 (3) | | 11 (15) | 742 (33) | 18 (25) | 1,146 (51) | 26 (35) | 3,485 (155) |
| H6 (4) | 7/16" - 14 (M12) | 22 (30) | 1,843 (82) | 30 (40) | 2,090 (93) | 41 (55) | 6,609 (295) |
| H7 (5) | 5/8" - 11 (M16) | 33 (45) | 2,472 (110) | 41 (55) | 3,551 (158) | 86 (120) | 7,845 (349) |
| H8 (6) | 3/4" - 10 (M20) | 59 (80) | 3,147 (140) | 111 (150) | 4,720 (210) | 162 (220) | 11,240 (500) |
| H9 (7) | 7/8" - 9 (M24) | 81 (110) | 6,300 (280) | 148 (200) | 7,193 (320) | 184 (250) | 15,871 (706) |
| H10 (8) | 1-1/8" - 7 (M30) | 133 (180) | 8,992 (400) | 258 (350) | 10,790 (480) | 369 (500) | 18,996 (845) |
| H11 (9) | | 148 (200) | 26,752 (1,190) | 273 (370) | 27,650 (1,250) | 369 (500) | 40,802 (1,815) |

Beta Twin Series

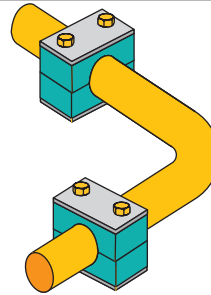
| ZSI (DIN) | Hex Head Bolt UNC Thread (Metric ISO) | Polypropylene | | Polyamide | |
|-----------|---------------------------------------|-------------------------------|-------------------------|-------------------------------|-------------------------|
| | | Tightening Torque ft•lb (N•m) | Max. Pipe Slip lbf (kN) | Tightening Torque ft•lb (N•m) | Max. Pipe Slip lbf (kN) |
| T1 (1) | 1/4" - 20 (M6) | 4 (5) | 202 (09) | 4 (5) | 202 (09) |
| T2 (2) | 5/16" - 18 (M8) | 9 (12) | 472 (21) | 9 (12) | 495 (22) |
| T3 (3) | 5/16" - 18 (M10) | 9 (12) | 427 (19) | 9 (12) | 450 (20) |
| T4 (4) | 5/16" - 18 (M12) | 9 (12) | 607 (27) | 9 (12) | 652 (29) |
| T5 (5) | 5/16" - 18 (M16) | 6 (8) | 382 (17) | 6 (8) | 562 (25) |

Recommended Pipe Clamp Spacing



| Pipe OD in (mm) | Spacing ft - in. (m) |
|--------------------------|-------------------------|
| 0.24" - 0.5" (6 - 12.7) | 3' - 3" (1) |
| 0.5" - 0.87" (12.7 - 22) | 3' - 11" (1.2) |
| 0.87" - 1.26" (22 - 32) | 4' - 11" (1.5) |
| 1.26" - 1.5" (32 - 38) | 6' - 7" (2) |
| 1.5" - 2.24" (38 - 57) | 8' - 10" (2.7) |
| 2.24" - 2.95" (57 - 75) | 9' - 10" (3) |
| 2.95" - 3" (75 - 76.1) | 11' - 6" (3.5) |
| 3" - 3.5" (76.1 - 88.9) | 12' - 2" (3.7) |
| 3.5" - 4" (88.9 - 102) | 13' - 1" (4) |
| 4" - 4.5" (102 - 114) | 14' - 9" (4.5) |
| 4.5" - 6.6" (114 - 168) | 16' - 5" (5) |
| 6.6" - 8.6" (168 - 219) | 19' - 8" (6) |
| 8.6" - 12.8" (219 - 324) | 21' - 12" (6.7) |
| 12.8" - 14" (324 - 356) | 22' - 12" (7) |
| 14" - 16" (356 - 406) | 24' - 7" (7.5) |
| 16" - 16.5" (406 - 419) | 26' - 11" (8.2) |
| 16.5" - 20" (419 - 508) | 27' - 11" (8.5) |
| 20" - 20.5" (508 - 521) | 29' - 6" (9) |
| 20.5" - 22" (521 - 558) | 32' - 10" (10) |
| 22" - 31.5" (558 - 800) | 41' - 0" (12.5) |

Recommended Clamping for Bends



Bends in the line should be clamped on BOTH sides of the bend as shown.

BETA CLAMP MATERIAL PROPERTIES Polypropylene (PP) Cushion

| Material Properties | | |
|-------------------------|---------------|---------------|
| Density | – | 0.906 g/cm3 |
| Tensile strength | DIN 53454 | 25-35 N/mm2 |
| Flexure stress limit | DIN 53452 | 36N N/mm2 |
| Compressive strength | DIN 53454 | 90 N/mm2 |
| Impact strength | DIN 53453 | No break |
| Thermo Properties | | |
| Max. temp. resistance | -30 to 90°C | |
| Thermal conductivity | 15 x 10-5 /°C | |
| Linear expansion coeff. | 0.22 W/[mk] | |
| Electrical Properties | | |
| Specific volume | DIN 53482 | 1016 ohm x cm |
| Chemical Properties | | |

Consistent for weak acids, solvents, mineral oils and seawater.

Beta Bolt Tightening Torque

| Clamp | Group | Bolt Size | Aluminum Cushion | | Polypropylene Cushion | | Polyamide Cushion | |
|---------------|---------|-----------|------------------|-----|-----------------------|----|-------------------|----|
| | | | Lbf | Nm | Lbf | Nm | Lbf | Nm |
| Beta Standard | S1 - S7 | 1/4"-20 | 7 | 10 | 6 | 8 | 6 | 8 |
| Beta Heavy | H3, H4 | 3/8"-16 | 22 | 30 | 9 | 12 | 15 | 20 |
| | H5 | 3/8"-16 | 26 | 35 | 11 | 15 | 18 | 25 |
| | H6 | 1/2"-13 | 41 | 55 | 29 | 30 | 30 | 40 |
| | H7 | 5/8"-11 | 89 | 120 | 33 | 45 | 41 | 55 |
| Beta Twin | T1 | 1/4"-20 | - | - | 4 | 6 | 4 | 6 |
| | T2 - T5 | 5/16"-18 | - | - | 9 | 12 | 9 | 12 |

The outlined particulars are approximate values and are only valid as references, which are not binding, also with regard to possible protection of third parties, and they do not exempt you from your own examination of suitability of the products delivered by us. Therefore, these values can only be used in a limited sense for construction purposes. The application of the products is carried out outside our control possibilities and, therefore, is exclusively subject to your own area of responsibility. If, however, liability should be possible, it would be limited for all damages to the value of the goods supplied by us and in use by you. It goes without saying, that we guarantee the perfect quality of our products according to our general sales and delivery conditions.

Beta Clamp Installation

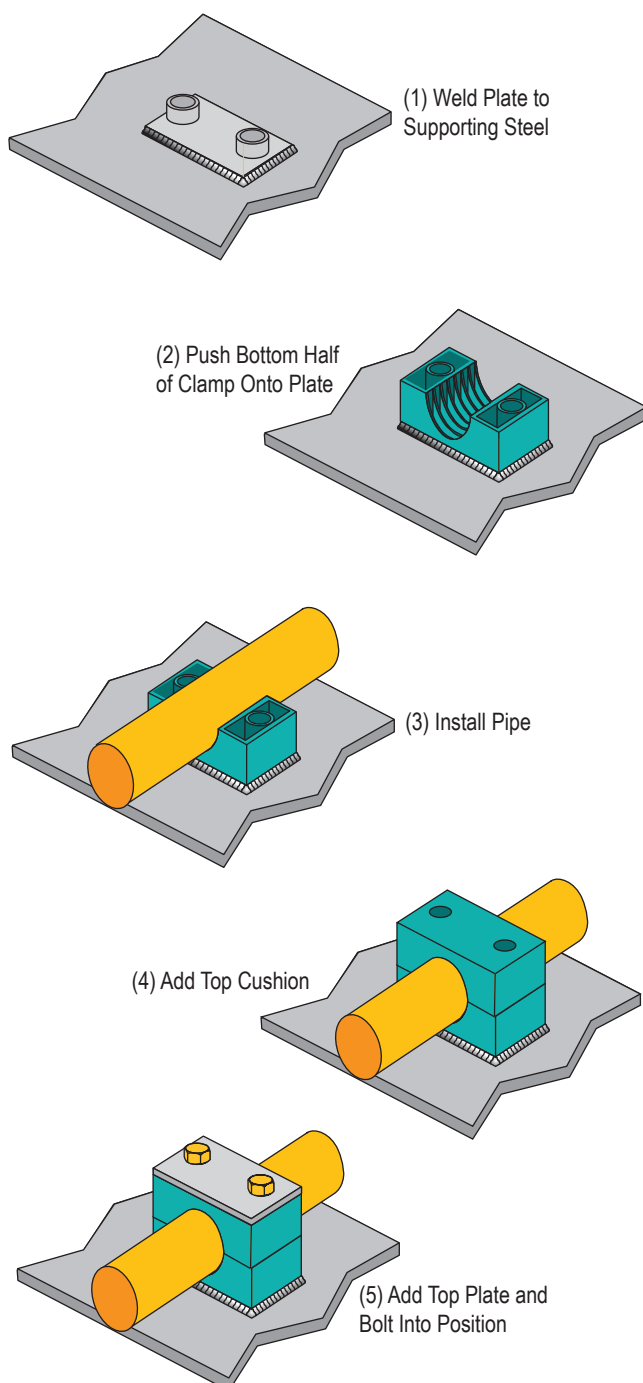


Installation on Weld Plates

ZSi weld plates are available for the following Series:

- Standard-Series
- Heavy-Series
- Twin-Series
- Beta Adapters

For best alignment of ZSi clamps we recommend that you mark their location before welding.



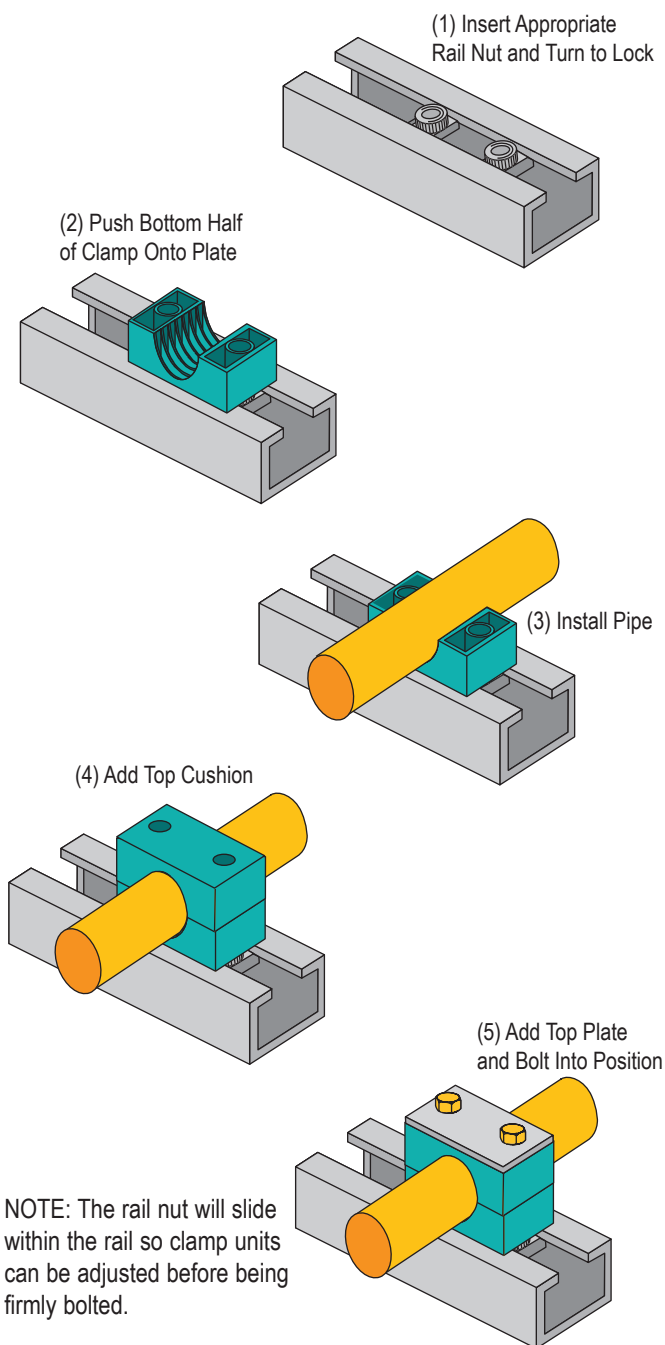
Installation on Mounting Rails

ZSi mounting rails can be used with the following Series:

- Standard-Series
- Heavy-Series (Group H3 to H6)
- Twin-Series
- Beta Adapters

ZSi mounting rails are available in two different height sizes and are either welded or bolted to the supporting construction.

For Standard-Series and Twin-Series insert hexagon rail nut and turn to lock. For Heavy-Series slide in rail nut.

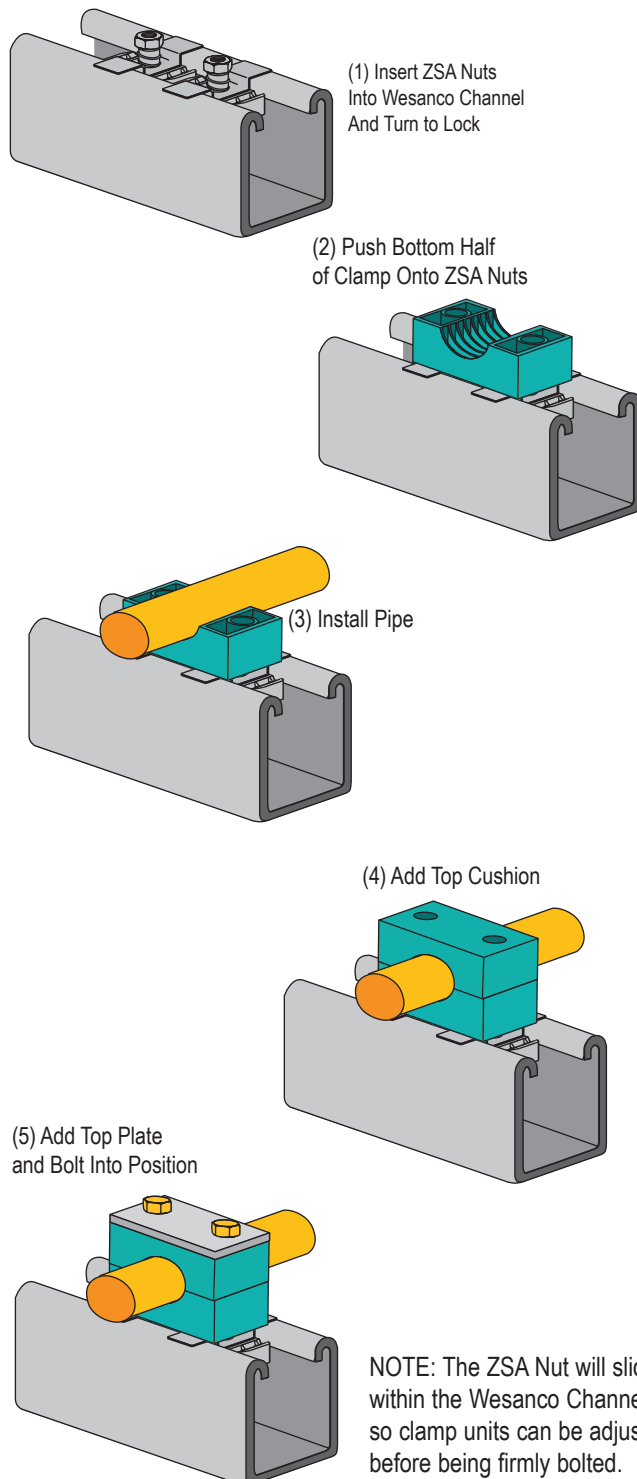


NOTE: The rail nut will slide within the rail so clamp units can be adjusted before being firmly bolted.

Installation on Wesanco Channel

The ZSA Nuts can be used with any clamp using a 1/4-20 mounting bolt. This includes:

- Standard-Series
- Twin-Series (T1 Only)
- Beta Rubber Inserts

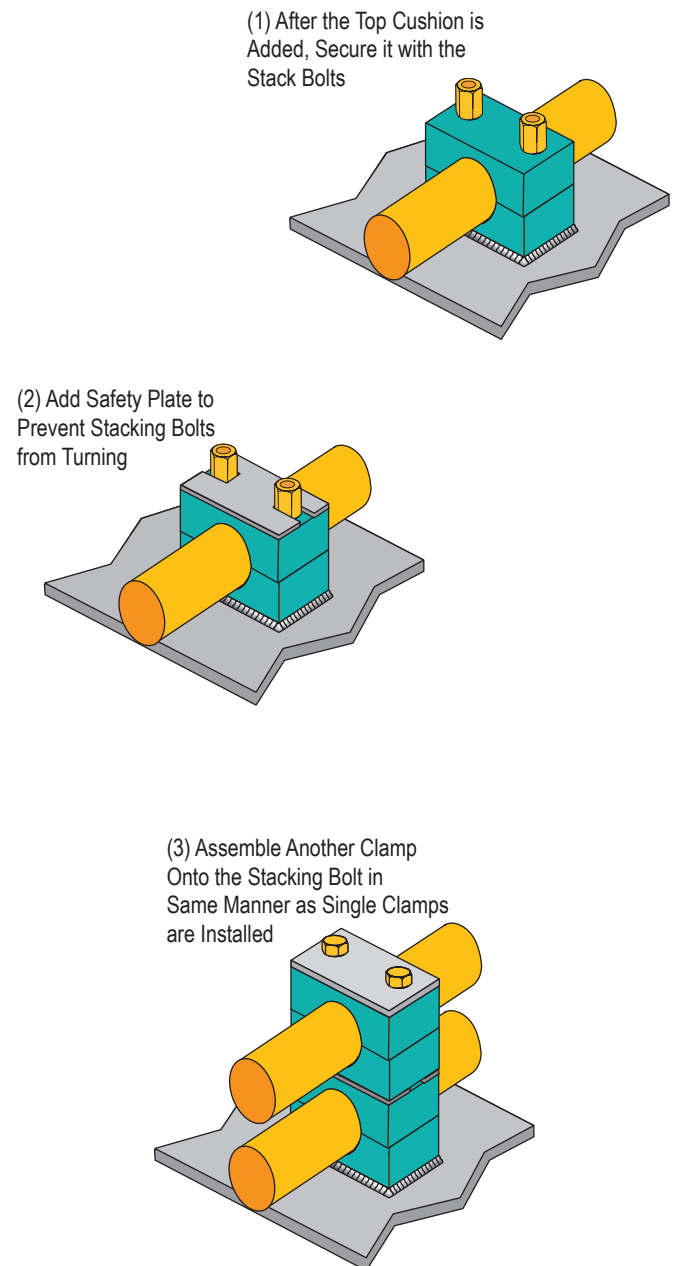


Multi-Level Assembly

ZSi multi-level pipe clamps permit easy stacking of several tubes or pipes of the same group. The clamps are connected by stacking bolts.

Safety plates are inserted between the clamps to prevent the stacking bolts from turning.

The example below shows a stacking clamp added to a welded clamp, however, ZSi stacking assemblies can be fitted to weld plates, rails, or strut in the same manner.

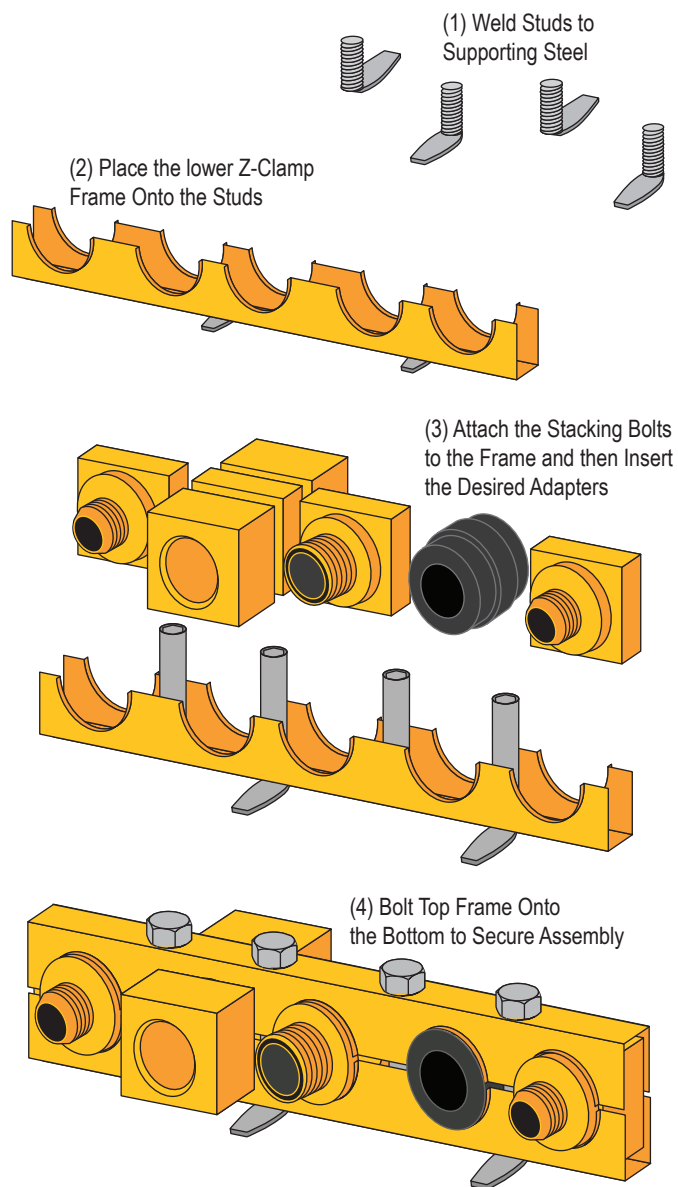


Z-Clamp & Beta Adapter Installation



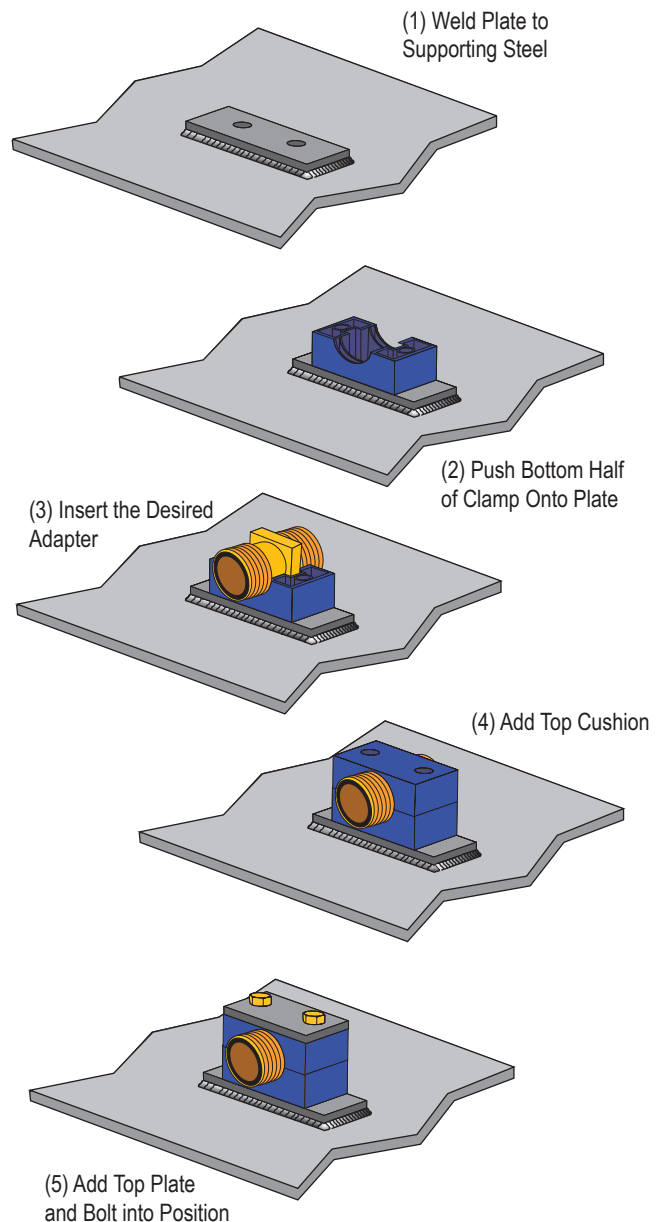
Installation of Z-Clamps

Z-Clamps are installed in much the same manner as Beta Clamps. The weld studs are welded onto existing structure and the clamp assembled onto them.



Installation of Beta Adapter

Beta Adapters are installed in much the same manner as Beta Clamps. The weld plate is welded onto existing structure and the Beta cushion and adapter is assembled onto it.



Z-Clamp & Beta Adapter Optional Adapters



FEMALE JUNCTION
ADAPTER



O-RING FACE SEAL



37° FLARE MALE
JUNCTION ADAPTER



RUBBER SPLIT
BUSHINGS

| Drill Sizes for NPT Pipe Taps | | |
|-------------------------------|--------------|------------------|
| Tap Size (In.) | Threads/Inch | Drill Dia. (In.) |
| 1/8" | 27 | R |
| 1/4" | 18 | 7/16" |
| 3/8" | 18 | 37/64" |
| 1/2" | 14 | 23/32" |
| 3/4" | 14 | 59/64" |
| 1" | 11 1/2 | 1 5/32" |
| 1 1/4" | 11 1/2 | 1 1/2" |
| 1 1/2" | 11 1/2 | 1 47/64" |
| 2" | 11 1/2 | 2 1/32" |
| 2 1/2" | 8 | 2 5/8" |
| 3" | 8 | 3 1/4" |
| 3 1/2" | 8 | 3 3/4" |
| 4" | 8 | 4 1/4" |

| Tap & Drill Sizes (Unified National Coarse) | | |
|--|--------------|------------------|
| Tap Size (In.) | Threads/Inch | Drill Size (In.) |
| 1/4" | 20 | 7 |
| 5/16" | 18 | F |
| 3/8" | 16 | 5/16" |
| 7/16" | 14 | U |
| 1/2" | 13 | 27/64" |
| 9/16" | 12 | 31/64" |
| 5/8" | 11 | 17/32" |
| 3/4" | 10 | 21/32" |
| 7/8" | 9 | 49/64" |
| 1" | 8 | 7/8" |
| 1 1/8" | 7 | 63/64" |
| 1 1/4" | 7 | 1 7/64" |
| 1 1/2" | 6 | 1 1/32" |
| 1 3/4" | 6 | 1 11/32" |
| 2" | 5 | 1 9/16" |
| 2 1/2" | 4 1/2 | 1 25/32" |

| Standard Weight Pipe Data | | | | | |
|---------------------------|---------|---------|---------------------|-------------------------------|--------------------------------|
| Nom. Diameter (In.) | | | Nom. Wt./Ft. (lbs.) | Length Containing One Cu. Ft. | Gallons / Linear Ft. (Gallons) |
| Pipe | Inside | Outside | | | |
| 1/8" | 0.269" | 0.405" | 0.245 | 2,526.000 | 0.0030 |
| 1/4" | 0.364" | 0.540" | 0.425 | 1,383.800 | 0.0054 |
| 3/8" | 0.493" | 0.675" | 0.568 | 754.360 | 0.0099 |
| 1/2" | 0.622" | 0.840" | 0.851 | 473.910 | 0.0158 |
| 3/4" | 0.824" | 1.050" | 1.131 | 270.030 | 0.0277 |
| 1" | 1.049" | 1.315" | 1.679 | 166.620 | 0.0449 |
| 1 1/4" | 1.380" | 1.660" | 2.273 | 96.275 | 0.0777 |
| 1 1/2" | 1.610" | 1.900" | 2.718 | 70.733 | 0.1058 |
| 2" | 2.067" | 2.375" | 3.653 | 49.913 | 0.1743 |
| 2 1/2" | 2.469" | 2.875" | 5.793 | 30.077 | 0.2487 |
| 3" | 3.068" | 3.500" | 7.580 | 19.479 | 0.3840 |
| 3 1/2" | 3.548" | 4.000" | 9.110 | 14.565 | 0.5136 |
| 4" | 4.026" | 4.500" | 10.790 | 11.312 | 0.6613 |
| 5" | 5.047" | 5.563" | 14.620 | 7.198 | 1.0393 |
| 6" | 6.065" | 6.625" | 18.970 | 4.984 | 1.5008 |
| 8" | 7.981" | 8.625" | 28.550 | 2.878 | 2.5988 |
| 10" | 10.020" | 10.750" | 40.480 | 1.826 | 4.0963 |

| Copper Tube Data - Type L | | | | | |
|---------------------------|------------|------------|-------------------|-----------------------|-----------------------------|
| Size (In.) | O.D. (In.) | O.D. (In.) | Wall Thick. (In.) | Weight per Foot (lbs) | Weight of Water / Ft. (lbs) |
| 1/4" | 3/8" | 0.375" | 0.030" | 0.126 | 0.034 |
| 3/8" | 1/2" | 0.500" | 0.035" | 0.198 | 0.062 |
| 1/2" | 5/8" | 0.625" | 0.040" | 0.285 | 0.100 |
| 5/8" | 3/4" | 0.750" | 0.042" | 0.362 | 0.151 |
| 3/4" | 7/8" | 0.875" | 0.045" | 0.455 | 0.209 |
| 1" | 1 1/8" | 1.125" | 0.050" | 0.655 | 0.357 |
| 1 1/4" | 1 3/8" | 1.375" | 0.055" | 0.884 | 0.546 |
| 1 1/2" | 1 5/8" | 1.625" | 0.060" | 1.140 | 0.767 |
| 2" | 2 1/8" | 2.125" | 0.070" | 1.750 | 1.341 |
| 2 1/2" | 2 5/8" | 2.625" | 0.080" | 2.480 | 2.064 |
| 3" | 3 1/8" | 3.125" | 0.090" | 3.330 | 2.949 |
| 3 1/2" | 3 5/8" | 3.625" | 0.100" | 4.290 | 3.989 |
| 4" | 4 1/8" | 4.125" | 0.110" | 5.380 | 5.188 |
| 5" | 5 1/8" | 5.125" | 0.125" | 7.610 | 8.081 |
| 6" | 6 1/8" | 6.125" | 0.140" | 10.200 | 11.616 |
| 8" | 8 1/8" | 8.125" | 0.200" | 19.290 | 20.289 |
| 10" | 10 1/8" | 10.125" | 0.250" | 30.100 | 31.590 |
| 12" | 12 1/8" | 12.125" | 0.280" | 40.400 | 45.426 |

| Copper Tube Data - Type K | | | | | |
|---------------------------|------------|------------|-------------------|-----------------------|-----------------------------|
| Size (In.) | O.D. (In.) | O.D. (In.) | Wall Thick. (In.) | Weight per Foot (lbs) | Weight of Water / Ft. (lbs) |
| 1/4" | 3/8" | 0.375" | 0.035" | 0.145 | 0.032 |
| 3/8" | 1/2" | 0.500" | 0.049" | 0.269 | 0.055 |
| 1/2" | 5/8" | 0.625" | 0.049" | 0.344 | 0.094 |
| 5/8" | 3/4" | 0.750" | 0.049" | 0.418 | 0.144 |
| 3/4" | 7/8" | 0.875" | 0.065" | 0.641 | 0.188 |
| 1" | 1 1/8" | 1.125" | 0.065" | 0.839 | 0.337 |
| 1 1/4" | 1 3/8" | 1.375" | 0.065" | 1.040 | 0.527 |
| 1 1/2" | 1 5/8" | 1.625" | 0.072" | 1.360 | 0.743 |
| 2" | 2 1/8" | 2.125" | 0.083" | 2.060 | 1.310 |
| 2 1/2" | 2 5/8" | 2.625" | 0.095" | 2.920 | 2.000 |
| 3" | 3 1/8" | 3.125" | 0.109" | 4.000 | 2.960 |
| 3 1/2" | 3 5/8" | 3.625" | 0.120" | 5.120 | 3.900 |
| 4" | 4 1/8" | 4.125" | 0.134" | 6.510 | 5.060 |
| 5" | 5 1/8" | 5.125" | 0.160" | 9.670 | 8.000 |
| 6" | 6 1/8" | 6.125" | 0.192" | 13.870 | 11.200 |
| 8" | 8 1/8" | 8.125" | 0.271" | 25.900 | 19.500 |
| 10" | 10 1/8" | 10.125" | 0.338" | 40.300 | 30.423 |
| 12" | 12 1/8" | 12.125" | 0.405" | 57.800 | 43.675 |

| Steel Pipe Data — Schedule No 40 & 80 | | | | | |
|---------------------------------------|------------|--------------|-------------------|-----------------------|--------------------------------|
| Nominal Size (In.) | O.D. (In.) | Schedule No. | Wall Thick. (In.) | Weight per Foot (lbs) | Weight of Water per Foot (lbs) |
| 3/8" | 0.675" | 40 | 0.091" | 0.567 | 0.083 |
| | | 80 | 0.126" | 0.738 | 0.061 |
| 1/2" | 0.840" | 40 | 0.109" | 0.850 | 0.132 |
| | | 80 | 0.147" | 1.087 | 0.101 |
| 3/4" | 1.050" | 40 | 0.113" | 1.130 | 0.230 |
| | | 80 | 0.154" | 1.473 | 0.186 |
| 1" | 1.315" | 40 | 0.133" | 1.678 | 0.374 |
| | | 80 | 0.179" | 2.171 | 0.311 |
| 1 1/4" | 1.660" | 40 | 0.140" | 2.272 | 0.647 |
| | | 80 | 0.191" | 2.996 | 0.555 |
| 1 1/2" | 1.900" | 40 | 0.145" | 2.717 | 0.882 |
| | | 80 | 0.200" | 3.631 | 0.765 |
| 2" | 2.375" | 40 | 0.154" | 3.652 | 1.452 |
| | | 80 | 0.218" | 5.022 | 1.279 |
| 2 1/2" | 2.875" | 40 | 0.203" | 5.790 | 2.072 |
| | | 80 | 0.276" | 7.660 | 1.834 |
| 3" | 3.500" | 40 | 0.216" | 7.570 | 3.200 |
| | | 80 | 0.300" | 10.250 | 2.860 |
| 3 1/2" | 4.000" | 40 | 0.226" | 9.110 | 4.280 |
| | | 80 | 0.318" | 12.510 | 3.850 |
| 4" | 4.500" | 40 | 0.237" | 10.790 | 5.510 |
| | | 80 | 0.337" | 14.980 | 4.980 |
| 5" | 5.563" | 40 | 0.258" | 14.620 | 8.660 |
| | | 80 | 0.375" | 20.780 | 7.870 |
| 6" | 6.625" | 40 | 0.280" | 18.970 | 12.510 |
| | | 80 | 0.432" | 28.570 | 11.290 |
| 8" | 8.625" | 40 | 0.322" | 28.550 | 21.600 |
| | | 80 | 0.500" | 43.390 | 19.800 |
| 10" | 10.750" | 40 | 0.365" | 40.480 | 34.100 |
| | | 80 | 0.593" | 64.400 | 31.100 |
| 12" | 12.75" | 40 | 0.406" | 53.600 | 48.500 |
| | | 80 | 0.687" | 88.600 | 44.000 |
| 14" | 14.000" | 40 | 0.437" | 63.000 | 58.500 |
| | | 80 | 0.750" | 107.000 | 51.200 |
| 16" | 16.000" | 40 | 0.500" | 83.000 | 76.500 |
| | | 80 | 0.843" | 137.000 | 69.700 |
| 18" | 18.000" | 40 | 0.563" | 105.000 | 97.200 |
| | | 80 | 0.937" | 171.000 | 88.500 |
| 20" | 20.000" | 40 | 0.593" | 123.000 | 120.400 |
| | | 80 | 1.031" | 209.000 | 109.400 |

| PVC and CPVC Pipes - Schedule 40 (inches) | | | | | |
|---|------------------|------------------------|-------------------------|--------------------|------|
| Nominal Pipe Size | Outside Diameter | Minimum Wall Thickness | Nominal Inside Diameter | Weight (lb/100 ft) | |
| | | | | PVC | CPVC |
| 1/2" | 0.840" | 0.109" | 0.622" | 16 | 17 |
| 3/4" | 1.050" | 0.113" | 0.824" | 21 | 23 |
| 1" | 1.315" | 0.133" | 1.049" | 32 | 34 |
| 1 1/4" | 1.660" | 0.140" | 1.380" | 43 | 46 |
| 1 1/2" | 1.900" | 0.145" | 1.610" | 51 | 55 |
| 2" | 2.375" | 0.154" | 2.067" | 68 | 74 |
| 2 1/2" | 2.875" | 0.203" | 2.469" | 107 | 118 |
| 3" | 3.500" | 0.216" | 3.068" | 141 | 154 |
| 4" | 4.500" | 0.237" | 4.026" | 201 | 220 |
| 5" | 5.563" | 0.258" | 5.047" | 273 | — |
| 6" | 6.625" | 0.280" | 6.065" | 353 | 386 |
| 8" | 8.625" | 0.322" | 7.981" | 539 | 581 |
| 10" | 10.750" | 0.365" | 10.020" | 755 | 824 |
| 12" | 12.750" | 0.406" | 11.938" | 1001 | 1089 |
| 14" | 14.000" | 0.438" | 13.124" | 1180 | — |
| 16" | 16.000" | 0.500" | 15.000" | 1543 | — |

| PVC and CPVC Pipes - Schedule 80 (inches) | | | | | |
|---|------------------|------------------------|-------------------------|--------------------|------|
| Nominal Pipe Size | Outside Diameter | Minimum Wall Thickness | Nominal Inside Diameter | Weight (lb/100 ft) | |
| | | | | PVC | CPVC |
| 1/2" | 0.840" | 0.147" | 0.546" | 20 | 22 |
| 3/4" | 1.050" | 0.154" | 0.742" | 27 | 30 |
| 1" | 1.315" | 0.179" | 0.957" | 41 | 44 |
| 1 1/4" | 1.660" | 0.191" | 1.278" | 52 | 61 |
| 1 1/2" | 1.900" | 0.200" | 1.500" | 67 | 74 |
| 2" | 2.375" | 0.218" | 1.939" | 95 | 102 |
| 2 1/2" | 2.875" | 0.276" | 2.323" | 145 | 156 |
| 3" | 3.500" | 0.300" | 2.900" | 194 | 209 |
| 4" | 4.500" | 0.337" | 3.826" | 275 | 305 |
| 5" | 5.563" | 0.375" | 4.813" | 387 | — |
| 6" | 6.625" | 0.432" | 5.761" | 542 | 582 |
| 8" | 8.625" | 0.500" | 7.625" | 805 | 883 |
| 10" | 10.750" | 0.593" | 9.564" | 1200 | 1309 |
| 12" | 12.750" | 0.687" | 11.376" | 1650 | 180 |
| 14" | 14.000" | 0.750" | 12.500" | 1930 | — |
| 16" | 16.000" | 0.843" | 14.314" | 2544 | — |

| PVC - Wall Schedule 40 - Support Spacing (feet) | | | |
|---|----------------------------|-------|-------|
| NPS (inches) | Operating Temperature (°F) | | |
| | 60 | 100 | 140 |
| 1/2" | 4 1/2 | 4 | 2 1/2 |
| 3/4" | 5 | 4 | 2 1/2 |
| 1" | 5 1/2 | 4 1/2 | 2 1/2 |
| 1 1/4" | 5 1/2 | 5 | 3 |
| 1 1/2" | 6 | 5 | 3 |
| 2" | 6 | 5 | 3 |
| 3" | 7 | 6 | 3 1/2 |
| 4" | 7 1/2 | 6 1/2 | 4 |
| 6" | 8 1/2 | 7 1/2 | 4 1/2 |
| 8" | 9 | 8 | 4 1/2 |

| PVC - Wall Schedule 80 - Support Spacing (feet) | | | |
|---|----------------------------|-------|-------|
| NPS (inches) | Operating Temperature (°F) | | |
| | 60 | 100 | 140 |
| 1/2" | 5 | 4 1/2 | 2 1/2 |
| 3/4" | 5 1/2 | 4 1/2 | 2 1/2 |
| 1" | 6 | 5 | 3 |
| 1 1/4" | 6 1/2 | 5 1/2 | 3 1/2 |
| 1 1/2" | 7 | 6 | 3 1/2 |
| 2" | 8 | 7 | 4 |
| 3" | 9 | 7 1/2 | 4 1/2 |
| 4" | 10 | 9 | 5 |
| 6" | 11 | 9 1/2 | 5 1/2 |
| 8" | 9 | 8 | 4 1/2 |

| Hydraulic Hose - No Skive SAE 100R1 Type AT | | | | |
|---|-----------|------|-----------|------|
| SAE Number | Hose I.D. | | Hose O.D. | |
| | (in.) | (mm) | (in.) | (mm) |
| SAE-3 | 3/16" | 5.0 | 0.46" | 12 |
| SAE-4 | 1/4" | 6.3 | 0.53" | 13 |
| SAE-5 | 5/16" | 8.0 | 0.59" | 15 |
| SAE-6 | 3/8" | 10.0 | 0.68" | 17 |
| SAE-8 | 1/2" | 12.5 | 0.81" | 21 |
| SAE-10 | 5/8" | 16.0 | 0.94" | 24 |
| SAE-12 | 3/4" | 19.0 | 1.09" | 28 |
| SAE-16 | 1" | 25.0 | 1.41" | 36 |
| SAE-20 | 1-1/4" | 31.5 | 1.79" | 45 |
| SAE-24 | 1-1/2" | 38.0 | 2.00" | 51 |
| SAE-32 | 2" | 51.0 | 2.54" | 64 |

| Hydraulic Hose - No Skive SAE 100R2 Type AT - ISO 1436 Type 2AT - EN 853 Type 2SN | | | | |
|---|-----------|------|-----------|------|
| SAE Number | Hose I.D. | | Hose O.D. | |
| | (in.) | (mm) | (in.) | (mm) |
| SAE-4 | 1/4" | 6.3 | 0.53" | 13 |
| SAE-5 | 5/16" | 8.0 | 0.59" | 15 |
| SAE-6 | 3/8" | 10.0 | 0.68" | 17 |
| SAE-8 | 1/2" | 12.5 | 0.81" | 21 |
| SAE-10 | 5/8" | 16.0 | 0.94" | 24 |
| SAE-12 | 3/4" | 19.0 | 1.09" | 28 |
| SAE-16 | 1" | 25.0 | 1.41" | 36 |
| SAE-20 | 1-1/4" | 31.5 | 1.79" | 45 |
| SAE-24 | 1-1/2" | 38.0 | 2.00" | 51 |
| SAE-32 | 2" | 51.0 | 2.54" | 64 |

| Hydraulic Hose - SAE 100R16 Type AT | | | | |
|-------------------------------------|-----------|------|-----------|------|
| SAE Number | Hose I.D. | | Hose O.D. | |
| | (in.) | (mm) | (in.) | (mm) |
| SAE-4 | 1/4" | 6.3 | 0.53" | 13 |
| SAE-5 | 5/16" | 8.0 | 0.59" | 15 |
| SAE-6 | 3/8" | 10.0 | 0.68" | 17 |
| SAE-8 | 1/2" | 12.5 | 0.81" | 21 |
| SAE-10 | 5/8" | 16.0 | 0.94" | 24 |
| SAE-12 | 3/4" | 19.0 | 1.09" | 28 |
| SAE-16 | 1" | 25.0 | 1.41" | 36 |

| Hydraulic Hose - No Skive SAE 100R17 Abrasion Resistant "Tough Cover" and "Super Tough" Cover | | | | |
|---|-----------|------|-----------|------|
| SAE Number | Hose I.D. | | Hose O.D. | |
| | (in.) | (mm) | (in.) | (mm) |
| SAE-4 | 1/4" | 6.3 | 0.53" | 13 |
| SAE-6 | 3/8" | 10.0 | 0.68" | 17 |
| SAE-8 | 1/2" | 12.5 | 0.81" | 21 |
| SAE-10 | 5/8" | 16.0 | 0.94" | 24 |
| SAE-12 | 3/4" | 19.0 | 1.09" | 28 |
| SAE-16 | 1" | 25.0 | 1.41" | 36 |
| SAE-20 | 1-1/4" | 31.5 | 1.79" | 45 |

Fraction Conversion Table

| Fractions | Decimal (in) | Metric (mm) |
|-----------|-----------------|----------------|
| 1/64 | 0.016" | 0.40 |
| 1/32 | 0.031" | 0.79 |
| | 0.039" | 1 |
| 3/64 | 0.047" | 1.19 |
| 1/16 | 0.063" | 1.59 |
| 5/64 | 0.078" | 1.98 |
| | 0.079" | 2 |
| 3/32 | 0.094" | 2.38 |
| 7/64 | 0.109" | 2.78 |
| | 0.118" | 3 |
| 1/8 | 0.125" | 3.18 |
| 9/64 | 0.141" | 3.57 |
| 5/32 | 0.156" | 3.97 |
| | 0.157" | 4 |
| 11/64 | 0.172" | 4.37 |
| 3/16 | 0.188" | 4.76 |
| | 0.197" | 5 |
| 13/64 | 0.203" | 5.16 |
| 7/32 | 0.219" | 5.56 |
| 15/64 | 0.234" | 5.95 |
| | 0.236" | 6 |
| 1/4 | 0.250" | 6.35 |
| 17/64 | 0.266" | 6.75 |
| | 0.276" | 7 |
| 9/32 | 0.281" | 7.14 |
| 19/64 | 0.297" | 7.54 |
| 5/16 | 0.313" | 7.94 |
| | 0.315" | 8 |
| 21/64 | 0.328" | 8.33 |
| 11/32 | 0.344" | 8.73 |
| | 0.354" | 9 |
| 23/64 | 0.359" | 9.13 |
| 3/8 | 0.375" | 9.53 |
| 25/64 | 0.391" | 9.92 |
| | 0.394" | 10 |
| 13/32 | 0.406" | 10.32 |
| 27/64 | 0.422" | 10.72 |
| | 0.433" | 11 |
| 7/16 | 0.438" | 11.11 |
| 29/64 | 0.453" | 11.51 |
| 15/32 | 0.469" | 11.91 |
| | 0.472" | 12 |
| 31/64 | 0.484" | 12.30 |
| 1/2 | 0.500" | 12.70 |
| | 0.512" | 13 |
| 33/64 | 0.516" | 13.10 |
| 17/32 | 0.531" | 13.49 |
| 35/64 | 0.547" | 13.89 |
| | 0.551" | 14 |
| 9/16 | 0.563" | 14.29 |
| 37/64 | 0.578" | 14.68 |
| | 0.591" | 15 |
| 19/32 | 0.594" | 15.08 |
| 39/64 | 0.609" | 15.48 |
| 5/8 | 0.625" | 15.88 |
| | 0.630" | 16 |
| 41/64 | 0.641" | 16.27 |
| 21/32 | 0.656" | 16.67 |
| | 0.669" | 17 |
| 43/64 | 0.672" | 17.07 |
| 11/16 | 0.688" | 17.46 |
| 45/64 | 0.703" | 17.86 |
| | 0.709" | 18 |
| 23/32 | 0.719" | 18.26 |
| 47/64 | 0.734" | 18.65 |
| | 0.748" | 19 |
| 3/4 | 0.750" | 19.05 |
| 49/64 | 0.766" | 19.45 |

| Fractions | Decimal (in) | Metric (mm) |
|-----------|-----------------|----------------|
| 25/32 | 0.781" | 19.84 |
| | 0.787" | 20 |
| 51/64 | 0.797" | 20.24 |
| 13/16 | 0.813" | 20.64 |
| 53/64 | 0.828" | 21.03 |
| 27/32 | 0.844" | 21.43 |
| 55/64 | 0.859" | 21.83 |
| 7/8 | 0.875" | 22.23 |
| 57/64 | 0.891" | 22.62 |
| 29/32 | 0.906" | 23 |
| 59/64 | 0.922" | 23.42 |
| 15/16 | 0.938" | 23.81 |
| 61/64 | 0.953" | 24.21 |
| 31/32 | 0.969" | 24.61 |
| 63/64 | 0.984" | 25 |
| 1 | 1" | 25.40 |
| 1 1/32 | 1.031" | 26.19 |
| 1 1/16 | 1.063" | 26.99 |
| 1 3/32 | 1.094" | 27.78 |
| 1 1/8 | 1.125" | 28.58 |
| 1 5/32 | 1.156" | 29.37 |
| | 1.181" | 30 |
| 1 3/16 | 1.188" | 30.16 |
| 1 7/32 | 1.219" | 30.96 |
| 1 1/4 | 1.250" | 31.75 |
| 1 9/32 | 1.281" | 32.54 |
| 1 5/16 | 1.313" | 33.34 |
| 1 11/32 | 1.344" | 34.13 |
| 1 3/8 | 1.375" | 34.93 |
| | 1.378" | 35 |
| 1 13/32 | 1.406" | 35.72 |
| 1 7/16 | 1.438" | 36.51 |
| 1 15/32 | 1.469" | 37.31 |
| 1 1/2 | 1.500" | 38.10 |
| 1 17/32 | 1.531" | 38.89 |
| 1 9/16 | 1.563" | 39.69 |
| | 1.575" | 40 |
| 1 19/32 | 1.594" | 40.48 |
| 1 5/8 | 1.625" | 41.28 |
| 1 21/32 | 1.656" | 42.07 |
| 1 11/16 | 1.688" | 42.86 |
| 1 23/32 | 1.719" | 43.66 |
| 1 3/4 | 1.750" | 44.45 |
| | 1.772" | 45 |
| 1 25/32 | 1.781" | 45.24 |
| 1 13/16 | 1.813" | 46.04 |
| 1 27/32 | 1.844" | 46.83 |
| 1 7/8 | 1.875" | 47.63 |
| 1 29/32 | 1.906" | 48.42 |
| 1 15/16 | 1.938" | 49.21 |
| | 1.969" | 50 |
| 1 31/32 | 1.969" | 50.01 |
| 2 | 2" | 50.80 |
| 2 1/32 | 2.031" | 51.59 |
| 2 1/16 | 2.063" | 52.39 |
| 2 3/32 | 2.094" | 53.18 |
| 2 1/8 | 2.125" | 53.98 |
| 2 5/32 | 2.156" | 54.77 |
| | 2.165" | 55 |
| 2 3/16 | 2.188" | 55.56 |
| 2 7/32 | 2.219" | 56.36 |
| 2 1/4 | 2.250" | 57.15 |
| 2 9/32 | 2.281" | 57.94 |
| 2 5/16 | 2.313" | 58.74 |
| 2 11/32 | 2.344" | 59.53 |
| | 2.362" | 60 |
| 2 3/8 | 2.375" | 60.33 |
| 2 13/32 | 2.406" | 61.12 |

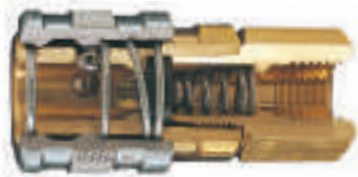
| Fractions | Decimal (in) | Metric (mm) |
|-----------|-----------------|----------------|
| 2 7/16 | 2.438" | 61.91 |
| 2 15/32 | 2.469" | 62.71 |
| 2 1/2 | 2.500" | 63.50 |
| 2 17/32 | 2.531" | 64.29 |
| | 2.559" | 65 |
| 2 9/16 | 2.563" | 65.09 |
| 2 19/32 | 2.594" | 65.88 |
| 2 5/8 | 2.625" | 66.68 |
| 2 21/32 | 2.656" | 67.47 |
| 2 11/16 | 2.688" | 68.26 |
| 2 23/32 | 2.719" | 69.06 |
| 2 3/4 | 2.750" | 69.85 |
| | 2.756" | 70 |
| 2 25/32 | 2.781" | 70.64 |
| 2 13/16 | 2.813" | 71.44 |
| 2 27/32 | 2.844" | 72.23 |
| 2 7/8 | 2.875" | 73.03 |
| 2 29/32 | 2.906" | 73.82 |
| 2 15/16 | 2.938" | 74.61 |
| | 2.953" | 75 |
| 2 31/32 | 2.969" | 75.41 |
| 3 | 3" | 76.20 |
| 3 1/32 | 3.031" | 76.99 |
| 3 1/16 | 3.063" | 77.79 |
| 3 3/32 | 3.094" | 78.58 |
| 3 1/8 | 3.125" | 79.38 |
| | 3.150" | 80 |
| 3 5/32 | 3.156" | 80.17 |
| 3 3/16 | 3.188" | 80.96 |
| 3 7/32 | 3.219" | 81.76 |
| 3 1/4 | 3.250" | 82.55 |
| 3 9/32 | 3.281" | 83.34 |
| 3 5/16 | 3.313" | 84.14 |
| 3 11/32 | 3.344" | 84.93 |
| | 3.346" | 85 |
| 3 3/8 | 3.375" | 85.73 |
| 3 13/32 | 3.406" | 86.52 |
| 3 7/16 | 3.438" | 87.31 |
| 3 15/32 | 3.469" | 88.11 |
| 3 1/2 | 3.500" | 88.90 |
| 3 17/32 | 3.531" | 89.69 |
| | 3.543" | 90 |
| 3 9/16 | 3.563" | 90.49 |
| 3 19/32 | 3.594" | 91.28 |
| 3 5/8 | 3.625" | 92.08 |
| 3 21/32 | 3.656" | 92.87 |
| 3 11/16 | 3.688" | 93.66 |
| 3 23/32 | 3.719" | 94.46 |
| | 3.740" | 95 |
| 3 3/4 | 3.750" | 95.25 |
| 3 25/32 | 3.781" | 96.04 |
| 3 13/16 | 3.813" | 96.84 |
| 3 27/32 | 3.844" | 97.63 |
| 3 7/8 | 3.875" | 98.43 |
| 3 29/32 | 3.906" | 99.22 |
| | 3.937" | 100 |
| 3 15/16 | 3.938" | 100.01 |
| 3 31/32 | 3.969" | 100.81 |
| 4 | 4" | 101.60 |
| 4 1/16 | 4.063" | 103.19 |
| 4 1/8 | 4.125" | 104.78 |
| 4 3/16 | 4.188" | 106.36 |
| 4 1/4 | 4.250" | 107.95 |
| 4 5/16 | 4.313" | 109.54 |
| | 4.331" | 110 |
| 4 3/8 | 4.375" | 111.13 |
| 4 7/16 | 4.438" | 112.71 |
| 4 1/2 | 4.500" | 114.30 |

| Fractions | Decimal (in) | Metric (mm) |
|-----------|-----------------|----------------|
| 4 9/16 | 4.563" | 115.89 |
| 4 5/8 | 4.625" | 117.48 |
| 4 11/16 | 4.688" | 119.06 |
| | 4.724" | 120 |
| 4 3/4 | 4.750" | 120.65 |
| 4 13/16 | 4.813" | 122.24 |
| 4 7/8 | 4.875" | 123.83 |
| 4 15/16 | 4.938" | 125.41 |
| 5 | 5" | 127.00 |
| | 5.118" | 130 |
| 5 1/4 | 5.250" | 133.35 |
| 5 1/2 | 5.500" | 139.70 |
| | 5.512" | 140 |
| 5 3/4 | 5.750" | 146.05 |
| | 5.906" | 150 |
| 6 | 6" | 152.40 |
| 6 1/4 | 6.250" | 158.75 |
| | 6.299" | 160 |
| 6 1/2 | 6.500" | 165.10 |
| | 6.693" | 170 |
| 6 3/4 | 6.750" | 171.45 |
| 7 | 7" | 177.80 |
| | 7.087" | 180 |
| | 7.480" | 190 |
| 7 1/2 | 7.500" | 190.50 |
| | 7.874" | 200 |
| 8 | 8" | 203.20 |
| 8 1/2 | 8.500" | 215.90 |
| 9 | 9" | 228.60 |
| 9 1/2 | 9.500" | 241.30 |
| | 9.843" | 250 |
| 10 | 10" | 254.00 |
| 11 | 11" | 279.40 |
| | 11.811" | 300 |
| 12 | 12" | 304.80 |
| 13 | 13" | 330.20 |
| | 13.780" | 350 |
| 14 | 14" | 355.60 |
| 15 | 15" | 381.00 |
| | 15.748" | 400 |
| 16 | 16" | 406.40 |
| 17 | 17" | 431.80 |
| | 17.717" | 450 |
| 18 | 18" | 457.20 |
| 19 | 19" | 482.60 |
| | 19.685" | 500 |
| 20 | 20" | 508.00 |

Quick Disconnects



Manual



Manual sockets require manual retraction of the sleeve to both connect and disconnect the plug. Ball Lock (BL) is an optional feature available on manual sockets. After connection, the sleeve is rotated locking the coupler against accidental disconnect.

Automatic



Automatic sockets accept the plug by simple insertion into the socket and do not require retraction of the sleeve to connect. Sleeve Lock (SL) is an optional feature on automatic sockets to prevent accidental disconnect. It is functionally the same as the Ball Lock (BL) on manual sockets.

Safety Coupler



Safety sockets are a variation of automatic operation. The socket accepts the plug by insertion. The sleeve is moved straight forward to lock and turn on the air. The sleeve is moved back by rotating first to the left and then to the right. This shuts off the supply line, exhausts the downstream line, and then releases the plug.

One-Way Shut-Off



In a "One-Way Shut-Off," only the socket has valving to shut off the flow when disconnected; it is, therefore, installed on the pressure side of the line. The plug has no valving and exhausts the downstream line at disconnect.

Two-Way Shut-Off



The "Two-Way Shut-Off" provides valving in both the socket and the plug, thereby shutting off flow at both of the disconnected ends. Originally developed for hydraulic lines, they are suitable for many other media because of the variety of metals and seal compounds offered.

Straight-Thru



"Straight-Thru" couplers, as the name implies, do not have valving in either the socket or the plug. Therefore, both ends of the line are exhausted at disconnect.

How To Select – Proper quick disconnects selection is important because of the variety of media for which they are used. Four basic factors should be considered to assure proper selection: **Type – Operation – Flow – Media**

Type – All quick disconnects consist of two basic components – a socket and a plug. The type of coupler varies by the valving arrangements in these two components.

Operation: Operation refers to the action required to connect and disconnect a coupler. Operation is a function of sockets only and does not vary for plugs.

Flow: The most important factor in properly sizing couplers is flow. Flow data is given throughout the catalog for industrial interchange design couplers, as well as many of Foster's interchanges for competitors' non-standard designs. Where

flow information is not shown, it is the same as the originating competitors' non-standard design. Most One-Way Shut-Off non-standard couplers have the same flow as the same basic size industrial interchange design. All flows shown are for FPT couplers.

Media: The media flowing through the coupler will usually determine the type. Compressed air, many other gasses, and some liquids can be handled by One-Way Shut-Off couplers. Hydraulic fluids as well as many other liquids and some gasses require Two-Way Shut-Off. Straight-Thru couplers are suitable where there is no pressure in the line at connect or disconnect and loss of media at disconnect does not matter.

Call ZSi-Foster at (866) 918-3003 or order now at zsi-foster.com



Think Safety First

Pressurized lines employing quick-disconnect couplers should be considered potentially hazardous and **must be used with safety in mind**. Proper selection and use of Foster products will help you maintain a safe working environment for your personnel, your equipment, and your products.

Foster's quick-disconnect couplers are precision devices—do not modify, strike, or otherwise abuse the coupling halves. Never exceed their pressure or temperature limits and always protect the hose and coupler assembly from moving equipment.

Be cautious when moving pressurized hoses as some types of quick-disconnect couplers may unintentionally disconnect if the coupler encounters an obstacle as the hose is dragged. The pressurized media subsequently escaping from the freed line can force the hose assembly to violently whip about, possibly causing personal injury, equipment/product damage, and economic loss. Foster couplers and plugs designed to

minimize hose-whip hazards should be used whenever the risk is present, and personnel must be instructed to maintain a firm grip on both coupler halves when connecting or disconnecting pressurized lines.

Above all, always wear appropriate personal-protection equipment and safety glasses when working with, or near, pressurized lines utilizing quick-disconnect couplers.

Described below are several products offered by Foster Manufacturing Company that are designed to minimize the possibility of inadvertent disconnection and dangerous hose-whip:

- Couplers -

Sleeve Guard Sockets:

Sleeve guard sockets (models SG3 and TF3) employ a rigid flange at the nose of the socket that protects the sleeve from accidental retraction if the coupler encounters an obstacle while the hose is being dragged or moved.

Sleeve Locking Options:

BL and SL options employ a ball or pin to restrict sleeve retraction and are available on all Foster manual and automatic couplers having retractable sleeves. Couplers with the BL or SL designation are constructed with sleeves having a slot that must be aligned with a ball or pin before the sleeve is allowed to retract. Rotating the sleeve 180 degrees so the slot is not aligned with the ball or pin will minimize the chance of accidental sleeve retraction.

Twist-lock Sockets:

Our twist-lock couplers (FRL series and SHD series) offer another option for minimizing the chance of hose-whip. These models are very resistant to accidental disconnection because the sleeves must be rotated, rather than retracted, to release the plug. In addition, the FRL and SHD couplers are push-to-connect automatic models designed for easy operation when using gloved hands.

