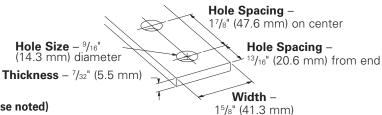


This section offers a full selection of fittings and accessories to complete our strut system. Fittings are made from hot rolled, pickled and oiled plate or strip steel in accordance with ASTM A1018 33,000 PSI min. yield, unless noted.

Dimensions

The following dimensions apply to all fittings except as noted:



Materials & Finishes (Unless otherwise noted)

Finish		
Code	Finish	Specification
PLN	Plain	ASTM A1018 33,000 PSI min. yield
ZN	Electro-Plated Zinc	ASTM B633 SC3 Type III or ASTM A653
GRN	DURA GREEN™	
HDG	Hot-Dipped Galvanized	ASTM A123
SS4	Stainless Steel Type 304	ASTM A240
SS6	Stainless Steel Type 316	ASTM A240
AL	Aluminum	ASTM B209

Note: A minimum order may apply on special material and finishes.

Hardware

Nuts and bolts are not included with the fittings and must be ordered separately, unless noted.

Pre-Assembled Fittings

Some fittings are available with hex head cap screws and channel nuts pre-assembled.
These fittings and finishes will be flagged using the following symbol.



Load Data

The load data published includes safety factor of 2.5 when used with 12 ga. (2.6) channel safety factor = ratio of ultimate load to the design load).

Use $^{1}/_{2}$ "-13 x $^{7}/_{8}$ " hex head cap screws and $^{1}/_{2}$ "-13 (N225 or TN225) channel nuts for the rated results.

Note: See page 277 Design Load Data for typical channel - fitting connections.

Recommended Bolt Torque

Bolt Size	1/4"-20	⁵ / ₁₆ "-18	3/8"-16	¹ / ₂ "-13
Foot/Lbs.	6	11	19	50
Nm	8	15	26	68

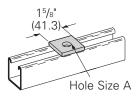
See chart on page 154 for setscrew torque.

Metric

Metric dimensions are shown in parentheses. Unless noted, all metric dimensions are in millimeters.

B200-B202-2

 Standard finishes: ZN, GRN, HDG, SS4, SS6, AL



Square Washer

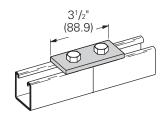
Part	Α		Bolt	Bolt Size		t./C
No.	ln.	mm	ln.	mm	Lbs.	kg
B200	3/8"	(9.5)	5/16"	(7.9)	18	(8.1)
B201	⁷ /16"	(11.1)	3/8"	(9.5)	18	(8.1)
B202	9/16"	(14.2)	1/2"	(12.7)	17	(7.7)
B202-1	11/16"	(17.4)	5/8"	(15.9)	16	(7.2)
B202-2	¹³ / ₁₆ "	(20.6)	3/4"	(19.0)	15	(6.8)
B202-3	¹⁵ / ₁₆ "	(23.8)	7/8"	(22.2)	14	(6.3)

B129

Two Hole Splice Plate

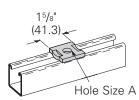
- Standard finishes: ZN, GRN
- Wt./C 37 Lbs. (16.8 kg)

PA GRN



B200D-B202-2D

 Standard finishes: ZN, GRN, HDG, SS4, SS6, AL



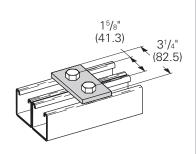
No Twist Square Washer

Part	Α		Bolt Size		Wt./C	
No.	ln.	mm	ln.	mm	Lbs.	kg
B200D	3/8"	(9.5)	5/16"	(7.9)	18	(8.1)
B201D	⁷ / ₁₆ "	(11.1)	3/8"	(9.5)	18	(8.1)
B202D	9/16"	(14.2)	1/2"	(12.7)	17	(7.7)
B202-1D	11/16"	(17.4)	5/8"	(15.9)	16	(7.2)
B202-2D	¹³ / ₁₆ "	(20.6)	3/4"	(19.0)	15	(6.8)

B340

Two Hole Splice Plate

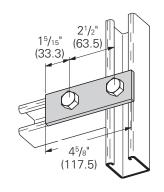
- Standard finishes: ZN, GRN
- Wt./C 34 Lbs. (15.4 kg)



B528

Two Hole Splice Plate

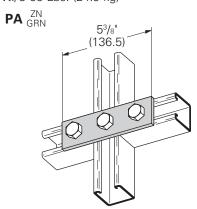
- Standard finishes: ZN, GRN
- Wt./C 50 Lbs. (22.7 kg)



B141

Three Hole Splice Plate

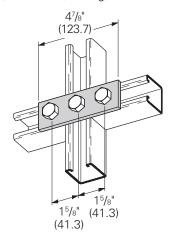
- Standard finishes: ZN, GRN
- Wt./C 55 Lbs. (24.9 kg)



B557

Three Hole Splice Plate

- Standard finishes: ZN, GRN
- Wt./C 50 Lbs. (22.7 kg)

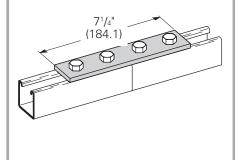


B341

Four Hole Splice Plate

- Standard finishes: ZN, GRN, HDG
- Wt./C 76 Lbs. (34.5 kg)

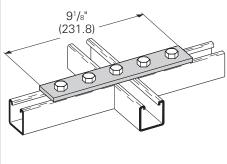
PA GRN



B342

Five Hole Splice Plate

- Standard finishes: ZN, GRN
- Wt./C 96 Lbs. (43.5 kg)

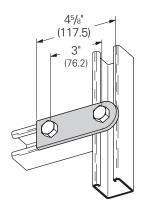


PA Pre-assembled fitting

B138

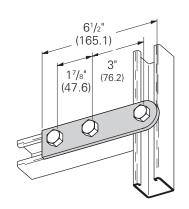
Two Hole Swivel Plate

- Standard finishes: ZN, GRN
- Wt./C 48 Lbs. (21.8 kg)



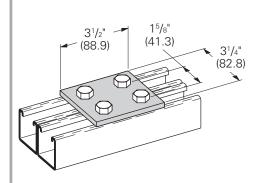
B139 Three Hole Swivel Plate

- Standard finishes: ZN, GRN
- Wt./C 69 Lbs. (31.3 kg)



B504 Four Hole Splice Plate

- Standard finishes: ZN, GRN
- Wt./C 73 Lbs. (33.1 kg)

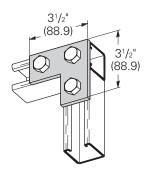


B140

Three Hole Corner Plate

- Standard finishes: ZN, GRN, HDG, SS4
- Wt./C 56 Lbs. (25.4 kg)

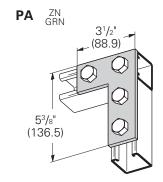
PA GRN



B143

Four Hole Corner Plate

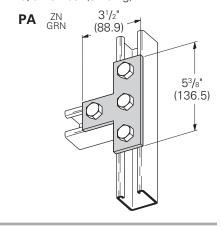
- Standard finishes: ZN, GRN, HDG, SS4
- Wt./C 75 Lbs. (34.0 kg)



B133

Four Hole Tee Plate

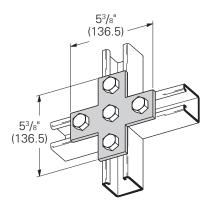
- Standard finishes: ZN, GRN, HDG, SS4, AL
- Wt./C 75 Lbs. (34.0 kg)



B132 Five Hole Cross Plate

- Standard finishes: ZN, GRN, HDG
- Wt./C 100 Lbs. (45.3 kg)

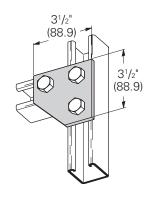
PA ZN GRN



R135

Three Hole Corner Gusset Plate

- Standard finishes: ZN, GRN
- Wt./C 70 Lbs. (31.7 kg)

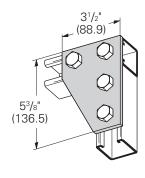


PA Pre-assembled fitting

B142 Four Hole Corner Gusset Plate

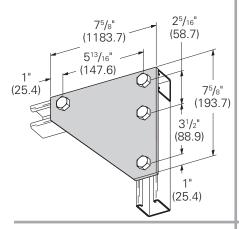
- Standard finishes: ZN, GRN, HDG
- Wt./C 102 Lbs. (46.2 kg)

PA ZN GRN



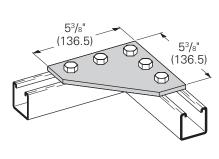
B137 Four Hole Corner Gusset Plate

- Standard finishes: ZN, GRN
- Wt./C 273 Lbs. (123.8 kg)



B556 Five Hole Corner Gusset Plate

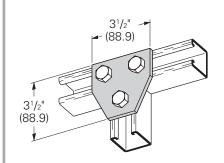
- Standard finishes: ZN, GRN
- Wt./C 145 Lbs. (65.8 kg)



B337

Three Hole Tee Gusset Plate

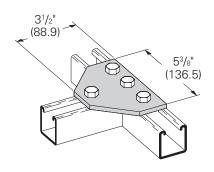
- Standard finishes: ZN, GRN
- Wt./C 70 Lbs. (31.7 kg)



B432

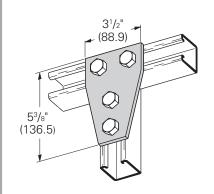
Four Hole Tee Gusset Plate

- Standard finishes: ZN, GRN
- Wt./C 100 Lbs. (45.3 kg)



B136 Four Hole Tee Gusset Plate

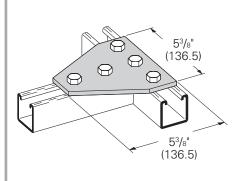
- Standard finishes: ZN, GRN, HDG
- Wt./C 100 Lbs. (45.3 kg)



B532

Five Hole Tee Gusset Plate

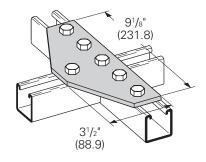
- Standard finishes: ZN, GRN
- Wt./C 143 Lbs. (64.8 kg)



B339

Six Hole Tee Gusset Plate

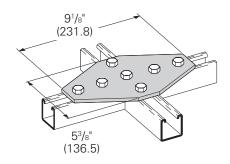
- Standard finishes: ZN, GRN
- Wt./C 149 Lbs. (67.6 kg)



B334

Seven Hole Cross Gusset Plate

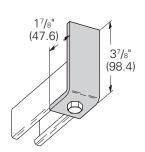
- Standard finishes: ZN, GRN
- Wt./C 232 Lbs. (105.2 kg)



PA Pre-assembled fitting

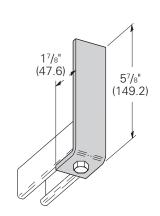
B420-378 One Hole Corner Angle

- Standard finishes: ZN, GRN
- Wt./C 60 Lbs. (27.2 kg)



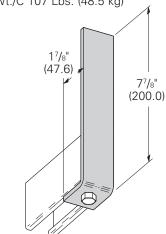
B420-578 One Hole Corner Angle

- Standard finishes: ZN, GRN
- Wt./C 85 Lbs. (38.5 kg)



B420-778 One Hole Corner Angle

- Standard finishes: ZN, GRN
- Wt./C 107 Lbs. (48.5 kg)



B420-978 One Hole Corner Angle

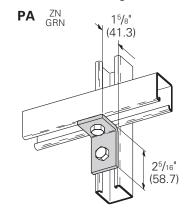
- Standard finishes: ZN, GRN
- Wt./C 129 Lbs. (58.5 kg)

 17/8"
 (47.6)

 97/8"
 (250.8)

B101 Two Hole Corner Angle

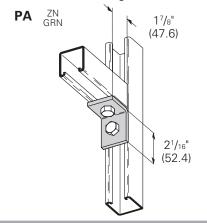
- Standard finishes: ZN, GRN, HDG, SS4, AL
- Wt./C 37 Lbs. (16.8 kg)



B230

Two Hole Corner Angle

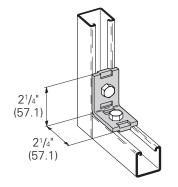
- Standard finishes: ZN, GRN, HDG, SS4, AL
- Wt./C 37 Lbs. (16.8 kg)



B231 Two Hole "No-Twist" Corner Angle

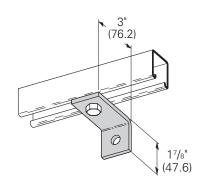
- Standard finishes: ZN, GRN, HDG
- Wt./C 41 Lbs. (18.6 kg)

PA ZN GRN



B359 Two Hole Corner Angle

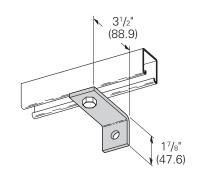
- Standard finishes: ZN, GRN
- Wt./C 48 Lbs. (21.8 kg)



PA Pre-assembled fitting

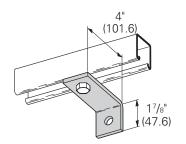
B360 Two Hole Corner Angle

- Standard finishes: ZN, GRN
- Wt./C 53 Lbs. (24.0 kg)



B361 Two Hole Corner Angle

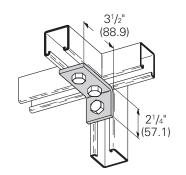
- Standard finishes: ZN, GRN
- Wt./C 60 Lbs. (27.2 kg)



B102 Three Hole Corner Angle

- Standard finishes: ZN, GRN, HDG, SS4
- Wt./C 56 Lbs. (25.4 kg)

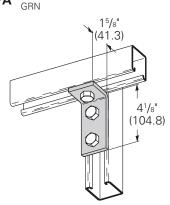
PA ZN GRN



B103 Three Hole Corner Angle

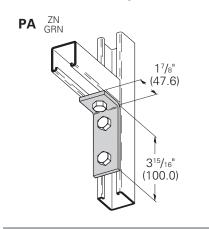
- Standard finishes: ZN, GRN, HDG, SS4
- Wt./C 56 Lbs. (25.4 kg)

PA ZN GRN



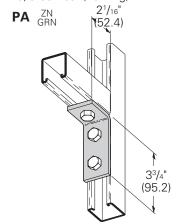
B232 Three Hole Corner Angle

- Standard finishes: ZN, GRN, HDG, SS4
- Wt./C 56 Lbs. (25.4 kg)



B374 Three Hole Corner Angle

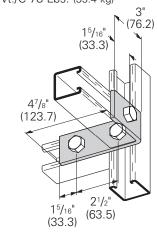
- Standard finishes: ZN, GRN, HDG
- Wt./C 56 Lbs. (25.4 kg)



B529

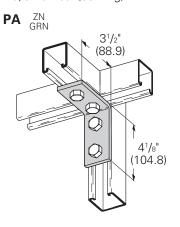
Three Hole Corner Angle

- Standard finishes: ZN, GRN
- Wt./C 78 Lbs. (35.4 kg)



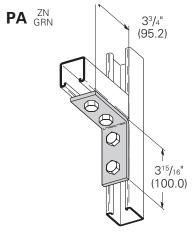
B104 Four Hole Corner Angle

- Standard finishes: ZN, GRN, HDG, SS4, SS6, AL
- Wt./C 78 Lbs. (35.4 kg)



B115 Four Hole Corner Angle

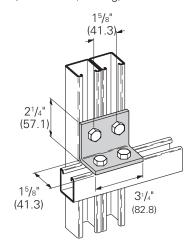
- Standard finishes: ZN, GRN, HDG, SS4, AL
- Wt./C 76 Lbs. (34.5 kg)



PA Pre-assembled fitting

B558 Four Hole Corner Angle

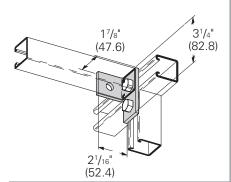
- Standard finishes: ZN, GRN
- Wt./C 73 Lbs. (33.1 kg)



B235R

Three Hole (Right Hand) Offset Bent Angle

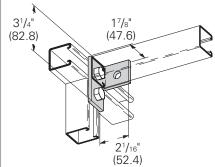
- 15/8" (41.3) from center to center of the holes that are shown with bolt heads
- Standard finishes: ZN, GRN
- Wt./C 53 Lbs. (24.0 kg)



B235L

Three Hole (Left Hand) Offset Bent Angle

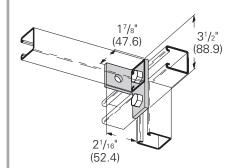
- 15/8" (41.3) from center to center of the holes that are shown with bolt heads
- Standard finishes: ZN, GRN
- Wt./C 53 Lbs. (24.0 kg)



B236R

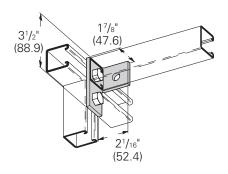
Three Hole (Right Hand) Offset Bent Angle

