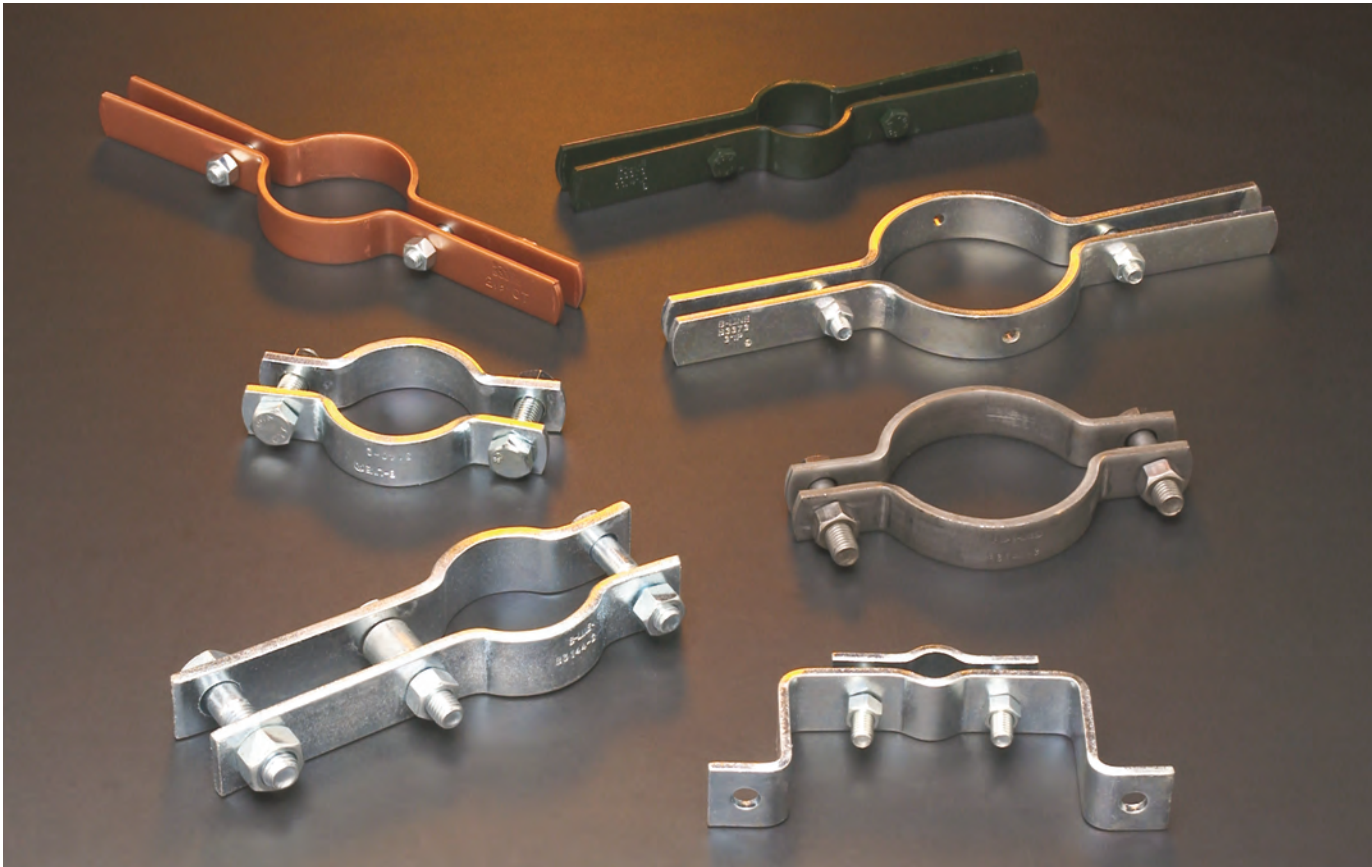


Pipe Clamps



Pipe clamps offered in this section are designed for support and attachment of pipe to structural members. A wide range of pipe clamps are available for various applications.

Materials

Carbon Steel is used in the manufacturing of riser and pipe clamps. Stainless Steel and other materials are available.

Finishes

The standard finishes for mechanical supports are plain steel (oil coated) sometimes referred to as black and Electro-Galvanized Zinc (ASTM B633 SC3). Hot-Dip Galvanized After Fabrication (ASTM A123), Red Primer, Plastic Coating, DURA GREEN™, DURA-COPPER™ and other special coatings are available upon request.

Note: Due to the design of some products, (threads, connecting hardware, swivels, etc.) items may or may not be uniformly coated with special finishes. In some cases, the hanger itself may be coated, however, the hardware may be supplied Electro-Plated, Copper Plated, or in Stainless Steel.

Recommended Torque (Pipe Clamp Hardware)

1/4"-20	5/16"-18	3/8"-16	1/2"-13	5/8"-11	3/4"-10 & larger
6 ft/lbs (8 Nm)	11 ft/lbs (19 Nm)	19 ft/lbs (26 Nm)	50 ft/lbs (68 Nm)	65 ft/lbs (88 Nm)	75 ft/lbs (101 Nm)

Approvals (as noted)

Items in this section are Underwriters Laboratories Listed, Factory Mutual Approved, and comply with Federal Specification WW-H-171E & A-A-1192A or Manufacturers Standardization Society ANSI/MSS SP-69 & SP-58.

All pipe hangers and supports in this section are sized to fit schedule 40/80 pipe unless otherwise noted. Some steel items may be specially fabricated to fit other pipe diameters i.e. ductile iron, cast iron, etc. Select pipe O.D. from charts on pages 307 thru 312.

All dimensions in charts and on drawings are in inches. Dimensions shown in parentheses are in millimeters unless otherwise specified.

B3373 - Standard Riser Clamp

B3373F - Felt Lined Standard Riser Clamp for Copper Tubing

B3373C - PVC Coated Standard Riser Clamp

Size Range: (B3373) 1/2" (15mm) thru 30" (760mm) pipe
(B3373F) 1/2" (15mm) thru 2 1/2" (65mm) copper tubing
(B3373C) 1/2" (15mm) thru 6" (150mm) pipe

Material: Steel

Insulation Material: (B3373F) 1/8" (3.2mm) thick felt.

Function: Used for supporting vertical piping.

Approvals: Underwriters Laboratories Listed in the USA (UL), Canada (cUL)
3/4" (20mm) - 8" (200mm).

Factory Mutual Engineering Approved (FM) for plain and electro-Galvanized zinc,
3/4" (20mm) thru 8" (200mm). Conforms to Federal Specification WW-H-171E &
A-A-1192A, Type 8 and Manufacturers Standardization Society ANSI/MSS SP-69 &
SP-58, Type 8.

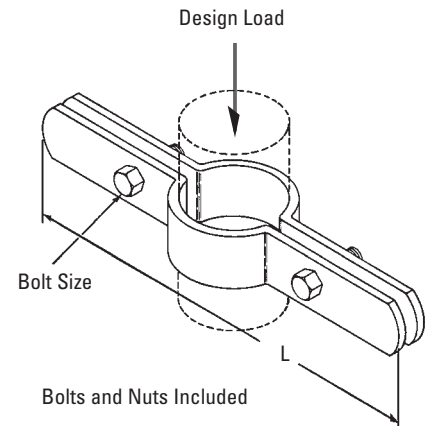
Maximum Temperature: 650°F (343°C)

Finish: Plain. Contact customer service for alternative finishes and materials.

Order By:

(B3373 and B3373C) pipe size and finish.

B3373F is available for Iron Pipe Size, consult factory.



B3373C



B3373F



B3373

Part No.	Pipe Size in. (mm)	L in. (mm)	Bolt Size	Design Load Lbs. (kN)	Approx. Wt./100 Lbs. (kg)
B3373-1/2	1/2" (15)	9" (228.6)	3/8"-16 x 1 1/4"	255 (1.13)	101 (45.9)
B3373-3/4	3/4" (20)	9 1/4" (234.9)	3/8"-16 x 1 1/4"	255 (1.13)	105 (47.7)
B3373-1	1" (25)	9 9/16" (242.9)	3/8"-16 x 1 1/4"	255 (1.13)	109 (49.4)
B3373-1 1/4	1 1/4" (32)	10" (254.0)	3/8"-16 x 1 1/4"	255 (1.13)	112 (50.9)
B3373-1 1/2	1 1/2" (40)	10 1/4" (260.3)	3/8"-16 x 1 1/2"	255 (1.13)	113 (51.1)
B3373-2	2" (50)	10 3/4" (273.0)	3/8"-16 x 1 1/2"	255 (1.13)	165 (75.0)
B3373-2 1/2	2 1/2" (65)	11 1/4" (285.7)	3/8"-16 x 1 1/2"	390 (1.73)	180 (81.6)
B3373-3	3" (80)	11 15/16" (303.2)	3/8"-16 x 1 1/2"	530 (2.35)	195 (88.4)
B3373-3 1/2	3 1/2" (90)	12 3/8" (314.3)	1/2"-13 x 1 3/4"	670 (2.98)	217 (98.5)
B3373-4	4" (100)	12 7/8" (327.0)	1/2"-13 x 1 3/4"	810 (3.60)	228 (103.5)
B3373-5	5" (125)	14" (355.6)	1/2"-13 x 1 3/4"	1160 (5.16)	480 (217.7)
B3373-6	6" (150)	15 3/16" (385.8)	1/2"-13 x 2"	1570 (6.98)	526 (238.6)
B3373-8	8" (200)	17 3/4" (450.8)	5/8"-11 x 2 1/2"	2500 (11.12)	957 (434.1)
B3373-10	10" (250)	19 7/16" (493.7)	5/8"-11 x 2 1/2"	2500 (11.12)	1101 (499.4)
B3373-12	12" (300)	21 11/16" (550.9)	5/8"-11 x 3"	2700 (12.01)	1622 (735.7)
B3373-14	14" (350)	23 9/16" (598.5)	5/8"-11 x 3"	2700 (12.01)	1732 (785.6)
B3373-16	16" (400)	26 3/8" (669.9)	3/4"-10 x 3 1/4"	2900 (12.90)	2959 (1342.2)
B3373-18	18" (450)	28 7/8" (733.4)	3/4"-10 x 3 1/4"	2900 (12.90)	3235 (1467.4)
B3373-20	20" (500)	30 7/8" (784.2)	3/4"-10 x 3 1/2"	2900 (12.90)	3568 (1618.4)
B3373-24	24" (600)	34 7/8" (885.8)	3/4"-10 x 3 1/2"	2900 (12.90)	4064 (1843.3)
B3373-30	30" (750)	40 3/4" (1035.0)	7/8"-9 x 3 1/2"	2900 (12.90)	6016 (2728.8)

Notes: For ductile iron (D.I.) pipe use part number B3373DI-pipe size. Contact B-Line Engineering for more information.

All dimensions in charts and on drawings are in inches. Dimensions shown in parentheses are in millimeters unless otherwise specified.

Pipe Clamps

B3373CT - Copper Tubing Riser Clamp

B3373CTC - PVC Coated Cooper Tubing Riser Clamp

Size Range: — Size 1/2" (15mm) thru 6" (150mm) copper tubing

Material: — Steel

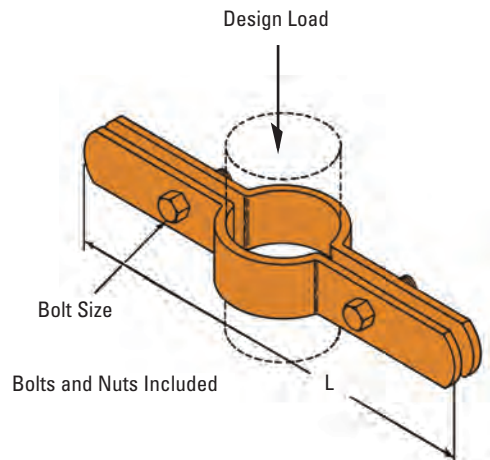
Function: — Used for supporting vertical copper tubing.

Approvals: — Conforms to Federal Specification WW-H-171E & A-A-1192A Type 8 and Manufacturers Standardization Society ANSI/MSS SP-69 & SP-58 Type 8.

Finish: — DURA-COPPER™

Note: — Available with plastic coating, specify by ordering B3373CTC

Order By: — Part number and nominal tubing size



B3373CT



B3373CTC

Part No.	Tubing Size		L		Bolt Size	Design Load		Approx. Wt./100	
	in.	(mm)	in.	(mm)		Lbs.	(kN)	Lbs.	(kg)
B3373CT-1/2	1/2"	(15)	8 3/4"	(222.2)	5/16"-18 x 1"	75	(.33)	72	(32.6)
B3373CT-3/4	3/4"	(20)	9 1/16"	(234.9)	5/16"-18 x 1"	75	(.33)	73	(33.2)
B3373CT-1	1"	(25)	9 5/16"	(236.5)	3/8"-16 x 1"	120	(.53)	74	(33.6)
B3373CT-1 1/4	1 1/4"	(32)	9 5/8"	(244.5)	3/8"-16 x 1"	150	(.67)	77	(34.8)
B3373CT-1 1/2	1 1/2"	(40)	9 3/4"	(247.6)	3/8"-16 x 1 1/4"	150	(.67)	111	(50.3)
B3373CT-2	2"	(50)	10 7/16"	(265.1)	3/8"-16 x 1 1/4"	150	(.67)	120	(54.5)
B3373CT-2 1/2	2 1/2"	(65)	10 15/16"	(277.8)	3/8"-16 x 1 1/4"	300	(1.33)	128	(58.1)
B3373CT-3	3"	(80)	11 7/16"	(290.5)	3/8"-16 x 1 1/4"	300	(1.33)	136	(61.5)
B3373CT-3 1/2	3 1/2"	(90)	11 15/16"	(303.2)	3/8"-16 x 1 1/4"	300	(1.33)	145	(65.7)
B3373CT-4	4"	(100)	12 1/2"	(317.5)	1/2"-13 x 1 3/4"	300	(1.33)	170	(77.3)
B3373CT-5	5"	(125)	13 5/8"	(346.1)	1/2"-13 x 2"	500	(2.22)	355	(161.0)
B3373CT-6	6"	(150)	14 5/8"	(371.5)	1/2"-13 x 2"	500	(2.22)	386	(175.1)

All dimensions in charts and on drawings are in inches. Dimensions shown in parentheses are in millimeters unless otherwise specified.

B3132 - Two-Bolt Underground Clamp

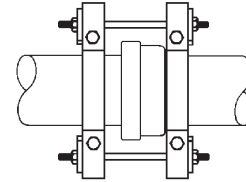
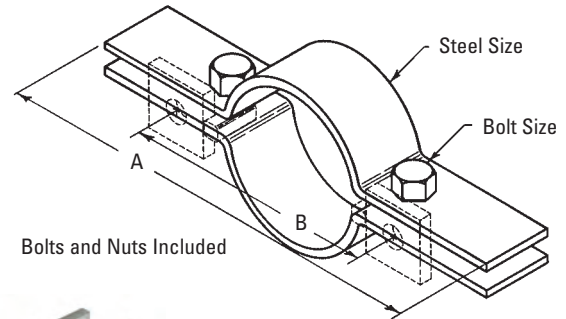
Size Range: 4" (100mm) thru 24" (600mm) pipe

Material: Steel

Function: Clamp is used for underground A.W.W.A. cast iron and ductile iron water pipe to prevent joints from separating. The O.D. of the A.W.W.A. pipe is shown in the data table.

Finish: Plain. Contact customer service for alternative finishes and materials.

Order By: Part number, pipe size and outside diameter of pipe. Order B3132W lugs, tie rods and hex nuts separately.