Safety Vent Sockets:

Foster SV series safety-vent sockets are "zero pressure" connect/disconnect type couplers designed to safely vent downstream pressure prior to disengaging the plug. Besides being nearly effortless to connect and great for hose use, SV sockets are especially useful for single-hand operation when they are mounted to hard lines such as an overhead air drop. Once inserted into the SV socket, the plug is lightly gripped and will stay in place allowing the operator to use the same hand to actuate the sleeve to the "on" position. As the sleeve is being moved to the "on" position, the SV socket will securely lock the plug in place before flow begins. Foster SV sockets can also be used as a 3-way valve to turn off the flow of air and exhaust the downstream pressure without disengaging the plug. By turning and sliding the sleeve to the "exhaust" position, downstream air pressure is relieved, but the plug remains locked in place. Foster SV series sockets are the ultimate solution to accidental-disconnect hose-whip dangers.

- Plugs -

Ball Check Plugs

Ball check plugs are offered in several sizes of Industrial Interchange and FRL plugs. Ball-check plugs have a free-floating internal ball that acts as a check valve when the plug is disconnected from the coupler. The check-valve action minimizes hose-whip by causing the pressurized gas to escape slowly from the disconnected hose.

- Air Blowguns -

Foster manufactures several types of air blowgun products designed for cleaning, blow-off, inflation, and other operations. The blowguns are available with zinc or nylon bodies and we offer a variety of optional tips for nearly any use. Foster blowguns are available in OSHA* compliant and non-compliant** models to suit your particular needs.

** Blowguns that comply with OSHA regulations will limit the pressure of air exiting the gun to less than 30 psig when the tip is dead-headed. All Foster blowguns using "standard" and "safety" tips are OSHA compliant and are available with either removable threaded tips or tamper resistant crimped tips.*

*** Note: If a non-compliant blowgun/tip assembly is being used, air pressure to the gun's inlet must be regulated to less than 30 psig to meet OSHA regulations.*

- Product Selection and Training -

We strongly recommend that the end user obtain proper training before using quick-disconnect couplers, air blowguns, and other Foster products. Thoughtful analysis of the user's needs and application must be given before selecting a product.

Our dedicated employees and distributors are eager to explain the features, benefits, and proper selection of Foster products, and answer your questions regarding their correct application and safe use.



Be Safe When Selecting Quick Couplings!

! Quick disconnect couplings can fail without warning! Prior to the operation of quick coupling products, be sure to inspect and replace worn out fittings and safety devices. If a leak is detected during operation, release the pressure from the circuit before investigating the cause of the fluid leak. Do not use your fingers or skin to check for leaks, high pressure leaks of fluids can easily penetrate the skin and can cause serious injury or death.

Safe Quick Coupling Practices

- !** 1. Always wipe the coupling cavities and faces clean before connecting a coupling.
- 2. Connect coupling before installation to ensure that it works properly.
- 3. Always check the body seals before connecting a coupling.
- 4. Shut-off power source before connecting a coupling.
- 5. Always install a safety check valve on a pneumatic line and/or compressor.
- 6. Always use a safety cable on large air lines (½" lines and larger).
- 7. Always use a whip hose on hydraulic or air tools.
- 8. Use dust caps or plugs when couplings are not in use.
- 9. If the locking sleeve is inoperable, check the safety lock.
- 10. Wear eye protection while connecting or disconnecting a coupling.
- 11. Connect and disconnect at zero pressure for personal safety and maximum product life.

Unsafe Quick Coupling Practices

- !** 1. Never hit coupling valves to release trapped pressure.
- 2. Never leave couplings in the path of moving equipment.
- 3. Never use couplings near a welder, flash heat, or fire / flame sources.
- 4. Never use API modified sealants or over apply PTFE tape during installation.
- 5. Use care if you must install quick couplings onto black iron pipe.
- 6. Never hit a coupling sleeve with a hammer or blunt object.
- 7. Never overtighten a coupling connection.
- 8. Never rotate a quick disconnect coupling under pressure.
- 9. Do not overpressurize quick disconnect couplings.
- 10. Never use a hose with a quick disconnect coupling to lift a tool.

OSHA Regulations Ensure Operator Safety



Safety Cables



Safety Check Valves

Standard - 29 CFR, 1926.302 (partial):

(b)(1) Pneumatic power tools shall be secured to the hose or whip by some positive means to prevent the tool from becoming accidentally disconnected.

(b)(2) Safety Clips or retainers shall be securely installed and maintained on pneumatic impact (percussion) tools to prevent attachments from being accidentally expelled.

(b)(4) Compressed air shall not be used for cleaning purposes except where reduced to 30 PSI and then only with effective chip guarding and personal protective equipment which meets the requirements of Subpart E of this part. The 30 PSI requirement does not apply for concrete form, mill scale, and similar cleaning purposes.

(b)(5) The manufacturer's safe operating pressure for hoses, pipes, valves, filters and other fittings shall not be exceeded.

(b)(6) The use of hoses for hoisting or lowering tools shall not be permitted.

(b)(7) All hoses exceeding ½" inside diameter shall have a safety device at the source of supply or branch line to reduce pressure in case of hose failure.

Standard - 29 CFR, 1926.603 (partial):

(a)(9) Steam hose leading to a steam hammer or jet pipe shall be securely attached to the hammer with an adequate length of at least ¼" diameter chain or cable to prevent whipping in the event the joint at the hammer is broken. Air hammer hoses shall be provided with the same protection as required for steam lines.

(a)(10) Safety chains, or equivalent means, shall be provided for each hose connection to prevent the line from thrashing around in case the coupling becomes disconnected.





Canadian Registration Number (CRN) Certification

The following product series have Canadian Registration Numbers:
FHK (ISO B), FST (straight-thru), and pneumatic industrial interchange (2-6 One-Way Shut-off).

Ontario Province – CRN No. 0H20062.5

Quebec Province – CRN No. 0H20062.56

British Columbia Province – CRN No. 0H20062.51

Saskatchewan Province – CRN No. 0H20062.56

Maritimes Province – CRN No. 0H20062.59870YTN

For questions please contact either your Regional Sales Manager (RSM) or Customer Service at 866-918-3003.



Pneumatic Quick Disconnects



Pneumatic QD Selection Chart

| Foster / Breco Coupling Series | Page | Coupling Style | | | | Interchange | | | | | | | Body Size | | | | | Body Material | | | | Locking | | | Flow Type | | |
|-----------------------------------|---------|----------------|-----------|------|--------|-------------|------------|-------------------|----------------------------------|--------------|----------|-----------|-----------|------|------|------|------|---------------|----------|-------|-------|-----------------|-----------|----------------------|-------------|------------------|------------------|
| | | Manual | Automatic | Push | Safety | ARO | Industrial | Lincoln Long Nose | DME, Jiffy-Tite, Parker Moldmate | Eaton Hansen | Schrader | Tru-Flate | Rectus 21 | 1/8" | 1/4" | 3/8" | 1/2" | 3/4" | Aluminum | Brass | Steel | Stainless Steel | Ball Lock | Stainless Steel Pins | Sleeve Lock | One-Way Shut-Off | Two-Way Shut-Off |
| Series 2 | 266-268 | ◆ | | | | | ◆ | | | | | | | ◆ | | | | | ◆ | ◆ | ◆ | ◆ | | | ◆ | | ◆ |
| Series 3 & B,C,D | 269-275 | ◆ | ◆ | | | | ◆ | | | | | | | | ◆ | | | | ◆ | ◆ | ◆ | ◆ | ◆ | ◆ | ◆ | ◆ | ◆ |
| Series 4 & B,C,D | 276-280 | ◆ | ◆ | | | | ◆ | | | | | | | | | ◆ | | | ◆ | ◆ | ◆ | ◆ | ◆ | ◆ | ◆ | ◆ | ◆ |
| Series 5 & B,C,D | 281-286 | ◆ | ◆ | | | | ◆ | | | | ◆ | | | | | | ◆ | | ◆ | ◆ | ◆ | ◆ | ◆ | ◆ | ◆ | ◆ | ◆ |
| Series 6 & B | 287-288 | | ◆ | | | | ◆ | | | | | | | | | | ◆ | | ◆ | ◆ | | ◆ | ◆ | ◆ | ◆ | ◆ | ◆ |
| 210 & O | 289-290 | ◆ | ◆ | | | ◆ | | | | | | | | | ◆ | | | | ◆ | ◆ | ◆ | ◆ | ◆ | | ◆ | | |
| 310 & O | 291-292 | ◆ | ◆ | | | ◆ | | | | | | | | | | ◆ | | | ◆ | ◆ | ◆ | ◆ | ◆ | | ◆ | | |
| TF & J | 293-296 | | ◆ | | | | | | | | ◆ | | | | ◆ | ◆ | ◆ | | ◆ | ◆ | | | | | ◆ | | |
| SHD & TL | 297-299 | | ◆ | | | | | | | ◆ | | | | | ◆ | | ◆ | ◆ | ◆ | | | | | | ◆ | | |
| O60-A70 | 300-301 | ◆ | | | | | | | ◆ | | | | | | ◆ | | | | ◆ | | | ◆ | | | ◆ | | |
| FRL | 302-303 | | ◆ | | | | | | ◆ | | | | | | ◆ | ◆ | | | | ◆ | | | | | ◆ | | |
| LN & L | 304-305 | ◆ | ◆ | | | | ◆ | | | | | | | | ◆ | | | | ◆ | ◆ | | | ◆ | | ◆ | | |
| F180 | 306 | ◆ | | | | | | | ◆ | | | | | ◆ | | | | | ◆ | | | | | | ◆ | | |
| DR | 307 | | ◆ | | | | | | | | | ◆ | | ◆ | | | | | ◆ | | | | | | ◆ | | |
| U | 308 | | ◆ | | | ◆ | ◆ | | | | ◆ | | | | ◆ | | | | ◆ | ◆ | | | | | ◆ | | |
| USV | 309 | | | | ◆ | ◆ | ◆ | | | | ◆ | | | | ◆ | | | | | ◆ | | | | | ◆ | | |
| SV | 310-313 | | | | ◆ | | ◆ | | | | | | | | ◆ | ◆ | ◆ | ◆ | | ◆ | | | | | ◆ | | |
| Push Buttons | 314 | | | ◆ | ◆ | | ◆ | | | | | | | | ◆ | | | | | ◆ | | | | | ◆ | | |
| Safety 210 | 314 | | | | ◆ | ◆ | | | | | | | | | ◆ | | | | | ◆ | | | | | ◆ | | |
| FJT | 315-322 | ◆ | | | | | | ◆ | | | | | | | ◆ | ◆ | ◆ | | ◆ | ◆ | | ◆ | | | ◆ | ◆ | ◆ |

CAUTION: It is important that users of the Quick Release Couplers read the safety guidelines on pages 262 - 263. Improper use of products can lead to severe injury and damage to equipment.

Call ZSi-Foster at (866) 918-3003 or order now at zsi-foster.com



One Way Shut-Off – Series 2 thru 6

(Industrial Interchange)

Type: One Way Shut-Off – Socket is valved, shutting off supply line at disconnect. Plug is un-valved, exhausting downstream line at disconnect. Install socket on pressure side of line.

Interchangeability: Standard industrial interchange design, most widely used in industry. 3 and 5 Series Automatic water service comply with A-A-59439 (formerly MIL-C-4109F). 3-4-5-6 SERIES MEET ISO 6150-B, ANSI(NFPA)T3.20.14-1990. IN ADDITION, SV SOCKETS MEET ISO 4414.

Rated Pressure: 300 PSIG; Vacuum to 27" Hg (connected)
Contact Foster for higher pressure applications.

Manual: Socket sleeve must be manually retracted to connect and disconnect.

- Low cost, general purpose coupler
- Positive locking mechanism
- 65% more ball retention
- Precision leak-proof seal and heavy steel sleeve.

Automatic: Inserting the plug into the socket automatically retracts the sleeve to connect. Manually retract the sleeve to disconnect.

- One hand operation
- One piece sleeve with rear crimp
- Precision leak-proof seal
- Long wearing pin type locking mechanism
- Greater plug contact

Features:

- High flow capability for small coupler
- Precision leak-proof seal
- Positive locking mechanism
- Sockets other than standard have color coded seals:
Water (Blue), Steam (Black), Silicon (White), and Heat (Red)

Safety: To connect, insert plug and pull sleeve forward. To disconnect, push sleeve back while rotating first counter clockwise and then clockwise. As sleeve goes back, supply line is shut off, downstream line is exhausted, and plug is released. Remove plug.

- 100% safety
- Connect and disconnect at "0" pressure
- Plug locked before air is turned on and downstream line is exhausted before plug is released, completely eliminating hose whip
- Tested to 1,000,000 operations with no leakage
- Special lubrication eliminates dry breakaway

Connection Sizes:

- 1/8" to 1" NPT
- 1/8" to 1" Hose Barb (Hose clamp required. See page 200 for Python hose clamps)
- 1/4" to 1/2" Push-on Hose Barb (Clamps not required when used with Push-On Hose. See page 369 for Push-On Hose)

Options:

Ball Lock (BL) – Locks manual socket against accidental disconnect. To connect, align ball with slot. After connection, rotate sleeve to lock. To disconnect, realign ball with slot and retract sleeve.

Sleeve Lock (SL) – Locks automatic socket against accidental disconnect. To connect, align notch with slot. After connection, rotate sleeve to lock. To disconnect, realign notch with slot and retract sleeve.

BALL CHECK PLUG – Eliminates hose-whip at disconnect by checking the rapid flow of downstream exhaust air.

SWIVEL PLUGS – Free swivel under pressure. Eliminates hose twist on end drop applications such as blow guns, air tools, etc.

Performance Data:

| Foster Series | Body Size | Psig Rated Pressure, Coupled (Body / Sleeve) | | | | Pressure Drop | | | | | |
|---------------|-----------|--|---------------|---------------|-------------|----------------|--------|---------|--------|-------------|--------|
| | | | | | | Air Flow – CFM | | | | Water Flow | |
| | | | | | | 100 PSIG | | 80 PSIG | | GPM 60 PSIG | |
| | | Brass / Steel | Brass / Brass | Steel / Steel | S.S. / S.S. | 10 PSIG | 5 PSIG | 10 PSIG | 5 PSIG | 10 PSIG | 5 PSIG |
| Series 2 | 1/8" | 300* | 300* | n/a | 300* | 16 | 12 | 14 | 11 | 1.8 | 1.2 |
| Series 3 | 1/4" | 300* | 300* | 300 | 300* | 36 | 26 | 33 | 24 | 3.7 | 2.5 |
| Series 4 | 3/8" | 300* | 300 | 300 | 300* | 68 | 50 | 62 | 45 | 6.8 | 5 |
| Series 5 | 1/2" | 300* | 300 | 300 | 300* | 118 | 90 | 107 | 82 | 11 | 8 |
| Series 6 | 3/4" | 300 | 300 | 300 | n/a | 190 | 135 | 172 | 122 | 22 | 16 |

* Contact factory for higher pressure applications.



One Way Shut-Off – Series 2 thru 6



(Industrial Interchange)

Features:

- High flow metal valves.
- Precision molded seals form a "bubble tight" seal for reliable operation within rated working pressures. Nitrile (Buna-N) seals are standard. EPDM, Viton and Neoprene seals are available as options.
- Proven ball locking mechanism with large numbers of stainless steel locking balls evenly distribute the load to resist wear and provide positive connections and allow a swiveling action to reduce hose torque.
- **Integral sleeve guard protects the sleeve and resists accidental disconnects for the "SG" series.**
- Knurling and/or grooves on the sleeve provide a gripping surface for ease of operation.
- Wide range of body sizes, materials, options and end terminations are available to meet specific needs.
- Accepts Industrial Interchange Plug.



Operation: Sleeve type couplings are widely used to connect air and low pressure fluid lines. Their compact and economical design uses a ball locking mechanism consisting of captive stainless steel balls that engage the locking groove on the mating plug. The sliding spring loaded sleeve on the socket must be manually retracted in order to connect or disconnect the plug.

Material: Brass body and socket end, zinc-plated steel sleeve

Working Pressure: 300 PSIG; vacuum to 27" Hg

Interchangeability: Complies with ANSI/NFPA T3.20.14-1990 & ISO 6150-B

| Specifications | Body Size | | |
|--------------------------------|-----------------------|------|------|
| | 1/4" | 3/8" | 1/2" |
| Rated Pressure (psig) | 300 | 300 | 300 |
| Temp. Range (Buna-N Seal) | -40° to +250° F | | |
| Locking Device | Stainless Steel Balls | | |
| Vacuum Data (inches Hg) | | | |
| -- Disconnected (coupler only) | Not Recommended | | |
| -- Connected | 27.4 | 27.4 | 27.4 |
| Approximate CFM at 100 (psi) | 37 | 70 | 150 |

Pneumatic QD

Hydraulic QD

Blow Guns & Accessories


Fittings & Accessories


Hoses & Fittings

Technical Data

Indexes

2 Series 1/8" Sockets - Foster

| Female Thread |  | Part No. | FPT | Description |
|---------------|---|-----------|------|---------------------------------------|
| | | 2302 | 1/8" | Brass/Steel |
| | | BL2302 | | Ball Lock |
| | | 2302H | | Brass/Steel For Heat, Viton Seal |
| | | 2302HW | | Brass/SS For Hot Water, Viton Seal |
| | | 2302S/S | | 303 Stainless |
| | | BL2302S/S | | Ball Lock, 303 Stainless |
| | | 2302S/SH | | 303 Stainless For Heat, Viton Seal |
| | | 2302W | | Brass/SS For Water, Buna-N Seal |
| | | 2702 | 1/4" | Brass/Steel |
| | | BL2702 | | Ball Lock |
| | | 2702H | | Brass/Steel For Heat, Viton Seal |
| | | 2702HW | | Brass/SS For Hot Water, Viton Seal |

| Male Thread |  | Part No. | MPT | Description |
|-------------|--|-----------|------|-------------------------------------|
| | | 2202 | 1/8" | Brass/Steel |
| | | BL2202 | | Ball Lock |
| | | 2202S/S | | 303 Stainless |
| | | BL2202S/S | | Ball Lock, 303 Stainless |
| | | 2202H | | For Heat, Viton Seal |
| | | 2202S | | For Steam, Brass/SS, EPDM Seal |
| | | 2202W | | For Water, Brass/SS, Buna-N Seal |
| | | 2402 | 1/4" | Brass/Steel |
| | | BL2402 | | Ball Lock |
| | | 2402H | | For Heat, Viton Seal |

Brand - Designates **F**=Foster or **B**=Breco Part

ZSi-Foster Engineering Catalog

See page 380 for full size templates

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WARNING: These products can expose you to chemicals including lead, which is known to the State of California to cause cancer, and which is known to cause birth defects or other reproductive harm. For more information go to www.P65Warnings.ca.gov.




1/8" One Way Shut-Off – 2 Series

(Industrial Interchange)


2 Series 1/8" Sockets - Foster


Hose Stem




| Part No. | I.D. | Description |
|----------|-------|--|
| 2022 | 1/8" | Brass/Steel |
| BL2022 | | Ball Lock |
| 2022W | | For Water, Brass/SS, Buna-N Seal |
| 2032 | 3/16" | Brass/Steel |
| BL2032 | | Ball Lock |
| 2032HW | | For Hot Water, Brass/SS, Viton Seal |
| 2032S | 1/4" | For Steam, Brass/SS, EPDM Seal |
| 2042 | | Brass/Steel |
| BL2042 | | Ball Lock |
| 2042HW | | For Hot Water, Brass/SS, Viton Seal |


Requires Hose Clamp (See page 200 for typical hose clamps)


| Plastic and Metal Tubing |  | Part No. | Size | Description |
|--------------------------|--|----------|--------------|-------------------------|
| | | SJ8-2 | .170" x 1/4" | Plastic |
| | | BLSJ8-2 | | Ball Lock, 1/4" Plastic |
| | | SJ8-2M | 1/4" | Soft Metal |
| | | BLSJ8-2M | | Ball Lock, Soft Metal |
| | | SJ8-2S/S | | 303 Stainless |


| Plastic & Metal Tubing Panel Mount |  | Part No. | Size | Description |
|------------------------------------|--|-----------|--------------|-----------------------|
| | | SJ8P-2 | .170" x 1/4" | Plastic |
| | | BLSJ8P-2 | | Ball Lock, Plastic |
| | | SJ8P-2HW | | Plastic for Hot Water |
| | | SJ8P-2W | | Plastic, for Water |
| | | SJ8P-2M | 1/4" | Soft Metal |
| | | BLSJ8P-2M | | Ball Lock, Soft Metal |

2 Series 1/8" Plugs - Foster

| Female Thread |  | Part No. | FPT | Description |
|---------------|---|----------|------|-------------|
| | | 23-2 | 1/8" | Steel |
| | | 27-2 | 1/4" | |

| Male Thread |  | Part No. | MPT | Description |
|-------------|---|----------|------|---------------|
| | | 22-2 | 1/8" | Steel |
| | | 22-2B | 1/8" | Brass |
| | | 22-2S/S | 1/8" | 303 Stainless |
| | | 24-2 | 1/4" | Steel |

| Hose Stem |  | Part No. | I.D. | Description |
|-----------|---|--|-------|-------------|
| | | 02-2 | 1/8" | Steel |
| | | 03-2 | 3/16" | |
| | | 04-2 | 1/4" | |
| | | Requires Hose Clamp (See page 200 for typical hose clamps) | | |

| Plastic and Metal Tubing |  | Part No. | Size | Description |
|--------------------------|--|----------|---------------|-------------------------------|
| | | PJ8-2 | 0.170" x 1/4" | Plastic |
| | | PJ8-2V | 0.170" x 1/4" | Plastic - Valve Core Brass |
| | | PJ8-2VLV | 0.170" x 1/4" | Plastic - Less Valve |
| | | PJ8-2M | 1/4" | Soft Metal |
| | | PJ8-2S/S | 1/4" | Stainless Steel |
| | | PJ8-2VM | 1/4" | Soft Metal - Valve Core Brass |



One Way Shut-Off – 3 thru 6 & B, C, D Series



(Industrial Interchange)

Foster 3 thru 6 Series couplers are designed for rigid mounting that allows a simple push-to-connect operation, constructed of a solid brass body and a steel valve. The "FM" Series are mechanically interchangeable with similar industrial interchange couplings made by other manufacturers and accept plugs that conform to MIL-C4109-F. Plugs used with the "FM" Series are the Industrial Interchange plugs that are found on pages 275, 280, 286, and 288 of this catalog. FM Series 3 and 5 couplers comply with A-A-59439.

Sleeve-Lock Option:

Sleeve-Lock feature locks automatic socket against accidental disconnect. To connect, align ball with slot. After connection, rotate sleeve to lock. To disconnect, realign ball with slot and retract sleeve. Sizes available with sleeve lock are shown in the tables on following pages.



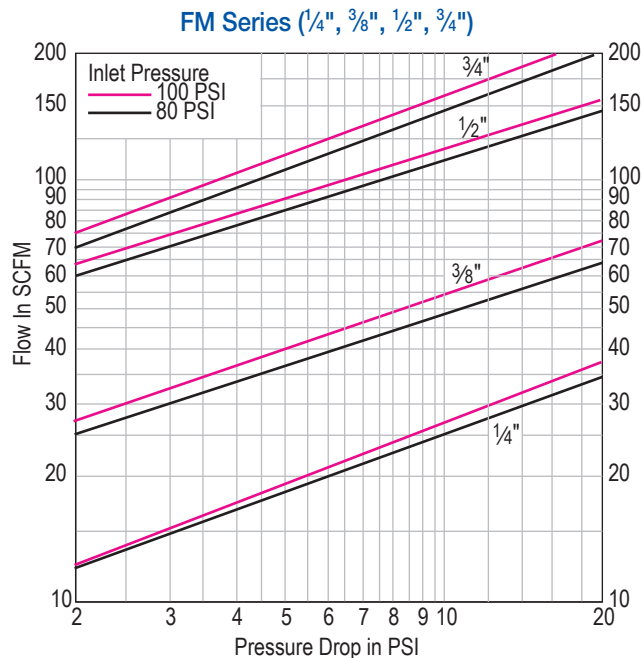
| Specifications | Body Size | | | |
|--------------------------------|----------------------------|--------|--------|--------|
| | 1/4" | 3/8" | 1/2" | 3/4" |
| Rated Pressure (psig) | 300 PSIG; vacuum to 27" Hg | | | |
| Temperature Range (std seals) | -40° to +250° F | | | |
| Locking Device | 3 pins | 4 pins | 6 pins | 6 pins |
| Vacuum Data | | | | |
| -- Disconnected (coupler only) | Not Recommended | | | |
| -- Connected | 27" Hg | | | |
| Approximate CFM at 100 (psig) | 37 | 70 | 150 | 190 |

Optional Seal [Ordering]:

Buna-N seal is standard. Alternate seals are specified by adding the appropriate suffix to the catalog number. For example, 3003 socket with Heat Adder is 3003H

| Service | Construction | Seal | Temperature | Suffix |
|----------------------------|---|--------------------|----------------|--------|
| Air, Vacuum, Grease, & Oil | Brass & Steel | Buna-N | -40° to +250°F | none |
| Water | Brass & S/S | Buna-N | +32° to +100°F | W |
| Hot Water | Brass & S/S | Viton | -15° to +400°F | HW |
| Steam | Brass Body, Brass Sleeve, & Stainless Steel Valve | Ethylene Propylene | -40° to +300°F | S |
| Heat | Brass & Steel | Viton | -15° to +400°F | H |
| Less Valve | Brass & Steel | Buna-N | -40° to +250°F | LV |
| Dill Valve Series 3 Only | Brass & Steel | Buna-N | -40° to +250°F | D |

Performance:







1/4" One Way Shut-Off – 3 & C Series


(Industrial Interchange)


3 & C Series 1/4" 1-Way Manual Sleeve Guard Sockets


| Female Thread |  | Part No. | Brand | FPT | Description |
|---------------|---|-----------|----------|------|-------------------|
| | | SG2803 | F | 1/8" | Brass |
| | | SG3003 | F | 1/4" | |
| | | B-2CF2-B | B | 1/4" | |
| | | SG3003LV | F | 1/4" | Brass, less Valve |
| | | B-2CF2-SS | B | 1/4" | Stainless Steel |
| | | SG3203 | F | 3/8" | Brass |
| | | B-2CF3-B | B | 3/8" | |

| Male Thread |  | Part No. | Brand | MPT | Description |
|-------------|---|-----------|----------|------|--------------------|
| | | SG2903 | F | 1/8" | Brass |
| | | SG3103 | F | 1/4" | |
| | | B-2CM2-B | B | 1/4" | |
| | | SG3103D | F | 1/4" | Brass w/Dill Valve |
| | | B-2CM2-SS | B | 1/4" | Stainless Steel |
| | | SG3303 | F | 3/8" | Brass |
| | | B-2CM3-B | B | 3/8" | |

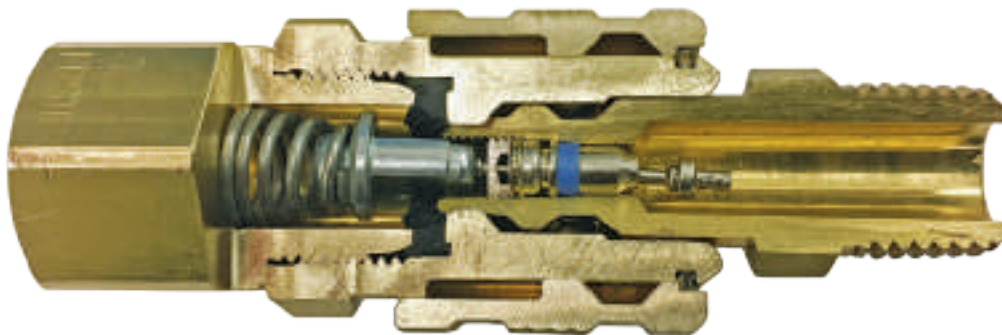
Sockets with modified valves are recommended for use with valve core plugs.
Suffix-D to socket Cat. No.

| Hose Stem |  | Part No. | Brand | I.D. | Description |
|--|---|-----------|----------|-------|-------------|
| | | SG3603 | F | 1/4" | Brass |
| | | B-2CS2-B | B | | |
| | | B-2CS25-B | B | 5/16" | |
| | | SG3703 | F | 3/8" | |
| | | B-2CS3-B | B | | |
| Requires Hose Clamp (See page 200 for typical hose clamps) | | | | | |

| Push-On Hose Stem |  | Part No. | Brand | I.D. | Description |
|-------------------|---|---|----------|------|-------------|
| | | SG1513 | F | 1/4" | Brass |
| | | B-2CPS2-B | B | | |
| | | SG1713 | F | 3/8" | |
| | | B-2CPS3-B | B | | |
| | | Hose clamps not required when used with "Push On" hose. See page 369. | | | |

| Reusable Hose Fittings |  | Part No. | Brand | I.D. | Description |
|---------------------------|---|----------|----------|-------|-------------------------|
| | | B-2CE2-B | B | 1/2" | Brass w/Brass Sleeve |
| | | B-2CG2-B | | 9/16" | |
| | | B-2CH2-B | | 5/8" | |

Sockets with modified valves require a plug with a dill valve.



Sockets with modified valves (Dill Valve)

Brand - Designates **F**=Foster or **B**=Breco Part

See page 380 for full size templates

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WARNING: These products can expose you to chemicals including lead, which is known to the State of California to cause cancer, and which is known to cause birth defects or other reproductive harm. For more information go to www.P65Warnings.ca.gov.


1/4" One Way Shut-Off – 3 & D Series

(Industrial Interchange)



3 & D Series 1/4" 1-Way Manual Sockets

| Female Thread |  | Part No. | Brand | FPT | Description | |
|---------------|---|-----------|----------|-----------------------------|---|-------------|
| | | 2803 | F | 1/8" | Brass/Steel | |
| | | D320 | B | | | |
| | | BL2803 | F | | Ball Lock | |
| | | D320BL | B | | | |
| | | 2803H | F | | Steel, For Heat, Viton Seal | |
| | | 2803S | | | Brass/SS, For Steam, EPDM Seal | |
| | | 2803S/S | | | 303 Stainless | |
| | | BL2803S/S | | | Ball Lock, 303 Stainless | |
| | | 2803W | | | Brass/SS, For Water, Buna-N Seal | |
| | | 3003 | F | 1/4" | Brass/Steel | |
| | | D340 | B | | | |
| | | BL3003 | F | | Ball Lock | |
| | | D340BL | B | | | |
| | | 3003D | F | | w/Dill Valve | |
| | | 3003H | | | Steel, For Heat, Viton Seal | |
| | | 3003HW | | | Brass/SS, For Hot Water, Viton Seal | |
| | | 3003LV | | | Steel, Less Valve | |
| | | 3003S | | | Brass/SS, For Steam, EPDM Seal | |
| | | 3003S/S | | | 303 Stainless | |
| | | BL3003S/S | | | Ball Lock, 303 Stainless | |
| | | 3003S/SH | | | 303 Stainless, For Heat, Viton Seal | |
| | | 3003W | | | Brass/SS, For Water, Buna-N Seal | |
| | | BL3003W | | | Brass/SS, Ball Lock, For Water, Buna-N Seal | |
| | | 3203 | F | | 3/8" | Brass/Steel |
| | | D360 | B | | | |
| | | BL3203 | F | | | Ball Lock |
| | | D360BL | B | | | |
| | | 3203H | F | Steel, For Heat, Viton Seal | | |
| | | 3203LV | | Steel, Less Valve | | |
| | | 3203S/S | | 303 Stainless | | |
| | | BL3203S/S | | Ball Lock, 303 Stainless | | |
| | | 3203S/SLV | | Less Valve, 303 Stainless | | |
| 3203W | Brass/SS, For Water, Buna-N Seal | | | | | |

| Male Thread |  | Part No. | Brand | MPT | Description |
|-------------|---|---------------|----------|------|---|
| | | 2903 | F | 1/8" | Brass/Steel |
| | | D321 | B | | |
| | | BL2903 | F | | Ball Lock |
| | | D321BL | B | | |
| | | 2903H | F | | Steel, For Heat, Viton Seal |
| | | 2903S | | | Brass/SS, For Steam, EPDM Seal |
| | | 2903S/S | | | 303 Stainless |
| | | BL2903S/S | | | Ball Lock, 303 Stainless |
| | | 3103 | F | 1/4" | Brass/Steel |
| | | D341 | B | | |
| | | BL3103 | F | | Brass/Steel, Ball Lock |
| | | D341BL | B | | |
| | | 3103D | F | | Brass/Steel, w/Dill Valve |
| | | 3103H | | | Brass/Steel, For Heat, Viton Seal |
| | | 3103LV | | | Brass/Steel, Less Valve |
| | | 3103S | | | Brass/SS, For Steam, EPDM Seal |
| | | 3103S/S | | | 303 Stainless |
| | | BL3103S/S | | | Ball Lock, 303 Stainless |
| | | BL3103S/S-104 | | | Ball Lock, 303 Stainless, w/Silicone Seal |
| | | 3103S/SH | | | 303 Stainless, For Heat, Viton Seal |
| | | 3103S/SLV | | | 303 Stainless, Less Valve |
| | | 3103W | | | Brass/SS, For Water, Buna-N Seal |
| | | BL3103W | | | Ball Lock, For Water, Brass/SS, Buna-N Seal |
| | | 3303 | F | 3/8" | Brass/Steel |
| | | D361 | B | | |
| | | BL3303 | F | | Ball Lock |
| | | D361BL | B | | |
| | | 3303H | F | | Steel, For Heat, Viton Seal |
| | | 3303S/S | | | 303 Stainless |
| | | BL3303S/S | | | Ball Lock, 303 Stainless |
| 3303W | Brass/SS, For Water, Buna-N Seal | | | | |

Brand - Designates **F**=Foster or **B**=Breco Part

See page 380 for full size templates

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Pneumatic QD

Hydraulic QD

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1/4" One Way Shut-Off – 3 & D Series

(Industrial Interchange)


3 & D Series 1/4" 1-Way Manual Sockets (Continued)

Hose Stem


| Part No. | Brand | I.D. | Description |
|-----------|----------|-------|----------------------------------|
| 3603 | F | 1/4" | Brass/Steel |
| D342 | B | | |
| BL3603 | F | | Ball Lock |
| D342BL | B | | |
| 3603S | F | | Brass/SS, For Steam, EPDM Seal |
| 3603S/S | | | 303 Stainless |
| BL3603S/S | | | Ball Lock, 303 Stainless |
| 3603W | | | Brass/SS, For Water, Buna-N Seal |
| 3653 | F | 5/16" | Brass/Steel |
| D352 | B | | |
| BL3653 | F | | Ball Lock |
| D352BL | B | | |
| 3703 | F | 3/8" | Brass/Steel |
| D362 | B | | |
| BL3703 | F | | Ball Lock |
| D362BL | B | | |
| 3703S | F | | Brass/SS, For Steam, EPDM Seal |
| 3703S/S | | | 303 Stainless |
| BL3703S/S | | | Ball Lock, 303 Stainless |
| 3703W | | | Brass/SS, For Water, Buna-N Seal |

Requires Hose Clamp (See page 200 for typical hose clamps)

Requires Hose Clamp (See page 200 for typical hose clamps)

| Push-On Hose Stem |  | Part No. | Brand | I.D. | Description |
|-------------------|---|----------|----------|------|----------------------------------|
| | | 1513 | F | 1/4" | Brass/Steel |
| | | D344 | B | | |
| | | BL1513 | F | | Ball Lock |
| | | D344BL | B | | |
| | | 1513W | F | 3/8" | For Water, Brass/SS, Buna-N Seal |
| | | 1713 | F | | Brass/Steel |
| | | D364 | B | | |
| | | BL1713 | F | | Ball Lock |
| | | D364BL | B | | |
| | | 1713W | F | | For Water, Brass/SS, Buna-N Seal |

Hose clamps not required when used with "Push On" hose. See page 369.

| Reusable Hose Clamp |  | Part No. | I.D. x O.D. | Description |
|---------------------|---|------------|---------------|---|
| | | SB3-3 | 1/4" x 1/2" | Brass/Steel |
| | | BLSB3-3W | | Ball Lock, For Water, Brass/SS, Buna-N Seal |
| | | SB3-3S/S | | 303 Stainless |
| | | SB3-3W | | For Water, Brass/SS, Buna-N Seal |
| | | SB5-3 | 1/4" x 9/16" | Brass/Steel |
| | | BLSB5-3 | | Ball Lock |
| | | BLSB5-3W | | Ball Lock, For Water, Brass/SS, Buna-N Seal |
| | | SB7-3 | 1/4" x 5/8" | Brass/Steel |
| | | BLSB7-3 | | Ball Lock |
| | | SB7-3S/S | | 303 Stainless |
| | | BLSB7-3S/S | | Ball Lock, 303 Stainless |
| | | SB7-3W | | For Water, Brass/SS, Buna-N Seal |
| | | BLSB7-3W | | Ball Lock, For Water, Brass/SS, Buna-N Seal |
| | | SC5-3 | 5/16" x 9/16" | Brass/Steel |
| | | BLSC5-3 | | Ball Lock |
| | | SC7-3 | 5/16" x 5/8" | Brass/Steel |
| | | BLSC7-3 | | Ball Lock |
| | | SD7-3 | 3/8" x 5/8" | Brass/Steel |
| | | BLSD7-3 | | Ball Lock |
| | | SD9-3 | 3/8" x 11/16" | Brass/Steel |
| | | BLSD9-3 | | Ball Lock |
| | | SD11-3 | 3/8" x 3/4" | Brass/Steel |
| | | BLSD11-3 | | Ball Lock |
| | | SD13-3 | 3/8" x 13/16" | Brass/Steel |
| | | BLSD13-3 | | Ball Lock |

Dust Caps - Foster

| Dust Caps, Sockets |  | Part No. | Size | Description |
|--------------------|--|----------|------|----------------------|
| | | 3SDC | 1/4" | For Manual 1/4" only |

Brand - Designates **F**=Foster or **B**=Breco Part

See page 380 for full size templates

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1/4" One Way Shut-Off – 3 & B Series

(Industrial Interchange)




3 & B Series 1/4" 1-Way Automatic Sockets


Female Thread




| Part No. | Brand | FPT | Description |
|-------------|----------|------|---|
| FM2803 | F | 1/8" | Brass |
| B-2BF1-B | B | | |
| FM2803S | F | | For Steam, Brass/SS, EPDM Seal |
| SL2803 | F | | Sleeve Lock |
| B-2BF1-B-SL | B | | |
| FM2803W | F | 1/4" | For Water, Brass/SS, Buna-N Seal |
| FM3003 | F | | Brass |
| B-2BF2-B | B | | Sleeve Lock |
| SL3003 | F | | |
| B-2BF2-B-SL | B | | |
| FM3003HW | F | 3/8" | For Hot Water, Brass/SS, Viton Seal |
| FM3003S | | | For Steam, Brass/SS, EPDM Seal |
| FM3003W | | | For Water, Brass/SS, Buna-N Seal |
| SL3003W | | | Sleeve Lock, For Water, Brass/SS, Buna-N Seal |
| FM3203 | F | 3/8" | Brass |
| B-2BF3-B | B | | Sleeve Lock |
| SL3203 | F | | |
| B-2BF3-B-SL | B | | |
| FM3203H | F | | For Heat, Viton Seal |
| FM3203W | | | For Water, Brass/SS, Buna-N Seal |

| Hose Stem |  | Part No. | Brand | I.D. | Description |
|-----------|---|-------------|----------|-------|--------------------------------|
| | | FM3603 | F | 1/4" | Brass |
| | | B-2BS2-B | B | | |
| | | SL3603 | F | | Sleeve Lock, Brass |
| | | B-2BS2-B-SL | B | | |
| | | FM3603S | F | 5/16" | For Steam, Brass/SS, EPDM Seal |
| | | FM3653 | F | | Brass |
| | | B-2BS5-B | B | | Sleeve Lock, Brass |
| | | SL3653 | F | | |
| | | B-2BS5-B-SL | B | 3/8" | |
| | | FM3703 | F | | Brass |
| | | B-2BS3-B | B | | Sleeve Lock, Brass |
| | | SL3703 | F | | |
| | | B-2BS3-B-SL | B | | |
| | | FM3703S | F | | For Steam, Brass/SS, EPDM Seal |

Requires Hose Clamps (See page 200 for typical hose clamps)

| Male Thread | | Part No. | Brand | MPT | Description | |
|--|-------------|----------|----------------------------------|--|--------------|--------------------|
|  | FM2903 | F | 1/8" | Brass | | |
| | B-2BM1-B | B | | Sleeve Lock, Brass | | |
| | SL2903 | F | | | | |
| | B-2BM1-B-SL | B | | | | |
| | FM3103 | F | 1/4" | | Brass | |
| | B-2BM2-B | B | | Sleeve Lock, Brass | | |
| | SL3103 | F | | | | |
| | B-2BM2-B-SL | B | | | | |
| | FM3103D | F | 1/4" | | w/Dill Valve | |
| | SL3103D | | | Sleeve Lock, w/Dill Valve, Brass | | |
| | FM3103H | | | For Heat, Viton Seal | | |
| | FM3103HW | | | For Hot Water, Brass/SS, Viton Seal | | |
| | SL3103HW | | | Sleeve Lock, For Hot Water, Brass/SS, Viton Seal | | |
| | FM3103S | | | For Steam, Brass/SS, EPDM Seal | | |
| | FM3103W | | | For Water, Brass/SS, Buna-N Seal | | |
| | SL3103W | | | Sleeve Lock, For Water, Brass/SS, Buna-N Seal | | |
| | FM3303 | | | F | 3/8" | Brass |
| | B-2BM3-B | | | B | | Sleeve Lock, Brass |
| | SL3303 | F | | | | |
| | B-2BM3-B-SL | B | | | | |
| | FM3303W | F | For Water, Brass/SS, Buna-N Seal | | | |

Sockets with modified valves (Dill Valve) are recommended for use with valve core plugs.

| Push-On Hose Stem |  | Part No. | Brand | I.D. | Description |
|---|--|--------------|----------|------|----------------------------------|
| | | FM1513 | F | 1/4" | Brass |
| | | B-2BPS2-B | B | | |
| | | SL1513 | F | | Sleeve Lock, Brass |
| | | B-2BPS2-B-SL | B | | |
| | | FM1713 | F | 3/8" | Brass |
| | | B-2BPS3-B | B | | |
| | | SL1713 | F | | Sleeve Lock, Brass |
| | | B-2BPS3-B-SL | B | | |
| | | FM1713W | F | | For Water, Brass/SS, Buna-N Seal |
| Hose clamps not required when used with "Push On" hose. See page 369. | | | | | |

Hose clamps not required when used with "Push On" hose. See page 369.

Brand - Designates **F**=Foster or **B**=Breco Part

See page 380 for full size templates

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1/4" One Way Shut-Off – 3 & B Series


(Industrial Interchange)


3 & B Series 1/4" 1-Way Automatic Sockets


| Reusable Hose Clamp |  | Part No. | Brand | I.D. x O.D. | Description |
|---------------------|---|----------|----------|---------------|-------------|
| | | FMSB3-3 | F | 1/4" x 1/2" | Brass |
| | | B-2BE2-B | B | | |
| | | FMSB5-3 | F | 1/4" x 9/16" | |
| | | B-2BG2-B | B | | |
| | | FMSB7-3 | F | 1/4" x 5/8" | |
| | | B-2BH2-B | B | | |
| | | FMSC5-3 | F | 5/16" x 9/16" | |
| | | FMSC7-3 | | 5/16" x 5/8" | |
| | | FMSD7-3 | F | 3/8" x 5/8" | |
| | | FMSD9-3 | | 3/8" x 11/16" | |
| | | FMSD11-3 | | 3/8" x 3/4" | |
| | | FMSD13-3 | | 3/8" x 13/16" | |
| | | | | | |

| Reusable Hose Clamp with Sleeve Lock |  | Part No. | Brand | I.D. x O.D. | Description |
|--------------------------------------|--|-------------|----------|---------------|---|
| | | SLSB3-3 | F | 1/4" x 1/2" | Sleeve Lock, Brass |
| | | SLSB5-3 | | 1/4" x 9/16" | |
| | | SLSB7-3 | F | 1/4" x 5/8" | Sleeve Lock, For Water, Brass/SS, Buna-N Seal |
| | | B-2BH2-B-SL | B | | |
| | | SLSB7-3W | F | | |
| | | SLSC5-3 | F | 5/16" x 9/16" | Sleeve Lock, Brass |
| | | SLSC7-3 | | 5/16" x 5/8" | |
| | | SLSD7-3 | F | 3/8" x 5/8" | |
| | | SLSD9-3 | | 3/8" x 11/16" | |
| | | SLSD11-3 | | 3/8" x 3/4" | |
| | | SLSD13-3 | | 3/8" x 13/16" | |
| | | | | | |


3 Series 1/4" 1-Way USA Automatic Slim Profile Sockets - Foster

| Female Thread |  | Part No. | FPT | Description |
|---------------|--|----------|------|-------------|
| | | 2803GB | 1/8" | Brass |
| | | 2803GS | | Steel |
| | | 3003GB | 1/4" | Brass |
| | | 3003GS | | Steel |
| | | 3203GB | 3/8" | Brass |
| | | 3203GS | | Steel |


| Male Thread |  | Part No. | MPT | Description |
|-------------|---|----------|------|-------------|
| | | 2903GB | 1/8" | Brass |
| | | 2903GS | | Steel |
| | | 3103GB | 1/4" | Brass |
| | | 3103GS | | Steel |
| | | 3303GB | 3/8" | Brass |
| | | 3303GS | | Steel |

| Hose Stem |  | Part No. | I.D. | Description |
|-----------|--|----------|-------|-------------|
| | | 3603GB | 1/4" | Brass |
| | | 3603GS | | Steel |
| | | 3653GB | 5/16" | Brass |
| | | 3653GS | | Steel |
| | | 3703GB | 3/8" | Brass |
| | | 3703GS | | Steel |

Requires Hose Clamp (See page 200 for typical hose clamps)

| Push-On Hose Stem |  | Part No. | I.D. | Description |
|-------------------|---|----------|------|-------------|
| | | 1513GB | 1/4" | Brass |
| | | 1713GB | 3/8" | Brass |
| | | | | |

Hose clamps not required when used with "Push On" hose. See page 369.

| Reusable Hose Clamp |  | Part No. | I.D. x O.D. | Description |
|---------------------|---|----------|--------------|-------------|
| | | SB3-3GB | 1/4" x 1/2" | Brass |
| | | SB3-3GS | | Steel |
| | | SB5-3GB | 1/4" x 9/16" | Brass |
| | | SB5-3GS | | Steel |
| | | SB7-3GB | 1/4" x 5/8" | Brass |
| | | SB7-3GS | | Steel |
| | | SD7-3GB | 3/8" x 5/8" | Brass |
| | | SD7-3GS | | Steel |
| | | SD11-3GB | 3/8" x 3/4" | Brass |
| | | SD11-3GS | | Steel |

Brand - Designates **F**=Foster or **B**=Breco Part

See page 380 for full size templates

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1/4" One Way Shut-Off – 3 Series

(Industrial Interchange)



Pneumatic QD

Hydraulic QD

Blow Guns & Accessories


Fittings & Accessories


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3 Series 1/4" Plugs

| Female Thread |  | Part No. | Brand | FPT | Description |
|---------------|---|-----------|----------|------|---------------|
| | | 13-3 | F | 1/8" | Steel |
| | | B-B2F1-S | B | | Brass |
| | | 13-3B | F | | 303 Stainless |
| | | 13-3S/S | F | 1/4" | Steel |
| | | 11-3 | F | | Brass |
| | | B-B2F2-S | B | | 303 Stainless |
| | | 11-3B | F | | Steel |
| | | B-B2F2-B | B | | Brass |
| | | 11-3S/S | F | | 303 Stainless |
| | | B-B2F2-SS | B | | Steel |
| | | 15-3 | F | 3/8" | Steel |
| | | B-B2F3-S | B | | Steel |

| Male Thread |  | Part No. | Brand | MPT | Description |
|-------------|---|-----------|----------|------|---------------------------------|
| | | 12-3 | F | 1/8" | Steel |
| | | B-B2M1-S | B | | Brass |
| | | 12-3B | F | | 303 Stainless |
| | | 12-3S/S | F | 1/4" | Steel |
| | | 10-3 | F | | Brass |
| | | B-B2M2-S | B | | 303 Stainless |
| | | 10-3B | F | | Steel |
| | | B-B2M2-B | B | | Brass |
| | | 10-3S/S | F | | 303 Stainless |
| | | B-B2M2-SS | B | | w/Dill Valve Steel |
| | | 10-3D | F | 3/8" | Ball Check, Steel |
| | | 10-3G | F | | Ball Check, Brass |
| | | 10-3GB | F | | Ball Check, Spring Loaded Steel |
| | | 10-3GS | F | | Ball Check, 303 Stainless |
| | | 10-3GS/S | F | | Brass, Valve Core Plug |
| | | 10-3DB | F | | Steel |
| | | 14-3 | F | 3/8" | Brass |
| | | B-B2M3-S | B | | Ball Check, Brass |
| | | 14-3B | F | | Steel |
| | | 14-3GB | F | | Brass |


| Male Thread Free Swivel - Under Pressure |  | Part No. | MPT | Description |
|---|---|----------|------|---------------|
| | | 12S-3 | 1/8" | Brass / Steel |
| | | 10S-3 | 1/4" | |
| | | 14S-3 | 3/8" | |

Swivel Plugs – Eliminates hose twist on end drop applications such as blow guns, air tools, etc.


Ball check plugs eliminate hose whip at disconnect by checking the rapid flow of downstream exhaust air
 Swivel Plugs – Eliminates hose twist on end drop applications like blow guns, air tools, etc.
 See page 380 for full size templates

Brand - Designates **F**=Foster or **B**=Breco Part


ZSi-Foster Engineering Catalog


| Hose Stem |  | Part No. | Brand | I.D. | Description |
|-----------|---|-----------|----------|-------|---------------|
| | | 16-3 | F | 1/4" | Steel |
| | | B-B2S2-S | B | | Brass |
| | | 16-3B | F | | 303 Stainless |
| | | 16-3S/S | F | 5/16" | Steel |
| | | 16S-3 | F | | Brass |
| | | B-B2S2S-S | B | 3/8" | Steel |
| | | 17-3 | F | | Brass |
| | | B-B2S3-S | B | | 303 Stainless |
| | | 17-3B | F | | Steel |
| | | 17-3S/S | F | | Brass |

Requires Hose Clamp (See page 200 for typical hose clamps)

| Push-On Hose Stem |  | Part No. | Brand | I.D. | Description |
|-------------------|---|-----------|----------|------|-------------|
| | | 51-3 | F | 1/4" | Steel |
| | | B-B2PS2-S | B | | Brass |
| | | 71-3 | F | 3/8" | Steel |
| | | B-B2PS3-S | B | | Brass |

Hose clamps not required when used with "Push On" hose. See page 369.

| Reusable Hose Clamp |  | Part No. | Brand | I.D. x O.D. | Description |
|---------------------|---|----------|----------|---------------|---------------|
| | | PB3-3 | F | 1/4" x 1/2" | Steel |
| | | B-B2E2-S | B | | Brass |
| | | PB3-3B | F | | 303 Stainless |
| | | PB3-3S/S | F | 1/4" x 9/16" | Steel |
| | | PB5-3 | F | | Brass |
| | | PB5-3B | F | 1/4" x 5/8" | Steel |
| | | PB7-3 | F | | Brass |
| | | B-B2H2-S | B | 1/4" x 5/8" | Steel |
| | | PB7-3B | F | | 303 Stainless |
| | | PB7-3S/S | F | 5/16" x 9/16" | Steel |
| | | PC5-3 | F | | Brass |
| | | PC7-3 | F | 5/16" x 5/8" | Steel |
| | | PD7-3 | F | | Steel |
| | | B-B2H3-S | B | 3/8" x 11/16" | Steel |
| | | PD9-3 | F | | Steel |
| | | B-B2K3-S | B | 3/8" x 3/4" | Steel |
| | | PD11-3 | F | | Steel |
| | | PD13-3 | F | 3/8" x 13/16" | Steel |

| Dust Cap |  | Part No. | Size | Description |
|----------|---|----------|------|-------------|
| | | 3PDC | 1/4" | Plastic |


WARNING: These products can expose you to chemicals including lead, which is known to the State of California to cause cancer, and which is known to cause birth defects or other reproductive harm. For more information go to www.P65Warnings.ca.gov.





3/8" One Way Shut-Off – 4 & C, D Series


(Industrial Interchange)


4 & C Series 3/8" 1-Way Manual Sleeve Guard Sockets - Breco

| Female Thread |  | Part No. | FPT | Description |
|---------------|---|----------|------|----------------------|
| | | B-3CF3-B | 3/8" | Brass w/Brass Sleeve |
| | | B-3CF3-S | | Steel |
| | | B-3CF4-S | 1/2" | Steel |

| Male Thread |  | Part No. | FPT | Description |
|-------------|---|----------|------|----------------------|
| | | B-3CM2-S | 1/4" | Steel |
| | | B-3CM3-B | 3/8" | Brass w/Brass Sleeve |
| | | B-3CM3-S | | Steel |
| | | B-3CM4-S | 1/2" | Steel |


| Hose Stem |  | Part No. | FPT | Description |
|--|--|----------|------|-------------|
| | | B-3CS3-S | 3/8" | Steel |
| Requires Hose Clamp (See page 200 for typical hose clamps) | | | | |

| Push-On Hose Stem |  | Part No. | I.D. | Description |
|-------------------|--|---|------|-------------|
| | | B-3CPS3-S | 3/8" | Steel |
| | | Hose clamps not required when used with "Push On" hose. See page 369. | | |

| Reusable Hose Fittings |  | Part No. | I.D. | Description |
|------------------------|---|----------|--------|----------------------|
| | | B-2CH3-B | 5/8" | Brass w/Brass Sleeve |
| | | B-2CK3-B | 11/16" | |


4 & D Series 3/8" 1-Way Manual Sockets

Push-On Hose Stem



| Part No. | Brand | I.D. | Description |
|----------|----------|------|-------------------------------------|
| 1714 | F | 3/8" | Brass/Steel |
| D464 | B | | |
| BL1714 | F | | Ball Lock |
| D464BL | B | | |
| 1714W | F | 1/2" | For Water, Brass/SS, Buna-N Seal |
| 1814 | F | | Brass/Steel |
| D484 | B | | |
| BL1814 | F | | Ball Lock |
| D484BL | B | | |
| 1814W | F | | For Water, Brass/SS, Buna-N Seal |

Hose clamps not required when used with "Push On" hose. See page 369.

| Reusable Hose Clamp |  | Part No. | I.D. x O.D. | Description |
|---------------------|---|----------|---------------|------------------------|
| | | SB3-4 | 1/4" x 1/2" | Brass/Steel |
| | | BLSB3-4 | | Ball Lock, Brass/Steel |
| | | SB5-4 | 1/4" x 9/16" | Brass/Steel |
| | | BLSB5-4 | | Ball Lock, Brass/Steel |
| | | SB7-4 | 1/4" x 5/8" | Brass/Steel |
| | | BLSB7-4 | | Ball Lock, Brass/Steel |
| | | SD7-4 | 3/8" x 5/8" | Brass/Steel |
| | | BLSD7-4 | | Ball Lock, Brass/Steel |
| | | SD9-4 | 3/8" x 11/16" | Brass/Steel |
| | | BLSD9-4 | | Brass/Steel |
| | | SD11-4 | 3/8" x 3/4" | Brass/Steel |
| | | BLSD11-4 | | Ball Lock, Brass/Steel |
| | | SD13-4 | 3/8" x 13/16" | Brass/Steel |
| | | BLSD13-4 | | Ball Lock, Brass/Steel |

Brand - Designates **F**=Foster or **B**=Breco Part

See page 380 for full size templates

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WARNING: These products can expose you to chemicals including lead, which is known to the State of California to cause cancer, and which is known to cause birth defects or other reproductive harm. For more information go to www.P65Warnings.ca.gov.


3/8" One Way Shut-Off – 4 & D Series




(Industrial Interchange)

4 & D Series 3/8" 1-Way Manual Sockets (Continued)

| Female Thread |  | Part No. | Brand | FPT | Description |
|---------------|---|-----------|----------|------|-----------------------------------|
| | | 4004 | F | 1/4" | Brass/Steel |
| | | D440 | B | | |
| | | BL4004 | F | | Ball Lock, Brass/Steel |
| | | D440BL | B | | |
| | | 4204 | F | 3/8" | Brass/Steel |
| | | D460 | B | | |
| | | BL4204 | F | | Ball Lock, Brass/Steel |
| | | D460BL | B | | |
| | | 4204H | F | | For Heat, Viton Seal, Brass/Steel |
| | | 4204S | | | For Steam, Brass/SS, EPDM Seal |
| | | 4204S/S | | | 303 Stainless |
| | | BL4204S/S | | | Ball Lock, 303 Stainless |
| | | 4204W | | | For Water, Brass/SS, Buna-N Seal |
| | | 4404 | F | 1/2" | Brass/Steel |
| | | D480 | B | | |
| | | BL4404 | F | | Ball Lock, Brass/Steel |
| | | D480BL | B | | |

| Male Thread |  | Part No. | Brand | MPT | Description |
|-------------|---|-----------|----------|------|-----------------------------------|
| | | 4104 | F | 1/4" | Brass/Steel |
| | | D441 | B | | Ball Lock, Brass/Steel |
| | | BL4104 | F | | |
| | | D441BL | B | | For Heat, Viton Seal, Brass/Steel |
| | | 4104H | F | | For Steam, Brass/SS, EPDM Seal |
| | | 4104S | | | For Water, Brass/SS, Buna-N Seal |
| | | 4104W | | | |
| | | 4304 | F | 3/8" | Brass/Steel |
| | | D461 | B | | Ball Lock, Brass/Steel |
| | | BL4304 | F | | |
| | | D461BL | B | | For Steam, Brass/SS, EPDM Seal |
| | | 4304S | F | | 303 Stainless |
| | | 4304S/S | | | Ball Lock, 303 Stainless |
| | | BL4304S/S | | | For Water, Brass/SS, Buna-N Seal |
| | | 4304W | | | |
| | | 4504 | F | 1/2" | Brass/Steel |
| | | D481 | B | | Ball Lock, Brass/Steel |
| | | BL4504 | F | | |
| | | D481BL | B | | For Heat, Viton Seal, Brass/Steel |
| | | 4504H | F | | For Steam, Brass/SS, EPDM Seal |
| | | 4504S | | | For Water, Brass/SS, Buna-N Seal |
| | | 4504W | | | |

| Hose Stem |  | Part No. | Brand | I.D. | Description |
|-----------|--|----------|----------|-------|----------------------------------|
| | | 4604 | F | 1/4" | Brass/Steel |
| | | D442 | B | | |
| | | BL4604 | F | | Ball Lock, Brass/Steel |
| | | D442BL | B | | |
| | | 4604W | F | 5/16" | For Water, Brass/SS, Buna-N Seal |
| | | 4704 | F | | Brass/Steel |
| | | D452 | B | | Ball Lock, Brass/Steel |
| | | BL4704 | F | | |
| | | D452BL | B | 3/8" | Brass/Steel |
| | | 4804 | F | | |
| | | D462 | B | | Ball Lock, Brass/Steel |
| | | BL4804 | F | | |
| | | D462BL | B | | 303 Stainless |
| | | 4804S/S | F | 1/2" | For Steam, Brass/SS, EPDM Seal |
| | | 4804S | | | For Water, Brass/SS, Buna-N Seal |
| | | 4804W | | | |
| | | 4904 | F | | Brass/Steel |
| | | D482 | B | | Ball Lock, Brass/Steel |
| | | BL4904 | F | | |
| | | D482BL | B | 1/2" | For Steam, Brass/SS, EPDM Seal |
| | | 4904S | F | | |

Requires Hose Clamp (See page 200 for typical hose clamps)

Products for steam are brass body, brass sleeve and stainless steel valve.

Brand - Designates **F**=Foster or **B**=Breco Part

See page 380 for full size templates

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WARNING: These products can expose you to chemicals including lead, which is known to the State of California to cause cancer, and which is known to cause birth defects or other reproductive harm. For more information go to www.P65Warnings.ca.gov.