- Standard finishes: ZN, GRN
- Wt./C 65 Lbs. (29.5 kg)



B236L Three Hole (Left Hand) Offset Bent Angle

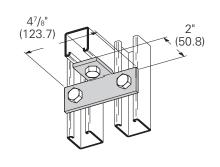
- Standard finishes: ZN, GRN
- Wt./C 65 Lbs. (29.5 kg)



B237

Three Hole Offset Bent Tee

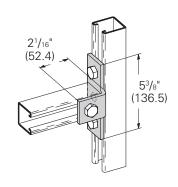
- Standard finishes: ZN, GRN
- Wt./C 71 Lbs. (32.2 kg)



B357

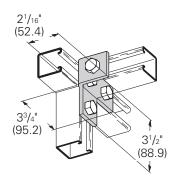
Four Hole Offset Bent Tee

- Standard finishes: ZN, GRN
- Wt./C 77 Lbs. (34.9 kg)



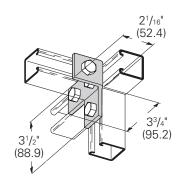
B238R Four Hole (Right Hand) Offset Bent Tee

- Standard finishes: ZN, GRN
- Wt./C 76 Lbs. (34.5 kg)



B238L Four Hole (Left Hand) Offset Bent Tee

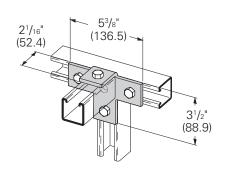
- Standard finishes: ZN, GRN
- Wt./C 76 Lbs. (34.5 kg)



B239

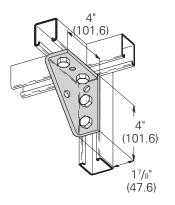
Five Hole Offset Bent Tee

- Standard finishes: ZN, GRN
- Wt./C 96 Lbs. (43.5 kg)



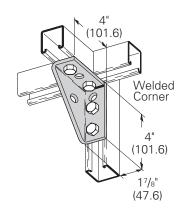
B844 Universal Shelf Bracket

- Standard finishes: ZN, GRN, HDG, SS4
- Wt./C 132 Lbs. (59.9 kg)



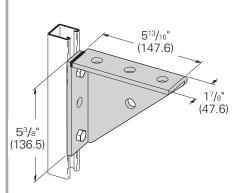
B844W Universal Shelf Bracket -Welded

- Standard finishes: ZN, GRN
- Wt./C 134 Lbs. (60.8 kg)



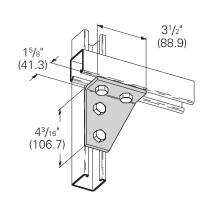
B888W Universal Shelf Bracket -Welded

- Standard finishes: ZN, GRN
- Wt./C 197 Lbs. (89.4 kg)



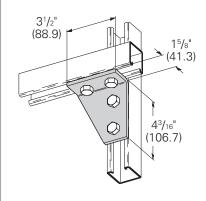
B234R Four Hole (Right Hand) Corner Gusset

- Standard finishes: ZN, GRN, HDG
- Wt./C 100 Lbs. (45.3 kg)



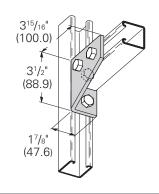
B234L Four Hole (Left Hand) Corner Gusset

- Standard finishes: ZN, GRN, HDG
- Wt./C 100 Lbs. (45.3 kg)



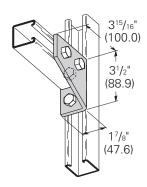
B134R Four Hole (Right Hand) Corner Gusset

- Standard finishes: ZN, GRN
- Wt./C 100 Lbs. (45.3 kg)



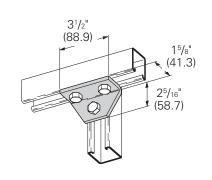
B134L Four Hole (Left Hand) Corner Gusset

- Standard finishes: ZN, GRN
- Wt./C 100 Lbs. (45.3 kg)



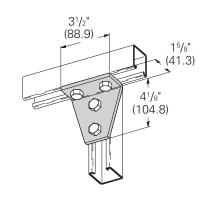
B125 Three Hole Gussetted Shelf Angle

- Standard finishes: ZN, GRN
- Wt./C 67 Lbs. (30.4 kg)



B118 Four Hole Gussetted Shelf Angle

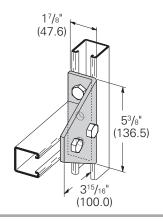
- Standard finishes: ZN, GRN, HDG
- Wt./C 102 Lbs. (46.2 kg)



B485

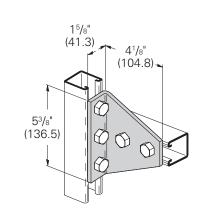
Four Hole Gussetted Shelf Angle

- Standard finishes: ZN, GRN
- Wt./C 148 Lbs. (67.1 kg)



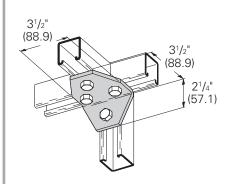
B533 Five Hole Gussetted Shelf Angle

- Standard finishes: ZN, GRN
- Wt./C 141 Lbs. (63.9 kg)



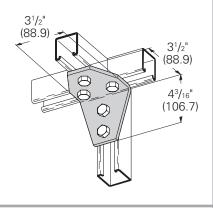
B126 Four Hole Gussetted Three Way Shelf Angle

- Standard finishes: ZN, GRN
- Wt./C 101 Lbs. (45.8 kg)



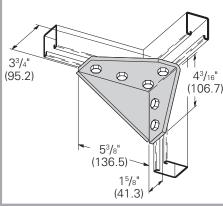
B127 Five Hole Gussetted Three Way Shelf Angle

- Standard finishes: ZN, GRN
- Wt./C 135 Lbs. (61.2 kg)



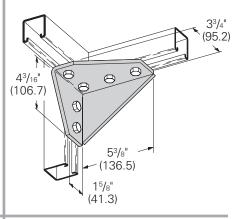
B503R Six Hole (Right Hand) Gussetted Corner Connection

- Standard finishes: ZN, GRN
- Wt./C 229 Lbs. (103.9 kg)



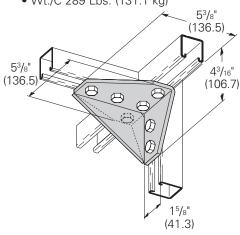
B503L Six Hole (Left Hand) Gussetted Corner Connection

- Standard finishes: ZN, GRN
- Wt./C 229 Lbs. (103.9 kg)



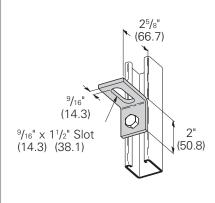
B663 Seven Hole Gussetted Corner Connection

- Standard finishes: ZN, GRN
- Wt./C 289 Lbs. (131.1 kg)



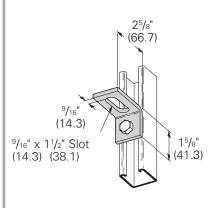
B371 Two Hole Adjustable Corner Angle

- Standard finishes: ZN, GRN
- Wt./C 41 Lbs. (18.6 kg)



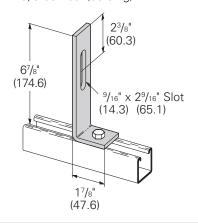
B372 Two Hole Adjustable Corner Angle

- Standard finishes: ZN, GRN
- Wt./C 38 Lbs. (17.2 kg)



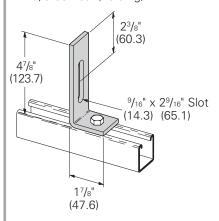
B496 Two Hole Adjustable Corner Angle

- Standard finishes: ZN, GRN
- Wt./C 85 Lbs. (38.5 kg)



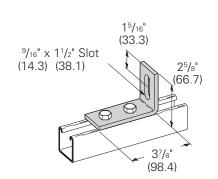
B496-1 Two Hole Adjustable Corner Angle

- Standard finishes: ZN, GRN, HDG
- Wt./C 58 Lbs. (26.3 kg)



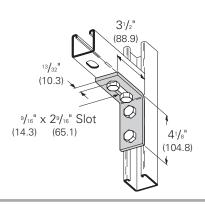
B371-2 Three Hole Adjustable Corner Angle

- Standard finishes: ZN, GRN
- Wt./C 61 Lbs. (27.6 kg)



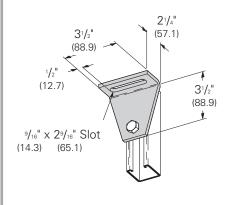
B104SH Three Hole Adjustable Corner Angle

- Standard finishes: ZN, GRN
- Wt./C 68 Lbs. (30.8 kg)



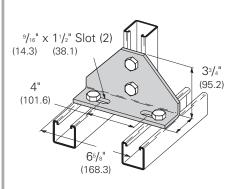
B461 Two Hole Adjustable Corner Angle

- Standard finishes: ZN, GRN
- Wt./C 87 Lbs. (39.4 kg)



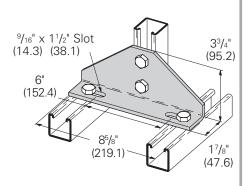
B112 Four Hole Adjustable Corner Angle

- Standard finishes: ZN, GRN
- Wt./C 180 Lbs. (81.6 kg)



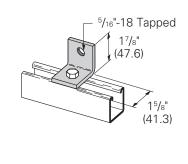
B113 Four Hole Adjustable Corner Angle

- Standard finishes: ZN, GRN
- Wt./C 256 Lbs. (116.1 kg)



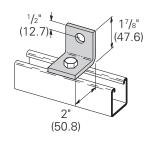
B109S Two Hole Tapped Corner Angle

- Standard finishes: ZN, GRN
- Wt./C 33 Lbs. (14.9 kg)



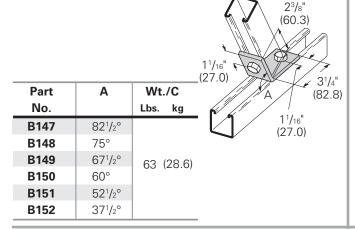
B521 Two Hole Bus Duct Angle

- Standard finishes: ZN, GRN
- Wt./C 37 Lbs. (16.8 kg)



B147-B152 Two Hole Open Angle

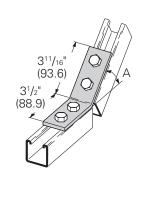
• Standard finishes: ZN, GRN



B243-B253 Four Hole Open Angle

• Standard finishes: ZN, GRN

Part	Α	Wt./C
No.		Lbs. kg
B243	7 ¹ / ₂ °	
B244	15°	
B245	22 ¹ / ₂ °	
B246	30°	
B247	37 ¹ / ₂ °	
B248	45°	77 (34.9)
B249	52 ¹ / ₂ °	
B250	60°	
B251	67 ¹ / ₂ °	
B252	75°	
B253	82 ¹ / ₂ °	



B162-B165

Part

No.

B162

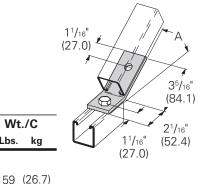
B163

B164

B165

Two Hole Open Angle

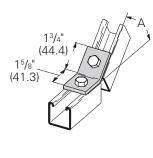
• Standard finishes: ZN, GRN



B322-B332		
Two Hole Open	Short	Angle

• Standard finishes: ZN, GRN

Part	Α	Wt./C
No.		Lbs. kg
B322	7 ¹ / ₂ °	
B323	15°	
B324	22 ¹ / ₂ °	
B325	30°	
B326	37 ¹ / ₂ °	
B327	45°	35 (15.9)
B328	52 ¹ / ₂ °	
B329	60°	
B330	67 ¹ / ₂ °	
B331	75°	
B332	82 ¹ / ₂ °	



B154

Two Hole Open Angle

• Standard finishes: ZN, GRN, SS4

Α

30°

15°

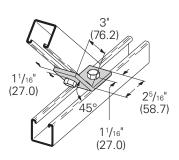
22¹/₂°

7¹/₂°

Wt./C

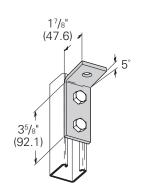
Lbs. kg

• Wt./C 58 Lbs. (26.3 kg)



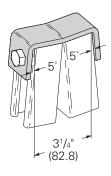
B522 Three Hole 95° **Open Angle Fitting**

- Standard finishes: ZN, GRN
- Wt./C 54 Lbs. (24.5 kg)



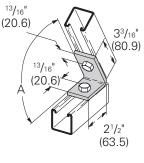
Two Hole Leg Connection

- Standard finishes: ZN, GRN
- Wt./C 100 Lbs. (45.3 kg)



B156 - B161 Two Hole Closed Angle • Standard finishes: ZN, GRN

Part	Α	Wt./C	
No.		Lbs.	kg
B156	82 ¹ / ₂ °		
B157	75°		
B158	67 ¹ / ₂ °	56	(25.4)
B159	60°		(==:.,
B160	52 ¹ / ₂ °		
B161	37 ¹ / ₂ °		

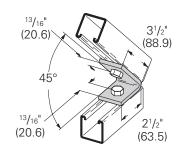


B155

Two Hole Closed Angle

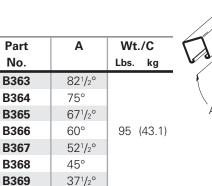
- Standard finishes: ZN, GRN, HDG, SS4
- Wt./C 63 Lbs. (28.6 kg)

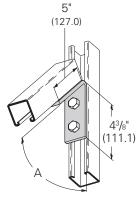
PA ZN GRN



B363 - B369 **Four Hole Closed Angle**

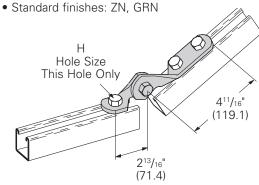
• Standard finishes: ZN, GRN





B335-2 SERIES

Three Hole Adjustable Hinge

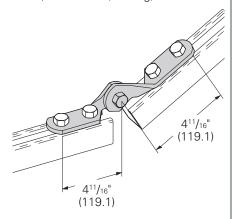


Part No. & Size	Hole Size H	Wt./C Lbs. kg
B335-2-3/8	⁷ / ₁₆ " (11.1)	96 (43.2)
B335-2-1/2	9/16" (14.3)	94 (42.3)
B335-2-5/8	¹¹ / ₁₆ " (17.4)	92 (41.4)
B335-2-3/4	¹³ / ₁₆ " (20.6)	90 (40.5)

B335

Four Hole Adjustable Hinge

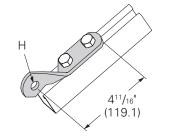
- Standard finishes: ZN, GRN
- Wt./C 110 Lbs. (49.9 kg)



B335V Three Hole Half Hinge

• Standard finishes: ZN, GRN

Part No.	Hole	Size H	W	t./C
& Size	ln.	mm	Lbs.	kg
B335V-1/2	9/16"	(14.3)	53	(24.1)
B335V-5/8	11/16"	(17.4)	54	(24.5)
B335V-3/4	¹³ / ₁₆ "	(20.6)	55	(24.9)



B335-1 Two Hole Adjustable Hinge

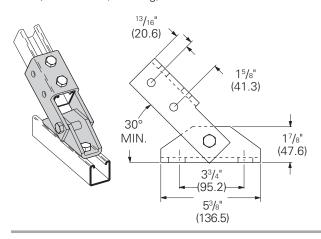
• Standard finishes: ZN, GRN

- Wt./C 78 Lbs. (35.4 kg)
- 213/16 (71.4)213/16" (71.4)

PA Pre-assembled fitting

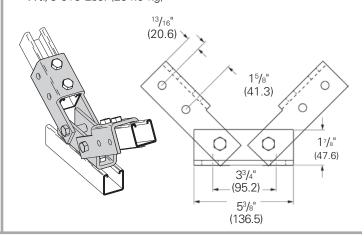
B634 Single Channel Adjustable Brace

- Standard finishes: ZN, GRN
- Wt./C 306 Lbs. (138.8 kg)



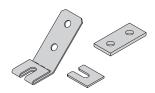
B635 Double Channel Adjustable Brace

- Standard finishes: ZN, GRN
- Wt./C 518 Lbs. (234.9 kg)

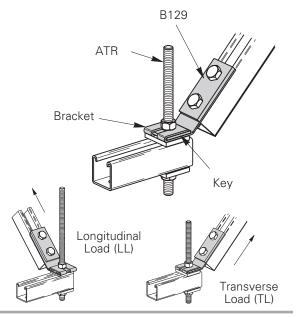


B650 SERIESSeismic Retrofit Bracket

- \bullet Available for $^3/8"$, $^1/2"$, $^5/8"$, and $^3/4"$ threaded rods.
- Allows installer to easily brace existing trapeze supports.
- Includes: Bracket, B129 plate, & key. Hardware sold separately.
- Standard finish: ZN, GRN



