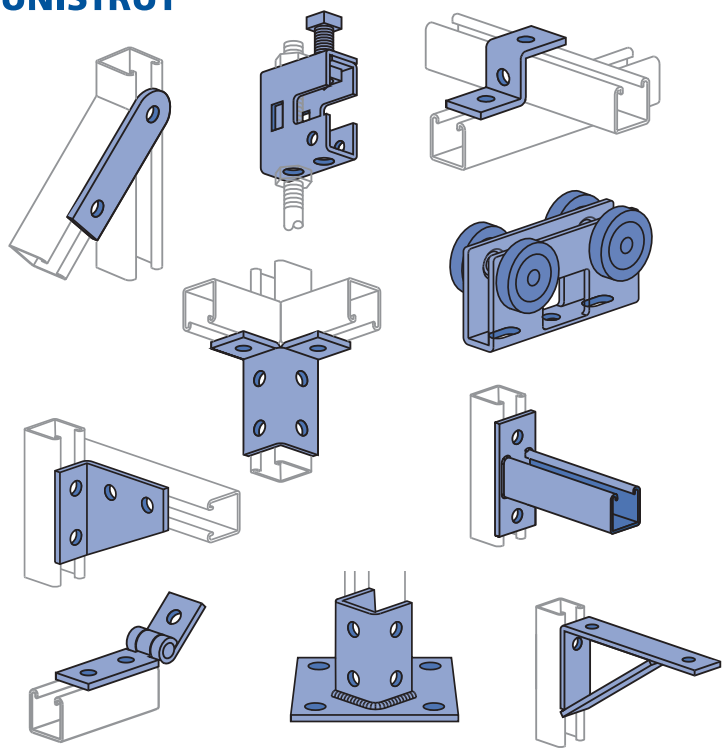
GENERAL FITTINGS



Flat Plate Fittings ..... 81 - 82

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"Z" Shape Fittings 86

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Wing Shape Fittings ..... 88 - 90

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Brace Fittings 94

Beam Clamps ..... 95 - 101

Trolleys 102

Special Application Fittings ..... 103 - 104

Seismic Retrofit Fittings ..... 104 - 106

MATERIAL

Fittings, unless noted, are made from hot-rolled, pickled and oiled steel plates, strip or coil, and conform to ASTM specifications A575, A576, A635, or A36. The fitting steel also meets the physical requirements of ASTM A1011 SS GR 33. The pickling of the steel produces a smooth surface free from scale.

Many fittings are also available in stainless steel, aluminum and fiberglass. Consult factory for ordering information.

FINISHES

Fittings are available in:

Green Powder Coat (GR), conforming to commercial standards for Powder Coating

Electro-galvanized (EG), conforming to ASTM B633 Type III SC1;

Hot-dipped galvanized (HG), conforming to ASTM A123 or A153 and

Plain (PL).

APPLICATION

All parts drawings illustrate only one application of each fitting. In most cases many other applications are possible. The channels shown in the illustrations are P1000, 1⅝" square, except where noted otherwise.

All 9⁄16" diameter holes use ½" x 15⁄16" hex head cap screws and ½" nuts – P1010, P3010, P4010 or P5510 – depending on the channel used. Nuts and bolts are not included with the fitting and must be ordered separately.

DESIGN BOLT TORQUE

BOLT SIZE	¼"-20	5⁄16"-18	⅜"-16	½"-13	⅝"-11	¾"-10
Rec. Torque Ft/Lbs (N•m)	6 (8)	11 (15)	19 (26)	50 (68)	100 (136)	125 (170)
Max Torque Ft/Lbs (N•m)	7 (9)	15 (20)	25 (34)	70 (95)	125 (170)	135 (183)

SET SCREW TORQUE

BOLT SIZE	¼"-20	5⁄16"-18	⅜"-16	½"-13	⅝"-11	¾"-10
Set Screw Torque In/Lbs (N•m)	40 (4)	60 (7)	125 (14)	250 (28)	400 (44.5)	665 (75)

Note: Caution should be taken not to overtighten the set screw

DIMENSIONS

Imperial dimensions are illustrated in inches. Metric dimensions are shown in parenthesis or as noted. Unless noted, all metric dimensions are in millimeters and rounded to one decimal place.

DESIGN LOAD

Design load data, where shown, is based on the ultimate strength of the connection with a safety factor of 2.5, unless otherwise noted.