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3/8" One Way Shut-Off – 4 & B Series

(Industrial Interchange)


4 & B Series 3/8" 1-Way Automatic Sockets

Female Thread




| Part No. | Brand | FPT | Description |
|-------------|----------|------|----------------------------------|
| FM4004 | F | 1/4" | Brass |
| B-3BF2-B | B | | |
| SL4004 | F | | Sleeve Lock Brass |
| B-3BF2-B-SL | B | | |
| FM4204 | F | 3/8" | Brass |
| B-3BF3-B | B | | |
| SL4204 | F | | Sleeve Lock, Brass |
| B-3BF3-B-SL | B | | |
| FM4204H | F | | For Heat, Viton Seal |
| FM4204W | | | For Water, Brass/SS, Buna-N Seal |
| FM4404 | F | 1/2" | Brass |
| B-3BF4-B | B | | |
| SL4404 | F | | Sleeve Lock, Brass |
| B-3BF4-B-SL | B | | |
| FM4404S | F | | For Steam, Brass/SS, EPDM Seal |
| FM4404W | | | For Water, Brass/SS, Buna-N Seal |

Male Thread



| Part No. | Brand | MPT | Description |
|-------------|----------|------|----------------------------------|
| FM4104 | F | 1/4" | Brass |
| B-3BM2-B | B | | |
| SL4104 | F | | Sleeve Lock, Brass |
| B-3BM2-B-SL | B | | |
| FM4104S | F | | For Steam, Brass/SS, EPDM Seal |
| FM4104W | | | For Water, Brass/SS, Buna-N Seal |
| FM4304 | F | 3/8" | Brass |
| B-3BM3-B | B | | |
| SL4304 | F | | Sleeve Lock, Brass |
| B-3BM3-B-SL | B | | |
| FM4304S | F | | For Steam, Brass/SS, EPDM Seal |
| FM4304W | | | For Water, Brass/SS, Buna-N Seal |
| FM4504 | F | 1/2" | Brass |
| B-3BM4-B | B | | |
| SL4504 | F | | Sleeve Lock, Brass |
| B-3BM4-B-SL | B | | |
| FM4504S | F | | For Steam, Brass/SS, EPDM Seal |
| FM4504W | | | For Water, Brass/SS, Buna-N Seal |

| Hose Stem |  | Part No. | Brand | I.D. | Description |
|-----------|--|-------------|----------|-------|----------------------------------|
| | | FM4604 | F | 1/4" | Brass |
| | | B-3BS2-B | B | | |
| | | SL4604 | F | | |
| | | B-3BS2-B-SL | B | | Sleeve Lock, Brass |
| | | FM4704 | F | 5/16" | Brass |
| | | B-3BS5-B | B | | |
| | | SL4704 | F | | |
| | | B-3BS5-B-SL | B | | Sleeve Lock, Brass |
| | | FM4804 | F | 3/8" | Brass |
| | | B-3BS3-B | B | | |
| | | SL4804 | F | | |
| | | B-3BS3-B-SL | B | | Sleeve Lock, Brass |
| | | FM4804H | F | | For Heat, Viton Seal |
| | | FM4804W | | | For Water, Brass/SS, Buna-N Seal |
| | | FM4904 | F | 1/2" | Brass |
| | | B-3BS4-B | B | | |
| | | SL4904 | F | | |
| | | B-3BS4-B-SL | B | | Sleeve Lock, Brass |
| | | FM4904W | F | | For Water, Brass/SS, Buna-N Seal |

Requires Hose Clamp (See page 200 for typical hose clamps)

Brand - Designates **F**=Foster or **B**=Breco Part

See page 380 for full size templates

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3/8" One Way Shut-Off – 4 & B Series

(Industrial Interchange)




4 & B Series 3/8" 1-Way Automatic Sockets

| Push-On Hose Stem |  | Part No. | Brand | I.D. | Description |
|-------------------|---|---|----------|------|----------------------------------|
| | | FM1714 | F | 3/8" | Brass |
| | | B-3BPS3-B | B | | |
| | | SL1714 | F | | Sleeve Lock, Brass |
| | | B-3BPS3-B-SL | B | | |
| | | FM1814 | F | 1/2" | Brass |
| | | B-3BPS4-B | B | | |
| | | SL1814 | F | | Sleeve Lock, Brass |
| | | B-3BPS4-B-SL | B | | |
| | | FM1814W | F | | For Water, Brass/SS, Buna-N Seal |
| | | Hose clamps not required when used with "Push On" hose. See page 369. | | | |

Ball Lock (BL) – Locks manual socket against accidental disconnect.

Sleeve Lock (SL) – Locks automatic socket against accidental disconnect..

| Reusable Hose Clamp |  | Part No. | Brand | I.D. x O.D. | Description |
|---------------------|--|-------------|----------|---------------|--------------------|
| | | FMSB3-4 | F | 1/4" x 1/2" | Brass |
| | | SLSB3-4 | | | Sleeve Lock, Brass |
| | | FMSB5-4 | | 1/4" x 9/16" | Brass |
| | | SLSB5-4 | | | Sleeve Lock, Brass |
| | | FMSB7-4 | F | 1/4" x 5/8" | Brass |
| | | SLSB7-4 | | | Sleeve Lock, Brass |
| | | FMSD7-4 | F | 3/8" x 5/8" | Brass |
| | | B-3BH3-B | B | | |
| | | SLSD7-4 | F | | Sleeve Lock, Brass |
| | | B-3BH3-B-SL | B | | |
| | | FMSD9-4 | F | 3/8" x 11/16" | Brass |
| | | B-3BK3-B | B | | |
| | | SLSD9-4 | F | | Sleeve Lock, Brass |
| | | B-3BK3-B-SL | B | | |
| | | FMSD11-4 | F | 3/8" x 3/4" | Brass |
| | | SLSD11-4 | | | Sleeve Lock, Brass |
| | | FMSD13-4 | | 3/8" x 13/16" | Brass |
| | | SLSD13-4 | | | Sleeve Lock, Brass |

Brand - Designates **F**=Foster or **B**=Breco Part

See page 380 for full size templates

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3/8" One Way Shut-Off – 4 Series

(Industrial Interchange)


4 Series 3/8" Plugs

| Female Thread |  | Part No. | Brand | FPT | Description |
|---------------|---|----------|----------|------|---------------|
| | | 41-4 | F | 1/4" | Steel |
| | | B-B3F2-S | B | | |
| | | 43-4 | F | 3/8" | Steel |
| | | B-B3F3-S | B | | |
| | | B-B3F3-B | B | | |
| | | 43-4S/S | F | 1/2" | 303 Stainless |
| | | 45-4 | F | | |
| | | B-B3F4-S | B | | |

| Male Thread |  | Part No. | Brand | MPT | Description |
|-------------|--|----------|----------|------|---------------|
| | | 38-4 | F | 1/8" | Steel |
| | | 40-4 | F | 1/4" | Steel |
| | | B-B3M2-S | B | | |
| | | 40-4B | F | | |
| | | 40-4S/S | F | 3/8" | 303 Stainless |
| | | 42-4 | F | | |
| | | B-B3M3-S | B | | |
| | | 42-4B | F | 1/2" | Brass |
| | | B-B3M3-B | B | | |
| | | 42-4S/S | F | | |
| | | 44-4 | F | 1/2" | Steel |
| | | B-B3M4-S | B | | |


Male Thread


Free Swivel - Under Pressure




| Part No. | MPT | Description |
|----------|------|--------------|
| 40S-4 | 1/4" | Brass /Steel |
| 42S-4 | 3/8" | |
| 44S-4 | 1/2" | |

Swivel Plugs – Eliminates hose twist on end drop applications such as blow guns, air tools, etc.

| Hose Stem |  | Part No. | Brand | I.D. | Description |
|---|---|----------|----------|-------|---------------|
| | | 46-4 | F | 1/4" | Steel |
| | | B-B3S2-S | B | | |
| | | 47-4 | F | 5/16" | Steel |
| | | 48-4 | F | | |
| | | B-B3S3-S | B | | |
| | | 48-4B | F | 3/8" | Brass |
| | | 48-4S/S | | | 303 Stainless |
| | | 49-4 | F | 1/2" | Steel |
| | | B-B3S4-S | B | | |
| Requires Hose Clamps (See page 200 for typical hose clamps) | | | | | |

| Push-On Hose Stem |  | Part No. | Brand | I.D. | Description |
|-------------------|--|---|----------|------|-------------|
| | | 51-4 | F | 1/4" | Steel |
| | | B-B3PS2-S | B | | |
| | | 71-4 | F | 3/8" | Steel |
| | | B-B3PS3-S | B | | |
| | | 71-4B | F | | Brass |
| | | 81-4 | F | 1/2" | Steel |
| | | Hose clamps not required when used with "Push On" hose. See page 369. | | | |

| Reusable Hose Clamp |  | Part No. | I.D. x O.D. | Description |
|---------------------|---|----------|---------------|-------------|
| | | PB3-4 | 1/4" x 1/2" | Steel |
| | | PB5-4 | 1/4" x 3/16" | Steel |
| | | PB7-4 | 1/4" x 5/8" | Steel |
| | | PD7-4 | 3/8" x 5/8" | Steel |
| | | PD9-4 | 3/8" x 11/16" | Steel |
| | | PD11-4 | 3/8" x 3/4" | Steel |
| | | PD13-4 | 3/8" x 13/16" | Steel |

Brand - Designates **F**=Foster or **B**=Breco Part

See page 380 for full size templates

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1/2" One Way Shut-Off – 5 & C Series

(Industrial Interchange)



Pneumatic QD

Hydraulic QD

Blow Guns & Accessories


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5 & C Series 1/2" 1-Way Manual Sleeve Guard Sockets - Breco

| Female Thread |  | Part No. | FPT | Description |
|---------------|---|----------|------|----------------------|
| | | B-4CF3-S | 3/8" | Steel |
| | | B-4CF4-B | 1/2" | Brass w/Brass Sleeve |
| | | B-4CF4-S | | Steel |
| | | B-4CF6-S | 3/4" | Steel |

| Male Thread |  | Part No. | FPT | Description |
|-------------|---|----------|------|----------------------|
| | | B-4CM3-S | 3/8" | Steel |
| | | B-4CM4-B | 1/2" | Brass w/Brass Sleeve |
| | | B-4CM4-S | | Steel |
| | | B-4CM6-S | 3/4" | Steel |

| Hose Stem |  | Part No. | FPT | Description |
|--|--|----------|------|-------------|
| | | B-4CS3-S | 3/8" | Steel |
| | | B-4CS4-S | 1/2" | Steel |
| | | B-4CS6-S | 3/4" | Steel |
| Requires Hose Clamp (See page 200 for typical hose clamps) | | | | |

| Push-On Hose Stem |  | Part No. | I.D. | Description |
|-------------------|--|---|------|-------------|
| | | B-4CPS3-S | 3/8" | Steel |
| | | B-4CPS4-S | 1/2" | Steel |
| | | Hose clamps not required when used with "Push On" hose. See page 369. | | |

Brand - Designates **F**=Foster or **B**=Breco Part

See page 380 for full size templates

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WARNING: These products can expose you to chemicals including lead, which is known to the State of California to cause cancer, and which is known to cause birth defects or other reproductive harm. For more information go to www.P65Warnings.ca.gov.



1/2" One Way Shut-Off – 5 & D Series

(Industrial Interchange)


5 & D Series 1/2" 1-Way Shut-Off Sockets

| Female Thread | Part No. | Brand | FPT | Description |
|---------------|----------|----------|------|----------------------------------|
| | 4015 | F | 1/4" | Brass/Steel |
| | D540 | B | | |
| | BL4015 | F | | Ball Lock, Brass/Steel |
| | D540BL | B | | |
| | 5005 | F | 3/8" | Brass/Steel |
| | D560 | B | | |
| | BL5005 | F | | Ball Lock, Brass/Steel |
| | D560BL | B | | |
| | 5005H | F | 1/2" | For Heat, Viton Seal |
| | 5005W | | | For Water, Brass/SS, Buna-N Seal |
| | 5205 | F | | Brass/Steel |
| | D580 | B | | |
| | BL5205 | F | | Ball Lock, Brass/Steel |
| | D580BL | B | | |
| | 5205H | F | 3/4" | For Heat, Viton Seal |
| | 5205LV | | | Less Valve |
| | 5205S/S | | | 303 Stainless |
| | 5205W | | | For Water, Brass/SS, Buna-N Seal |
| | 5405 | F | 1" | Brass/Steel |
| | D5120 | B | | |
| | BL5405 | F | | Ball Lock, Brass/Steel |
| | D5120BL | B | | |
| | 5405W | F | | For Water, Brass/SS, Buna-N Seal |



| Male Thread | Part No. | Brand | MPT | Description |
|-------------|----------|----------|------|----------------------------------|
| | 4905 | F | 1/4" | Brass/Steel |
| | D541 | B | | |
| | BL4905 | F | | Ball Lock, Brass/Steel |
| | D541BL | B | | |
| | 5105 | F | 3/8" | Brass/Steel |
| | D561 | B | | |
| | BL5105 | F | | Ball Lock, Brass/Steel |
| | D561BL | B | | |
| | 5305 | F | 1/2" | Brass/Steel |
| | D581 | B | | |
| | BL5305 | F | | Ball Lock, Brass/Steel |
| | D581BL | B | | |
| | 5305H | F | 3/4" | For Heat, Viton Seal |
| | 5305S/S | | | 303 Stainless |
| | 5305W | | | For Water, Brass/SS, Buna-N Seal |
| | 5505 | F | | Brass/Steel |
| | D5121 | B | | |
| | BL5505 | F | | Ball Lock, Brass/Steel |
| | D5121BL | B | | |



| Push-On Hose Stem |  | Part No. | Brand | I.D. | Description |
|-------------------|---|----------|----------|------|-------------------------------------|
| | | 1815 | F | 1/2" | Brass/Steel |
| | | D584 | B | | |
| | | 1815W | F | | For Water, Brass/SS, Buna-N Seal |
| | | BL1815 | | | Ball Lock, Brass/Steel |
| | | D584BL | B | | |

Hose clamps not required when used with "Push On" hose. See page 369.

Hose clamps not required when used with "Push On" hose. See page 369.



Brand - Designates **F**=Foster or **B**=Breco Part

See page 380 for full size templates

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WARNING: These products can expose you to chemicals including lead, which is known to the State of California to cause cancer, and which is known to cause birth defects or other reproductive harm. For more information go to www.P65Warnings.ca.gov.


1/2" One Way Shut-Off – 5 & D Series

(Industrial Interchange)



5 & D Series 1/2" 1-Way Shut-Off Sockets

| Hose Stem |  | Part No. | Brand | I.D. | Description | |
|--|---|----------|----------|----------------------------------|------------------------|-------------------------------------|
| | | 5605 | F | 1/4" | Brass/Steel | |
| | | D542 | B | | Ball Lock, Brass/Steel | |
| | | BL5605 | F | | | |
| | | D542BL | B | | | |
| | | 5705 | F | 3/8" | | Brass/Steel |
| | | D562 | B | | Ball Lock, Brass/Steel | |
| | | BL5705 | F | | | |
| | | D562BL | B | | | |
| | | 5705H | F | For Heat, Viton Seal | | |
| | | 5805 | F | 1/2" | Brass/Steel | |
| | | D582 | B | | Ball Lock, Brass/Steel | |
| | | BL5805 | F | | | |
| | | D582BL | B | | | |
| | | 5805H | F | | | For Heat, Viton Seal |
| | | 5805HW | | | | For Hot Water, Brass/SS, Viton Seal |
| | | 5805W | | For Water, Brass/SS, Buna-N Seal | | |
| | | 5905 | F | 3/4" | Brass/Steel | |
| | | D5122 | B | | Ball Lock, Brass/Steel | |
| | | BL5905 | F | | | |
| | | D5122BL | B | | | |
| | | 5905W | F | | | For Water, Brass/SS, Buna-N Seal |
| Requires Hose Clamp (See page 200 for typical hose clamps) | | | | | | |

| Reusable Hose Clamp |  | Part No. | Brand | I.D. x O.D. | Description | |
|---------------------|--|----------|------------------------|---------------|----------------------------------|----------------------------------|
| | | SD7-5 | F | 3/8" x 5/8" | Brass/Steel | |
| | | BLSD7-5 | | | Ball Lock, Brass/Steel | |
| | | SD7-5W | | | For Water, Brass/SS, Buna-N Seal | |
| | | SD9-5 | | 3/8" x 11/16" | 3/8" x 3/4" | Brass/Steel |
| | | BLSD9-5 | | | | Ball Lock, Brass/Steel |
| | | SD9-5W | | | | For Water, Brass/SS, Buna-N Seal |
| | | SD11-5 | | 3/8" x 3/4" | Brass/Steel | |
| | | BLSD11-5 | | | Ball Lock, Brass/Steel | |
| | | SD13-5 | | 3/8" x 13/16" | Brass/Steel | |
| | | BLSD13-5 | Ball Lock, Brass/Steel | | | |
| | | SP13-5 | F | 1/2" x 13/16" | Brass/Steel | |
| | | BLSP13-5 | | | Ball Lock, Brass/Steel | |
| | | SP13-5W | | | For Water, Brass/SS, Buna-N Seal | |
| | | SP15-5 | | 1/2" x 7/8" | Brass/Steel | |
| | | BLSP15-5 | | | Ball Lock, Brass/Steel | |
| | | SP17-5 | | 1/2" x 15/16" | Brass/Steel | |
| | | BLSP17-5 | | | Ball Lock, Brass/Steel | |
| | | SP19-5 | | 1/2" x 1" | Brass/Steel | |
| | | BLSP19-5 | | | Ball Lock, Brass/Steel | |

Brand - Designates **F**=Foster or **B**=Breco Part

See page 380 for full size templates

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1/2" One Way Shut-Off – 5 & B Series


(Industrial Interchange)

5 & B Series 1/2" 1-Way Automatic Sockets

| Female Thread |  | Part No. | Brand | FPT | Description |
|---------------|---|-------------|----------|----------------------------------|----------------------------------|
| | | FM4015 | F | 1/4" | Brass |
| | | B-4BF2-B | B | | Sleeve Lock, Brass |
| | | SL4015 | F | | |
| | | B-4BF2-B-SL | B | | |
| | | FM5005 | F | 3/8" | |
| | | B-4BF3-B | B | | Sleeve Lock, Brass |
| | | SL5005 | F | | |
| | | B-4BF3-B-SL | B | | |
| | | FM5005H | F | | |
| | | FM5005S | | | For Steam, Brass/SS, EPDM Seal |
| | | FM5005W | | | For Water, Brass/SS, Buna-N Seal |
| | | FM5205 | F | | 1/2" |
| | | B-4BF4-B | B | Sleeve Lock, Brass | |
| | | SL5205 | F | | |
| | | B-4BF4-B-SL | B | | |
| | | FM5205H | F | | |
| | | FM5205LV | | Less Valve, Brass | |
| | | FM5205S | | For Steam, Brass/SS, EPDM Seal | |
| | | FM5205W | | For Water, Brass/SS, Buna-N Seal | |
| | | FM5405 | | F | |
| | | B-4BF6-B | B | Sleeve Lock, Brass | |
| | | SL5405 | F | | |
| | | B-4BF6-B-SL | B | | |
| | | FM5405W | F | | For Water, Brass/SS, Buna-N Seal |



Male Thread



| Part No. | Brand | MPT | Description |
|-------------|----------|-----------------------------------|-------------------------------------|
| FM4905 | F | 1/4" | Brass |
| B-4BM2-B | B | | |
| SL4905 | F | | Sleeve Lock, Brass |
| B-4BM2-B-SL | B | | |
| FM5105 | F | 3/8" | Brass |
| B-4BM3-B | B | | |
| SL5105 | F | | Sleeve Lock, Brass |
| B-4BM3-B-SL | B | | |
| FM5305 | F | 1/2" | Brass |
| B-4BM4-B | B | | |
| SL5305 | F | | Sleeve Lock, Brass |
| B-4BM4-B-SL | B | | |
| FM5305S | F | | For Steam, Brass/SS, EPDM Seal |
| FM5305W | | | For Water, Brass/SS, Buna-N Seal |
| FM5505 | F | 3/4" | Brass |
| B-4BM6-B | B | | |
| SL5505 | F | | Sleeve Lock, Brass |
| B-4BM6-B-SL | B | | |
| FM5505S | F | For Steam, Brass/SS, EPDM Seal | |



Ball Lock (BL) – Locks manual socket against accidental disconnect.

Sleeve Lock (SL) – Locks automatic socket against accidental disconnect.



1/2" One Way Shut-Off – 5 & B Series


(Industrial Interchange)



5 & B Series 1/2" 1-Way Automatic Sockets

| Hose Stem | Part No. | Brand | I.D. | Description |
|-----------|-------------|----------|------|-----------------------------|
| | FM5605 | F | 1/4" | Brass |
| | B-4BS2-B | B | | Sleeve Lock, Brass |
| | SL5605 | F | | |
| | B-4BS2-B-SL | B | 3/8" | Brass |
| | FM5705 | F | | Sleeve Lock, Brass |
| | B-4BS3-B | B | | |
| | SL5705 | F | | For Heat, Viton Seal, Brass |
| | B-4BS3-B-SL | B | | |
| | FM5705H | F | 1/2" | Brass |
| | FM5805 | F | | Sleeve Lock, Brass |
| | B-4BS4-B | B | | |
| | SL5805 | F | | For Heat, Viton Seal, Brass |
| | B-4BS4-B-SL | B | | |
| | FM5805H | F | 3/4" | Brass |
| | SL5805H | F | | Sleeve Lock, Brass |
| | FM5805W | F | | |
| | FM5905 | F | 1" | Brass |
| | B-4BS6-B | B | | Sleeve Lock, Brass |
| | SL5905 | F | | |
| | B-4BS6-B-SL | B | | |

Requires Hose Clamp (See page 200 for typical hose clamps)

| Push-On Hose Stem |  | Part No. | Brand | I.D. | Description |
|---|--|--------------|----------|------|--------------------|
| | | FM1815 | F | 1/2" | Brass |
| | | B-4BPS4-B | B | | Sleeve Lock, Brass |
| | | B-4BPS4-B-SL | B | | |
| Hose clamps not required when used with "Push On" hose. See page 369. | | | | | |

| Reusable Hose Clamp | Part No. | I.D. x O.D. | Description |
|---------------------|-----------|---------------|-----------------------------|
| | FMSD7-5 | 3/8" x 5/8" | Brass |
| | SLSD7-5 | | Sleeve Lock, Brass |
| | FMSD7-5H | | For Heat, Viton Seal, Brass |
| | FMSD9-5 | 3/8" x 11/16" | Brass |
| | SLSD9-5 | | Sleeve Lock, Brass |
| | FMSD11-5 | 3/8" x 3/4" | Brass |
| | SLSD11-5 | | Sleeve Lock, Brass |
| | FMSD13-5 | 3/8" x 13/16" | Brass |
| | SLSD13-5 | | Sleeve Lock, Brass |
| | FMSP13-5 | 1/2" x 13/16" | Brass |
| | SLSP13-5 | | Sleeve Lock, Brass |
| | FMSP13-5H | | For Heat, Viton Seal, Brass |
| | FMSP15-5 | 1/2" x 7/8" | Brass |
| | SLSP15-5 | | Sleeve Lock, Brass |
| | FMSP17-5 | 1/2" x 15/16" | Brass |
| | SLSP17-5 | | Sleeve Lock, Brass |
| | FMSP19-5 | 1/2" x 1" | Brass |
| | SLSP19-5 | | Sleeve Lock, Brass |

Brand - Designates **F**=Foster or **B**=Breco Part

See page 380 for full size templates




WARNING: These products can expose you to chemicals including lead, which is known to the State of California to cause cancer, and which is known to cause birth defects or other reproductive harm. For more information go to www.P65Warnings.ca.gov.





1/2" One Way Shut-Off – 5 Series

(Industrial Interchange)


5 Series 1/2" Plugs

| Female Thread |  | Part No. | Brand | FPT | Description |
|---------------|---|----------|----------|------|---------------|
| | | B-B4F2-S | B | 1/4" | Steel |
| | | 53-5 | F | 3/8" | Steel |
| | | B-B4F3-S | B | | |
| | | 55-5 | F | | Steel |
| | | B-B4F4-S | B | 1/2" | Steel |
| | | B-B4F4-B | | | Brass |
| | | 55-5S/S | F | | 303 Stainless |
| | | 57-5 | F | 3/4" | Steel |
| | | B-B4F6-S | B | | |


| Male Thread |  | Part No. | Brand | MPT | Description |
|-------------|--|----------|----------|------|-------------------|
| | | 50-5 | F | 1/4" | Steel |
| | | B-B4M2-S | B | | |
| | | 52-5 | F | 3/8" | Steel |
| | | B-B4M3-S | B | | |
| | | 52-5B | F | | Brass |
| | | 54-5GB | F | | Ball Check, Brass |
| | | 54-5 | F | 1/2" | Steel |
| | | B-B4M4-S | B | | |
| | | 54-5G | F | | Ball Check, Steel |
| | | 54-5B | F | | Brass |
| | | B-B4M4-B | B | | |
| | | 54-5S/S | F | | 303 Stainless |
| | | 56-5 | F | 3/4" | Steel |
| | | B-B4M6-S | B | | |
| | | 56-5S/S | F | | 303 Stainless |

| Male Thread Swivel Under Pressure |  | Part No. | MPT | Description |
|--------------------------------------|---|----------|------|--------------|
| | | 52S-5 | 3/8" | Brass /Steel |
| | | 54S-5 | 1/2" | |


Swivel Plugs – Eliminates hose twist on end drop applications such as blow guns, air tools, etc.

| Hose Stem |  | Part No. | Brand | I.D. | Description |
|-----------|---|----------|----------|------|-------------------|
| | | 59-5 | F | 3/8" | Steel |
| | | B-B4S3-S | B | | |
| | | 59-5B | F | 3/8" | Brass |
| | | 60-5 | F | 1/2" | Steel |
| | | B-B4S4-S | B | | |
| | | 60-5G | F | 1/2" | Ball Check, Steel |
| | | 60-5B | F | 1/2" | Brass |
| | | 61-5 | F | 3/4" | Steel |
| | | B-B4S6-S | B | | |
| | | 61-5B | F | 3/4" | Brass |

Requires Hose Clamps (See page 200 for typical hose clamps)

| Push-On Hose Stem |  | Part No. | Brand | I.D. | Description |
|-------------------|--|-----------|----------|------|-------------|
| | | 71-5 | F | 3/8" | Steel |
| | | B-B4PS3-S | B | | |
| | | 81-5 | F | 1/2" | Steel |
| | | B-B4PS4-S | B | | |
| | | 81-5B | F | 1/2" | Brass |

Hose clamps not required when used with "Push On" hose. See page 369.

| Reusable Hose Clamp |  | Part No. | I.D. x O.D. | Description |
|---------------------|---|----------|---------------|-------------|
| | | PB3-5 | 1/4" x 1/2" | Steel |
| | | PB5-5 | 1/4" x 9/16" | |
| | | PB7-5 | 1/4" x 5/8" | |
| | | PD7-5 | 3/8" x 5/8" | Steel |
| | | PD9-5 | 3/8" x 11/16" | |
| | | PD11-5 | 3/8" x 3/4" | |
| | | PD13-5 | 3/8" x 13/16" | |
| | | PP13-5 | 1/2" x 13/16" | Steel |
| | | PP15-5 | 1/2" x 7/8" | |
| | | PP17-5 | 1/2" x 15/16" | |
| | | PP19-5 | 1/2" x 1" | |

Ball check plugs eliminate hose whip at disconnect by checking the rapid flow of downstream exhaust air

Brand - Designates **F**=Foster or **B**=Breco Part

See page 380 for full size templates

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WARNING: These products can expose you to chemicals including lead, which is known to the State of California to cause cancer, and which is known to cause birth defects or other reproductive harm. For more information go to www.P65Warnings.ca.gov.

3/4" One Way Shut-Off – 6 & B Series

(Industrial Interchange)



Pneumatic QD

Hydraulic QD

Blow Guns & Accessories


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6 & B Series 3/4" 1-Way Automatic Sockets

| Female Thread |  | Part No. | Brand | FPT | Description |
|---------------|---|-------------|----------|----------------------------------|--|
| | | FM6206 | F | 1/2" | Brass |
| | | B-6BF4-B | B | | |
| | | SL6206 | F | | Sleeve Lock, Brass |
| | | B-6BF4-B-SL | B | | |
| | | FM6206W | F | | For Water, Brass/SS, Buna-N Seal |
| | | FM6406 | F | 3/4" | Brass |
| | | B-6BF6-B | B | | |
| | | SL6406 | F | | Sleeve Lock, Brass |
| | | B-6BF6-B-SL | B | | |
| | | FM6406H | F | | For Heat, Viton Seal |
| | | SL6406H | | | For Heat, Sleeve Lock, Viton Seal, Brass |
| | | FM6406S | | | For Steam, Brass/SS, EPDM Seal |
| | | FM6406W | | | For Water, Brass/SS, Buna-N Seal |
| | | FM6606 | | | 1" |
| | | B-6BF8-B | B | | |
| | | SL6606 | F | Sleeve Lock, Brass | |
| | | B-6BF8-B-SL | B | | |
| | | FM6606W | F | For Water, Brass/SS, Buna-N Seal | |

Sleeve Lock (SL) – Locks automatic socket against accidental disconnect.

| Male Thread |  | Part No. | Brand | MPT | Description |
|-------------|--|-------------|----------|------|----------------------------------|
| | | FM6306 | F | 1/2" | Brass |
| | | B-6BM4-B | B | | |
| | | SL6306 | F | | Sleeve Lock, Brass |
| | | B-6BM4-B-SL | B | | |
| | | FM6306S | F | 3/4" | For Steam, Brass/SS, EPDM Seal |
| | | FM6306W | | | For Water, Brass/SS, Buna-N Seal |
| | | FM6506 | F | | Brass |
| | | B-6BM6-B | B | | |
| | | SL6506 | F | | Sleeve Lock, Brass |
| | | B-6BM6-B-SL | B | | |
| | | FM6506S | F | 1" | For Steam, Brass/SS, EPDM Seal |
| | | FM6506W | | | For Water, Brass/SS, Buna-N Seal |
| | | FM6706 | F | | Brass |
| | | B-6BM8-B | B | | |
| | | SL6706 | F | | Sleeve Lock, Brass |
| | | B-6BM8-B-SL | B | | |

| Hose Stem |  | Part No. | Brand | I.D. | Description |
|-----------|--|-------------|----------|------|----------------------------------|
| | | FM6806 | F | 1/2" | Brass |
| | | B-6BS4-B | B | | |
| | | SL6806 | F | | Sleeve Lock, Brass |
| | | B-6BS4-B-SL | B | | |
| | | FM6806W | F | 3/4" | For Water, Brass/SS, Buna-N Seal |
| | | FM6906 | F | | Brass |
| | | B-6BS6-B | B | | |
| | | SL6906 | F | | Sleeve Lock, Brass |
| | | B-6BS6-B-SL | B | | |
| | | FM6906W | F | 1" | For Water, Brass/SS, Buna-N Seal |
| | | FM7006 | F | | Brass |
| | | B-6BS8-B | B | | |
| | | SL7006 | F | | Sleeve Lock, Brass |
| | | B-6BS8-B-SL | B | | |

Requires Hose Clamp (See page 200 for typical hose clamps)

Brand - Designates **F**=Foster or **B**=Breco Part

See page 380 for full size templates

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WARNING: These products can expose you to chemicals including lead, which is known to the State of California to cause cancer, and which is known to cause birth defects or other reproductive harm. For more information go to www.P65Warnings.ca.gov.





3/4" One Way Shut-Off – 6 Series


(Industrial Interchange)

6 Series 3/4" Plugs

| Female Thread |  | Part No. | Brand | FPT | Description |
|---------------|---|----------|----------|------|-------------|
| | | 65-6 | F | 1/2" | Steel |
| | | B-B6F4-S | B | | |
| | | 67-6 | F | 3/4" | Steel |
| | | B-B6F6-S | B | | |
| | | 69-6 | F | 1" | Steel |
| | | B-B6F8-S | B | | |

| Male Thread |  | Part No. | Brand | MPT | Description |
|-------------|---|----------|----------|------|-------------|
| | | 64-6 | F | 1/2" | Steel |
| | | B-B6M4-S | B | | |
| | | 66-6 | F | 3/4" | Steel |
| | | B-B6M6-S | B | | Brass |
| | | B-B6M6-B | | | |
| | | 68-6 | F | 1" | Steel |
| | | B-B6M8-S | B | | |

| Hose Stem |  | Part No. | Brand | I.D. | Description |
|-----------|---|---|----------|------|-------------|
| | | 70-6 | F | 1/2" | Steel |
| | | B-B6S4-S | B | | |
| | | 71-6 | F | 3/4" | Steel |
| | | B-B6S6-S | B | | |
| | | 72-6 | F | 1" | Steel |
| | | B-B6S8-S | B | | |
| | | Requires Hose Clamps (See page 200 for typical hose clamps) | | | |

| Male Thread Swivel Under Pressure |  | Part No. | MPT | Description |
|--------------------------------------|--|--|------|--------------|
| | | 66S-6 | 3/4" | Brass /Steel |
| | | Swivel Plugs – Eliminates hose twist on end drop applications such as blow guns, air tools, etc. | | |

Brand - Designates **F**=Foster or **B**=Breco Part

See page 380 for full size templates

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WARNING: These products can expose you to chemicals including lead, which is known to the State of California to cause cancer, and which is known to cause birth defects or other reproductive harm. For more information go to www.P65Warnings.ca.gov.

1/4" - 210 & O Series



(Interchange with ARO 210 Series)

Foster 210 Series couplings are available manual or automatic to connect designs and interchange with 1/4" body size ARO 210 series plugs.

Specifications:

Type: One-Way Shut-Off

Rated Pressure: 300 psig

Temperature Range (Buna seal): -40° to +250°F.

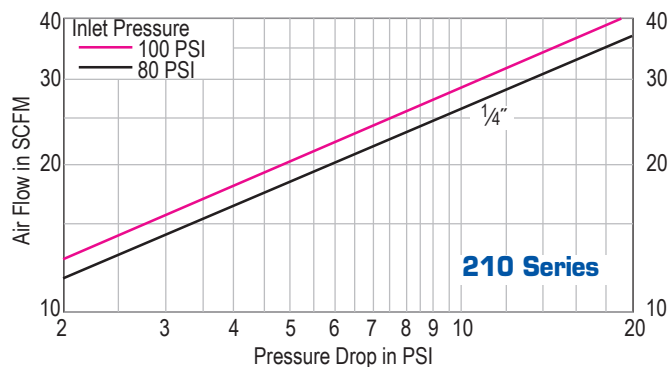
Locking Device: Stainless Steel pins

Operation:

Manual - Socket sleeve must be retracted to connect and disconnect

Automatic - Push to Connect, retract socket sleeve to disconnect

Performance:



Pneumatic QD

Hydraulic QD

Blow Guns & Accessories


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210 & O Series 1/4" Manual Sockets

| Female Thread |  | Part No. | Brand | FPT | Description |
|---------------|--|--------------|----------|------|---------------|
| | | 210M-2803 | F | 1/8" | Brass/Steel |
| | | 210M-2803NP | | | Nickel Plated |
| | | 210M-2803S/S | | | 303 Stainless |
| | | B-20F2-B | B | 1/4" | Brass |
| | | 210M-3003 | F | | Brass/Steel |
| | | B-20F2-S | B | | Steel |
| | | 210M-3003NP | F | | Nickel Plated |
| | | 210M-3003S/S | | | 303 Stainless |
| | | B-20F3-B | B | 3/8" | Brass |
| | | 210M-3203 | F | | Brass/Steel |
| | | 210M-3203S/S | | | 303 Stainless |


Male Thread



| Part No. | Brand | MPT | Description |
|--------------|----------|------|---------------|
| 210M-2903 | F | 1/8" | Brass/Steel |
| 210M-2903NP | | | Nickel Plated |
| 210M-2903S/S | | | 303 Stainless |
| B-20M2-B | B | 1/4" | Brass |
| 210M-3103 | F | | Brass/Steel |
| B-20M2-S | B | | Steel |
| 210M-3103NP | F | | Nickel Plated |
| 210M-3103S/S | | | 303 Stainless |
| B-20M3-B | B | 3/8" | Brass |
| 210M-3303 | F | | Brass/Steel |
| 210M-3303S/S | | | 303 Stainless |

| Hose Stem |  | Part No. | Brand | I.D. | Description |
|--|---|--------------|---------------|-------|---------------|
| | | 210M-3603 | F | 1/4" | Brass/Steel |
| | | 210M-3603NP | | | Nickel Plated |
| | | 210M-3603S/S | | | 303 Stainless |
| | | 210M-3653 | | 5/16" | Brass/Steel |
| | | 210M-3653S/S | 303 Stainless | | |
| | | B-20S3-B | B | 3/8" | Brass |
| | | 210M-3703 | F | | Brass/Steel |
| | | 210M-3703S/S | | | 303 Stainless |
| Requires Hose Clamp (See page 200 for typical hose clamps) | | | | | |

Requires Hose Clamp (See page 200 for typical hose clamps)

| Push-Lock Hose Barb |  | Part No. | I.D. | Description |
|---------------------|--|-----------|------|-------------|
| | | B-20PS3-B | 3/8" | Brass |

Hose clamps not required when used with "Push On" hose. See page 369.

Brand - Designates **F**=Foster or **B**=Breco Part

ZSi-Foster Engineering Catalog

See page 380 for full size templates




WARNING: These products can expose you to chemicals including lead, which is known to the State of California to cause cancer, and which is known to cause birth defects or other reproductive harm. For more information go to www.P65Warnings.ca.gov.




1/4" - 210 & O Series


(Interchange with ARO 210 Series)


210 Series 1/4" Automatic Sockets - Foster


| Female Thread |  | Part No. | FPT | Description |
|---------------|---|-------------|------|---------------|
| | | 210-2803 | 1/8" | Brass/Steel |
| | | 210-2803S/S | 1/8" | 303 Stainless |
| | | 210-3003 | 1/4" | Brass/Steel |
| | | 210-3003S/S | 1/4" | 303 Stainless |
| | | 210-3203 | 3/8" | Brass/Steel |
| | | 210-3203S/S | 3/8" | 303 Stainless |

| Male Thread |  | Part No. | MPT | Description |
|-------------|---|-------------|------|---------------|
| | | 210-2903 | 1/8" | Brass/Steel |
| | | 210-2903S/S | 1/8" | 303 Stainless |
| | | 210-3103 | 1/4" | Brass/Steel |
| | | 210-3103S/S | 1/4" | 303 Stainless |
| | | 210-3303 | 3/8" | Brass/Steel |
| | | 210-3303S/S | 3/8" | 303 Stainless |


Hose Stem


|  | Part No. | I.D. | Description |
|--|-------------|-------|---------------|
| | 210-3603 | 1/4" | Brass/Steel |
| | 210-3603S/S | 1/4" | 303 Stainless |
| | 210-3653 | 5/16" | Brass/Steel |
| | 210-3703 | 3/8" | Brass/Steel |
| | 210-3703S/S | 3/8" | 303 Stainless |
| Requires Hose Clamp (See page 200 for typical hose clamps) | | | |


| Push-On Hose Stem |  | Part No. | I.D. | Description |
|---|---|----------|------|-------------|
| | | 210-1513 | ¼" | Brass/Steel |
| | | 210-1713 | ⅜" | |
| Hose clamps not required when used with "Push On" hose. See page 369. | | | | |


| Reusable Hose Clamp |  | Part No. | I.D. x O.D. | Description |
|---------------------|---|------------|---------------|---------------|
| | | 210-SB3 | 1/4" x 1/2" | Brass/Steel |
| | | 210-SB3S/S | 1/4" x 1/2" | 303 Stainless |
| | | 210-SB5 | 1/4" x 9/16" | Brass/Steel |
| | | 210-SB7 | 1/4" x 5/8" | |
| | | 210-SB7S/S | 1/4" x 5/8" | 303 Stainless |
| | | 210-SC5 | 5/16" x 9/16" | Brass/Steel |
| | | 210-SC7 | 5/16" x 5/8" | |
| | | 210-SD7 | 3/8" x 5/8" | |
| | | 210-SD9 | 3/8" x 11/16" | |
| | | 210-SD11 | 3/8" x 3/4" | |
| | | 210-SD13 | 3/8" x 13/16" | |

210 & O Series 1/4" Plugs

| Female Thread |  | Part No. | Brand | FPT | Description |
|---------------|---|-----------|----------|------|---------------|
| | | 210-11 | F | 1/4" | Steel |
| | | B-O2F2-S | B | | |
| | | 210-11NP | F | | Nickel Plated |
| | | 210-11S/S | F | | 303 Stainless |
| | | B-O2F3-S | B | 3/8" | Steel |

| Hose Stem |  | Part No. | I.D. | Description |
|-----------|---|--|-------|---------------|
| | | 210-16 | 1/4" | Steel |
| | | 210-16NP | | Nickel Plated |
| | | 210-165 | 5/16" | Steel |
| | | 210-165NP | | Nickel Plated |
| | | 210-17 | 3/8" | Steel |
| | | Requires Hose Clamp (See page 200 for typical hose clamps) | | |

| Male Thread |  | Part No. | Brand | MPT | Description |
|-------------|---|-----------|----------|------|---------------|
| | | 210-12 | F | 1/8" | Steel |
| | | B-O2M1-S | B | | Nickel Plated |
| | | 210-12NP | F | | |
| | | 210-10 | F | 1/4" | Steel |
| | | B-O2M2-S | B | | Nickel Plated |
| | | 210-10NP | F | | |
| | | 210-10S/S | F | | 303 Stainless |
| | | B-O2M3-S | B | 3/8" | Steel |

| Push-On Hose Stem |  | Part No. | I.D. | Description |
|---|---|----------|------|-------------|
| | | 210-51 | 1/4" | Steel |
| Hose clamps not required when used with "Push On" hose. See page 369. | | | | |

Brand - Designates **F**=Foster or **B**=Breco Part

See page 380 for full size templates

www.zsi-foster.com



WARNING: These products can expose you to chemicals including lead, which is known to the State of California to cause cancer, and which is known to cause birth defects or other reproductive harm. For more information go to www.P65Warnings.ca.gov.

3/8" - 310 & O Series



(Interchange with ARO 310 Series)

Type: One Way Shut-Off

Rated Pressure: 300 PSIG

Operation:

Manual - Retract socket sleeve to connect and disconnect

Automatic - Push to Connect, retract socket sleeve to disconnect

Pneumatic QD

Hydraulic QD

Blow Guns & Accessories


Fittings & Accessories


Hoses & Fittings


Technical Data

Indexes

310 & O Series 3/8" Manual Sockets


| Female Thread |  | Part No. | Brand | FPT | Description |
|---------------|---|-------------|----------|------|---------------|
| | | 310M-4004 | F | 1/4" | Brass/Steel |
| | | B-30F3-B | B | | Brass |
| | | 310M-4204 | F | 3/8" | Brass/Steel |
| | | B-30F3-S | B | | Steel |
| | | 310M-4204NP | | | Nickel Plated |
| | | 310M-4404 | F | 1/2" | Brass/Steel |


| Male Thread |  | Part No. | Brand | MPT | Description |
|-------------|--|-------------|----------|------|---------------|
| | | 310M-4104 | | 1/4" | Brass/Steel |
| | | 310M-4304NP | F | | Nickel Plated |
| | | 310M-4304 | | 3/8" | Brass/Steel |
| | | B-30M3-S | B | | Steel |
| | | 310M-4504 | F | 1/2" | Brass/Steel |


| Hose Stem |  | Part No. | I.D. | Description |
|-----------|---|-------------|-------|---------------|
| | | 310M-4604 | 1/4" | Brass/Steel |
| | | 310M-4704 | 5/16" | |
| | | 310M-4804 | 3/8" | Nickel Plated |
| | | 310M-4804NP | | |
| | | 310M-4904 | 1/2" | Brass/Steel |

Requires Hose Clamp (See page 200 for typical hose clamps)


310 Series 3/8" Automatic Sockets - Foster

| Female Thread |  | Part No. | FPT | Description |
|---------------|---|----------|------|-------------|
| | | 310-4004 | 1/4" | Brass/Steel |
| | | 310-4204 | 3/8" | Brass/Steel |
| | | 310-4404 | 1/2" | Brass/Steel |


| Male Thread |  | Part No. | MPT | Description |
|-------------|---|----------|------|-------------|
| | | 310-4104 | 1/4" | Brass/Steel |
| | | 310-4304 | 3/8" | Brass/Steel |
| | | 310-4504 | 1/2" | Brass/Steel |

| Hose Stem |  | Part No. | I.D. | Description |
|-----------|---|----------|-------|-------------|
| | | 310-4604 | 1/4" | Brass/Steel |
| | | 310-4704 | 5/16" | Brass/Steel |
| | | 310-4804 | 3/8" | Brass/Steel |
| | | 310-4904 | 1/2" | Brass/Steel |

Requires Hose Clamp (See page 200 for typical hose clamps)

| Push-On Hose Stem |  | Part No. | I.D. | Description |
|-------------------|--|----------|------|-------------|
| | | 310-1714 | 3/8" | Brass/Steel |
| | | 310-1814 | 1/2" | Brass/Steel |

Hose clamps not required when used with "Push On" hose. See page 369.

| Reusable Hose Clamp |  | Part No. | I.D. x O.D. | Description |
|---------------------|--|----------|---------------|-------------|
| | | 310-SB3 | 1/4" x 1/2" | Brass/Steel |
| | | 310-SB5 | 1/4" x 9/16" | |
| | | 310-SB7 | 1/4" x 5/8" | |
| | | 310-SD7 | 3/8" x 5/8" | Brass/Steel |
| | | 310-SD9 | 3/8" x 11/16" | |
| | | 310-SD11 | 3/8" x 3/4" | |
| | | 310-SD13 | 3/8" x 13/16" | |

Brand - Designates **F**=Foster or **B**=Breco Part

See page 380 for full size templates

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3/8" - 310 & O Series

(Interchange with ARO 310 Series)

310 & O Series 3/8" Plugs

| Female Thread |  | Part No. | Brand | FPT | Description |
|---------------|---|----------|----------|------|---------------|
| | | 310-43 | F | 3/8" | Steel |
| | | B-O3F3-S | B | | |
| | | 310-43NP | F | | Nickel Plated |

| Male Thread |  | Part No. | Brand | MPT | Description |
|-------------|---|----------|----------|------|---------------|
| | | 310-42 | F | 3/8" | Steel |
| | | B-O3M3-S | B | | |
| | | 310-42NP | F | | Nickel Plated |

| Hose Stem |  | Part No. | I.D. | Description |
|-----------|---|----------|------|---------------|
| | | 310-48 | 3/8" | Steel |
| | | 310-48NP | | Nickel Plated |
| | | 310-49 | 1/2" | Steel |

Requires Hose Clamp (See page 200 for typical hose clamps)

Brand - Designates **F**=Foster or **B**=Breco Part

Call factory for nickel plating on additional items
See page 380 for full size templates
See page 373 - 374 for optional seal compounds

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www.zsi-foster.com



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1/4" - TF & J Series



(Interchange with Tru-Flate Series)

TF Series Couplers (pneumatic) up to 300 psig connect with Tru-Flate design, commonly called the automotive interchange. They have manual sleeves and are single shut off quick couplings. The steel tubular valve delivers high air flow with minimal pressure drop. Couplers and Nipples are available in a wide range of sizes and materials for use in a variety of applications with air or fluid.

Type: One Way Shut-Off

Rated Pressure: 300 PSIG

Operation:

Automatic - Push to Connect, retract socket sleeve to disconnect

Sizes: Sizes: 1/4", 3/8", (For 1/2" use Industrial Interchange product)

Features:

- Developed for the automotive industry
- High flow valves with minimal pressure drop
- Integral Sleeve guard helps prevent accidental disconnect
- Grip-ring sleeve version has a larger knurled diameter to provide easy operation when gloves are worn

Applications:

- Air compressors, Pneumatic Tools
- Grease guns, Paint applicators

Pneumatic QD

Hydraulic QD

Blow Guns & Accessories


Fittings & Accessories


Hoses & Fittings


Technical Data

Indexes


TF & J Series 1/4" Automatic Sockets

| Female Thread |  | Part No. | Brand | FPT | Description |
|---------------|---|----------|----------|------|------------------------------------|
| | | B-2JF1-B | B | 1/8" | Brass |
| | | TF2803 | F | | Brass/Steel |
| | | B-2JF2-B | B | 1/4" | Brass |
| | | TF3003 | F | | Brass/Steel |
| | | SGTF3003 | F | | Brass w/Steel Valve w/Sleeve Guard |
| | | B-2JF3-B | B | 3/8" | Brass |
| | | TF3203 | F | | Brass/Steel |

| Male Thread |  | Part No. | Brand | MPT | Description |
|-------------|---|----------|----------|------|------------------------------------|
| | | TF2903 | F | 1/8" | Brass/Steel |
| | | B-2JM2-B | B | 1/4" | Brass |
| | | TF3103 | F | | Brass/Steel |
| | | SGTF3103 | F | | Brass w/Steel Valve w/Sleeve Guard |
| | | B-2JM3-B | B | 3/8" | Brass |
| | | TF3303 | F | | Brass/Steel |

| Hose Stem |  | Part No. | Brand | I.D. | Description |
|-----------|--|----------|----------|-------|-------------|
| | | B-2JS2-B | B | 1/4" | Brass |
| | | TF3603 | F | | Brass/Steel |
| | | TF3653 | F | 5/16" | Brass/Steel |
| | | B-2JS3-B | B | 3/8" | Brass |
| | | TF3703 | F | | Brass/Steel |

Requires Hose Clamps (See page 200 for typical hose clamps)

| Push-On Hose Stem |  | Part No. | Brand | I.D. | Description |
|-------------------|--|-----------|----------|------|-------------|
| | | B-2JPS2-B | B | 1/4" | Brass |
| | | TF1513 | F | | Brass/Steel |
| | | B-2JPS3-B | B | 3/8" | Brass |
| | | TF1713 | F | | Brass/Steel |

Hose clamps not required when used with "Push On" hose. See page 369.

| Reusable Hose Clamp |  | Part No. | I.D. x O.D. | Description |
|---------------------|--|----------|---------------|-------------|
| | | TFSB3 | 1/4" x 1/2" | Brass/Steel |
| | | TFSB5 | 1/4" x 3/16" | |
| | | TFSB7 | 1/4" x 5/8" | |
| | | TFSC5 | 5/16" x 9/16" | |
| | | TFSC7 | 5/16" x 3/8" | |
| | | TFSD7 | 3/8" x 5/8" | |
| | | TFSD9 | 3/8" x 11/16" | |
| | | TFSD11 | 3/8" x 3/4" | |
| | | TFSD13 | 3/8" x 13/16" | |

Brand - Designates **F**=Foster or **B**=Breco Part

ZSi-Foster Engineering Catalog

See page 380 for full size templates

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WARNING: These products can expose you to chemicals including lead, which is known to the State of California to cause cancer, and which is known to cause birth defects or other reproductive harm. For more information go to www.P65Warnings.ca.gov.





1/4" - TF & J Series


(Interchange with Tru-Flate Series)


TF & J Series 1/4" Plugs

| Female Thread |  | Part No. | Brand | FPT | Description |
|---------------|---|----------|----------|------|-------------|
| | | TF13 | F | 1/8" | Steel |
| | | B-J2F1-S | B | | Brass |
| | | B-J2F2-B | B | | Brass |
| | | TF11 | F | 1/4" | Steel |
| | | B-J2F2-S | B | | Steel |
| | | TF15 | F | 3/8" | Steel |
| | | B-J2F3-S | B | | Steel |

| Male Thread |  | Part No. | Brand | MPT | Description |
|-------------|---|----------|----------|------|-------------|
| | | TF12 | F | 1/8" | Steel |
| | | B-J2M2-B | B | 1/4" | Brass |
| | | TF10 | F | | Steel |
| | | B-J2M2-S | B | | Steel |
| | | TF14 | F | 3/8" | Steel |

| Hose Stem |  | Part No. | I.D. | Description |
|---|---|----------|------|-------------|
| | | TF16 | 1/4" | Steel |
| | | TF17 | 3/8" | Steel |
| Requires Hose Clamps (See page 200 for typical hose clamps) | | | | |

| Push-On Hose Stem |  | Part No. | Brand | I.D. | Description |
|---|---|-----------|----------|------|-------------|
| | | TF51 | F | 1/4" | Steel |
| | | B-J2PS2-S | B | | |
| | | TF71 | F | 3/8" | Steel |
| Hose clamps not required when used with "Push On" hose. See page 369. | | | | | |

| Reusable Hose Clamp |  | Part No. | I.D. x O.D. | Description |
|---------------------|--|----------|--------------|-------------|
| | | TFPB3 | 1/4" x 1/2" | Steel |
| | | TFPB5 | 1/4" x 9/16" | |
| | | TFPB7 | 1/4" x 5/8" | |

Brand - Designates **F**=Foster or **B**=Breco Part

See page 380 for full size templates

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www.zsi-foster.com




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3/8" - TF4 & J Series




(Interchange with Tru-Flate Series)


TF4 & J Series 3/8" Automatic Sockets

| Female Thread |  | Part No. | Brand | FPT | Description |
|---------------|---|----------|----------|------|-------------|
| | | TF4004 | F | 1/4" | Brass/Steel |
| | | B-3JF2-S | B | | Steel |
| | | TF4204 | F | 3/8" | Brass/Steel |
| | | B-3JF3-S | B | | Steel |
| | | TF4404 | F | 1/2" | Brass/Steel |


| Male Thread |  | Part No. | Brand | MPT | Description |
|-------------|---|----------|----------|------|-------------|
| | | TF4104 | F | 1/4" | Brass/Steel |
| | | B-3JM2-S | B | | Steel |
| | | B-3JM3-B | B | 3/8" | Brass |
| | | TF4304 | F | | Brass/Steel |
| | | B-3JM3-S | B | | Steel |
| | | TF4504 | F | 1/2" | Brass/Steel |
| | | B-3JM4-S | B | | Steel |

| Hose Stem |  | Part No. | Brand | I.D. | Description |
|-----------|--|----------|----------|-------|-------------|
| | | TF4604 | F | 1/4" | Brass/Steel |
| | | TF4704 | F | 5/16" | Brass/Steel |
| | | TF4804 | F | 3/8" | Brass/Steel |
| | | B-3JS3-S | B | | Steel |
| | | TF4904 | F | 1/2" | Brass/Steel |
| | | B-3JS4-S | B | | Steel |


Requires Hose Clamps (See page 200 for typical hose clamps)


| Push-On Hose Stem |  | Part No. | Brand | I.D. | Description |
|-------------------|--|-----------|----------|------|-------------|
| | | TF1714 | F | 3/8" | Brass/Steel |
| | | B-3JPS3-S | B | | Steel |
| | | TF1814 | F | 1/2" | Brass/Steel |


Hose clamps not required when used with "Push On" hose. See page 369.

| Reusable Hose Clamp |  | Part No. | I.D. x O.D. | Description |
|---------------------|---|----------|---------------|-------------|
| | | TFSB34 | 1/4" x 1/2" | Brass/Steel |
| | | TFSB54 | 1/4" x 3/16" | |
| | | TFSB74 | 1/4" x 5/8" | |
| | | TFSD74 | 3/8" x 5/8" | |
| | | TFSD94 | 3/8" x 11/16" | |
| | | TFSD114 | 3/8" x 3/4" | |
| | | TFSD134 | 3/8" x 13/16" | |


TF4 & J Series 3/8" Plugs

| Female Thread |  | Part No. | FPT | Description |
|---------------|---|----------|------|-------------|
| | | TF41 | 1/4" | Steel |
| | | TF43 | 3/8" | Steel |

| Male Thread |  | Part No. | Brand | MPT | Description |
|-------------|---|----------|----------|------|-------------|
| | | TF40 | F | 1/4" | Steel |
| | | TF42 | F | 3/8" | Steel |
| | | B-J3M3-S | B | | |

| Hose Stem |  | Part No. | Brand | I.D. | Description |
|-----------|--|----------|----------|------|-------------|
| | | TF48 | F | 3/8" | Steel |

Requires Hose Clamps (See page 200 for typical hose clamps)

| Push-On Hose Stem |  | Part No. | I.D. | Description |
|-------------------|--|-----------|------|-------------|
| | | B-J3PS3-S | 3/8" | Steel |

Hose clamps not required when used with "Push On" hose. See page 369.

See page 380 for full size templates

Brand - Designates **F**=Foster or **B**=Breco Part

ZSi-Foster Engineering Catalog




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1/2" - TF & J Series


(Interchange with Tru-Flate Series)

J Series 1/2" Manual Sockets - Breco


| Female Thread |  | Part No. | FPT | Description |
|---------------|---|----------|------|-------------|
| | | B-4CF3-S | 3/8" | Steel |
| | | B-4CF4-B | 1/2" | Brass |
| | | B-4CF4-S | | Steel |
| | | B-4CF6-S | 3/4" | Steel |


| Male Thread |  | Part No. | MPT | Description |
|-------------|---|----------|------|-------------|
| | | B-4CM3-S | 3/8" | Steel |
| | | B-4CM4-B | 1/2" | Brass |
| | | B-4CM4-S | | Steel |
| | | B-4CM6-S | 3/4" | Steel |


| Hose Stem |  | Part No. | I.D. | Description |
|-----------|--|----------|------|-------------|
| | | B-4CS3-S | 3/8" | Steel |
| | | B-4CS4-S | 1/2" | Steel |
| | | B-4CS6-S | 3/4" | Steel |
| | Requires Hose Clamps (See page 200 for typical hose clamps) | | | |


| Push-On Hose Stem |  | Part No. | I.D. | Description |
|----------------------|--|---|------|-------------|
| | | B-4CPS3-S | 3/8" | Steel |
| | | B-4CPS4-S | 1/2" | Steel |
| | | Hose clamps not required when used with "Push On" hose. See page 369. | | |

J Series 1/2" Plugs - Breco

| Female Thread |  | Part No. | FPT | Description |
|---------------|---|----------|------|-------------|
| | | B-B4F3-S | 3/8" | Steel |
| | | B-B4F4-S | 1/2" | Steel |
| | | B-B4F6-S | 3/4" | Steel |

| Male Thread |  | Part No. | MPT | Description |
|-------------|---|----------|------|-------------|
| | | B-B4M3-S | 3/8" | Steel |
| | | B-B4M4-S | 1/2" | Steel |
| | | B-B4M6-S | 3/4" | Steel |

| Hose Stem |  | Part No. | I.D. | Description |
|-----------|---|----------|------|-------------|
| | | B-B4S3-S | 3/8" | Steel |
| | | B-B4S4-S | 1/2" | Steel |
| | | B-B4S6-S | 3/4" | Steel |
| | Requires Hose Clamps (See page 200 for typical hose clamps) | | | |

| Push-On Hose Stem |  | Part No. | I.D. | Description |
|-------------------|---|---|------|-------------|
| | | B-B4PS3-S | 3/8" | Steel |
| | | B-B4PS4-S | 1/2" | Steel |
| | | Hose clamps not required when used with "Push On" hose. See page 369. | | |



SHD & TL Series



(Interchange with Schrader Standard & Heavy Duty)

Features:

- Engineered for speedy coupling and uncoupling.
To lock - push in; To unlock - rotate sleeve $\frac{1}{8}$ turn.
- Designed to protect against accidental uncoupling. A variety of types and sizes are available to meet specific needs.
- Standard Twist-Lock couplings are ideal for low to medium air flows, such as air tools.

Specifications:

Temperature Range (Nitrile seal): -40° to +250°F

Locking Device: Twist-Lock

Vacuum Service: 27" HG

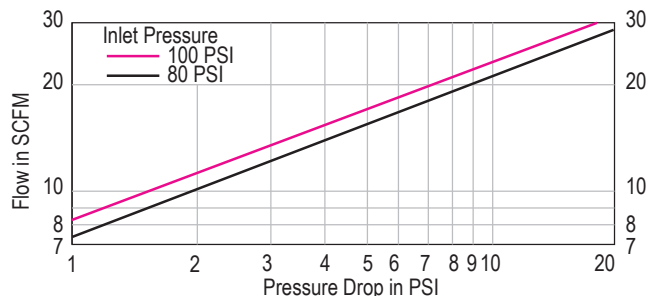
Type: One Way Shut-Off

Rated Pressure: 300 PSIG

Operation: Automatic Push to Connect; Twist-to-release

Materials: Aluminum bodies and zinc plated steel sleeves.
Buna-N seals. Brass adapters.