Part No.	Pipe Size in. (mm)	A in. (mm)	B in. (mm)	Clamp I.D. in. (mm)	Steel Size in. (mm)	Bolt Size	Approx. Wt./100 Lbs. (kg)
B3132-4	4" (100)	12 ⁷ / ₈ " (327.0)	9 ³ / ₄ " (247.6)	5" (127.0)	1/2" x 2" (12.7 x 50.8)	5/8"-11 x 3"	864 (391.9)
B3132-6	6" (150)	14 ³ / ₄ " (374.6)	12" (304.8)	7 ¹ / ₁₆ " (179.4)	1/2" x 2" (12.7 x 50.8)	5/8"-11 x 3"	1020 (462.6)
B3132-8	8" (200)	17 ¹ / ₄ " (438.1)	14 ¹ / ₄ " (361.9)	9 ³ / ₁₆ " (233.4)	1/2" x 2" (12.7 x 50.8)	5/8"-11 x 3"	1222 (554.3)
B3132-10	10" (250)	19 ³ / ₈ " (492.1)	16 ¹ / ₂ " (419.1)	11 ³ / ₈ " (288.9)	1/2" x 2" (12.7 x 50.8)	5/8"-11 x 3"	1409 (639.1)
B3132-12	12" (300)	21 ⁷ / ₈ " (555.6)	18 ⁷ / ₈ " (479.4)	13 ¹ / ₂ " (342.9)	1/2" x 2" (12.7 x 50.8)	5/8"-11 x 3"	1608 (729.4)
B3132-14	14" (350)	26" (660.4)	22 ¹ / ₄ " (565.1)	15 ³ / ₄ " (400.0)	3/4" x 3" (19.0 x 76.2)	7/8"-9 x 4 ¹ / ₂ "	4359 (1977.2)
B3132-16	16" (400)	28 ³ / ₈ " (720.7)	24 ⁵ / ₈ " (625.5)	17 ⁷ / ₈ " (454.0)	3/4" x 4" (19.0 x 101.6)	1"-8 x 4 ¹ / ₂ "	6403 (2904.4)
B3132-18	18" (450)	31 ³ / ₈ " (796.9)	27 ⁵ / ₈ " (701.7)	20" (508.0)	3/4" x 4" (19.0 x 101.6)	1 ¹ / ₄ "-7 x 5"	7293 (3308.1)
B3132-20	20" (500)	33 ¹ / ₂ " (850.9)	29 ³ / ₄ " (755.6)	22 ¹ / ₈ " (562.0)	3/4" x 4 ¹ / ₂ " (19.0 x 114.3)	1 ¹ / ₄ "-7 x 5"	8778 (3981.7)
B3132-24	24" (600)	39" (990.6)	35 ¹ / ₄ " (895.3)	26 ³ / ₈ " (669.9)	3/4" x 5" (19.0 x 127.0)	1 ¹ / ₄ "-6 x 5 ¹ / ₂ "	11659 (5288.5)

B3132W - Lug Washer

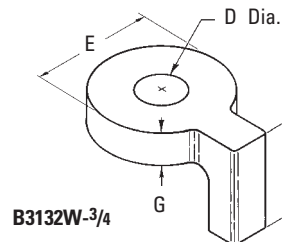
Size Range: 3/4" (20mm) thru 1¹/₂" (40mm) rod

Material: Cast Iron for B3132W-3/4, steel for other sizes

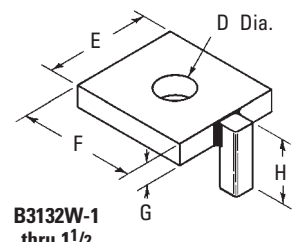
Function: Used with B3132 to secure tie rods. The projecting lug bears against the clamp bolt to prevent washer and tie rod from slipping off clamp.

Finish: Plain. Contact customer service for alternative finishes and materials.

Order By: Part number, rod size and finish



B3132W-3/4



B3132W-1
thru 1¹/₂



Part No.	Tie Rod Size	Use With Pipe Size in. (mm)	Dia. in. (mm)	E in. (mm)	F in. (mm)	G in. (mm)	H in. (mm)	Approx. Wt./100 Lbs. (kg)
B3132W-3/4	3/4"-10	4"-12" (100-300)	7/8" (22.2)	2 ³ / ₈ " (60.3)	-- --	5/8" (15.9)	1 ⁵ / ₈ " (41.3)	74 (33.7)
B3132W-1	1"-8	14"-16" (350-400)	1 ¹ / ₈ " (28.6)	3 ¹ / ₂ " (88.9)	3 ¹ / ₂ " (88.9)	5/8" (15.9)	2 ¹ / ₂ " (63.5)	207 (93.9)
B3132W-1 ¹ / ₄	1 ¹ / ₄ "-7	18" (450)	1 ³ / ₈ " (34.9)	3 ¹ / ₂ " (88.9)	4" (101.6)	5/8" (15.9)	3 ¹ / ₂ " (63.5)	236 (107.0)
B3132W-1 ³ / ₈	1 ³ / ₈ "-6	20" (500)	1 ¹ / ₂ " (38.1)	4" (101.6)	4 ¹ / ₄ " (107.9)	5/8" (15.9)	4" (101.6)	231 (104.8)
B3132W-1 ¹ / ₂	1 ¹ / ₂ "-6	24" (600)	1 ⁵ / ₈ " (41.3)	4" (101.6)	4 ³ / ₄ " (120.6)	5/8" (15.9)	4" (101.6)	259 (117.5)

All dimensions in charts and on drawings are in inches. Dimensions shown in parentheses are in millimeters unless otherwise specified.

Pipe Clamps

B3134 - Double Bolt Underground Socket Clamp

Size Range: 4" (100mm) thru 24" (600mm) pipe

Material: Steel

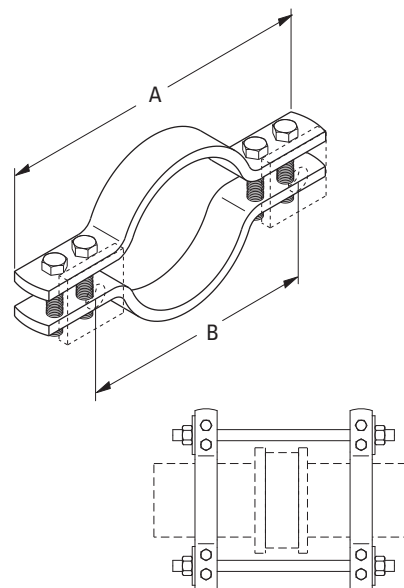
Function: Clamp is used for underground A.W.W.A. cast iron and ductile iron water pipe to prevent joints from separating. The O.D. of the A.W.W.A. pipe is shown in the data table.

Approvals: Conforms to National Fire Protection Association (NFPA) Pamphlet 24, 4" (100mm) thru 12" (300mm) pipe sizes.

Finish: Plain. Contact customer service for alternative finishes and materials.

Order By: Part number, pipe size and outside diameter of pipe.

Order B3134W plate washers, tie rods and hex nuts separately.



Part No.	Pipe Size in. (mm)	A in. (mm)	B in. (mm)	Bolt Size	B3134 Washer Size)	Approx. Wt./100 lbs. (kg)
B3134-4	4.80" (121.9)	14 ¹ / ₁₆ " (357.2)	9 ⁵ / ₁₆ " (236.5)	5/8"-11	B3134W-3/4	1275 (578.3)
B3134-6	6.90" (175.3)	16 ⁷ / ₁₆ " (417.5)	11 ¹¹ / ₁₆ " (298.9)	5/8"-11	B3134W-3/4	1455 (660.0)
B3134-8	9.05" (229.9)	19 ⁵ / ₈ " (498.5)	14 ⁷ / ₈ " (442.6)	5/8"-11	B3134W-3/4	2350 (1065.9)
B3134-10	11.10" (281.9)	21 ¹³ / ₁₆ " (554.0)	17 ¹ / ₁₆ " (433.4)	3/4"-10	B3134W-3/4	2925 (1326.8)
B3134-12	13.20" (335.3)	24 ¹ / ₂ " (622.3)	19 ¹ / ₄ " (488.9)	7/8"-9	B3134W-1	4030 (1828.0)
B3134-14	15.30" (388.6)	26 ¹⁵ / ₁₆ " (684.2)	21 ¹¹ / ₁₆ " (550.9)	7/8"-9	B3134W-1	5385 (2442.6)
B3134-16	17.40" (441.9)	30 ³ / ₄ " (781.0)	24 ³ / ₄ " (628.6)	1"-8	B3134W-1 ¹ / ₈	7645 (3467.8)
B3134-18	19.50" (495.3)	34 ⁵ / ₁₆ " (871.5)	27 ⁵ / ₁₆ " (693.7)	1 ¹ / ₄ "-7	B3134W-1 ¹ / ₄	9425 (4275.2)
B3134-20	21.60" (548.6)	36 ⁵ / ₈ " (930.3)	29 ⁵ / ₈ " (752.5)	1 ¹ / ₄ "-7	B3134W-1 ¹ / ₂	10975 (4978.2)
B3134-24	25.80" (655.3)	42 ¹ / ₈ " (1070.0)	34 ³ / ₈ " (873.1)	1 ¹ / ₂ "-6	B3134W-1 ¹ / ₂	14865 (6742.6)

B3134W - Plate Washer

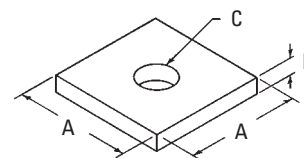
Size Range: 3/4"-10 thru 1¹/₂"-6 rod

Material: Steel

Function: Used with B3134 to secure tie rods.

Finish: Plain. Contact customer service for alternative finishes and materials.

Order By: Part number, rod size and finish



Part No.	Tie Rod Size	A in. (mm)	B in. (mm)	Hole Size C in. (mm)	Approx. Wt./100 lbs. (kg)
B3134W-3/4	3/4"-10	3" (76.2)	1/2" (12.7)	7/8" (22.2)	120 (54.4)
B3134W-1	1"-8	3 ¹ / ₂ " (88.9)	1/2" (12.7)	1 ¹ / ₈ " (28.6)	157 (71.2)
B3134W-1 ¹ / ₈	1 ¹ / ₈ "-7	3 ¹ / ₂ " (88.9)	5/8" (15.9)	1 ¹ / ₄ " (31.7)	194 (88.0)
B3134W-1 ¹ / ₄	1 ¹ / ₄ "-7	3 ¹ / ₂ " (88.9)	3/4" (19.0)	1 ³ / ₈ " (35.8)	230 (104.3)
B3134W-1 ¹ / ₂	1 ¹ / ₂ "-6	3 ¹ / ₂ " (88.9)	3/4" (19.0)	1 ⁵ / ₈ " (41.2)	240 (108.8)



All dimensions in charts and on drawings are in inches. Dimensions shown in parentheses are in millimeters unless otherwise specified.

TOLCO™ Fig. 4A - Pipe Clamp for Sway Bracing

Size Range: 4" (100mm) thru 8" (200mm) pipe.
For sizes smaller than 4" (100mm) use B3140.

Material: Steel

Function: For bracing pipe against sway and seismic disturbance.

Approvals: Underwriters Laboratories Listed in the USA (UL) and Canada (cUL) 4" (100mm) thru 8" (200mm). Included in our Seismic Restraints Catalog approved by the State of California Office of Statewide Health Planning and Development (OSHDP).

Installation Instructions: The Fig. 4A is the "braced pipe" attachment component of a longitudinal, lateral or riser brace assembly. It is intended to be combined with the "bracing pipe" and B-Line/TOLCO transitional and structural attachment component(s) to form a complete bracing assembly. NFPA 13 and/or OSHDP guidelines should be followed.

To Install: Place the Fig. 4A over the pipe to be braced. Attach TOLCO transitional fitting, either Fig. 980, 910 or 909, to the clamp ears. Tighten bolts and nuts; torque requirement is a minimum of 50 ft./lbs. (68Nm). Transitional fitting attachment can pivot for adjustment to proper brace angle.

Finish: Plain. Contact customer service for alternative finishes and materials.

Order By: Part number, pipe size and finish

Component of State of
California OSHDP Approved
Seismic Restraints System

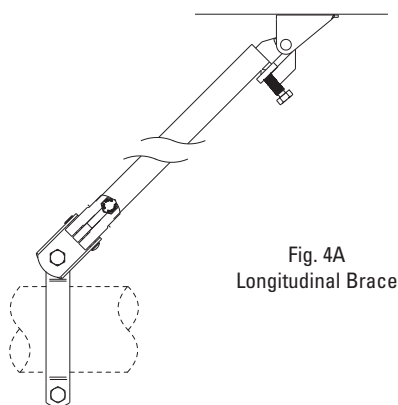
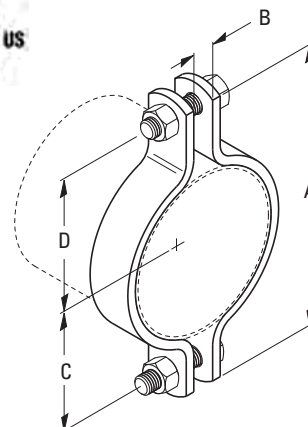


Fig. 4A
Longitudinal Brace

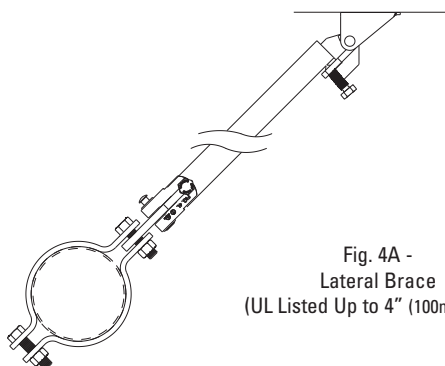


Fig. 4A -
Lateral Brace
(UL Listed Up to 4" (100mm) IPS)

Part No.	Pipe Size in. (mm)	A in. (mm)	B in. (mm)	C in. (mm)	D in. (mm)	Bolt Size	Max. Horizontal Design Load lbs. (kN)	Approx. Wt./100 lbs. (kg)
4A-4	4" (100)	8 1/2" (215.9)	9/16" (14.3)	3 3/8" (85.7)	3 11/16" (93.7)	1/2"-13	2015 (8.96)	221 (100.2)
4A-5	5" (125)	9 3/4" (247.6)	9/16" (14.3)	3 7/8" (98.4)	4 3/8" (111.1)	1/2"-13	2015 (8.96)	253 (114.7)
4A-6	6" (150)	11 1/2" (292.1)	5/8" (15.9)	5" (127.0)	5 1/8" (130.2)	1/2"-13	2015 (8.96)	513 (232.7)
4A-8	8" (200)	13 1/4" (336.5)	3/4" (19.0)	6 11/16" (169.9)	6 1/8" (155.6)	1/2"-13	2015 (8.96)	601 (272.6)

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.

All dimensions in charts and on drawings are in inches. Dimensions shown in parentheses are in millimeters unless otherwise specified.

Pipe Clamps

B3140 - Standard Pipe Clamp

B3140F - Standard Pipe Clamp Felt Lined for Copper Tubing

B3140C - Standard Pipe Clamp PVC Coated

Size Range: B3140/B3140C Size 1/2" (15mm) thru 30" (750mm) pipe.

B3140F Size 1/2" (15mm) thru 2 1/2" (65mm) copper tubing

Material: Steel

Function: Recommended for the suspension of non-insulated pipe or insulated pipe with B3151 shields. (Use B3200 weldless eye nut, B3210 eye rod or B3211 welded eye rod.) B3140F and B3140C are designed to reduce noise and vibration and/or prevent electrolysis.