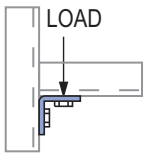
BEAM CLAMPS

Clamps are designed to be used with W, M, S and HP Shape beams, Standard C and Miscellaneous MC Channels, Angles and Structural Tees. Clamps must be used in pairs mounted in opposite directions where indicated. For beam clamps with HG finish, standard hardware is EG finish. For optional stainless steel hardware, please contact the factory for availability.

DESIGN LOAD DATA FOR TYPICAL UNISTRUT CHANNEL CONNECTIONS

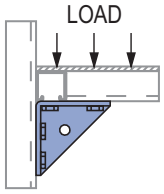
90° Fittings (When used in position shown)

Load – P1026



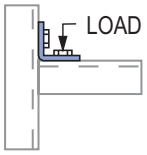
	Channel Thickness		
	12 ga.	14 ga.	16 ga.
Lbs	1,500	1,000	750
kN	*6.67*	*4.45*	*3.34*

Load – P2484



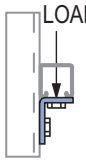
	Channel Thickness		
	12 ga.	14 ga.	16 ga.
Lbs	3,000	2,000	1,500
kN	*13.34*	*8.90*	*6.67*

Load – P1026



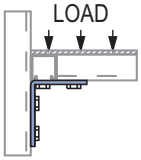
	Channel Thickness		
	12 ga.	14 ga.	16 ga.
Lbs	1,000	650	500
kN	*4.45*	*2.89*	*2.22*

Load – P1068



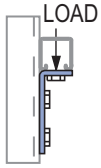
	Channel Thickness		
	12 ga.	14 ga.	16 ga.
Lbs	500	500	500
kN	*2.22*	*2.22*	*2.22*

Load – P1325, P2235



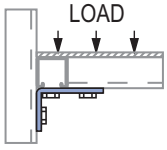
	Channel Thickness		
	12 ga.	14 ga.	16 ga.
Lbs	2,000	2,000	1,500
kN	*8.90*	*8.90*	*6.67*

Load – P1326



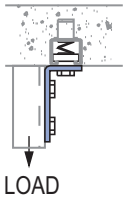
	Channel Thickness		
	12 ga.	14 ga.	16 ga.
Lbs	500	500	500
kN	*2.22*	*2.22*	*2.22*

Load – P1458, P1579



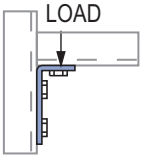
	Channel Thickness		
	12 ga.	14 ga.	16 ga.
Lbs	1,500	1,000	1,000
kN	*6.67*	*4.45*	*4.45*

Load – P1346



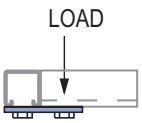
	Channel Thickness		
	12 ga.	14 ga.	16 ga.
Lbs	1,200	1,200	1,000
kN	*5.34*	*5.34*	*4.45*

Load – P1346



	Channel Thickness		
	12 ga.	14 ga.	16 ga.
Lbs	2,000	1,500	900
kN	*8.90*	*6.67*	*4.00*

Load – P1065

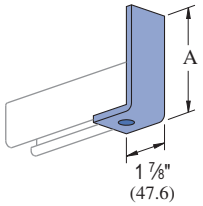


	Channel Thickness		
	12 ga.	14 ga.	16 ga.
Lbs	1,000	800	600
kN	*4.45*	*3.56*	*2.67*

Note:
(1) Both ends of beams supported.
(2) Load data is based on P1010 nut and ½" bolt.
(3) Safety factor = 2½ based on ultimate strength of connection.

P1538A THRU P1538D

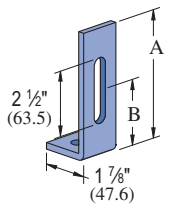
EG, GR, HG



Part Number	"A" In (mm)	Wt/100 pcs Lbs (kg)
P1538A	3⅞ *98.4*	61 *27.7*
P1538B	5⅞ *149.2*	84 *38.1*
P1538C	7⅞ *200.0*	107 *48.5*
P1538D	9⅞ *250.8*	130 *59.0*

P1498, P1499

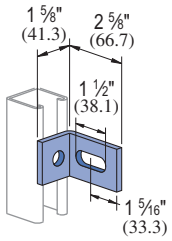
EG, GR, HG



Part Number	"A" In (mm)	"B" In (mm)	Wt/100 pcs Lbs (kg)
P1498	4⅞ *123.8*	2½ *63.5*	65 *29.5*
P1499	6⅞ *174.6*	4½ *114.3*	85 *38.6*