Part No.	For	TL		LL		Wt./C	
& Size	Rod Size	Lbs.	kN	Lbs.	kN	Lbs.	kg
B650-3/8	3/8"	1100	(4.89)	1100	(4.89)	92	(41.4)
B650-1/2	1/2"	1500	(6.67)	1500	(6.67)	97	(43.6)
B650-5/8	5/8"	1500	(6.67)	1500	(6.67)	95	(42.7)
B650-3/4	3/4"	1500	(6.67)	1500	(6.67)	107	(48.5)



B633

Adjustable Seismic Hinge Fitting

- Use ¹/₂" Bolt & Channel Nut on two hole side of Connector Fitting (Torque to 50 ft.-lbs.)
- Allows for swivel in two planes.
- Standard finish: ZN

Part No.	Α	В	Hole Size H	Wt./C
& Size	In. mm	In. mm	In. mm	Lbs. kg
B633-1/2	31/2" (82.5)	15/8" (41.3)	9/16" (14.3)	92 (41.4)
B633-5/8	31/2" (82.5)	15/8" (41.3)	¹¹ / ₁₆ " (17.4)	97 (43.6)
B633-3/4	31/2" (82.5)	15/8" (41.3)	¹³ / ₁₆ " (20.6)	95 (42.7)
B633-7/8	39/16" (90.5)	2" (50.8)	¹⁵ / ₁₆ " (23.8)	107 (48.5)
B633-1	39/16" (90.5)	2" (50.8)	11/16" (27.0)	120 (54.0)
B633-1 ¹ / ₈	39/16" (90.5)	2" (50.8)	13/16" (30.2)	104 (47.2)
B633-1 ¹ / ₄	37/8" (98.4)	21/4" (57.1)	15/16" (33.3)	114 (51.7)

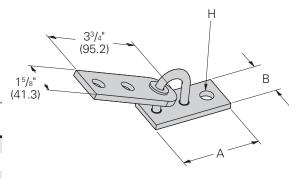
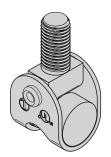


Fig. 75 Swivel Attachment

See page 89 for product information



SC228 Hanger Rod Stiffener

See page 91 for product information

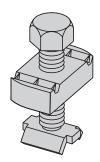


Fig. 98 Rod Stiffener

See page 91 for product information

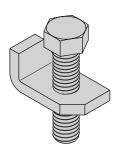


Fig. 98B Rod Stiffener with Break-Off Bolt Head

See page 91 for product information

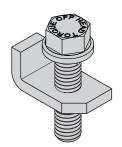


Fig. 69 Retaining Strap

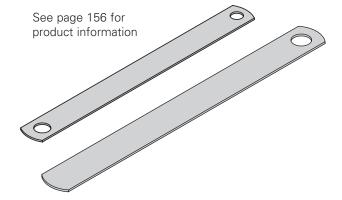


Fig. 69R Retrofit Retaining Strap

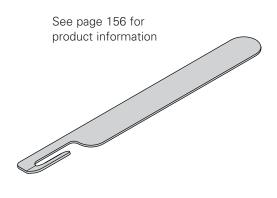


Fig. 65
Reversible Steel
C-Type Beam Clamp - 3/4"
(19.0mm) Throat Opening

See page 157 for product information

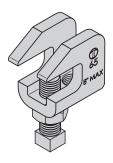


Fig. 65XT Reversible C-Type Beam Clamp

See page 157 for product information



Fig. 66 Reversible Steel C-Type Beam Clamp -11/4" (31.7mm) Throat Opening

See page 157 for product information



TOLCO Fig. 825 - bar joist sway brace attachment to steel

Size Range: Fits up to $^{3}/_{8}$ " (9.5mm) thick structural steel member. Accommodates all Fig. 900 Series sway brace attachments.

Material: Steel

Function: To attach sway brace assemblies and/or hanger assemblies to structural steel members.

Features: This product's design incorporates a concentric attachment point which is critical to the performance of structural seismic connections. NFPA 13 indicates the importance of concentric loading of connections and fasteners. Permits secure non-friction connection without

drilling or welding. Unique design reinforces point of connection to joist. Break off head set bolt design assures verification of proper installation torque (min. 31 lbs-ft (42.1N•m)).

Approvals: Underwriters Laboratories Listed in the USA and Canada (**cULus**). Approved by Factory Mutual Engineering (**FM**). Included in our Seismic Engineering Guidelines approved by the State of California Office of Statewide Health Planning and Development (**OSHPD**). For additional load, spacing and placement information relating to OSHPD projects, please refer to our Seismic Engineering Guidelines, OPM-0052-13.

Installation: Fig. 825 is the structural attachment component of a longitudinal or lateral sway brace assembly. It is intended to be combined with a TOLCO transitional attachment, "bracing pipe" and a TOLCO "braced pipe" attachment, to form a complete bracing assembly.

NFPA 13, FM DS 2-8, and/or OSHPD guidelines should be followed.

To Install: Place the Fig. 825 on the steel beam, tighten the cone point set bolts until heads break off. Attach other TOLCO transitional attachment fitting, Fig. 909, 910, 980, 986, or 990. Transitional fitting attachment can pivot for adjustment to proper brace angle.

Finish: Plain or Electro-Galvanized.

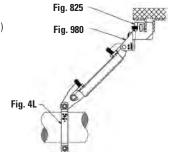
Weight: Approx. Wt./100 - 247.5 lbs. (112.2kg)

Order By: Figure number and finish

US Patent #6,098,942, Canada Patent #2,286,659

Note: Retaining strap not required

Maximum Design Load	
825W/909-1370 lbs	(5.78 KN)
825W/910-1500 lbs	(7.11 KN)
825W/980-1600 lbs	(8.45 KN)

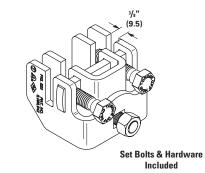


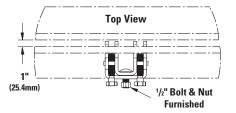
UL Listed as Hanger Attachment for 6" (150mm) pipe at Maximum Spacing

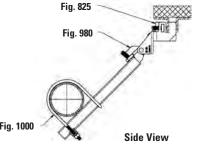
		Max. Horizontal Design Loads (FM)			
		30° - 44° lbf / (kN)	45° - 59° lbf / (kN)	60° - 74° lbf / (kN)	75° - 90° lbf / (kN)
Maximum	Perpendicular to	990	1360	1670	1860
³/8" Thick Flange	Structural Member	(4.40)	(6.05)	(7.43)	(8.27)
Maximum	Parallel to	460	630	770	860
³/8" Thick Flange	Structural Member	(2.04)	(2.80)	(3.42)	(3.82)

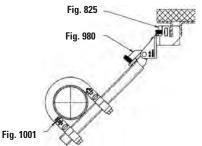
FM Approved design loads are based on ASD design method.

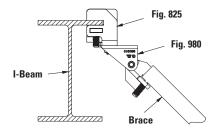












Eaton's B-Line series seismic bracing components are designed to be compatible only with other B-Line series bracing components, resulting in a listed seismic bracing assembly. Eaton B-Line Division warranty for seismic bracing components will be the warranty provided in Eaton B-Line Division standard terms and conditions of sale made available by Eaton, except that, in addition to the other exclusions from Eaton B-Line Division warranty, Eaton makes no warranty relating to B-Line series seismic bracing components that are combined with products not provided by Eaton.

TOLCO Fig. 825A - Bar Joist Sway Brace Attachment

Size Range: One size accommodates all Fig. 900 Series sway brace attachments. Maximum Horizontal Design Load 1600 lbs (7.11kN).

Material: Steel

Function: To attach sway bracing to steel open web structural members.

Features: This product's design incorporates a concentric attachment point which is critical to the performance of structural seismic connections. NFPA 13 indicates the importance of concentric loading of connections and fasteners. Permits secure non-friction connection without drilling or welding. Unique design reinforces point of connection to joist. Break off head bolt design assures verification of proper installation.

Approvals: Underwriters Laboratories Listed in the USA **(UL)** and Canada **(cUL)**. For additional load, spacing and placement information relating to OSHPD projects, please refer to the TOLCO Seismic Restraint Systems Guidelines.

Installation Instructions: Fig. 825A is the structural attachment component of a longitudinal or lateral sway brace assembly. It is intended to be combined with a TOLCO transitional attachment, "bracing pipe" and a TOLCO "braced pipe" attachment to form a complete bracing assembly. NFPA 13 and/or OSHPD guidelines should be followed.

To Install: Place the Fig. 825A on the steel beam, tighten the cone point set screws until heads break off. Attach other TOLCO transitional attachment fitting, Fig. 909, 910, 980 or 986. Transitional fitting attachment can pivot for adjustment to proper brace angle.

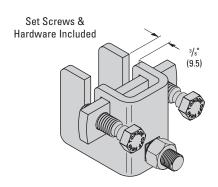
Finish: Plain or Electro-Galvanized

Approx. Wt./100: 154.5 Lbs. (70.1kg)

Order By: Figure number and finish

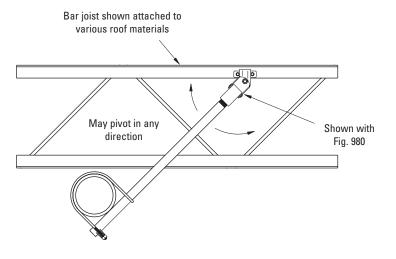
Patent #6,098,942





Maximum Design Load 1600 lbs.





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TOLCO Fig. 828 - universal sway brace attachment to steel

Size Range: One size accommodates all Fig. 900 Series sway brace attachments. Fits from 3/8" (9.4mm) to 7/8" (22.2mm) thick steel structure. For thicknesses less than 3/8" (9.4mm) refer to Fig. 825 and Fig. 825A.

Material: Steel

Function: To attach sway bracing and/ot hangers to various types of steel structural

Features: Permits secure non-friction connection without drilling or welding. Unique design allows offset placement on wide flange beam, C-channel, open web, welded steel trusses, etc. Secures brace to structure either across or along the beam. Break-off set bolts allow for visual verification of proper installation torque.

Approvals: Underwriters Laboratories Listed in the USA and Canada (cULus). Included in our Seismic Engineering Guidelines approved by the State of California Office of Statewide Health Planning and Development (OSHPD). For additional load, spacing and placement information relating to OSHPD projects, please refer to our Seismic Engineering Guidelines, OPM-0052-13.

For FM Approval information refer to FM Approved page 53.

Installation Instructions: The Fig. 828 is the structural attachment component of a longitudinal or lateral sway brace assembly. It is intended to be combined with a TOLCO transitional attachment, "bracing pipe" and a TOLCO "braced pipe" attachment to form a complete bracing assembly. NFPA 13 guidelines should

To Install: Slide the Fig. 828 on the flange of the beam, truss, or girder. Be sure the attachment is fully engaged to the rear of the opening. Tighten the cone point set screws until the heads break off. Remove the flange nut from the carriage bolt. Install a TOLCO swivel fitting (Fig, 909, 910, 980, *986). Use flange nut to secure the swivel fitting.

*Not UL listed when used in combination with Fig. 986

Finish: Plain or Electro-Galvanized Approx. Weight/100: 341 Lbs. (154.7 kg) Order By: Figure number and finish

Patent Pending

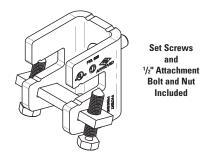
Note: Retaining strap not required.







and



Flange thickness	Maximum UL Rated load
.375"499"	1090 lbs. (4.84kN)
.500"875"	1370 lbs. (6.09kN)



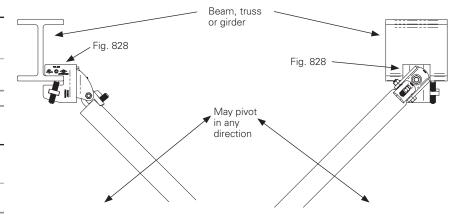
FM Approved Allowable Horizontal Load With Brace Perpendicular To Beam

Brace	Brace Angle (degrees from vertical)							
30°-44°	45°-59°	60°-74°	75°-90°					
980 (4.350kN)	2220 (9.780kN)	3340 (14.850kN)	4040 (17.970kN)					

FM Approved Allowable Horizontal Load With Brace Parallel To Beam

Brace Angle (degrees from vertical)							
30°-44°	45°-59°	60°-74°	75°-90°				
820	1270	1490	1650				
(3.640kN)	(5.640kN)	(6.620kN)	(7.330kN)				

FM Approved design loads are based on ASD design method.



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TOLCO Fig. 980 - Universal swivel sway brace attachment - $^{3}/_{8}$ " to $^{3}/_{4}$ " mounting hardware TOLCO Fig. 980H - Universal swivel sway brace attachment - $^{7}/_{8}$ " to $^{11}/_{4}$ " mounting hardware

Size Range: One size fits bracing pipe 1" (25mm) thru 2" (50mm), B-Line series 12 gauge (2.6mm) channel.

Material: Carbon steel

Function: Multi-functional attachment to structure or braced pipe fitting.

Features: This product's design incorporates a concentric attachment opening which is critical to the performance of structural seismic connections and in accordance with NFPA 13, 2019 Section 18.5.11.5. The Fig. 980 mounts to any surface angle and the break off bolt head assures verification of proper installation.

Installation: Fig.980 is the structural or transitional attachment component of a longitudinal or lateral sway brace assembly. It is intended to be combined with the "bracing pipe" and TOLCO™ "braced pipe" attachment, Fig. 1001, 2002, 3000, 4L or approved attachment to pipe to form a complete bracing assembly. NFPA 13 guidelines should be followed.

To Install: Place the Fig. 980 onto the "bracing pipe". Tighten the set bolt until the head breaks off. Attachment can pivot for adjustment to proper brace angle.

Approvals: —Underwriters Laboratories Listed in the USA **(UL)** and Canada **(cUL)**. UL Listed for the following brace member type pipes: Sch. 40, KSD 3562. Ask the factory for additional information as it may vary by product size. Included in our Seismic Engineering Guidelines approved by the State of California Office of Statewide Health Planning and Development **(OSHPD)**. For additional load, spacing and placement information relating to OSHPD projects, please refer to our Seismic Engineering Guidelines, OPM-0052-13. For FM Approval information refer to FM Approved page 61.

Note: Fig. 980 Swivel Attachment and Fig. 1001, 2002, 3000, 4L, or approved attachment to pipe make up a sway brace system of UL Listed attachments and bracing materials which satisfies the requirements of Underwriters Laboratories and the National Fire Protection Association **(NFPA)**

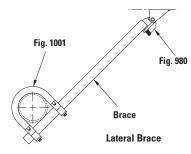
Finish: Plain, Electro-Galvanized or Stainless Steel.

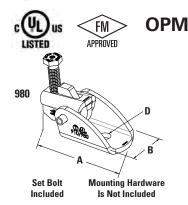
Contact customer service for alternative finishes.

Order By: Figure number and finish.

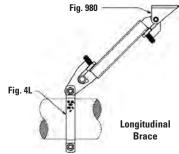
Pat. #6,273,372, Pat. #6,517,030, Pat. #6,953,174, Pat. #6,708,930, Pat. #7,191,987, Pat. #7,441,730,

Pat. #7,669,806









		Α		В	D	**	Max. Design	Max. D	esign Lo	ad*** (FM)	Approx	.Wt./100
Catalog #	in.	(mm)	in.	(mm)	in.	(mm)	Load (cULus) lbs./(kN)	30°-44° lbs./(kN)	45°-59° lbs./(kN)	60°-74° lbs./(kN)	75°-90° lbs./(kN)	lbs.	(kg)
980-3/8					⁷ / ₁₆	(11.1)	1600 (7.12)					149	(67.6)
980-1/2	40.	(4440)	01/	(=0.4)	9/16	(14.3)	2100 (9.34)	2370	2790	3360	3750	148	(67.1)
980-5/8	4 ³ /16	(114.9)	2'/16	(52.4)	11/16	(17.5)	2100 (9.34)	(10.54)	(12.41)	(14.94)	(16.68)	147	(66.7)
980-3/4					¹³ / ₁₆	(20.6)	2100 (9.34)					146	(66.2)
980H- ⁷ /8					¹⁵ / ₁₆	(23.8)	Fig. 980H is					402	(182.3)
980H-1	031	(4 7 4 4)	01/	(00.0)	1 ¹ / ₁₆	(27.0)	not UL Listed	Fig.	980H is r	not UL Li	sted	400	(181.4)
980H-1 ¹ / ₈	63/4	(171.4)	3'/2	(88.9)	13/16	(30.2)	or FM		or FM A	pproved		397	(180.1)
980H-1 ¹ / ₄					1 ⁵ / ₁₆	(33.3)	Approved					390	(176.9)

^{*} Sizes available in stainless steel (980S-3/8, 980S-1/2, 980S-5/8, and 980S-3/4) and have the same UL rating as what is listed.