Performance:



Pneumatic QD

Hydraulic QD

Blow Guns & Accessories


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SHD & TL Series Automatic $\frac{1}{4}$ " Sockets


| Female Thread |  | Part No. | Brand | Size | FPT | Description |
|---------------|--|-------------|----------|-----------------|-----------------|--------------------------------------|
| | | SHD2803 | F | $\frac{1}{8}$ " | $\frac{1}{8}$ " | Aluminum/Steel/Brass |
| | | B-2TLF1-S | B | | | 303 Stainless |
| | | SHD2803S/S | F | | | 303 Stainless |
| | | SHD3003 | F | $\frac{1}{4}$ " | $\frac{1}{4}$ " | Aluminum/Steel/Brass |
| | | B-2TLF2-S | B | | | 303 Stainless |
| | | SHD3003-104 | F | | | Aluminum/Steel/Brass w/Silicone Seal |
| | | SHD3003LV | F | | | Aluminum/Steel/Brass Less Valve |
| | | SHD3003S/S | F | | | 303 Stainless |
| | | SHD3203 | F | | | Aluminum/Steel/Brass |
| | | B-2TLF3-S | B | | | 303 Stainless |
| | | SHD3203S/S | F | | | 303 Stainless |

| Hose Stem |  | Part No. | Size | I.D. | Description |
|-----------|---|------------|-----------------|------------------|----------------------|
| | | SHD3603 | $\frac{1}{4}$ " | $\frac{1}{4}$ " | Aluminum/Steel/Brass |
| | | SHD3603S/S | | $\frac{1}{4}$ " | 303 Stainless |
| | | SHD3653 | $\frac{3}{8}$ " | $\frac{5}{16}$ " | Aluminum/Steel/Brass |
| | | SHD3703 | | $\frac{5}{16}$ " | Aluminum/Steel/Brass |
| | | SHD3703S/S | | $\frac{5}{16}$ " | 303 Stainless |

Requires Hose Clamp (See page 200 for typical hose clamps)

| Push-On Hose Stem |  | Part No. | Size | I.D. | Description |
|-------------------|---|----------|-----------------|-----------------|----------------------|
| | | SHD1513 | $\frac{1}{4}$ " | $\frac{1}{4}$ " | Aluminum/Steel/Brass |
| | | SHD1713 | | $\frac{3}{8}$ " | Aluminum/Steel/Brass |

Hose clamps not required when used with "Push On" hose. See page 369.

| Male Thread |  | Part No. | Brand | Size | MPT | Description |
|-------------|---|-------------|----------|-----------------|-----------------|--------------------------------------|
| | | SHD2903 | F | $\frac{1}{8}$ " | $\frac{1}{8}$ " | Aluminum/Steel/Brass |
| | | SHD2903S/S | F | | | 303 Stainless |
| | | SHD3103 | F | | | Aluminum/Steel/Brass |
| | | B-2TLM2-S | B | $\frac{1}{4}$ " | $\frac{1}{4}$ " | Aluminum/Steel/Brass |
| | | SHD3103-104 | F | | | Aluminum/Steel/Brass w/Silicone Seal |
| | | SHD3103S/S | F | | | 303 Stainless |
| | | SHD3303 | F | | | Aluminum/Steel/Brass |
| | | B-2TLM3-S | B | | | 303 Stainless |
| | | SHD3303S/S | F | | | 303 Stainless |

| Reusable Hose Clamp |  | Part No. | Size | I.D. x O.D. | Description |
|---------------------|--|------------|-----------------|-------------------------------------|----------------------|
| | | SHDSB33 | $\frac{1}{4}$ " | $\frac{1}{4}$ " x $\frac{1}{2}$ " | Aluminum/Steel/Brass |
| | | SHDSB33S/S | | $\frac{1}{4}$ " x $\frac{1}{2}$ " | 303 Stainless |
| | | SHDSB53 | $\frac{3}{8}$ " | $\frac{3}{8}$ " x $\frac{5}{8}$ " | Aluminum/Steel/Brass |
| | | SHDSB73 | | $\frac{3}{8}$ " x $\frac{5}{8}$ " | Aluminum/Steel/Brass |
| | | SHDSB73S/S | $\frac{1}{2}$ " | $\frac{3}{8}$ " x $\frac{5}{8}$ " | 303 Stainless |
| | | SHDSC53 | | $\frac{5}{16}$ " x $\frac{9}{16}$ " | Aluminum/Steel/Brass |
| | | SHDSC73 | | $\frac{5}{16}$ " x $\frac{9}{16}$ " | Aluminum/Steel/Brass |
| | | SHDSD73 | | $\frac{3}{8}$ " x $\frac{5}{8}$ " | Aluminum/Steel/Brass |
| | | SHDSD93 | | $\frac{3}{8}$ " x $\frac{11}{16}$ " | Aluminum/Steel/Brass |
| | | SHDSD113 | | $\frac{3}{8}$ " x $\frac{3}{4}$ " | Aluminum/Steel/Brass |
| | | SHDSD133 | | $\frac{3}{8}$ " x $\frac{13}{16}$ " | Aluminum/Steel/Brass |

See page 381 for full size templates
See page 373 - 374 for optional seal compounds

Brand - Designates **F**=Foster or **B**=Breco Part




WARNING: These products can expose you to chemicals including lead, which is known to the State of California to cause cancer, and which is known to cause birth defects or other reproductive harm. For more information go to www.P65Warnings.ca.gov.




SHD & TL Series


(Interchange with Schrader Standard & Heavy Duty)


SHD Series Automatic 1/2" Sockets - Foster


| Female Thread |  | Part No. | Brand | Size | FPT | Description |
|---------------|---|-----------|----------|------|------|--------------------------|
| | | SHD4015 | F | 1/2" | 1/4" | Aluminum/Steel/ Brass |
| | | B-4TLF2-S | B | | | |
| | | SHD5005 | F | | | |
| | | B-4TLF3-S | B | 3/8" | | |
| | | SHD5205 | F | 1/2" | | |
| | | B-4TLF4-S | B | | | |
| | | SHD5405 | F | | | |
| | | B-4TLF6-S | B | 3/4" | | |


| Male Thread |  | Part No. | Brand | Size | MPT | Description |
|-------------|--|-----------|----------|------|------|--------------------------|
| | | SHD4905 | F | 1/2" | 1/4" | Aluminum/Steel/ Brass |
| | | B-4TLM2-S | B | | | |
| | | SHD5105 | F | | | |
| | | B-4TLM3-S | B | 3/8" | | |
| | | SHD5305 | F | 1/2" | | |
| | | B-4TLM4-S | B | | | |
| | | SHD5505 | F | 3/4" | | |

SHD Series Dust Plugs - Foster

| Dust Plug |  | Part No. | Size | Description |
|-----------|---|----------|------|--------------------|
| | | SHD-DP | 1/4" | Aluminum w/Lanyard |

| Hose Stem |  | Part No. | Size | I.D. | Description |
|-----------|--|--|------|------|----------------------|
| | | SHD5605 | 1/2" | 1/4" | Aluminum/Steel/Brass |
| | | SHD5705 | | 3/8" | |
| | | SHD5805 | | 1/2" | |
| | | SHD5905 | | 3/4" | |
| | | Requires Hose Clamp (See page 200 for typical hose clamps) | | | |

| Push-On Hose Stem |  | Part No. | Size | I.D. | Description |
|-------------------|--|---|------|------|--------------------------|
| | | SHD1815 | 1/2" | 1/2" | Aluminum/Steel/ Brass |
| | | Hose clamps not required when used with "Push On" hose. See page 369. | | | |

| Reusable Hose Clamp |  | Part No. | Size | I.D. x O.D. | Description |
|---------------------|---|----------|------|---------------|--------------------------|
| | | SHDSD75 | 1/2" | 3/8" x 5/8" | Aluminum/Steel/ Brass |
| | | SHDSD95 | | 3/8" x 11/16" | |
| | | SHDSD115 | | 3/8" x 3/4" | |
| | | SHDSD135 | | 3/8" x 13/16" | |
| | | SHDSP135 | | 1/2" x 13/16" | |
| | | SHDSP155 | | 1/2" x 7/8" | |
| | | SHDSP175 | | 1/2" x 15/16" | |
| | | SHDSP195 | | 1/2" x 1" | |

Brand - Designates **F**=Foster or **B**=Breco Part

See page 381 for full size templates

See page 373 - 374 for optional seal compounds

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www.zsi-foster.com



WARNING: These products can expose you to chemicals including lead, which is known to the State of California to cause cancer, and which is known to cause birth defects or other reproductive harm. For more information go to www.P65Warnings.ca.gov.

SHD & TL Series



(Interchange with Schrader Standard & Heavy Duty)

Pneumatic QD

Hydraulic QD

Blow Guns & Accessories


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SHD & TL Series 1/4" Plugs


| Female Thread |  | Part No. | Size | FPT | Description |
|---------------|---|----------|------|------|---------------|
| | | SHD13 | 1/4" | 1/8" | Steel |
| | | SHD11 | | 1/4" | Steel |
| | | SHD11S/S | | 1/4" | 303 Stainless |


| Male Thread |  | Part No. | Size | MPT | Description |
|-------------|---|----------|------|------|---------------|
| | | SHD12 | 1/4" | 1/8" | Steel |
| | | SHD10 | | 1/4" | Steel |
| | | SHD10S/S | | 1/4" | 303 Stainless |


| Hose Stem |  | Part No. | Brand | Size | I.D. | Description |
|--|--|-----------|----------|------|------|-------------|
| | | SHD16 | F | 1/4" | 1/4" | Steel |
| | | B-TL2S2-S | B | | 1/4" | |
| | | SHD17 | F | 3/8" | | |
| Requires Hose Clamp (See page 200 for typical hose clamps) | | | | | | |

| Push-On Hose Stem |  | Part No. | Size | I.D. | Description |
|-------------------|--|----------|------|------|-------------|
| | | SHD51 | 1/4" | 1/4" | Steel |
| | Hose clamps not required when used with "Push On" hose. See page 369. | | | | |

SHD & TL Series 1/2" Plugs

| Female Thread |  | Part No. | Brand | Size | FPT | Description |
|---------------|---|-----------|----------|------|------|-------------|
| | | B-TL4F2-S | B | 1/2" | 1/4" | Steel |
| | | SHD53 | F | | 3/8" | |

| Male Thread |  | Part No. | Brand | Size | MPT | Description |
|-------------|---|-----------|----------|------|------|-------------|
| | | SHD50 | F | 1/2" | 1/4" | Steel |
| | | SHD52 | F | | 3/8" | |
| | | SHD54 | F | | 1/2" | |
| | | B-TL4M6-S | B | | 3/4" | |

| Hose Stem |  | Part No. | Brand | Size | I.D. | Description |
|-----------|--|--|-------|------|------|-------------|
| | | SHD59 | F | 1/2" | 3/8" | Steel |
| | | SHD60 | | | 1/2" | |
| | | Requires Hose Clamp (See page 200 for typical hose clamps) | | | | |

Brand - Designates **F**=Foster or **B**=Breco Part

ZSi-Foster Engineering Catalog

See page 381 for full size templates

See page 373 - 374 for optional seal compounds



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1/4" - O60 & A70 Series

(Interchange with Hansen 600 & 700 Series)

Type: One Way Shut-Off

Rated Pressure: 300 PSIG

Safety: Sleeve must be retracted to connect and disconnect

Applications & Markets:

- Designed for use with compressed air and other gases
 - General Pneumatics • Breathing Equipment • Welding
 - Shipyards • Construction
- Series O60 couplings used with oxygen at 100 psig or less
- Series A70 couplings used with acetylene at 15 psig or less


COLOR CODED SOCKETS


■ **O60 – GREEN SLEEVE BAND • OXYGEN SERVICE**


■ **A70 – RED SLEEVE BAND • ACETYLENE SERVICE**

When used for oxygen/acetylene service, order with Ball Lock (BL) to comply with OSHA Std. 1915.55(f)(5).


O60 Series 1/4" Standard Sockets - Foster


| Female Thread |  | Part No. | FPT | Description |
|---------------|---|----------|------|------------------|
| | | O-2803 | 1/8" | Brass |
| | | O-3003 | 1/4" | |
| | | O-3003LV | 1/4" | |
| | | O-3203 | 3/8" | Brass |
| | | BLO-2803 | 1/8" | Ball Lock, Brass |
| | | BLO-3003 | 1/4" | |
| | | BLO-3203 | 3/8" | |

| Male Thread |  | Part No. | MPT | Description |
|-------------|--|----------|------|------------------|
| | | O-2903 | 1/8" | Brass |
| | | O-3103 | 1/4" | |
| | | O-3303 | 3/8" | |
| | | BLO-2903 | 1/8" | Ball Lock, Brass |
| | | BLO-3103 | 1/4" | |
| | | BLO-3303 | 3/8" | |

| Hose Stem |  | Part No. | I.D. | Description |
|-----------|---|----------|-------|------------------|
| | | O-3603 | 1/4" | Brass |
| | | O-3653 | 5/16" | |
| | | O-3703 | 3/8" | |
| | | BLO-3603 | 1/4" | Ball Lock, Brass |
| | | BLO-3653 | 5/16" | |
| | | BLO-3703 | 3/8" | |


Requires Hose Clamp (See page 200 for typical hose clamps)


| Reusable Hose Clamp |  | Part No. | I.D. x O.D. | Description |
|---------------------|--|----------|---------------|------------------|
| | | O-SB3 | 1/4" x 1/2" | Brass |
| | | O-SB5 | 1/4" x 9/16" | |
| | | O-SB7 | 1/4" x 5/8" | |
| | | O-SC5 | 5/16" x 9/16" | |
| | | O-SC7 | 5/16" x 5/8" | |
| | | O-SD7 | 3/8" x 5/8" | |
| | | O-SD9 | 3/8" x 11/16" | |
| | | O-SD11 | 3/8" x 3/4" | |
| | | O-SD13 | 3/8" x 13/16" | |
| | | BLO-SB3 | 1/4" x 1/2" | Ball Lock, Brass |
| | | BLO-SB5 | 1/4" x 9/16" | |
| | | BLO-SB7 | 1/4" x 5/8" | |
| | | BLO-SC5 | 5/16" x 9/16" | |
| | | BLO-SC7 | 5/16" x 5/8" | |
| | | BLO-SD7 | 3/8" x 5/8" | |
| | | BLO-SD9 | 3/8" x 11/16" | |


| Push-On Hose Stem |  | Part No. | I.D. | Description |
|-------------------|--|----------|------|------------------|
| | | O-1513 | 1/4" | Brass |
| | | O-1713 | 3/8" | |
| | | BLO-1513 | 1/4" | Ball Lock, Brass |
| | | BLO-1713 | 3/8" | |

Hose clamps not required when used with "Push On" hose. See page 369.

O60 Series 1/4" Plugs - Foster

| Female Thread |  | Part No. | FPT | Description |
|---------------|---|----------|------|-------------|
| | | O-11 | 1/4" | Brass |

| Male Thread |  | Part No. | MPT | Description |
|-------------|---|----------|------|-------------|
| | | O-12 | 1/8" | Brass |
| | | O-10 | 1/4" | |

| Hose Stem |  | Part No. | I.D. | Description |
|-----------|--|----------|------|-------------|
| | | O-16 | 1/4" | Brass |
| | | O-17 | 3/8" | |

Requires Hose Clamp (See page 200 for typical hose clamps)

See page 381 for full size templates

See page 373 - 374 for optional seal compounds

Brand - Designates **F**=Foster or **B**=Breco Part

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WARNING: These products can expose you to chemicals including lead, which is known to the State of California to cause cancer, and which is known to cause birth defects or other reproductive harm. For more information go to www.P65Warnings.ca.gov.

1/4" - A70 Series



(Interchange with Hansen 700 Series)

Features:

- Safety sleeve lock prevents accidental disconnections
- Non-Interchangeable design prevents crossing of lines

- Color coded sleeves for easy identification:
O60 - green, A70 - red
- OSHA compliant
- Construction: Brass w/Buna-N seal

Pneumatic QD

Hydraulic QD

Blow Guns & Accessories


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A70 Series 1/4" Standard Sockets - Foster

| Female Thread |  | Part No. | FPT | Description |
|---------------|---|----------|------|------------------|
| | | A-2803 | 1/8" | Brass |
| | | A-3003 | 1/4" | |
| | | A-3203 | 3/8" | |
| | | BLA-2803 | 1/8" | Ball Lock, Brass |
| | | BLA-3003 | 1/4" | |
| | | BLA-3203 | 3/8" | |


| Male Thread |  | Part No. | MPT | Description |
|-------------|---|----------|------|------------------|
| | | A-2903 | 1/8" | Brass |
| | | A-3103 | 1/4" | |
| | | A-3303 | 3/8" | |
| | | BLA-2903 | 1/8" | Ball Lock, Brass |
| | | BLA-3103 | 1/4" | |
| | | BLA-3303 | 3/8" | |


| Hose Stem |  | Part No. | I.D. | Description |
|-----------|---|----------|-------|------------------|
| | | A-3603 | 1/4" | Brass |
| | | A-3653 | 5/16" | |
| | | A-3703 | 3/8" | |
| | | BLA-3603 | 1/4" | Ball Lock, Brass |
| | | BLA-3653 | 5/16" | |
| | | BLA-3703 | 3/8" | |


Requires Hose Clamp (See page 200 for typical hose clamps)

| Reusable Hose Clamp |  | Part No. | I.D. x O.D. | Description |
|---------------------|--|----------|---------------|------------------|
| | | A-SB3 | 1/4" x 1/2" | Brass |
| | | A-SB5 | 1/4" x 9/16" | |
| | | A-SB7 | 1/4" x 5/8" | |
| | | A-SC5 | 5/16" x 9/16" | |
| | | A-SC7 | 5/16" x 5/8" | |
| | | A-SD7 | 3/8" x 5/8" | |
| | | A-SD9 | 3/8" x 11/16" | |
| | | A-SD11 | 3/8" x 3/4" | Ball Lock, Brass |
| | | A-SD13 | 3/8" x 13/16" | |
| | | BLA-SB3 | 1/4" x 1/2" | |
| | | BLA-SB5 | 1/4" x 9/16" | |
| | | BLA-SB7 | 1/4" x 5/8" | |
| | | BLA-SC5 | 5/16" x 9/16" | |
| | | BLA-SC7 | 5/16" x 5/8" | |
| | | BLA-SD7 | 3/8" x 5/8" | |
| | | BLA-SD9 | 3/8" x 11/16" | |
| | | BLA-SD11 | 3/8" x 3/4" | |
| | | BLA-SD13 | 3/8" x 13/16" | |

A70 Series 1/4" Plugs - Foster

| Female Thread |  | Part No. | FPT | Description |
|---------------|---|----------|------|-------------|
| | | A-11 | 1/4" | Brass |

| Male Thread |  | Part No. | MPT | Description |
|-------------|---|----------|------|-------------|
| | | A-12 | 1/8" | Brass |
| | | A-10 | 1/4" | |

| Hose Stem |  | Part No. | I.D. | Description |
|-----------|--|----------|------|-------------|
| | | A-16 | 1/4" | Brass |
| | | A-17 | 3/8" | |

Requires Hose Clamp (See page 200 for typical hose clamps)

See page 381 for full size templates
See page 373 - 374 for optional seal compounds

Brand - Designates **F**=Foster or **B**=Breco Part





2FRL Series

(Interchange with Hansen 1/4" 2RL)

Type: One Way Shut-Off

Rated Pressure: 300 PSIG

Operation: Automatic Push to Connect; Twist-to-release


Features:


- High flow capacity
 - Ring lock
- Push to Connect, retract socket sleeve to disconnect
- Will not disconnect when hose is dragged on the ground
- Rotate locking sleeve approximately 20° to disconnect
- Optional seal materials available


Standard Materials:


- Socket
 - Zinc Plated Steel Body
 - Brass Socket End
 - Zinc Plated Steel Sleeve
 - Zinc Plated Steel Valve
 - Buna-N (Nitrile) Seal
 - Spring is Zinc Plated Music Wire
 - Zinc Plated Steel Locking Ring
- Plug
 - Zinc Plated Case-Hardened Steel


3/8" - 2FRL Series Automatic Sockets - Foster

| Female Thread |  | Part No. | Size | FPT | Description |
|---------------|---|----------|------|------|-------------|
| | | 2R4004 | 3/8" | 1/4" | Brass/Steel |
| | | 2R4204 | | 3/8" | |
| | | 2R4404 | | 1/2" | |


| Male Thread |  | Part No. | Size | MPT | Description |
|-------------|--|----------|------|------|-------------|
| | | 2R4104 | 3/8" | 1/4" | Brass/Steel |
| | | 2R4304 | | 3/8" | |
| | | 2R4504 | | 1/2" | |


| Hose Stem |  | Part No. | Size | I.D. | Description |
|-----------|---|--|------|-------|-------------|
| | | 2R4604 | 3/8" | 1/4" | Brass/Steel |
| | | 2R4704 | | 5/16" | |
| | | 2R4804 | | 3/8" | |
| | | 2R4904 | | 1/2" | |
| | | Requires Hose Clamp (See page 200 for typical hose clamps) | | | |


| Push-On Hose Stem |  | Part No. | Size | I.D. | Description |
|-------------------|--|---|------|------|-------------|
| | | 2R1714 | 3/8" | 3/8" | Brass/Steel |
| | | 2R1814 | | 1/2" | |
| | | Hose clamps not required when used with "Push On" hose. See page 369. | | | |


| Reusable Hose Clamp |  | Part No. | Size | I.D. x O.D. | Description |
|---------------------|---|----------|------|---------------|-------------|
| | | 2RSD7 | 3/8" | 3/8" x 5/8" | Brass/Steel |
| | | 2RSD9 | | 3/8" x 11/16" | |
| | | 2RSD11 | | 3/8" x 3/4" | |
| | | 2RSD13 | | 3/8" x 13/16" | |

3/8" - 2FRL Series Plugs - Foster

| Female Thread |  | Part No. | Size | FPT | Description |
|---------------|---|----------|------|------|-------------|
| | | 2L41 | 3/8" | 1/4" | Steel |
| | | 2L43 | | 3/8" | |
| | | 2L45 | | 1/2" | |

| Male Thread |  | Part No. | Size | MPT | Description |
|-------------|---|----------|------|------|-------------|
| | | 2L38 | 3/8" | 1/8" | Steel |
| | | 2L40 | | 1/4" | |
| | | 2L42 | | 3/8" | |
| | | 2L44 | | 1/2" | |

| Hose Stem |  | Part No. | Size | I.D. | Description |
|-----------|---|--|------|------|-------------|
| | | 2L46 | 3/8" | 1/4" | Steel |
| | | 2L48 | | 3/8" | |
| | | 2L49 | | 1/2" | |
| | | Requires Hose Clamp (See page 200 for typical hose clamps) | | | |

| Reusable Hose Clamp |  | Part No. | Size | I.D. x O.D. | Description |
|---------------------|--|----------|------|---------------|-------------|
| | | 2LPD7 | 3/8" | 3/8" x 5/8" | Steel |
| | | 2LPD9 | | 3/8" x 11/16" | |
| | | 2LPD11 | | 3/8" x 3/4" | |
| | | 2LPD13 | | 3/8" x 13/16" | |
| | | 2LPP13 | | 1/2" x 13/16" | |
| | | 2LPP15 | | 1/2" x 7/8" | |
| | | 2LPP17 | | 1/2" x 15/16" | |
| | | 2LPP19 | | 1/2" x 1" | |

See page 381 for full size templates

See page 373 - 374 for optional seal compounds

Brand - Designates **F**=Foster or **B**=Breco Part

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3FRL Series





(Interchange with Hansen 3/8" 3RL)


1/2" - 3FRL Series Automatic Sockets - Foster

| Female Thread |  | Part No. | Size | FPT | Description |
|---------------|---|----------|------|------|-------------|
| | | 3R4015 | 1/2" | 1/4" | Brass/Steel |
| | | 3R5005 | | 3/8" | |
| | | 3R5205 | | 1/2" | |
| | | 3R5405 | | 3/4" | |


| Male Thread |  | Part No. | Size | MPT | Description |
|-------------|---|----------|------|------|-------------|
| | | 3R4905 | 1/2" | 1/4" | Brass/Steel |
| | | 3R5105 | | 3/8" | |
| | | 3R5305 | | 1/2" | |
| | | 3R5505 | | 3/4" | |


| Hose Stem |  | Part No. | Size | I.D. | Description |
|--|---|----------|------|------|-------------|
| | | 3R5605 | 1/2" | 1/4" | Brass/Steel |
| | | 3R5705 | | 3/8" | |
| | | 3R5805 | | 1/2" | |
| | | 3R5905 | | 3/4" | |
| Requires Hose Clamp (See page 200 for typical hose clamps) | | | | | |


| Push-On Hose Stem |  | Part No. | Size | I.D. | Description |
|---|--|----------|------|------|-------------|
| | | 3R1815 | 1/2" | 1/2" | Brass/Steel |
| Hose clamps not required when used with "Push On" hose. See page 369. | | | | | |

| Reusable Hose Clamp |  | Part No. | Size | I.D. x O.D. | Description |
|---------------------|--|----------|------|---------------|-------------|
| | | 3RSD7 | 1/2" | 3/8" x 5/8" | Brass/Steel |
| | | 3RSD9 | | 3/8" x 11/16" | |
| | | 3RSD11 | | 3/8" x 3/4" | |
| | | 3RSD13 | | 3/8" x 13/16" | |
| | | 3RSP13 | | 1/2" x 13/16" | |
| | | 3RSP15 | | 1/2" x 7/8" | |
| | | 3RSP17 | | 1/2" x 15/16" | |
| | | 3RSP19 | | 1/2" x 1" | |

1/2" - 3FRL Series Plugs - Foster

| Female Thread |  | Part No. | Size | FPT | Description |
|---------------|---|----------|------|------|-------------------|
| | | 3L51 | 1/2" | 1/4" | Steel |
| | | 3L55 | | 1/2" | |
| | | 3L55G | | 1/2" | Steel, Ball Check |
| | | 3L57 | | 3/4" | Steel |

| Male Thread |  | Part No. | Size | MPT | Description |
|-------------|---|----------|------|------|-------------------|
| | | 3L50 | 1/2" | 1/4" | Steel |
| | | 3L52 | | 3/8" | |
| | | 3L52G | | 3/8" | Steel, Ball Check |
| | | 3L54 | | 1/2" | Steel |
| | | 3L54G | | 1/2" | Steel, Ball Check |
| | | 3L56 | | 3/4" | Steel |

| Hose Stem |  | Part No. | Size | I.D. | Description |
|--|--|----------|------|------|-------------------|
| | | 3L58 | 1/2" | 1/4" | Steel |
| | | 3L59 | | 3/8" | |
| | | 3L59G | | 3/8" | Steel, Ball Check |
| | | 3L60 | | 1/2" | Steel |
| | | 3L60G | | 1/2" | Steel, Ball Check |
| | | 3L61 | | 3/4" | Steel |
| | | 3L61G | | 3/4" | Steel, Ball Check |
| Requires Hose Clamp (See page 200 for typical hose clamps) | | | | | |



1/4" - LN & L Series

(Interchange with Lincoln Long Nose)

Foster LN Series couplings are interchangeable with Lincoln's "Long Nose" series couplings and offer quick coupling of all air-operated equipment. They are only available in 1/4" body size, brass and steel construction.

- Locking feature prevents accidental coupler detachment
- Increased air flow due to a larger air passage
- Automatic air check valve shuts off air instantly when uncoupled, providing leak-proof seal.
- Corrosion resistant steel for long service life
- Free swivel helps prevent kinking or curling of air hoses

Specifications:

Type: One Way Shut-Off

Rated Pressure: 300 PSIG

Temperature Range (std seals): -40° to +250°F.

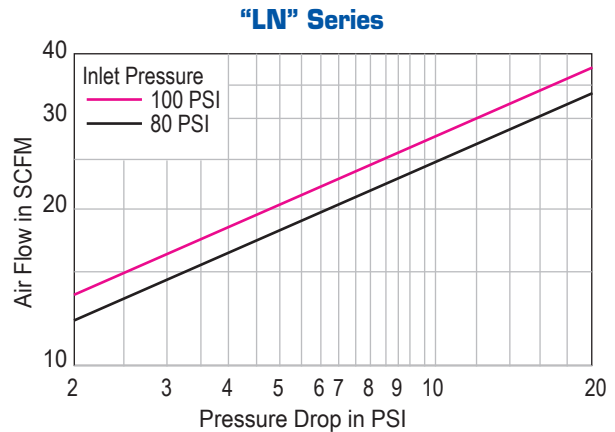
Locking Device: Balls or pins

Operation:


Manual - socket sleeve must be retracted to connect and disconnect


Automatic - Push to Connect, retract socket sleeve to disconnect


Performance:




LN & L Series Automatic 1/4" Sockets

| Female Thread |  | Part No. | Brand | FPT | Description |
|---------------|---|----------|----------|------|-------------|
| | | LN2803 | F | 1/8" | Brass/Steel |
| | | LN3003 | | 1/4" | |
| | | B-2LF2-B | B | 1/4" | |
| | | LN3203 | F | 3/8" | |


| Male Thread |  | Part No. | Brand | MPT | Description |
|-------------|---|----------|----------|------|-------------|
| | | LN2903 | F | 1/8" | Brass/Steel |
| | | LN3103 | | 1/4" | |
| | | B-2LM2-B | B | 1/4" | |
| | | LN3303 | F | 3/8" | |

| Hose Stem |  | Part No. | I.D. | Description |
|-----------|---|----------|-------|-------------|
| | | LN3603 | 1/4" | Brass/Steel |
| | | LN3653 | 5/16" | |
| | | LN3703 | 3/8" | |

Requires Hose Clamp (See page 200 for typical hose clamps)

| Push-On Hose Stem |  | Part No. | I.D. | Description |
|-------------------|---|----------|------|-------------|
| | | LN1513 | 1/4" | Brass/Steel |
| | | LN1713 | 3/8" | |

Hose clamps not required when used with "Push On" hose. See page 369.

| Reusable Hose Clamp |  | Part No. | I.D. x O.D. | Description |
|---------------------|---|----------|----------------|-------------|
| | | LNSB3 | 1/4" x 1/2" | Brass/Steel |
| | | LNSB5 | 1/4" x 9/16" | |
| | | LNSB7 | 1/4" x 5/8" | |
| | | LN5C5 | 15/16" x 9/16" | |
| | | LN5C7 | 15/16" x 5/8" | |
| | | LN5D11 | 3/8" x 5/8" | |
| | | LN5D13 | 3/8" x 11/16" | |
| | | LN5D7 | 3/8" x 3/4" | |
| | | LN5D9 | 3/8" x 13/16" | |

Brand - Designates **F**=Foster or **B**=Breco Part

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See page 381 for full size templates

See page 373 - 374 for optional seal compounds

www.zsi-foster.com




WARNING: These products can expose you to chemicals including lead, which is known to the State of California to cause cancer, and which is known to cause birth defects or other reproductive harm. For more information go to www.P65Warnings.ca.gov.


1/4" - LN & L Series




(Interchange with Lincoln Long Nose)

LN Series Manual 1/4" Sockets - Foster

| Female Thread |  | Part No. | FPT | Description |
|---------------|---|----------|------|-------------|
| | | LN2803M | 1/8" | Brass/Steel |
| | | LN3003M | 1/4" | |
| | | LN3203M | 3/8" | |

| Male Thread |  | Part No. | MPT | Description |
|-------------|---|----------|------|-------------|
| | | LN2903M | 1/8" | Brass/Steel |
| | | LN3103M | 1/4" | |
| | | LN3303M | 3/8" | |

| Hose Stem |  | Part No. | I.D. | Description |
|-----------|--|--|------|-------------|
| | | LN3603M | 1/4" | Brass/Steel |
| | | LN3703M | 3/8" | |
| | | Requires Hose Clamp (See page 200 for typical hose clamps) | | |

Pneumatic QD

Hydraulic QD

Blow Guns & Accessories


Fittings & Accessories


Hoses & Fittings


Technical Data

Indexes

LN & L Series Plugs - 1/4" - Foster

| Female Thread |  | Part No. | FPT | Description |
|---------------|--|----------|------|-------------|
| | | LN13 | 1/8" | Steel |
| | | LN11 | 1/4" | |

| Male Thread |  | Part No. | MPT | Description |
|-------------|---|----------|------|-------------|
| | | LN12 | 1/8" | Steel |
| | | LN10 | 1/4" | |

| Hose Barb |  | Part No. | Hose I.D. | Description |
|-----------|--|----------|-----------|-------------|
| | | LN16 | 1/4" | Steel |
| | Requires Hose Clamp (See page 200 for typical hose clamps) | | | |

Brand - Designates **F**=Foster or **B**=Breco Part

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See page 381 for full size templates

See page 373 - 374 for optional seal compounds



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1/8" - F180 Series

(Interchange with Hansen 180 Series)

The F180 miniature ball-lock quick disconnect coupling/plug offers great performance in a very small size with high flow and minimal pressure drop. Designed for use with compressed air, gases, and liquids. It's perfect for breathable air, lab, medical, and pharmaceutical applications. It's a preferred choice anywhere high flow is required within a very tight space, such as boat lifts.


Performance:


- **Temperature Range (std Buna-N seals):** -40° to +225° F.
- **Max. Operating Pressure:** 700 psig (48 bar)
- **Min. Burst Pressure:** 2,800 psig (193 bar)
- **Flow Rate:** 2.5 scfm (71 lpm)

Features:


- Miniature Ball-Lock Quick Disconnect Coupling
- Designed for use with Compressed Air, Gasses, and Liquids
- Hansen 180 Series Interchange
- Standard Brass Body, Optional Plating Available
- F180 Series Utilizes a Tire Valve
- Can Be Used in Laboratory, Medical, Pharmaceutical, Food, and Beverage
- Offered with 1/8" Male NPT or 3/16" I.D. Hose Barb
- Standard Buna-N, Flexible Seal


F180 Sockets - 1/8" - Foster

| Male Thread |  | Part No. | Thread | Body Size | Description |
|-------------|--|----------|---------------|-----------|-------------------|
| | | F180 | 1/8" Male NPT | 1/8" | Brass, with Valve |

| Hose Barb |  | Part No. | Thread | Body Size | Description |
|-----------|---|----------|----------------------|-----------|----------------------|
| | | F184LV | 3/16" I.D. Hose Barb | 1/8" | Brass, without Valve |
| | Requires Hose Clamp (See page 200 for typical hose clamps) | | | | |

F180 Plugs - 1/8" - Foster

| Male Thread |  | Part No. | Thread | Body Size | Description |
|-------------|--|----------|---------------|-----------|-------------|
| | | F185 | 1/8" Male NPT | 1/8" | Brass |

| Hose Barb |  | Part No. | Thread | Body Size | Description |
|-----------|---|--|----------------------|-----------|-------------|
| | | F189 | 3/16" I.D. Hose Barb | 1/8" | Brass |
| | | Requires Hose Clamp (See page 200 for typical hose clamps) | | | |



1/8" - DR Series



(Interchange with Rectus 21 KA)

BRECO DR Series couplers are designed to interchange with Rectus 21 KA couplers using un-valved plugs. The DR Series products provide automatic push-to-connect ease and high flow in a 1/8" connection size.

Features:

- Maximized flow path allows greater flow than other 1/8" NPT coupler designs
- 6 retaining balls versus 5 in the Rectus 21 KA provides greater plug retention
- 9/16" Wrench flats versus 14mm on Rectus 21 KA
- Ball-holes with corner radius have 65% more ball-to-body contact area and provides longer life and increased reliability
- Precision molded leak-proof seal
- Quick, easy push-to-connect design
- Brass construction for corrosion resistance

Specifications

Material: Brass plugs & sockets

Seal: Buna-N

Air Flow: 17 CFM @ 100 PSIG @ 5.0 PSIG Pressure Drop

Working Pressure: 300 PSIG


Body Sizes: 1/8"

Connection Sizes: 1/8" NPT

Interchangeability: Rectus 21 KA, Tomco SC, Camozzi 5000, and CEJN 223 Series


DR Series Sockets - Breco

| Female Thread |  | Part No. | Size | NPT | Description |
|---------------|--|----------|------|------|-------------|
| | | DR21-1F | 1/8" | 1/8" | Brass |

| Male Thread |  | Part No. | Size | NPT | Description |
|-------------|---|----------|------|------|-------------|
| | | DR21-1M | 1/8" | 1/8" | Brass |

DR Series Plugs - Breco

| Female Thread |  | Part No. | Size | NPT | Description |
|---------------|---|----------|------|------|-------------|
| | | DR21-1PF | 1/8" | 1/8" | Brass |

| Male Thread |  | Part No. | Size | NPT | Description |
|-------------|--|----------|------|------|-------------|
| | | DR21-1PM | 1/8" | 1/8" | Brass |

Brand - Designates **F**=Foster or **B**=Breco Part

See page 382 for full size templates

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U Series

(Universal Coupler)

BRECO PNEUMATIC UNIVERSAL COUPLER ACCEPTS MULTIPLE SERIES NIPPLES

Features:

- The 1/4" Universal Coupler will accept the Industrial Interchange series, "J" series (Tru-Flate) & "O" Series (ARO-210) Plugs.
- The coupler features automatic push-to-connect operation, high flow machined "window valve" and a sleeve guard which helps prevent accidental disconnects and protects the sleeve from damage.
- While the best quick coupling performance is obtained by matching like series sockets and plugs, the universal coupler permits multiple series plugs to mate with one socket.

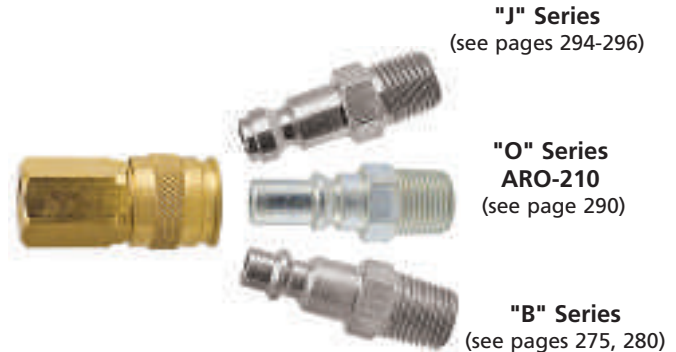
Specifications:

Rated Pressure (psig): 150


Temperature Range (Nitrile seal): -40° to +250°F.


Locking Device: Stainless Steel balls


Vacuum Service: Not Recommended



U Series Universal Couplers - Breco

| Female Thread |  | Part No. | Size | FPT | Description |
|---------------|--|----------|--------|------|-------------|
| | | B-2UF2-B | 1/4" | 1/4" | Brass |
| | | DW340A | | | Steel |
| | | DW360A | | 3/8" | Steel |
| | | DW440A | 3/8" * | 1/4" | Steel |
| | | DW460A | | 3/8" | Steel |

| Male Thread |  | Part No. | Size | MPT | Description |
|-------------|---|----------|--------|------|-------------|
| | | B-2UM2-B | 1/4" | 1/4" | Brass |
| | | DW341A | | | Steel |
| | | DW361A | | 3/8" | Steel |
| | | DW441A | 3/8" * | 1/4" | Steel |
| | | DW461A | | 3/8" | Steel |

| Hose Stem |  | Part No. | Size | MPT | Description |
|-----------|---|---|------|------|-------------|
| | | DW342A | 1/4" | 1/4" | Steel |
| | | DW362A | | 3/8" | Steel |
| | | Requires Hose Clamps (See page 200 for typical hose clamps) | | | |

* 3/8" size accept industrial interchange and "J" series (Tru-Flate) plugs only.



1/4" - USV Series

(Universal Coupler)



Technical Specifications:

Maximum Psig: 215 psig (14.8 bar)
Media: Compressed Air
Seal Material: Buna-N
Temperature Range: 20° to 180°F (-6.6° to 82°C)
Body Material: Chrome-Plated Steel
Number of Balls: 6



#USV3103 1/4" Socket Shown

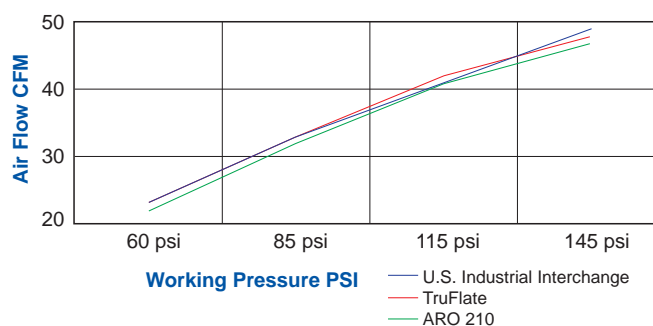
Industrial
3 Series
 (#11-3 1/4")
 (see page 275)

TruFlate
TF Series
 (#TF11 1/4")
 (see page 294)


ARO
210 Series
 (#210-11 1/4")
 (see page 290)


Air Flow Chart

| | Cubic Feet/Minute Flow Rates | | | |
|---|------------------------------|---------|----------|----------|
| | 60 psig | 85 psig | 115 psig | 145 psig |
| U.S. Industrial Interchange (MIL-C4109-F) | 23 | 33 | 41 | 49 |
| TruFlate (Automotive) | 23 | 33 | 42 | 48 |
| ARO 210 | 22 | 32 | 41 | 47 |

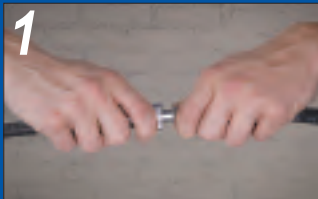


USV Series Universal Safety Couplers - Foster

| Female Thread |  | Part No. | Size | FPT | Description |
|---------------|---|----------|------|------|-------------|
| | | USV3003 | 1/4" | 1/4" | Steel |

| Male Thread |  | Part No. | Size | MPT | Description |
|-------------|--|----------|------|------|-------------|
| | | USV3103 | 1/4" | 1/4" | Steel |


Grip



1

Hold hose steady

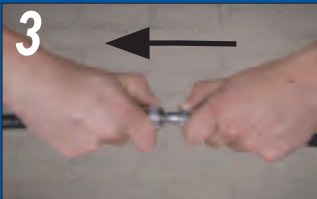
Twist



2

Rotate sleeve to fully exhaust

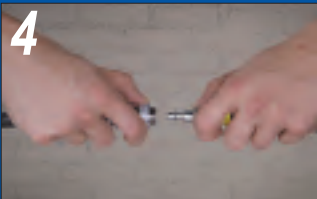
Pull



3

Pull back sleeve to release

Separate



4

Safely disconnect

Brand - Designates **F**=Foster or **B**=Breco Part

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WARNING: These products can expose you to chemicals including lead, which is known to the State of California to cause cancer, and which is known to cause birth defects or other reproductive harm. For more information go to www.P65Warnings.ca.gov.



Safety Vent Series

Zero Pressure Connect and Disconnect Design

| Steel | Protective Covered (PC) Body | Fully Protective Covered (PC) | Fully Protective Covered (PC) w/Strain Relief |
|---|---|--|---|
|  |  |  |  |

Foster SV and SVPC Series Safety Vent couplings are designed for maximum user and equipment safety. Foster SV and SVPC Series couplings allow for safe and easy connection/disconnection under zero line pressure to minimize the possibility of inadvertent disconnection and potential hose whip.

The fully encapsulated non-marring models significantly reduce the risk of surface nicks and scratches. Ideal for use in paint booth applications or for air lines used around finished surfaces, such as fiberglass, painted metal or glass surfaces.

Features:

- Made in the USA
- Rubber or polyurethane hose connections available
- Extra thick heat-treated steel walls extend service life
- Zero pressure connect/disconnect design vents down stream pressure for safe, easy connect/disconnect. It also minimizes possible inadvertent disconnection and potentially dangerous hose whip
- "O-ring" plug seal for leak-free performance
- No valve, spring, or washer that could block flow of air.
- Silicone-free assembly.
- Meets ISO 4414, 9.6 Quick-Action Couplings requirements:
Quick-Action (quick release) couplings shall be selected so that when they are coupled or uncoupled
 - a) the coupling shall not be forced apart in a hazardous manner
 - b) compressed air particles shall not be expelled in a hazardous manner
 - c) a controlled pressure-release system shall be provided where a hazard may exist.

Specifications:

Material: Zinc-plated steel, Acetal Copolymer outside cover, Steel internals

Seal: Buna-N

Working Pressure: 300 PSIG; vacuum to 26"Hg

Body Sizes: 1/4" to 3/4" Industrial Interchange Design

Connection Sizes: 1/4" to 1" NPT; 1/4" to 3/4" Hose Barb

Interchangeability: Complies with ANSI/NFPA T3.20.14-1990, ISO 6150-B, & ISO 4414

Industrial Interchange profile, Series 3 – 6, pages 275, 280, 286, & 288

Rated Pressure: 300 psig

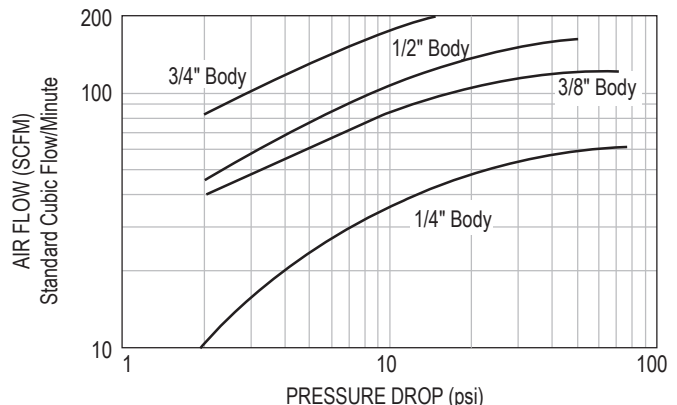
Temperature Range (std seals): 0° to +150° F

Locking Device: Stainless Steel Balls

Force required to Connect: Less than 10 lbs

Performance:

**"SV", "SVPC" Series (1/4", 3/8", 1/2", 3/4")
Pressure Drop/Flow Performance Curves
@ 100 PSIG Inlet**



PC = Protective Cover



Zero Pressure Connect and Disconnect Design

Insert Plug – Output is Zero Pressure

① Make sure sleeve is fully retracted to allow insertion of the plug. Output pressure is zero at this point.

Plug is Locked in Place, Now Restore Output Pressure

② Make sure sleeve is fully extended to allow pressure on the output plug

System Under Pressure (both source and Output)

③

Remove Pressure From Output -- Acts as a Shut-Off Valve --

④ Twist grip up & slide back to release pressure
Vent Holes release pressure to eliminate "Hose Whip", and make the coupler "Self Cleaning"
Output Pressure is Released

Remove Plug – Output Pressure is Automatically Zero

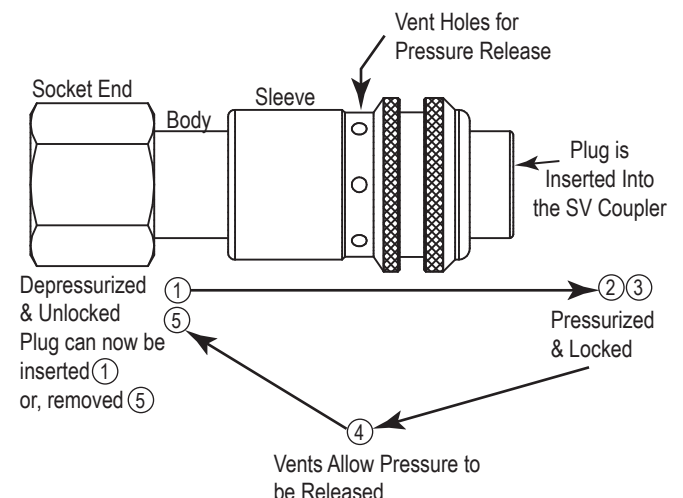
⑤ When Output=0 pressure turn slightly down & forward to allow release. Coupler automatically prevents this action if pressure not yet released
Since output pressure is zero, and coupler is in release position, Plug can be removed

Operation: SV and SVPC Series Safety Vent couplers are nearly effortless to connect and great for hose use. They are also especially useful for single-hand operation when they are mounted to hard lines such as an overhead air drop.

Once inserted into the SV or SVPC socket, the plug is lightly gripped and will stay in place allowing the operator to use the same hand to slide the sleeve straight forward to the "on" position.

SV or SVPC Series sockets can also be used as a 3-way valve to turn off the flow of air and exhaust the downstream pressure without disengaging the plug. By turning and sliding the sleeve to the "exhaust" position, downstream air pressure is relieved but the plug remains locked in place.

Foster SV or SVPC Series couplers are the ultimate solution to accidental disconnect hose whip dangers.








Safety Vent Series


Zero Pressure Connect and Disconnect Design


SV & SVPC Series Safety Vent Couplers (Industrial Interchange) - Foster

| Female Pipe Thread |  | Part No. | Body | FPT | Description |
|--------------------|---|----------|------|------|--------------------------|
| | | SV3003 | 1/4" | 1/4" | Steel Safety Coupler, |
| | | SV3203 | | 3/8" | |
| | | SV4004 | 3/8" | 1/4" | |
| | | SV4204 | | 3/8" | |
| | | SV4404 | | 1/2" | |
| | | SV5005 | | 3/8" | |
| | | SV5205 | 1/2" | 1/2" | |
| | | SV5405 | | 3/4" | |
| | | SV6406 | 3/4" | 3/4" | |
| | | SV6606 | | 1" | |


| Female Pipe Thread with Protective Cover |  | Part No. | Body | FPT | Description |
|---|--|----------|------|------|---|
| | | SVPC3003 | 1/4" | 1/4" | Steel with Protective Covered Body* |
| | | SVPC3203 | | 3/8" | |
| | | SVPC4004 | 3/8" | 1/4" | |
| | | SVPC4204 | | 3/8" | |
| | | SVPC4404 | | 1/2" | |
| | | SVPC5005 | | 3/8" | |
| | | SVPC5205 | 1/2" | 1/2" | |
| | | SVPC5405 | | 3/4" | |
| | | SVPC6406 | 3/4" | 3/4" | |

| Male Pipe Thread |  | Part No. | Body | MPT | Description |
|------------------|--|----------|------|------|--------------------------|
| | | SV3103 | 1/4" | 1/4" | Steel Safety Coupler, |
| | | SV3303 | | 3/8" | |
| | | SV4104 | 3/8" | 1/4" | |
| | | SV4304 | | 3/8" | |
| | | SV4504 | | 1/2" | |
| | | SV5105 | | 3/8" | |
| | | SV5305 | 1/2" | 1/2" | |
| | | SV5505 | | 3/4" | |
| | | SV6506 | 3/4" | 3/4" | |
| | | SV6706 | | 1" | |


| Male Pipe Thread with Protective Cover |  | Part No. | Body | MPT | Description |
|---|---|----------|------|------|---|
| | | SVPC3103 | 1/4" | 1/4" | Steel with Protective Covered Body* |
| | | SVPC3303 | | 3/8" | |
| | | SVPC4104 | 3/8" | 1/4" | |
| | | SVPC4304 | | 3/8" | |
| | | SVPC4504 | | 1/2" | |
| | | SVPC5105 | | 3/8" | |
| | | SVPC5305 | 1/2" | 1/2" | |
| | | SVPC5505 | | 3/4" | |
| | | SVPC6506 | 3/4" | 3/4" | |
| | | SVPC6706 | | 1" | |

| Hose Barb |  | Part No. | Body | Hose I.D. | Description |
|-----------|---|----------|------|-----------|--------------------------|
| | | SV3603 | 1/4" | 1/4" | Steel, Safety Coupler |
| | | SV3703 | | 3/8" | |
| | | SV4604 | 3/8" | 1/4" | |
| | | SV4804 | | 3/8" | |
| | | SV4904 | | 1/2" | |
| | | SV5705 | | 3/8" | |
| | | SV5805 | 1/2" | 1/2" | |
| | | SV5905 | | 3/4" | |
| | | SV6906 | 3/4" | 3/4" | |


Requires Hose Clamp (See page 200 for typical hose clamps)

| Hose Barb with Protective Cover |  | Part No. | Body | Hose I.D. | Description |
|------------------------------------|--|----------|------|-----------|---|
| | | SVPC3603 | 1/4" | 1/4" | Steel with Protective Covered Body* |
| | | SVPC3703 | | 3/8" | |
| | | SVPC4604 | 3/8" | 1/4" | |
| | | SVPC4804 | | 3/8" | |
| | | SVPC4904 | | 1/2" | |
| | | SVPC5705 | | 3/8" | |
| | | SVPC5805 | 1/2" | 1/2" | |
| | | SVPC5905 | | 3/4" | |
| | | SVPC6906 | 3/4" | 3/4" | |

Requires Hose Clamp (See page 200 for typical hose clamps)

| Push-On Hose Stem |  | Part No. | Body | Hose I.D. | Description |
|----------------------|---|----------|------|-----------|--------------------------|
| | | SV1513 | 1/4" | 1/4" | Steel, Safety Coupler |
| | | SV1713 | | 3/8" | |
| | | SV1714 | 3/8" | 3/8" | |
| | | SV1814 | | 1/2" | |
| | | SV1815 | 1/2" | 1/2" | |

Hose clamps not required when used with "Push On" hose. See page 369.

| Push-On Hose Stem with Protective Cover |  | Part No. | Body | Hose I.D. | Description |
|--|--|----------|------|-----------|---|
| | | SVPC1513 | 1/4" | 1/4" | Steel with Protective Covered Body* |
| | | SVPC1713 | | 3/8" | |
| | | SVPC1714 | 3/8" | 3/8" | |
| | | SVPC1814 | | 1/2" | |
| | | SVPC1815 | 1/2" | 1/2" | |

Hose clamps not required when used with "Push On" hose. See page 369.

Brand - Designates **F**=Foster or **B**=Breco Part

• All SV, SVPC Sockets feature a Silicone-free assembly.
See pages 383 - 384 for full size templates

www.zsi-foster.com




WARNING: These products can expose you to chemicals including lead, which is known to the State of California to cause cancer, and which is known to cause birth defects or other reproductive harm. For more information go to www.P65Warnings.ca.gov.





Safety Vent Series


Zero Pressure Connect and Disconnect Design

Series 210 1/4" Safety Vent Sockets - Foster

| Female Thread |  | Part No. | FPT | Description |
|---------------|---|------------|------|--------------------------|
| | | SV210-3003 | 1/4" | Steel, Safety Coupler |
| | | SV210-3203 | 3/8" | |

| Male Thread |  | Part No. | MPT | Description |
|-------------|---|------------|------|--------------------------|
| | | SV210-3103 | 1/4" | Steel, Safety Coupler |
| | | SV210-3303 | 3/8" | |

| Hose Stem |  | Part No. | I.D. | Description |
|-----------|---|------------|------|--------------------------|
| | | SV210-3603 | 1/4" | Steel, Safety Coupler |
| | | SV210-3703 | 3/8" | |
| | Requires Hose Clamp (See page 200 for typical hose clamps) | | | |

| Push-On Hose Stem |  | Part No. | I.D. | Description |
|---|---|------------|------|--------------------------|
| | | SV210-1513 | 1/4" | Steel, Safety Coupler |
| | | SV210-1713 | 3/8" | |
| Hose clamps not required when used with "Push On" hose. See page 369. | | | | |

Push-Button Safety Vent Series

Zero Pressure Connect and Disconnect Design

Features:

- Industrial Interchange, Pneumatic Application
- Anodized Aluminum Body for long life
- Swivel body to keep hose untangled
- Push twice for release. First push vents, second releases
- Button, Valve & Venting Ring: Hardened zinc plated steel
- **Springs, Balls:** Stainless Steel
- ISO 4414 Norm
- **Flow capacity:** 37SCFM (at 90 psig with connected insert)
- **Max working pressure:** 175 psig (safety factor 4:1)
- **Recommended Working Temperature:** 0° to 160°F

Push-Button Safety Vent Series - Foster

| Female Pipe Thread Industrial Interchange |  | Part No. | Size | Description |
|--|---|----------|------|----------------------------------|
| | | SPB3003 | 1/4" | 1/4" Body, Safety Push Button |
| | | | | |

| Male Pipe Thread Industrial Interchange |  | Part No. | MPT | Description |
|--|--|----------|------|----------------------------------|
| | | SPB3103 | 1/4" | 1/4" Body, Safety Push Button |
| | | SPB4304 | 3/8" | 3/8" Body, Safety Push Button |

Brand - Designates **F**=Foster or **B**=Breco Part

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WARNING: These products can expose you to chemicals including lead, which is known to the State of California to cause cancer, and which is known to cause birth defects or other reproductive harm. For more information go to www.P65Warnings.ca.gov.

FJT Series



(Interchange with DME, Jiffy-Tite, Jiffy-Matic, Parker Moldmate)

Specifications & Layouts FJT Series

Foster FJT Series couplers are designed to connect coolant lines to plastic molds and die casting dies. FJT Series plugs are mounted in the mold. They can be threaded directly into the mold coolant ports or recessed into the mold for a flush surface during storage. Sockets have hose stems, either standard hose or "Push-on" type, for direct connection to the coolant line going to the manifold. Seal compound is silicone for use with water, ethylene glycol, or air.

Type: Straight-Thru, One Way or Two Way

Interchangeability: DME Jiffy-Tite and Jiffy-Matic and Parker Moldmate couplers

Operation: Manual – Socket sleeve must be manually retracted to connect and disconnect

Options:

Ball Lock (BL) - Locks manual socket against accidental disconnect. To connect, align ball with slot.

After connection, rotate sleeve to lock.

To disconnect, realign ball with slot and retract sleeve.

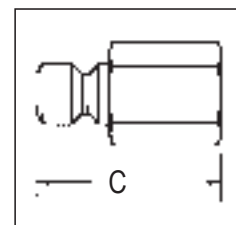
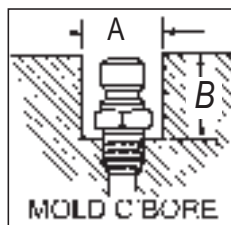
Features:

- Precision leakproof seal is silicone
- Two piece construction on straight stem sockets
- Double knurl on socket sleeve for easier grip
- Sockets have six balls.

Specifications:

Temperature Range: -90° to +440° F

Rated Pressure: 200 PSIG

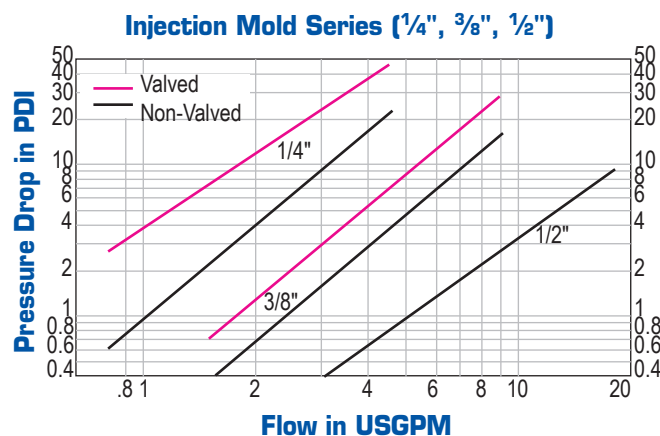


| Cat. No. | NPT | A | B | C |
|-----------|-----|-------|-------|-------|
| FP251 (F) | 1/8 | 0.687 | 0.687 | 1.000 |
| FP252 (F) | 1/4 | 0.843 | 0.937 | 1.278 |
| FP352 (F) | | 1.000 | 1.092 | 1.450 |
| FP253 | 3/8 | 1.000 | 0.937 | 1.373 |
| FP253 (F) | | 1.000 | 1.125 | 1.574 |
| FP353 (F) | | 1.000 | 1.125 | 1.574 |
| FP354 | 1/2 | 1.187 | 1.250 | – |
| FP554 (F) | | 1.250 | 1.500 | 1.750 |
| FP556 (F) | 3/4 | 1.500 | 1.562 | 1.750 |

(F) – Suffix F for female pipe thread

| PERFORMANCE DATA | | FLOW |
|------------------|------------------|--------------------------------------|
| | | Water – GPM 10 PSIG Pressure Drop |
| FJT 1/4" | Straight-Thru | 4.5 |
| FJT 1/4" V | One Way (valved) | 2.3 |
| FJT 3/8" | Straight-Thru | 10.0 |
| FJT 3/8" HF | High Flow | 13.8 |
| FJT 3/8" V | One Way (valved) | 5.9 |
| FJT 1/2" | Straight-Thru | 28.2 |

Performance:





FJT Series

(Interchange with DME, Jiffy-Tite, Jiffy-Matic, Parker Moldmate)

Features:

1. Available with or without valves in the coupler. Non-valved couplers have minimum flow resistance for maximum cooling. Valved couplers shut off automatically upon disconnect. Valved couplers must be used with valved nipples.
2. Nipples are designed to be recessed below mold surfaces to provide more efficient storage of molds and prevent damage to the nipple.
3. Widest choice of end fittings available, including straight, 45° or 90° with standard hose barb or Push-Lock barbs for easy installation.
4. Couplers and nipples are made of corrosion resistant steel and brass.

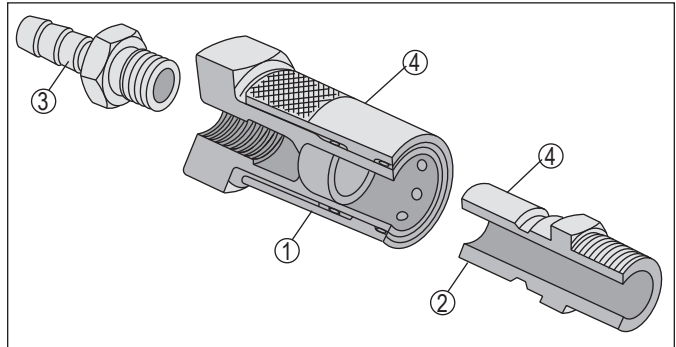
Applications: Injection Mold Series couplings are specifically designed for connecting coolant lines to molds and dies, on injection molding machinery in the plastics and die casting industries. Injection Mold Series couplings significantly reduce machine downtime by providing fast and easy connection of coolant lines during mold changes. Their short nipples can be recessed below the surface of the mold for more efficient storage of molds. Injection Mold Series couplers are available with or without valves in the female half. Non-valved couplers provide maximum flow for efficient cooling. Valved couplers shut off when disconnected.

Selection Guidelines: Injection Mold Series couplings are designed for a maximum working pressure of 200 Psig. Most thermoplastic and thermostat heat transfer systems have pumps which provide relatively high flow rates at relatively low pressures. Water and water glycol (anti-freeze) systems usually have capacities ranging from 10 to 40 gpm, with most from 10 to 15 gpm. Normal medial opening pressures are 20 to 60 Psig for these systems. Heat transfer systems using oil generally operate from 10 to 30 Psig. However, their flow rates are usually much higher, requiring the total volume of oil to be circulated at least once per minute.