Approvals: Underwriters Laboratories Listed in the USA (**UL**), Canada (**cUL**) 3/4" (20mm) - 12" (300mm), and approved by Factory Mutual Engineering (**FM**), 3/4" (20mm) - 8" (200mm). Federal Specification WW-H-171E & A-A-1192A, Type 4, and Manufacturers Standardization Society ANSI/MSS SP-69 & SP-58, Type 4. Included in our Seismic Restraints Catalog 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 the Seismic Restraint Systems Guidelines.

Note: For piping that requires sway bracing refer to Fig. 4A.

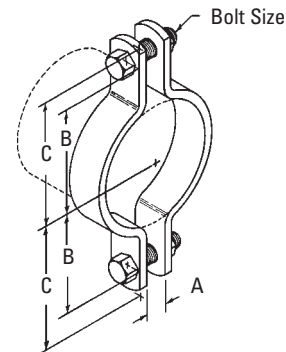
Maximum Temperature: — 750°F (399°C)

Finish: Plain. Contact customer service for alternative finishes and materials.

Order By: Part number, pipe size and finish.

Order Note: When ordering B3140F allow for 3/16" (4.8mm) felt on each half of clamp.

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Seismic Restraints System



B3140



B3140F



B3140C

B3140 - Standard Pipe Clamp
B3140F - Standard Pipe Clamp Felt Lined
B3140C - Standard Pipe Clamp PVC Coated cont.

Part No.	Pipe Size	A		B		C		Bolt Size
	in. (mm)	in.	(mm)	in.	(mm)	in.	(mm)	
B3140-1/2	1/2" (15)	3/8"	(9.5)	31/32"	(24.6)	1 17/32"	(38.9)	5/16"-18
B3140-3/4	3/4" (20)	9/16"	(14.3)	1 3/32"	(27.8)	1 21/32"	(42.0)	5/16"-18
B3140-1	1" (25)	9/16"	(14.3)	1 5/16"	(33.3)	1 7/8"	(47.6)	5/16"-18
B3140-1 1/4	1 1/4" (32)	1 7/32"	(13.5)	1 7/16"	(36.5)	2"	(50.8)	5/16"-18
B3140-1 1/2	1 1/2" (40)	1 9/32"	(15.1)	1 21/32"	(42.0)	2 7/32"	(56.4)	5/16"-18
B3140-2	2" (50)	9/16"	(14.3)	2 1/8"	(54.0)	2 3/4"	(69.8)	1/2"-13
B3140-2 1/2	2 1/2" (65)	5/8"	(15.9)	2 21/32"	(67.5)	3 9/32"	(83.3)	1/2"-13
B3140-3	3" (75)	5/8"	(15.9)	2 15/16"	(74.6)	3 9/16"	(90.5)	1/2"-13
B3140-3 1/2	3 1/2" (90)	5/8"	(15.9)	3 5/32"	(80.1)	3 25/32"	(96.0)	1/2"-13
B3140-4	4" (100)	3/4"	(19.0)	3 9/16"	(90.5)	4 5/16"	(109.5)	5/8"-11
B3140-5	5" (125)	3/4"	(19.0)	4 1/8"	(104.8)	4 7/8"	(123.8)	5/8"-11
B3140-6	6" (150)	7/8"	(22.2)	4 15/16"	(125.4)	5 13/16"	(147.6)	3/4"-10
B3140-8	8" (200)	1"	(25.4)	6 1/16"	(154.0)	6 15/16"	(176.2)	3/4"-10
B3140-10	10" (250)	1"	(25.4)	7 3/8"	(187.3)	8 11/16"	(220.7)	7/8"-9
B3140-12	12" (300)	1"	(25.4)	8 7/16"	(214.3)	9 3/4"	(247.6)	7/8"-9
B3140-14	14" (350)	1 1/8"	(28.6)	9 1/4"	(234.9)	10 5/8"	(269.9)	7/8"-9
B3140-16	16" (400)	1 1/8"	(28.6)	10 1/4"	(260.3)	11 5/8"	(295.3)	7/8"-9
B3140-18	18" (450)	1 1/4"	(31.7)	11 7/8"	(301.6)	13 1/4"	(336.5)	1"-8
B3140-20	20" (500)	1 3/8"	(34.9)	12 3/4"	(323.8)	14 1/8"	(358.8)	1 1/8"-7
B3140-24	24" (600)	1 5/8"	(41.3)	15 1/4"	(387.3)	16 7/8"	(428.6)	1 1/4"-7
B3140-30	30" (750)	2 1/4"	(57.1)	18 5/8"	(473.1)	21"	(533.4)	1 1/2"-6

Part No.	Pipe Size in. (mm)	Max. Design Load				Approx. Wt./100	
		650°F (343°C)		750°F (399°C)		lbs.	(kg)
B3140-1/2	1/2" (15)	500	(2.22)	390	(1.73)	30	(13.6)
B3140-3/4	3/4" (20)	500	(2.22)	390	(1.73)	31	(14.0)
B3140-1	1" (25)	500	(2.22)	390	(1.73)	33	(14.5)
B3140-1 1/4	1 1/4" (32)	500	(2.22)	390	(1.73)	39	(17.7)
B3140-1 1/2	1 1/2" (40)	800	(3.56)	620	(2.76)	41	(18.6)
B3140-2	2" (50)	1040	(4.62)	810	(3.60)	118	(53.5)
B3140-2 1/2	2 1/2" (65)	1040	(4.62)	810	(3.60)	130	(58.9)
B3140-3	3" (75)	1040	(4.62)	810	(3.60)	150	(68.0)
B3140-3 1/2	3 1/2" (90)	1040	(4.62)	810	(3.60)	158	(71.6)
B3140-4	4" (100)	1040	(4.62)	810	(3.60)	239	(108.4)
B3140-5	5" (125)	1040	(4.62)	810	(3.60)	272	(123.4)
B3140-6	6" (150)	1615	(7.18)	1260	(5.60)	541	(245.4)
B3140-8	8" (200)	1615	(7.18)	1260	(5.60)	642	(291.2)
B3140-10	10" (250)	2490	(11.07)	1950	(8.67)	1366	(619.6)
B3140-12	12" (300)	2490	(11.07)	1950	(8.67)	1543	(699.9)
B3140-14	14" (350)	2490	(11.07)	1950	(8.67)	2077	(942.1)
B3140-16	16" (400)	2490	(11.07)	1950	(8.67)	2289	(1038.3)
B3140-18	18" (450)	3060	(13.61)	2390	(10.63)	3206	(1454.2)
B3140-20	20" (500)	3060	(13.61)	2390	(10.63)	3616	(1640.2)
B3140-24	24" (600)	3060	(13.61)	2390	(10.63)	5161	(2341.0)
B3140-30	30" (750)	3500	(15.57)	2740	(12.14)	10460	(4744.6)

All dimensions in charts and on drawings are in inches. Dimensions shown in parentheses are in millimeters unless otherwise specified.

Pipe Clamps

B3141 - A.W.W.A. Pipe Clamp

Size Range: 4" (100mm) thru 24" (600mm) pipe

Material: Steel

Function: Recommended for the suspension of flanged or bell and spigot A.W.W.A. cast iron or ductile iron pipe. The O.D. of the A.W.W.A. iron pipe is shown in the data table. Used with B3200 weldless eye nut, B3210 eye rod or B3211 welded eye rod.

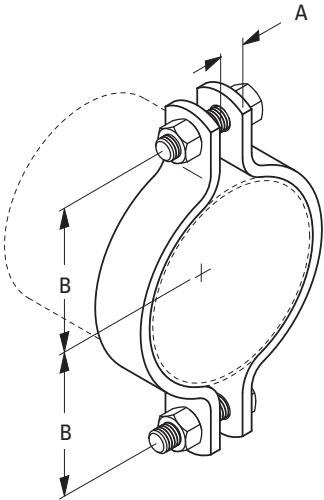
Approvals: Conforms to Federal Specification WW-H-171E & A-A-1192A, Type 4, and Manufacturers Standardization Society ANSI/MSS SP-69 & SP-58, Type 4.

Maximum Temperature: 650°F (343°C)

Finish: Plain or Electro-Galvanized

Note: Available in HDG finish or Stainless Steel materials.

Order By: Part number, pipe size and finish



Part No.	Pipe O.D.		A		B		Bolt Size		Max. Recommended Design Load		Approx. Wt./100	
	in.	(mm)	in.	(mm)	in.	(mm)			lbs.	(kN)	lbs.	(kg)
B3141-4	4.80"	(121.9)	1 1/8"	(28.6)	4 1/16"	(103.2)	5/8"-11		1400	(6.23)	860	(390.1)
B3141-6	6.90"	(175.2)	1 1/8"	(28.6)	5 1/16"	(128.6)	5/8"-11		1400	(6.23)	1060	(480.8)
B3141-8	9.05"	(229.9)	1 1/8"	(28.6)	6 3/16"	(157.2)	5/8"-11		1400	(6.23)	1230	(557.9)
B3141-10	11.10"	(281.9)	1 1/8"	(28.6)	7 1/4"	(184.1)	5/8"-11		1400	(6.23)	1430	(648.6)
B3141-12	13.20"	(335.3)	1 1/8"	(28.6)	8 5/16"	(211.1)	5/8"-11		1400	(6.23)	1630	(739.3)
B3141-14	15.30"	(388.6)	1 3/4"	(44.4)	9 7/8"	(250.7)	3/4"-10		2000	(8.89)	2300	(1043.3)
B3141-16	17.40"	(441.9)	1 3/4"	(44.4)	11 5/16"	(287.3)	7/8"-9		2500	(11.12)	3725	(1689.6)
B3141-18	19.50"	(495.3)	1 7/8"	(47.6)	12 9/16"	(319.1)	1"-8		3000	(13.34)	4200	(1905.1)
B3141-20	21.60"	(548.6)	2"	(50.8)	13 5/8"	(346.1)	1"-8		3100	(13.79)	4575	(2075.2)
B3141-24	25.80"	(655.3)	2"	(50.8)	16 5/16"	(414.3)	1 1/4"-7		4500	(20.01)	6400	(2903.0)

All dimensions in charts and on drawings are in inches. Dimensions shown in parentheses are in millimeters unless otherwise specified.

B3142 - Heavy Duty Pipe Clamp

Size Range: 3" (80mm) thru 24" (600mm) pipe

Material: Steel

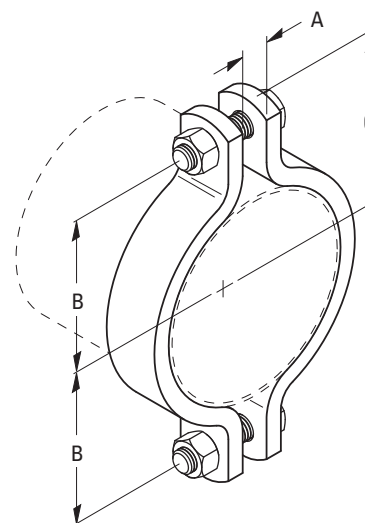
Function: Recommended for the suspension of heavy-duty pipe lines.
(Use with B3200 weldless eye nut, B3210 eye rod or B3211 welded eye rod).

Approvals: Conforms to Federal Specification WW-H-171E & A-A-1192A, Type 4, and Manufacturers Standardization Society ANSI/MSS SP-69 & SP-58, Type 4.

Maximum Temperature: 750°F (399°C)

Finish: Plain or Electro-Galvanized and HDG.

Order By: Part number, pipe size and finish



Part No.	Pipe Size in. (mm)	A in. (mm)	B in. (mm)	C in. (mm)	Bolt Size	Max. Design Load		Approx. Wt./100 lbs. (kg)
						650°F (343°C) lbs. (kN)	750°F (399°C) lbs. (kN)	
B3142-3	3" (80)	1" (25.4)	3" (76.2)	4 1/8" (104.8)	3/4"-10	3370 (14.99)	3005 (13.36)	498 (225.9)
B3142-4	4" (100)	1" (25.4)	3 11/16" (93.7)	4 15/16" (125.4)	7/8"-9	3515 (15.63)	3135 (13.94)	634 (287.6)
B3142-5	5" (125)	1" (25.4)	4 5/16" (109.5)	5 9/16" (141.3)	7/8"-9	3515 (15.63)	3135 (13.94)	714 (323.9)
B3142-6	6" (150)	1 1/8" (28.6)	5 3/16" (131.8)	6 11/16" (169.9)	1"-8	4865 (21.64)	4340 (19.30)	1351 (612.8)
B3142-8	8" (200)	1 1/8" (28.6)	6 1/4" (158.7)	7 3/4" (196.8)	1"-8	4865 (21.64)	4340 (19.30)	1573 (713.5)
B3142-10	10" (250)	1 1/4" (31.7)	7 7/8" (200.0)	9 1/2" (241.3)	1 1/4"-7	6010 (26.73)	5360 (23.84)	2537 (1150.8)
B3142-12	12" (300)	1 5/8" (41.3)	9 1/2" (241.3)	11 5/8" (295.3)	1 1/2"-6	8675 (38.58)	7740 (34.43)	4300 (1950.5)
B3142-14	14" (350)	1 5/8" (41.3)	10 1/8" (257.2)	12 1/4" (311.1)	1 1/2"-6	9120 (40.56)	8135 (36.18)	5228 (2371.4)
B3142-16	16" (400)	1 5/8" (41.3)	11 3/16" (284.2)	13 5/16" (338.1)	1 1/2"-6	9120 (40.56)	8135 (36.18)	5657 (2566.0)
B3142-18	18" (450)	1 5/8" (41.3)	12 3/16" (309.6)	14 5/16" (363.5)	1 1/2"-6	9150 (40.70)	8160 (36.29)	6914 (3136.2)
B3142-20	20" (500)	1 5/8" (41.3)	13 5/16" (338.1)	15 7/16" (392.1)	1 1/2"-6	9150 (40.70)	8160 (36.29)	7468 (3387.5)
B3142-24	24" (600)	1 3/4" (44.4)	15 3/8" (390.5)	17 3/4" (450.8)	1 1/2"-6	9200 (40.92)	8205 (36.49)	12629 (5728.5)

All dimensions in charts and on drawings are in inches. Dimensions shown in parentheses are in millimeters unless otherwise specified.

Pipe Clamps

B3144 - Standard Double Bolt Pipe Clamp

Size Range: — 1/2" (15mm) thru 36" (900mm) pipe.

Material: — Steel

Function: — Recommended for the suspension of pipe requiring up to 4" (101.6mm) of insulation and where flexibility of the clamp may be necessary. Use B3200 weldless eye nut, B3210 eye rod or B3211 welded eye rod. Also recommended for the attachment of sway bracing up to 8" (203.2mm). Refer to B-Line/TOLCO State of California Approved Seismic Restraint Product Manual.