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^{**} Mounting attachment hole size.

^{***} Installed with 1" or 11/4 "schedule 40 brace pipe.

TOLCO Fig. 981 - Fast attach – universal swivel sway brace attachment

Size Range: Fits bracing pipe 1" (25mm) thru 2" (50mm), 12 gauge (2.6mm)

channel and all structural steel up to 1/4" (6.3mm) thick.

Fig. 981-S fits rod sizes $^3/_8$ " thru $^5/_8$ ". Fig. 981-L fits rod sizes $^3/_4$ " thru $^7/_8$ ".

Material: Steel

Function: Multi-functional attachment to hanger rod, trapeze rod, structure or

braced pipe fitting.

Features: Fits multiple sizes of bracing pipe, strut or structural steel. Swivel allows adjustment to various surface angles. Breakaway bolt heads assure verification of proper installation torque. Unique "fast attach" yoke design fits multiple rod sizes; ³/₈" thru ⁵/₈" and ³/₄" thru ⁷/₈". "Stackable" design allows installation of both lateral and longitudinal braces to be easily installed on a single hanger rod, with no disassembly.

Installation: Fig. 981 is the "braced pipe" attachment component of a lateral or longitudinal brace assembly. It is intended to be combined with the pipe hanger, all-thread rod, "bracing pipe" and TOLCO transitional and structural attachment component(s) to form a complete bracing assembly. NFPA 13 and or OSHPD guidelines should be followed.

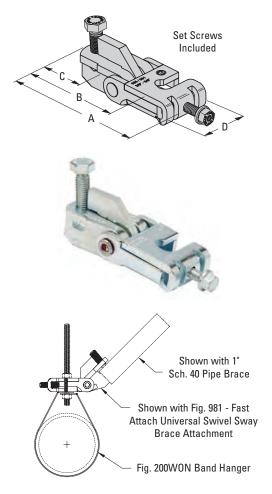
To Install: Spin nut on top of hanger counterclockwise to loosen the nut and raise it above the top of the hanger. Attach Fig. 981 by slipping the open side of the 981 yoke onto the all thread rod above the top of the hanger. Tighten ³/s" cone point set screw on yoke until head breaks-off to ensure proper installation torque. Spin the hex nut clockwise and tighten securely. Insert brace pipe into the jaw of the 981 and tighten the cone point set screw until the head breaks off ensuring proper installation torque. Pivot brace pipe to proper angle and attach to structure using a TOLCO swivel structural attachment.

Finish: Electro-Galvanized

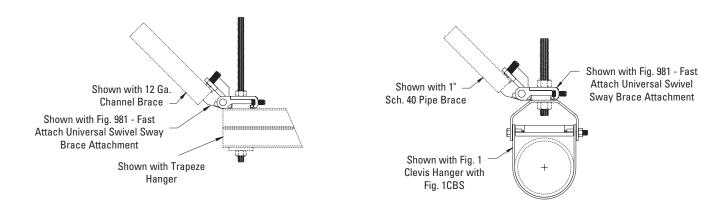
Order By: Figure number, rod size

US Patent Numbers

Pat. #6,273,372, Pat. #7,097,141, Pat. #7,654,043, Pat. #7,654,043 B2



Part Number	Rod Size Range	A in. (mm)	B in. (mm)	C in. (mm)	D in. (mm)	Max. Horizontal Design Load lbs. (kN)	Approx. Wt./100 lbs. (kg)
981-S	3/8" thru 5/8"	51/8" (130.2)	41/8" (104.8)	11/4" (31.7)	21/4" (57.1)	2015 (8.96)	88 (39.9)
981-L	³ / ₄ " & ⁷ / ₈ "	51/8" (130.2)	41/8" (104.8)	11/4" (31.7)	21/4" (57.1)	2015 (8.96)	82 (37.2)



Set Screw

Included

TOLCO Fig. 985 - mechanical fast clamp

Size Range: Fig. 985-S fits rod sizes 3/8" thru 5/8"

Fig. 985-L fits rod sizes 3/4" thru 7/8" rod sizes

Material: Steel

Function: Used for attachment of seismic bracing to pipe hanger or trapeze

Features: Allows up to 12" (304.8mm) of adjustability in brace length, when used with Fig. 986. Break-off set screw heads visually verify required installation torque. Unique "Fast Attach" yoke design allows Fig. 985 to be installed to

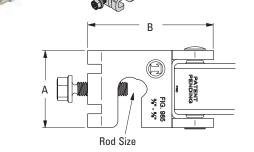
hanger rods 3/8" thru 5/8" or 3/4" thru 7/8"

Finish: Electro-galvanized

Order By: Figure number, rod size & finish

Patent Pending

Part Number	Rod Size	A in. (mm)	B in. (mm)	Max. Horizontal Design Load Ibs. (kN)	Approx. Wt./100 lbs. (kg)
985-S	3/8" thru 5/8"	2" (50.8)	11/2" (38.1)	2015 (8.96)	204 (92.5)
985-L	³ / ₄ " & ⁷ / ₈ "	2" (50.8)	15/8" (41.3)	2015 (8.96)	198 (89.8)



TOLCO Fig. 986 - Mechanical Fast Clamp

Size Range: Available with holes for 1/2"-13 thru 3/4"-10 fastener attachment.

Material: Steel

Function: Used for attachment of seismic bracing to structure or hanger.

Features: Allows up to 12" (304.8mm) of adjustability in brace length, when used with Fig. 985. Break-off set screw heads visually verify required installation torque. Swivel allows adjustment to various surface angles.

Finish: Electro-galvanized

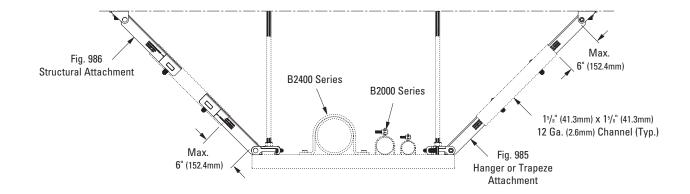
Order By: Figure number, rod size & finish

Patent Pending

Part Number	Rod Size	Hole Dia. D	Max. Horizontal Design Load*	Approx. Wt./100
		in. (mm)	lbs. (kN)	lbs. (kg)
986- 1/2	1/2"	9/16" (14.3)	2015 (8.96)	204 (92.5)
986-5/8	5/8"	11/16" (17.5)	2015 (8.96)	203 (92.1)
986-3/4	3/4"	¹³ / ₁₆ " (20.6)	2015 (8.96)	202 (91.6)

^{*} When used with 15/8" (41.3mm) x 15/8" (41.3mm) 12 Ga. (2.6mm) channel

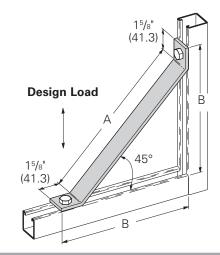




B261 - Two Hole 45° Knee Brace

- Standard finishes: ZN, GRN
- Design load determined by testing using a B335 hinged corner connection.
- Load ratings are for brace members only. Do not exceed allowable beam or column loads for strut channels.
- Safety Factor of 3

Part No.	ln.	A	ln.	B	Design	Load	Wt	t./C kg
B261-8	8"	(203.2)	7 ³ / ₈ "		1500			(54.0)
	_	. ,	, .	,		(6.67)	119	(/
B261-12	12"	(304.8)	10 ¹ / ₈ "	(257.2)	1020	(4.54)	165	(74.8)
B261-16	. , .	" (422.3)	13 ³ / ₈ "	(339.7)	530	(2.36)	218	(98.9)
B261-18	18"	(457.2)	, .	(366.7)		(2.00)	-	(106.1)
B261-24	24"	(609.6)	1811/16	" (474.7)	250	(1.11)	303	(137.4)
B261-36	36"	(914.4)	273/16"	(690.6)	110	(.49)	441	(200.0)

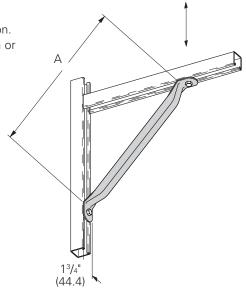


Design Load

B631 - Two Hole 45° Tubing Knee Brace

- 1" (25.4) Square steel tubing
- Material: ASTM A513
- Standard finishes: ZN, GRN
- Design load determined by testing using a B335 hinged corner connection.
- Load ratings are for brace members only. Do not exceed allowable beam or column loads for strut channels.
- Safety Factor of 3

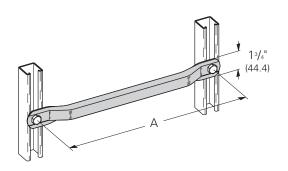
Part	Α	Design Load	Wt./C
No.	ln. mm	Lbs. kN	Lbs. kg
B631-18	18" (457.2)	1500 (6.67)	145 (65.8)
B631-24	24" (609.6)	1500 (6.67)	186 (84.4)
B631-30	30" (762.0)	1500 (6.67)	225 (102.0)
B631-36	36" (914.4)	1500 (6.67)	266 (120.6)
B631-42	42" (1066.8)	1230 (5.47)	307 (139.2)
B631-48	48" (1219.2)	940 (4.18)	348 (157.8)
B631-54	54" (1371.6)	740 (3.29)	389 (176.4)
B631-60	60" (1524.0)	600 (2.67)	430 (195.0)
B631-72	72" (1828.8)	420 (1.87)	508 (230.4)
B631-84	84" (2133.6)	310 (1.38)	589 (267.2)
B631-96	96" (2438.4)	240 (1.07)	669 (303.5)



B632 - Two Hole Straight Tubing Brace

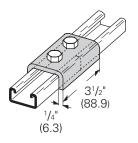
- 1" (25.4) Square steel tubing
- Material: ASTM A513
- Standard finishes: ZN, GRN

Part	Α	Wt./C
No.	ln. mm	Lbs. kg
B632-18	18" (457.2)	133 (60.3)
B632-24	24" (609.6)	174 (78.9)
B632-30	30" (762.0)	215 (97.5)
B632-36	36" (914.4)	256 (116.1)
B632-42	42" (1066.8)	295 (133.8)
B632-48	48" (1219.2)	335 (151.9)
B632-54	54" (1371.6)	380 (172.3)
B632-60	60" (1524.0)	420 (190.5)
B632-72	72" (1828.8)	500 (226.8)
B632-84	84" (2133.6)	585 (265.3)
B632-96	96" (2438.4)	670 (303.9)



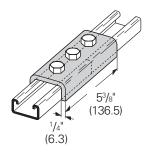
B169 Two Hole Splice Clevis For B52

- Standard finishes: ZN, GRN
- Wt./C 84 Lbs. (38.1 kg)



B168 Three Hole Splice Clevis For B52

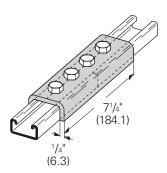
- Standard finishes: ZN, GRN
- Wt./C 126 Lbs. (57.1 kg)



B167 Four Hole Splice Clevis For B52

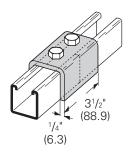
- Standard finishes: ZN, GRN
- Wt./C 178 Lbs. (80.7 kg)

PA GRN



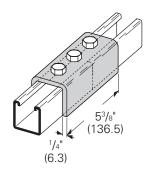
B170 Two Hole Splice Clevis For B22 or B52A

- Standard finishes: ZN, GRN
- Wt./C 123 Lbs. (55.8 kg)



B171 Three Hole Splice Clevis For B22 or B52A

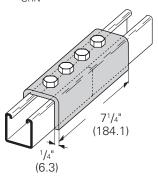
- Standard finishes: ZN, GRN
- Wt./C 195 Lbs. (88.4 kg)



B172 Four Hole Splice Clevis For B22 or B52A

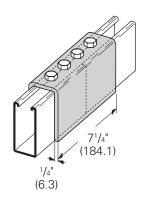
- Standard finishes: ZN, GRN
- Wt./C 266 Lbs. (120.6 kg)

PA ZN GRN



B172-12 Four Hole Splice Clevis For B12

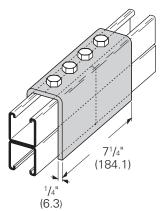
- Standard finishes: ZN, GRN
- Wt./C 326 Lbs. (147.8 kg)



B172-22A Four Hole Splice Clevis For B11 or B22A

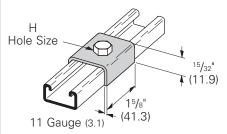
- Standard finishes: ZN, GRN
- Wt./C 406 Lbs. (184.1 kg)

PA GRN



B450 U-Washer

- Material: ASTM A1011 HSLAS Gr. 50
- Standard finishes: ZN, GRN

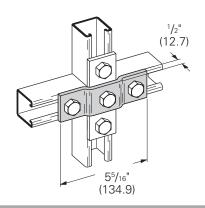


Part No.	Hole Size H	Wt./C
& Size	Lbs. kg	Lbs. kg
B450-1/4	⁵ / ₁₆ " (7.9)	14 (6.3)
B450-3/8	⁷ / ₁₆ " (11.1)	14 (6.3)
B450-1/2	9/16" (14.3)	13 (5.8)
B450-5/8	¹¹ / ₁₆ " (17.4)	13 (5.8)
B450-3/4	¹³ / ₁₆ " (20.6)	13 (5.8)

PA Pre-assembled fitting.

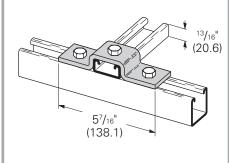
B527 Three hole offset plate connection

- Standard finishes: ZN, GRN
- Wt./C 54 Lbs. (24.5 kg)



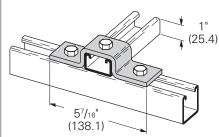
B116-52 Three hole u-support

- Standard finishes: ZN, GRN
- Wt./C 70 Lbs. (31.7 kg)



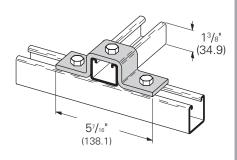
B116-42 Three hole U-support

- Standard finishes: ZN, GRN
- Wt./C 75 Lbs. (34.0 kg)



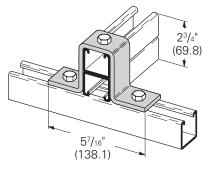
B116-32 Three Hole U-Support

- Standard finishes: ZN, GRN
- Wt./C 84 Lbs. (38.1 kg)



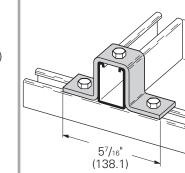
B116-32A Three Hole U-Support

- Standard finishes: ZN, GRN
- Wt./C 116 Lbs. (52.6 kg)



B116-12 Three Hole U-Support

- Standard finishes: ZN, GRN
- Wt./C 108 Lbs. (49.0 kg)



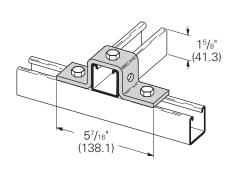
27/16"

(61.9)

B107 Five Hole U-Support

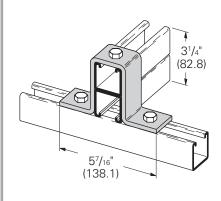
- Standard finishes: ZN, GRN, HDG
- Wt./C 85 Lbs. (38.5 kg)

PA ZN GRN



B107-22A Three Hole U-Support

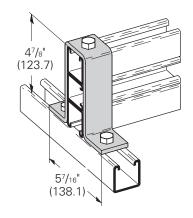
- Standard finishes: ZN, GRN
- Wt./C 126 Lbs. (57.1 kg)



3588

Three Hole U-Support

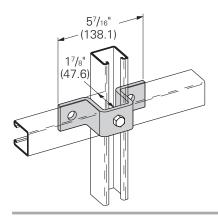
- Standard finishes: ZN, GRN
- Wt./C 157 Lbs. (71.2 kg)



PA Pre-assembled fitting.