The number of hose connections in a single mold system results in a cumulative pressure drop. Please note the Pressure Drop vs. Flow Rate chart provided, to select the appropriate size.

Temperature is another important consideration. Injection Mold Series couplings with their standard Silicone seal have a temperature capability of -90° to +440°F. Rapid deterioration of the seal and leaking may result if used beyond these limits.

External conditions of temperature, corrosive atmospheres, and other abnormalities may affect coupling performance and must be considered when selection is made consult factory with questions.



FJT Series Brass Extension Plugs



- One piece construction for fast assembly, positive removal
- Installation problems associated with pipe nipple extensions on standard plugs are eliminated
- One-piece brass construction eliminates a potential leak point and ensures removability
- A variety of pipe sizes and lengths are available per the enclosed table
- Lengths available: 2.5" thru 13" Standard, Call factory for available lengths
- To Order: Add desired length to the end of the part number; i.e. FP251x2.5.




1/4" - FJT Series




(Interchange with DME, Jiffy-Tite, Jiffy-Matic, Parker Moldmate)


FJT 1/4" Series Straight Thru Sockets - Foster

| Straight Hose Stem |  | Part No. | I.D. | Description |
|--------------------|---|----------|-------|------------------|
| | | FS204 | 1/4" | Brass |
| | | BLFS204 | | Ball Lock, Brass |
| | | FS205 | 5/16" | Brass |
| | | BLFS205 | | Ball Lock, Brass |
| | | FS206 | 3/8" | Brass |
| | | BLFS206 | | Ball Lock, Brass |


Requires Hose Clamp (See page 200 for typical hose clamps)

| Straight Push-On Hose Stem |  | Part No. | I.D. | Description |
|----------------------------|--|----------|------|-------------|
| | | FS204P | 1/4" | Brass |
| | | FS206P | 3/8" | Brass |


Hose clamps not required when used with "Push On" hose. See page 369.

| 90° Hose Stem |  | Part No. | I.D. | Description |
|---------------|---|----------|-------|------------------|
| | | FS214 | 1/4" | Brass |
| | | BLFS214 | | Ball Lock, Brass |
| | | FS215 | 5/16" | Brass |
| | | BLFS215 | | Ball Lock, Brass |
| | | FS216 | 3/8" | Brass |
| | | BLFS216 | | Ball Lock, Brass |


Requires Hose Clamp (See page 200 for typical hose clamps)

| 90° Push-On Hose Stem |  | Part No. | I.D. | Description |
|-----------------------|--|----------|------|------------------|
| | | FS214P | 1/4" | Brass |
| | | BLFS214P | | Ball Lock, Brass |
| | | FS216P | 3/8" | Brass |
| | | BLFS216P | | Ball Lock, Brass |


Hose clamps not required when used with "Push On" hose. See page 369.

| 45° Hose Stem |  | Part No. | I.D. | Description |
|---------------|--|----------|-------|------------------|
| | | FS224 | 1/4" | Brass |
| | | BLFS224 | | Ball Lock, Brass |
| | | FS225 | 5/16" | Brass |
| | | BLFS225 | | Ball Lock, Brass |
| | | FS226 | 3/8" | Brass |
| | | BLFS226 | | Ball Lock, Brass |

Requires Hose Clamp (See page 200 for typical hose clamps)

| 45° Push-On Hose Stem |  | Part No. | I.D. | Description |
|-----------------------|--|----------|------|------------------|
| | | FS224P | 1/4" | Brass |
| | | BLFS224P | | Ball Lock, Brass |
| | | FS226P | 3/8" | Brass |
| | | BLFS226P | | Ball Lock, Brass |

Hose clamps not required when used with "Push On" hose. See page 369.

| Socket w/o Stem |  | Part No. | FPT | Description |
|-----------------|--|----------|------|------------------|
| | | FS200 | 1/8" | Brass |
| | | BLFS200 | | Ball Lock, Brass |

Brand - Designates **F**=Foster or **B**=Breco Part

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See page 382 for full size templates

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Pneumatic QD

Hydraulic QD

Blow Guns & Accessories

Fittings & Accessories

Hoses & Fittings

Technical Data


Indexes





1/4" - FJT Series


(Interchange with DME, Jiffy-Tite, Jiffy-Matic, Parker Moldmate)


FJT 1/4" Series One Way Valved Sockets - Foster

| Straight Hose Stem |  | Part No. | I.D. | Description |
|--------------------|---|--|-------|--------------------------|
| | | FS204V | 1/4" | Brass |
| | | BLFS204V | | Ball Lock, Brass, Valved |
| | | FS205V | 5/16" | Brass |
| | | BLFS205V | | Ball Lock, Brass, Valved |
| | | FS206V | 3/8" | Brass |
| | | BLFS206V | | Ball Lock, Brass, Valved |
| | | Requires Hose Clamp (See page 200 for typical hose clamps) | | |


| 90° Hose Stem |  | Part No. | I.D. | Description |
|---------------|---|--|-------|------------------|
| | | FS214V | 1/4" | Brass |
| | | BLFS214V | | Ball Lock, Brass |
| | | FS215V | 5/16" | Brass |
| | | BLFS215V | | Ball Lock, Brass |
| | | FS216V | 3/8" | Brass |
| | | BLFS216V | | Ball Lock, Brass |
| | | Requires Hose Clamp (See page 200 for typical hose clamps) | | |


| 45° Hose Stem |  | Part No. | I.D. | Description |
|---------------|--|--|-------|------------------|
| | | FS224V | 1/4" | Brass |
| | | BLFS224V | | Ball Lock, Brass |
| | | FS225V | 5/16" | Brass |
| | | BLFS225V | | Ball Lock, Brass |
| | | FS226V | 3/8" | Brass |
| | | BLFS226V | | Ball Lock, Brass |
| | | Requires Hose Clamp (See page 200 for typical hose clamps) | | |

| Straight Push-On Hose Stem |  | Part No. | I.D. | Description |
|---|--|-----------|------|-----------------------------|
| | | FS204VP | 1/4" | Brass |
| | | BLFS204VP | | Ball Lock, Brass, Valved |
| | | FS206VP | 3/8" | Brass |
| Hose clamps not required when used with "Push On" hose. See page 369. | | | | |

| 90° Push-On Hose Stem |  | Part No. | I.D. | Description |
|-----------------------|--|---|------|------------------|
| | | FS214VP | 1/4" | Brass |
| | | BLFS214VP | | Ball Lock, Brass |
| | | FS216VP | 3/8" | Brass |
| | | BLFS216VP | | Ball Lock, Brass |
| | | Hose clamps not required when used with "Push On" hose. See page 369. | | |

45° Push-On Hose Stem

|  | Part No. | I.D. | Description |
|---|---|------|--------------------------|
| | FS224VP | 1/4" | Brass |
| | BLFS224VP | | Ball Lock, Brass, Valved |
| | FS226VP | 3/8" | Brass |
| | BLFS226VP | | Ball Lock, Brass, Valved |
| | Hose clamps not required when used with "Push On" hose. See page 369. | | |

| Socket w/o Stem |  | Part No. | FPT | Description |
|------------------------|--|----------|------|------------------|
| | | FS200V | 1/8" | Brass Valved |
| | | BLFS200V | | Ball Lock, Brass |





3/8" - FJT Series





(Interchange with DME, Jiffy-Tite, Jiffy-Matic, Parker Moldmate)


FJT 3/8" Series Straight Thru Sockets - Foster

| Straight Hose Stem |  | Part No. | I.D. | Description |
|--------------------|---|--|------|------------------|
| | | FS306 | 3/8" | Brass |
| | | BLFS306 | | Ball Lock, Brass |
| | | FS308 | 1/2" | Brass |
| | | BLFS308 | | Ball Lock, Brass |
| | | Requires Hose Clamp (See page 200 for typical hose clamps) | | |


| 90° Hose Stem |  | Part No. | I.D. | Description |
|---------------|---|--|------|------------------|
| | | FS316 | 3/8" | Brass |
| | | BLFS316 | | Ball Lock, Brass |
| | | FS318 | 1/2" | Brass |
| | | BLFS318 | | Ball Lock, Brass |
| | | Requires Hose Clamp (See page 200 for typical hose clamps) | | |

| 45° Hose Stem |  | Part No. | I.D. | Description |
|---------------|--|--|------|------------------|
| | | FS326 | 3/8" | Brass |
| | | BLFS326 | | Ball Lock, Brass |
| | | FS328 | 1/2" | Brass |
| | | BLFS328 | | Ball Lock, Brass |
| | | Requires Hose Clamp (See page 200 for typical hose clamps) | | |

| Socket w/o Stem |  | Part No. | FPT | Description |
|-----------------|---|----------|------|------------------|
| | | FS300 | 1/4" | Brass |
| | | BLFS300 | | Ball Lock, Brass |


| Straight Push-On Hose Stem |  | Part No. | I.D. | Description |
|-------------------------------|--|---|------|------------------|
| | | FS306P | 3/8" | Brass |
| | | BLFS306P | | Ball Lock, Brass |
| | | FS308P | 1/2" | Brass |
| | | BLFS308P | | Ball Lock, Brass |
| | | Hose clamps not required when used with "Push On" hose. See page 369. | | |

90° Push-On Hose Stem

|  | Part No. | I.D. | Description |
|--|------------------|------|------------------|
| | FS316P | 3/8" | Brass |
| | BLFS316P | | Ball Lock, Brass |
| | FS318P | 1/2" | Brass |
| BLFS318P | Ball Lock, Brass | | |

Hose clamps not required when used with "Push On" hose. See page 369.

45° Push-On Hose Stem

|  | Part No. | I.D. | Description |
|---|---|------|------------------|
| | FS326P | 3/8" | Brass |
| | BLFS326P | | Ball Lock, Brass |
| | FS328P | 1/2" | Brass |
| | BLFS328P | | Ball Lock, Brass |
| | Hose clamps not required when used with "Push On" hose. See page 369. | | |

Brand - Designates **F**=Foster or **B**=Breco Part

See page 382 for full size templates

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3/8" - FJT Series


(Interchange with DME, Jiffy-Tite, Jiffy-Matic, Parker Moldmate)


FJT 3/8" Series One Way Valved Sockets - Foster


| Straight Hose Stem |  | Part No. | I.D. | Description |
|--------------------|---|--|------|------------------|
| | | FS306V | 3/8" | Brass |
| | | BLFS306V | | Ball Lock, Brass |
| | | FS308V | 1/2" | Brass |
| | | BLFS308V | | Ball Lock, Brass |
| | | Requires Hose Clamp (See page 200 for typical hose clamps) | | |


| 90° Hose Stem |  | Part No. | I.D. | Description |
|---------------|---|--|------|------------------|
| | | FS316V | 3/8" | Brass |
| | | BLFS316V | | Ball Lock, Brass |
| | | FS318V | 1/2" | Brass |
| | | BLFS318V | | Ball Lock, Brass |
| | | Requires Hose Clamp (See page 200 for typical hose clamps) | | |

| 45° Hose Stem |  | Part No. | I.D. | Description |
|---------------|--|--|------|------------------|
| | | FS326V | 3/8" | Brass |
| | | BLFS326V | | Ball Lock, Brass |
| | | FS328V | 1/2" | Brass |
| | | BLFS328V | | Ball Lock, Brass |
| | | Requires Hose Clamp (See page 200 for typical hose clamps) | | |

| Socket w/o Stem |  | Part No. | FPT | Description |
|------------------------|---|----------|------|------------------|
| | | FS300V | 1/4" | Brass |
| | | BLFS300V | | Ball Lock, Brass |

| Straight Push-On Stem |  | Part No. | I.D. | Description |
|-----------------------|---|---|------|------------------|
| | | FS306VP | 3/8" | Brass |
| | | BLFS306VP | | Ball Lock, Brass |
| | | FS308VP | 1/2" | Brass |
| | | BLFS308VP | | Ball Lock, Brass |
| | | Hose clamps not required when used with "Push On" hose. See page 369. | | |

| 90° Push-On Hose Stem |  | Part No. | I.D. | Description |
|-----------------------|--|-----------|------|--------------------------|
| | | FS316VP | 3/8" | Brass, Valved |
| | | BLFS316P | | Ball Lock, Brass |
| | | BLFS316VP | | Ball Lock, Brass, Valved |
| | | FS318VP | 1/2" | Brass, Valved |
| | | BLFS318VP | | Ball Lock, Brass, Valved |
| | Hose clamps not required when used with "Push On" hose. See page 369. | | | |

| 45° Push-On Hose Stem |  | Part No. | I.D. | Description |
|--------------------------|---|---|------|------------------|
| | | FS326VP | 3/8" | Brass |
| | | BLFS326VP | | Ball Lock, Brass |
| | | FS328VP | 1/2" | Brass |
| | | BLFS328VP | | Ball Lock, Brass |
| | | Hose clamps not required when used with "Push On" hose. See page 369. | | |




3/8" - FJT Series




(Interchange with DME, Jiffy-Tite, Jiffy-Matic, Parker Moldmate)


FJT 3/8" Series Two Way (Valved) Sockets - Foster

| Straight Hose Stem |  | Part No. | I.D. | Description |
|-----------------------|---|-----------|------|------------------|
| | | FS306V2 | 3/8" | Brass |
| | | BLFS306V2 | | Ball Lock, Brass |
| | | FS308V2 | 1/2" | Brass |
| | | BLFS308V2 | | Ball Lock, Brass |


Requires Hose Clamp (See page 200 for typical hose clamps)


| 90° Hose Stem |  | Part No. | I.D. | Description |
|------------------|---|-----------|------|------------------|
| | | FS316V2 | 3/8" | Brass |
| | | BLFS316V2 | | Ball Lock, Brass |
| | | FS318V2 | 1/2" | Brass |
| | | BLFS318V2 | | Ball Lock, Brass |

Requires Hose Clamp (See page 200 for typical hose clamps)


| 45° Hose Stem |  | Part No. | I.D. | Description |
|------------------|---|-----------|------|------------------|
| | | FS326V2 | 3/8" | Brass |
| | | BLFS326V2 | | Ball Lock, Brass |
| | | FS328V2 | 1/2" | Brass |
| | | BLFS328V2 | | Ball Lock, Brass |

Requires Hose Clamp (See page 200 for typical hose clamps)


| Socket w/o Hose Stem |  | Part No. | FPT | Description |
|-------------------------|---|-----------|------|-------------------|
| | | FS300V2 | 1/4" | Brass |
| | | BLFS300V2 | | Ball Lock, Brass, |

| Straight Push-On Hose Stem |  | Part No. | I.D. | Description |
|-------------------------------|--|------------|------|------------------|
| | | FS306VP2 | 3/8" | Brass |
| | | BLFS306VP2 | | Ball Lock, Brass |
| | | FS308VP2 | 1/2" | Brass |
| | | BLFS308VP2 | | Ball Lock, Brass |


Hose clamps not required when used with "Push On" hose. See page 369.

| 90° Push-On Hose Stem |  | Part No. | I.D. | Description |
|--------------------------|--|------------|------|------------------|
| | | FS316VP2 | 3/8" | Brass |
| | | BLFS316VP2 | | Ball Lock, Brass |
| | | FS318VP2 | 1/2" | Brass |
| | | BLFS318VP2 | | Ball Lock, Brass |


Hose clamps not required when used with "Push On" hose. See page 369.

| 45° Push-On Stem |  | Part No. | I.D. | Description |
|---------------------|---|------------|------|------------------|
| | | FS326VP2 | 3/8" | Brass |
| | | BLFS326VP2 | | Ball Lock, Brass |
| | | FS328VP2 | 1/2" | Brass |
| | | BLFS328VP2 | | Ball Lock, Brass |

Hose clamps not required when used with "Push On" hose. See page 369.

| Male Thread |  | Part No. | Size | MPT | Description |
|-------------|--|----------|------|------|---|
| | | FP353V | 3/8" | 3/8" | Brass, Valved Plug, for Two Way sockets |


FJT 3/8" Series High Flow Straight-Thru Sockets - Foster


| Straight Hose Stem |  | Part No. | I.D. | Description |
|-----------------------|---|-----------|------|------------------|
| | | FS308HF | 1/2" | Brass |
| | | BLFS308HF | | Ball Lock, Brass |

Requires Hose Clamp (See page 200 for typical hose clamps)


| 90° Hose Stem |  | Part No. | I.D. | Description |
|------------------|---|-----------|------|------------------|
| | | FS318HF | 1/2" | Brass |
| | | BLFS318HF | | Ball Lock, Brass |

Requires Hose Clamp (See page 200 for typical hose clamps)

| Socket w/o Hose Stem |  | Part No. | FPT | Description |
|-------------------------|---|-----------|------|-----------------------------|
| | | FS300HF | 3/8" | Brass High Flow |
| | | BLFS300HF | | Ball Lock, Brass, High Flow |

| Straight Push-On Hose Stem |  | Part No. | I.D. | Description |
|-------------------------------|--|------------|------|------------------|
| | | FS308HFP | 1/2" | Brass |
| | | BLFS308HFP | | Ball Lock, Brass |

Hose clamps not required when used with "Push On" hose. See page 369.

| 90° Push-On Hose Stem |  | Part No. | I.D. | Description |
|--------------------------|--|------------|------|------------------|
| | | FS318HFP | 1/2" | Brass |
| | | BLFS318HFP | | Ball Lock, Brass |

Hose clamps not required when used with "Push On" hose. See page 369.

See page 382 for full size templates

Brand - Designates **F**=Foster or **B**=Breco Part







1/2" - FJT Series & FJT Series - Plugs


(Interchange with DME, Jiffy-Tite, Jiffy-Matic, Parker Moldmate)


FJT 1/2" Series Straight-Thru Sockets - Foster


| Straight Hose Stem |  | Part No. | I.D. | Description |
|-----------------------|---|--|------|------------------|
| | | FS504 | 1/2" | Brass |
| | | BLFS504 | | Ball Lock, Brass |
| | | FS506 | 3/4" | Brass |
| | | BLFS506 | | Ball Lock, Brass |
| | | Requires Hose Clamp (See page 200 for typical hose clamps) | | |


90° Hose Stem


|  | Part No. | I.D. | Description |
|---|--|------|------------------|
| | FS514 | 1/2" | Brass |
| | BLFS514 | | Ball Lock, Brass |
| | FS516 | 3/4" | Brass |
| | BLFS516 | | Ball Lock, Brass |
| | Requires Hose Clamp (See page 200 for typical hose clamps) | | |

| 45° Hose Stem |  | Part No. | I.D. | Description |
|---------------|---|--|------|------------------|
| | | FS524 | 1/2" | Brass |
| | | BLFS524 | | Ball Lock, Brass |
| | | FS526 | 3/4" | Brass |
| | | BLFS526 | | Ball Lock, Brass |
| | | Requires Hose Clamp (See page 200 for typical hose clamps) | | |


| Socket w/o Hose Stem |  | Part No. | FTP | Description |
|-------------------------|---|----------|------|------------------|
| | | FS500 | 1/2" | Brass |
| | | BLFS500 | | Ball Lock, Brass |


| Straight Push-On Hose Stem |  | Part No. | I.D. | Description |
|-------------------------------|--|---|------|------------------|
| | | FS504P | 1/2" | Brass |
| | | BLFS504P | | Ball Lock, Brass |
| | | FS506P | 3/4" | Brass |
| | | BLFS506P | | Ball Lock, Brass |
| | | Hose clamps not required when used with "Push On" hose. See page 369. | | |


| 90° Push-On Hose Stem |  | Part No. | I.D. | Description |
|---|--|----------|------|------------------|
| | | FS514P | 1/2" | Brass |
| | | BLFS514P | | Ball Lock, Brass |
| | | FS516P | 3/8" | Brass |
| | | BLFS516P | | Ball Lock, Brass |
| Hose clamps not required when used with "Push On" hose. See page 369. | | | | |

| 45° Push-On Hose Stem |  | Part No. | I.D. | Description |
|--------------------------|---|---|------|------------------|
| | | FS524P | 1/2" | Brass |
| | | BLFS524P | | Ball Lock, Brass |
| | | FS526P | 3/4" | Brass |
| | | BLFS526P | | Ball Lock, Brass |
| | | Hose clamps not required when used with "Push On" hose. See page 369. | | |

FJT Series - Plugs - 1/4" Thru 1/2" - Foster

| Female Thread |  | Part No. | Size | FPT | Description |
|---------------|---|----------|------|------|-------------|
| | | FP251F | 1/4" | 1/8" | Steel |
| | | FP251FB | | | Brass |
| | | FP252F | | 1/4" | Steel |
| | | FP252FB | | | Brass |
| | | FP253F | 3/8" | 3/8" | Steel |
| | | FP352F | | | Steel |
| | | FP352FB | | 1/4" | Brass |
| | | FP353F | | 3/8" | Steel |
| | | FP353FB | | | Brass |
| | | FP554F | 1/2" | 1/2" | Steel |
| | | FP556F | | 3/4" | Steel |

| Male Thread |  | Part No. | Size | MPT | Description |
|-------------|---|----------|------|------|-------------|
| | | FP251 | 1/4" | 1/8" | Brass |
| | | FP252 | | | Brass |
| | | FP252S | | 1/4" | Steel |
| | | FP253 | | 3/8" | Brass |
| | | FP351 | 3/8" | 1/8" | Brass |
| | | FP352 | | | Brass |
| | | FP352S | | 1/4" | Steel |
| | | FP353 | | 3/8" | Brass |
| | | FP354 | | 1/2" | Brass |
| | | FP554 | 1/2" | 1/2" | Brass |
| | | FP556 | | 3/4" | Brass |

| Male Extension Plug |  | Part No. | Size | Pipe Size | Description |
|---------------------|---|---|------|-----------|---|
| | | FP251X | 1/4" | 1/8" | Call with length, material, and thread requirements |
| | | FP252X | | 1/4" | |
| | | FP253X | | 3/8" | |
| | | FP352X | 3/8" | 1/4" | Lengths available: 2.5" - 13" |
| | | FP353X | | 3/8" | |
| | | FP354X | | 1/2" | |
| | | FP554X | | 1/2" | |
| | | To Order: Add length to part number: i.e. FP251x2.5 | | | |

See page 382 for full size templates

Brand - Designates **F**=Foster or **B**=Breco Part



Hydraulic Quick Disconnects



Hydraulic QD Selection Chart

| Foster / Breco Coupling Series | Page | Coupling Style | | | Interchange | | | | | | | | Body Size | | | | | | | Body Material | | | | Lock- ing | | Flow Type | | | | |
|-----------------------------------|---------|-------------------|-----------|--------|-------------|-----------|------------------|---------------------|---------------------|------------|------------|------------------------|-----------|------|------|------|------|------|----|------------------|--------|-------|-------|--------------|--------|-----------|-------------|------------------|------------------|---------------|
| | | Manual | Automatic | Thread | Enerpac | ISO 16028 | Snap-Tite H & IH | ISO 7241-1 Series A | ISO 7241-1 Series B | VEP Series | Pioneer AG | Industrial Interchange | Wing Nut | 1/8" | 1/4" | 3/8" | 1/2" | 3/4" | 1" | 1-1/4" | 1-1/2" | Brass | Steel | 303 SS | 316 SS | Ball Lock | Sleeve Lock | One-Way Shut-Off | Two-Way Shut-Off | Straight Thru |
| FHK & DS Series | 324-332 | ◆ | | | | | | ◆ | | | | | ◆ | ◆ | ◆ | ◆ | ◆ | ◆ | ◆ | ◆ | ◆ | ◆ | ◆ | ◆ | ◆ | ◆ | ◆ | ◆ | ◆ | ◆ |
| Carpet Cleaning | 333 | ◆ | | | | | | ◆ | | | | | | ◆ | | | | | | | ◆ | | | | | | | | ◆ | |
| 6600 Series | 334 | ◆ | | | | | | ◆ | | | | | | ◆ | ◆ | ◆ | ◆ | ◆ | | | | ◆ | | | | | | | ◆ | |
| FF Plus Series, Flat Face | 335-338 | | ◆ | | | ◆ | | | | | | | ◆ | ◆ | ◆ | ◆ | ◆ | ◆ | ◆ | ◆ | | ◆ | ◆ | ◆ | | ◆ | | | ◆ | |
| FF Series, Flush Face | 339 | | ◆ | | | ◆ | | | | | | | ◆ | ◆ | ◆ | ◆ | ◆ | ◆ | | | | ◆ | ◆ | | | ◆ | | | ◆ | |
| FVEP Series | 340 | | | ◆ | | | | | ◆ | | | | | | | ◆ | ◆ | ◆ | ◆ | | | ◆ | | | | | | | ◆ | |
| FH & FIH Series | 341-343 | ◆ | | | | | ◆ | | | | | | | ◆ | ◆ | ◆ | ◆ | | | | ◆ | ◆ | | | ◆ | | ◆ | ◆ | ◆ | |
| 4000 Series | 344 | ◆ | | | | | | | | ◆ | | | | ◆ | ◆ | ◆ | ◆ | ◆ | | | | ◆ | | | | | | | ◆ | |
| 6100 Series | 345-346 | | | ◆ | | | | | | | | ◆ | | | | | ◆ | ◆ | ◆ | ◆ | ◆ | ◆ | | | | | | | ◆ | |
| W Series | 347 | | | ◆ | ◆ | | | | | | | | | ◆ | ◆ | | | | | | | ◆ | | | | ◆ | | | ◆ | ◆ |
| FST & ST Series | 348-350 | ◆ | | | | | | | | | ◆ | | ◆ | ◆ | ◆ | ◆ | ◆ | ◆ | ◆ | ◆ | ◆ | ◆ | ◆ | | ◆ | | | | | ◆ |

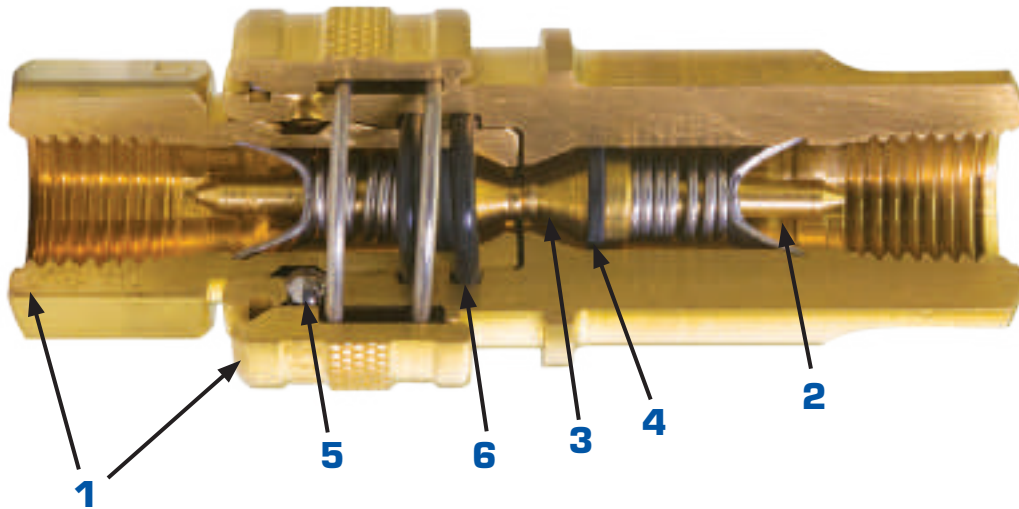
CAUTION: It is important that users of the Quick Release Couplers read the safety guidelines on pages 262 - 263. Improper use of products can lead to severe injury and damage to equipment.

Call ZSi-Foster at (866) 918-3003 or order now at zsi-foster.com



1/8" to 1" - FHK & DS Series

(Compatible with ISO 7241-1, Series B)



- 1** ISO B in steel has hardened plugs and sleeves constructed from solid bar stock ensures long service life and maximum resistance to damage from hydraulic and mechanical shock.
- 2** High flow capacity.
- 3** Foster's conical valve with its 360° metal to metal valve stop maintains valve alignment and ensures that poppets open fully every time.
- 4** Captive valve seal ensures "bubble tight" poppet sealing since seal is positively captured by the metal poppet to minimize seal washout or damage from high fluid velocity.
- 5** Ball locking mechanism ensures reliable connections every time. Many ball bearings distribute the load while providing alignment and excellent swiveling action to reduce hose torque and prolong hose life.
- 6** Broad range of metals and seal materials allow the use of most fluids.

Performance Data

| Body Size | Rated Pressure Coupled psig (Non Shock Service) | | | Air Flow – CFM | | | | Oil Flow GPM MIL-H5606-125°F Pressure Drop |
|-----------|---|-------|-----------------|--------------------|-----|---------|-----|---|
| | | | | 100 PSIG | | 80 PSIG | | |
| | | | | Pressure Drop PSIG | | | | |
| | Steel | Brass | Stainless Steel | 10 | 5 | 10 | 5 | 10 PSIG |
| 1/8" | 4,000 | 3000 | 5000 | 22 | 17 | 20 | 15 | 1.8 |
| 1/4" | 3,700 | 2700 | 3700 | 32 | 22 | 29 | 20 | 3.6 |
| 3/8" | 3,700 | 2200 | 3700 | 58 | 42 | 53 | 38 | 6.7 |
| 1/2" | 5,000 | 2250 | 4250 | 130 | 88 | 118 | 80 | 11.0 |
| 3/4" | 4,000 | 2000 | 3500 | 305 | 207 | 277 | 188 | 26.3 |
| 1" | 4,000 | 1500 | 3000 | 372 | 252 | 338 | 229 | 31.8 |

Brand - Designates **F**=Foster or **B**=Breco Part

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www.zsi-foster.com



WARNING: These products can expose you to chemicals including lead, which is known to the State of California to cause cancer, and which is known to cause birth defects or other reproductive harm. For more information go to www.P65Warnings.ca.gov.

1/8" to 1" - FHK & DS Series

(Compatible with ISO 7241-1, Series B)



Applications: FHK Series sockets incorporate valves in both socket and plug halves to prevent fluid loss when the socket is disconnected. These sockets are normally referred to as "hydraulic couplings", but they are used extensively with other media where objectionable.

Vacuum Service: 27" Hg. maximum Rated pressures as defined by ANSI/B93.2-1986 based on 4:1 Safety Factor and non-shock service.

Type: FHK, Two-Way Shutoff, Both socket and plug are sealed at disconnect.

Interchangeability: Standard, most widely used, industrial interchange design. Within each series, only sockets and plugs of the same size will couple together. Compatible with ISO 7241-1, Series B.

Operation: Manual - Socket sleeve must be manually retracted to connect and disconnect.

Connect and disconnect at zero pressure for personal safety and maximum product life.

Seal Compound: Standard seals are Buna-N.

Options:

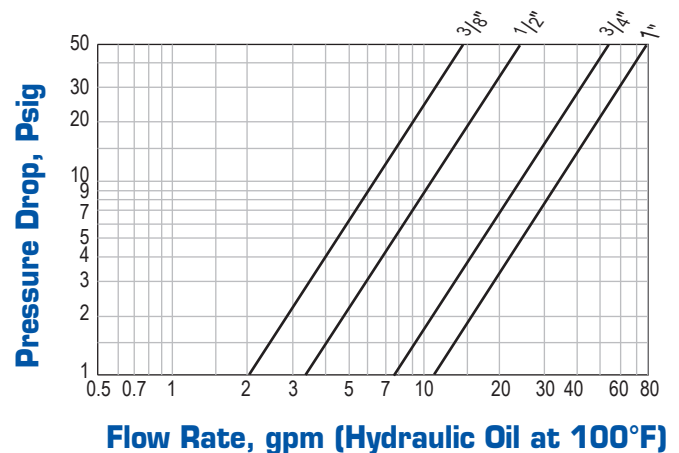
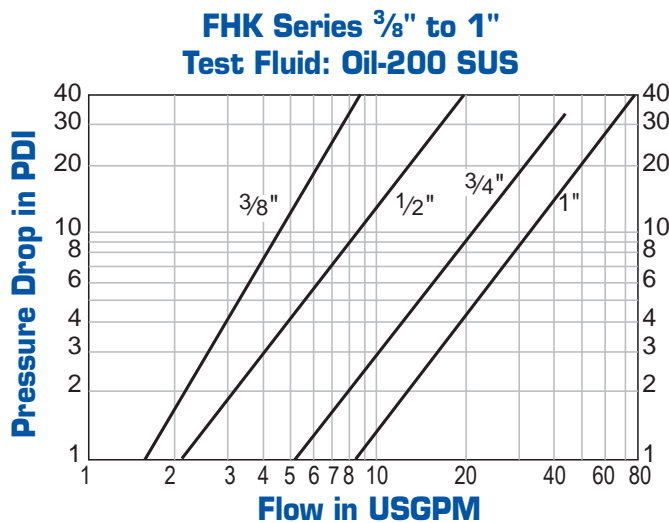
- One Way Shut-Off: Add suffix VA to either socket or plug catalog number for valve actuator.
- Straight-Thru: Add suffix LV to both socket and plug catalog number for less valve.
- Ball Lock (BL): Locks against accidental disconnect. To connect, align ball with slot. After connection, rotate sleeve to lock. To disconnect, realign ball with slot and retract sleeve.

Ordering information:

FHK Series couplings are available in RoHS compliant plated steel, brass, and 303/316 Stainless as standard. Brass couplings have double O-Ring seals (excluding 1/8") and stainless locking balls. Standard seals are Buna-N (Nitrile). Consult factory for optional seals.

All sizes can be furnished with locking sleeves designated by "BL" (Ball Lock) prefix after regular catalog numbers.

Performance:



Brand - Designates **F**=Foster or **B**=Breco Part

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Pneumatic QD

Hydraulic QD

Blow Guns & Accessories

Fittings & Accessories

Hoses & Fittings

Technical Data


Indexes




1/8" - FHK & DS Series

(Compatible with ISO 7241-1, Series B)

FHK & DS Series 1/8" Two Way Shut-Off, Plugs and Sockets

| <div>Sockets</div> |  | Part No. | Brand | Thread | Description | |
|--------------------|---|-----------|-------|--------|----------------------------------|-------|
| | | H1S | F | 1/8" | Steel | |
| | | 1DSF1-S | B | | | |
| | | H1S-101 | F | | Steel w/Viton Seal | |
| | | H1B | F | | Brass | |
| | | 1DSF1-B | B | | | |
| | | H1B-101 | F | | Brass, w/Viton Seal | |
| | | 1DSF1-B-Y | B | | | |
| | | H1B-103 | F | | Brass, w/Ethylene Propylene Seal | |
| | | H1BLV | F | | Brass Less Valve | |
| | | H1S/S | F | | 303 Stainless | |
| | | 1DSF1-SS | B | | | |
| | | H1S/S-101 | F | | 303 Stainless, w/Viton Seal | |
| | | H1S/S-104 | | | 303 Stainless, w/Silicone Seal | |
| | | BLH1S | | | Steel Ball Lock | |
| | | BLH1B | | | Brass Ball Lock | |
| | | BLH1S/S | | | 303 Stainless Ball Lock | |
| | | H1S4 | F | | 7/16-20* | Steel |
| | | BLH1S4 | | | Steel Ball Lock | |

Plugs



| Part No. | Brand | Thread | Description |
|-----------|----------|-----------------------------|---------------------|
| K1S | F | 1/8" | Steel |
| DS1F1-S | B | | |
| K1S-101 | F | | Steel w/Viton Seal |
| K1B | F | | Brass |
| DS1F1-B | B | | |
| K1B-101 | F | | Brass, w/Viton Seal |
| K1B-103 | | | Brass, w/EPDM Seal |
| K1BLV | | | Brass Less Valve |
| K1S/S | F | | 303 Stainless |
| DS1F1-SS | B | | |
| K1S/S-101 | F | 303 Stainless, w/Viton Seal | |
| K1S4 | F | 7/16-20* | Steel |

Brand - Designates **F**=Foster or **B**=Breco Part

*SAE straight thread O-ring seal boss
See page 385 for full size templates
See page 373 - 374 for optional seal compounds




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1/4" - FHK & DS Series

(Compatible with ISO 7241-1, Series B)



FHK & DS Series 1/4" Two Way Shut-Off, Plugs and Sockets

| <div>Sockets</div> <div></div> | Part No. | Brand | Thread | Description |
|--|-----------------|----------|----------|---------------------------------|
| | H2S | F | 1/4" | Steel |
| | 2DSF2-S | B | | |
| | H2S-101 | F | | Steel w/Viton Seal |
| | 2DSF2-SY | B | | |
| | H2S-103 | F | | Steel w/EPDM Seal |
| | H2S-104 | | | Steel w/Silicone Seal |
| | H2B | B | | Brass |
| | 2DSF2-B | | | |
| | H2B-101 | F | | Brass, w/Viton Seal |
| | 2DSF2-BY | B | | |
| | H2B-102 | F | | Brass, w/Neoprene Seal |
| | H2B-103 | | | Brass, w/EPDM Seal |
| | H2BLV | | | Brass Less Valve |
| | H2S/S | F | | 303 Stainless |
| | 2DSF2-SS | B | | |
| | 2DSF2-SS316 | B | | 316 Stainless Steel |
| | H2S/S316 | F | | |
| | H2S/S-101 | F | | 303 Stainless, w/Viton Seal |
| | H2S/S316-101 | | | 316 Stainless, w/Viton Seal |
| | H2S/S-103 | | | 303 Stainless, w/EPDM Seal |
| | H2S/S-104 | | | 303 Stainless, w/Silicone Seal |
| | H2S/SLV | | | 303 Stainless Less Valve |
| | BLH2S | B | | Steel Ball Lock |
| | BLH2B | | | Brass Ball Lock |
| | 2DSF2-S-SL | | | Steel Sleeve Lock |
| | 2DSF2-B-SL | | | Brass Sleeve Lock |
| | 2DSF2-SS-SL | | | 303 Stainless Sleeve Lock |
| | 2DSF2-BY-SL | | | Brass, w/Viton Seal Sleeve Lock |
| | BLH2S/S | F | | 303 Stainless Ball Lock |
| | H2S6 | F | 9/16-18* | Steel |
| BLH2S6 | Steel Ball Lock | | | |

| Plugs |  | Part No. | Brand | Thread | Description |
|-------|--|--------------|----------|--------|--------------------------------|
| | | K2S | F | 1/4" | Steel |
| | | DS2F2-S | B | | Steel w/Viton Seal |
| | | K2S-101 | F | | Steel w/EPDM Seal |
| | | K2S-103 | | | Steel w/Silicone Seal |
| | | K2S-104 | | | Steel Less Valve |
| | | K2SLV | | | Brass |
| | | K2B | F | | Brass, w/Viton Seal |
| | | DS2F2-B | B | | Brass, w/Neoprene Seal |
| | | K2B-101 | F | | Brass, w/EPDM Seal |
| | | K2B-102 | | | Brass, w/Silicone Seal |
| | | K2B-103 | | | Brass Less Valve |
| | | K2B-104 | | | 303 Stainless |
| | | K2BLV | | | 316 Stainless Steel |
| | | K2S/S | F | | 303 Stainless, w/Viton Seal |
| | | DS2F2-SS | B | | 316 Stainless, w/Viton Seal |
| | | K2S/S316 | F | | 303 Stainless, w/EPDM Seal |
| | | DS2F2-SS316 | B | | 303 Stainless, w/Silicone Seal |
| | | K2S/S-101 | F | | 303 Stainless Less Valve |
| | | K2S/S316-101 | | | Steel |
| | | K2S/S-103 | | | |
| | | K2S/S-104 | | | |
| | | K2S/SLV | | | |
| K2S6 | F | 9/16-18* | Steel | | |

Brand - Designates **F**=Foster or **B**=Breco Part

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*SAE straight thread O-ring seal boss

See page 385 for full size templates

See page 373 - 374 for optional seal compounds




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3/8" - FHK & DS Series

(Compatible with ISO 7241-1, Series B)

FHK & DS Series 3/8" Two Way Shut-Off, Plugs and Sockets

| <div>Sockets</div> | | Part No. | Brand | Thread | Description |
|--------------------|--|--------------|----------|--------|----------------------------------|
| |  | H3S | F | 3/8" | Steel |
| | | 3DSF3-S | B | | Steel w/Viton Seal |
| | | H3S-101 | F | | Steel w/Neoprene Seal |
| | | H3S-102 | | | Steel w/EPDM Seal |
| | | H3S-103 | | | Steel w/Silicone Seal |
| | | H3S-104 | | | Brass |
| | | H3B | B | | Brass, w/Viton Seal |
| | | 3DSF3-B | | | Brass, w/Neoprene Seal |
| | | H3B-101 | | | Brass, w/Ethylene Propylene Seal |
| | | 3DSF3-BY | | | Brass, w/Silicone Seal |
| | | H3B-102 | F | | 303 Stainless |
| | | H3B-103 | | | 316 Stainless Steel |
| | | H3B-104 | | | 303 Stainless, w/Viton Seal |
| | | H3S/S | | | 316 Stainless, w/Viton Seal |
| | | 3DSF3-SS | B | | Steel Ball Lock |
| | | H3S/S316 | | | Brass Ball Lock |
| | | 3DSF3-SS316 | | | 303 Stainless Ball Lock |
| | | H3S/S-101 | | | 303 Stainless Sleeve Lock |
| | | H3S/S316-101 | F | | 316 Stainless Ball Lock |
| | | BLH3S | | | Steel |
| | | BLH3B | | | Steel Ball Lock |
| | | BLH3S/S | | | |
| | | 3DSF3-SS-SL | B | | |
| | | BLH3S/S316 | | | |
| | | H3S8 | | | |
| | | BLH3S8 | | | |

Plugs



| Part No. | Brand | Thread | Description |
|--------------|----------|--------|-----------------------------|
| K3S | F | 3/8" | Steel |
| DS3F3-S | B | | Steel w/Viton Seal |
| K3S-101 | F | | Steel w/Neoprene Seal |
| K3S-102 | | | Steel w/EPDM Seal |
| K3S-103 | | | Steel w/Silicone Seal |
| K3S-104 | | | Steel Less Valve |
| K3SLV | | | Brass |
| K3B | F | | Brass, w/Viton Seal |
| DS3F3-B | B | | Brass, w/Neoprene Seal |
| K3B-101 | F | | Brass, w/EPDM Seal |
| K3B-102 | | | 303 Stainless |
| K3B-103 | | | 316 Stainless Steel |
| K3S/S | F | | 303 Stainless, w/Viton Seal |
| DS3F3-SS | B | | 316 Stainless, w/Viton Seal |
| K3S/S316 | F | | 303 Stainless, w/EPDM Seal |
| DS3F3-SS316 | B | | 3/4-16* |
| K3S/S-101 | F | | |
| K3S/S316-101 | | | |
| K3S/S-103 | | | |
| K3S8 | F | Steel | |

Brand - Designates **F**=Foster or **B**=Breco Part

*SAE straight thread O-ring seal boss
See page 385 for full size templates
See page 373 - 374 for optional seal compounds

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1/2" - FHK & DS Series

(Compatible with ISO 7241-1, Series B)



FHK & DS Series 1/2" Two Way Shut-Off, Plugs and Sockets

| Sockets |  | Part No. | Brand | Thread | Description |
|---------|---|--------------|----------|----------|----------------------------------|
| | | H4S | F | 1/2" | Steel |
| | | 4DSF4-S | B | | |
| | | H4S-101 | F | | Steel w/Viton Seal |
| | | 4DSF4-SY | B | | |
| | | H4S-103 | F | | Steel w/EPDM Seal |
| | | H4B | F | | Brass |
| | | 4DSF4-B | B | | |
| | | H4B-101 | F | | Brass, w/Viton Seal |
| | | H4B-102 | | | Brass, w/Neoprene Seal |
| | | H4B-103 | | | Brass, w/Ethylene Propylene Seal |
| | | H4S/S | F | | 303 Stainless |
| | | 4DSF4-SS | B | | 316 Stainless Steel |
| | | H4S/S316 | F | | |
| | | 4DSF4-SS316 | B | | |
| | | H4S/S-101 | F | | 303 Stainless, w/Viton Seal |
| | | H4S/S316-101 | | | 316 Stainless, w/Viton Seal |
| | | H4S/S-103 | | | 303 Stainless, w/EPDM Seal |
| | | BLH4S | | | Steel Ball Lock |
| | | BLH4B | | | Brass Ball Lock |
| | | BLH4S/S | | | 303 Stainless Ball Lock |
| | | BLH4S/S316 | | | 316 Stainless Ball Lock |
| | | H4S10 | | F | Steel |
| | | BLH4S10 | | | Steel Ball Lock |

| Plugs |  | Part No. | Brand | Thread | Description |
|-------|--|--------------|----------|--------|-----------------------------|
| | | K4S | F | 1/2" | Steel |
| | | DS4F4-S | B | | Steel w/Viton Seal |
| | | K4S-101 | F | | Steel w/EPDM Seal |
| | | K4S-103 | | | Steel Less Valve |
| | | K4SLV | | | Brass |
| | | K4B | F | | Brass |
| | | DS4F4-B | B | | |
| | | K4B-101 | F | | Brass, w/Neoprene Seal |
| | | K4B-102 | | | Brass, w/EPDM Seal |
| | | K4B-103 | | | Brass Less Valve |
| | | K4BLV | | | 303 Stainless |
| | | K4S/S | F | | 316 Stainless Steel |
| | | DS4F4-SS | B | | |
| | | K4S/S316 | F | | 316 Stainless, w/Viton Seal |
| | | DS4F4-SS316 | B | | 303 Stainless, w/EPDM Seal |
| | | K4S/S-101 | F | | 303 Stainless Less Valve |
| | | K4S/S316-101 | | | Steel |
| | | K4S/S-103 | | | |
| | | K4S/SLV | | | F |

Brand - Designates **F**=Foster or **B**=Breco Part

ZSi-Foster Engineering Catalog

*SAE straight thread O-ring seal boss

See page 385 for full size templates

See page 373 - 374 for optional seal compounds



WARNING: These products can expose you to chemicals including lead, which is known to the State of California to cause cancer, and which is known to cause birth defects or other reproductive harm. For more information go to www.P65Warnings.ca.gov.



3/4" - FHK & DS Series


(Compatible with ISO 7241-1, Series B)

FHK & DS Series 3/4" Two Way Shut-Off, Plugs and Sockets

| <div>Sockets</div> | Part No. | Brand | Thread | Description |
|--------------------|--------------|-------|------------|----------------------------------|
| | H6S | F | 3/4" | Steel |
| | 6DSF6-S | B | | Steel w/Viton Seal |
| | H6S-101 | F | | Steel w/Neoprene Seal |
| | H6S-102 | F | | Steel w/EPDM Seal |
| | H6S-103 | | | Steel Less Valve |
| | H6SLV | | | Brass |
| | H6B | F | | Brass, w/Viton Seal |
| | 6DSF6-B | B | | Brass, w/Ethylene Propylene Seal |
| | H6B-101 | F | | Brass, w/Silicone Seal |
| | H6B-103 | | | 303 Stainless |
| | H6B-104 | | | 316 Stainless Steel |
| | H6S/S | F | | 303 Stainless, w/Viton Seal |
| | 6DSF6-SS | B | | 316 Stainless, w/Viton Seal |
| | H6S/S316 | F | | 303 Stainless, w/EPDM Seal |
| | 6DSF6-SS316 | B | | 303 Stainless Less Valve |
| | H6S/S-101 | F | | Steel Ball Lock |
| | 6DSF6-SS-Y | B | | Brass Ball Lock |
| | H6S/S316-101 | F | | 303 Stainless Ball Lock |
| | H6S/S-103 | | | 316 Stainless Ball Lock |
| | H6S/SLV | | | 303 Stainless Sleeve Lock |
| | BLH6S | | | Steel |
| | BLH6B | | | Steel Ball Lock |
| | BLH6S/S | | | |
| | BLH6S/S316 | | | |
| | 6DSF6-SS-SL | B | | |
| | H6S12 | F | 1-1/16-12* | Steel |
| | BLH6S12 | F | | Steel Ball Lock |



Plugs



| Part No. | Brand | Thread | Description |
|--------------|----------|--------------------------|----------------------------------|
| K6S | F | 3/4" | Steel |
| DS6F6-S | B | | Steel |
| K6S-101 | F | | Steel w/Viton Seal |
| K6S-102 | | | Steel w/Neoprene Seal |
| K6S-103 | | | Steel w/EPDM Seal |
| K6SLV | | | Steel Less Valve |
| K6B | F | | Brass |
| DS6F6-B | B | | Brass, w/Viton Seal |
| K6B-101 | F | | Brass, w/Ethylene Propylene Seal |
| K6B-103 | | | 303 Stainless |
| K6S/S | F | | 316 Stainless Steel |
| DS6F6-SS | B | | 303 Stainless, w/Viton Seal |
| K6S/S316 | F | | 316 Stainless, w/Viton Seal |
| DS6F6-SS316 | B | | 303 Stainless, w/EPDM Seal |
| K6S/S-101 | F | 303 Stainless Less Valve | |
| K6S/S316-101 | | | |
| K6S/S-103 | | | |
| K6S/SLV | | | |
| K6S12 | F | 1-1/16-12* | Steel |



Brand - Designates **F**=Foster or **B**=Breco Part

*SAE straight thread O-ring seal boss
See page 385 for full size templates
See page 373 - 374 for optional seal compounds

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www.zsi-foster.com



WARNING: These products can expose you to chemicals including lead, which is known to the State of California to cause cancer, and which is known to cause birth defects or other reproductive harm. For more information go to www.P65Warnings.ca.gov.

1" - FHK & DS Series

(Compatible with ISO 7241-1, Series B)



Pneumatic QD

Hydraulic QD

Blow Guns & Accessories


Fittings & Accessories


Hoses & Fittings

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FHK & DS Series 1" Two Way Shut-Off, Plugs and Sockets

| <div>Sockets</div> |  | Part No. | Brand | Thread | Description |
|--------------------|---|--------------|-------|-------------------------------------|----------------------------------|
| | | H8S | F | 1" | Steel |
| | | 8DSF8-S | B | | Steel w/Viton Seal |
| | | H8S-101 | F | | Steel Less Valve |
| | | H8SLV | F | | Brass |
| | | H8B | F | | Brass, w/Viton Seal |
| | | 8DSF8-B | B | | Brass, w/Ethylene Propylene Seal |
| | | H8B-101 | F | | 303 Stainless |
| | | H8B-103 | F | | 316 Stainless Steel |
| | | H8S/S | F | | 303 Stainless, w/Viton Seal |
| | | 8DSF8-SS | B | | 316 Stainless, w/Viton Seal |
| | | H8S/S316 | F | | 303 Stainless, w/EPDM Seal |
| | | 8DSF8-SS316 | B | | Steel Ball Lock |
| | | H8S/S-101 | F | | Brass Ball Lock |
| | | H8S/S316-101 | | | 303 Stainless Ball Lock |
| | | H8S/S-103 | | | 316 Stainless Ball Lock |
| | | BLH8S | | | Steel |
| | | BLH8B | | | Steel Ball Lock |
| | | BLH8S/S | | | |
| | | BLH8S/S316 | | | |
| | | H8S16 | F | 1 ⁵ / ₁₆ -12* | Steel |
| | | BLH8S16 | F | 1 ⁵ / ₁₆ -12* | Steel Ball Lock |

| Plugs |  | Part No. | Brand | Thread | Description |
|-------|--|--------------|----------|-------------------------------------|----------------------------------|
| | | K8S | F | 1" | Steel |
| | | DS8F8-S | B | | |
| | | K8S-101 | F | | Steel w/Viton Seal |
| | | K8SLV | F | | Steel Less Valve |
| | | K8B | F | | Brass |
| | | K8B-101 | F | | Brass, w/Viton Seal |
| | | K8B-103 | | | Brass, w/Ethylene Propylene Seal |
| | | K8S/S | F | | 303 Stainless |
| | | DS8F8-SS | B | | 316 Stainless Steel |
| | | K8S/S316 | F | | |
| | | DS8F8-SS316 | B | | |
| | | K8S/S-101 | F | | 303 Stainless, w/Viton Seal |
| | | K8S/S316-101 | | | 316 Stainless, w/Viton Seal |
| | | K8S/S-103 | | | 303 Stainless, w/EPDM Seal |
| | | K8S16 | F | 1 ⁵ / ₁₆ -12* | Steel |

Brand - Designates **F**=Foster or **B**=Breco Part

ZSi-Foster Engineering Catalog

*SAE straight thread O-ring seal boss

See page 385 for full size templates

See page 373 - 374 for optional seal compounds




WARNING: These products can expose you to chemicals including lead, which is known to the State of California to cause cancer, and which is known to cause birth defects or other reproductive harm. For more information go to www.P65Warnings.ca.gov.




1-1/2" & 2-1/2" - FHK & DS Series

(Compatible with ISO 7241-1, Series B)


FHK & DS Series 1-1/2" Two Way Shut-Off, Plugs and Sockets - Breco

| Sockets |  | Part No. | Type | Finish | Body Size | | Thread Size | Hex Wrench Area | Max. Working Pressure | Hydraulic Oil Rated Flow at 100°F |
|---------|---|-----------|--------|--------|-----------|--------|-------------|-----------------|-----------------------|-----------------------------------|
| | | | | | In. | ISO mm | | | | |
| | | 12DSF12-B | Socket | Brass | 1-1/2" | 40mm | 1-1/2" NPTF | 2.36" | 1,500 psi | 100 gpm |

| Plugs |  | Part No. | Type | Finish | Body Size | | Thread Size | Hex Wrench Area | Max. Working Pressure | Hydraulic Oil Rated Flow at 100°F |
|-------|---|-----------|------|--------|-----------|--------|-------------|-----------------|-----------------------|-----------------------------------|
| | | | | | In. | ISO mm | | | | |
| | | DS12F12-B | Plug | Brass | 1-1/2" | 40mm | 1-1/2" NPTF | 2.36" | 1,500 psi | 100 gpm |

FHK & DS Series 2-1/2" Two Way Shut-Off, Plugs and Sockets - Breco

| Sockets |  | Part No. | Type | Finish | Body Size | | Thread Size | Hex Wrench Area | Max. Working Pressure | Hydraulic Oil Rated Flow at 100°F |
|---------|--|-----------|--------|--------|-----------|--------|-------------|-----------------|-----------------------|-----------------------------------|
| | | | | | In. | ISO mm | | | | |
| | | 16DSF16-B | Socket | Brass | 2-1/2" | 50mm | 2" NPTF | 3.74" | 700 psi | 200 gpm |

| Plugs |  | Part No. | Type | Finish | Body Size | | Thread Size | Hex Wrench Area | Max. Working Pressure | Hydraulic Oil Rated Flow at 100°F |
|-------|---|-----------|------|--------|-----------|--------|-------------|-----------------|-----------------------|-----------------------------------|
| | | | | | In. | ISO mm | | | | |
| | | DS16F16-B | Plug | Brass | 2-1/2" | 50mm | 2" NPTF | 3.74" | 700 psi | 200 gpm |

Brand - Designates **F**=Foster or **B**=Breco Part

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www.zsi-foster.com



WARNING: These products can expose you to chemicals including lead, which is known to the State of California to cause cancer, and which is known to cause birth defects or other reproductive harm. For more information go to www.P65Warnings.ca.gov.

Rev:
11-20-19

FHK & DS Series Dust Plugs & Caps



DS Series Carpet Cleaning


FHK & DS Series Dust Plugs and Caps

Protective dust plugs and caps play a crucial role in the use of hydraulic quick couplings. Dust plugs and caps keep the mating surface clean and free of contamination and protect the critical mating elements of the coupling halves when they are disconnected. The plug is protected from damage that would make the total coupling unusable.


Note: When ordering the dust cap/plug body size must correspond to that of the socket or plug.

| Dust Cap Part No. | Dust Plug Part No. | | Brand | Size |
|-------------------|--------------------|------------|----------|------|
| | NPT Thread | SAE Thread | | |
| – | H1DP | H1DP4 | F | 1/8" |
| BH1-66 | BH1-65 | – | B | 1/8" |
| – | H2DP | H2DP6 | F | 1/4" |
| – | – | – | B | 1/4" |
| – | H3DP | H3DP8 | F | 3/8" |
| – | BH3-65 | – | B | 3/8" |
| – | H4DP | H4DP10 | F | 1/2" |
| BH4-66 | BH4-65 | – | B | 1/2" |
| – | H6DP | H6DP12 | F | 3/4" |
| – | BH6-65 | – | B | 3/4" |
| – | H8DP | H8DP16 | F | 1" |
| BH8-66 | BH8-65 | – | B | 1" |

Dust Caps & Plugs Rubber



Black Combo



| Part No. | Brand | Size | Description | |
|-----------|----------|------|-------------------|-----------|
| B1DC | F | 1/8" | Dust Cap | |
| B1DP | | | Dust Plug | |
| BH1-66M | B | 1/8" | Dust Cap | |
| BH1-65M | | | Dust Plug | |
| B2DC-DP | F | 1/4" | Dust Cap and Plug | |
| BH2-66M | B | | Dust Cap | |
| BH2-65M | | | Dust Plug | |
| B3DC-DP | F | 3/8" | Dust Cap and Plug | |
| B3DC | | | Dust Cap | |
| B3DC-BLUE | | | B | Dust Plug |
| B3DP | | | | Dust Cap |
| B3DP-BLUE | B | 1/2" | Dust Plug | |
| BH3-66M | | | Dust Cap | |
| BH3-65M | F | 1/2" | Dust Plug | |
| B4DC-DP | | | Dust Cap and Plug | |
| B4DC | | | Dust Cap | |
| B4DC-BLUE | | | B | Dust Plug |
| B4DP | Dust Cap | | | |
| B4DP-BLUE | B | 3/4" | Dust Plug | |
| BH4-66M | | | Dust Cap | |
| BH4-65M | | | Dust Plug | |
| B6DC | | | Dust Cap | |
| B6DP | B | 3/4" | Dust Plug | |
| BH6-66M | | | Dust Cap | |
| BH6-65M | F | 1" | Dust Plug | |
| B8DC-DP | | | Dust Cap and Plug | |
| B8DC | | | Dust Cap | |
| B8DC-BLUE | | | B | Dust Plug |
| B8DP | Dust Cap | | | |
| B8DP-BLUE | B | 1" | Dust Plug | |
| BH8-66M | | | Dust Cap | |
| BH8-65M | | | Dust Plug | |

Dust Caps & Plugs Rubber



Pneumatic QD

Hydraulic QD

Blow Guns & Accessories


Fittings & Accessories

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DS Series Carpet Cleaning Plugs and Sockets - Breco

| Female Thread | Part No. | Size | Thread Size NPTF | Description |
|---|----------|------|------------------|-------------|
| | | | | |
|  | DS2F2-BI | 1/4" | 1/4-18 | Brass |

Newly designed to exacting standards, our latest Carpet Cleaning ISO-B quick disconnect includes a redesigned stainless steel valve with EPDM Seal and internal components, specifically engineered to offer strong airflow, high psig and efficient performance. Field tested and subjected to rigorous cleaning applications, it has been proven to perform under pressure without leaking or failing. It is ideal for carpet cleaning equipment, car washes, pressure washers and water based hydraulic applications.

Contact factory for specific information. Socket is available with a protective cover in three different color options.

| Female Thread | Part No. | Size | Thread Size NPTF | Description |
|---|----------|------|------------------|-------------|
| | | | | |
|  | 2DSF2-BI | 1/4" | 1/4-18 | Brass |



Brand - Designates **F**=Foster or **B**=Breco Part

ZSi-Foster Engineering Catalog



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6600 ISO A Series


(Conforms with ISO 7241-1, Series A)

- The 6600 Series couplings feature poppet valves with solid metal perch that maintains valve alignment and prevents flow checking. Both the sleeves of the socket and plug are case hardened to make the couplings resistant to damage from brinelling and mechanical shock.
- The durable ball-locking mechanism ensures a reliable connection every time.
- These couplings have female pipe and straight thread end configurations as standard. The dimensional requirements of Series A in ISO 7241-1. Socket and plug are interchangeable with other parts compatible with ISO 7241-1.