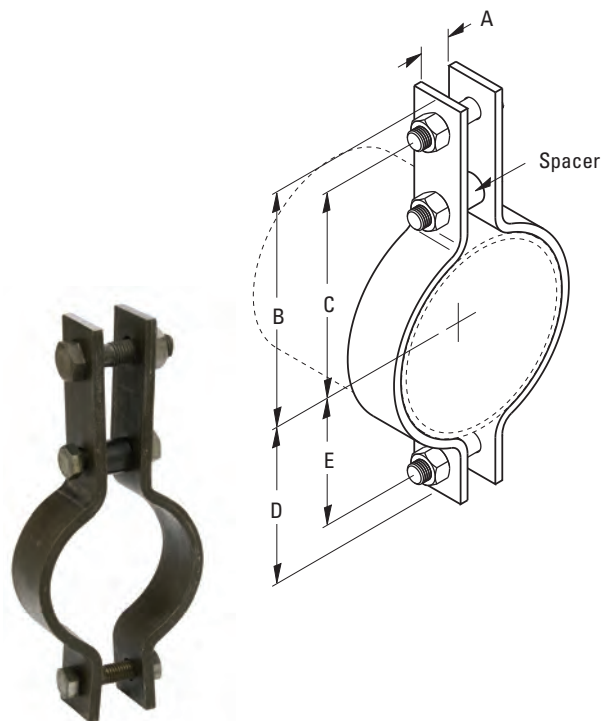
Approvals: — Conforms to Federal Specification WW-H-171E & A-A-1192A, Type 3 and Manufacturers Standardization Society ANSI/MSS SP-69 & SP-58, Type 3. Included in our Seismic Restraints Catalog approved by the State of California Office of Statewide Health Planning and Development (OSHPD). For additional load, spacing and placement information relating to OSHPD projects, please refer to the B-Line/TOLCO Seismic Restraint Systems Guidelines.

Maximum Temperature: 750°F (399°C)

Finish: Plain. Contact customer service for alternative finishes and materials.

Order By: Part number, pipe size and finish.

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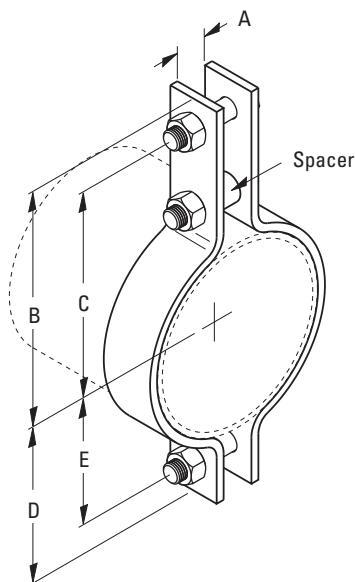


Part No.	Pipe Size in. (mm)	A in. (mm)	B in. (mm)	C in. (mm)	D in. (mm)	E in. (mm)
B3144-1/2	1/2" (15)	3/8" (9.5)	2 13/16" (71.4)	2 3/16" (55.6)	1 1/2" (38.1)	7/8" (22.2)
B3144-3/4	3/4" (20)	5/8" (15.9)	3" (76.2)	2 3/8" (60.2)	1 1/16" (42.9)	1 1/16" (27.0)
B3144-1	1" (25)	5/8" (15.9)	3 1/4" (82.5)	2 5/8" (66.7)	1 5/16" (49.2)	1 5/16" (33.3)
B3144-1 1/4	1 1/4" (32)	5/8" (15.9)	3 1/2" (88.9)	2 7/8" (72.9)	2 3/16" (58.7)	1 9/16" (39.7)
B3144-1 1/2	1 1/2" (40)	1" (25.4)	5 3/8" (136.5)	4 1/2" (114.3)	2 5/8" (66.7)	1 3/4" (44.4)
B3144-2	2" (50)	1" (25.4)	5 13/16" (147.6)	4 15/16" (125.4)	2 15/16" (74.6)	2 1/16" (52.4)
B3144-2 1/2	2 1/2" (65)	1" (25.4)	6 1/8" (155.6)	5 1/4" (133.3)	3 1/4" (82.5)	2 3/8" (60.3)
B3144-3	3" (75)	1" (25.4)	6 3/4" (171.4)	5 7/8" (149.2)	3 5/8" (92.1)	2 11/16" (68.3)
B3144-3 1/2	3 1/2" (90)	1" (25.4)	7 3/16" (182.6)	6 5/16" (160.3)	3 7/8" (98.4)	3" (76.2)
B3144-4	4" (100)	1" (25.4)	7 3/4" (196.8)	6 5/8" (168.3)	4 11/16" (119.1)	3 9/16" (90.5)
B3144-5	5" (125)	1" (25.4)	8 9/16" (217.5)	7 7/16" (189.5)	5 5/16" (134.9)	4 3/16" (106.4)
B3144-6	6" (150)	1 1/2" (38.1)	9 7/8" (250.8)	8 1/2" (215.9)	6 1/8" (155.6)	4 3/4" (120.6)
B3144-8	8" (200)	1 1/2" (38.1)	11" (279.4)	9 5/8" (244.5)	7 5/16" (185.7)	5 15/16" (150.8)
B3144-10	10" (250)	1 1/2" (38.1)	12" (304.8)	10 1/2" (266.7)	8 7/8" (225.4)	7 5/16" (185.7)
B3144-12	12" (300)	1 1/2" (38.1)	13 1/8" (333.4)	11 5/8" (295.3)	9 5/16" (252.4)	8 7/16" (214.3)
B3144-14	14" (350)	2" (50.8)	14 5/16" (363.5)	12 9/16" (319.1)	11 5/16" (287.3)	9 9/16" (242.9)
B3144-16	16" (400)	2" (50.8)	15 9/16" (395.3)	13 13/16" (350.8)	12 5/16" (312.7)	10 9/16" (268.3)
B3144-18	18" (450)	2" (50.8)	16 7/8" (428.6)	15 1/8" (384.2)	13 3/8" (339.7)	11 5/8" (295.3)
B3144-20	20" (500)	2" (50.8)	18 1/4" (463.5)	16 3/8" (415.9)	15 1/8" (384.2)	13 1/4" (336.5)
B3144-24	24" (600)	2" (50.8)	20 7/16" (519.7)	18 7/16" (468.3)	17 5/16" (439.7)	15 5/16" (388.9)
B3144-30	30" (750)	2 1/2" (63.5)	26" (660.4)	23" (584.2)	22" (558.8)	19" (482.6)
B3144-36	36" (900)	2 1/2" (63.5)	32 3/8" (822.2)	28 7/8" (733.4)	25 5/8" (650.9)	22 1/8" (562.0)

All dimensions in charts and on drawings are in inches. Dimensions shown in parentheses are in millimeters unless otherwise specified.

B3144 - Standard Double Bolt Pipe Clamp cont.

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Part No.	Pipe Size in. (mm)	Bolt Size Size	Max. Design Load		Approx. Wt./100	
			650°F (343°C) lbs. (kN)	750°F (399°C) lbs. (kN)	lbs. (kg)	(kg)
B3144-1/2	1/2" (15)	3/8"-16	950 (4.22)	-- (--)	73 (33.1)	
B3144-3/4	3/4" (20)	3/8"-16	950 (4.22)	-- (--)	73 (33.1)	
B3144-1	1" (25)	3/8"-16	950 (4.22)	-- (--)	77 (34.9)	
B3144-1 1/4	1 1/4" (32)	3/8"-16	950 (4.22)	-- (--)	79 (35.8)	
B3144-1 1/2	1 1/2" (40)	5/8"-11	1545 (6.87)	1380 (6.14)	236 (107.0)	
B3144-2	2" (50)	5/8"-11	1545 (6.87)	1380 (6.14)	251 (113.8)	
B3144-2 1/2	2 1/2" (65)	5/8"-11	1545 (6.87)	1380 (6.14)	274 (124.3)	
B3144-3	3" (75)	5/8"-11	1545 (6.87)	1380 (6.14)	289 (131.1)	
B3144-3 1/2	3 1/2" (90)	5/8"-11	1545 (6.87)	1380 (6.14)	315 (142.9)	
B3144-4	4" (100)	3/4"-10	2500 (11.12)	2230 (9.92)	745 (337.9)	
B3144-5	5" (125)	3/4"-10	2500 (11.12)	2230 (9.92)	828 (375.6)	
B3144-6	6" (150)	7/8"-9	2865 (12.74)	2555 (11.36)	1261 (572.0)	
B3144-8	8" (200)	7/8"-9	2865 (12.74)	2555 (11.36)	1535 (696.3)	
B3144-10	10" (250)	1"-8	3240 (14.41)	2890 (12.85)	2173 (985.7)	
B3144-12	12" (300)	1"-8	3240 (14.41)	2890 (12.85)	2404 (1090.4)	
B3144-14	14" (350)	1 1/4"-7	4300 (19.12)	3835 (17.06)	4002 (1815.3)	
B3144-16	16" (400)	1 1/4"-7	4300 (19.12)	3835 (17.06)	4362 (1978.6)	
B3144-18	18" (450)	1 1/4"-7	4300 (19.12)	3835 (17.06)	4935 (2238.5)	
B3144-20	20" (500)	1 3/8"-6	5490 (24.42)	4900 (21.79)	6570 (2980.1)	
B3144-24	24" (600)	1 3/8"-6	4500 (20.01)	4015 (17.86)	7524 (3412.9)	
B3144-30	30" (750)	1 3/8"-6	7500 (33.36)	-- (--)	19502 (8846.1)	
B3144-36	36" (900)	1 3/4"-5	10500 (46.70)	-- (--)	23488 (10654.1)	

All dimensions in charts and on drawings are in inches. Dimensions shown in parentheses are in millimeters unless otherwise specified.

Pipe Clamps

B3146 - Heavy Duty Double Bolt Pipe Clamp

Size Range: 6" (150mm) thru 36" (900mm) pipe.

Material: Steel

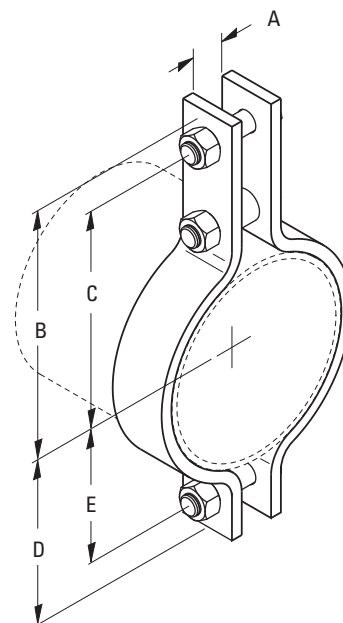
Function: Recommended for the suspension of heavy duty high temperature pipe runs requiring up to 4" (101.6mm) of insulation and where flexibility of the clamp may be necessary. Use with B3200 weldless eye nut, B3210 eye rod or B3211 welded eye rod.

Approvals: Conforms to Federal Specification WW-H-171E & A-A-1192A, Type 3 and Manufacturers Standardization Society ANSI/MSS SP-69 & SP-58, Type 3.

Maximum Temperature: 750°F (399°C)

Finish: Plain. Contact customer service for alternative finishes and materials.

Order By: Part number, pipe size and finish.



Part No.	Pipe Size	A		B		C		D		E	
	in. (mm)	in. (mm)	in. (mm)	in. (mm)	in. (mm)	in. (mm)	in. (mm)	in. (mm)	in. (mm)		
B3146-6	6" (150)	1 ³ / ₄ " (44.4)	10 ³ / ₁₆ " (258.8)	8 ¹⁵ / ₁₆ " (227.0)	6" (152.4)	4 ³ / ₄ " (120.6)					
B3146-8	8" (200)	2" (50.8)	11 ³ / ₈ " (288.9)	10 ¹ / ₈ " (257.2)	7 ¹ / ₄ " (184.1)	6" (152.4)					
B3146-10	10" (350)	2 ¹ / ₄ " (57.1)	13 ¹ / ₈ " (333.4)	11 ³ / ₈ " (288.9)	9" (228.6)	7 ¹ / ₄ " (184.1)					
B3146-12	12" (300)	2 ¹ / ₂ " (63.5)	14 ⁵ / ₁₆ " (363.5)	12 ⁹ / ₁₆ " (319.1)	10 ³ / ₈ " (263.5)	8 ⁵ / ₈ " (219.1)					
B3146-14	14" (450)	2 ¹ / ₂ " (63.5)	15 ¹ / ₂ " (393.7)	13 ¹ / ₂ " (342.9)	11 ⁵ / ₈ " (295.3)	9 ⁵ / ₈ " (244.5)					
B3146-16	16" (400)	3" (76.2)	17 ¹ / ₈ " (435.0)	14 ⁷ / ₈ " (377.7)	13 ¹ / ₈ " (333.4)	10 ⁷ / ₈ " (276.2)					
B3146-18	18" (550)	3 ¹ / ₂ " (88.9)	18 ¹ / ₄ " (463.5)	16 ¹ / ₄ " (412.7)	14 ¹ / ₂ " (368.3)	12 ¹ / ₂ " (317.5)					
B3146-20	20" (500)	3 ¹ / ₂ " (88.9)	19 ³ / ₄ " (501.6)	17 ¹ / ₄ " (438.1)	16" (406.4)	13 ¹ / ₂ " (342.9)					
B3146-24	24" (600)	3 ¹ / ₂ " (88.9)	22 ³ / ₈ " (568.3)	19 ⁵ / ₁₆ " (490.5)	18 ¹ / ₂ " (469.9)	15 ¹ / ₂ " (393.7)					
B3146-30	30" (750)	4 ¹ / ₄ " (107.9)	32 ³ / ₄ " (831.8)	28 ¹ / ₄ " (717.5)	24 ³ / ₈ " (619.1)	19 ⁷ / ₈ " (504.8)					
B3146-36	36" (900)	4 ¹ / ₂ " (107.9)	40 ¹ / ₄ " (1022.3)	34 ³ / ₄ " (882.6)	30 ¹ / ₈ " (765.2)	22 ⁵ / ₈ " (574.7)					

Part No.	Bolt Size in. (mm)	Maximum Design Load For Service Temperature				Approx. Wt./100	
		650°F (343°C)		750°F (399°C)		Lbs.	(kg)
		Lbs.	(kN)	Lbs.	(kN)		
B3146-6	1" (25.4)	3500	(15.57)	3125	(13.90)	1200	(544.3)
B3146-8	1 1/8" (28.6)	4800	(21.35)	4285	(19.06)	1850	(839.1)
B3146-10	1 1/4" (31.7)	5500	(24.46)	4910	(21.84)	3030	(1374.4)
B3146-12	1 3/8" (34.9)	7000	(31.13)	6250	(27.80)	4200	(1905.1)
B3146-14	1 1/2" (38.1)	9500	(42.25)	8485	(37.74)	6000	(2721.6)
B3146-16	1 3/4" (44.4)	10000	(44.48)	8930	(39.72)	8000	(3628.8)
B3146-18	2" (50.8)	13800	(61.38)	12325	(54.82)	11500	(5216.4)
B3146-20	2" (50.8)	15300	(68.05)	13665	(60.78)	14000	(6350.4)
B3146-24	2" (50.8)	16300	(72.50)	14555	(64.74)	19000	(8618.4)
B3146-30	2 1/4" (57.1)	20500	(91.18)	--	(--)	40600	(18416.1)
B3146-36	2 3/4" (69.8)	28000	(124.54)	--	(--)	67800	(30754.1)



All dimensions in charts and on drawings are in inches. Dimensions shown in parentheses are in millimeters unless otherwise specified.

TOLCO™ Fig. 4B - Pipe Clamp for Sway Bracing

Size Range: 3/4" (20mm) to 8" (200mm) pipe

Material: Steel

Function: For bracing pipe against sway and seismic disturbance

Approvals: Included in the Seismic Restraints Catalog approved by the State of California Office of Statewide Health Planning and Development (OSHPD).