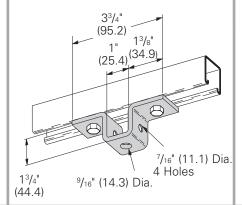
B412 Three Hole Offset U-Support

- Standard finishes: ZN, GRN
- Wt./C 89 Lbs. (40.3 kg)



B107S Five Hole U-Support

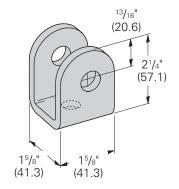
- Material: 7 Gauge (4.5)
 ASTM A1011 33,000 PSI min. yield
- Standard finishes: ZN, GRN
- Wt./C 51 Lbs. (23.1 kg)



B596

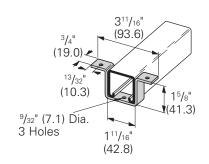
Three Hole Swivel Clevis

- Material: 7 Gauge (4.5)
- Standard finishes: ZN, GRN
- Wt./C 53 Lbs. (24.0 kg)



B578 Three Hole Light-Weight U-Support

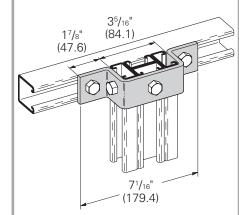
- Material: 10 Gauge (3.4) ASTM A1011 HSLAS Gr. 50
- Standard finishes: ZN, GRN
- Wt./C 18 Lbs. (8.1 kg)



B594

Five Hole U-Support

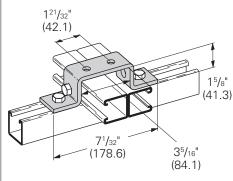
- Standard finishes: ZN, GRN
- Wt./C 106 Lbs. (48.1 kg)



B266

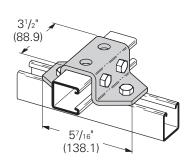
Six Hole U-Support

- Standard finishes: ZN, GRN
- Wt./C 105 Lbs. (47.6 kg)



B425 Six Hole U-Support

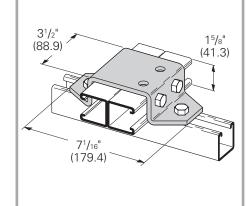
- Standard finishes: ZN, GRN
- Wt./C 167 Lbs. (75.7 kg)



B581

Eight Hole U-Support

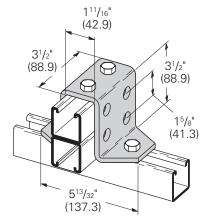
- Standard finishes: ZN, GRN
- Wt./C 201 Lbs. (91.2 kg)



3519

Eight Hole U-Support

- Standard finishes: ZN, GRN
- Wt./C 266 Lbs. (102.5 kg)

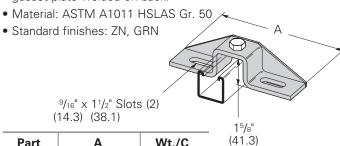


B333 Slotted Three Hole U-Support For B22 • Standard finishes: ZN, GRN 9/16" × 11/2" Slots (2) (14.3) (38.1)

Part	Α		В		С		Wt./C	
No.	ln.	mm	ln.	mm	ln.	mm	Lbs.	kg
B333-1	71/2" (1	90.5)	¹⁵ / ₁₆ "	(33.3)	2 ⁷ /8"	(73.0)	103	(46.7)
B333-2	81/2" (2	215.9)	1 15/16"	(49.2)	33/8"	(85.7)	115	(52.1)
B333-3	103/8" (2	263.5)	27/8"	(73.0)	45/16"	(109.5)	135	(61.2)

B451 Slotted Three Hole U-Support With Gusset For B22

 Consists of B333-1, 2, or 3 with gusset plate welded on back.



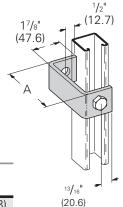
Part No.	A Wt./C Lbs. kg	
B451-1	7 ¹ /2" (190.5) 137 (62.1)	
B451-2	8 ¹ / ₂ " (215.9) 156 (70.7)	
B451-3	10 ³ /8" (263.5) 172 (78.0)	

(203.2)

B408

Two Hole Bus Duct Clevis

• Standard finishes: ZN. GRN

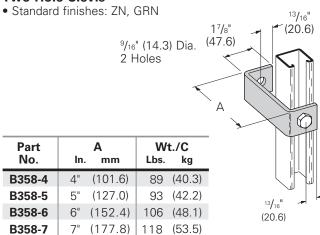


Part No.	A In. mm	Wt./C Lbs. kg		
B408-1	213/32" (61.1)	58 (26.3)		
B408-2	3 ²⁵ / ₃₂ " (96.0)	76 (34.5)		
B408-3	43/4" (762.0)	88 (39.9)		

B358

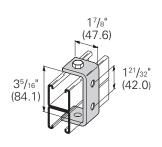
B358-8

Two Hole Clevis



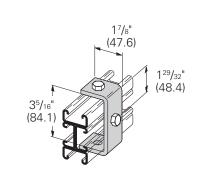
B173 Four Hole Clevis

- Standard finishes: ZN, GRN
- Wt./C 71 Lbs. (32.2 kg)



B595 Three Hole Clevis

- Standard finishes: ZN, GRN
- Wt./C 75 Lbs. (34.0 kg)



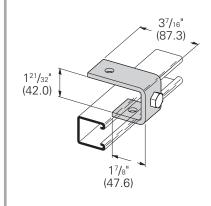
B405 Three Hole Suspension Clevis

132

• Standard finishes: ZN, GRN

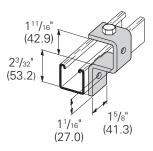
(59.9)

• Wt./C 75 Lbs. (34.0 kg)



B398-1 Three Hole Cup Support

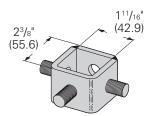
- Standard finishes: ZN, GRN
- Wt./C 73 Lbs. (33.1 kg)



B400

Three Stud Ring Connection

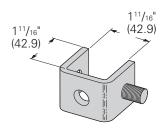
- 1/2"-13 stud protrudes 1" (25.4mm)
- Standard finishes: ZN
- Wt./C 85 Lbs. (38.5 kg)



B400-1

One Stud Ring Connection

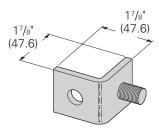
- 1/2"-13 stud protrudes 1" (25.4mm)
- Standard finishes: ZN
- Wt./C 53 Lbs. (24.0 kg)



B400-2

One Stud Ring Connection

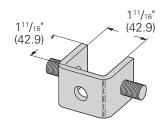
- 1/2"-13 stud protrudes 1" (25.4mm)
- Standard finishes: ZN
- Wt./C 40 Lbs. (18.1 kg)



B400-3

Two Stud Ring Connection

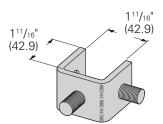
- 1/2"-13 stud protrudes 1" (25.4mm)
- Standard finishes: ZN
- Wt./C 59 Lbs. (26.7 kg)



B400-4

Two Stud Ring Connection

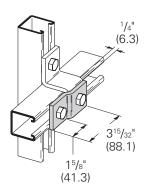
- 1/2"-13 stud protrudes 1" (25.4mm)
- Standard finishes: ZN
- Wt./C 59 Lbs. (26.7 kg)



B526

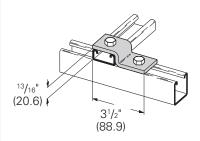
Two Hole Offset Z-Support

- Standard finishes: ZN, GRN
- Wt./C 38 Lbs. (17.2 kg)



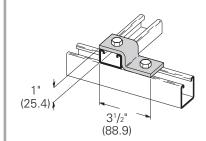
B106-52 Two Hole Offset Z-Support for B52

- Standard finishes: ZN, GRN
- Wt./C 40 Lbs. (18.1 kg)



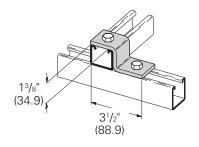
B106-42 Two Hole Offset Z-Support for B42

- Standard finishes: ZN, GRN
- Wt./C 44 Lbs. (20.0 kg)



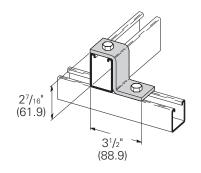
B106-32 Two Hole Offset Z-Support for B32

- Standard finishes: ZN, GRN
- Wt./C 51 Lbs. (23.1 kg)



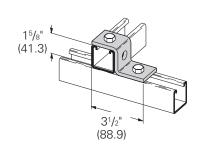
B106-12 Two Hole Offset Z-Support for B12

- Standard finishes: ZN, GRN
- Wt./C 63 Lbs. (28.6 kg)



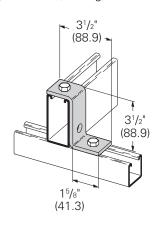
B105 Three Hole Offset Z-Support for B22

- Standard finishes: ZN, GRN, HDG
- Wt./C 51 Lbs. (23.1 kg)



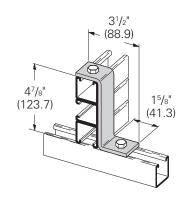
B110 Three Hole Offset Z-Support for B11

- Standard finishes: ZN, GRN
- Wt./C 70 Lbs. (31.7 kg)



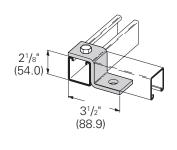
B586 Two Hole Z-Support

- Standard finishes: ZN, GRN
- Wt./C 90 Lbs. (40.8 kg)



B108 Two Hole Offset Z-Support

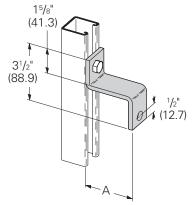
- Standard finishes: ZN, GRN
- Wt./C 55 Lbs. (24.9 kg)



B387

Two Hole Z-Bus Duct Connection

• Standard finishes: ZN, GRN

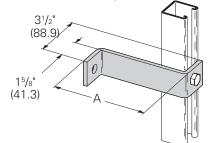


Part		A	Wt./C		
No.	ln.	mm	Lbs.	kg	
B387	43/4"	(120.6)	89	(40.3)	
B387-1	3 ²⁵ / ₃₂	(96.0)	78	(35.4)	
B387-2	213/32	(61.1)	62	(28.1)	

B407

Two Hole Z-Sopport

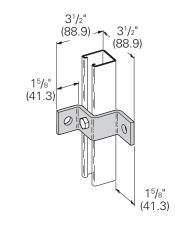
• Standard finishes: ZN, GRN



Part	Α	Wt./C		
No.	In. mm	Lbs. kg		
B407-4	4" (101.6)	77 (34.9)		
B407-5	5" (127.0)	95 (43.1)		
B407-6	6" (152.4)	98 (44.4)		
B407-7	7" (177.8)	105 (47.6)		
B407-8	8" (203.2)	120 (54.4)		
B407-9 ⁵ /8	95/8" (244.5)	138 (62.6)		

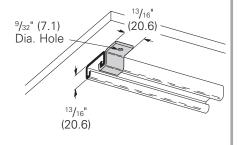
B111 Three Hole Sheath Corner Connection

- Standard finishes: ZN, GRN
- Wt./C 68 Lbs. (30.8 kg)



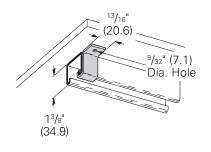
B410-52 Channel Hanger Bracket for B52

- Material: 11 Gauge (3.0) ASTM A1011 HSLAS Gr. 50
- Standard finishes: ZN, GRN
- Wt./C 6.7 Lbs. (3.0 kg)



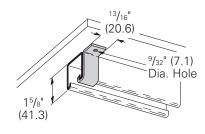
B410-32 Channel Hanger Bracket for B32

- Material: 11 Gauge (3.0) ASTM A1011 HSLAS Gr. 50
- Standard finishes: ZN, GRN
- Wt./C 8.3 Lbs. (3.7 kg)



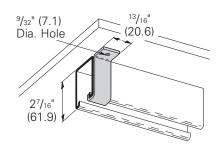
B410-22 Channel Hanger Bracket for B22

- Material: 11 Gauge (3.0) ASTM A1011 HSLAS Gr. 50
- Standard finishes: ZN, GRN
- Wt./C 9 Lbs. (4.1 kg)



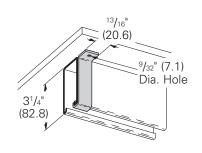
B410-12 Channel Hanger Bracket for B12

- Material: 11 Gauge (3.0) ASTM A1011 HSLAS Gr. 50
- Standard finishes: ZN, GRN
- Wt./C 11.2 Lbs. (5.1 kg)



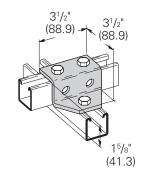
B410-11 Channel Hanger Bracket for B11

- Material: 11 Gauge (3.0)
 ASTM A1011 HSLAS Gr. 50
- Standard finishes: ZN, GRN
- Wt./C 13.4 Lbs. (6.1 kg)



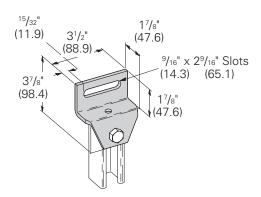
B580 Five Hole Gussetted Z-Support

- Standard finishes: ZN. GRN.
- Wt./C 100 Lbs. (45.3 kg)



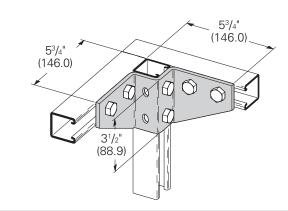
B515 Adjustable Offset Gussetted Z-Support

- Standard finishes: ZN, GRN
- Wt./C 93 Lbs. (42.2 kg)



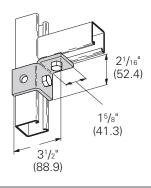
B428 Eight Hole Gussetted Corner Connection

- Standard finishes: ZN, GRN
- Wt./C 203 Lbs. (92.1 kg)



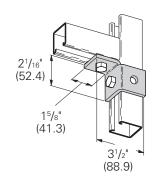
B267R Three Hole Single Corner Connection (Right Hand)

- Standard finishes: ZN, GRN
- Wt./C 54 Lbs. (24.5 kg)



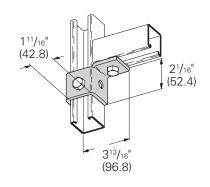
B267L Three Hole Single Corner Connection (Left Hand)

- Standard finishes: ZN, GRN
- Wt./C 54 Lbs. (24.5 kg)



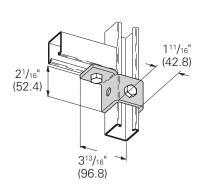
B270R Four Hole Single Corner Connection (Right Hand)

- Standard finishes: ZN, GRN
- Wt./C 77 Lbs. (34.9 kg)



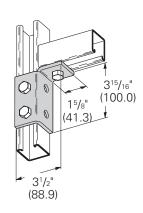
B270L Four Hole Single Corner Connection (Leftt Hand)

- Standard finishes: ZN, GRN
- Wt./C 77 Lbs. (34.9 kg)



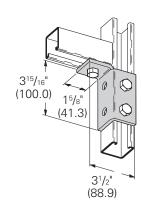
B268R Five Hole Single Corner Connection (Right Hand)

- Standard finishes: ZN, GRN
- Wt./C 100 Lbs. (45.3 kg)



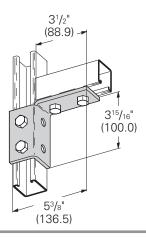
B268L Five Hole Single Corner Connection (Left Hand)

- Standard finishes: ZN, GRN
- Wt./C 100 Lbs. (45.3 kg)



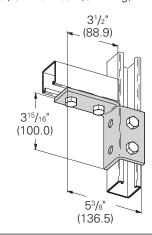
B269R Six Hole Single Corner Connection (Right Hand)

- Standard finishes: ZN, GRN
- Wt./C 120 Lbs. (54.4 kg)



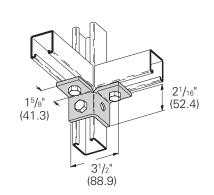
B269L Six Hole Single Corner Connection (Left Hand)

- Standard finishes: ZN, GRN
- Wt./C 120 Lbs. (54.4 kg)



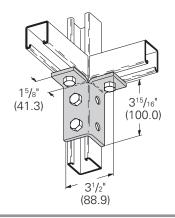
B119 Six Hole Double Corner Connection

- Standard finishes: ZN, GRN
- Wt./C 71 Lbs. (32.2 kg)



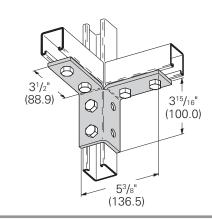
B120 Six Hole Double Corner Connection

- Standard finishes: ZN, GRN
- Wt./C 110 Lbs. (49.9 kg)



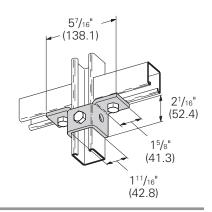
B121 Eight Hole Double Corner Connection

- Standard finishes: ZN, GRN
- Wt./C 152 Lbs. (68.9 kg)