P1750

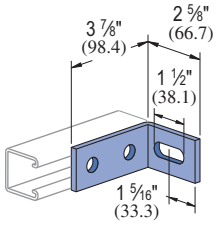
EG, GR, HG



Wt/100 pcs: 38 Lbs (17.2 kg)

P1747

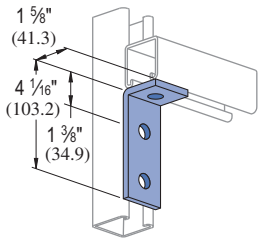
EG, GR, HG



Wt/100 pcs: 66 Lbs (29.9 kg)

P1326

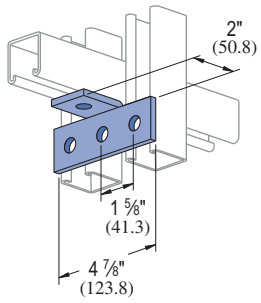
EG, GR, HG



Wt/100 pcs: 58 Lbs (26.3 kg)

P1821

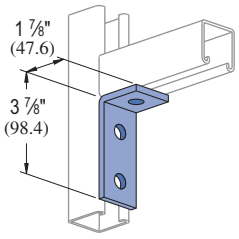
EG, GR, HG



Wt/100 pcs: 71 Lbs (32.2 kg)

P1346

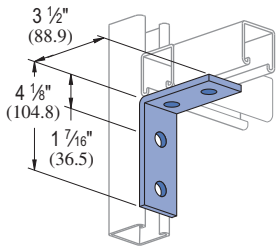
EG, GR, HG



Wt/100 pcs: 58 Lbs (26.3 kg)

P1325

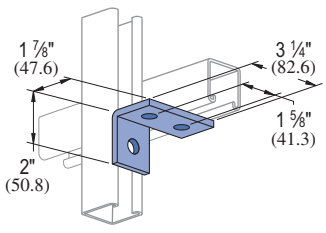
EG, GR, HG



Wt/100 pcs: 78 Lbs (35.4 kg)

P1822

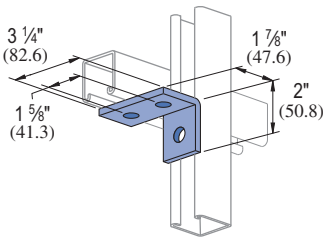
EG, GR, HG



Wt/100 pcs: 55 Lbs (24.9 kg)

P1823

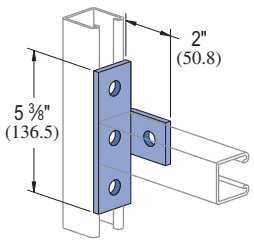
EG, GR, HG



Wt/100 pcs: 55 Lbs (24.9 kg)

P1033

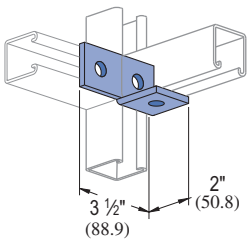
EG, GR, HG



Wt/100 pcs: 80 Lbs (36.3 kg)

P1037

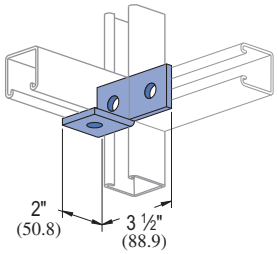
EG, GR, HG



Wt/100 pcs: 58 Lbs (26.3 kg)

P1038

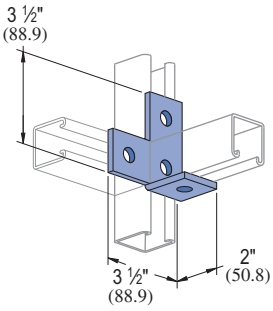
EG, GR, HG



Wt/100 pcs: 58 Lbs (26.3 kg)

P1034

EG, GR, HG



Wt/100 pcs: 80 Lbs (36.3 kg)

Standard Dimensions for 1⅝" (41.3mm) width series channel fittings *(Unless Otherwise Shown on Drawing)*

Hole Diameter: 9⁄16" (14.3mm); Hole Spacing - From End: 13⁄16" (20.6mm); Hole Spacing - On Center: 1⅞" (47.6mm); Width: 1⅝"(41.3mm); Thickness: ¼" (6.4mm)