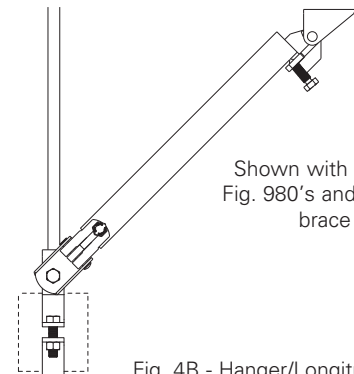
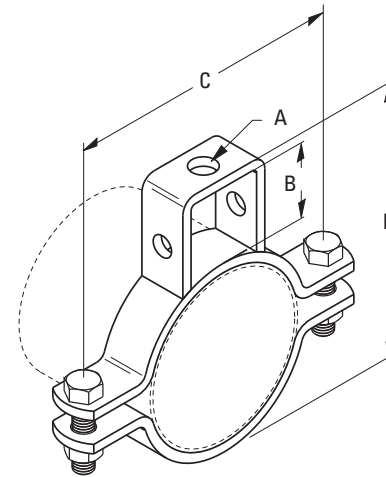
Standard Finish: Plain or Electro-Galvanized. Contact customer service for alternative finishes and materials.

Order By: Part number and finish.

Installation Instructions: Fig. 4B is the "braced pipe" attachment component of a longitudinal or lateral sway brace assembly. It is intended to be combined with the "bracing pipe" and transitional and structural attachment component(s) to form a complete bracing assembly. NFPA 13 and/or OSHPD guidelines should be followed.

To Install: Place the Fig. 4B over the pipe to be braced. Attach other transitional fitting, Fig. 909, 910, or 980. Tighten bolts and nuts. Transitional fitting attachment can pivot for adjustment to proper brace angle.

Component of State of California OSHPD Approved Seismic Restraints System



Shown with two TOLCO Fig. 980's and Schedule 40 brace pipe.

Fig. 4B - Hanger/Longitudinal Brace

Part No.	Pipe Size in. (mm)	Rod Size A	B in. (mm)	C in. (mm)	D in. (mm)	Bolt Size	Design Load Lbs. (kN)	Approx. Wt./100 Lbs. (kg)
4B-3/4	3/4" (20)	3/8"-16	1" (25.4)	27/8" (73.0)	25/8" (66.7)	5/16"-18	330 (1.47)	56 (3.6)
4B-1	1" (25)	3/8"-16	1" (25.4)	31/4" (82.5)	215/16" (74.6)	5/16"-18	330 (1.47)	60 (3.6)
4B-11/4	11/4" (32)	3/8"-16	1" (25.4)	39/16" (90.6)	31/4" (82.5)	5/16"-18	330 (1.47)	74 (4.5)
4B-11/2	11/2" (40)	3/8"-16	1" (25.4)	313/16" (96.8)	37/16" (87.3)	5/16"-18	330 (1.47)	79 (5.0)
4B-2	2" (50)	3/8"-16	11/2" (38.1)	51/8" (130.2)	45/8" (117.5)	5/16"-18	440 (1.78)	156 (5.0)
4B-21/2	21/2" (65)	1/2"-13	13/4" (44.4)	55/8" (142.9)	53/8" (136.5)	3/8"-16	440 (1.78)	176 (5.4)
4B-3	3" (80)	1/2"-13	17/8" (47.6)	63/4" (171.4)	61/8" (155.5)	3/8"-16	660 (2.93)	198 (6.3)
4B-31/2	31/2" (90)	1/2"-13	2" (50.8)	71/4" (184.1)	63/4" (171.4)	3/8"-16	660 (2.93)	219 (7.2)
4B-4	4" (100)	5/8"-11	2" (50.8)	85/8" (219.1)	71/4" (184.1)	1/2"-13	800 (3.56)	288 (8.1)
4B-5	5" (125)	5/8"-11	2" (50.8)	97/8" (250.8)	85/16" (211.1)	5/8"-11	980 (4.36)	390 (8.1)
4B-6	6" (150)	3/4"-10	21/8" (54.0)	1015/16" (277.8)	91/2" (241.3)	5/8"-11	980 (4.36)	448 (8.1)
4B-8	8" (200)	7/8"-9	21/8" (54.0)	137/16" (341.2)	111/2" (292.1)	3/4"-10	1200 (5.34)	691 (8.1)

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.

All dimensions in charts and on drawings are in inches. Dimensions shown in parentheses are in millimeters unless otherwise specified.

Pipe Clamps

B3148 - Offset Pipe Clamp

Size Range: 1/2" (15mm) thru 12" (300mm) pipe

Material: Steel

Function: Recommended for support of pipe lines running at a definite distance from the wall or floor of a building or structure.

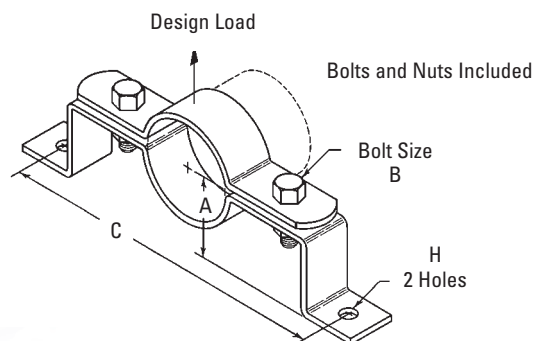
Maximum Temperature: — 650°F (343°C)

Finish: Plain or Electro-Galvanized.

Contact customer service for alternative finishes and materials.

Note: Special "A" dimensions available on request, consult factory.

Order By: Part number, pipe size and finish



Part No.	Pipe Size in. (mm)	A in. (mm)	Bolt Size B	C in. (mm)	H in. (mm)	Design Load Lbs. (kN)	Approx. Wt./100 Lbs. (kg)
B3148-1/2	1/2" (15)	27/16" (61.9)	3/8"-16	513/16" (147.6)	7/16" (11.1)	190 (.84)	107 (48.5)
B3148-3/4	3/4" (20)	21/2" (63.5)	3/8"-16	515/16" (150.8)	7/16" (11.1)	190 (.84)	109 (49.4)
B3148-1	1" (25)	25/8" (66.7)	3/8"-16	61/4" (158.7)	7/16" (11.1)	190 (.84)	116 (52.6)
B3148-11/4	1 1/4" (32)	23/4" (69.8)	3/8"-16	611/16" (169.9)	7/16" (11.1)	190 (.84)	126 (57.1)
B3148-11/2	1 1/2" (40)	3" (76.2)	3/8"-16	615/16" (176.2)	7/16" (11.1)	190 (.84)	134 (60.8)
B3148-2	2" (50)	33/16" (81.0)	3/8"-16	85/16" (211.1)	7/16" (11.1)	420 (1.87)	191 (86.6)
B3148-21/2	2 1/2" (65)	37/16" (87.3)	3/8"-16	87/8" (225.4)	7/16" (11.1)	420 (1.87)	209 (94.8)
B3148-3	3" (80)	33/4" (95.2)	3/8"-16	91/2" (241.3)	7/16" (11.1)	420 (1.87)	232 (105.3)
B3148-31/2	3 1/2" (90)	4" (101.6)	3/8"-16	101/16" (255.6)	7/16" (11.1)	420 (1.87)	250 (113.4)
B3148-4	4" (100)	41/4" (107.9)	1/2"-13	109/16" (268.3)	9/16" (14.3)	610 (2.71)	370 (167.8)
B3148-6	6" (150)	55/16" (134.9)	1/2"-13	143/8" (365.1)	9/16" (14.3)	870 (3.87)	650 (294.8)
B3148-8	8" (200)	65/16" (160.3)	1/2"-13	167/16" (417.5)	9/16" (14.3)	870 (3.87)	787 (357.0)
B3148-10	10" (250)	73/8" (187.3)	3/4"-10	211/2" (546.1)	13/16" (20.6)	925 (4.11)	1238 (561.5)
B3148-12	12" (300)	83/8" (212.7)	3/4"-10	247/8" (631.8)	13/16" (20.6)	1225 (5.45)	2100 (952.5)

B3149 - Extended Pipe Clamp

Size Range: 3/4" (20mm) thru 8" (200mm) pipe

Material: Steel

Function: For suspending or supporting piping runs where the pipe cannot be determined until installation. Field modify to suit conditions.

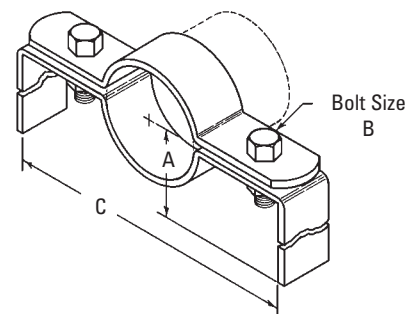
Maximum Temperature: 650°F (343°C)

Finish: Plain or Electro-Galvanized.

Contact customer service for alternative finishes and materials.

Note: Special "A" dimensions available on request, consult factory.

Order By: Part number, pipe size and finish



Part No.	Pipe Size in. (mm)	A in. (mm)	Bolt Size B	C in. (mm)	Approx. Wt./100 Lbs. (kg)
B3149-3/4	3/4" (20)	12" (304.8)	3/8"-16"	4 7/16" (112.7)	225 (102.0)
B3149-1	1" (25)	12" (304.8)	3/8"-16"	4 11/16" (119.1)	230 (104.3)
B3149-1 1/4	1 1/4" (32)	12" (304.8)	3/8"-16"	5" (127.0)	235 (106.6)
B3149-1 1/2	1 1/2" (40)	12" (304.8)	3/8"-16"	5 1/4" (133.3)	240 (108.8)
B3149-2	2" (50)	12" (304.8)	1/2"-13"	6" (152.4)	345 (156.5)
B3149-2 1/2	2 1/2" (65)	12" (304.8)	1/2"-13"	7 1/4" (184.1)	360 (163.3)
B3149-3	3" (75)	12" (304.8)	1/2"-13"	7 7/8" (200.0)	375 (170.1)
B3149-3 1/2	3 1/2" (90)	12" (304.8)	1/2"-13"	8 3/8" (212.7)	390 (176.9)
B3149-4	4" (100)	12" (304.8)	1/2"-13"	9 1/4" (234.9)	500 (226.8)
B3149-5	5" (125)	12" (304.8)	1/2"-13"	10 1/2" (266.7)	545 (247.2)
B3149-6	6" (150)	12" (304.8)	5/8"-11"	12 1/2" (317.5)	870 (394.6)
B3149-8	8" (200)	12" (304.8)	5/8"-11"	14 5/8" (371.5)	980 (444.5)

All dimensions in charts and on drawings are in inches. Dimensions shown in parentheses are in millimeters unless otherwise specified.

Pipe Clamps

B3180FL - Flush Mount Pipe Strap

Size Range: 1/2" (15mm) thru 8" (200mm) pipe

Material: Steel

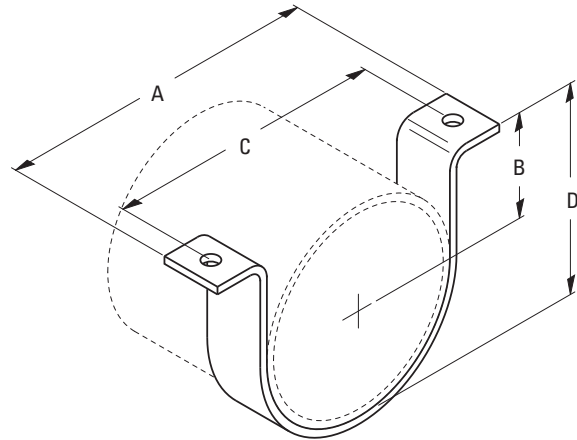
Function: Recommended for supporting pipe with fittings vertically or horizontally to walls or ceiling. Supports pipe flush with the mounting surface.

Approvals: Conforms to Federal Specification WW-H-171E & A-A-1192A, Type 26 and Manufacturers Standardization Society ANSI/MSS SP-69 & SP-58, Type 26.

Finish: Plain

Note: Available in Electro-Galvanized and HDG finish or Stainless Steel materials.

Order By: Part number, pipe size and material/finish



Part No.	Pipe Size in. (mm)	A in. (mm)	B in. (mm)	C in. (mm)	D in. (mm)	Hole Size in. (mm)	Max. Rec. Load Lbs. (kN)	Approx. Wt./100 Lbs. (kg)
B3180FL-1/2	1/2" (15)	4 1/8" (104.8)	5/16" (7.9)	2 7/8" (73.0)	3/4" (19.0)	7/16" (11.1)	410 (1.82)	21 (9.5)
B3180FL-3/4	3/4" (20)	4 5/16" (109.5)	7/16" (11.1)	3" (76.2)	15/16" (23.8)	7/16" (11.1)	410 (1.82)	24 (10.9)
B3180FL-1	1" (25)	4 9/16" (115.9)	9/16" (14.3)	3 3/8" (85.7)	1 1/8" (28.6)	7/16" (11.1)	410 (1.82)	26 (11.8)
B3180FL-1 1/4	1 1/4" (32)	4 15/16" (125.4)	1 1/16" (17.5)	3 3/4" (95.2)	1 1/2" (38.1)	7/16" (11.1)	410 (1.82)	30 (13.6)
B3180FL-1 1/2	1 1/2" (40)	5 3/16" (131.8)	1 3/16" (20.6)	4 1/4" (107.9)	1 5/8" (41.3)	7/16" (11.1)	410 (1.82)	33 (14.9)
B3180FL-2	2" (50)	5 3/4" (146.0)	1 1/16" (27.0)	4 3/4" (120.6)	2 1/4" (57.1)	7/16" (11.1)	410 (1.82)	38 (17.2)
B3180FL-2 1/2	2 1/2" (65)	6 1/4" (158.7)	1 9/16" (39.7)	5 1/4" (133.3)	2 3/4" (69.8)	7/16" (11.1)	610 (2.71)	102 (46.2)
B3180FL-3	3" (75)	6 7/8" (174.6)	1 5/8" (41.3)	5 7/8" (149.2)	3 3/8" (85.7)	7/16" (11.1)	610 (2.71)	118 (53.5)
B3180FL-3 1/2	3 1/2" (90)	7 3/8" (187.3)	1 7/8" (47.6)	6 3/8" (161.9)	3 7/8" (98.3)	7/16" (11.1)	610 (2.71)	130 (58.9)
B3180FL-4	4" (100)	8 3/8" (212.7)	2 1/8" (53.9)	7" (177.8)	4 3/8" (111.1)	9/16" (14.3)	725 (3.22)	159 (72.1)
B3180FL-5	5" (125)	9 7/16" (239.7)	2 5/8" (66.7)	7 7/8" (200.0)	5 3/8" (136.5)	9/16" (14.3)	725 (3.22)	191 (86.6)
B3180FL-6	6" (150)	10 1/2" (266.7)	3 3/16" (80.9)	8 7/8" (225.4)	6 7/16" (163.5)	9/16" (14.3)	725 (3.22)	234 (106.1)
B3180FL-8	8" (200)	14" (355.6)	4 1/4" (107.9)	11 1/2" (292.1)	8 3/8" (212.7)	1 1/16" (17.5)	900 (4.00)	446 (202.3)

All dimensions in charts and on drawings are in inches. Dimensions shown in parentheses are in millimeters unless otherwise specified.

B3180 - Standard Pipe Strap

Size Range: 1/2" (15mm) thru 8" (200mm) pipe

Material: Steel

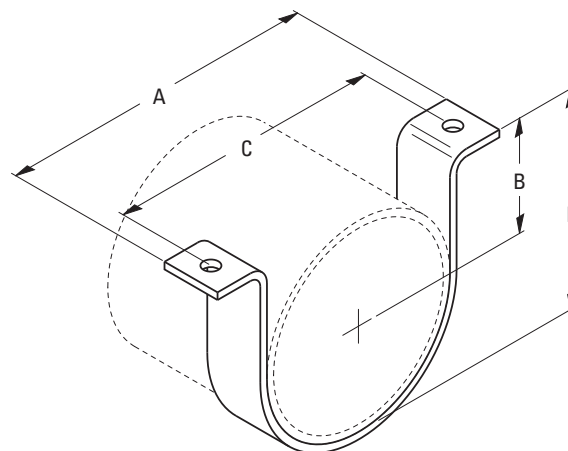
Function: Recommended for supporting pipe with fittings vertically or horizontally to walls or ceiling.