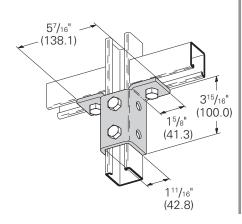
B271 Five Hole Double Wing Connection

- Standard finishes: ZN, GRN
- Wt./C 95 Lbs. (43.1 kg)



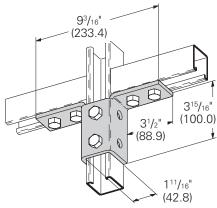
B272 Eight Hole Double Wing Connection

- Standard finishes: ZN, GRN
- Wt./C 156 Lbs. (70.7 kg)



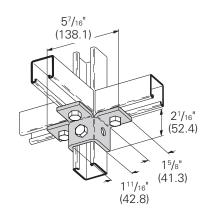
B273 Ten Hole Double Wing Connection

- Standard finishes: ZN, GRN
- Wt./C 185 Lbs. (83.9 kg)



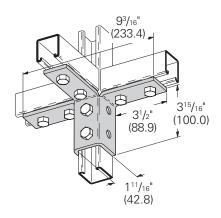
B122 Six Hole Triple Wing Connection

- Standard finishes: ZN, GRN
- Wt./C 110 Lbs. (49.9 kg)



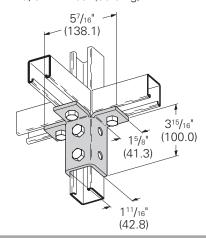
B123 Twelve Hole Triple Wing Connection

- Standard finishes: ZN, GRN
- Wt./C 234 Lbs. (106.1 kg)



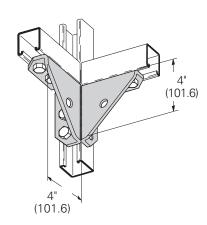
B124 Nine Hole Triple Wing Connection

- Standard finishes: ZN, GRN
- Wt./C 177 Lbs. (80.3 kg)



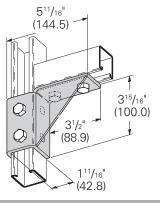
B276 Fourteen Hole Double Corner Gussetted Connection

- Standard finishes: ZN, GRN
- Wt./C 196 Lbs. (88.9 kg)



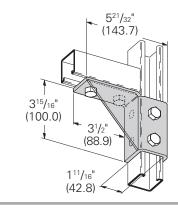
B274R Eight Hole Single Corner Gussetted Connection (Right Hand)

- Standard finishes: ZN, GRN
- Wt./C 176 Lbs. (79.8 kg)



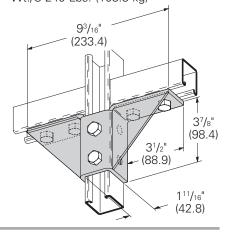
B274L Eight Hole Single Corner Gussetted Connection (Left Hand)

- Standard finishes: ZN, GRN
- Wt./C 176 Lbs. (79.8 kg)



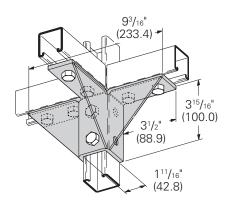
B495 Ten Hole Double Wing Gussetted Connection

- Standard finishes: ZN, GRN
- Wt./C 240 Lbs. (108.8 kg)



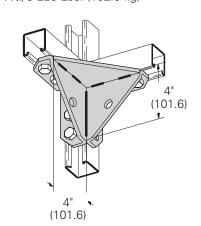
B277 Twelve Hole Triple Wing Gussetted Connection

- Standard finishes: ZN, GRN
- Wt./C 285 Lbs. (129.3 kg)



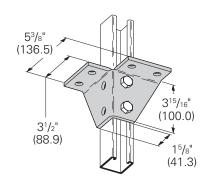
B362 Eight Hole Double Corner Gussetted Connection

- Standard finishes: ZN, GRN
- Wt./C 226 Lbs. (102.5 kg)



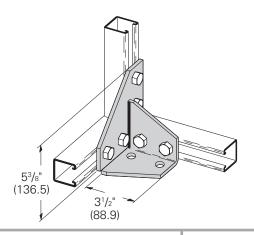
B571 Eight Hole Wing Connection

- Standard finishes: ZN, GRN
- Wt./C 201 Lbs. (91.2 kg)



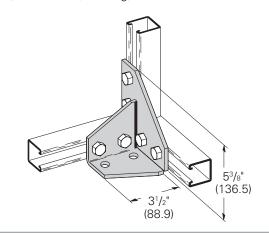
B346L Eight Hole Double Corner Gussetted Connection (Left Hand)

- Standard finishes: ZN, GRN
- Wt./C 242 Lbs. (109.8 kg)



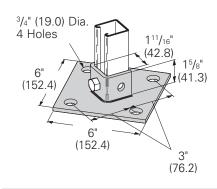
B346R Eight Hole Double Corner Gussetted Connection (Right Hand)

- Standard finishes: ZN, GRN
- Wt./C 242 Lbs. (109.8 kg)



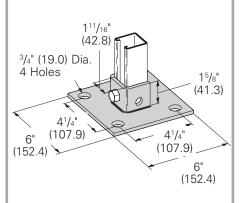
B279 Post Base for B22

- Standard finishes: ZN, GRN
- Wt./C 314 Lbs. (142.4 kg)



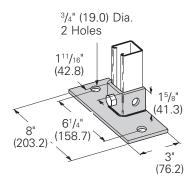
B279SQ Post Base for B22

- Standard finishes: ZN, GRN
- Wt./C 314 Lbs. (142.4 kg)



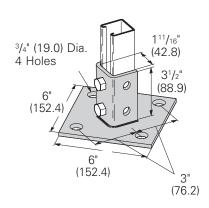
B279FL Post Base for B22

- Standard finishes: ZN, GRN
- Wt./C 230 Lbs. (104.3 kg)



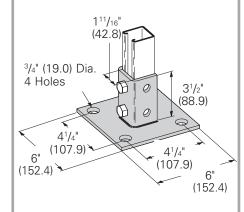
B280 Post Base for B22

- Standard finishes: ZN, GRN, HDG, SS4_AI
- Wt./C 392 Lbs. (177.8 kg)



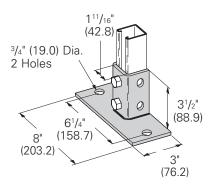
B280SQ Post Base for B22

- Standard finishes: ZN, GRN, HDG, SS4. AL
- Wt./C 392 Lbs. (177.8 kg)



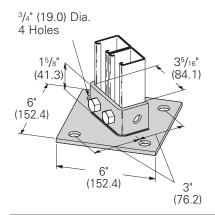
B280FL Post Base for B22

- Standard finishes: ZN, GRN, HDG, SS4
- Wt./C 312 Lbs. (141.5 kg)



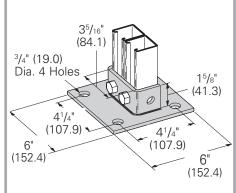
B281A Post Base for B22A, B, C, ETC.

- Standard finishes: ZN, GRN
- Wt./C 330 Lbs. (149.7 kg)



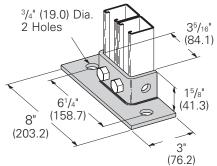
B281ASQ Post Base for B22A, B, C, Etc.

- Standard finishes: ZN, GRN
- Wt./C 330 Lbs. (149.7 kg)



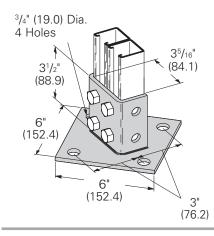
B281AFL Post Base for B22A, B, C, Etc.

- Standard finishes: ZN, GRN
- Wt./C 250 Lbs. (113.4 kg)



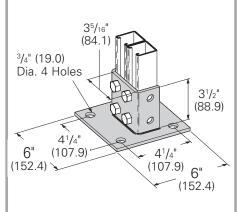
B281 Post Base for B22A, B, C, Etc.

- Standard finishes: ZN, GRN, HDG
- Wt./C 400 Lbs. (181.4 kg)



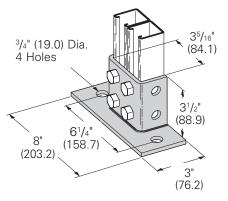
B281SQ Post Base for B22A, B, C, Etc.

- Standard finishes: ZN, GRN, HDG, SS4
- Wt./C 400 Lbs. (181.4 kg)



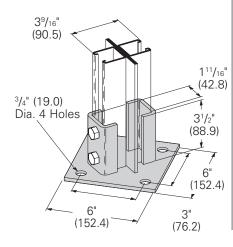
B281FL Post Base for B22A, B, C, Etc.

- Standard finishes: ZN, GRN
- Wt./C 320 Lbs. (145.1 kg)



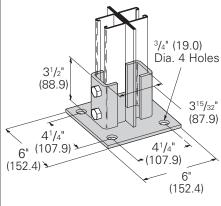
B281M Post Base for B22-2PL

- Standard finishes: ZN, GRN
- Wt./C 470 Lbs. (213.2 kg)



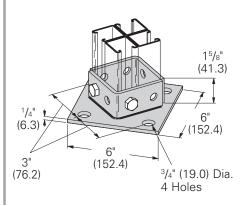
B281MSQ Post Base for B22-2PL

- Standard finishes: ZN, GRN
- Wt./C 470 Lbs. (213.2 kg)



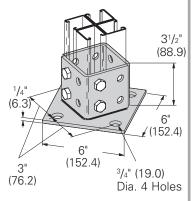
B570 Post Base for Four Channel Combinations

- Standard finishes: ZN, GRN
- Wt./C 397 Lbs. (180.1 kg)



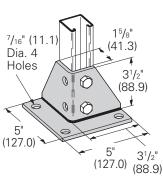
B570A Post Base for Four Channel Combinations

- Standard finishes: ZN, GRN
- Wt./C 550 Lbs. (249.5 kg)



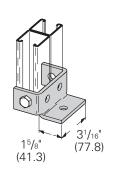
B278 Post Base for B22

- Standard finishes: ZN, GRN
- Wt./C 288 Lbs. (130.6 kg)



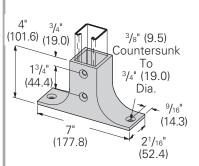
B585 Post Base for B22A

- Standard finishes: ZN, GRN
- Wt./C 97 Lbs. (44.0 kg)



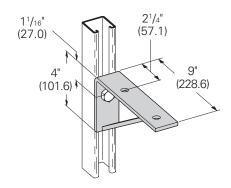
B300 Post Base

- Material: Malleable Iron
- Standard finishes: ZN, GRN
- Wt./C 259 Lbs. (117.5 kg)



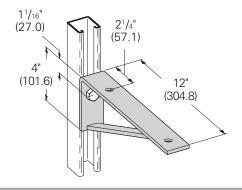
B187 Bracket

- Uniform Loading 1450 Lbs. (6.45 kN)
- Safety Factor of 2.5
- Hole Spacing on Bracket Top 55/16" (150.8) Center to Center
- Standard finishes: ZN, GRN
- Wt./C 193 Lbs. (87.5 kg)



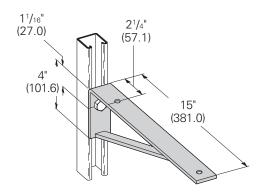
B188 Bracket

- Uniform Loading 1080 Lbs. (4.80 kN)
- Safety Factor of 2.5
- Hole Spacing on Bracket Top 815/16" (227.0) Center to Center
- Standard finishes: ZN, GRN
- Wt./C 241 Lbs. (109.3 kg)



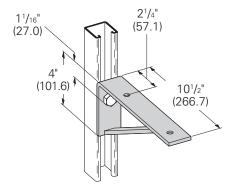
B189 Bracket

- Uniform Loading 870 Lbs. (3.87 kN)
- Safety Factor of 2.5
- Hole Spacing on Bracket Top 11¹⁵/₁₆" (303.2) Center to Center
- Standard finishes: ZN, GRN
- Wt./C 308 Lbs. (139.7 kg)



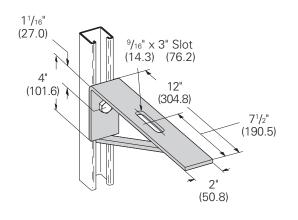
B541 Bracket

- Uniform Loading 1240 Lbs. (5.51 kN)
- Safety Factor of 2.5
- Hole Spacing on Bracket Top 77/16" (188.9) Center to Center
- Standard finishes: ZN, GRN
- Wt./C 201 Lbs. (91.2 kg)



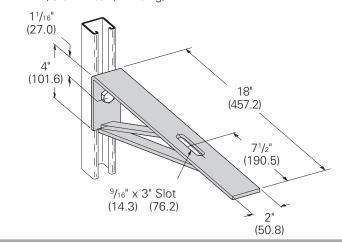
B190 12" (304.8) Bracket

- Uniform Loading 900 Lbs. (4.00 kN)
- Safety Factor of 2.5
- Standard finishes: ZN, GRN
- Wt./C 260 Lbs. (117.9 kg)



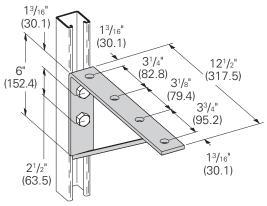
B191-18 18" (457.2) Bracket

- Uniform Loading 600 Lbs. (2.67 kN)
- Safety Factor of 2.5
- Standard finishes: ZN, GRN
- Wt./C 377 Lbs. (171.0 kg)



B289-12 12¹/₂" (317.5) Bracket

- Uniform Loading 1040 Lbs. (4.63 kN)
- Safety Factor of 2.5
- Standard finishes: ZN, GRN
- Wt./C 285 Lbs. (129.3 kg)



B191-24 24" (609.6) Bracket

• Uniform Loading 450 Lbs. (2.00 kN)

24"

(609.6)

71/2" (190.5)

> 2" (50.8)

- Safety Factor of 2.5
- Standard finishes: ZN, GRN
- Wt./C 377 Lbs. (171.0 kg)
- 4" (101.6)

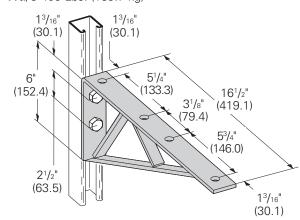
11/16"

(27.0)

11/16"

B290 16¹/₂" (419.1) Bracket

- Uniform Loading 1200 Lbs. (5.34 kN)
- Safety Factor of 2.5
- Standard finishes: ZN, GRN
- Wt./C 405 Lbs. (183.7 kg)

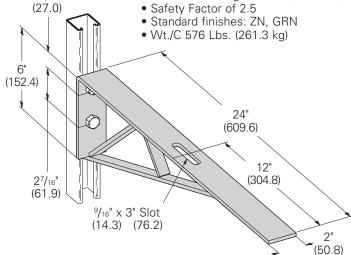


B192 24" (609.6) Bracket

- Uniform Loading 820 Lbs. (3.65 kN)
- Safety Factor of 2.5

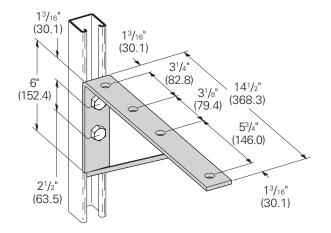
9/16" x 3" Slot

(14.3) (76.2)



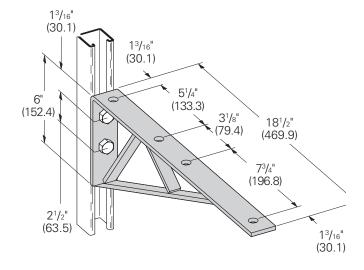
B289-14 141/2" (368.3) Bracket

- Uniform Loading 900 Lbs. (4.00 kN)
- Safety Factor of 2.5
- Standard finishes: ZN, GRN
- Wt./C 295 Lbs. (133.8 kg)



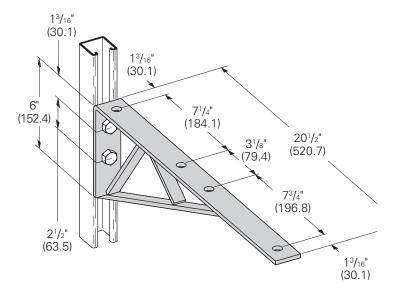
B291 181/2" (469.9) Bracket

- Uniform Loading 1070 Lbs. (4.76 kN)
- Safety Factor of 2.5
- Standard finishes: ZN, GRN
- Wt./C 468 Lbs. (212.3 kg)



B292 201/2" (520.7) Bracket

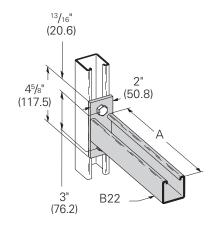
- Uniform Loading 600 Lbs. (2.67 kN)
- Safety Factor of 2.5
- Standard finishes: ZN, GRN, HDG, SS4
- Wt./C 490 Lbs. (222.2 kg)