Specifications:

| | Size | | | | |
|-------------------------------|-----------------------|------|------|------|------|
| | 1/4" | 3/8" | 1/2" | 3/4" | 1" |
| | Rated Pressure (Psig) | | | | |
| Working Pressure | 5000 | 4000 | 4000 | 4000 | 4000 |
| Temperature Range (std seals) | -10° to +250° F. | | | | |

"6600" Series Sockets - Breco

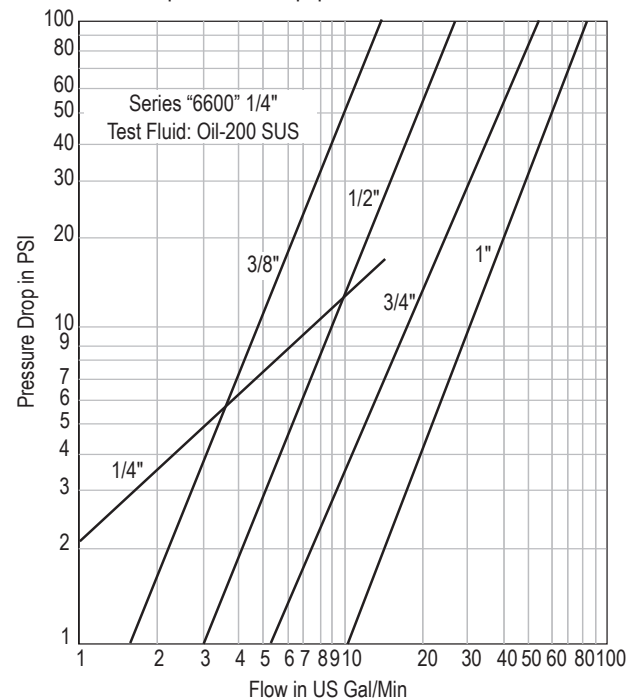
| | Part No. Steel | Size | Thread Size | |
|---|-------------------|------|-------------|-----------|
| | | | NPTF | ORB |
|  | B-6601-4-4 | 1/4" | 1/4-18 | - |
| | B-6601-6-6 | 3/8" | 3/8-18 | - |
| | B-6601-8-10 | 1/2" | 1/2-14 | - |
| | B-6601-12-10 | | 3/4-14 | - |
| | B-6608-8-10 | | - | 3/4-16 |
| | B-6608-10-10 | | - | 7/8-14 |
| | B-6608-12-10 | | - | 1 1/16-12 |
| | B-6601-12-12 | 3/4" | 3/4-14 | - |
| | B-6608-12-12 | | - | 1 1/16-12 |
| | B-6601-16-16 | 1" | 1 - 11 1/2 | - |
| | B-6608-16-16 | | - | 1 5/16-12 |

"6600" Series Plugs - Breco



| | Part No. Steel | Size | Thread Size | |
|---|-------------------|------|-------------|-----------|
| | | | NPTF | ORB |
|  | B-6602-2-4 | 1/4" | 1/8-27 | - |
| | B-6602-4-4 | | 1/4-18 | - |
| | B-6602-6-6 | 3/8" | 3/8-18 | - |
| | B-6602-8-10 | 1/2" | 1/2-14 | - |
| | B-6602-12-10 | | 3/4-14 | - |
| | B-6610-8-10 | | - | 3/4-16 |
| | B-6610-10-10 | | - | 7/8-14 |
| | B-6610-12-10 | | - | 1 1/16-12 |
| | B-6602-12-12 | 3/4" | 3/4-14 | - |
| | B-6610-12-12 | | - | 1 1/16-12 |
| | B-6602-16-16 | 1" | 1 - 11 1/2 | - |
| | B-6610-16-16 | | - | 1 5/16-12 |


Applications:

The versatile "6600" Series couplings are used in a wide range of hydraulic applications including construction equipment, manufacturing machinery, and in-plant systems. They can be found anywhere the fluid transfer lines need to be connected and disconnected for operation or maintenance of equipment. Rugged construction makes it a good choice for mobile applications including dump trucks, snow plows, refuse hauling, mining, asphalt paving, truck trailer connections and many more. In-plant machinery applications include hydraulic fluid, chemicals and gas lines for paper mills, steel production, and many varieties of plant maintenance and production equipment.



Dust Caps & Dust Plugs - Breco

| Dust Cap | Part No. | Dust Plug | Part No. | Size |
|---|-----------|---|-----------|------|
|  | B-6657-4 |  | B-6659-4 | 1/4" |
| | - | | B-6659-6 | 3/8" |
| | B-6657-10 | | B-6659-10 | 1/2" |
| | B-6657-12 | | B-6659-12 | 3/4" |
| | B-6657-16 | | B-6659-16 | 1" |

| Dust Cap & Plug Combo | Part No. | Size | Description |
|--|----------|------|-------------|
|  | A04DC-DP | 1/4" | Combo |
| | A06DC-DP | 3/8" | Combo |
| | A08DC | 1/2" | Dust Cap |
| | A08DP | | Dust Plug |
| | A12DC-DP | 3/4" | Combo |
| | A16DC-DP | 1" | Combo |

Brand - Designates **F**=Foster or **B**=Breco Part See page 396 for full size templates



WARNING: These products can expose you to chemicals including lead, which is known to the State of California to cause cancer, and which is known to cause birth defects or other reproductive harm. For more information go to www.P65Warnings.ca.gov.

FF Plus Series

(Flat Face, Meets ISO 16028 Standard)



Nickel Plated Steel



316 Stainless Steel

Construction

(Sizes 06 to 25) - Carbon steel with zinc nickel plating fitted with Nitrile seals (Viton seals available)
1200 hours with no white or red rust in salt spray tests
AISI 316 stainless steel fitted with Viton seals (Other seals available on request)

Features

- Safety locking sleeve to prevent accidental disconnection
- Flat faces are easily wiped clean
- Minimal inclusion of air and contaminants during connection
- Flat face design prevents fluid loss during disconnection
- Bidirectional flow
- Offered nickel plated steel & 316 Stainless Steel
- Manufactured to ISO 16028 Standard
- Bi-directional Flow
- Multiple Thread Types: NPT and ORB
- Connect Under Pressure Series, see page 338
- Tested to 1,200 Hours of Protection from White & Red Rust

Accessories

Dust Caps and Plugs are available

Specifications

Couplers have been tested to the ISO 7241-2 Standard

Operating temperatures - Nickel Plated Steel:

(With Nitrile seals): -40° to 223°F (-40° to 106°C),

(With Viton seals): -4° to 392°F (-20° to 200°C)

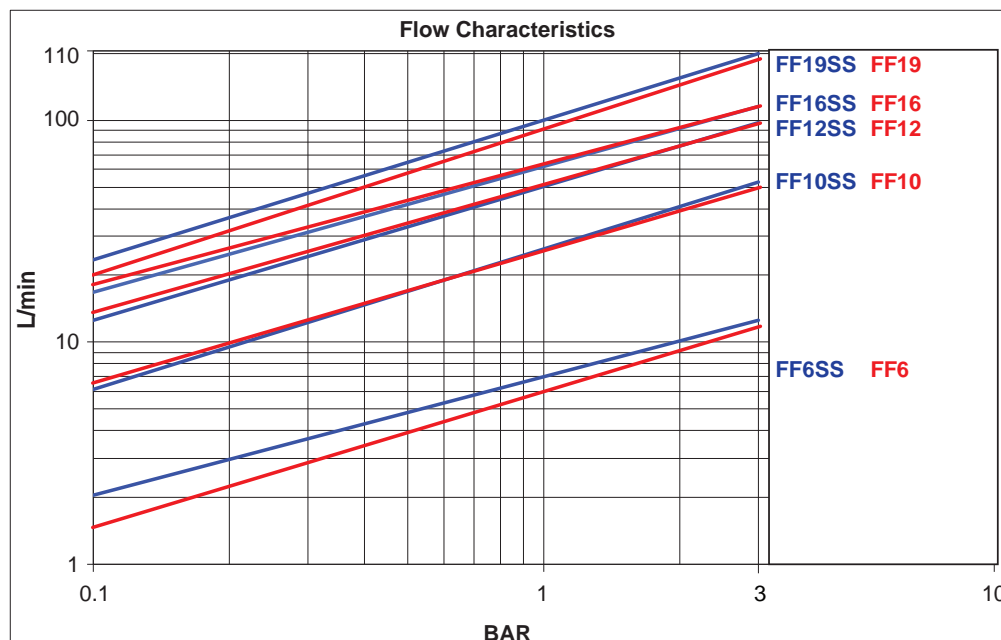
Operating temperatures - Stainless Steel:

(With Viton seals): -4° to 392°F (-20° to 200°C)

Flow Characteristics

Contact ZSi-Foster for detailed information

| | SIZE | | | | |
|--|------------------|------|------|------|------|
| | 1/4" | 3/8" | 1/2" | 3/4" | 1 |
| Rated Flow (gpm) | 3 | 6 | 12 | 26 | 50 |
| Temperature Range | -10°F to +250° F | | | | |
| Spillage (ML) (max. per disconnect) | .015 | .015 | .020 | .150 | .200 |
| Air Inclusion (max. per disconnect) | .020 | .020 | .070 | .100 | .150 |



Brand - Designates **F**=Foster or **B**=Breco Part

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WARNING: These products can expose you to chemicals including lead, which is known to the State of California to cause cancer, and which is known to cause birth defects or other reproductive harm. For more information go to www.P65Warnings.ca.gov.

Pneumatic QD

Hydraulic QD

Blow Guns & Accessories

Fittings & Accessories

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FF Plus Series

(Flat Face, Meets ISO 16028 Standard)

FF Plus Series Sockets - Foster

| Female Thread | Part No. | ISO 16028 Size | Body Size | Thread | Max. Working Pressure Psig | Burst Pressure (Coupled) Psig | Burst Pressure (each) Psig | Description |
|---------------|--------------|----------------|-----------|-------------------------|----------------------------|-------------------------------|----------------------------|-----------------------|
| | FF6S-04 | 06 | 1/4" | 1/4" Female NPT | 5,800 | 24,650 | 21,750 | Nickel Plated Steel |
| | FF6S-04SS | | | | 5,075 | 18,850 | 23,200 | Stainless Steel - 316 |
| | FF10S-06 | 10 | 3/8" | 3/8" Female NPT | 5,075 | 21,750 | 15,950 | Nickel Plated Steel |
| | FF10S-06SS | | | | 5,075 | 27,550 | 14,500 | Stainless Steel - 316 |
| | FF10S-08 | | | 1/2" Female NPT | 5,075 | 21,750 | 15,950 | Nickel Plated Steel |
| | FF10S-08SS | | | | 5,075 | 27,550 | 14,500 | Stainless Steel - 316 |
| | FF10S-75ORB | | | 3/4" -16 Female ORB | 5,075 | 27,550 | 15,225 | Nickel Plated Steel |
| | FF12S-08 | 12 | 1/2" | 1/2" Female NPT | 5,075 | 17,400 | 15,225 | Nickel Plated Steel |
| | FF12S-08SS | | | 1/2" Female NPT | 5,075 | 23,200 | 14,500 | Stainless Steel - 316 |
| | FF12S-12 | | | 3/4" Female NPT | 5,075 | 17,400 | 15,225 | Nickel Plated Steel |
| | FF12S-12SS | | | 3/4" Female NPT | 5,075 | 23,200 | 14,500 | Stainless Steel - 316 |
| | FF12S-75ORB | | | 3/4" - 16 Female ORB | 5,075 | 23,200 | 15,950 | Nickel Plated Steel |
| | FF12S-87ORB | | | 7/8" - 14 Female ORB | 5,075 | 23,200 | 15,950 | |
| | FF12S-106ORB | | | 1-1/16" - 12 Female ORB | 5,075 | 23,200 | 15,950 | |
| | FF16S-12 | 16 | 5/8" | 3/4" Female NPT | 5,075 | 17,400 | 15,950 | Nickel Plated Steel |
| | FF16S-12SS | | | | 5,075 | 20,300 | 14,500 | Stainless Steel - 316 |
| | FF19S-12 | 19 | 3/4" | 3/4" Female NPT | 5,075 | 21,025 | 15,950 | Nickel Plated Steel |
| | FF19S-12SS | | | | 5,075 | 20,300 | 14,500 | Stainless Steel - 316 |
| | FF19S-16 | | | 1" Female NPT | 5,075 | 21,025 | 15,225 | Nickel Plated Steel |
| | FF19S-16SS | | | | 5,075 | 20,300 | 14,500 | Stainless Steel - 316 |
| | FF19S-131ORB | | | 1-5/16" - 12 Female ORB | 5,075 | 21,025 | 15,950 | Nickel Plated Steel |
| | FF25S-16 | 25 | 1" | 1" Female NPT | 5,075 | 11,600 | 15,225 | Nickel Plated Steel |
| | FF25S-16SS | | | | 5,075 | 14,500 | 14,500 | Stainless Steel - 316 |
| | FF25S-20 | | | 1-1/4" Female NPT | 3,770 | 11,600 | 11,600 | Nickel Plated Steel |
| | FF25S-20SS | | | | 5,075 | 14,500 | 14,500 | Stainless Steel - 316 |
| | FF25S-162ORB | | | 1-5/8" - 12 Female ORB | 5,075 | 11,600 | 15,225 | Nickel Plated Steel |
| | FF32S-24 | 32 | 1-1/4" | 1-1/2" Female NPT | 3,600 | 15,950 | 11,600 | Nickel Plated Steel |
| | FF40S-32 | 40 | 1-1/2" | 2" Female NPT | 3,600 | 14,500 | 11,600 | Nickel Plated Steel |



FF Plus Series Socket Dust Caps - Foster

| Socket - Dust Caps | Part No. | Size | Description |
|--------------------|----------|------|----------------|
| | 6FFSDC | 1/4" | Dust Cap - PVC |
| | 10FFSDC | 3/8" | Dust Cap - PVC |
| | 12FFSDC | 1/2" | Dust Cap - PVC |
| | 16FFSDC | 5/8" | Dust Cap - PVC |
| | 19FFSDC | 3/4" | Dust Cap - PVC |
| | 25FFSDC | 1" | Dust Cap - PVC |



CAUTION: It is important that users of the Quick Release Couplers read the safety guidelines on pages 262 - 263. Improper use of products can lead to severe injury and damage to equipment.

Brand - Designates **F**=Foster or **B**=Breco Part

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www.zsi-foster.com



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FF Plus Series

(Flat Face, Meets ISO 16028 Standard)



Pneumatic QD

Hydraulic QD

Blow Guns & Accessories


Fittings & Accessories

Hoses & Fittings


Technical Data

Indexes

FF Plus Series Plugs - Foster

| Female Thread |  | Part No. | ISO 16028 Size | Body Size | Thread | Max. Working Pressure Psig | Burst Pressure (Coupled) Psig | Burst Pressure (each) Psig | Description |
|---------------|---|--------------|----------------|-----------|-------------------------|----------------------------|-------------------------------|----------------------------|-----------------------|
| | | FF6P-04 | 06 | 1/4" | 1/4" Female NPT | 5,800 | 24,650 | 17,690 | Nickel Plated Steel |
| | | FF6P-04SS | | | | 5,075 | 18,850 | 37,700 | Stainless Steel - 316 |
| | | FF10P-06 | 10 | 3/8" | 3/8" Female NPT | 5,075 | 21,750 | 15,225 | Nickel Plated Steel |
| | | FF10P-06SS | | | | 5,075 | 27,550 | 20,300 | Stainless Steel - 316 |
| | | FF10P-08 | | | 1/2" Female NPT | 5,075 | 21,750 | 15,225 | Nickel Plated Steel |
| | | FF10P-08SS | | | | 5,075 | 27,550 | 18,850 | Stainless Steel - 316 |
| | | FF10P-75ORB | | | 3/4" -16 Female ORB | 5,075 | 21,750 | 14,500 | Nickel Plated Steel |
| | | FF12P-08 | 12 | 1/2" | 1/2" Female NPT | 5,075 | 17,400 | 14,500 | Nickel Plated Steel |
| | | FF12P-08SS | | | | 5,075 | 23,200 | 15,950 | Stainless Steel - 316 |
| | | FF12P-12 | | | 3/4" Female NPT | 5,075 | 17,400 | 14,500 | Nickel Plated Steel |
| | | FF12P-12SS | | | | 5,075 | 23,200 | 15,950 | Stainless Steel - 316 |
| | | FF12P-75ORB | | | 3/4" - 16 Female ORB | 5,075 | 17,400 | 15,225 | Nickel Plated Steel |
| | | FF12P-87ORB | | | 7/8" - 14 Female ORB | 5,075 | 17,400 | 15,225 | |
| | | FF12P-106ORB | | | 1-1/16" - 12 Female ORB | 5,075 | 17,400 | 15,225 | |
| | | FF16P-12 | 16 | 5/8" | 3/4" Female NPT | 5,075 | 17,400 | 15,950 | Nickel Plated Steel |
| | | FF16P-12SS | | | | 5,075 | 20,300 | 15,950 | Stainless Steel - 316 |
| | | FF19P-12 | 19 | 3/4" | 3/4" Female NPT | 5,075 | 21,025 | 15,950 | Nickel Plated Steel |
| | | FF19P-12SS | | | | 5,075 | 20,300 | 15,950 | Stainless Steel - 316 |
| | | FF19P-16 | | | 1" Female NPT | 5,075 | 21,025 | 15,225 | Nickel Plated Steel |
| | | FF19P-16SS | | | | 5,075 | 20,300 | 15,950 | Stainless Steel - 316 |
| | | FF19P-131ORB | | | 1-5/16" - 12 Female ORB | 5,075 | 21,025 | 15,950 | Nickel Plated Steel |
| | | FF25P-16 | 25 | 1" | 1" Female NPT | 5,075 | 11,600 | 15,225 | Nickel Plated Steel |
| | | FF25P-16SS | | | | 5,075 | 14,500 | 15,950 | Stainless Steel - 316 |
| | | FF25P-20 | | | 1-1/4" Female NPT | 3,770 | 11,600 | 11,600 | Nickel Plated Steel |
| | | FF25P-20SS | | | | 5,075 | 14,500 | 14,500 | Stainless Steel - 316 |
| | | FF25P-162ORB | | | 1-5/8" - 12 Female ORB | 5,075 | 11,600 | 15,225 | Nickel Plated Steel |
| | | FF32P-24 | 32 | 1-1/4" | 1-1/2" Female NPT | 3,600 | 15,950 | 11,600 | Nickel Plated Steel |
| | | FF40P-32 | 40 | 1-1/2" | 2" Female NPT | 3,600 | 14,500 | 11,600 | Nickel Plated Steel |

FF Plus Series Plug Dust Caps - Foster

| Plug - Dust Caps |  | Part No. | Size | Description |
|------------------|---|----------|------|----------------|
| | | 6FFPDC | 1/4" | Dust Cap - PVC |
| | | 10FFPDC | 3/8" | Dust Cap - PVC |
| | | 12FFPDC | 1/2" | Dust Cap - PVC |
| | | 16FFPDC | 5/8" | Dust Cap - PVC |
| | | 19FFPDC | 3/4" | Dust Cap - PVC |
| | | 25FFPDC | 1" | Dust Cap - PVC |

Brand - Designates **F**=Foster or **B**=Breco Part

ZSi-Foster Engineering Catalog

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FF Plus Series - Connect Under Pressure

(Flat Face, Meets ISO 16028 Standard)



FF10CUP



FF12CUP



FF19CUP

Connects under pressure by hand, with up to 5,067 psig (350 bar) locked in the male half. The ideal choice for applications where the ability to connect under pressure is essential.

Features

- Designed to connect with the flat face sockets
- Flat faces are easily wiped clean
- Allows for minimal inclusion of air and contaminants during connection
- Flat face design prevents fluid loss during disconnection
- Bidirectional flow
- Connect under pressure with up to 5,067 psig (350 bar) locked in the plugs
- Sockets must have zero pressure when connecting plugs under pressure

Construction

- (Sizes 10 to 19) - Carbon steel with zinc nickel plating fitted with Nitrile seals
- (1200 hours with no white or red rust in salt spray tests)

Accessories

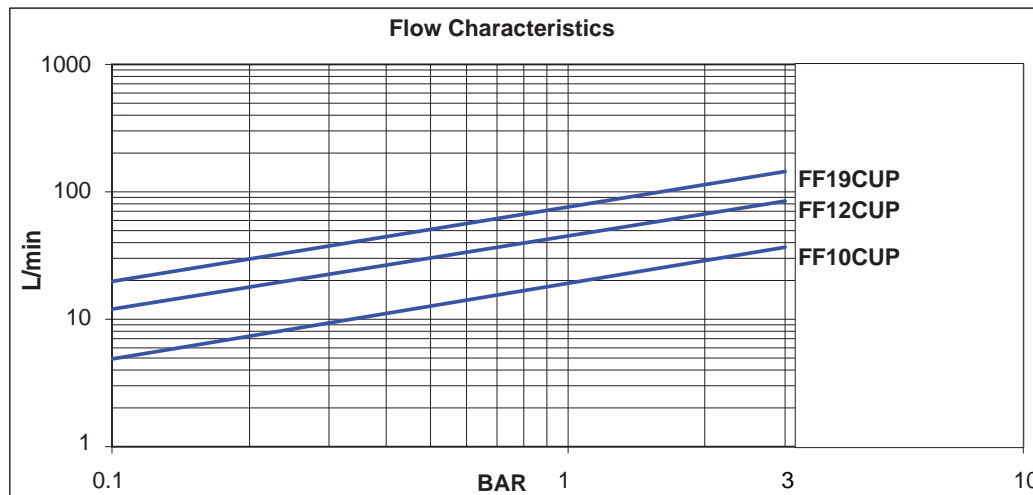
- Dust Caps are available for connect under pressure series

Specifications


- Operating temperatures:
(With Nitrile seals): -40°F to 223°F (-40°C to 106°C)

Flow Characteristics

Contact ZSi-Foster for detailed information



FF Plus Series - Connect Under Pressure Plugs - Foster

| Female Thread |  | Part No. | ISO 16028 Size | Body Size | Thread | Max. Working Pressure Psig | Burst Pressure (Coupled) Psig | Burst Pressure (each) Psig | Description |
|---------------|---|-------------|----------------|-----------|-----------------|----------------------------|-------------------------------|----------------------------|---------------------|
| | | FF10CUPP-06 | 10 | 3/8" | 3/8" Female NPT | 5,075 | 21,750 | 21,750 | Nickel Plated Steel |
| | | FF10CUPP-08 | | | 1/2" Female NPT | | | | |
| | | FF12CUPP-08 | 12 | 1/2" | 1/2" Female NPT | 5,075 | 17,400 | 21,750 | Nickel Plated Steel |
| | | FF12CUPP-12 | | | 3/4" Female NPT | | | | |
| | | FF19CUPP-16 | 19 | 3/4" | 1" Female NPT | 5,075 | 21,025 | 23,200 | Nickel Plated Steel |

Brand - Designates **F**=Foster or **B**=Breco Part

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www.zsi-foster.com



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FF Series



(Flush Face, Meets ISO 16028 Standard)

The FF Series couplers are a two-way shut-off hydraulic coupler. Typical applications include portable hydraulic tools, railway and construction maintenance equipment, utility company field equipment and general purpose hydraulic service. The flush face technology provides for ease of cleaning, minimal air inclusion and minimal fluid loss. The arrow stamped on the coupler indicates the direction of flow for installation purposes.

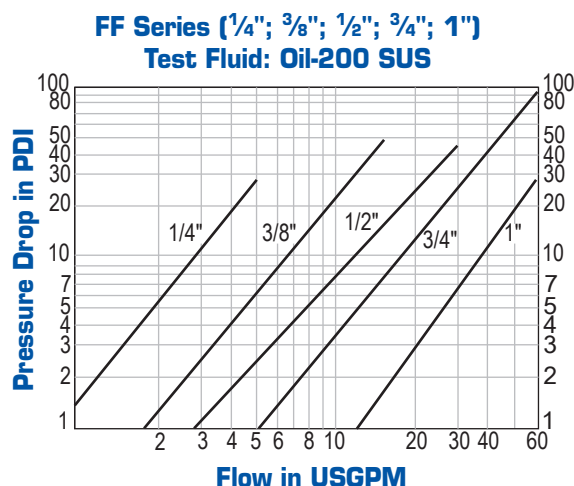
Features:

- Meets dimensional and performance standards of ISO 16028 as well as HTMA* and NFPA.
- "FF" Series style double shut-off hydraulic couplings are intended for use on medium pressure hydraulic systems up to 2500 psig operating pressures.
- Combines dual flush face valving, push-to-connect operation, minimum fluid loss upon disconnect, low air inclusion and sleeve lock.
- Primary applications are with hydraulic tools where cleaner automatic connections are needed and in machine tool line connections where minimum fluid leaks can be tolerated.

*Hydraulic Tool Mfg. Assoc. and National Fluid Power Assoc.

| Specifications | Size | | | | |
|--|------------------|--------|--------|--------|--------|
| | 1/4" | 3/8" | 1/2" | 3/4" | 1" |
| Rated Pressure (psig) | 5,000 | 5,000 | 5,000 | 5,000 | 5,000 |
| Minimum Burst pressure, Male half (psig) | 27,000 | 22,000 | 24,000 | 23,000 | 21,000 |
| Minimum Burst pressure, Female half (psig) | 27,000 | 25,000 | 23,000 | 20,000 | 20,000 |
| Minimum Burst pressure, Coupled (psig) | 27,000 | 23,000 | 25,000 | 22,000 | 22,000 |
| Rated Flow (gpm) | 3 | 6 | 12 | 26 | 50 |
| Temperature Range | -10°F to +250° F | | | | |
| Spillage (ML) (max. per disconnect) | .015 | .015 | .020 | .150 | .200 |
| Air Inclusion (max. per disconnect) | .020 | .020 | .070 | .100 | .150 |

Performance:



FF Series Sockets - Breco

| Female Thread | Part No. Steel | Size | Dust Plug | Thread Size NPT |
|---------------|----------------|------|-----------|-----------------|
| | B-2FF2-FP | 1/4" | SDC-2 | 1/4-20 FPT |
| | B-3FF3-FP | 3/8" | - | 3/8-18 FPT |
| | B-3FF4-FP | | | 1/2-14 FPT |
| | B-4FF4-FP | 1/2" | SDC-4 | 1/2-14 FPT |
| | B-4FF4-FP-SAE | | | 3/4-16 SAE |
| | B-4FF6-FP | | | 3/4-14 FPT |
| | B-4FF6-FP-SAE | | | 1 1/16-12 SAE |
| | B-6FF6-FP | 3/4" | SDC-6 | 3/4-14 FPT |
| | B-6FF6-FP-SAE | | | 1 1/16-12 SAE |
| | B-8FF8-FP | 1" | SDC-8 | 1-11 1/2 FPT |

FF Series Plugs - Breco

| Female Thread | Part No. Steel | Size | Dust Plug | Thread Size NPT |
|---------------|----------------|------|-----------|-----------------|
| | B-FF2F2-FP | 1/4" | PDC-2 | 1/4-20 FPT |
| | B-FF3F3-FP | 3/8" | - | 3/8-18 FPT |
| | B-FF3F4-FP | | | 1/2-14 FPT |
| | B-FF4F4-FP | 1/2" | PDC-4 | 1/2-14 FPT |
| | B-FF4F4-FP-SAE | | | 3/4-16 SAE |
| | B-FF4F6-FP | | | 3/4-14 FPT |
| | B-FF4F6-FP-SAE | | | 1 1/16-12 SAE |
| | B-FF6F6-FP | 3/4" | PDC-6 | 3/4-14 FPT |
| | B-FF6F6-FP-SAE | | | 1 1/16-12 SAE |
| | B-FF8F8-FP | 1" | PDC-8 | 1-11 1/2 FPT |

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ZSi-Foster Engineering Catalog



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FVEP Screw Couplings

For High Pressure Applications

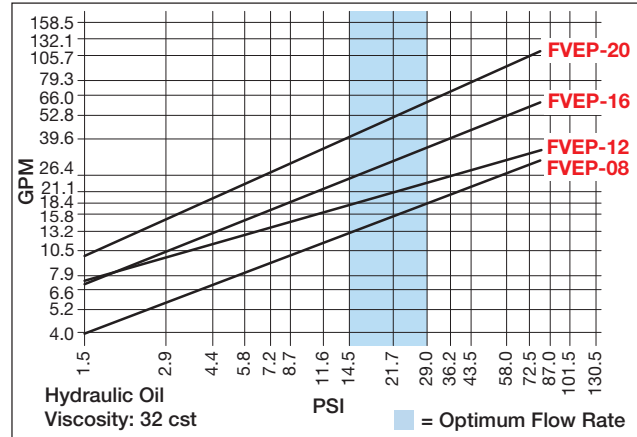
Mobile Hydraulic Equipment
OEMs & Aftermarket

Connect and Disconnect with
up to 5,075 psi Residual Pressure




- Zinc Nickel Plated Carbon Steel
- Rated for 1,200 Hours Protection Against White & Red Rust
- Large body size – 1/2" to 1-1/4"
- Operating temperatures with Nitrile Seals:
-40°F to 223°F (-40°C to 106°C)
- Screw Thread Connection Eliminates Brinelling
- Orange Seal for Proper Connection Verification
- Socket Sleeve can be Pushed Back for Access to the Mating Face
- Flat Face Design Prevents Fluid Loss During Disconnection


PRESSURE DROP CHARACTERISTICS



FVEP Series Sockets - Foster

| Female Thread |  | Part No. | Finish | Body Size | Thread Size | Max. Working Pressure Psi | Socket Burst Pressure Psi | Plug Burst Pressure Psi | Combined Burst Pressure Psi |
|---------------|---|----------------|--------------------------|-----------|-----------------------|---------------------------|---------------------------|-------------------------|-----------------------------|
| | | FVEP-08S-08 | Zinc Nickel Plated Steel | 1/2" | 1/2" Female NPT | 7,975 | 14,500 | 20,300 | 20,300 |
| | | FVEP-12S-12 | Zinc Nickel Plated Steel | 3/4" | 3/4" Female NPT | 7,975 | 14,500 | 20,300 | 20,300 |
| | | FVEP-12S-12ORB | | | 1-1/16"-12 Female ORB | | | | |
| | | FVEP-16S-12 | Zinc Nickel Plated Steel | 1" | 3/4" Female NPT | 7,250 | 15,225 | 20,300 | 20,300 |
| | | FVEP-16S-16 | | | 1" Female NPT | | | | |
| | | FVEP-16S-16ORB | | | 1-5/16"-12 Female ORB | | | | |
| | | FVEP-20S-20 | Zinc Nickel Plated Steel | 1-1/4" | 1-1/4" Female NPT | 6,815 | 14,500 | 18,850 | 18,850 |
| | | FVEP-20S-20ORB | | | 1-5/8"-12 Female ORB | | | | |

FVEP Series Plugs - Foster

| Female Thread |  | Part No. | Finish | Body Size | Thread Size | Max. Working Pressure Psi | Socket Burst Pressure Psi | Plug Burst Pressure Psi | Combined Burst Pressure Psi |
|---------------|---|----------------|--------------------------|-----------|-----------------------|---------------------------|---------------------------|-------------------------|-----------------------------|
| | | FVEP-08P-08 | Zinc Nickel Plated Steel | 1/2" | 1/2" Female NPT | 7,975 | 14,500 | 20,300 | 20,300 |
| | | FVEP-12P-12 | Zinc Nickel Plated Steel | 3/4" | 3/4" Female NPT | 7,975 | 14,500 | 20,300 | 20,300 |
| | | FVEP-12P-12ORB | | | 1-1/16"-12 Female ORB | | | | |
| | | FVEP-16P-12 | Zinc Nickel Plated Steel | 1" | 3/4" Female NPT | 7,250 | 15,225 | 20,300 | 20,300 |
| | | FVEP-16P-12ORB | | | 1-1/16"-12 Female ORB | | | | |
| | | FVEP-16P-16 | | | 1" Female NPT | | | | |
| | | FVEP-16P-16ORB | | | 1-5/16"-12 Female ORB | | | | |
| | | FVEP-20P-20 | Zinc Nickel Plated Steel | 1-1/4" | 1-1/4" Female NPT | 6,815 | 14,500 | 18,850 | 18,850 |
| | | FVEP-20P-20ORB | | | 1-5/8"-12 Female ORB | | | | |

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FH & FIH Series



(Interchange with Snap-Tite H & IH Series)

FH & FIH Series Quick Disconnect has provided years of reliable service on hydraulic/pneumatic applications in the handling of gases and fluids. The FH & FIH Series couplings are engineered to meet or exceeds MIL-C-51234. Options are available for static pressure hydraulic systems and also for pneumatic air tool use.

Type:

- FH – Two Way Shut-Off and Straight-Thru
- FIH – One Way Shut-Off

Interchangeability:

- FH Series interchanges with Snap-Tite “H” Series.
- FIH Series interchanges with Snap-Tite “IH” Series.
- Within each series, only sockets and plugs of the same size will couple together.

Operation: Manual – Socket sleeve must be manually retracted to connect and disconnect.

Options: Ball Lock (BL prefix) – Locks against accidental disconnect. To connect align ball with slot. After connection, rotate sleeve to lock. To disconnect, realign ball with slot and retract sleeve.

Seal Compound: Standard seals are Buna-N.

Rated Pressure: Rated Pressure as defined by ANSI/B93.2 – 1986, non-shock service.

Socket Features:

- Latch Mechanism
 - Manual connect and disconnect
 - Sleeves are hardened to provide maximum service life
- Material and Finish
 - Machined from solid bar stock
 - Steel components are zinc plated
- Coupled Seal
- Valved units incorporate a Teflon back-up ring to with-stand dynamic impulse

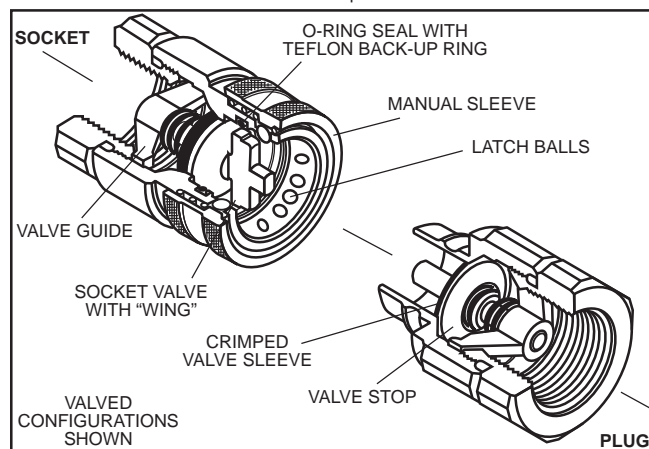
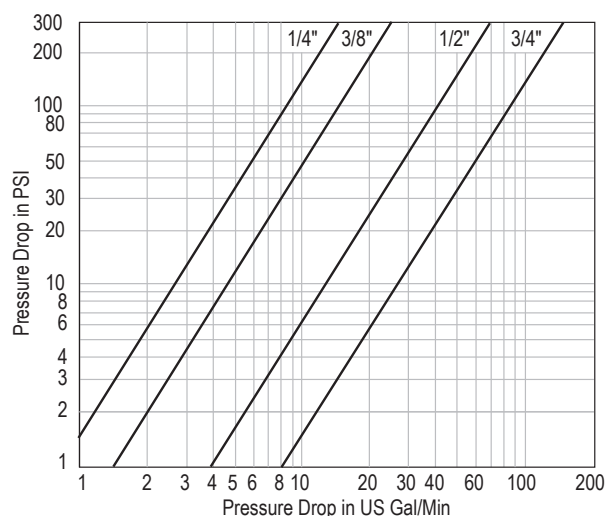
Plug Features:

- Machined from solid bar stock
- Steel plugs are hardened and zinc plated to provide heavy duty performance
- Flow - Large diameters provide for higher flow than other double shut-off quick disconnects
- Seals
 - Buna-N (Nitrile) seals are standard
 - Valve seals are crimped in place to maintain integrity during excessive flow conditions

| Body Size | FH Series, Two Way | | FH, Straight Thru | | FIH Series, One Way |
|-----------|--------------------|------------|-------------------|------------|---------------------|
| | Steel PSIG | Brass PSIG | Steel PSIG | Brass PSIG | Steel PSIG |
| 1/4" | 3250 | 2000 | 3000 | 3000 | 3000 |
| 3/8" | 2250 | 1200 | 4000 | 3500 | 2250 |
| 1/2" | 1800 | 1200 | 4000 | 2500 | 2000 |
| 3/4" | 1750 | 1000 | 4500 | 1750 | 1750 |

Performance:

Series “FH & FIH” - Valved or Non-Valved
Test Fluid: Hydraulic Oil at 100°F



The FIH Series sockets & plugs are for pneumatic applications. The FIH sockets have a valve with 360° contact with plug.

FIH Series, One Way Valved Sockets - Foster


| Female Thread | | Part No. | FPT | Description |
|---------------|--|----------|------|------------------|
| | | FIS2F2 | 1/4" | Steel |
| | | BLFIS2F2 | | Ball Lock, Steel |
| | | FIS3F3 | 3/8" | Steel |
| | | BLFIS3F3 | | Ball Lock, Steel |
| | | FIS4F4 | 1/2" | Steel |
| | | BLFIS4F4 | | Ball Lock, Steel |

| Male Thread | | Part No. | MPT | Description |
|-------------|--|----------|------|------------------|
| | | FIS2M2 | 1/4" | Steel |
| | | BLFIS2M2 | | Ball Lock, Steel |
| | | FIS3M3 | 3/8" | Steel |
| | | BLFIS3M3 | | Ball Lock, Steel |
| | | FIS4M4 | 1/2" | Steel |
| | | BLFIS4M4 | | Ball Lock, Steel |




FH Series, Two Way Valved Sockets

Female Thread




| Part No. | Brand | FPT | Description |
|-------------|----------|------|--------------------|
| FHS2F2 | F | 1/4" | Steel |
| B-VHC4-4F | B | | Ball Lock, Steel |
| BLFHS2F2 | F | | Steel w/Viton Seal |
| FHS2F2-101 | F | | |
| FHS3F3 | F | 3/8" | Steel |
| B-VHC6-6F | B | | Ball Lock, Steel |
| BLFHS3F3 | F | | |
| FHS4F4 | F | 1/2" | Steel |
| B-VHC8-8F | B | | Ball Lock, Steel |
| BLFHS4F4 | F | | |
| B-VHC12-12F | B | | Steel |




| | | | |
|---------------|----------|------|---------------------|
| FHS2F2B | F | 1/4" | Brass |
| B-VHC4-4F-B | B | | Ball Lock, Brass |
| BLFHS2F2B | F | | Brass, w/Viton Seal |
| FHS2F2B-101 | F | | Brass w/EPDM Seal |
| FHS2F2B-103 | F | | |
| FHS3F3B | F | 3/8" | Brass |
| B-VHC6-6F-B | B | | Ball Lock, Brass |
| BLFHS3F3B | F | | |
| FHS4F4B | F | 1/2" | Brass |
| BLFHS4F4B | F | | Ball Lock, Brass |
| B-VHC12-12F-B | B | 3/4" | Brass |

Male Thread





| Part No. | Brand | MPT | Description |
|-------------|----------|------|--------------------|
| FHS2M2 | F | 1/4" | Steel |
| B-VHC4-4M | B | | Steel w/Viton Seal |
| FHS2M2-101 | F | | Ball Lock, Steel |
| BLFHS2M2 | | | |
| FHS3M3 | F | 3/8" | Steel |
| B-VHC6-6M | B | | Ball Lock, Steel |
| BLFHS3M3 | F | | |
| FHS4M4 | F | 1/2" | Steel |
| B-VHC8-8M | B | | w/Viton Seal |
| FHS4M4-101 | F | | Ball Lock, Steel |
| BLFHS4M4 | | | |
| B-VHC12-12M | B | 3/4" | Steel |



| | | | |
|---------------|----------|------|-------------------|
| FHS2M2B | F | 1/4" | Brass |
| B-VHC4-4M-B | B | | Ball Lock, Brass |
| BLFHS2M2B | F | | |
| FHS3M3B | F | 3/8" | Brass |
| B-VHC6-6M-B | B | | Ball Lock, Brass |
| BLFHS3M3B | F | | |
| FHS4M4B | F | 1/2" | Brass |
| B-VHC8-8M-B | B | | Ball Lock, Brass |
| BLFHS4M4B | F | | Brass w/EPDM Seal |
| FHS4M4B-103 | | | |
| B-VHC12-12M-B | B | 3/4" | Brass |

FH Series, Two Way Valved Plugs

| Female Thread |  | Part No. | Brand | FPT | Description |
|---------------|---|---------------|----------|------|---------------------|
| | | FHP2F2 | F | 1/4" | Steel |
| | | B-VHN4-4F | B | | Steel w/Viton Seal |
| | | FHP2F2-101 | F | | Brass |
| | | FHP2F2B | F | | Brass |
| | | B-VHN4-4F-B | B | | Brass, w/Viton Seal |
| | | FHP2F2B-101 | F | 3/8" | Steel |
| | | FHP3F3 | F | | Brass |
| | | B-VHN6-6F | B | | Brass |
| | | FHP3F3B | F | | Steel |
| | | B-VHN6-6F-B | B | | Brass |
| | | FHP4F4 | F | 1/2" | Steel |
| | | B-VHN8-8F | B | | Brass |
| | | FHP4F4B | F | | Brass |
| | | B-VHN8-8F-B | B | | Steel |
| | | B-VHN12-12F | B | | Brass |
| | | B-VHN12-12F-B | B | 3/4" | Steel |
| | | | | | Brass |

| Male Thread |  | Part No. | Brand | MPT | Description |
|-------------|---|---------------|----------|------|-----------------------------|
| | | FHP2M2 | F | 1/4" | Steel |
| | | B-VHN4-4M | B | | Steel w/Ethylene Prop. Seal |
| | | FHP2M2-103 | F | | Brass |
| | | FHP2M2B | F | | Brass |
| | | B-VHN4-4M-B | B | | Brass w/EPDM Seal |
| | | FHP2M2B-103 | F | | |
| | | FHP3M3 | F | 3/8" | Steel |
| | | B-VHN6-6M | B | | Brass |
| | | FHP3M3B | F | | Brass |
| | | B-VHN6-6M-B | B | | |
| | | FHP4M4 | F | 1/2" | Steel |
| | | B-VHN8-8M | | | Steel w/Viton Seal |
| | | FHP4M4-101 | F | | Brass |
| | | FHP4M4B | F | | Brass |
| | | B-VHN8-8M-B | B | | Steel |
| | | B-VHN12-12M | B | | Brass |
| | | B-VHN12-12M-B | B | 3/4" | Brass |

Brand - Designates **F**=Foster or **B**=Breco Part

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See page 387 for full size templates

See page 373 - 374 for optional seal compounds

www.zsi-foster.com




WARNING: These products can expose you to chemicals including lead, which is known to the State of California to cause cancer, and which is known to cause birth defects or other reproductive harm. For more information go to www.P65Warnings.ca.gov.


FH & FIH Series



(Interchange with Snap-Tite H & IH Series)

FH Series, Straight-Thru Sockets

| Female Thread |  | Part No. | Brand | FPT | Description (no valve) |
|---------------|---|---------------|----------|------|------------------------|
| | | FHS2 | F | 1/4" | Steel |
| | | B-PHC4-4F | B | | Steel |
| | | BLFHS2 | F | | Ball Lock, Steel |
| | | FHS2B | F | | Brass |
| | | B-PHC4-4F-B | B | | Brass |
| | | BLFHS2B | F | | Ball Lock, Brass |
| | | FHS2B-101 | F | | Brass, w/Viton Seal |
| | | FHS3 | F | 3/8" | Steel |
| | | B-PHC6-6F | B | | Steel |
| | | BLFHS3 | F | | Ball Lock, Steel |
| | | FHS3-101 | F | | Brass, w/Viton Seal |
| | | FHS3B | F | | Brass |
| | | B-PHC6-6F-B | B | | Brass |
| | | BLFHS3B | F | | Ball Lock, Brass |
| | | FHS4 | F | 1/2" | Steel |
| | | B-PHC8-8F | B | | Steel |
| | | BLFHS4 | F | | Ball Lock, Steel |
| | | FHS4B | F | | Brass |
| | | B-PHC8-8F-B | B | | Brass |
| | | BLFHS4B | F | | Ball Lock, Brass |
| | | B-PHC12-12F-B | B | 3/4" | Brass |

| Male Thread |  | Part No. | FPT | Description (no valve) |
|-------------|--|---------------|------|------------------------|
| | | B-PHC4-4M | 1/4" | Steel |
| | | B-PHC4-4M-B | | Brass |
| | | B-PHC6-6M | 3/8" | Steel |
| | | B-PHC6-6M-B | | Brass |
| | | B-PHC8-8M | 1/2" | Steel |
| | | B-PHC8-8M-B | | Brass |
| | | B-PHC12-12M | 3/4" | Steel |
| | | B-PHC12-12M-B | | Brass |

Pneumatic QD

Hydraulic QD

Blow Guns & Accessories


Fittings & Accessories


Hoses & Fittings

Technical Data

Indexes

FIH Series, Unvalved Plugs (Use with both FH Straight Thru & FIH Sockets)

| Female Thread |  | Part No. | Brand | FPT | Description |
|---------------|---|---------------|----------|------|-------------|
| | | FH21F | F | 1/8" | Steel |
| | | FH22F | F | 1/4" | Steel |
| | | B-PHN4-4F | B | | Steel |
| | | FH22FB | F | | Brass |
| | | B-PHN4-4F-B | B | | Brass |
| | | FH33F | F | 3/8" | Steel |
| | | FH33FB | F | | Brass |
| | | B-PHN6-6F-B | B | | Brass |
| | | FH44F | F | 1/2" | Steel |
| | | B-PHN8-8F | B | | Steel |
| | | FH44FB | F | | Brass |
| | | B-PHN8-8F-B | B | | Brass |
| | | B-PHN12-12F | B | 3/4" | Steel |
| | | B-PHN12-12F-B | | | Brass |

| Male Thread |  | Part No. | Brand | MPT | Description |
|-------------|--|---------------|----------|------|-------------|
| | | FH22M | F | 1/4" | Steel |
| | | B-PHN4-4M | B | | Steel |
| | | FH22MB | F | | Brass |
| | | B-PHN4-4M-B | B | 3/8" | Steel |
| | | FH33M | F | | Steel |
| | | B-PHN6-6M | B | | Steel |
| | | FH33MB | F | 1/2" | Brass |
| | | B-PHN6-6M-B | B | | Brass |
| | | FH44M | F | | Steel |
| | | B-PHN8-8M | B | 3/4" | Steel |
| | | FH44MB | F | | Brass |
| | | B-PHN8-8M-B | B | | Brass |
| | | B-PHN12-12M | B | 3/4" | Steel |
| | | B-PHN12-12M-B | | | Brass |

Brand - Designates **F**=Foster or **B**=Breco Part

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See page 387 for full size templates

See page 373 - 374 for optional seal compounds

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4000 Series

(Pioneer AG Interchange)

Features:

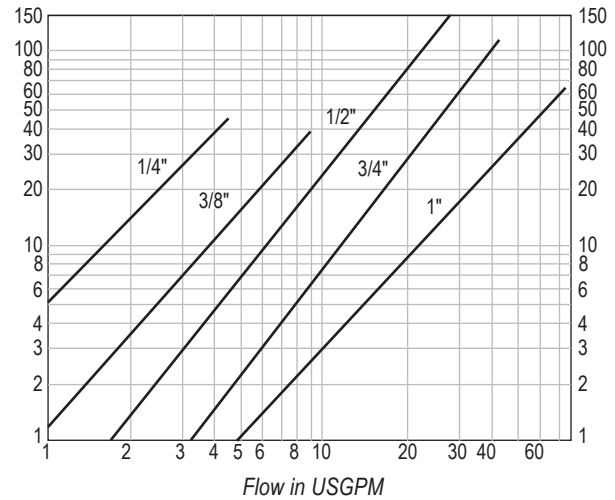
- The "4000" Series is a proven design for use on construction equipment, agricultural machinery, oil tools, steel mill machinery, and other demanding hydraulic applications.
- Couplings feature steel ball check valves for dependability in heavy-duty hydraulic applications, within rated working pressures.
- Socket and plug are precision machined from solid barstock. A ball-locking mechanism holds the mating halves together, and critical parts are induction hardened for durability.

Specifications:



| Body Size | 1/4" | 3/8" | 1/2" | 3/4" | 1" |
|-------------------------------|----------------|------|------|------|------|
| Rated Pressure (Psig) | 3000 | 3000 | 3000 | 3000 | 3000 |
| Rated Flow (GPM) | 3 | 6 | 12 | 28 | 50 |
| Temperature Range (Std seals) | -40° to +250°F | | | | |

Performance:



"4000" Series (1/4" to 1")
Test Fluid: OIL-200 SUS




4000 Series Sockets - Breco

| Female Thread |  | Part No. Steel | Size | Thread Size | |
|---------------|---|-----------------------------|------|------------------|---------|
| | | | | NPTF | ORB |
| | | B-4050-2 | 1/4" | 1/4"-18 | - |
| | | B-4050-3 | 3/8" | 3/8"-18 | - |
| | | B-4050-4 | 1/2" | 1/2"-14 | - |
| | | B-4050-5 | | 3/4"-14 | - |
| | | B-4050-15 | | - | 3/4"-16 |
| | | B-4050-16 | | - | 7/8"-14 |
| | | B-4150-5 | 3/4" | 3/4"-14 | - |
| | | B-4050-6 | 1" | 1-11 1/2" | - |
| |  | Part No. Steel Poppet Style | Size | Thread Size NPTF | |
| | | B-4050-2P | 1/4" | 1/4"-18 | |
| | | B-4050-3P | 3/8" | 3/8"-18 | |
| | | B-4050-4P | 1/2" | 1/2"-14 | |
| | | B-4050-6P | 1" | 1-11 1/2" | |

4000 Series Plugs - Breco

| Female Thread |  | Part No. Steel | Size | Thread Size | |
|---------------|--|-----------------------------|------|------------------|---------|
| | | | | NPTF | ORB |
| | | B-4010-2 | 1/4" | 1/4"-18 | - |
| | | B-4010-3 | 3/8" | 3/8"-18 | - |
| | | B-8010-4 | 1/2" | 1/2"-14 | - |
| | | B-8010-5 | | 3/4"-14 | - |
| | | B-8010-15 | | - | 3/4"-16 |
| | | B-8010-16 | | - | 7/8"-14 |
| | | B-4110-5 | 3/4" | 3/4"-14 | - |
| | | B-4010-6 | 1" | 1-11 1/2" | - |
| |  | Part No. Steel Poppet Style | Size | Thread Size NPTF | |
| | | B-4010-2P | 1/4" | 1/4"-18 | |
| | | B-4010-3P | 3/8" | 3/8"-18 | |
| | | B-8010-4P | 1/2" | 1/2"-14 | |
| | | B-4010-6P | 1" | 1-11 1/2" | |

Dust Plugs & Dust Caps - Breco

| Dut Caps & Plugs |  | Dust Plug Part No. | Dust Cap Part No. | Size |
|------------------|---|--------------------|-------------------|------|
| | | Rubber | Rubber | |
| | | B-5205-2M | B-5209-2M | 1/4" |
| | | B-5205-3 | B-5209-3 | 3/8" |
| | | B-5205-4M | B-5209-4M | 1/2" |
| | | B-5205-5 | B-5209-5 | 3/4" |
| | | B-5205-6 | B-5209-6 | 1 |

Brand - Designates **F**=Foster or **B**=Breco Part

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www.zsi-foster.com



WARNING: These products can expose you to chemicals including lead, which is known to the State of California to cause cancer, and which is known to cause birth defects or other reproductive harm. For more information go to www.P65Warnings.ca.gov.

Rev:
11-20-19

6100 Series



Features:

- For use on hydraulic applications with operating pressure up to 3,000 Psig
- Heavy duty, double shutoff coupler
- Connect/disconnect under pressure with minimal air inclusion and fluid loss
- Interchangeable with manufacturers' couplings
- Plugs can be bulkhead mounted

Specifications:

| | Size | | | | |
|----------------------------|------|------|------|--------|--------|
| | 3/4" | 3/4" | 1 | 1 1/4" | 1 1/2" |
| Dash Number | -08 | -12 | -16 | -20 | -24 |
| * Rated Pressure (Psig) | | | | | |
| Female Half | 3000 | 3000 | 3000 | 2750 | 2000 |
| Male Half | 3000 | 3000 | 3000 | 2500 | 2500 |
| Complete Coupling Assembly | 3000 | 3000 | 3000 | 2750 | 2500 |
| Rated Flow (GPM) | 12 | 28 | 50 | 76 | 100 |

* Minimum burst pressure is equal to three times the rated pressure.

Not recommended for continuous hydraulic impulse applications at rated pressures.

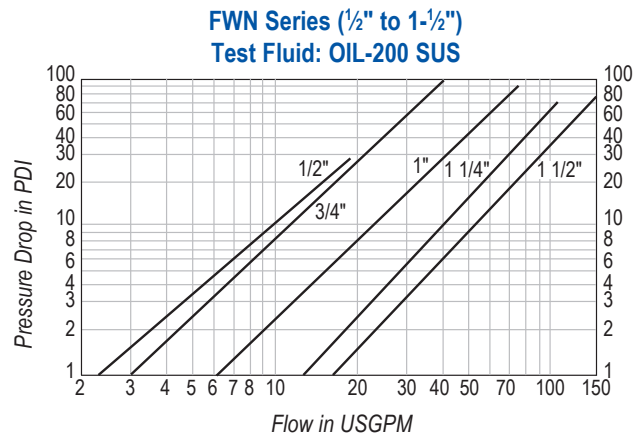
Construction:

- Brass body resists corrosion
- Zinc plated steel wing nut
- Stainless steel springs
- Buna-N Seals

Temperature Range:

- -40° to +250° F

Performance:



Pneumatic QD

Hydraulic QD

Blow Guns & Accessories

Fittings & Accessories

Hoses & Fittings

Technical Data

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6100 Series, Couplings - Breco

| Wing Nut with Plug | Part No. | | Size | Thread Size NPTF |
|--------------------|-------------|----------------|--------|------------------|
| | With Flange | Without Flange | | |
| | B-6100-08 | B-6120-08 | 3/4" | 1/2-14 |
| | B-6100-12 | B-6120-12 | | 3/4-14 |
| | B-6100-16 | B-6120-16 | 1" | 1 - 11-1/2 |
| | B-6100-20 | B-6120-20 | 1-1/4" | 1 1/4 - 11-1/2 |
| | B-6100-24 | B-6120-24 | 1-1/2" | 1 1/2 - 11-1/2 |

| Hex Nut with Plug | Part No. | | Size | Thread Size NPTF |
|-------------------|-------------|----------------|--------|------------------|
| | With Flange | Without Flange | | |
| | B-6110-08 | B-6130-08 | 3/4" | 1/2-14 |
| | B-6110-12 | B-6130-12 | | 3/4-14 |
| | B-6110-16 | B-6130-16 | 1" | 1 - 11-1/2 |
| | B-6110-20 | B-6130-20 | 1-1/4" | 1 1/4 - 11-1/2 |
| | B-6110-24 | B-6130-24 | 1-1/2" | 1 1/2 - 11-1/2 |


Brand - Designates **F**=Foster or **B**=Breco Part


ZSi-Foster Engineering Catalog




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6100 Series, Sockets - Breco

| Wing Nut |  | Part No. Brass | Size | Thread Size NPTF |
|----------|---|-------------------|--------|---------------------|
| | | B-6125-08 | 3/4" | 1/2-14 |
| | | B-6125-12 | | 3/4-14 |
| | | B-6125-16 | 1" | 1 - 11-1/2 |
| | | B-6125-20 | 1-1/4" | 1 1/4 - 11-1/2 |
| | | B-6125-24 | 1-1/2" | 1 1/2 - 11-1/2 |


| Hex Nut |  | Part No. Brass | Size | Thread Size NPTF |
|---------|--|-------------------|--------|---------------------|
| | | B-6135-12 | 3/4" | 3/4-14 |
| | | B-6135-20 | 1-1/4" | 1 1/4 - 11-1/2 |
| | | B-6135-24 | 1-1/2" | 1 1/2 - 11-1/2 |


6100 Series, Plugs - Breco

| Plugs |  | Part No. | | Size | Thread Size NPTF |
|-------|--|----------------|-------------------|--------|------------------------|
| | | With Flange | Without Flange | | |
| | | B-6115-08 | B-6105-08 | 3/4" | 1/2-14 |
| | | B-6115-12 | B-6105-12 | | 3/4-14 |
| | | B-6115-16 | B-6105-16 | 1" | 1 - 11-1/2 |
| | | B-6115-20 | B-6105-20 | 1-1/4" | 1 1/4 - 11-1/2 |
| | | B-6115-24 | B-6105-24 | 1-1/2" | 1 1/2 - 11-1/2 |

| Optional Flange |  | Part No. | Size |
|--------------------|--|-----------|--------|
| | | B-6107-08 | 3/4" |
| | | B-6107-16 | 1" |
| | | B-6107-20 | 1-1/4" |
| | | B-6107-24 | 1-1/2" |

Dust Plugs & Dust Caps - Breco

| Dust Plugs |  | Part No. | Size | NPTF Thread | Description |
|------------|---|-----------|--------|----------------|--------------------|
| | | B-6109-08 | 3/4" | 3/4-14 | Brass Dust Plug |
| | | B-6109-16 | 1" | 1 - 11-1/2 | |
| | | B-6109-20 | 1-1/4" | 1 1/4 - 11-1/2 | |
| | | B-6109-24 | 1-1/2" | 1 1/2 - 11-1/2 | |

| Dust Caps |  | Part No. | Size | NPTF Thread | Description |
|-----------|--|-----------|--------|----------------|-------------------|
| | | B-6108-08 | 3/4" | 3/4-14 | Brass Dust Cap |
| | | B-6108-16 | 1" | 1 - 11-1/2 | |
| | | B-6108-20 | 1-1/4" | 1 1/4 - 11-1/2 | |
| | | B-6108-24 | 1-1/2" | 1 1/2 - 11-1/2 | |



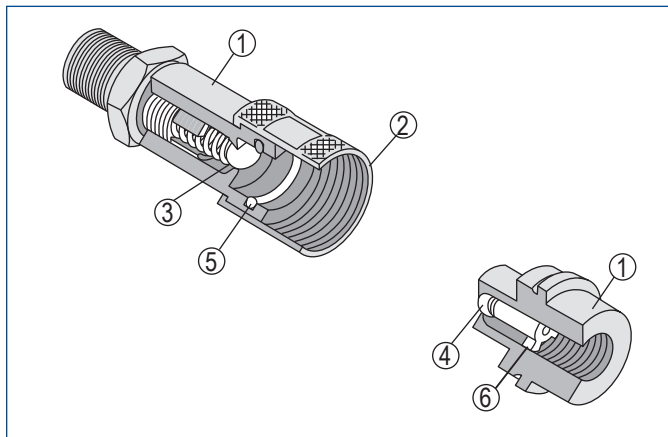
W Series



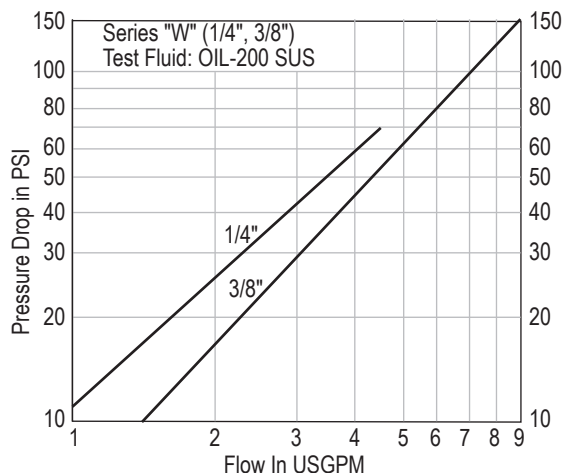
[High Pressure Coupling, Enerpac Interchange]

Features:

1. Machined from solid steel bar stock for durability.
2. The "W" Series has a threaded sleeve locking mechanism, mates with matching male threads on the plug. The two halves must be manually threaded together for connection.
3. Hard, chrome alloy balls are used for valving. They are spring loaded for positive sealing of the valve.
4. The valve provides a metal-to-metal seal between the ball and a coined seat.
5. The body seal is polyurethane which resists high pressure extrusion.
6. A threaded valve retainer provides a valve stop that assures positive valve alignment.



Performance:



Applications:

The "W" Series couplings with their threaded union locking system and precision ball-type check valves, are designed for extreme high pressure applications such as found on portable hydraulic rams.


Specifications:


| | SIZE |
|-------------------------------|-----------------|
| | 1/4" 3/8" |
| Rated Pressure (psig) Static | 10,000 |
| Temperature Range (std seals) | -10° to +250°F. |

Note:


Protective dust plugs and caps play a crucial role in the life of a quick coupling and no purchase of a hydraulic quick coupling is complete without the selection of an appropriate dust plug and cap.

W Series Sockets - Breco

| Male Thread |  | Part No. | | Size | Thread Size |
|-------------|---|----------|-----------|------|-------------|
| | | Valve | Non-Valve | | |
| | | B-2WM2-S | B-2WEM2-S | 1/4" | 1/4-18 |
| | | B-3WM3-S | B-3WEM3-S | 3/8" | 3/8-18 |

| Female Thread |  | Part No. | | Size | Thread Size |
|---------------|---|----------|-----------|------|-------------|
| | | Valve | Non-Valve | | |
| | | B-3WF3-S | B-3WEF3-S | 3/8" | 3/8-18 |

W Series Plugs - Breco

| Female Thread |  | Part No. | | Size | Thread Size NPFT |
|---------------|--|----------|-----------|------|------------------|
| | | Valve | Non-Valve | | |
| | | B-W2F2-S | B-W2EF2-S | 1/4" | 1/4-18 |
| | | B-W3F3-S | B-W3EF3-S | 3/8" | 3/8-18 |

Dust Plugs & Dust Caps - Breco

| Dust Plug Part No. Steel | Dust Cap Part No. Steel | Size |
|--------------------------|-------------------------|------|
| B-3005-2 | - | 1/4" |
| B-3005-3 | B-3009-3 | 3/8" |

Brand - Designates **F**=Foster or **B**=Breco Part

ZSi-Foster Engineering Catalog



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FST & ST Series

(Straight-Thru Industrial Interchange)

Type: FST Straight-Thru, No valve in either socket or plug.