Approvals: Conforms to Federal Specification WW-H-171E & A-A-1192A, Type 26 and Manufacturers Standardization Society ANSI/MSS SP-69 & SP-58, Type 26.

Finish: Plain

Note: Available in Electro-Galvanized and HDG finish or Stainless Steel materials.

Order By: Part number, pipe size and material/finish



Part No.	Pipe Size in. (mm)	A in. (mm)	B in. (mm)	C in. (mm)	D in. (mm)	Hole Size in. (mm)	Max. Rec. Load Lbs. (kN)	Approx. Wt./100 Lbs. (kg)
B3180-1/2	1/2" (15)	3 7/8" (98.4)	3/4" (19.0)	3 1/16" (77.8)	1 5/32" (11.9)	7/16" (11.1)	410 (1.82)	16 (7.2)
B3180-3/4	3/4" (20)	4" (101.6)	1 3/16" (20.6)	3 1/8" (79.4)	1 5/16" (33.3)	7/16" (11.1)	410 (1.82)	21 (9.5)
B3180-1	1" (25)	4 9/16" (115.9)	7/8" (22.2)	3 3/8" (85.7)	1 1/2" (38.1)	7/16" (11.1)	410 (1.82)	26 (11.8)
B3180-1 1/4	1 1/4" (32)	4 15/16" (125.4)	1" (25.4)	3 3/4" (95.2)	1 7/8" (47.6)	7/16" (11.1)	410 (1.82)	30 (13.6)
B3180-1 1/2	1 1/2" (40)	5 3/16" (131.8)	1 3/16" (30.2)	4 1/4" (107.9)	2 1/8" (54.6)	7/16" (11.1)	410 (1.82)	33 (14.9)
B3180-2	2" (50)	5 3/4" (146.0)	1 7/16" (36.5)	4 3/4" (120.6)	2 5/8" (66.7)	7/16" (11.1)	410 (1.82)	38 (17.2)
B3180-2 1/2	2 1/2" (65)	6 1/4" (158.7)	1 11/16" (42.9)	5 1/4" (133.3)	3 1/8" (79.4)	7/16" (11.1)	610 (2.71)	102 (46.2)
B3180-3	3" (75)	6 7/8" (174.6)	2" (50.8)	5 7/8" (149.2)	3 3/4" (95.2)	7/16" (11.1)	610 (2.71)	118 (53.5)
B3180-3 1/2	3 1/2" (90)	7 3/8" (187.3)	2 1/4" (57.1)	6 3/8" (161.9)	4 1/4" (107.9)	7/16" (11.1)	610 (2.71)	130 (58.9)
B3180-4	4" (100)	8 3/8" (212.7)	2 1/2" (63.5)	7" (177.8)	4 3/4" (120.6)	9/16" (14.3)	725 (3.22)	159 (72.1)
B3180-5	5" (125)	9 7/16" (239.7)	3 1/16" (77.8)	7 7/8" (200.0)	5 13/16" (147.6)	9/16" (14.3)	725 (3.22)	191 (86.6)
B3180-6	6" (150)	10 1/2" (266.7)	3 5/8" (92.1)	8 7/8" (225.4)	6 7/8" (174.6)	9/16" (14.3)	725 (3.22)	234 (106.1)
B3180-8	8" (200)	14" (355.6)	4 5/8" (117.5)	11 1/2" (292.1)	9" (228.6)	1 1/16" (17.5)	900 (4.00)	446 (202.3)

All dimensions in charts and on drawings are in inches. Dimensions shown in parentheses are in millimeters unless otherwise specified.

Pipe Clamps

B2400 - Standard Pipe Strap

Size Range: 1/2" (15mm) thru 24" (600mm) pipe

Material: Steel

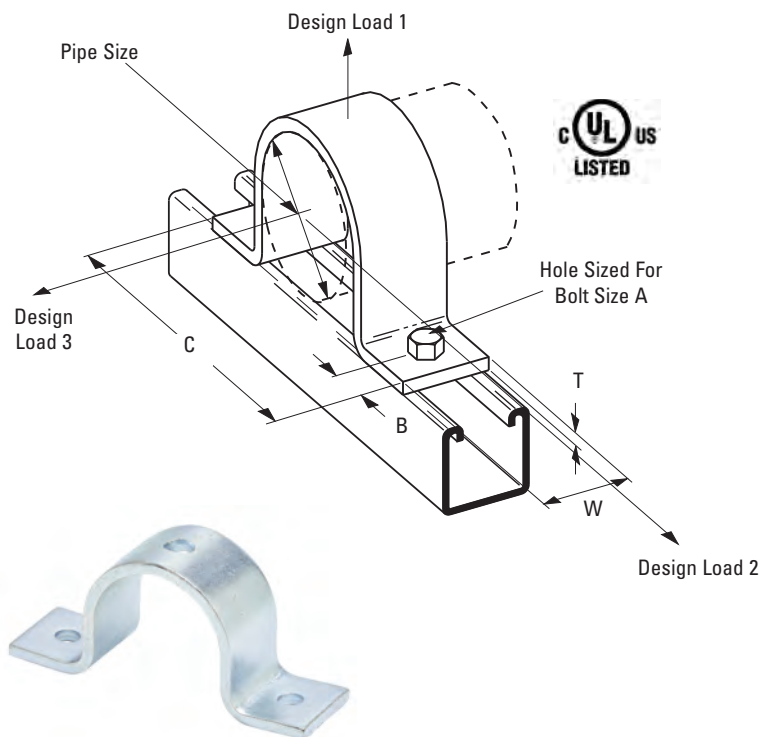
Function: Designed for supporting pipe runs from strut supports.

Approvals: Underwriters Laboratories Listed for B2400-3/4" thru B2400-8" for Design Load 1 only. Conforms to Federal Specification WW-H-171E & A-A-1192A, Type 26 and Manufacturers Standardization Society ANSI/MSS SP-69 & SP-58, Type 26.

Finish: Electro-Galvanized. Contact customer service for alternative finishes and materials.

Order By: Part number, pipe size and finish

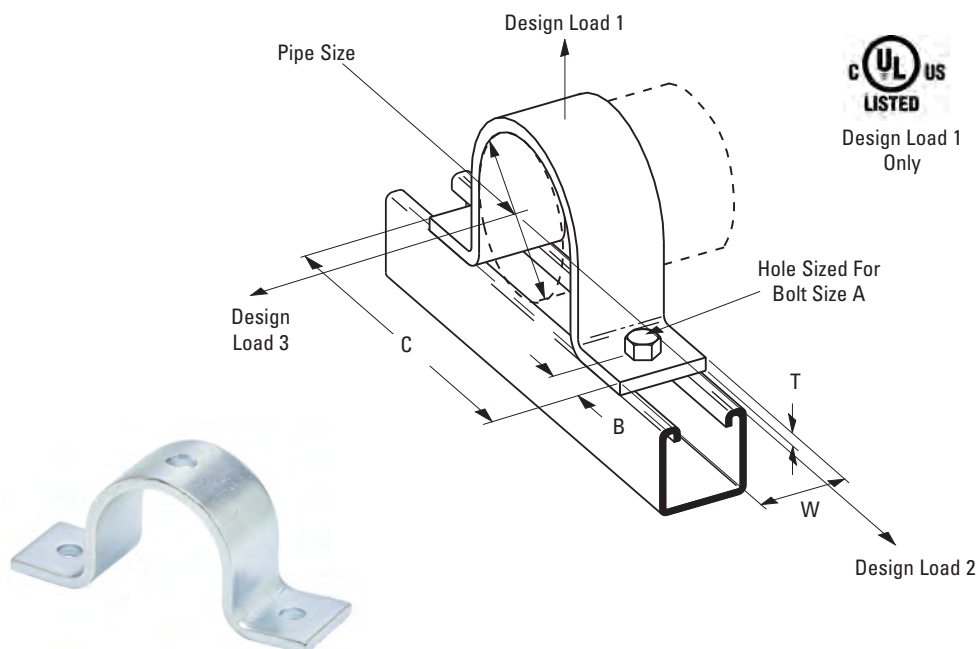
Note: Ductile iron sizes available.
Special "B" dimensions available on request, consult factory.



Part No.	Pipe Size in. (mm)	Bolt Size A	B in. (mm)	C in. (mm)	T in. (mm)	W in. (mm)
B2400-1/2	1/2" (15)	1/4"	7/16" (11.1)	2 ¹³ / ₁₆ " (71.4)	10 Ga. (3.4)	1 ⁵ / ₈ " (41.3)
B2400-3/4	3/4" (20)	1/4"	7/16" (11.1)	3" (76.2)	10 Ga. (3.4)	1 ⁵ / ₈ " (41.3)
B2400-1	1" (25)	1/4"	7/16" (11.1)	3 ¹⁷ / ₃₂ " (89.7)	10 Ga. (3.4)	1 ⁵ / ₈ " (41.3)
B2400-1 1/4	1 1/4" (32)	1/4"	7/16" (11.1)	3 ³ / ₄ " (95.2)	10 Ga. (3.4)	1 ⁵ / ₈ " (41.3)
B2400-1 1/2	1 1/2" (40)	1/4"	7/16" (11.1)	4 ¹ / ₁₆ " (103.2)	10 Ga. (3.4)	1 ⁵ / ₈ " (41.3)
B2400-2	2" (50)	3/8"	1 ¹ / ₁₆ " (17.4)	5 ²¹ / ₃₂ " (143.6)	1/4" (6.3)	1 ⁵ / ₈ " (41.3)
B2400-2 1/2	2 1/2" (65)	3/8"	1 ¹ / ₁₆ " (17.4)	6 ⁵ / ₃₂ " (156.3)	1/4" (6.3)	1 ⁵ / ₈ " (41.3)
B2400-3	3" (80)	3/8"	1 ¹ / ₁₆ " (17.4)	6 ²⁵ / ₃₂ " (172.2)	1/4" (6.3)	1 ⁵ / ₈ " (41.3)
B2400-3 1/2	3 1/2" (90)	3/8"	1 ¹ / ₁₆ " (17.4)	7 ⁹ / ₃₂ " (184.9)	1/4" (6.3)	1 ⁵ / ₈ " (41.3)
B2400-4	4" (100)	1/2"	1 ¹ / ₁₆ " (17.4)	7 ²⁵ / ₃₂ " (197.6)	1/4" (6.3)	1 ⁵ / ₈ " (41.3)
B2400-5	5" (125)	1/2"	1 ¹ / ₁₆ " (17.4)	8 ⁷ / ₈ " (225.4)	1/4" (6.3)	1 ⁵ / ₈ " (41.3)
B2400-6	6" (150)	1/2"	1 ¹ / ₁₆ " (17.4)	9 ¹⁵ / ₁₆ " (252.4)	1/4" (6.3)	1 ⁵ / ₈ " (41.3)
B2400-8	8" (200)	1/2"	1 ¹ / ₁₆ " (17.4)	11 ³¹ / ₃₂ " (304.0)	1/4" (6.3)	1 ⁵ / ₈ " (41.3)
B2400-10	10" (250)	1/2"	1 ¹ / ₁₆ " (17.4)	14" (355.6)	1/4" (6.3)	1 ⁵ / ₈ " (41.3)
B2400-12	12" (300)	1/2"	1 ¹ / ₁₆ " (17.4)	16" (406.4)	1/4" (6.3)	1 ⁵ / ₈ " (41.3)
B2400-14	14" (350)	7/8"	1 ⁵ / ₁₆ " (33.3)	20 ³ / ₈ " (517.5)	3/8" (9.5)	1 ³ / ₄ " (44.4)
B2400-16	16" (400)	7/8"	1 ⁵ / ₁₆ " (33.3)	22 ³ / ₈ " (568.3)	3/8" (9.5)	1 ³ / ₄ " (44.4)
B2400-18	18" (450)	7/8"	1 ⁵ / ₁₆ " (33.3)	26 ¹ / ₈ " (663.6)	1/2" (12.7)	1 ³ / ₄ " (44.4)
B2400-20	20" (500)	7/8"	1 ⁵ / ₁₆ " (33.3)	28 ¹ / ₈ " (714.4)	1/2" (12.7)	1 ³ / ₄ " (44.4)
B2400-24	24" (600)	7/8"	1 ⁵ / ₁₆ " (33.3)	32 ¹ / ₈ " (816.0)	1/2" (12.7)	1 ³ / ₄ " (44.4)

All dimensions in charts and on drawings are in inches. Dimensions shown in parentheses are in millimeters unless otherwise specified.

B2400 - Standard Pipe Strap cont.

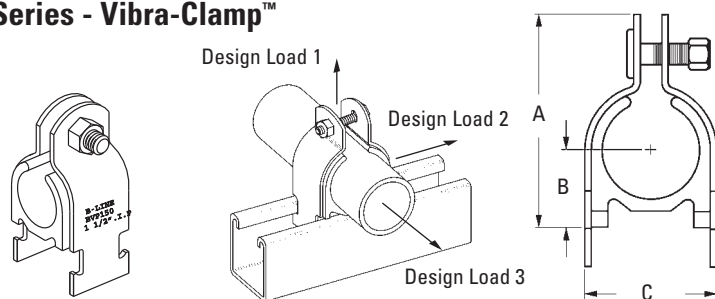


Part No.	Design Load 1		Design Load 2		Design Load 3		Approx. Wt./100	
	Lbs.	(kN)	Lbs.	(kN)	Lbs.	(kN)	Lbs.	(kg)
B2400-1/2	600	(2.67)	150	(.67)	105	(.47)	23	(10.4)
B2400-3/4	600	(2.67)	150	(.67)	105	(.47)	26	(11.8)
B2400-1	600	(2.67)	150	(.67)	120	(.53)	31	(14.0)
B2400-1 1/4	600	(2.67)	150	(.67)	120	(.53)	36	(16.3)
B2400-1 1/2	600	(2.67)	150	(.67)	120	(.53)	39	(17.7)
B2400-2	1200	(5.34)	480	(2.14)	180	(.80)	93	(42.2)
B2400-2 1/2	1200	(5.34)	480	(2.14)	180	(.80)	106	(48.1)
B2400-3	1200	(5.34)	480	(2.14)	300	(1.33)	132	(59.9)
B2400-3 1/2	1200	(5.34)	480	(2.14)	300	(1.33)	151	(68.5)
B2400-4	1500	(6.67)	600	(2.67)	450	(2.00)	160	(72.6)
B2400-5	1500	(6.67)	600	(2.67)	450	(2.00)	192	(87.1)
B2400-6	1500	(6.67)	600	(2.67)	450	(2.00)	219	(99.3)
B2400-8	2000	(8.90)	800	(3.56)	600	(2.67)	297	(134.7)
B2400-10	2000	(8.90)	800	(3.56)	600	(2.67)	465	(210.9)
B2400-12	2000	(8.90)	800	(3.56)	600	(2.67)	560	(254.0)
B2400-14	2000	(8.90)	800	(3.56)	600	(2.67)	761	(345.2)
B2400-16	2000	(8.90)	800	(3.56)	600	(2.67)	861	(390.5)
B2400-18	2000	(8.90)	800	(3.56)	600	(2.67)	1297	(588.3)
B2400-20	2000	(8.90)	800	(3.56)	600	(2.67)	1426	(646.8)
B2400-24	2000	(8.90)	800	(3.56)	600	(2.67)	1682	(762.9)

All dimensions in charts and on drawings are in inches. Dimensions shown in parentheses are in millimeters unless otherwise specified.