B409 Single Channel Bracket

- Safety Factor of 2.5
- Standard finishes: ZN, GRN, SS4

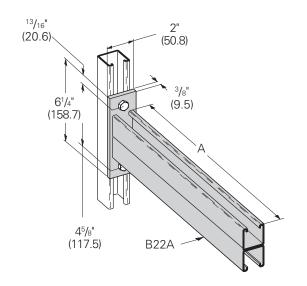
Part No.	A In. mm		Uniforr Lbs.	n Load kN	Wt./C Lbs. kg		
B409-6	6"	(152.4)	1920	(8.54)	152	(68.9)	
B409-9	9"	(228.6)	1280	(5.69)	195	(88.4)	
B409-12	12"	(304.8)	960	(4.27)	232	(105.2)	
B409-14	14"	(355.6)	800	(3.56)	274	(124.3)	
B409-16	16"	(406.4)	730	(3.25)	314	(142.4)	
B409-18	18"	(457.2)	640	(2.84)	347	(157.4)	
B409-24	24"	(609.6)	480	(2.13)	450	(204.1)	



B297 Double Channel Bracket

- Safety Factor of 2.5Standard finishes: ZN, GRN, HDG

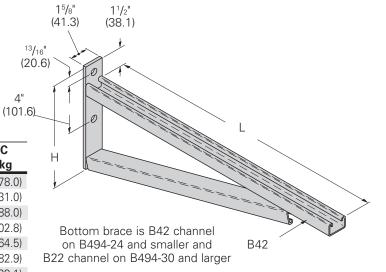
Part	Α		Uniforr	n Load	Wt./C		
No.	ln.	mm	Lbs.	kN	Lbs.	kg	
B297-12	12"	(304.8)	1660	(7.37)	485	(220.0)	
B297-18	18"	(457.2)	1100	(4.88)	668	(303.0)	
B297-24	24"	(609.6)	835	(3.71)	857	(388.7)	
B297-30	30"	(762.0)	665	(2.95)	1040	(471.7)	
B297-36	36"	(914.4)	550	(2.44)	1240	(562.4)	
B297-42	42"	(1066.8)	465	(2.06)	1440	(653.2)	



Braced Single Bracket

- Safety Factor of 2.5
- Standard finishes: ZN, GRN

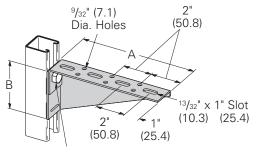
Part	L		Н		Uniform Load		Wt	Wt. /C	
No.	In. m	m In	. m	m	Lbs.	kN	Lbs.	kg	
B494-12	12" (3	04.8) 8 ³ /	4" (222	2.2)	2500	(11.12)	392	(178.0)	
B494-18	18" (4	75.2) 8 ³ /	4" (222	2.2)	1700	(7.56)	509	(231.0)	
B494-24	24" (6	09.6) 8 ³ /	4" (222	2.2)	1300	(5.78)	635	(288.0)	
B494-30	30" (7	62.0) 11 ¹	/4" (285	5.7)	1600	(7.11)	885	(402.8)	
B494-36	36" (9	14.4) 11 ¹	/4" (285	5.7)	1100	(4.89)	1024	(464.5)	
B494-42	42" (10	66.8) 16	3" (406	3.4)	980	(4.36)	1285	(582.9)	
B494-48	48" (12	19.2) 16	3" (406	3.4)	980	(4.36)	1409	(639.1)	



B174SH-B186SH L&R Slotted Bracket

- Safety Factor of 2.5
- Specify L for left or R for right bracing
- Material: ASTM A1011 33,000 PSI min. yield
- Standard finishes: ZN, GRN

Part No.	ln.	A mm	In.	3 mm	Unifor	m Load kN	V	Vt./C . kg
B174SH	24"	(609.6)	6 ⁷ /16"	(163.5)	225	(1.00)	370	(167.8)
B175SH	26"	(660.4)	615/16"	(176.2)	225	(1.00)	425	(192.8)
B176SH	28"	(711.2)	77/16"	(188.9)	225	(1.00)	480	(217.7)
B177SH	30"	(762.0)	7 ¹⁵ / ₁₆ "	(201.6)	225	(1.00)	520	(235.9)
B178SH	12"	(304.8)	37/16"	(87.3)	350	(1.55)	143	(64.8)
B179SH	14"	(355.6)	315/16"	(100.0)	350	(1.55)	162	(73.5)
B180SH	16"	(406.4)	47/16"	(112.7)	250	(1.11)	204	(92.5)
B181SH	18"	(457.2)	4 ¹⁵ / ₁₆ "	(125.4)	250	(1.11)	232	(105.2)
B182SH	20"	(508.0)	5 ⁷ /16"	(138.1)	250	(1.11)	275	(124.7)
B183SH	22"	(558.8)	5 ¹⁵ / ₁₆ "	(150.8)	250	(1.11)	317	(143.8)
B184SH	6"	(152.4)	1 15/16"	(49.2)	225	(1.00)	58	(26.3)
B185SH	8"	(203.2)	27/16"	(61.9)	225	(1.00)	82	(37.2)
B186SH	10"	(254.0)	215/16"	(74.6)	325	(1.44)	103	(46.7)



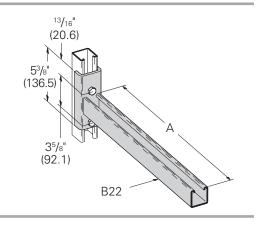
Mounting Hole ⁷/₁₆" (11.1) Dia.

Right bracket shown, left bracket gussett on opposite side.

B196 Channel Clevis Bracket

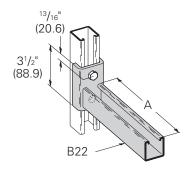
- Safety Factor of 2.5
- Standard finishes: ZN, GRN

Part No.	A In. mm	Uniform Load Lbs. kN	Wt./C Lbs. kg		
B196-18	18" (457.2)	600 (2.67)	430 (195.0)		
B196-24	24" (609.6)	450 (2.00)	510 (231.3)		



B198 Channel Clevis Bracket

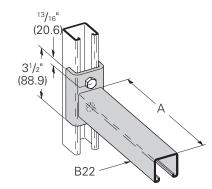
- Safety Factor of 2.5
- Standard finishes: ZN, GRN



Part	Α	Uniform Load	Wt./C		
No.	In. mm	Lbs. kN	Lbs. kg		
B198-6	6" (152.4)	1600 (7.12)	185 (83.9)		
B198-12	12" (304.8)	800 (3.56)	284 (128.8)		

B198A Channel Clevis Bracket

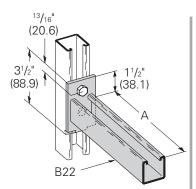
- Safety Factor of 2.5
- Standard finishes: ZN, GRN



Part No.	A In. mm		Unifor Lbs.	m Load kN	Wt./C Lbs. kg		
B198A-6	6"	(152.4)	1600	(7.12)	185	(83.9)	
B198A-12	12"	(304.8)	800	(3.56)	284	(128.8)	

B293 Channel Bracket

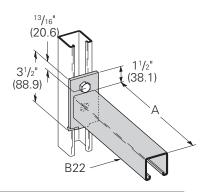
- Safety Factor of 2.5
- Standard finishes: ZN, GRN



Part No.	ln.	A mm	Unifor Lbs.	m Load kN	Wt Lbs.	t./C kg
B293-6	6"	(152.4)	1200	(5.34)	144	(65.3)
B293-12	12"	(304.8)	600	(2.67)	252	(114.3)
B293-18	18"	(457.2)	400	(1.78)	340	(154.2)
B293-24	24"	(609.6)	300	(1.33)	412	(186.9)

B293A Channel Bracket

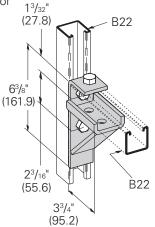
- Safety Factor of 2.5
- Standard finishes: ZN, GRN



Part	Α		Unifor	m Load	Wt./C		
No.	ln.	mm	Lbs.	kN	Lbs.	kg	
B293A-6	6"	(152.4)	1200	(5.34)	144	(65.3)	
B293A-12	12"	(304.8)	600	(2.67)	252	(114.3)	
B293A-18	18"	(457.2)	400	(1.78)	340	(154.2)	
B293A-24	24"	(609.6)	300	(1.33)	412	(186.9)	

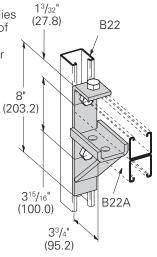
B194 Bracket for **B22** & **B24**

- Safety Factor of 2.5
- 6300 In.-Lbs (712 N•m) applies to fitting only, not to strength of strut arm
- Refer to pages 56, 57 & 59 for strut loading data
- Standard finishes: ZN, GRN
- Wt./C 210 Lbs. (95.2 kg)



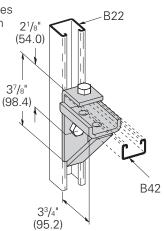
B370 Bracket for B22A & B11

- Safety Factor of 2.5
- 13000 In.-Lbs (1469 N•m) applies to fitting only, not to strength of strut arm
- Refer to pages 51, 56, & 57 for strut loading data
- Standard finishes: ZN, GRN
- Wt./C 266 Lbs. (120.6 kg)



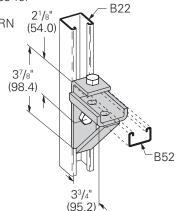
B195 Bracket for B42

- Safety Factor of 2.5
- 2500 In.-Lbs (282 N•m) applies to fitting only, not to strength of strut arm
- Refer to pages 57 & 65 for strut loading data
- Standard finishes: ZN, GRN
- Wt./C 174 Lbs. (78.9 kg)



B440 Bracket for B52 & B54

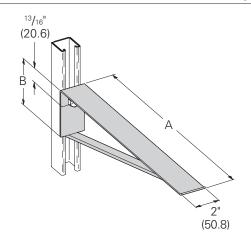
- Safety Factor of 2.5
- 2000 In.-Lbs (226 N•m) applies to fitting only, not to strength of strut arm
- Refer to page 57, 67, & 69 for strut loading data
- Standard finishes: ZN, GRN
- Wt./C 177 Lbs. (80.3 kg)



B449-4, 8 & 12 **Cable Saddle Bracket**

- Safety Factor of 2.5
- Material: 11 Gauge (3.0) ASTM A1011 HSLAS Gr. 50
- Standard finishes: ZN, GRN

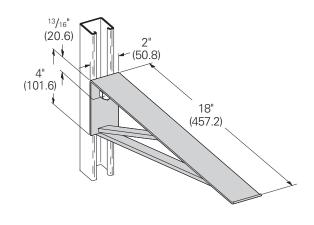
Part	Α		t A B		Uniform Load		Wt./C	
No.	ln.	mm	ln.	mm	Lbs.	kN	Lbs.	kg
B449-4	41/2"	(114.3)	23/8"	(60.3)	2400	(10.67)	74	(33.5)
B449-8	81/2"	(215.9)	23/8"	(60.3)	1270	(5.65)	124	(56.2)
B449-12	121/2	(317.5)	4" (101.6)	860	(3.82)	184	(83.4)



B449-18

18" (457.2) Cable Saddle Bracket

- Safety Factor of 2.5
- Uniform Load 960 Lbs. (4.17 kN)
- Material: 11 Gauge (3.0) ASTM A1011 HSLAS Gr. 50
- Standard finishes: ZN, GRN
- Wt./C 312 Lbs. (141.5 kg)



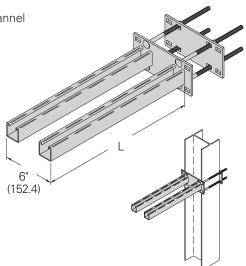
B409DB Series Solar Bracket

- Safety Factor of 2.5
- Includes: (1) Channel Bracket Plate 1/4" x 31/2" x 73/4" with welded channel

 - (1) Back Plate 1/4" x 31/2" x 73/4" (4) 3/8"-16 x 81/2" Square Neck Carriage Bolts
 - (4) ³/₈"-16 Serrated Flange Hex Nuts
- Fits 4" (101mm) to 61/2" (165mm) wide supports
- Standard finishes: ZN, HDG

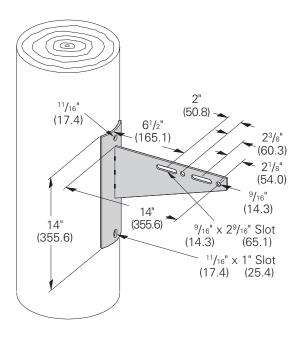
Part	L		Unifor	Uniform Load		Wt./C	
No.	ln.	mm	Lbs.	kN	Lbs.	kg	
B409DB-12	12"	(304.8)	800	(3.56)	766	(347.4)	
B409DB-18	18"	(457.2)	800	(3.56)	956	(433.6)	

A single channel version and other lengths are available. Contact Eaton B-Line Division engineering for more information.



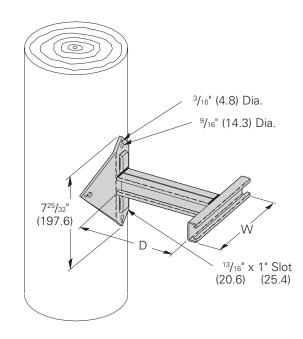
B816

• Standard finishes: ZN, HDG



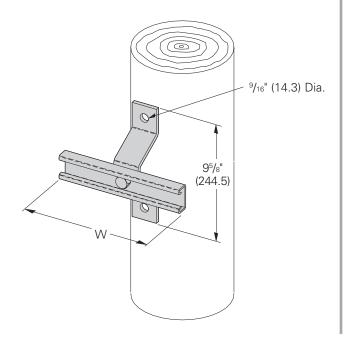
B852S-*-**

- *Specify Width: W = 8, 12, 16
- **Specify Depth: D = 6, 8, 10, 12, 16, 18, 24
- $^{13}/_{16}$ " (20.6mm) x 1" (25.4mm) banding slots for steel band
- Standard finishes: ZN, HDG



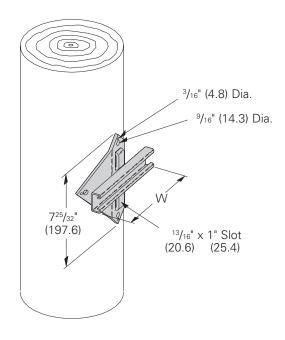
B802D-*

- *Specify Width: W = 8, 12, 16
- Standard finishes: ZN, HDG



B810-*

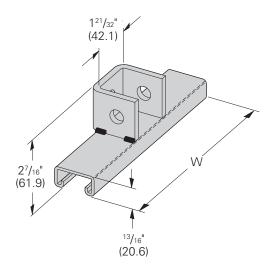
- *Specify Width: W = 8, 12, 16
- 13/16" (20.6mm) x 1" (25.6mm) banding slots for steel band
- Standard finishes: ZN, HDG



Reference page 106 for general fitting and standard finish specifications.