Interchangeability: Standard industrial interchange design, most widely used in industry. Within each series, only sockets and plugs of the same size will couple together.

Operation: Manual – Socket sleeve must be manually retracted to connect and disconnect.

Options: Ball Lock (BL) – Locks socket against accidental disconnect. To connect, align ball with slot. After connection, rotate sleeve to lock. To disconnect, realign ball with slot and retract sleeve.

Seal Compound: Standard seals are Buna-N

Temperature Range: -40° to +250°F.

Performance Data Flow: Couplers have same inside diameter as nominal pipe.

Rated Pressure: Rated pressures as defined by ANSI/B93.2-1986, based on 4:1 Safety Factor and non-shock service.

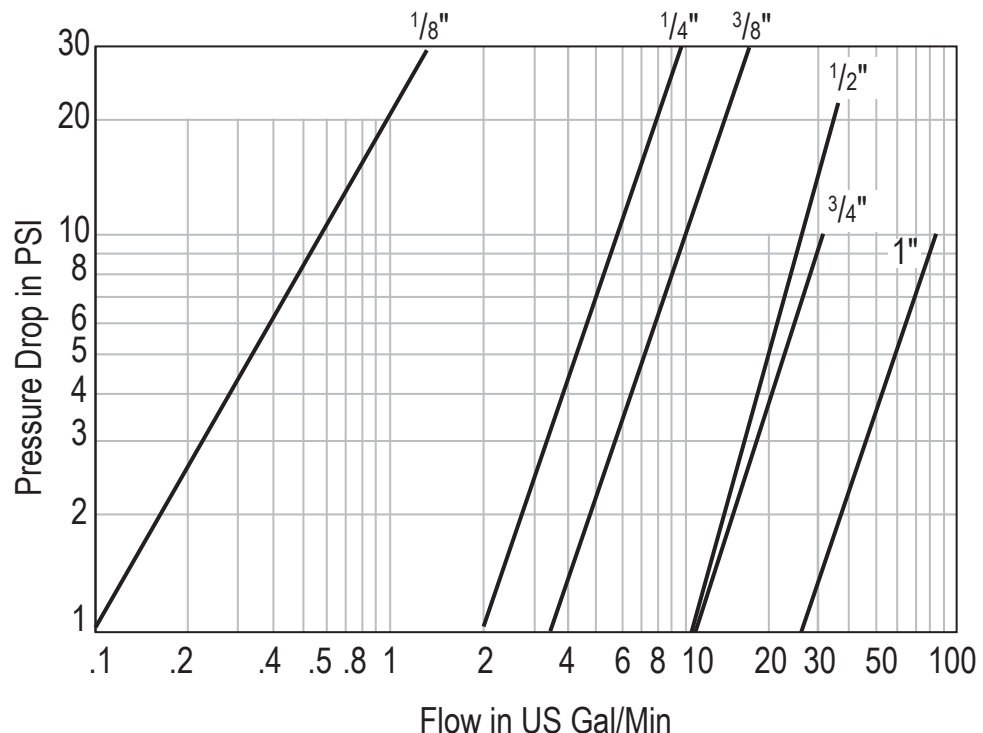
Vacuum Service: 27" Hg maximum

Only Sockets & Plugs with same prefix digits connect together.
Example: 25FS & 25MPB

| Body Size | Brass Socket w/ Brass Plug | Brass Socket w/ Steel Plug | S/S Socket w/ S/S Plug |
|-----------|-------------------------------|-------------------------------|---------------------------|
| | PSIG | PSIG | PSIG |
| 1/8" | 2500 | 2600 | 4200 |
| 1/4" | 5200 | 5500 | 6700 |
| 3/8" | 2700 | 3500 | 5500 |
| 1/2" | 2200 | 2700 | 3000 |
| 3/4" | 1700 | 2700 | 3000 |
| 1" | 1700 | 2000 | 1700 |
| 1 1/4" | 1700 | 2700 | - |
| 1 1/2" | 1400 | 2200 | - |

Performance:

Series "ST" Test Fluid: OIL-200 SUS



Brand - Designates **F**=Foster or **B**=Breco Part

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www.zsi-foster.com



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FST & ST Series


(Straight-Thru Industrial Interchange)




Pneumatic QD
Hydraulic QD
Blow Guns & Accessories
Fittings & Accessories
Hoses & Fittings
Technical Data
Indexes


FST & ST Series Sockets, Straight Thru

| Female Thread |  | Part No. | Brand | FPT | Description |
|---------------|--|-----------|----------|------|--------------------------------|
| | | 12FS | F | 1/8" | Brass |
| | | 12FS-101 | | | Brass, w/Viton Seal |
| | | BL12FS | | | Ball Lock, Brass |
| | | 12FSS | | | 303 Stainless |
| | | 12FSS-101 | | | 303 Stainless, w/Viton Seal |
| | | 12FSS-103 | | | 303 Stainless, w/EPDM Seal |
| | | BL12FSS | | | Ball Lock, 303 Stainless Steel |
| | | 25FS | F | 1/4" | Brass |
| | | 25FS-101 | | | Brass, w/Viton Seal |
| | | BL25FS | | | Ball Lock, Brass |
| | | 25FSS | | | 303 Stainless |
| | | 25FSS-101 | | | 303 Stainless, w/Viton Seal |
| | | 25FSS-103 | | | 303 Stainless, w/EPDM Seal |
| | | BL25FSS | | | Ball Lock, 303 Stainless Steel |
| | | 38FS | F | 3/8" | Brass |
| | | 38FS-101 | | | Brass, w/Viton Seal |
| | | 38FS-103 | | | Brass, w/EPDM Seal |
| | | BL38FS | | | Ball Lock, Brass |
| | | 38FSS | | | 303 Stainless |
| | | 38FSS-101 | | | 303 Stainless, w/Viton Seal |
| | | 38FSS-103 | | | 303 Stainless, w/EPDM Seal |
| | | BL38FSS | | | Ball Lock, 303 Stainless Steel |
| | | 50FS | F | 1/2" | Brass |
| | | 50FS-101 | | | Brass, w/Viton Seal |
| | | 50FS-103 | | | Brass, w/EPDM Seal |
| | | BL50FS | | | Ball Lock, Brass |
| | | 50FSS | | | 303 Stainless |
| | | 50FSS-101 | | | 303 Stainless, w/Viton Seal |
| | | 50FSS-103 | | | 303 Stainless, w/EPDM Seal |
| | | BL50FSS | | | Ball Lock, 303 Stainless Steel |

| Hose Stem |  | Part No. | I.D. | Description |
|-----------|---|----------|------|------------------|
| | | 38HS | 3/8" | Brass |
| | | BL38HS | | Ball Lock, Brass |
| | | 50HS | 1/2" | Brass |
| | | BL50HS | | Ball Lock, Brass |

Requires Hose Clamp (See page 200 for typical hose clamps)

| Female Thread |  | Part No. | Brand | FPT | Description |
|---------------|--|-----------|----------|--------|--------------------------------|
| | | 75FS | F | 3/4" | Brass |
| | | BL75FS | | | Ball Lock, Brass |
| | | 75FS-101 | | | Brass, w/Viton Seal |
| | | 75FS-103 | | | Brass, w/EPDM Seal |
| | | 75FS-104 | | | Brass, w/Silicone Seal |
| | | 75FSS | | | 303 Stainless |
| | | 75FSS-101 | | | 303 Stainless, w/Viton Seal |
| | | 75FSS-103 | | | 303 Stainless, w/EPDM Seal |
| | | BL75FSS | | | Ball Lock, 303 Stainless Steel |
| | | 100FS | F | 1" | Brass |
| | | 100FS-101 | | | Brass, w/Viton Seal |
| | | BL100FS | | | Ball Lock, Brass |
| | | 100FSS | | | 303 Stainless |
| | | BL100FSS | | | Ball Lock, 303 Stainless Steel |
| | | 125FS | F | 1-1/4" | Brass |
| | | BL125FS | | | Ball Lock, Brass |
| | | 125FS-103 | F | 1-1/2" | Brass, w/EPDM Seal |
| | | 150FS | | | Brass |
| | | BL150FS | | | Ball Lock, Brass |

| Male Thread |  | Part No. | Brand | MPT | Description |
|-------------|--|----------|----------|--------|---------------------|
| | | 12MS | F | 1/8" | Brass |
| | | BL12MS | | | Ball Lock, Brass |
| | | 1STM1-SS | | | 303 Stainless |
| | | 25MS | F | 1/4" | Brass |
| | | 2STM2-B | | | Ball Lock, Brass |
| | | BL25MS | | | Brass, w/Viton Seal |
| | | 25MS-101 | | | 303 Stainless |
| | | 25MSS | B | 3/8" | Brass |
| | | 2STM2-SS | | | Brass, w/Viton Seal |
| | | 38MS | | | Ball Lock, Brass |
| | | 3STM3-B | | | 303 Stainless |
| | | 38MS-101 | F | 1/2" | Brass |
| | | BL38MS | | | Brass, w/Viton Seal |
| | | 38MSS | | | Ball Lock, Brass |
| | | 3STM3-SS | B | 3/4" | 303 Stainless |
| | | 50MS | | | Brass |
| | | 4STM4-B | | | Brass, w/Viton Seal |
| | | 50MS-101 | | | Ball Lock, Brass |
| | | BL50MS | F | 1" | 303 Stainless |
| | | 50MSS | | | Brass |
| | | 4STM4-SS | | | Ball Lock, Brass |
| | | 75MS | F | 1-1/4" | Brass |
| | | BL75MS | | | Ball Lock, Brass |
| | | 6STM6-SS | B | 1-1/2" | 303 Stainless |
| | | 100MS | | | Brass |
| | | BL100MS | F | 2" | Ball Lock, Brass |
| | | 8STM8-SS | | | 303 Stainless |

Brand - Designates **F**=Foster or **B**=Breco Part
ZSi-Foster Engineering Catalog

See page 388 for full size templates
 See page 373 - 374 for optional seal compounds




WARNING: These products can expose you to chemicals including lead, which is known to the State of California to cause cancer, and which is known to cause birth defects or other reproductive harm. For more information go to www.P65Warnings.ca.gov.





FST & ST Series

(Straight-Thru Industrial Interchange)

FST Series Plugs, Straight Thru

| Female Thread |  | Part No. | Brand | FPT | Description |
|---------------|---|-----------|----------|--------|----------------------|
| | | ST1F1-S | B | 1/8" | Steel |
| | | 12FPB | F | | Brass |
| | | ST1F1-B | B | | |
| | | 12FPS | F | | 303 Stainless |
| | | ST1F1-SS | B | | |
| | | 25FP | F | 1/4" | Steel |
| | | ST2F2-S | B | | Steel, Extended Plug |
| | | ST2F2-S-E | B | | |
| | | 25FPB | F | | Brass |
| | | 25FPS | F | | 303 Stainless |
| | | 38FP | F | 3/8" | Steel |
| | | ST3F3-S | B | | Brass |
| | | 38FPB | F | | |
| | | 38FPS | F | | 303 Stainless |
| | | 50FP | F | 1/2" | Steel |
| | | ST4F4-S | B | | Brass |
| | | 50FPB | F | | |
| | | 50FPS | F | | 303 Stainless |
| | | ST4F4-SS | B | | |
| | | 75FP | F | 3/4" | Steel |
| | | ST6F6-S | B | | Brass |
| | | 75FPB | F | | |
| | | 75FPS | F | | 303 Stainless |
| | | 100FP | F | 1" | Steel |
| | | 100FPB | F | | Brass |
| | | 100FPS | F | | |
| | | 125FP | F | | Steel |
| | | 125FPB | F | 1-1/4" | Brass |
| | | 150FP | F | 1-1/2" | Steel |
| | | 150FPB | F | | Brass |

| Male Thread |  | Part No. | Brand | MPT | Description |
|-------------|--|----------|----------|--------|---------------|
| | | 12MP | F | 1/8" | Steel |
| | | ST1M1-S | B | | Brass |
| | | 12MPB | F | | |
| | | 12MPS | F | 1/4" | 303 Stainless |
| | | 25MP | F | | Steel |
| | | ST2M2-S | B | | |
| | | 25MPB | F | | Brass |
| | | 25MPS | F | | |
| | | 38MP | F | 3/8" | 303 Stainless |
| | | ST3M3-S | B | | Steel |
| | | 38MPB | F | | |
| | | 38MPS | F | | Brass |
| | | 50MP | F | | |
| | | ST4M4-S | B | 1/2" | Steel |
| | | 50MPB | F | | Brass |
| | | 50MPS | F | | |
| | | ST4M4-SS | B | | 303 Stainless |
| | | 75MP | F | | |
| | | ST6M6-S | B | 3/4" | Steel |
| | | 75MPB | F | | Brass |
| | | 75MPS | F | | |
| | | 100MP | F | | 303 Stainless |
| | | ST8M8-S | B | | |
| | | 100MPB | F | 1" | Steel |
| | | ST8M8-B | B | | Brass |
| | | 100MPS | F | | |
| | | 125MP | F | | 303 Stainless |
| | | 125MPB | F | | |
| | | 150MP | F | 1-1/4" | Steel |
| | | 150MPB | F | 1-1/2" | Brass |
| | | | | | |

| Hose Stem |  | Part No. | I.D. | Description |
|-----------|---|--|------|-------------|
| | | 25HP | 1/4" | Steel |
| | | 38HPB | 3/8" | Brass |
| | | 75HPB | 3/4" | |
| | | Requires Hose Clamp (See page 200 for typical hose clamps) | | |

Brand - Designates **F**=Foster or **B**=Breco Part

See page 388 for full size templates
See page 373 - 374 for optional seal compounds

www.zsi-foster.com



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Blow Guns & Accessories



BG Series Blow Guns

Lever Operation

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BG Series Blow Gun

Pistol Grip

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Blow Guns Kits

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Blow Gun Accessories

For BG Series Blow Guns

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Handy-Air® Blow Guns & Accessories

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Blow Guns Air Chucks

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Blow Guns & Accessories

BG Series Lever Op. Blow Guns - Breco

BRECO BG Series Blowguns combine durability, performance, and safety to meet your specific cleaning or drying applications.

- Lever activation
- 10 different nozzle choices
- Blow gun kit provides versatility
- Quick-disconnect nozzle adapter
- 1/4" NPT inlet
- OSHA Compliant* @ Max 150 Psig inlet Pressure

| BG Series Lever Operated |  | Part No. | Description |
|-----------------------------|--|----------|---|
| | | 116482 | Lever Action Gun Only- NO TIPS INCLUDED |
| | | BG-CPLR | Shown w/optional Quick Change Adapter |

BG Series Pistol Grip Blow Gun - Breco

Pistol grip blow gun is ergonomically designed for comfort and safety.

- Lightweight nylon body insulates from refrigerated air
- Lever style trigger with comfortable grip for variable air flow
- 1/4" NPT brass female inlet
- 125 PSIG inlet maximum

| BG Series Pistol Grip |  | Part No. | Description |
|-----------------------|--|----------|--|
| | | 301804 | Pistol Grip Gun with 3-3/4" extension nozzle |

Blow Gun Kits - Breco



BG-KIT-F1 – The versatile BRECO blow gun kit BG-KIT-F1 contains three of the most popular nozzles for industrial and automotive uses as well as a 1/4" standard plug for easy air hose connection. This kit includes a high quality, lever-operated heavy duty blow gun featuring a quick disconnect coupler which allows users to switch nozzles quickly and easily. Also included are a high flow safety nozzle, six inch extension safety nozzle, rubber tip nozzle and quick connector plug for connecting blow gun to shop air supply. The kit comes ready for hanging display in a clear clamshell package.

The BRECO **BGQKIT** contains five of the most popular nozzles for industrial and automotive uses. This kit includes a high quality, lever-operated heavy-duty blow gun featuring a quick disconnect nozzle adapter which allows users to switch nozzles quickly and easily. This multi-use kit contains a high flow safety nozzle, six inch extension safety nozzle, rubber tip nozzle, needle tip nozzle, and air-screen safety nozzle. For handy storage, a clear vinyl compartmented snap pouch is included.

To Order Complete Kit Use Part Number - **BGQKIT**



WARNING: Blowguns that comply with OSHA regulations will limit the pressure of air exiting the gun to less than 30 psig when the tip is dead-headed. All Foster blowguns using "standard" and "safety" tips are OSHA compliant and are available with either removable threaded tips or tamper resistant crimped tips.

Brand - Designates **F**=Foster or **B**=Breco Part

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www.zsi-foster.com














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Blow Guns & Accessories



Blow Guns Accessories - Breco

| | Gun w/Nozzle Shown | Nozzle Only | Description | Performance @100 PSIG | | |
|----------------------|--------------------------------|-------------|---|-----------------------|----------------|-----------------|
| | | | | Flow CFM | Outlet Blocked | Noise Level dbA |
| Blow Gun Accessories | BG21 LEVER GUN W/NOZZLE | BGN1 |  Standard nozzle for general blowing and drying applications | 17.5 | 20 | 89.5 |
| | BG2B5 LEVER GUN W/NOZZLE | BGNB5 |  Air Screen nozzle reduces chip fly back | 5 | 18 | 85 |
| | BG25 LEVER GUN W/NOZZLE | BGN5 |  High flow safety nozzle for general dusting and chip removal | 20 | 20 | 89 |
| | BG45 PISTOL GUN W/NOZZLE | | | | | |
| | BG26 (*) LEVER GUN W/NOZZLE | BGN6 |  Needle tip nozzle for fine flow and for small holes | (*) | - | - |
| | BG27 (*) LEVER GUN W/NOZZLE | BGN7 |  Rubber tipped nozzle for delicate surfaces and for blowing out fluid lines | (*) | - | - |
| | BG2X3 LEVER GUN W/NOZZLE | BGX3 |  Extension nozzle - 3" | 15 | 21 | 85.5 |
| | BG2X6 LEVER GUN W/NOZZLE | BGX6 |  Extension nozzle - 6" | 14.1 | 22 | 84 |
| | BG2X12 LEVER GUN W/NOZZLE | BGX12 |  Extension nozzle - 12" | 13.3 | 24 | 85.5 |
| | BG4X12 PISTOL GUN W/NOZZLE | | | | | |
| | - | BGN2 |  Flexible Extension Nozzle - 4" | - | - | - |
| | - | BGN3 |  Flexible Extension Nozzle - 12" | - | - | - |
| | BG-CPLR LEVER GUN W/NOZZLE | BGADP |  Quick change nozzle adapter | - | - | - |

* WARNING: To be OSHA compliant, non-relieving nozzles may only be used when the blowgun's inlet pressure is regulated to 30 Psig maximum.

Pneumatic QD

Hydraulic QD

Blow Guns & Accessories

Fittings & Accessories

Hoses & Fittings

Technical Data

Indexes

Air Chucks - Breco

Three BRECO Air Chucks are available: a right angle heavy-duty air chuck, a heavy duty straight body air chuck, and a dual air chuck for all your air fill needs. All three air chucks have 1/4" FPT inlets.

150 psig
Right Angle
Air Chuck



300 psig
Straight Body
Air Chuck



| PART NO. | DESCRIPTION |
|----------|--|
| AC40 | 1/4" FPT 150 psig Right Angle Air Chuck, |
| AC45 | 1/4" FPT 300 psig Straight Body Air Chuck |




Brand - Designates **F**=Foster or **B**=Breco Part





Handy-Air® Blow Guns & Accessories

Handy-Air® Blow Guns - Foster

| Handy-Air® Lever Operated |  | Part No. | Description |
|-------------------------------|---|------------|-------------------------|
| | | BG2L-30P | Pressed – Standard Tip |
| | | BG2L-30STP | Pressed – Safety Tip |
| | | BG2L-30STT | Threaded – Safety Tip |
| Handy-Air® Button Operated |  | BG2-30P | Pressed – Standard Tip |
| | | BG2-30STP | Pressed – Safety Tip |
| | | BG2-30STT | Threaded – Safety Tip |
| | | BG2-30T | Threaded – Standard Tip |
| Handy-Air® Pistol Grip |  | PG2P | Pressed – Safety Tip |
| | | PG2T | Threaded – Safety Tip |

| Handy-Air® Blow Gun Accessories |  | Part No. | Description |
|---------------------------------|---|------------------------------|-------------------------|
| | | EX10DH | Extension (10") |
| |  | EX12 | Extension (12") |
| |  | EX2 | High Flow Safety Nozzle |
| |  | EX2RT | Rubber Tip |
| | | EX2RT-104 w/Silicone Seal | |
| |  | EX2ST | Safety Air Screen Tip |

WARNING: Blowguns that comply with OSHA regulations will limit the pressure of air exiting the gun to less than 30 psig when the tip is dead-headed. All Foster blowguns using "standard" and "safety" tips are OSHA compliant and are available with either removable threaded tips or tamper resistant crimped tips.

Brand - Designates **F**=Foster or **B**=Breco Part



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Fittings & Accessories



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3,000 psig Ball Valve
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3-Way Sleeves

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Reusable Hose Fittings

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Swivel Fittings

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Call ZSi-Foster at (866) 918-3003 or order now at zsi-foster.com



T-Valve, 3-Way Sleeves, Drain Cocks & Garden Hose Couplings

T-Valve Series Plug Valve - Breco

Inlet: 1/4"-18 Female or Male NPT


Outlet: 1/4"-18 Male NPT


Rated Pressure: 3,000 PSIG

Flow: 5 GPM (water at 100psig)

Seat Material: EPDM or Viton
(Contact ZSi-Foster for seal options)


Temperature: EPDM: -40° to +300°F
Viton: -15° to +400°F

| Female x Male |  | T-Valve Part No. | NPT FxM | Description |
|---------------|---|------------------|---------|---|
| | | B-7500-2 | 1/4"-18 | Female x Male Quarter-Turn Valve Brass with EPDM Seal |
| | | | | |
| | | | | |
| | | | | |

| Male x Male |  | T-Valve Part No. | NPT MxM | Description |
|-------------|--|------------------|---------|--|
| | | B-7500-2MXMV | 1/4"-18 | Male x Male Quarter-Turn Valve Brass with Viton Seal |
| | | | | |
| | | | | |
| | | | | |

3-Way Sleeve w/Optional Lockout - Foster

- Provides low cost ON-OFF-EXHAUST operation
- Slide the sleeve to the ON position. Exhaust ports are closed, valve is open. Reversing the sleeve, opens exhaust ports, shuts off flow
- Ports covered for protection against exhaust flow

| "Fost-Air" Three Way Sleeve Valve |  | Part No. | NPT | Description |
|-----------------------------------|--|----------|------|-------------|
| | | 3W125 | 1/8" | Brass |
| | | 3W250 | 1/4" | |
| | | 3W375 | 3/8" | |
| | | 3W500 | 1/2" | |

- Body detent secures sleeve position
- Valve with lockout complies with OSHA Standard 29 CFR, Part 1910

Rated Pressure: to 200 PSIG

Temperature: -25° to +200°F

| "Fost-Air" Three Way Sleeve Valve Lockout |  | Part No. | NPT | Description |
|---|---|----------|------|--------------------------|
| | | LO250 | 1/4" | Valve Lockout With Chain |
| | | LO375 | 3/8" | |
| | | LO500 | 1/2" | |
| | | | | |

Drain Cocks - Brass Fittings - Breco

The design of the drain cock uses metal-to-metal seal which requires only hand tightening to assure positive leak-proof performance.

Materials: Brass bodies/steel handles except where noted.

Pressure: 150 psig max. (does not include hose or plastic tubing).

Used With: Copper, aluminum, steel hose and plastic tubing where applicable.

Temperature: -65° to +250°F

Conformance: Designed for automotive or industrial use. Not intended for natural gas, LPG, nuclear or aircraft application, except as noted.

| Male Pipe Thread |  | PART No. | SIZE |
|------------------|---|----------|------|
| | | DC-1 | 1/8" |
| | | DC-2 | 1/4" |
| | | DC-3 | 3/8" |

Garden Hose Couplings - Breco

The Garden Hose couplings are used anywhere water hoses are connected and disconnected frequently. They are used on a wide variety of applications including garden hoses, wash down system, and mobile water tank lines. The non-valved design permits maximum flow with minimum pressure drop.

- Brass and stainless steel construction for heavy duty service.
- Durable 4-ball locking mechanism for secure connections.
- Temperature-resistant BUNA seals for a leak-free service life.
- Provides secure nipple-to-hose clamping. Made from bar stock.

Specifications:

Rated Pressure: 200 psig

Temperature Range (BUNA seals): -40° to +250° F.

| Socket |  | Part No. | Size | Thread Size NH |
|--------|--|----------|------|----------------|
| | | B-7455 | 3/4" | 3/4-11 1/2 |
| Plug |  | Part No. | Size | Thread Size NH |
| | | B-7465 | 3/4" | 3/4-11 1/2 |

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www.zsi-foster.com





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Brass Bushings, Adapters & Nipples



Brass Bushings, Adapters & Nipples


| Female Reducer Bushing |  | Part No. | NPT Thread External | NPTF Thread Internal |
|------------------------|---|----------|---------------------|----------------------|
| | | PRB-2-1 | 1/4" | 1/8" |
| | | PRB-3-1 | 3/8" | 1/8" |
| | | PRB-3-2 | 3/8" | 1/4" |
| | | PRB-4-1 | 1/2" | 1/8" |
| | | PRB-4-2 | 1/2" | 1/4" |
| | | PRB-4-3 | 1/2" | 3/8" |
| | | PRB-6-4 | 3/4" | 1/2" |
| | | PRB-8-4 | 1" | 1/2" |
| | | PRB-8-6 | 1" | 3/4" |


| Male Reducing Hex Nipple |  | Part No. | NPTF Thread External | NPTF Thread External |
|--------------------------|--|------------|----------------------|----------------------|
| | | B-379-0402 | 1/4" | 1/8" |
| | | B-379-0604 | 3/8" | 1/4" |
| | | B-379-0806 | 1/2" | 3/8" |

| Male - Female Adapter |  | Part No. | NPT Thread External | NPTF Thread Internal |
|-----------------------|---|----------|---------------------|----------------------|
| | | AD-1-1 | 1/8" | 1/8" |
| | | AD-1-2 | 1/8" | 1/4" |
| | | AD-2-2 | 1/4" | 1/4" |
| | | AD-2-3 | 1/4" | 3/8" |
| | | AD-3-4 | 3/8" | 1/2" |
| | | AD-4-6 | 1/2" | 3/4" |
| | | AD-6-6 | 3/4" | 3/4" |

| Female Hex Coupler |  | Part No. | NPT Thread |
|--------------------|--|------------|------------|
| | | B-371-0202 | 1/8" |
| | | B-371-0404 | 1/4" |
| | | B-371-0606 | 3/8" |
| | | B-371-0808 | 1/2" |

| Male Hex Nipple |  | Part No. | Brand | NPT Thread |
|-----------------|---|------------|-------|------------|
| | | B-370-0202 | B | 1/8" |
| | | 1M1M | F | |
| | | 1M2M | F | |
| | | B-370-0404 | B | 1/4" |
| | | 2M2M | F | |
| | | 2M3M | F | |
| | | B-370-0606 | B | 3/8" |
| | | 3M3M | F | |
| | | 3M4M | F | |
| | | B-370-0808 | B | 1/2" |
| | | 4M4M | F | |
| | | B-370-1212 | B | |
| | | 6M6M | F | 3/4" |

| Reducing Adapter |  | Part No. | NPT Thread Internal | NPTF Thread Internal |
|------------------|---|------------|---------------------|----------------------|
| | | B-377-0402 | 1/8" | 1/4" |
| | | B-377-0604 | 1/4" | 3/8" |
| | | B-377-0806 | 3/8" | 1/2" |

| Hex Head Plugs |  | Part No. | NPT Thread |
|----------------|--|----------|------------|
| | | SHP-1 | 1/8" |
| | | SHP-2 | 1/4" |
| | | SHP-3 | 3/8" |
| | | SHP-4 | 1/2" |

| Close Nipples |  | Part No. | NPT Thread |
|---------------|--|----------|------------|
| | | N-1 | 1/8" |
| | | N-2 | 1/4" |
| | | N-3 | 3/8" |
| | | N-4 | 1/2" |
| | | N-6 | 3/4" |

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ZSi-Foster Engineering Catalog





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Hose Barb Fittings


Brass Fittings

| Hose Spicer |  | Part No. | I.D. x O.D. |
|-------------|---|----------|---------------|
| | | HS-B3 | 1/4" x 1/2" |
| | | HS-B5 | 1/4" x 9/16" |
| | | HS-B7 | 1/4" x 5/8" |
| | | HS-D7 | 3/8" x 5/8" |
| | | HS-D9 | 3/8" x 11/16" |
| | | HS-D11 | 3/8" x 3/4" |
| | | HS-D13 | 3/8" x 13/16" |


| Male Hose Stem Swivel |  | Part No. | MPT x I.D. STEM |
|-----------------------|---|----------|-----------------|
| | | M7S | 1/4" x 1/4" |
| | | M13S | 3/8" x 3/8" |
| | | M17S | 1/2" x 1/2" |
| | Requires Hose Clamp (See page 200 for typical hose clamps) | | |

| Push-On Swivel Fitting |  | Part No. | Male NPT x I.D. |
|---------------------------|--|----------|-----------------|
| | | PM7S | 1/4" x 1/4" |
| | | PM13S | 3/8" x 3/8" |
| | | PM17S | 1/2" x 1/2" |
| | Hose clamps not required when used with "Push On" hose. See page 369. | | |

| Hose Spicer Standard Hose Barb |  | Part No. | Brand | Hose I.D. |
|--|---|----------|----------|-----------|
| | | BHS81 | F | 3/16" |
| | | BHS82 | F | 1/4" |
| | | HS-2-2 | B | |
| | | BHS83 | F | 5/16" |
| | | BHS84 | F | 3/8" |
| | | HS-3-3 | B | |
| | | BHS85 | F | 1/2" |
| | | HS-4-4 | B | |
| Requires Hose Clamp (See page 200 for typical hose clamps) | | | | |

| Hose Spicer Push-Lock |  | Part No. | Brand | Hose I.D. |
|---|--|----------|----------|-----------|
| | | PHS82 | F | 1/4" |
| | | POS-2-2 | B | |
| | | PHS84 | F | 3/8" |
| | | POS-3-3 | B | |
| | | PHS85 | F | 1/2" |
| | | POS-4-4 | B | |
| | | POS-6-6 | B | 3/4" |
| Hose clamps not required when used with "Push On" hose. See page 369. | | | | |

Female Pipe Thread Hose Barb



| Part No. | Brand | Hose I.D. | NPT Thread Size |
|----------|----------|-----------|-----------------|
| HBF-1-1 | B | 1/8" | 1/8-27 |
| HBF-1-2 | B | | 1/4-18 |
| HBF-25-1 | B | 3/16" | 1/8-27 |
| HBF-25-2 | | | 1/4-18 |
| F33 | F | 1/4" | 1/8-27 |
| HBF-2-1 | B | | 1/4-18 |
| F36 | F | | |
| HBF-2-2 | B | 5/16" | 1/4-18 |
| HBF-5-2 | B | | 1/4-18 |
| HBF-3-1 | B | 3/8" | 1/8-27 |
| F38 | F | | 1/4-18 |
| HBF-3-2 | B | | 3/8-18 |
| F40 | F | 1/2" | 1/2-14 |
| HBF-3-3 | B | | 1/4-18 |
| HBF-3-4 | | 1/2-14 | |
| HBF-4-2 | B | 1/2" | 3/8-18 |
| F41 | F | | 1/2-14 |
| HBF-4-3 | B | | |
| F42 | F | 3/4" | 1/2-14 |
| HBF-4-4 | B | | 3/4-14 |
| HBF-6-6 | B | | |

Requires Hose Clamp (See page 200 for typical hose clamps)

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Hose Barb Fittings



Brass Fittings

| Male Pipe Thread Hose Barb | Part No. | Brand | Hose I.D. | NPT Thread Size |
|----------------------------|----------|----------|-----------|-----------------|
| | M1 | F | 1/8" | 1/8-27 |
| | HBM-1-1 | B | | 1/4-18 |
| | HBM-1-2 | B | | 1/4-18 |
| | M2 | F | 3/16" | 1/8-27 |
| | HBM-25-1 | B | | 1/4-18 |
| | M6 | F | | 1/4-18 |
| | M3 | F | 1/4" | 1/8-27 |
| | HBM-2-1 | B | | 1/4-18 |
| | M7 | F | | 3/8-18 |
| | HBM-2-2 | B | 5/16" | 1/8-27 |
| | M12 | F | | 1/4-18 |
| | HBM-2-3 | B | | 3/8-18 |
| | HBM-5-1 | B | 3/8" | 1/8-27 |
| | M8 | F | | 1/4-18 |
| | HBM-5-2 | B | | 3/8-18 |
| | HBM-5-3 | B | 1/2" | 1/8-27 |
| | M4 | F | | 1/4-18 |
| | M5 | F | | 3/8-18 |
| | HBM-3-1 | B | 5/8" | 1/8-27 |
| | M9 | F | | 1/4-18 |
| | HBM-3-2 | B | | 3/8-18 |
| | M13 | F | 3/4" | 1/2-14 |
| | HBM-3-3 | B | | 3/4-14 |
| | M16 | F | | 1/2-14 |
| | HBM-3-4 | B | 1" | 3/4-14 |
| | HBM-3-6 | B | | 1-11 1/2" |
| | M11 | F | | 1-11 1/2" |
| | HBM-4-2 | B | 1 1/2" | 1-11 1/2" |
| | M14 | F | | 1-11 1/2" |
| | HBM-4-3 | B | | 1-11 1/2" |
| | M17 | F | 2" | 1-11 1/2" |
| | HBM-4-4 | B | | 1-11 1/2" |
| | HBM-4-6 | B | | 1-11 1/2" |
| | HBM-7-3 | B | 2 1/2" | 1-11 1/2" |
| | HBM-7-4 | B | | 1-11 1/2" |
| | HBM-7-6 | B | | 1-11 1/2" |
| | M19 | F | 3" | 1-11 1/2" |
| | HBM-6-4 | B | | 1-11 1/2" |
| | M22 | F | | 1-11 1/2" |
| | HBM-6-6 | B | 4" | 1-11 1/2" |
| | HBM-8-6 | B | | 1-11 1/2" |
| | HBM-8-8 | B | | 1-11 1/2" |

Requires Hose Clamp (See page 200 for typical hose clamps)

| Female Pipe Thread Push-Lock Hose Barb | Part No. | Brand | Hose I.D. | NPT Thread |
|--|----------|----------|-----------|------------|
| | PF36 | F | 1/4" | 1/4-18 |
| | POF-2-2 | B | 3/8" | 1/8-27 |
| | POF-3-1 | B | | 1/4-18 |
| | POF-3-2 | B | | 3/8-18 |
| | PF40 | F | 1/2" | 3/8-18 |
| | POF-3-3 | B | | 1/2-14 |
| | POF-4-3 | B | | 1/2-14 |
| | POF-4-4 | B | 3/4" | 1/2-14 |
| | PF42 | F | | 1/2-14 |

Hose clamps not required when used with "Push On" hose. See page 369.

| Male Pipe Thread Push-Lock Hose Barb | Part No. | Brand | Hose I.D. | NPT Thread |
|--------------------------------------|----------|----------|-----------|------------|
| | PM3 | F | 1/4" | 1/8-27 |
| | POM-2-1 | B | 1/2" | 1/4-18 |
| | PM7 | F | | 3/8-18 |
| | POM-2-2 | B | | 1/2-14 |
| | POM-2-3 | B | 3/4" | 1/2-14 |
| | PM5 | F | | 3/4-14 |
| | POM-3-1 | B | | 1-11 1/2" |
| | PM9 | F | 1" | 1-11 1/2" |
| | POM-3-2 | B | | 1-11 1/2" |
| | PM13 | F | | 1-11 1/2" |
| | POM-3-3 | B | 1 1/2" | 1-11 1/2" |
| | PM16 | F | | 1-11 1/2" |
| | POM-3-4 | B | | 1-11 1/2" |
| | POM-3-6 | B | 2" | 1-11 1/2" |
| | PM11 | F | | 1-11 1/2" |
| | POM-4-2 | B | | 1-11 1/2" |
| | PM14 | F | 2 1/2" | 1-11 1/2" |
| | POM-4-3 | B | | 1-11 1/2" |
| | PM17 | F | | 1-11 1/2" |
| | POM-4-4 | B | 3" | 1-11 1/2" |
| | POM-4-6 | B | | 1-11 1/2" |
| | PM19 | F | | 1-11 1/2" |
| | POM-6-4 | B | 4" | 1-11 1/2" |
| | | | | 1-11 1/2" |

Hose clamps not required when used with "Push On" hose. See page 369.


Brand - Designates **F**=Foster or **B**=Breco Part


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Steel Pipe Fittings - Breco


| Pipe Coupling |  | Part No. | Female Pipe 1 | Female Pipe 2 |
|---------------|---|------------|---------------|---------------|
| | | B-5000-2 | 1/8" | 1/8" |
| | | B-5000-4-2 | 1/4" | 1/8" |
| | | B-5000-4 | 1/4" | 1/4" |
| | | B-5000-6-2 | 3/8" | 1/8" |
| | | B-5000-6-4 | 3/8" | 1/4" |
| | | B-5000-8-4 | 1/2" | 1/4" |
| | | B-5000-8-6 | 1/2" | 3/8" |


| Hex Pipe Nipple |  | Part No. | Male Pipe 1 | Male Pipe 2 |
|-----------------|---|------------|-------------|-------------|
| | | B-5404-2 | 1/8" | 1/8" |
| | | B-5404-4 | 1/4" | 1/4" |
| | | B-5404-6 | 3/8" | 3/8" |
| | | B-5404-8-4 | 1/2" | 1/4" |
| | | B-5404-8-6 | 1/2" | 3/8" |
| | | B-5404-8 | 1/2" | 1/2" |

| Expanding Pipe Adapter |  | Part No. | Male Pipe 1 | Female Pipe 2 |
|------------------------|---|------------|-------------|---------------|
| | | B-5405-2-4 | 1/8" | 1/4" |
| | | B-5405-2-6 | 1/8" | 3/8" |
| | | B-5405-2-8 | 1/8" | 1/2" |
| | | B-5405-4-4 | 1/4" | 1/4" |
| | | B-5405-4-6 | 1/4" | 3/8" |
| | | B-5405-4-8 | 1/4" | 1/2" |
| | | B-5405-6-6 | 3/8" | 3/8" |
| | | B-5405-6-8 | 3/8" | 1/2" |

| Clamps |  | Part No. | Size | Hose O.D. |
|--------|---|----------|------|-----------|
| | | B-1113 | 1/2" | 1/4" |
| | | B-1518 | 5/8" | 3/8" |

| Female Pipe Tee |  | Part No. | Female Pipe Connections |
|-----------------|--|----------|-------------------------|
| | | B-5605-2 | 1/8" |
| | | B-5605-6 | 3/8" |
| | | B-5605-8 | 1/2" |

| 90° Street Elbow |  | Part No. | Male Pipe 1 | Female Pipe 2 |
|------------------|--|------------|-------------|---------------|
| | | B-5502-2 | 1/8" | 1/8" |
| | | B-5502-2-4 | 1/8" | 1/4" |
| | | B-5502-2-6 | 1/8" | 3/8" |
| | | B-5502-4-2 | 1/4" | 1/8" |
| | | B-5502-4 | 1/4" | 1/4" |
| | | B-5502-6-4 | 3/8" | 1/4" |
| | | B-5502-6 | 3/8" | 3/8" |
| | | B-5502-6-8 | 3/8" | 1/2" |
| | | B-5502-8-4 | 1/2" | 1/4" |
| | | B-5502-8-6 | 1/2" | 3/8" |

| Male Elbow |  | Part No. | Male Pipe 1 | Male Pipe 2 |
|------------|--|------------|-------------|-------------|
| | | B-5500-2 | 1/8" | 1/8" |
| | | B-5500-4-2 | 1/4" | 1/8" |
| | | B-5500-4 | 1/4" | 1/4" |
| | | B-5500-6-4 | 3/8" | 1/4" |
| | | B-5500-8-4 | 1/2" | 1/4" |
| | | B-5500-8-6 | 1/2" | 3/8" |



Brass Fittings & Reusable Hose Fittings



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Brass Fittings - Breco

| 45° Street Elbow |  | Part No. | NPT Thread |
|------------------|---|----------|------------|
| | | SE45-1-1 | 1/8" |
| | | SE45-2-2 | 1/4" |
| | | SE45-3-3 | 3/8" |
| | | SE45-4-4 | 1/2" |

| 90° Street Elbow |  | Part No. | NPT Thread |
|------------------|---|----------|------------|
| | | SE90-1-1 | 1/8" |
| | | SE90-2-2 | 1/4" |
| | | SE90-3-3 | 3/8" |
| | | SE90-4-4 | 1/2" |


| Female Pipe Tee |  | Part No. | NPT Thread |
|-----------------|---|----------|------------|
| | | PT-1 | 1/8" |
| | | PT-2 | 1/4" |
| | | PT-3 | 3/8" |
| | | PT-4 | 1/2" |


| Male Branch Tee |  | Part No. | NPT Thread |
|-----------------|--|------------|------------|
| | | B-324-0202 | 1/8" |
| | | B-324-0404 | 1/4" |
| | | B-324-0606 | 3/8" |
| | | B-324-0808 | 1/2" |


| Female Pipe Cross |  | Part No. | NPT Thread |
|-------------------|--|----------|------------|
| | | C-1 | 1/8" |
| | | C-2 | 1/4" |
| | | C-3 | 3/8" |
| | | C-4 | 1/2" |

| 90° Internal Pipe Union |  | Part No. | NPT Thread |
|-------------------------|---|-----------|------------|
| | | FPE90-2-2 | 1/4" |
| | | FPE90-3-3 | 3/8" |
| | | FPE90-4-4 | 1/2" |

Swivel Under Pressure Adapters - Foster

| 1/4" MPT Swivel Free Swivel Under Pressure |  | Part No. | I.D. x O.D. | Description |
|---|--|----------|--------------|-------------|
| | | 2B3MS | 1/4" x 1/2" | Brass |
| | | 2B5MS | 1/4" x 9/16" | |
| | | 2B7MS | 1/4" x 5/8" | |

| 3/8" MPT Swivel Free Swivel Under Pressure |  | Part No. | I.D. x O.D. | Description |
|---|--|----------|---------------|-------------|
| | | 4D7MS | 3/8" x 5/8" | Brass |
| | | 4D9MS | 3/8" x 11/16" | |
| | | 4D11MS | 3/8" x 3/4" | |
| | | 4D13MS | 3/8" x 13/16" | |

| 1/2" MPT Swivel Free Swivel Under Pressure |  | Part No. | I.D. x O.D. | Description |
|---|---|----------|---------------|-------------|
| | | 6P13MS | 1/2" x 13/16" | Brass |
| | | 6P15MS | 1/2" x 7/8" | |
| | | 6P17MS | 1/2" x 15/16" | |
| | | 6P19MS | 1/2" x 1" | |

Brand - Designates **F**=Foster or **B**=Breco Part


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Non Swivel Adapters - Foster


| 1/8" MPT Non-Swivel |  | Part No. | I.D. x O.D. | Description |
|----------------------------|---|----------|--------------|-------------|
| | | 1B3 | 1/4" x 1/2" | Brass |
| | | 1B5 | 1/4" x 9/16" | |
| | | 1B7 | 1/4" x 5/8" | |

1/4" MPT Non-Swivel




| Part No. | Brand | I.D. x O.D. | Description |
|------------|----------|----------------|---------------|
| 2B3 | F | 1/4" x 1/2" | Brass |
| B-183-4084 | B | | |
| 2B5 | F | 1/4" x 9/16" | |
| B-183-4094 | B | | |
| 2B7 | F | 1/4" x 5/8" | 303 Stainless |
| B-183-4104 | B | | |
| 2B7S/S | F | 5/16" x 9/16" | Brass |
| 2C5 | F | | |
| 2C7 | F | | |
| B-183-5104 | B | 5/16" x 5/8" | |
| B-183-5114 | B | 5/16" x 11/16" | |
| 2D7 | F | 3/8" x 5/8" | |
| B-183-6104 | B | | |
| 2D9 | F | 3/8" x 11/16" | |
| B-183-6114 | B | | |
| 2D11 | F | 3/8" x 3/4" | |
| B-183-6124 | B | | |
| 2D13 | F | 3/8" x 13/16" | |
| 2P13 | | 1/2" x 13/16" | |
| 2P15 | | 1/2" x 7/8" | |
| 2P17 | | 1/2" x 15/16" | |
| 2P19 | | 1/2" x 1" | |

3/8" MPT Non-Swivel



| Part No. | Brand | I.D. x O.D. | Description |
|------------|----------|----------------|-------------|
| 4B3 | F | 1/4" x 1/2" | Brass |
| B-183-4086 | B | | |
| 4B5 | F | 1/4" x 9/16" | |
| 4B7 | F | 1/4" x 5/8" | |
| B-183-5116 | B | 5/16" x 11/16" | |
| 4D7 | F | 3/8" x 5/8" | |
| B-183-6106 | B | | |
| 4D9 | F | 3/8" x 11/16" | |
| B-183-6116 | B | | |
| 4D11 | F | 3/8" x 3/4" | |
| B-183-6126 | B | | |
| 4D13 | F | 3/8" x 13/16" | |
| 4P13 | F | 1/2" x 13/16" | |
| 4P15 | F | 1/2" x 7/8" | |
| B-183-8146 | B | | |
| 4P17 | F | 1/2" x 15/16" | |
| 4P19 | F | 1/2" x 1" | |

1/2" MPT Non-Swivel



| Part No. | Brand | I.D. x O.D. | Description |
|------------|----------|---------------|-------------|
| 6D7 | F | 3/8" x 5/8" | Brass |
| B-183-6108 | B | | |
| 6D9 | F | 3/8" x 11/16" | |
| 6D11 | F | 3/8" x 3/4" | |
| B-183-6128 | B | | |
| 6D13 | F | 3/8" x 13/16" | |
| 6P13 | F | 1/2" x 13/16" | |
| 6P15 | F | 1/2" x 7/8" | |
| B-183-8148 | B | | |
| 6P17 | F | 1/2" x 15/16" | |
| B-183-8158 | B | | |
| 6P19 | F | 1/2" x 1" | |

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Reusable Hose Fittings



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Female Swivel w/Nut - Foster

| Female Swivel No. 1 Nut – 9/16-20 NS |  | Part No. | I.D. x O.D. | Description |
|--|---|----------|---------------|-------------|
| | | 1B3-S | 1/4" x 1/2" | Brass/Steel |
| | | 1B5-S | 1/4" x 9/16" | |
| | | 1B7-S | 1/4" x 5/8" | |
| | | 1C5-S | 5/16" x 9/16" | |
| | | 1C7-S | 5/16" x 5/8" | |
| | | 1D7-S | 3/8" x 5/8" | |
| | | 1D9-S | 3/8" x 11/16" | |
| | | 1D11-S | 3/8" x 3/4" | |
| | | 1D13-S | 3/8" x 13/16" | |


| Female Swivel No. 2 Nut – 5/8-18 NF |  | Part No. | I.D. x O.D. | Description |
|---|---|----------|---------------|-------------|
| | | 2B3-S | 1/4" x 1/2" | Brass/Steel |
| | | 2B5-S | 1/4" x 9/16" | |
| | | 2B7-S | 1/4" x 5/8" | |
| | | 2D7-S | 3/8" x 5/8" | |
| | | 2D9-S | 3/8" x 11/16" | |
| | | 2D11-S | 3/8" x 3/4" | |
| | | 2D13-S | 3/8" x 13/16" | |


| Female Swivel No. 5 Nut – 1/4-18 NPS |  | Part No. | I.D. x O.D. | Description |
|--|---|----------|---------------|-------------|
| | | 5B3-S | 1/4" x 1/2" | Brass/Steel |
| | | 5B5-S | 1/4" x 9/16" | |
| | | 5B7-S | 1/4" x 5/8" | |
| | | 5C5-S | 5/16" x 9/16" | |
| | | 5C7-S | 5/16" x 5/8" | |
| | | 5D7-S | 3/8" x 5/8" | |
| | | 5D9-S | 3/8" x 11/16" | |
| | | 5D11-S | 3/8" x 3/4" | |
| | | 5D13-S | 3/8" x 13/16" | |

| Female Swivel No. 8 Nut – 3/8-18 NPS |  | Part No. | I.D. x O.D. | Description |
|--|---|----------|---------------|-------------|
| | | 8D7-S | 3/8" x 5/8" | Brass/Steel |
| | | 8D9-S | 3/8" x 11/16" | |
| | | 8D11-S | 3/8" x 3/4" | |
| | | 8D13-S | 3/8" x 13/16" | |

| Female Swivel No. 10 Nut – 1/2-14 NPS |  | Part No. | I.D. x O.D. | Description |
|---|---|----------|---------------|-------------|
| | | 10P13-S | 1/2" x 13/16" | Brass/Steel |
| | | 10P15-S | 1/2" x 7/8" | |
| | | 10P17-S | 1/2" x 15/16" | |
| | | 10P19-S | 1/2" x 1" | |

Male Adapter for Female Swivel - Foster

| Female Swivel Adapter No. 1 Nut – 9/16-20 NS |  | Part No. | Size | Description |
|--|--|----------|------|-------------|
| | | 1-2M | 1/4" | Brass |

| Female Swivel Adapter No. 5 Nut – 1/4-18 NPS |  | Part No. | Size | Description |
|--|--|----------|------|-------------|
| | | 5-2M | 1/4" | Brass |

| Female Swivel Adapter No. 10 Nut – 1/2-14 NPS |  | Part No. | Size | Description |
|---|--|----------|------|-------------|
| | | 10-3M | 3/8" | Brass |
| | | 10-4M | 1/2" | |

Brand - Designates **F**=Foster or **B**=Breco Part



Foster Swivel Fittings improve maneuverability and ergonomics when using air tools and spray guns. Functioning like a universal joint, swivel fittings allow the hose to remain vertical at all times, which reduces operator fatigue, repetitive motion trauma, and fitting chafe. The non-marring series (plastic encapsulated) is ideal for applications where non-marring and scratch reduction is needed.

Features:


- Steel body ($\frac{1}{4}$ " and $\frac{3}{8}$ "), Aluminum body ($\frac{1}{2}$ ")
- High flow capacity, low pressure drop
- More sizes for simplified plumbing
- Plastic encapsulation (non-marring Series)


Benefits:


- Swivels 360 degrees in two independent planes
- Allows air hose to hang straight down when used with air tools
- Reduces operator fatigue
- Reduces the possibility of carpal tunnel syndrome
- Increases air hose life.


Materials of Construction:


- Body: Brass, plated steel or aluminum with plastic covering
- Seals: Buna N

| 90° Swivel |  | Part No. | FPT x MPT | Max. Working Pressure | Desc. |
|--|---|------------|-------------|-----------------------|---------------------|
| | | 25US90 | 1/4" x 1/4" | 300 psig | Brass |
| | | 25US90-101 | | | Brass, w/Viton Seal |
| When used with percussion tools, a minimum of 18" of hose between tool and swivel is required. | | | | | |


| Male to Female Pipe |  | Part No. | FPT x MPT | Max. Working Pressure | Desc. |
|---------------------|--|----------|-------------|-----------------------|-------------|
| | | 25US | 1/4" x 1/4" | 300 psig | Brass/Steel |
| | | 38US | 3/8" x 3/8" | | |
| | | 50US | 1/2" x 1/2" | | |
| | When used with percussion tools, a minimum of 18" of hose between tool and swivel is required. | | | | |

| Brass / Steel Dual Swivel |  | Part No. | FPT x MPT | Max. Working Pressure | Desc. |
|---------------------------|---|--|-------------|-----------------------|-------------|
| | | 25US36 | 1/4" x 1/4" | 300 psig | Brass/Steel |
| | | When used with percussion tools, a minimum of 18" of hose between tool and swivel is required. | | | |

| Non-Marring Swivel |  | Part No. | FPT x MPT | Max. Working Pressure | Desc. |
|--|--|----------|-------------|-----------------------|--|
| | | 190040 | 3/8" x 1/4" | 150 psig | Steel/ Aluminum with Plastic Covering |
| | | 190041 | 3/8" x 3/8" | | |
| | | 190042 | 1/2" x 1/2" | | |
| When used with percussion tools, a minimum of 18" of hose between tool and swivel is required. | | | | | |

| Non-Marring Dual Swivel |  | Part No. | FPT x MPT | Max. Working Pressure | Desc. |
|--|--|----------|-------------|-----------------------|--|
| | | 190010A | 3/8" x 1/4" | 150 psig | Steel/ Aluminum with Plastic Covering |
| | | 190011A | 3/8" x 3/8" | | |
| | | 190012 | 1/2" x 1/2" | | |
| When used with percussion tools, a minimum of 18" of hose between tool and swivel is required. | | | | | |

Standard Swivel

|  | Part No. | FPT x MPT | Max. Working Pressure | Desc. |
|--|----------|-------------|-----------------------|--------------------|
| | 190026A | 1/4" x 1/4" | 150 psig | Steel/ Aluminum |
| | 190029A | 3/8" x 1/4" | | |
| | 190027A | 3/8" x 3/8" | | |
| | 190028 | 1/2" x 1/2" | | |
| Without Plastic Covering When used with percussion tools, a minimum of 18" of hose between tool and swivel is required. | | | | |



Hoses & Accessories



Hytrex Hose & Fittings

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Polyurethane Recoil Hose

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"Push On" Hose

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3-Way Hose Manifolds

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3-Way Hose Manifolds with Sockets

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Hytrell Hose

Hytrell Hose Assemblies - Foster

Hytrell Recoil Hose Benefits:

- Impervious to oil, very abrasion resistant
- Recoil memory superior to Nylon
- Working length is approximately 60% of hose length
- Coiled length is 1/30th of hose length

Temperature Range: -40°F to +125°F


Rated Pressure: 170 psig @ 76°F


Options:


- Color - Yellow (Suffix Y for Yellow)
- Available in 100' lengths


| Hytrell Recoil Hose |  | Part No. Yellow | Hose Size | Description |
|---------------------|---|-----------------|-----------|---------------------------|
| | | FR25Y-100 | 1/4" | Wound as 3-3/4" Dia. Loop |

| Hytrell Recoil Hose Assemblies W/(2) Male FTGS |  | Part No. Yellow | Hose Size | Length |
|---|---|-----------------|-----------|--------|
| | | FR25-6MY | 1/4" | 6 FT |
| | | FR25-12MY | | 12 FT |
| | | FR25-25MY | | 25 FT |
| | | FR25-50MY | | 50 FT |

| Hytrell Recoil Hose Assemblies W/(2) Swivel FTGS |  | Part No. Yellow | Hose Size | Length |
|---|---|-----------------|-----------|--------|
| | | FR25-6SY | 1/4" | 6 FT |
| | | FR25-12SY | | 12 FT |
| | | FR25-25SY | | 25 FT |
| | | FR25-50SY | | 50 FT |

| Hytrell Recoil Hose Assemblies W/(1) Swivel (1) Male FTG |  | Part No. Yellow | Hose Size | Length |
|---|--|-----------------|-----------|--------|
| | | FR25-6SMY | 1/4" | 6 FT |
| | | FR25-12SMY | | 12 FT |
| | | FR25-25SMY | | 25 FT |
| | | FR25-50SMY | | 50 FT |

| Hytrell Recoil Hose Assemblies W/(2) Elbow FTGS |  | Part No. Yellow | Hose Size | Length |
|--|--|-----------------|-----------|--------|
| | | FR25-6LY | 1/4" | 6 FT |
| | | FR25-12LY | | 12 FT |
| | | FR25-25LY | | 25 FT |
| | | FR25-50LY | | 50 FT |

| Blue Hytrell Recoil Hose Assemblies W/(2) Female FTGS |  | Part No. Yellow | Hose Size | Length |
|--|--|-----------------|-----------|--------|
| | | FR25-6FY | 1/4" | 6 FT |
| | | FR25-12FY | | 12 FT |
| | | FR25-25FY | | 25 FT |
| | | FR25-50FY | | 50 FT |

LIMITED SIZES AND COLOR SELECTION

Brand - Designates **F**=Foster or **B**=Breco Part

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www.zsi-foster.com




WARNING: These products can expose you to chemicals including lead, which is known to the State of California to cause cancer, and which is known to cause birth defects or other reproductive harm. For more information go to www.P65Warnings.ca.gov.

Hytrek Hose Fittings



Hytrek Hose Fittings - Foster

| Spare Reusable Fittings - Male MPT |  | Part No. | I.D. x O.D. | MPT | Description |
|---------------------------------------|---|----------|--------------|------|-------------|
| | | PSM53204 | 5/32" x 1/4" | 1/4" | Swivel |
| | | PRM0404 | 1/4" x 3/8" | 1/4" | Rigid |
| | | PSM0404 | | | Swivel |
| | | PRM0606 | 3/8" x 9/16" | 3/8" | Rigid |
| | | PSM0606 | | | Swivel |

| Hytrek Recoil Hose Fittings - Male MPT |  | Part No. | Hose Size x NPT Thread | Description |
|---|---|----------|------------------------|-------------|
| | | FR25M | 1/4" x 1/4" | Kit |
| | | FR50M | 1/2" x 1/2" | |

| Hytrek Recoil Straight Hose Fittings Free Swivel Under Pressure, Male NPT |  | Part No. | Hose Size x NPT Thread | Description |
|---|---|----------|------------------------|-------------|
| | | FR25S | 1/4" x 1/4" | Kit |
| | | FR50S | 1/2" x 1/2" | |

| Hytrek Recoil Elbow Hose Fittings Male NPT |  | Part No. | Hose Size x NPT Thread | Description |
|--|--|----------|------------------------|-------------|
| | | FR25L | 1/4" x 1/4" | Kit |

| Hytrek Recoil Straight Hose Fittings Female NPT |  | Part No. | Hose Size x NPT Thread | Description |
|---|--|----------|------------------------|-------------|
| | | FR25F | 1/4" x 1/4" | Kit |

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WARNING: These products can expose you to chemicals including lead, which is known to the State of California to cause cancer, and which is known to cause birth defects or other reproductive harm. For more information go to www.P65Warnings.ca.gov.



Polyurethane Recoil Hose

Fully Assembled and Ready to Use Configurations Includes Swivel NPT Fitting End Pre-Installed with Thread Compound 10' and 15' Lengths

Polyurethane Recoil Hose has greater durability than other types of hose due to exceptional wear characteristics. Polyurethane Recoil Hose is kink resistant and has exceptional memory characteristics due to elastic properties of the polyurethane hose. Hoses are pre-assembled with reusable brass fittings for reduced assembly time.

The Polyurethane Recoil Hose products are pre-bagged for convenience. Ideally suited as counter sale products.




Specifications:

Polyurethane Recoil Hose Benefits:

- Greater durability than Nylon or Hytrel recoil hoses due to exceptional wear characteristics
- Longer life expectancy due to kink resistant properties
- Superior recoil memory due to elastic properties
- Working length is approximately 80-90% of hose length
- Hoses are pre-assembled with reusable brass fittings reducing assembly time
- $\frac{5}{32}$ " ID hose is ideal for use with Foster blow guns

Rated Pressure: 125 psig @ 75°F

Options: Available in Transparent Blue & Yellow

| Polyurethane Recoil Hose T=Transparent Blue, Y=Yellow |  | Part No. | Brand | I.D. x O.D. x Length | Description |
|--|---|--------------|----------|---|------------------------|
| | | FPR532-10B-T | F | $\frac{5}{32}$ " x $\frac{1}{4}$ " x 10 Ft. | Blue, Rigid x Swivel |
| | | FPR532-10B-Y | | | Yellow, Rigid x Swivel |
| | | FPR38-15A-T | F | $\frac{3}{8}$ " x $\frac{9}{16}$ " x 15 Ft. | Blue, Rigid x Swivel |

Brand - Designates **F**=Foster or **B**=Breco Part

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www.zsi-foster.com



WARNING: These products can expose you to chemicals including lead, which is known to the State of California to cause cancer, and which is known to cause birth defects or other reproductive harm. For more information go to www.P65Warnings.ca.gov.

“Push On” Hose



Push-On Hose - Foster

Features:


- “Push-On” fittings do not require hose clamps. Hose grips barb through distortion of braid. Forms leak proof grip with “Push-On” fitting. “Push-On” hose used with standard barbed fittings requires hose clamp.
- For shop air, pneumatic tools, petroleum base hydraulic oils, anti-freeze compounds, gasoline, water, lubricating oils, and diesel fuels.

Construction:

Foster “Push-On” hose is constructed with a synthetic rubber tube, fiber braid reinforcement and a synthetic rubber cover, resistant to abrasion, oil and mildew.

- Temperature range: -40° to +212°F.