Pipe Clamps

BVT Series - Vibra-Clamp™



- Easy one tool installation.
- Temperature Range: -40°F (-40°C) to +300°F (148.9°C)
- Dampens vibration and noise.
- Eliminates galvanic corrosion due to metal to metal contact.
- Resists most industrial oils and solvents.
- Secures tubing firmly to strut channel.

Part No.	O.D. Size		Pipe Size		A		B		C		Wt. Each	
	in.	(mm)	in.	(mm)	in.	(mm)	in.	(mm)	in.	(mm)	Lbs.	(kg)
BVT025	1/4"	(6.3)	1/8"	(3)	1.22"	(30.9)	0.19"	(4.8)	0.49"	(12.4)	.11	(.05)
BVT037	3/8"	(9.5)	1/4"	(6)	1.36"	(34.5)	0.25"	(6.3)	0.61"	(15.5)	.12	(.05)
BVT050	1/2"	(12.7)	3/8"	(10)	1.49"	(37.8)	0.31"	(7.8)	0.74"	(18.8)	.14	(.06)
BVT062	5/8"	(15.9)	1/2"	(15)	1.62"	(41.1)	0.38"	(9.6)	0.86"	(21.8)	.15	(.07)
BVT075	3/4"	(19.0)	5/8"	(17)	1.87"	(47.4)	0.50"	(12.7)	1.15"	(29.2)	.19	(.08)
BVT087	7/8"	(22.2)	3/4"	(20)	2.00"	(50.8)	0.56"	(14.2)	1.27"	(32.2)	.21	(.09)
BVT112	1 1/8"	(28.6)	1"	(25)	2.25"	(57.1)	0.69"	(17.5)	1.52"	(38.6)	.26	(.12)
BVT137	1 3/8"	(34.9)	1 1/4"	(32)	2.51"	(63.7)	0.81"	(20.6)	1.78"	(45.2)	.38	(.17)
BVT162	1 5/8"	(41.3)	1 1/2"	(40)	3.00"	(76.2)	1.00"	(25.4)	2.20"	(55.9)	.40	(.18)
BVT212	2 1/8"	(54.0)	2"	(50)	3.52"	(89.4)	1.25"	(31.7)	2.70"	(68.6)	.55	(.25)
BVT262	2 5/8"	(66.6)	2 1/2"	(65)	4.02"	(102.1)	1.50"	(38.1)	3.20"	(81.3)	.55	(.25)
BVT312	3 1/8"	(79.4)	3"	(80)	4.53"	(115.0)	1.75"	(44.4)	3.70"	(93.9)	.64	(.29)
BVT362	3 5/8"	(92.1)	3 1/2"	(90)	5.05"	(128.2)	2.00"	(50.8)	4.23"	(107.4)	.76	(.34)
BVT412	4 1/8"	(104.8)	4"	(100)	5.55"	(140.9)	2.25"	(57.1)	4.73"	(120.1)	.93	(.42)
BVT612	6 1/8"	(155.5)	6"	(150)	7.62"	(193.5)	3.25"	(82.5)	6.74"	(171.1)	1.36	(.61)

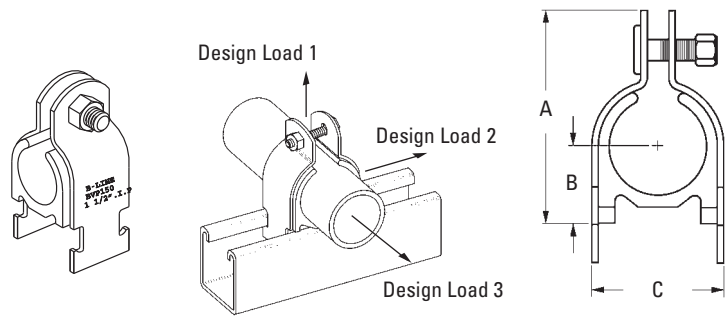
Part No.	Design Load 1		Design Load 2		Design Load 3	
	Lbs.	(kN)	Lbs.	(kN)	Lbs.	(kN)
BVT025	400	(1.78)	50	(0.22)	50	(0.22)
BVT037	400	(1.78)	50	(0.22)	50	(0.22)
BVT050	400	(1.78)	50	(0.22)	50	(0.22)
BVT062	400	(1.78)	50	(0.22)	50	(0.22)
BVT075	600	(2.67)	75	(0.33)	75	(0.33)
BVT087	600	(2.67)	75	(0.33)	75	(0.33)
BVT112	600	(2.67)	75	(0.33)	75	(0.33)
BVT137	600	(2.67)	75	(0.33)	75	(0.33)
BVT162	800	(3.56)	125	(0.55)	125	(0.55)
BVT212	800	(3.56)	125	(0.55)	125	(0.55)
BVT262	800	(3.56)	125	(0.55)	125	(0.55)
BVT312	800	(3.56)	125	(0.55)	125	(0.55)
BVT362	1000	(4.45)	200	(0.67)	150	(0.67)
BVT412	1000	(4.45)	200	(0.67)	150	(0.67)
BVT612	1000	(4.45)	200	(0.67)	150	(0.67)



All dimensions in charts and on drawings are in inches. Dimensions shown in parentheses are in millimeters unless otherwise specified.

BVP Series - Vibra-Clamp™

- Easy one tool installation.
- Temperature Range: -40°F (-40°C) to +300°F (148.9°C)
- Dampens vibration and noise.
- Eliminates galvanic corrosion due to metal to metal contact.
- Resists most industrial oils and solvents.
- Secures pipe firmly to strut channel.



Part No.	O.D. Size in. (mm)	Pipe Size in. (mm)	Dimensions		C in. (mm)	Wt. Each Lbs. (kg)
			A in. (mm)	B in. (mm)		
BVP025	0.540" (13.7)	1/4" (6)	1.61" (39.9)	0.37" (9.4)	0.87" (22.1)	.15 (.07)
BVP037	0.675" (17.1)	3/8" (10)	1.86" (47.2)	0.50" (12.7)	1.15" (29.2)	.18 (.08)
BVP050	0.875" (22.2)	1/2" (15)	1.99" (50.5)	0.56" (14.2)	1.27" (32.3)	.20 (.09)
BVP075	1.050" (26.7)	3/4" (20)	2.25" (57.1)	0.69" (17.5)	1.52" (38.6)	.21 (.09)
BVP100	1.312" (33.3)	1" (25)	2.51" (63.8)	0.81" (20.6)	1.77" (45.0)	.20 (.09)
BVP125	1.660" (42.2)	1 1/4" (32)	3.00" (76.2)	1.00" (25.4)	2.21" (56.1)	.36 (.16)
BVP150	1.900" (48.3)	1 1/2" (40)	3.21" (81.5)	1.12" (28.4)	2.41" (61.2)	.40 (.18)
BVP200	2.375" (60.3)	2" (50)	3.77" (95.8)	1.37" (34.8)	2.96" (75.2)	.45 (.20)
BVP250	2.875" (73.0)	2 1/2" (65)	4.28" (108.7)	1.62" (41.1)	3.46" (87.9)	.54 (.24)
BVP300	3.500" (88.9)	3" (80)	5.05" (128.3)	2.00" (50.8)	4.24" (107.7)	.81 (.37)
BVP350	4.000" (101.6)	3 1/2" (90)	5.55" (140.9)	2.25" (57.1)	4.74" (120.3)	.87 (.39)
BVP400	4.500" (114.3)	4" (100)	6.05" (153.7)	2.50" (63.5)	5.24" (133.1)	1.09 (.49)
BVP500	5.563" (141.3)	5" (125)	6.84" (173.7)	3.00" (76.2)	6.24" (158.4)	1.36 (.61)
BVP600	6.625" (168.3)	6" (150)	8.24" (209.3)	3.56" (90.4)	7.36" (186.9)	1.63 (.74)

Part No.	Design Load 1	Design Load 2	Design Load 3
	Lbs. (kN)	Lbs. (kN)	Lbs. (kN)
BVP025	400 (1.78)	50 (0.22)	50 (0.22)
BVP037	600 (2.67)	75 (0.33)	75 (0.33)
BVP050	600 (2.67)	75 (0.33)	75 (0.33)
BVP075	600 (2.67)	75 (0.33)	75 (0.33)
BVP100	600 (2.67)	75 (0.33)	75 (0.33)
BVP125	800 (3.56)	125 (0.55)	125 (0.55)
BVP150	800 (3.56)	125 (0.55)	125 (0.55)
BVP200	800 (3.56)	125 (0.55)	125 (0.55)
BVP250	800 (3.56)	125 (0.55)	125 (0.55)
BVP300	1000 (4.45)	200 (0.89)	150 (0.67)
BVP350	1000 (4.45)	200 (0.89)	150 (0.67)
BVP400	1000 (4.45)	200 (0.89)	150 (0.67)
BVP500	1000 (4.45)	200 (0.89)	150 (0.67)
BVP600	1000 (4.45)	200 (0.89)	150 (0.67)

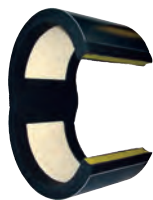


All dimensions in charts and on drawings are in inches. Dimensions shown in parentheses are in millimeters unless otherwise specified.

Pipe Clamps

Armafix®† IPH Series Inserts Only - Inserts with Clamps

- Engineered load-bearing inserts prevents insulation compression
- Innovative insulated pipe support
- Desirable "Foam-to-Foam" Bond
- Slip Data: 45 lbs. (0.20 kN) max
- Recommended Clamp Torque: 12-15 in-lbs. (1.3-1.7 Nm)
- Service Temperature Range
-58°F (-50°C) to +220°F (+105°C)



Insert Only



Assembly
Insert & Clamp

1/2" Wall Insulation Thickness

Assembly Part No.	Insert Only Part No.	Pipe/Copper/OD Size	Hanger Size*
IPH03812	IPH03812WO	3/8" O.D.	1 1/4"
IPH01212	IPH01212WO	1/2" O.D.	1 1/4"
IPH05812	IPH05812WO	5/8" O.D.	1 1/2"
IPH07812	IPH07812WO	3/4" O.D. & 7/8" O.D.	2"
IPH11812	IPH11812WO	3/4" IPS & 1 1/8" O.D.	2"
IPH13812	IPH13812WO	1 3/8" O.D.	2 1/2"
IPH15812	IPH15812WO	1 5/8" O.D.	2 1/2"
IPH11012	IPH11012WO	1 1/2" IPS & 1 7/8" O.D.	3"
IPH21812	IPH21812WO	2 1/8" O.D.	3"
IPH25812	IPH25812WO	2 5/8" O.D.	3 1/2"
IPH31812	IPH31812WO	3 1/8" O.D.	4"
IPH35812	IPH35812WO	3 5/8" O.D.	5"
IPH41812	IPH41812WO	4 1/8" O.D.	6"
IPH40012	IPH40012WO	4" IPS	6"
IPH50012	IPH50012WO	5" IPS	8"
IPH60012	IPH60012WO	6" IPS	8"

* Recommended pipe hanger size for insulation thickness shown. (Order hanger separately)

IPH18230 ARMAFLEX®† Insulation Tape

- 30 ft. (9.14 M) roll



†Armafix® and Armaflex® is a registered trademark of Armacell.

3/4" Wall Insulation Thickness

Assembly Part No.	Insert Only Part No.	Pipe/Copper/OD Size	Hanger Size*
IPH03834	IPH03834WO	3/8" O.D.	2"
IPH01234	IPH01234WO	1/2" O.D.	2"
IPH05834	IPH05834WO	5/8" O.D.	2"
IPH07834	IPH07834WO	3/4" O.D. & 7/8" O.D.	2 1/2"
IPH11834	IPH11834WO	3/4" IPS & 1 1/8" O.D.	2 1/2"
IPH13834	IPH13834WO	1 3/8" O.D.	3"
IPH15834	IPH15834WO	1 5/8" O.D.	3 1/2"
IPH11034	IPH11034WO	1 1/2" IPS & 1 7/8" O.D.	3 1/2"
IPH21834	IPH21834WO	2 1/8" O.D.	4"
IPH25834	IPH25834WO	2 5/8" O.D.	5"
IPH31834	IPH31834WO	3 1/8" O.D.	5"
IPH35834	IPH35834WO	3 5/8" O.D.	6"
IPH41834	IPH41834WO	4 1/8" O.D.	6"
IPH40034	IPH40034WO	4" IPS	6"
IPH50034	IPH50034WO	5" IPS	8"
IPH60034	IPH60034WO	6" IPS	10"
IPH80034	IPH80034WO	8" IPS	12"

* Recommended pipe hanger size for insulation thickness shown. (Order hanger separately)

1" Wall Insulation Thickness

Assembly Part No.	Insert Only Part No.	Pipe/Copper/OD Size	Hanger Size*
IPH05810	IPH05810WO	5/8" O.D.	2 1/2"
IPH07810	IPH07810WO	3/4" O.D. & 7/8" O.D.	3"
IPH11810	IPH11810WO	3/4" IPS & 1 1/8" O.D.	3"
IPH13810	IPH13810WO	1 3/8" O.D.	3 1/2"
IPH15810	IPH15810WO	1 5/8" O.D.	3 1/2"
IPH11010	IPH11010WO	1 1/2" IPS & 1 7/8" O.D.	4"
IPH21810	IPH21810WO	2 1/8" O.D.	4"
IPH25810	IPH25810WO	2 5/8" O.D.	5"
IPH31810	IPH31810WO	3 1/8" O.D.	5"
IPH35810	IPH35810WO	3 5/8" O.D.	6"
IPH41810	IPH41810WO	4 1/8" O.D.	6"
IPH40010	IPH40010WO	4" IPS	8"
IPH50010	IPH50010WO	5" IPS	8"
IPH60010	IPH60010WO	6" IPS	10"
IPH80010	IPH80010WO	8" IPS	12"

* Recommended pipe hanger size for insulation thickness shown. (Order hanger separately)

All dimensions in charts and on drawings are in inches. Dimensions shown in parentheses are in millimeters unless otherwise specified.

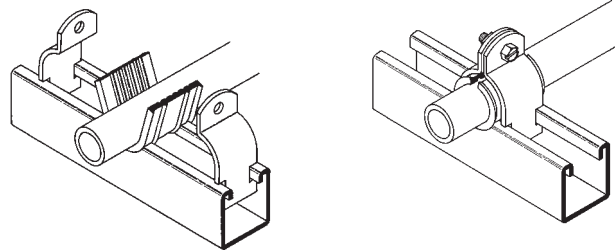
B1999 - Vibra-Cushion™

- Ideal Isolation Material
- Inhibits Galvanic Corrosion
- Dampens Sound and Vibration
- Service Temperature Range
-75° F (-60°C) to +375°F (+190°C)
- Packaged - 20 Ft. (6.09m) per carton

Vibra Cushion is designed for use with refrigeration lines, HVAC, copper tubing, glass pipe and hydraulic lines. It provides an energy-absorption barrier between the lines and the mounting material and remains flexible thru its entire service range of -75°F (-60°C) to +375°F (+190°C).

This elastomer allows for expansion and contraction within the mounting system and prevents galvanic reaction between dissimilar metals.

Note: See Strut Catalog for sizing information.