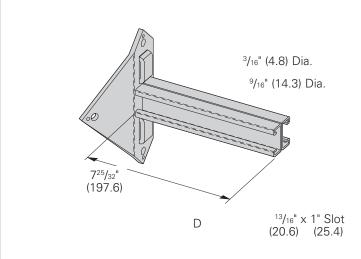
B811-*

- *Specify Width: W = 8, 12, 16
- Can be attached directly to B809 & B812
- Standard finishes: ZN, HDG



B812-*

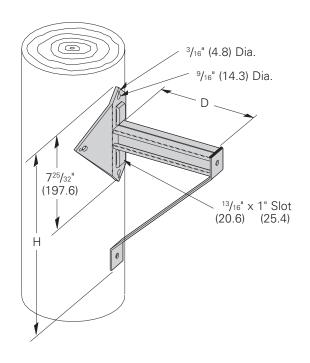
- *Specify Depth: D = 6, 8, 12, 16, 18, 24
- 13/16" (20.6mm) x 1" (25.4mm) banding slots for steel band
- Standard finishes: ZN, HDG



B809B-*

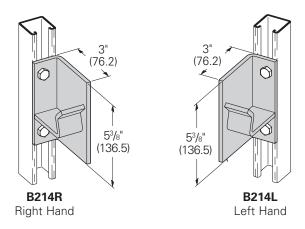
- *Specify Depth: D = 6, 8, 10, 12, 16, 18, 24
- $^{13}/_{16}$ " (20.6mm) x 1" (25.4mm) banding slots for steel band
- Standard finishes: ZN, HDG

Part No.	D	Н
	In. mm	ln. mm
B809B-6	6" (152.4)	12³/₄" (323.9)
B809B-8	8" (203.2)	14³/₄" (374.7)
B809B-10	10" (254.0)	16³/₄" (425.5)
B809B-12	12" (304.8)	18³/₄" (476.2)
B809B-16	16" (406.4)	223/4" (577.8)
B809B-18	18" (457.2)	24³/₄" (628.6)
B809B-24	24" (609.6)	273/4" (704.8)



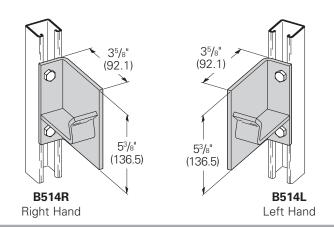
B214 R&L Reel Rack Support for 11/4" (32) Pipe

- Standard finishes: ZN, GRN
- Wt./C 200 Lbs. (90.7 kg)



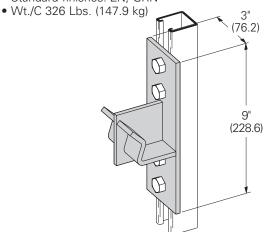
B514 R&L Reel Rack Support for 2" (50) Pipe

- Standard finishes: ZN, GRN
- Wt./C 246 Lbs. (111.6 kg)



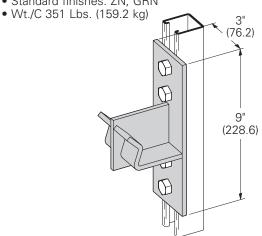
B475 Double Reel Rack Support on Single Channel for 11/4" (32) Pipe

• Standard finishes: ZN, GRN



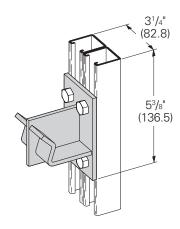
B473 Double Reel Rack Support on Single Channel for 2" (50) Pipe

• Standard finishes: ZN, GRN



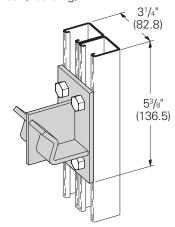
B474 Double Reel Rack Support on Double Channel for 11/4" (32) Pipe

- Standard finishes: ZN, GRN
- Wt./C 257 Lbs. (116.6 kg)



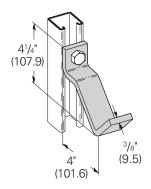
Double Reel Rack Support on Double Channel for 2" (50) Pipe

- Standard finishes: ZN, GRN
- Wt./C 299 Lbs. (135.6 kg)



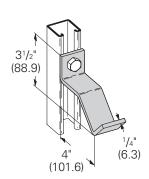
B438 Pipe Support Bracket

- Standard finishes: ZN, GRN
- Material: ASTM A36
- Wt./C 132 Lbs. (59.9 kg)

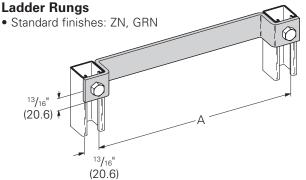


B439 Pipe Support Bracket

- Standard finishes: ZN, GRN
- Wt./C 88 Lbs. (39.9 kg)

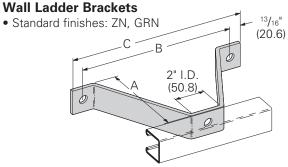


B411 Series



Part	Α		W	t./C
No.	ln.	mm	Lbs.	kg
B411-12	12"	(304.8)	176	(79.8)
B411-15	15"	(381.0)	202	(91.6)
B411-18	18"	(457.2)	234	(106.1)

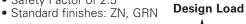
B381-B385

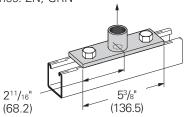


Part No.	ln.	A mm	ln.	B mm		C mm	W- Lbs.	t./C kg
B381	23/8"	(60.3)	6"	(152.4)	75/8"	(193.7)	110	(49.9)
B382	43/8"	(111.1)	8"	(203.2)	95/8"	(244.5)	164	(74.4)
B383	63/8"	(161.9)	10"	(254.0)	11 ⁵ / ₈ "	(295.3)	200	(90.7)
B384	83/8"	(212.7)	12"	(304.8)	135/8"	(346.1)	253 ((114.7)
B385	10 ³ / ₈ "	(263.5)	14"	(355.6)	15 ⁵ / ₈ "	(396.9)	318	(144.2)

B587-1/2, 3/4 & 1 Pipe Coupling Fitting

• Safety Factor of 2.5





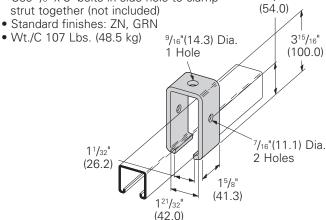
Part No.		or Size mm		t./C . kg	Des Lo Lbs.	ad
B587-1/2	1/2"	(15)	77	(34.9)	1000	(4.45)
B587-3/4	3/4"	(20)	84	(38.1)	1400	(6.23)
B587-1	1"	(25)	105	(47.6)	1900	(8.45)

B349

Trolley Beam Support

- Design Load 1200 Lbs. (5.34 kN)
- Safety Factor of 2.5
- Use 3/8" x 3" bolts in side hole to clamp strut together (not included)

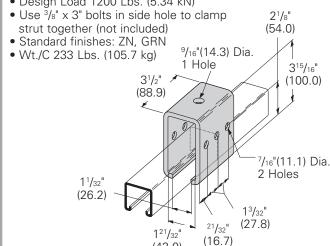
• Standard finishes: ZN, GRN



B350

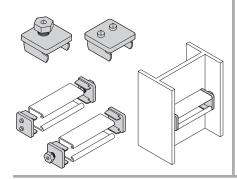
Trolley Beam Joint Support

• Design Load 1200 Lbs. (5.34 kN)



B614 Column Support for B22

- Quick installation (one bolt to tighten)
- Design Load 800 Lbs. (3.56 kN) Slip with Safety Factor of 3
- Use with B22 and B24 Channel
- Sold in pairs
- Standard finish: ZN
- Wt./C 50 Lbs. (22.6 kg)

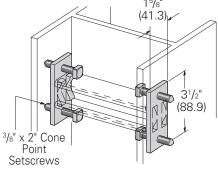


B613 Column Support for B22

- Design Load 800 Lbs. (3.56 kN) Slip with Safety Factor of 3
- Use with B22 and B24 Channel
- Setscrews to be torqued to 19 ft./Lbs
- Sold in pairs

21/8"

- Standard finishes: ZN, GRN, HDG
- Wt./C 100 Lbs. (45.3 kg)

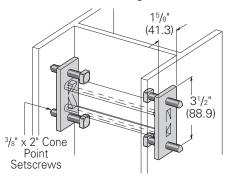


B613A Column Support for B52

- Design Load 800 Lbs. (3.56 kN) Slip with Safety Factor of 3
- Use with B52 and B54 Channel
- Setscrews to be torqued to 19 ft./Lbs
- Sold in pairs

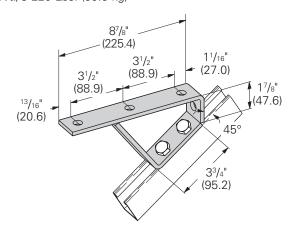
(42.0)

- Standard finishes: ZN, GRN, HDG
- Wt./C 100 Lbs. (45.3 kg)



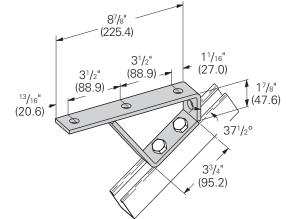
B560 45° Stair Support

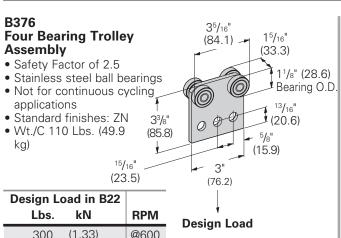
- Standard finishes: ZN, GRN
- Wt./C 220 Lbs. (99.8 kg)



B562 371/2° Stair Support

- Standard finishes: ZN, GRN
- Wt./C 206 Lbs. (93.4 kg)





B377 Two Bearing Trolley Assembly

- Safety Factor of 2.5
- Stainless steel ball bearings
- Not for continuous cycling applications
- Standard finishes: ZN

Design Load in B22

kN

(.67)

(1.00)

(1.94)

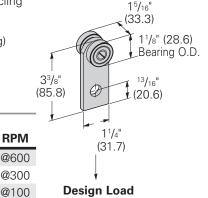
Lbs.

150

225

437

• Wt./C 48 Lbs. (21.8 kg)



				Design Load
	300	(1.33)	@600	Doorgii Loui
	450	(2.00)	@300	
	600	(2.67)	@100	
D 4 =	_			

B477 Two Bearing Light Duty Trolley Assembly

- Design Load 50 Lbs. (.22 kN)
- Safety Factor of 2.5
- Stainless steel ball bearings
- Not for continuous cycling applications
 Material:12 Gauge (2.6) ASTM A1011 33,000 PSI min. yield
- Standard finishes: ZN
- Wt./C 30 Lbs. (13.6 kg)

(31.7)(28.6) $1^{3}/_{4}$ (44.4)11/32 (8.7)5/8" (15.9)

B477P

Bearings Design Load 10 Lbs. (.045

With Plastic

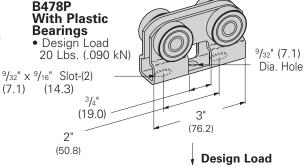


Design Load

(31.7)

B478 Four Bearing Light Duty Trolley Assembly

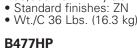
- Design Load 100 Lbs. (.44 kN)
- Safety Factor of 2.5
- Stainless steel ball bearings
- Not for continuous cycling applications
 Material:12 Gauge (2.6) ASTM A1011 33,000 PSI min. yield
- Standard finishes: ZN
- Wt./C 68 Lbs. (30.8 kg)



B477H Two Bearing Light Duty Trolley Assembly with Eye Hook

3/4" (19.0)

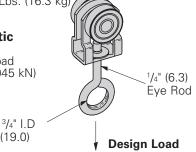
- Design Load 50 Lbs. (.22 kN)
- Safety Factor of 2.5
- Stainless steel ball bearings
- Not for continuous cycling applications
- Material:12 Gauge (2.6) ASTM A1011 33,000 PSI min. yield





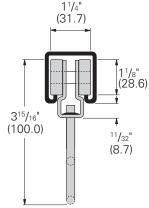


(19.0)



9/32" (7.1)

Dia. Hole



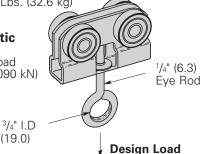
B478H Four Bearing Light Duty Trolley Assembly with Eye Hook

- Design Load 100 Lbs. (.44 kN)
- Safety Factor of 2.5
- Stainless steel ball bearings
- Not for continuous cycling applications
- Material:12 Gauge (2.6) ASTM A1011 33,000 PSI min. yield
- Standard finishes: ZN
- Wt./C 72 Lbs. (32.6 kg)

(19.0)

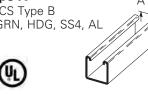
B478HP With Plastic **Bearings**

 Design Load 20 Lbs. (.090 kN)



B203-B206 & B220-B223 Channel End Caps Type X

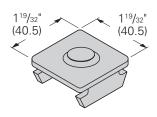
- Material: ASTM A1011 CS Type B
- Standard finishes: ZN, GRN, HDG, SS4, AL



Part No.	Use With	In.	A In. mm		:./C kg
B203	B42		(25.8)	Lbs.	(2.7)
B204	B54		(21.0)	5	(2.7)
B205	B22	-	(41.6)	10	(4.5)
B206	B32	1.390	(35.3)	8	(3.6)
B220	B52	.827	(21.0)	4	(1.8)
B221	B12	2.452	(62.3)	15	(6.8)
B222	B11	3.265	(82.9)	20	(9.1)
B223	B24	1.640	(41.6)	10	(4.5)

B287 & B288 **Channel End Caps**

- Material: ASTM A1011 33,000 PSI min. yield
- Standard finishes: ZN, GRN

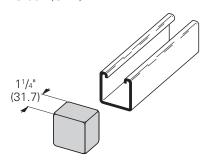


Part	Part Use		:./C
No.	With	Lbs.	kg
B287	B22	13	(5.9)
B288	B24	14	(6.3)

B822

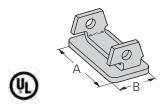
Plastic End Cap for B22 & B24

- Material: Polyvinyl Chloride (PVC/Vinyl)
- Withstands intermittent temperatures up to 350°F (177°C) and 200°F (93°C) continuous
- Wt./C 3 Lbs. (1.3 kg)
- Available in colors: White (W), Yellow (Y), Black (BLK), Gray (GRY), Green (GRN)



B283-B286 **Channel End Caps**

- Material: ASTM A1011 33,000 PSI min. yield
- Standard finishes: ZN, GRN

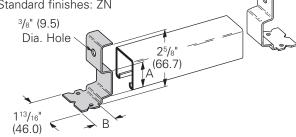


Part		P	1	E	3	W ₁	t./C
No.	Use With	ln.	mm	ln.	mm	Lbs.	kg
B283	B52	1 19/32"	(40.5)	²⁵ / ₃₂ "	(19.8)	6	(2.7)
B284	B54	119/32"	(40.5)	²⁵ / ₃₂ "	(19.8)	6	(2.7)
B285	B22	119/32"	(40.5)	1 19/32"	(40.5)	13	(5.9)
B286	B24	119/32"	(40.5)	1 ¹⁹ / ₃₂ "	(40.5)	14	(6.3)

B3322, B3332, B3342, B3352 Anchor End Caps Type Y

• Material: ASTM A1011 33,000 PSI min. yield

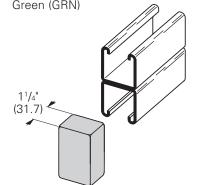




Part		Α	В	Wt./C
No.	Use With	In. mm	In. mm	Lbs. kg
B3322	B22I	1.270 (32.2)	13/16" (30.2)	15 (6.8)
B3332	B32I	1.000 (25.4)	13/16" (30.2)	15 (6.8)
B3342	B42l	.645 (16.4)	11/4" (31.8)	15 (6.8)
_B3352	B52I	.460 (11.7)	15/16" (33.3)	15 (6.8)

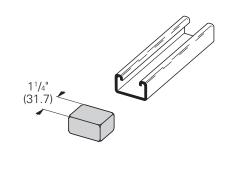
Plastic End Cap for B22A & B11

- Material: Polyvinyl Chloride (PVC/Vinyl)
- Withstands intermittent temperatures up to 350°F (177°C) and 200°F (93°C) continuous
- Wt./C 5 Lbs. (2.2 kg)
- Available in colors: White (W), Yellow (Y), Black (BLK), Grav (GRY), Green (GRN)



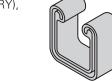
Plastic End Cap for B52 & B54

- Material: Polyvinyl Chloride (PVC/Vinyl)
- Withstands intermittent temperatures up to 350°F (177°C) and 200°F (93°C) continuous
- Wt./C 2.5 Lbs. (1.1 kg)
- Available in colors: White (W), Yellow (Y), Black (BLK), Gray (GRY), Green (GRN)



B823 Profile End Caps

- Material: Polyvinyl Chloride (PVC/Vinyl)
- Withstands intermittent temperatures up to 350°F (177°C) and 200°F (93°C) continuous
- Available in colors: White (W), Yellow (Y), Black (BLK), Gray (GRY), Green (GRN)



Approx. 3/4" deep (19.0)

Part No.	Fits Channel Sizes	Wt./C Lbs. kg
B823-22A	B22A, B24A, B26A	6.9 (3.1)
B823-22	B22, B24, B26	4.1 (1.8)
B823-42	B42	3.8 (1.7)
B823-52	B52, B54, B56	3.5 (1.6)

B825 Plastic End Caps

- Material: Polyurethane
- Available in colors: Gray (GRY), Green (GRN)





Part No.	Fits Channel Sizes	Wt./C Lbs. kg	
B825-22	B22 & B24	2.0 (0.9)	_
B825-52	B52 & B54	1.0 (0.4)	

B408SLBVNS Series Stand-Off Brackets

- Material: 1/4" (6.3)
- Standard Finishes: HDG, ZN, GRN
- For pipe or rigid conduit sizes of 1¹/₂" (40) and 2" (50) use with B501 Series 'U'-Bolts (see page 53)
- For strut channels 1⁵/₈" (41.3) wide use with B500 Series Square 'U'-Bolts (see page 53)
- · Hardware is not included

Part No.	A In. (mm)	Wt./C Lbs. kg
B408SLBVNS	31/2" (88.9)	189 (85.7)
B408SLBVNS1	3" (76.2)	220 (99.8)
B408SLBVNS2	2" (50.8)	236 (107.0)