Bulk Hose

|  | Part No. | Size | Description |
|---|----------|----------------|---|
| | PO25 | 1/4" x 9/16" | Fiber Braid Reinforced Synthetic Rubber |
| | PO38 | 3/8" x 1 1/16" | Fiber Braid Reinforced Synthetic Rubber |
| | PO50 | 1/2" x 1 3/16" | Fiber Braid Reinforced Synthetic Rubber |

**** Hose can be purchased by the reel or cut-to-length 50 feet or less.**

Note: When used with Push-On fittings, hose clamps are not required.

1 Trim the end of the hose as square as possible.



2 Grip the Plug or socket firmly and Push On hose.



3 Completed connection, ensure that the hose is completely inserted.



Brand - Designates **F**=Foster or **B**=Breco Part

ZSi-Foster Engineering Catalog



WARNING: These products can expose you to chemicals including lead, which is known to the State of California to cause cancer, and which is known to cause birth defects or other reproductive harm. For more information go to www.P65Warnings.ca.gov.



Hose Manifolds

3-WAY Hose Manifold - Breco

Add versatility to your compressed air systems and simplify multiple tool operations. The BRECO 3-Way Hose Manifolds allow three work stations to use the same air supply. Featuring a port design to maximize air flow through the body for less restriction on flow than other similar products on the market. Each manifold accepts three quick couplers or outlet hoses. Manifold has female NPT inlet and three female NPT outlets. Manifolds are available in three different inlet/outlet sizes.



3-Way Manifold



3-Way Flat Manifold

| Part No. | Inlet | Outlet | Description |
|----------|-------|--------|---------------------|
| B-3404 | 1/4" | 1/4" | 3-Way Manifold |
| B-3406 | 3/8" | 1/4" | |
| 6124-A | 1/4" | 1/4" | 3-Way Flat Manifold |

3-WAY Hose Manifold with Sockets or Swivel Plugs - Breco

An expanded style of our 3-Way Hose Manifold is available pre-assembled with a choice of three D Series manual sockets or three swivel plugs. This operational versatility allows three independent work stations to function with the same air supply. The port design

of the BRECO 3-Way Hose Manifold maximizes air flow through the body and is less restrictive on flow than other similar products on the market. The flexibility of quick disconnects, swivel plugs, or outlet hoses maximize air operations while improving efficiencies.



3-Way Manifold Shown



Free swivel under pressure eliminates hose twist

| Part No. | Description | Inlet | Outlet |
|----------|--|-----------|-------------------------------------|
| MAN2525A | 3-Way Manifold with three D341 Sockets | 1/4" FPT | Sockets 1/4" Industrial Interchange |
| MAN3825A | 3-Way Manifold with three D341 Sockets | 3/8" FPT | Sockets 1/4" Industrial Interchange |
| 6124 | Flat Manifold w/ 3 sockets & 1 plug (Industrial) | 1/4" plug | 1/4" sockets |
| MF-2 | Manifold w/ 3 sockets & 1 plug (Industrial) | 1/4" plug | 1/4" sockets |
| MF-3 | Manifold w/ 3 sockets & 1 plug (Industrial) | 3/8" plug | 3/8" sockets |

| Part No. | Description | Inlet | Outlet |
|-----------|--|----------|---|
| MAN2525S* | 3-Way Manifold with three Swivel Plugs | 1/4" FPT | Swivel Plug 1/4" Industrial Interchange |
| MAN3825S* | | 3/8" FPT | Swivel Plug 1/4" Industrial Interchange |

* Note: Swivel Plugs are OPEN. Connection is needed to avoid leak path.

Brand - Designates **F**=Foster or **B**=Breco Part

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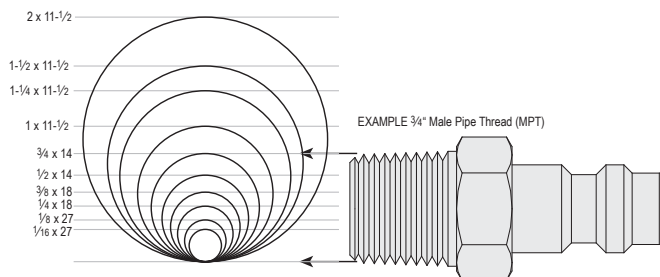
WARNING: These products can expose you to chemicals including lead, which is known to the State of California to cause cancer, and which is known to cause birth defects or other reproductive harm. For more information go to www.P65Warnings.ca.gov.

Technical Data



Pipe Thread Identification

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Seal & Fluid Compatibility Guide

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Seal Material

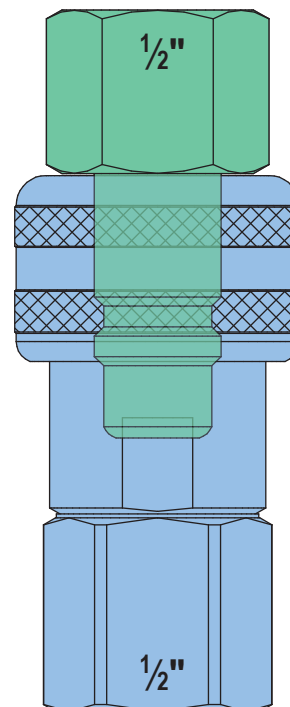
Quick Coupling Installation

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Actual Size Layouts

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Think Safety First

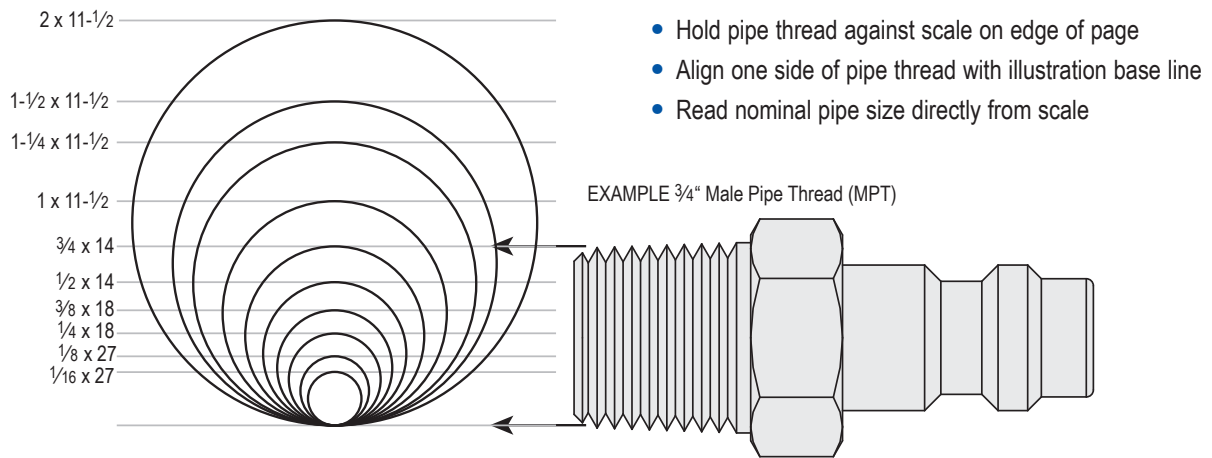
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CAUTION: It is important that users of the Quick Release Couplers read the safety guidelines. Improper use of products can lead to severe injury and damage to equipment.

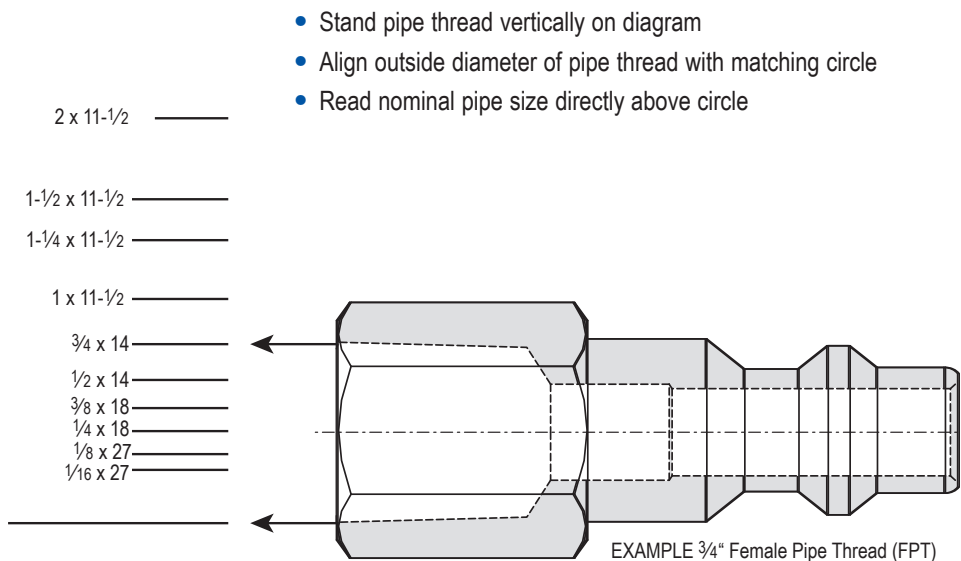
Pipe Thread Identification

| Nominal Pipe Size (inches) | Actual Pipe Size (inches) | Nominal Thread Size (inches) |
|----------------------------|---------------------------|------------------------------|
| 1/8" | 0.41" | 1/8" - 27 |
| 1/4" | 0.54" | 1/4" - 18 |
| 3/8" | 0.68" | 3/8" - 18 |
| 1/2" | 0.84" | 1/2" - 14 |
| 3/4" | 1.05" | 3/4" - 14 |
| 1" | 1.32" | 1" - 11-1/2 |
| 1-1/4" | 1.66" | 1-1/4" - 11-1/2 |
| 1-1/2" | 1.90" | 1-1/2" - 11-1/2 |
| 2" | 2.38" | 2" - 11-1/2 |
| 2-1/2" | 2.88" | 2-1/2" - 8 |
| 3" | 3.50" | 3" - 8 |

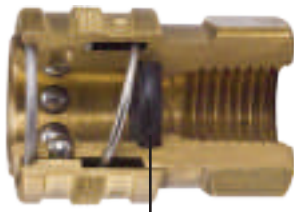
Female Pipe Thread Gauge



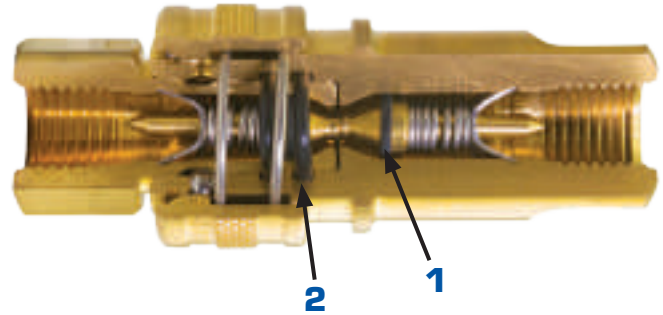
Male Pipe Thread Gauge



Seal & Fluid Compatibility Guide



Seal Material



- 1** Captive valve seal ensures "bubble tight" poppet sealing since seal is positively captured by the metal poppet to minimize seal washout or damage from high fluid velocity.
- 2** Broad range of metals and seal materials allow the use of most fluids.

| Seal Compound Data | | |
|---------------------------|-----------------|------------|
| Seal Material | Part No. Suffix | Color Code |
| Nitrile (Buna-N) | Std. | None |
| Viton (product of DuPont) | -101 | Blue |
| Neoprene | -102 | Red |
| Ethylene Propylene | -103 | Black |
| Silicone | -104 | White |

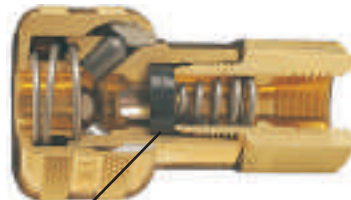
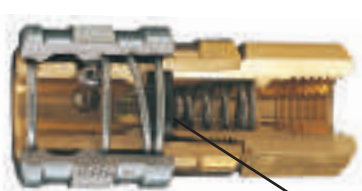
To Order: Add seal compound part number to the end of coupling part number.

Example: H4S-103, 1/2" NPT, FHK Series, steel socket with ethylene propylene seals (-103).

Note: Please consult with your Foster representative or the factory for any media not listed.

Optional Seal [Ordering]:

Buna-N seal is standard. Alternate seals are specified by adding the appropriate suffix to the catalog number. For example, 3003 socket with Heat Adder is 3003H



Optional Seal Material

| Service | Construction | Seal | Temperature | Suffix |
|---------------------------|---|--------------------|----------------|--------|
| Air, Vacuum, Grease & Oil | Brass & Steel | Buna-N | -40° to +250°F | none |
| Water | Brass & S/S | Buna-N | +32° to +100°F | W |
| Hot Water | Brass & S/S | Viton | -15° to +400°F | HW |
| Steam | Brass Body, Brass Sleeve, & Stainless Steel Valve | Ethylene Propylene | -40° to +300°F | S |
| Heat | Brass & Steel | Viton | -15° to +400°F | H |
| Less Valve | Brass & Steel | Buna-N | -40° to +250°F | LV |
| Dill Valve Series 3 Only | Brass & Steel | Buna-N | -40° to +250°F | D |

| Media | Body | Seal |
|----------------------------------|------------|-----------------|
| Acetic Acid (5%) | SS | Viton |
| Acetone | B, SS | EPDM |
| Acetophenone | SS | EPDM |
| Acetylene | SS | Standard |
| Air (up to 200°F) | B, SS | Standard |
| Air (up to 400°F) | B, SS | Viton, Silicone |
| Ammonia (Anhydrous) | SS | Neoprene |
| Ammonia (Cold, Gas) | SS | EPDM |
| Ammonium Nitrite | SS | Standard |
| Amyl Chloride | SS | Viton |
| Arsenic Acid | SS | Standard |
| Asphalt | SS | Viton |
| Brine (Sodium Chloride) | SS | Standard |
| Butane | SS | Standard |
| Butanol (Butyl Alcohol) | SS | Standard |
| Calcium Acetate | B, STD | EPDM |
| Carbon Dioxide | B, SS | Standard |
| Carbon Tetrachloride | B | Viton |
| Castor Oil | B, STD, SS | Standard |
| China Wood Oil (Tung Oil) | SS | Standard |
| Chloroform | SS | Viton |
| Corn Oil | B, STD, SS | Standard |
| Creosote | SS | Standard |
| Crude Oil | SS | Viton |
| Cutting Oil | STD, SS | Standard |
| Detergent, Water Solution | SS | Standard |
| Diesel Fuel | B, SS | Standard |
| Diethylene Glycol | STD, SS | Standard |
| Dimethyl Formamide | SS | EPDM |
| Ethanol | B | EPDM |
| Freon 11 | B | Viton |
| Freon 12 | B, STD, SS | Neoprene |
| Freon 22 | B, SS | Neoprene |
| Freon R134a | B, STD, SS | Neoprene |
| Fuel Oil | SS | Standard |
| Gas, Liquid Propane (LPG) | B, SS | Standard |
| Gas, Natural | B, SS | Standard |
| Gasoline (unleaded) | B, SS | Viton |
| Glucose | B, STD, SS | Standard |
| Glycerine (Glycerol) | STD, SS | Standard |
| Glycols | STD, SS | Standard |
| Helium | B, STD, SS | Standard |
| Heptane | B, STD, SS | Standard |
| Hydraulic Oil (Petroleum Base) | B, STD, SS | Standard |
| Hydraulic Oil (Water Base) | STD, SS | EPDM |
| Hydrazine | SS | EPDM |
| Hydrogen Gas | B, STD, SS | Standard |
| Isobutyl Alcohol | SS | Viton |
| Isopropyl Alcohol | B, STD, SS | Viton |
| Isopropyl Ether | B, STD, SS | Standard |
| Isocyanate | STD | Viton |
| Kerosene | B, SS | Standard |
| Linseed Oil | STD, SS | Standard |
| Lubricating Oil (SAE 10 thru 50) | B, STD, SS | Standard |
| Mercury | SS | Standard |
| Methane | B, SS | Standard |
| Methanol | B, SS | Standard |
| Methyl Bromide | STD, SS | Viton |
| Methyl Chloride (wet) | B | Viton |
| Methyl Ethyl Ketone (MEK) | B, STD, SS | EPDM |
| Mineral Oils | B, STD, SS | Standard |
| Potassium Acetate | STD | EPDM |
| Potassium Dichromate | STD | Standard |
| Potassium Nitrate | STD, SS | Standard |
| Potassium Sulfate | SS | Standard |

| Media | Body | Seal |
|-----------------------------|------------|----------|
| Propane | B, SS | Standard |
| Propyl Alcohol | B, STD, SS | Standard |
| Propylene | B, STD, SS | Viton |
| Pydraul 10E | STD, SS | EPDM |
| Pydraul A-200, C-Series | STD, SS | Viton |
| Pydraul, 3 Series | STD, SS | Viton |
| Sea Water / Salt Water | SS | Standard |
| Silicone Greases | B, STD, SS | Standard |
| Skydrol 500, Type 2 | STD, SS | EPDM |
| Skydrol 7000, type 2 | STD, SS | EPDM |
| Soap Solutions | SS | Standard |
| Sodium Acetate | B, STD, SS | EPDM |
| Sodium Carbonate (Soda Ash) | STD, SS | Standard |
| Sodium Cyanide | STD, SS | Standard |
| Sodium Metaphosphate | STD | Standard |
| Sodium Nitrate | SS | EPDM |
| Sodium Perborate | SS | Viton |
| Sodium Peroxide | STD | Viton |
| Sodium Phosphates | B, SS | Standard |
| Sodium Sulfate | SS | Standard |
| Soybean Oil | STD, SS | Standard |
| Steam (below 400°F) | B, SS | EPDM |
| Sucrose Solutions | B, STD, SS | Standard |
| Tannic Acid (10%) | B | Standard |
| Tertiary Butyl Alcohol | B, STD, SS | Viton |
| Tetraethyl Lead | B, STD, SS | Viton |
| Tetraethyl Lead (blend) | B, STD, SS | Viton |
| Titanium Tetrachloride | STD | Viton |
| Toluene | B, STD, SS | Viton |
| Transmission Fluid (Type A) | B, STD, SS | Standard |
| Turbine Oil #15 | SS | Viton |
| Turpentine | SS | Standard |
| Varnish | B, STD, SS | Viton |
| Water (below 100°F) | B, SS | Standard |
| Water (above 100°F) | B, SS | EPDM |
| Xylene | B, SS | Viton |
| Naphtha | STD | Viton |
| Napthalene | STD | Viton |
| Napthenic Acid | STD | Viton |
| Nickel, Acetate | SS | EPDM |
| Nickel Sulfate | SS | Standard |
| Nitrogen | B, STD, SS | Standard |
| Nitrous Oxide | SS | Standard |
| Octyl Alcohol | B, STD, SS | Viton |
| Oxalic Acid | SS | Viton |
| Oxygen (200-400°F) | B, SS | Viton |
| Oxygen (below 200°F) | B, SS | Standard |
| Ozone | SS | Viton |
| Palmitic Acid | B, SS | Standard |
| Para-Dichlorobenzene | STD | Viton |
| Peanut Oil | STD, SS | Standard |
| Petrolatum | B, STD, SS | Standard |
| Petroleum Oil (below 200°F) | B, STD, SS | Standard |
| Phenol | B, STD, SS | Viton |
| Phosphorous Trichloride | SS | Viton |
| Plating Solutions (Chrome) | B, SS | Viton |
| Plating Solutions (other) | SS | Viton |

Disclaimer: Data is only to be used as a guideline, please test individual parts thoroughly for each application.

| Body Material Data | |
|---------------------------|-----|
| Brass | B |
| Steel (Standard) | STD |
| 303 / 316 Stainless Steel | SS |

Be Safe When Installing Quick Couplings Installation Of Reusable Hose Couplings



1 Trim the end of the hose as square as possible.



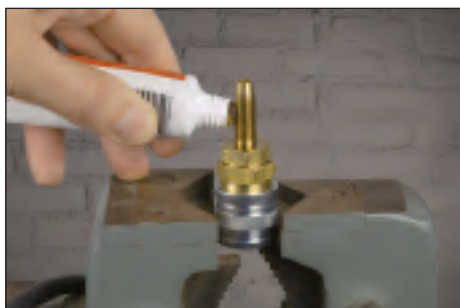
2 Insert Hose completely into ferrule and make note of how deep the hose goes.



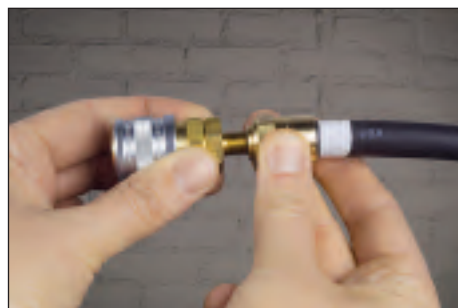
3 Mark the point of full hose insertion depth with a piece of tape.



4 Verify tape line is correct for full insertion.



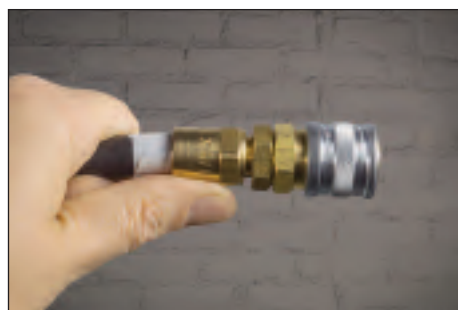
5 Add a bit of lubricant to the reusable hose barb before inserting into the ferrule.



6 Turn reusable hose barb into ferrule ensuring hose stays completely inserted.



7 Tighten reusable hose barb into ferrule ensuring hose stays completely inserted.



8 Completed connection, Use marker applied in **step [3]** to ensure hose is completely inserted.

Be Safe When Installing Quick Couplings Installation “Push-On” Hose



1 Trim the end of the hose as square as possible.



2 Grip the Plug or socket firmly and Push On hose.



3 Completed connection, ensure that the hose is completely inserted.

Be Safe When Installing Quick Couplings Inspection and Maintenance



Plugs:

- Inspect for cracks, chips, dings or other damage.
- Clean as necessary using water and a mild detergent. External buildup may be removed using a wire brush, taking care not to mar the surface of the plug.
- Replace any damaged plug.



Sockets:

- Inspect overall for cracks, dents or other damage.
- Inspect inside socket for damage or debris.
- Actuate all moving parts to ensure they operate freely with no scraping or binding.
- Clean as necessary using water and a mild detergent.
- Replace any damaged socket.

Assemblies:

- Install the plug into the socket, making sure the parts connect easily and hold firmly.
- Disconnect coupler, check that the plug and socket release easily and smoothly, with no scraping or binding.
- On BL (ball lock) and SL Series (with locking sleeve), rotate sleeve to the locked position and attempt to disconnect, pulling firmly to ensure the coupler stays connected.
- Rotate sleeve to the unlocked position, and ensure the coupler disconnects easily.
- If any damage, binding or unintended disconnecting is found, both the coupler and plug should be replaced.



Be Safe When Installing Quick Couplings Installation of Tapered Thread Connections



1 Apply 1½ to 2 wraps of PTFE tape, starting one or two threads from the lead edge, in a clockwise direction. For type 316 stainless steel, be sure to use stainless grade tape.



2 Check threads to make sure there is no damage and that tape is properly installed. Align threaded connections and carefully begin threading the two halves together.



3 Finger tighten the connection.



4 With **even and smooth** force applied, wrench tighten according to the "Turns From Finger Tight" values listed in the table below.
DO NOT OVERTIGHTEN!



5 Coupling is ready for use.

| SAE Size | NPFE Thread Size | Turns from Finger Tight |
|---------------------|------------------|-------------------------|
| -4 | ¼" - 18 | 2 |
| -6 | ⅜" - 18 | 2 |
| -8 | ½" - 14 | 2 |
| -12 | ¾" - 14 | 1.5 |
| -16 | 1" - 11½ | 1.5 |
| Do Not Overtighten! | | |

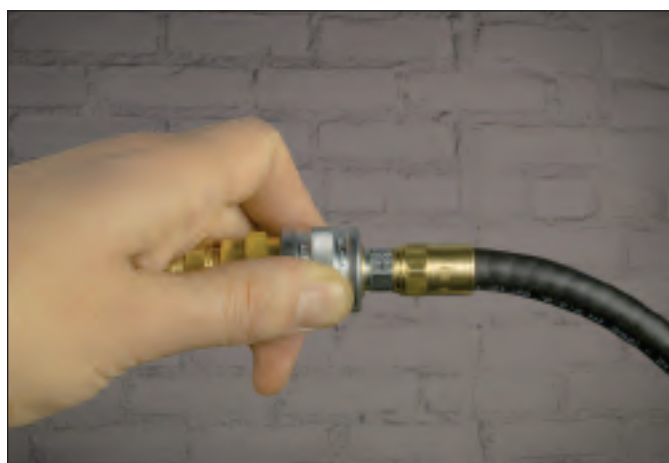
Be Safe When Installing Quick Couplings Safety Exhausting Coupler Operation



- 1** To Disconnect;
Begin by holding the hose with three of your fingers leaving your thumb and index finger free.



- 3** After pulling the sleeve, the plug will move out of the couple slightly. Continue to hold the hose and coupling sleeve until **all air is fully exhausted**.

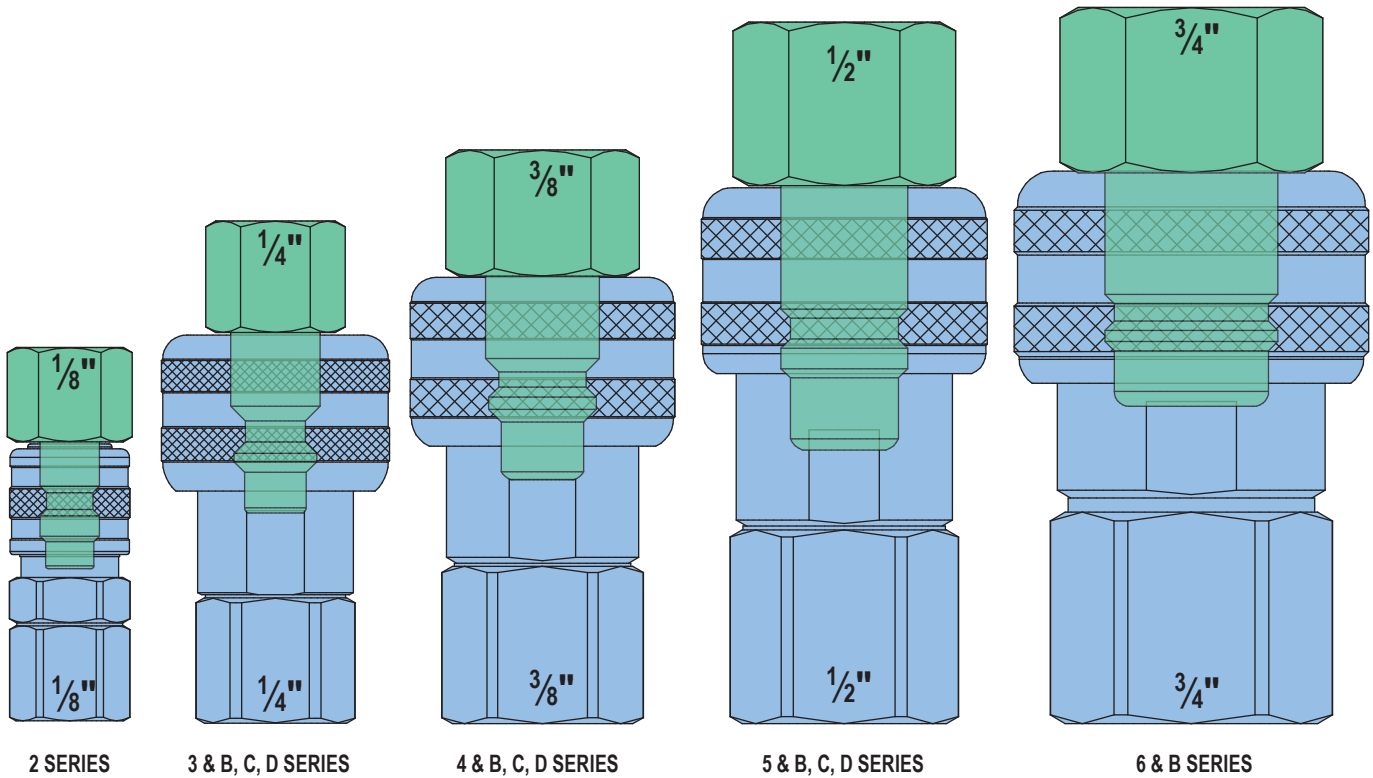


- 2** Grab the sleeve with your thumb and index finger and begin to pull the sleeve towards the palm of your hand.



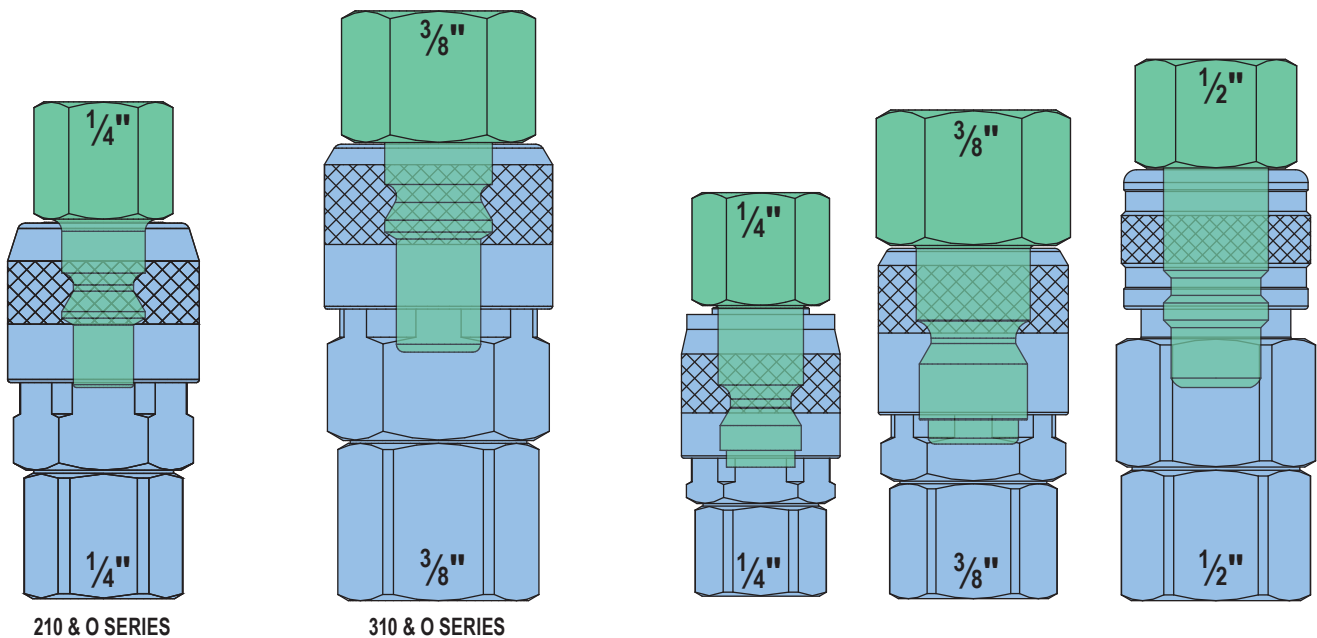
- 4** After the line is fully exhausted, you are able to safely separate the plug from the coupler.

2 thru 6 & B, C & D Series Industrial Interchange



210, 310 & O Series

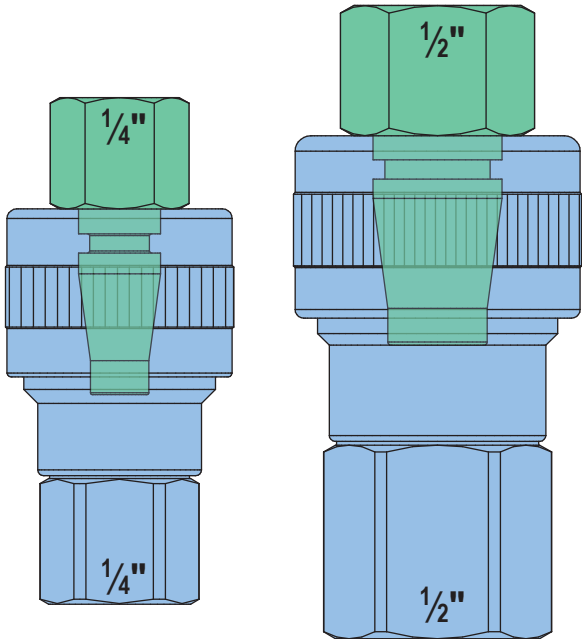
TF & J Series



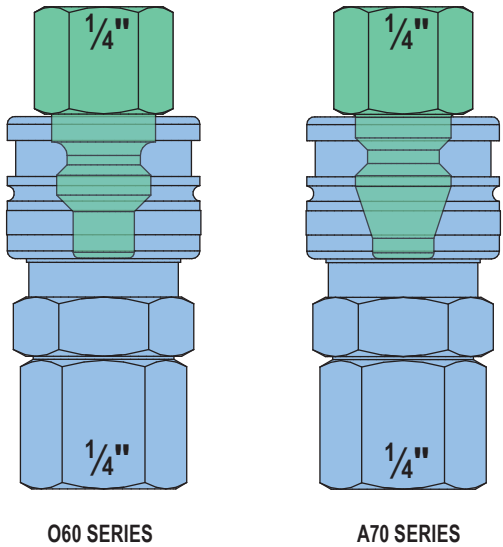
Actual Size Layouts



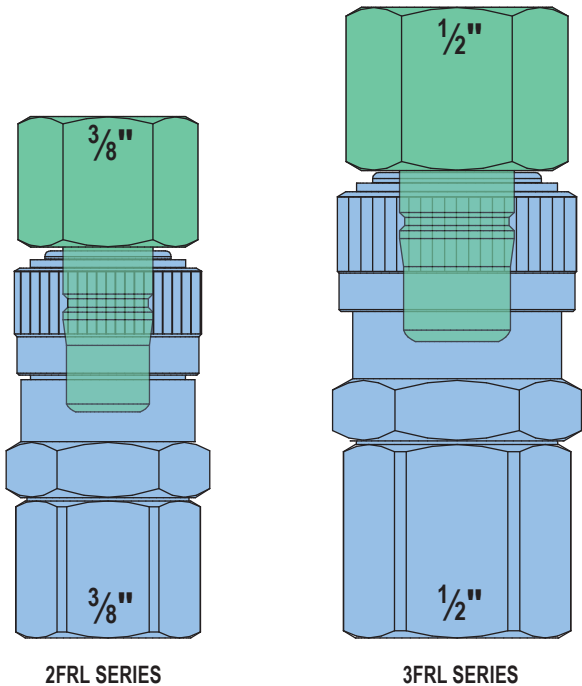
SHD & TL Series



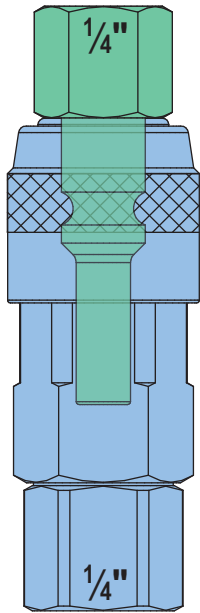
O60 & A70 Series



2FRL & 3FRL Series



LN & L Series



Pneumatic QD

Hydraulic QD

Blow Guns & Accessories

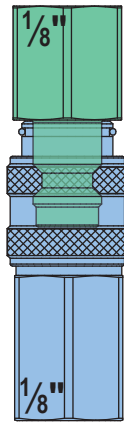
Fittings & Accessories

Hoses & Fittings

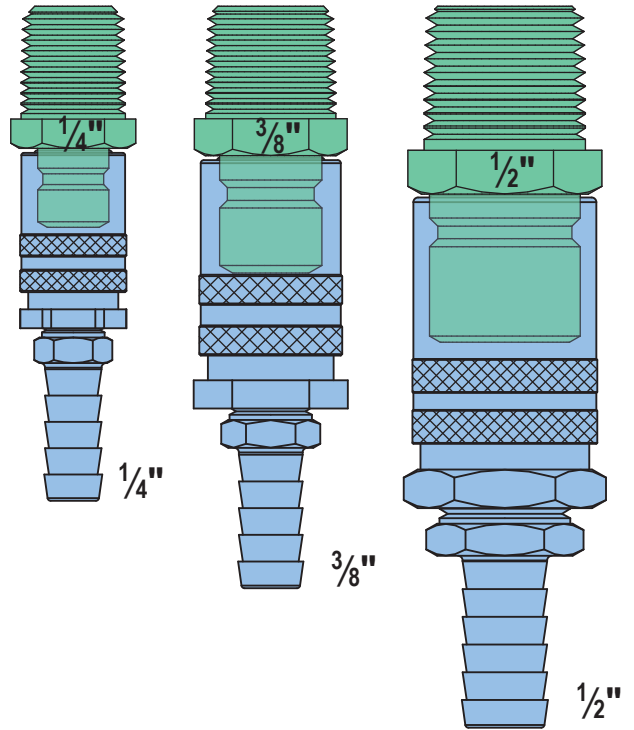
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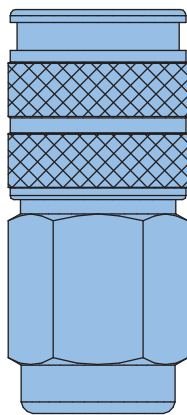
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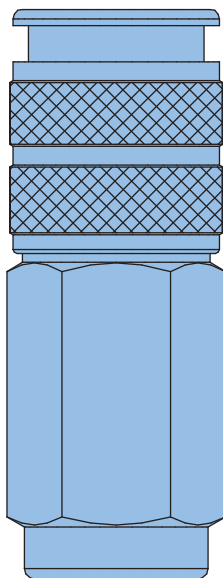
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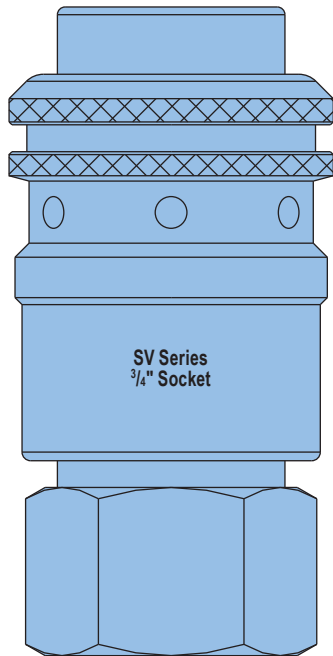
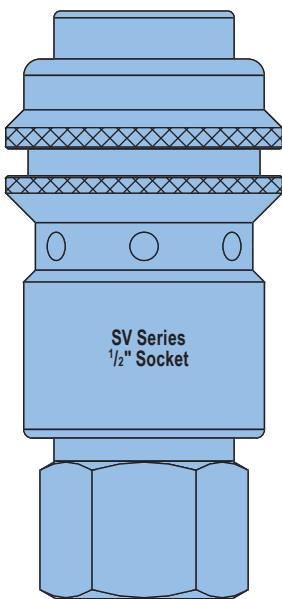
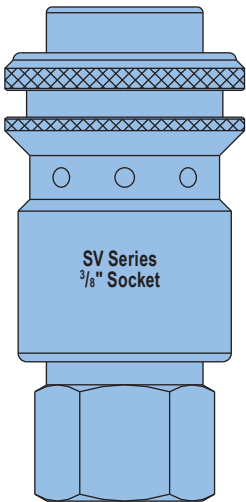
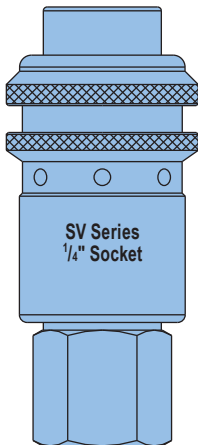
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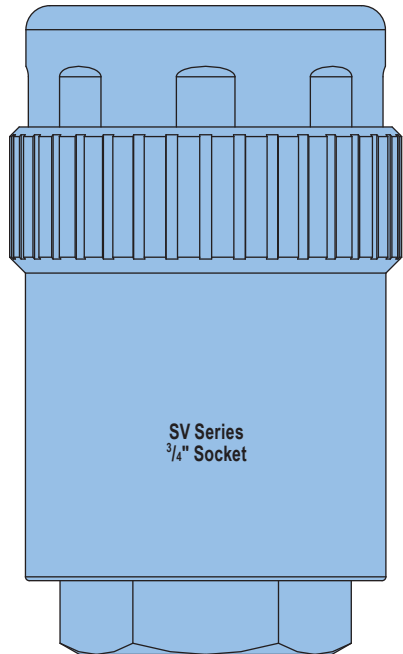
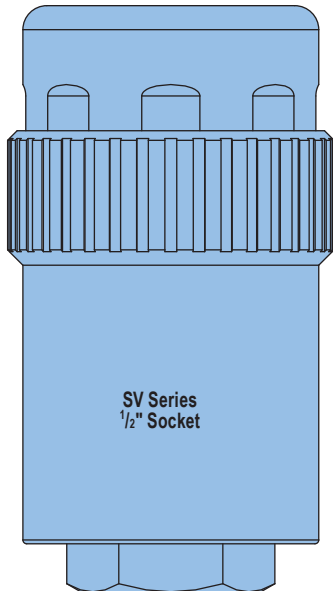
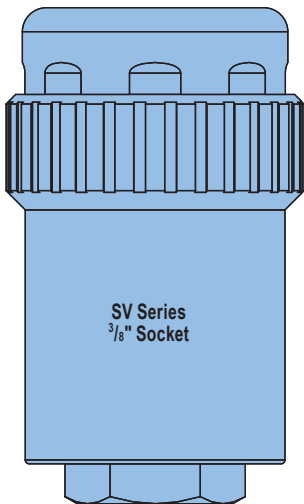
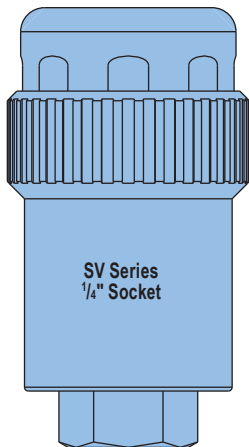
U $\frac{3}{8}"$
Socket



SV Series



SVPC Series



Pneumatic QD

Hydraulic QD

Blow Guns & Accessories

Fittings & Accessories

Hoses & Fittings

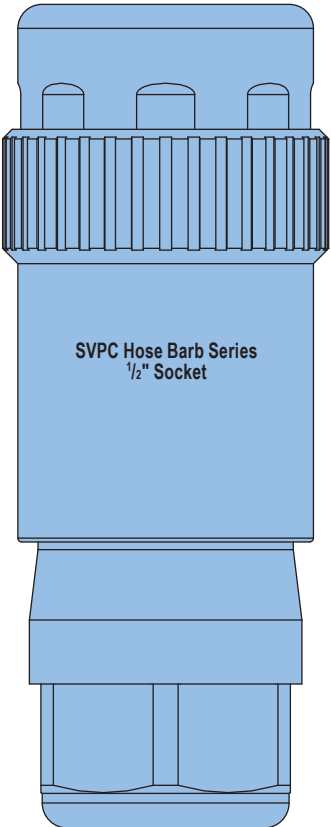
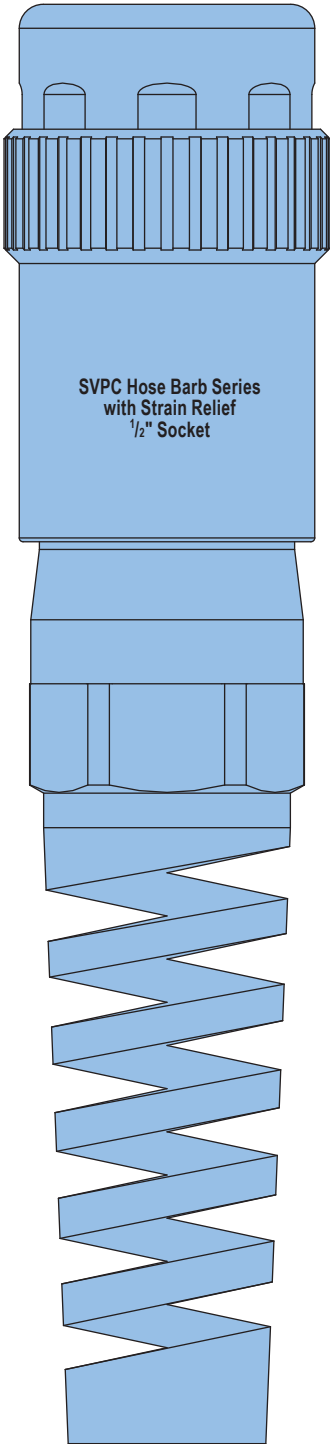
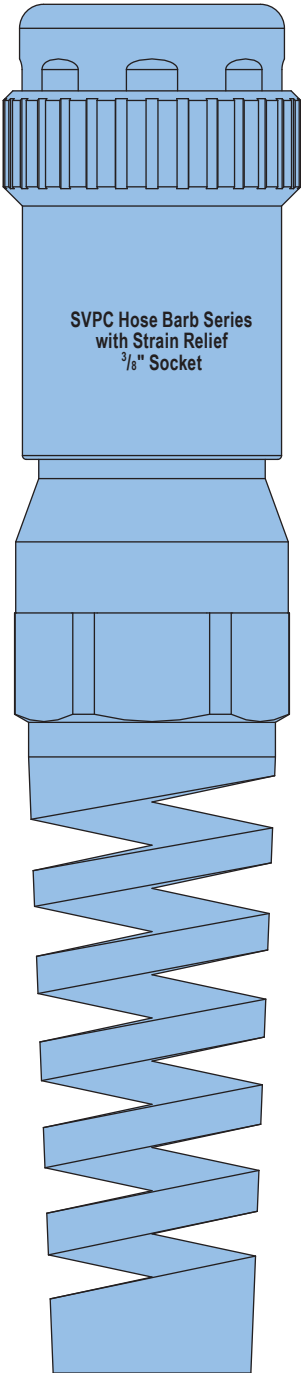
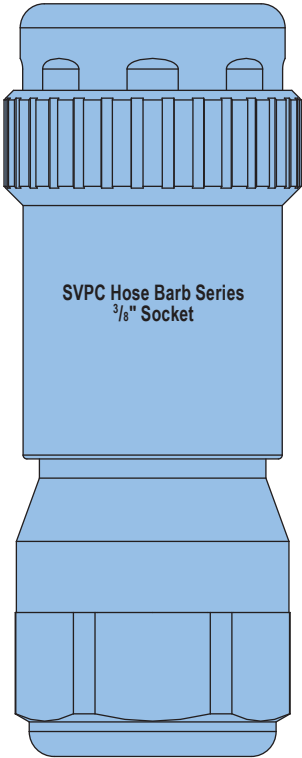
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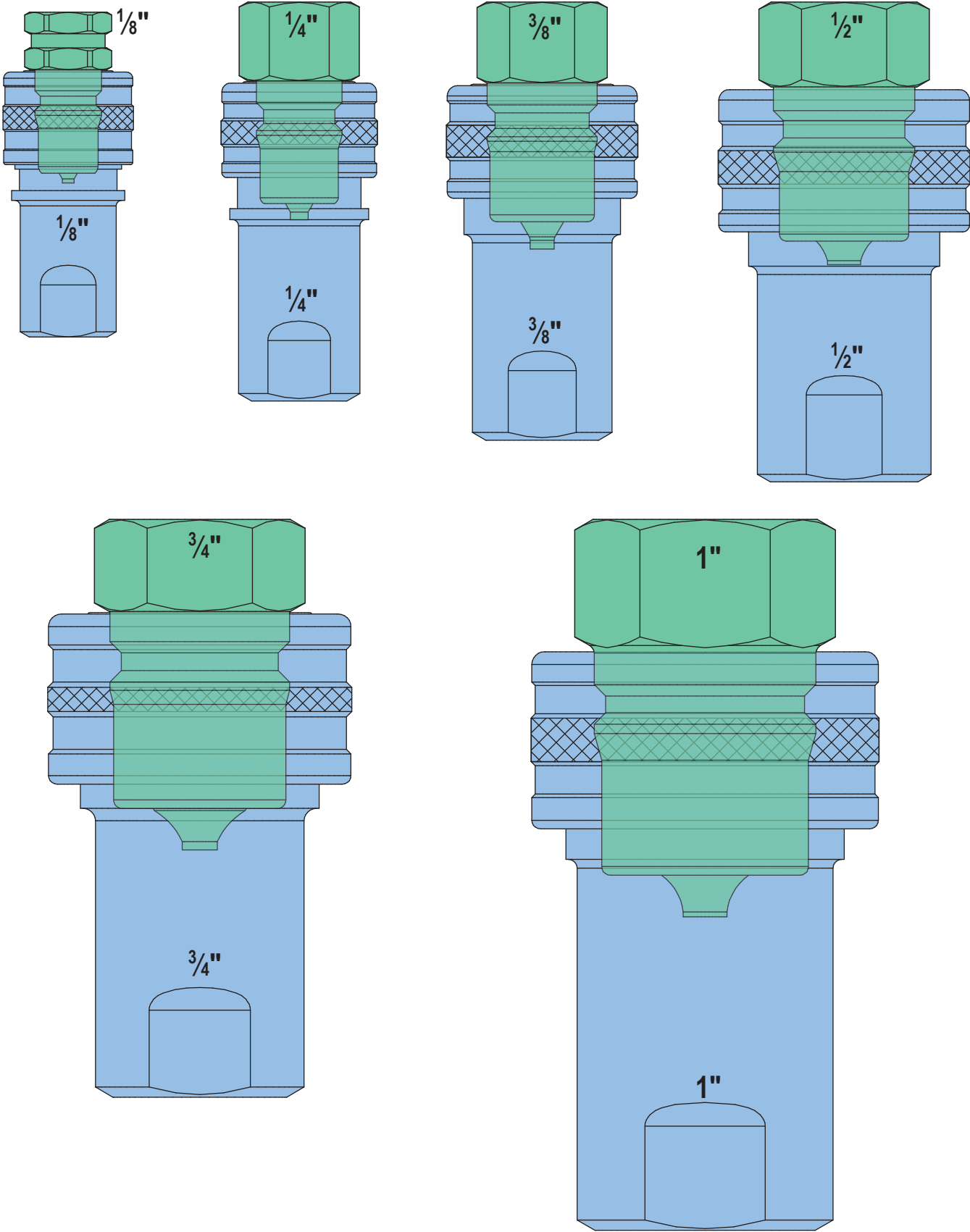
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SVPC Series





FHK & DS Series



Pneumatic QD

Hydraulic QD

Blow Guns & Accessories

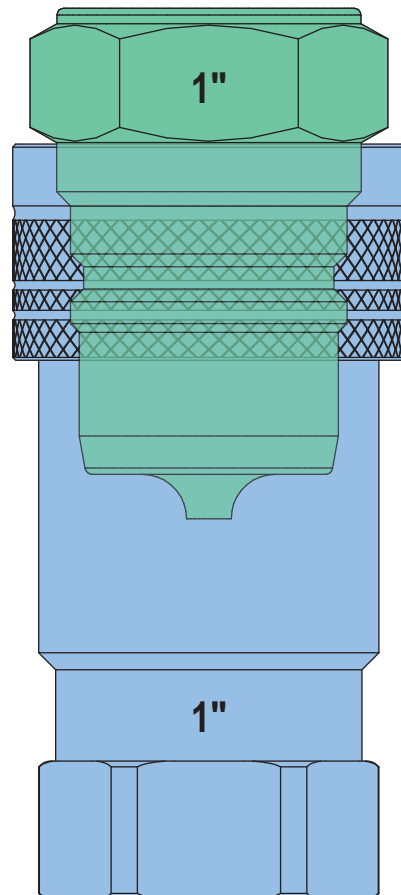
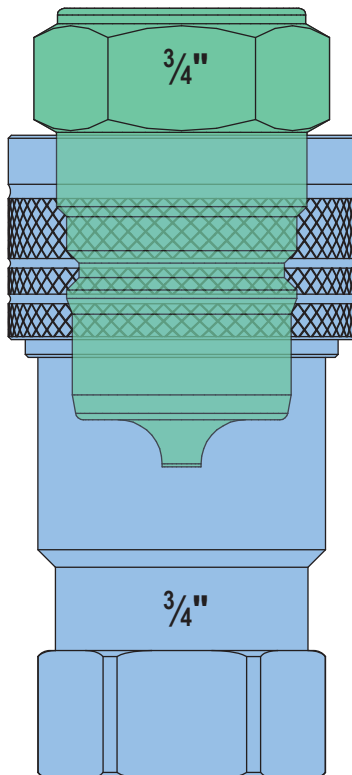
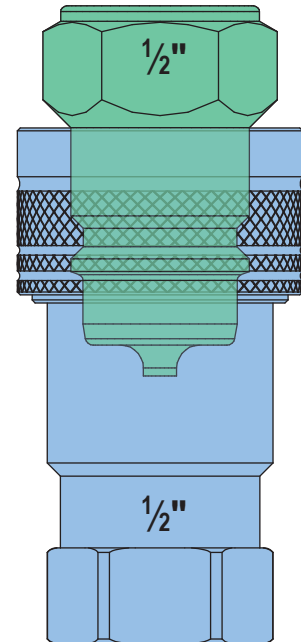
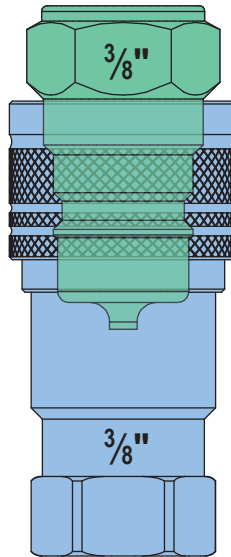
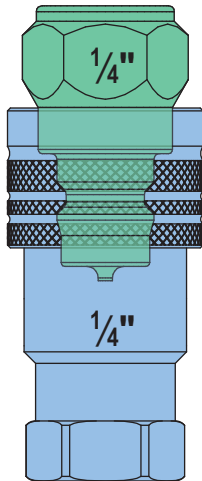
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Hoses & Fittings

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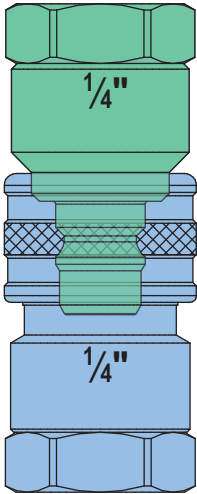
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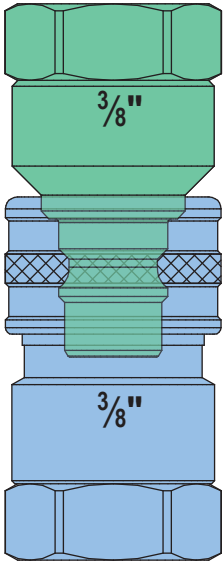




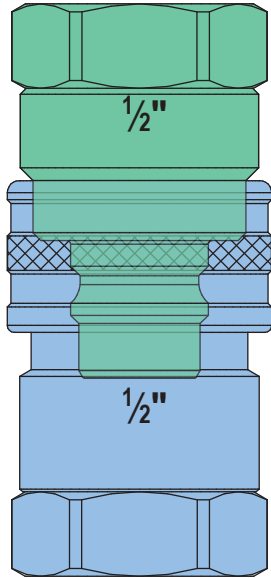
Series FH & FIH



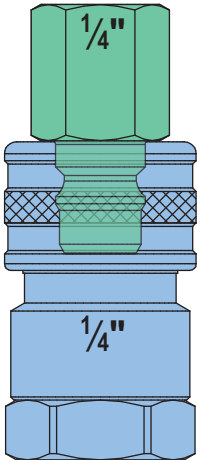
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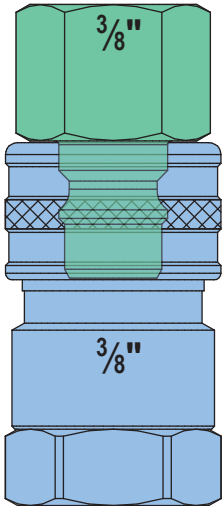
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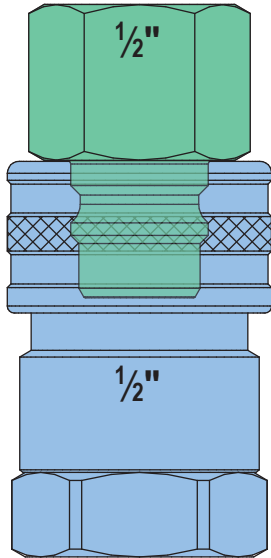
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Un-valved Plug



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Pneumatic QD

Hydraulic QD

Blow Guns & Accessories

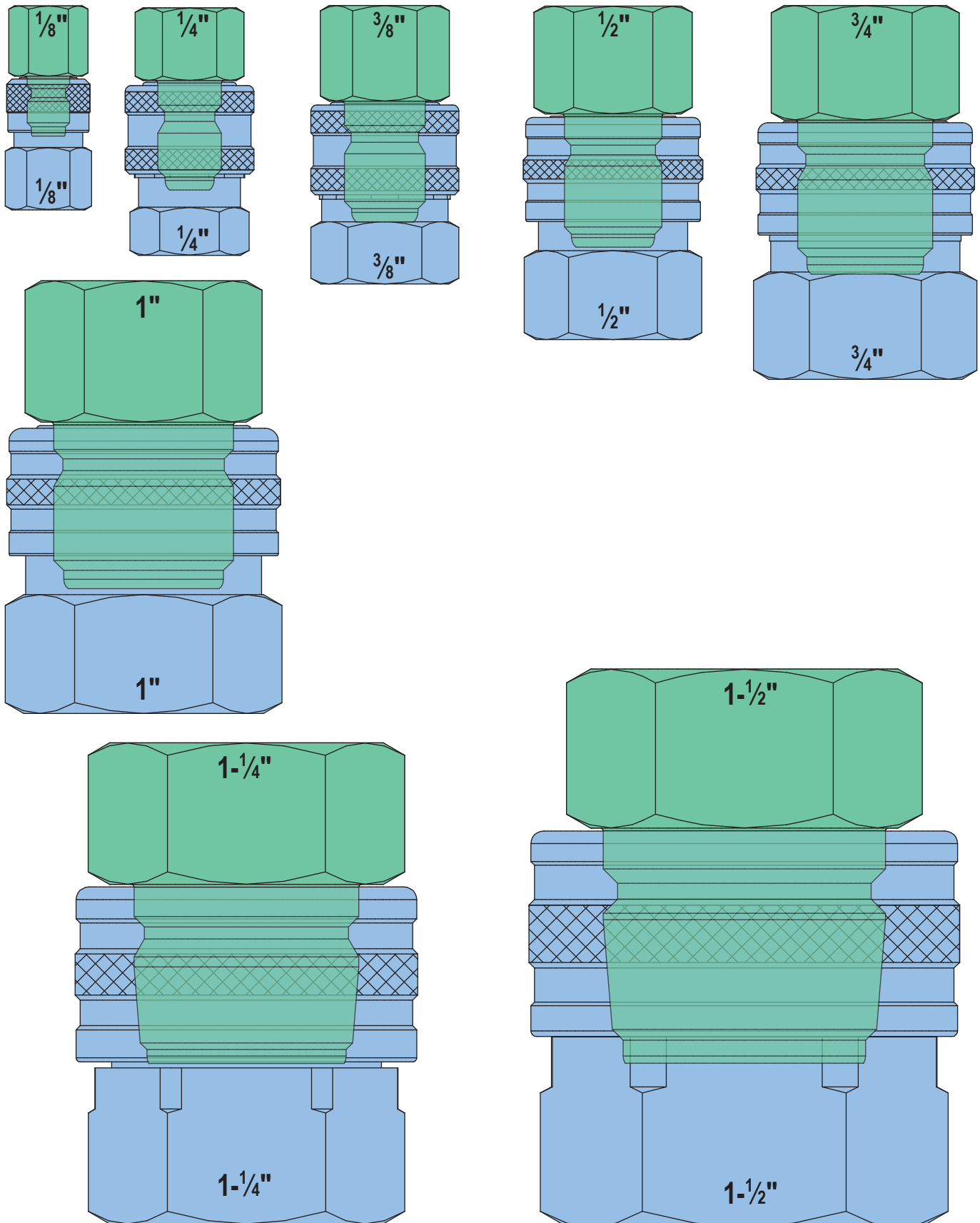
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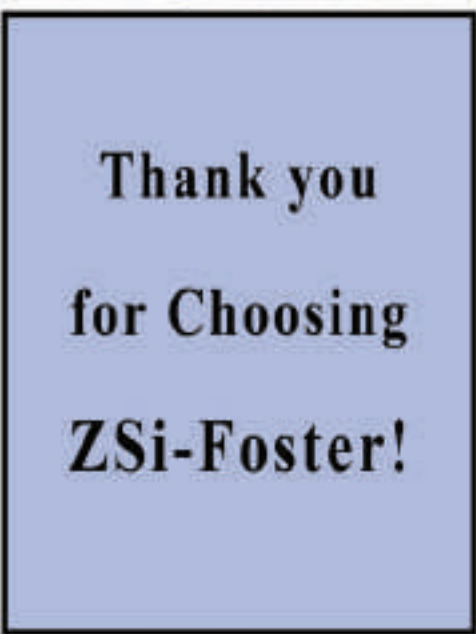


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