ISO - ISO-PIPE™

- Non-adhesive rubber tape
- Fuses to itself
- Water resistant
- Prevents galvanic reaction caused by dissimilar metal contact
- Service Temperature Range
-140° F (-95°C) to +395°F (+200°C)
- 1" (25.4mm) wide x 0.02" (0.5mm) thick
- Packaged - 36 Ft. (10.97m) per carton



All dimensions in charts and on drawings are in inches. Dimensions shown in parentheses are in millimeters unless otherwise specified.

Pipe Clamps

TOLCO™ Fig. 22 - Hanger for CPVC Plastic Pipe Single Fastener Strap

Size Range: 3/4" (20mm) thru 2" (50mm) CPVC pipe

Material: Pre-Galvanized Steel

Function: Intended to perform as a hanger to support CPVC piping used in automatic fire sprinkler systems. The product acts as a hanger when tab is upward and the fastener screw is in the horizontal position. Fig. 22 can be installed on the top of a beam, but in this situation acts as a guide to the piping which is supported by the beam itself. It is not intended to support CPVC pipe from under a flat horizontal surface, such as a ceiling.

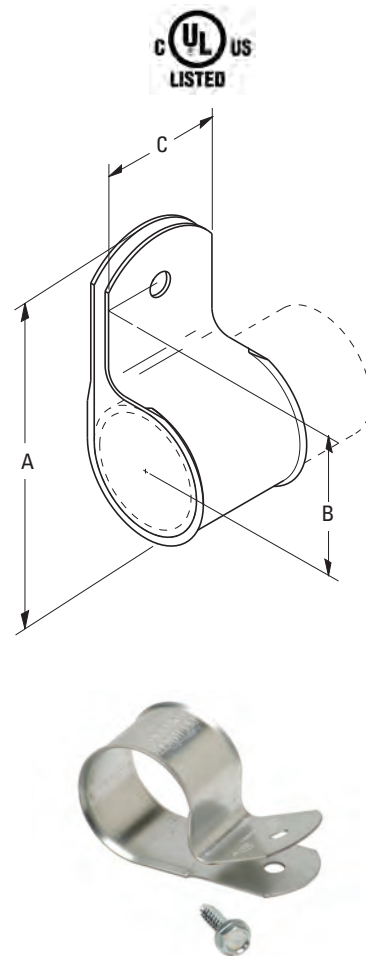
Approvals: Underwriters Laboratories Listed in the USA (UL) and Canada (cUL) to support fire sprinkler piping. May be installed in wood using fasteners supplied with product, or into minimum 20 gauge (0.9mm) steel using (1) 1/4" x 1" tek type screw. Meets and exceeds the requirements of NFPA 13, 13R and 13D.

Features: Fig. 22 incorporates features which protect the pipe and ease installation. The flared edge design protects CPVC pipe from any rough surface. It is easily attached to the building structure using the special UL Listed hex head self threading screw* furnished with the product. It is recommended that rechargeable electric drills fitted with a hex socket attachment to be used as installation tools. No impact tools (such as a hammer) are allowed. Damage has been known to result from installations using impact type tools. No pre-drilling of a pilot hole in wood is required.

Finish: Pre-Galvanized

Order By: Part number and CPVC pipe size.

* Hardened hex head self threading screw is furnished with the product and is the minimum fastener size acceptable.



Part No.	CPVC Pipe Size	A	B	C	Max. Hanger Spacing	Fastener Hex Head Size	Approx. Wt./100
	in. (mm)	in. (mm)	in. (mm)	in. (mm)		in. (mm)	
22-3/4	3/4" (20)	27/16" (61.9)	15/16" (33.3)	13/16" (30.2)	5 1/2 (1.67)	5/16" (7.9)	9 (4.1)
22-1	1" (25)	2 11/16" (68.3)	17/16" (36.5)	13/16" (30.2)	6 (1.83)	5/16" (7.9)	9 (4.1)
22-1 1/4	1 1/4" (32)	3 1/16" (77.8)	15/8" (42.3)	13/16" (30.2)	6 1/2 (1.98)	5/16" (7.9)	11 (5.0)
22-1 1/2	1 1/2" (40)	3 5/16" (84.1)	13/4" (44.4)	13/16" (30.2)	7 (2.13)	5/16" (7.9)	12 (5.4)
22-2	2" (50)	3 3/4" (95.2)	2 1/8" (54.6)	13/16" (30.2)	8 (2.44)	5/16" (7.9)	15 (6.8)

All dimensions in charts and on drawings are in inches. Dimensions shown in parentheses are in millimeters unless otherwise specified.

TOLCO™ Fig. 22L2 - One Hole Hanger/Restrainer for CPVC & Steel Pipe

Size Range: 3/4" (20mm) thru 2" (50mm) CPVC & steel pipe

Material: Pre-Galvanized Steel

Function: cULus Listed to perform as a hanger and restrainer for CPVC or IPS piping systems. The innovative design also allows for a preferred installation location close to a CPVC fitting without applying damaging compression forces on the pipe which could result in serious Mechanical ESC (Environmental Stress Cracking).

Approvals: Underwriters Laboratories Listed in the USA (**UL**) and Canada (**cUL**) to support fire sprinkler piping. May be installed in wood using fasteners supplied with product, or into minimum 20 gauge (0.9mm) steel using (1) 1/4" x 1" tek type screw. Meets and exceeds the requirements of NFPA 13, 13R and 13D.

Installation Note: Comes in open position for easier installation. Because of multi – structural installation possibilities, specific fastener not included; see notes below for various applications.

For Concrete Installation — UL requires a minimum test load of 340 lbs. (1.5kN) for CPVC hangers and 750 lbs. (3.3kN) for steel pipe hangers; verify anchors meet or exceed these requirements.

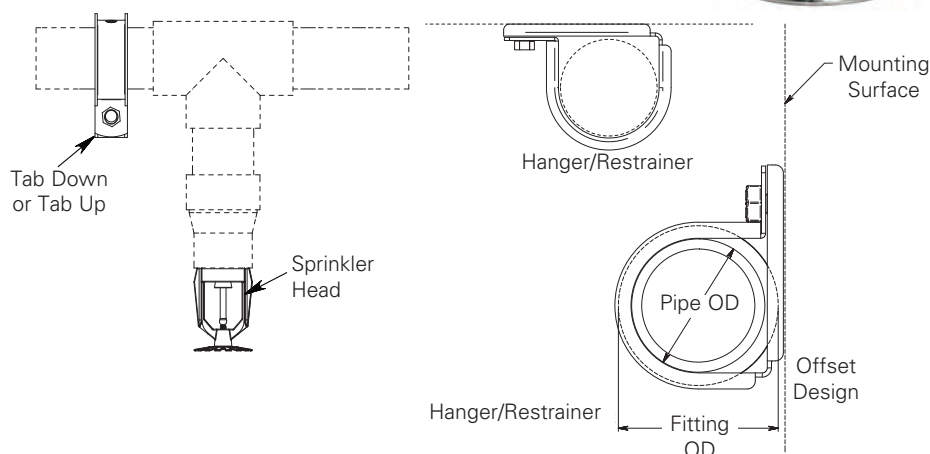
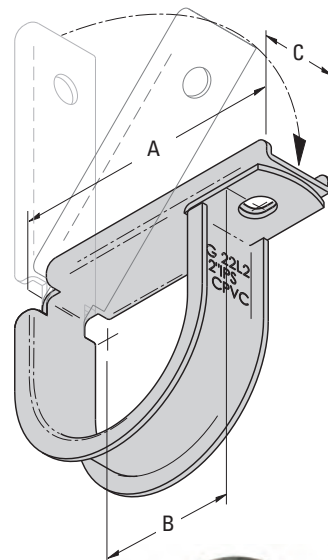
For Wood Installation — Test results have shown that #14 x 1 1/2" wood screws will support the required load for cUL us.

For Steel Installation — Test results have shown that 1/4" x 1" (min. 20ga steel) Tek type screw will support required UL load.

Finish: Pre-Galvanized

Order By: Part number

Patent Pending



Part No.	CPVC or Steel Pipe Size in. (mm)	A in. (mm)	B in. (mm)	C in. (mm)	Max. Hanger Spacing - CPVC Ft. (m)	Max. Hanger Spacing - Steel in. (mm)	Approx. Wt./100 Lbs. (kg)
22L2-3/4	3/4" (20)	2 3/16" (55.6)	1 5/16" (23.8)	3/4" (19.0)	5 1/2 (1.67)	NA (NA)	9 (4.1)
22L2-1	1" (25)	2 1/2" (63.5)	1 1/8" (28.6)	3/4" (19.0)	6 (1.83)	12 (3.66)	9 (4.1)
22L2-1 1/4	1 1/4" (32)	2 13/16" (71.4)	1 1/4" (31.7)	3/4" (19.0)	6 1/2 (1.98)	12 (3.66)	11 (5.0)
22L2-1 1/2	1 1/2" (40)	3 1/8" (79.4)	1 7/16" (36.5)	3/4" (19.0)	7 (2.13)	15 (4.57)	12 (5.4)
22L2-2	2" (50)	3 9/16" (90.5)	1 5/8" (41.3)	3/4" (19.0)	8 (2.44)	15 (4.57)	15 (6.8)

All dimensions in charts and on drawings are in inches. Dimensions shown in parentheses are in millimeters unless otherwise specified.

Pipe Clamps

TOLCO™ Fig. 23 - Hanger for CPVC Plastic Pipe Double Fastener Strap



Size Range: 3/4" (20mm) thru 3" (80mm) CPVC pipe

Material: Pre-Galvanized Steel

Function: Intended to perform as a hanger to support CPVC piping used in automatic fire sprinkler systems. Fig. 23 can be installed on the top, bottom or side of a beam.

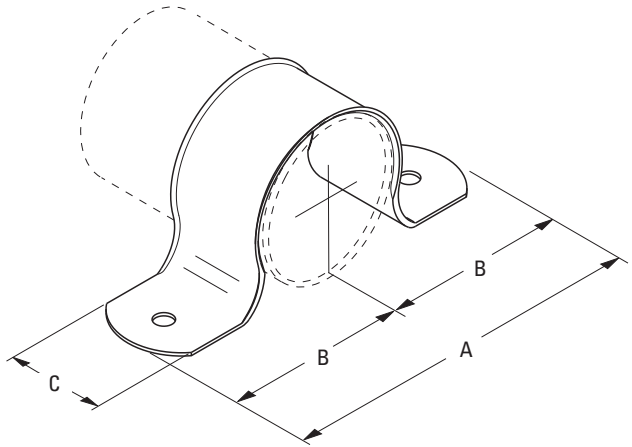
Approvals: Underwriters Laboratories Listed in the USA (UL) and Canada (cUL) sizes 3/4" (20mm) thru 2" (50mm) to support fire sprinkler piping. May be installed in wood using fasteners supplied with product, or into minimum 20 gauge (0.9mm) steel using (2) 1/4" x 1" tek type screw. Meets and exceeds the requirements of NFPA 13, 13R and 13D.

Features: Fig. 23 incorporates features which protect the pipe and ease installation. The flared edge design protects the CPVC pipe from any rough surface. It also incorporates snap restrainers allowing easier and faster installation. Easily attaches to the building structure using the two UL Listed hex head self threading screws* furnished with the product. It is recommended that rechargeable electric drills fitted with a hex socket attachment be used as installation tools. No impact tools (such as a hammer) are allowed. Damage has been known to result from installations using impact type tools. No pre-drilling of a pilot hole in wood is required.

Finish: Pre-Galvanized

Order By: Part number and pipe size

* Hardened hex head self threading screw is furnished with the product and is the minimum fastener size acceptable.



Part No.	CPVC Pipe Size in. (mm)	A in. (mm)	B in. (mm)	C in. (mm)	Max. Hanger Spacing Ft. (m)	Fastener Hex Head Size in. (mm)	Approx. Wt./100 Lbs. (kg)
23-3/4	3/4" (20)	3 1/8" (79.4)	1 9/16" (39.7)	1 3/16" (30.2)	5 1/2 (1.67)	5/16" (7.9)	9 (4.1)
23-1	1" (25)	3 3/8" (85.7)	1 11/16" (42.9)	1 3/16" (30.2)	6 (1.83)	5/16" (7.9)	9 (4.1)
23-1 1/4	1 1/4" (32)	4 3/16" (106.4)	2 3/32" (53.1)	1 3/16" (30.2)	6 1/2 (1.98)	5/16" (7.9)	11 (5.0)
23-1 1/2	1 1/2" (40)	4 7/16" (112.7)	2 7/32" (56.3)	1 3/16" (30.2)	7 (2.13)	5/16" (7.9)	12 (5.4)
23-2	2" (50)	4 7/8" (123.8)	2 7/16" (61.9)	1 3/16" (30.2)	8 (2.44)	5/16" (7.9)	15 (6.8)
23-2 1/2	2 1/2" (65)	5 3/8" (136.5)	2 11/16" (68.3)	1 3/16" (30.2)	Consult Factory	5/16" (7.9)	22 (10.0)
23-3	3" (80)	6" (152.4)	3" (76.2)	1 3/16" (30.2)	Consult Factory	5/16" (7.9)	25 (11.3)

All dimensions in charts and on drawings are in inches. Dimensions shown in parentheses are in millimeters unless otherwise specified.

TOLCO™ Fig. 24 - Hanger for CPVC Plastic Pipe Double Fastener Strap Side Mounted



Size Range: 3/4" (20mm) thru 2" (50mm) CPVC pipe

Material: Pre-Galvanized Steel

Function: Intended to perform as a hanger to support CPVC piping used in automatic fire sprinkler systems. Can be installed on the top or on the bottom of a beam.

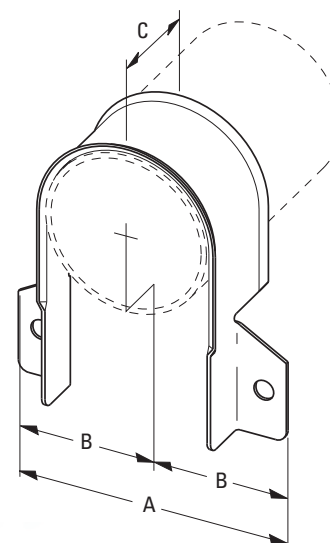
Approvals: Underwriters Laboratories Listed in the USA (UL) and Canada (cUL) to support fire sprinkler piping. May be installed in wood using fasteners supplied with product, or into minimum 20 gauge (0.912mm) steel using (2) 1/4" x 1" tek type screws. Meets and exceeds the requirements of NFPA 13, 13R and 13D.

Features: Fig. 24 incorporates features which protect the pipe and ease installation. The flared edge design protects the CPVC pipe from any rough surface. Easily attaches to the building structure using the two UL Listed hex head self threading screws* furnished with the product. It is recommended that rechargeable electric drills fitted with a hex socket attachment be used as installation tools. No impact tools (such as a hammer) are allowed. Damage has been known to result from installations using impact type tools. No pre-drilling of a pilot hole in wood is required.

Finish: Pre-Galvanized

Order By: Part number and pipe size

* Hardened hex head self threading screw is furnished with the product and is the minimum fastener size acceptable.



Part No.	CPVC Pipe Size in. (mm)	A in. (mm)	B in. (mm)	C in. (mm)	Max. Hanger Spacing Ft. (m)	Fastener Hex Head Size in. (mm)	Approx. Wt./100 Lbs. (kg)
24-3/4	3/4" (20)	2 ⁵ / ₁₆ " (58.7)	1 ⁵ / ₃₂ " (27.8)	1 ³ / ₁₆ " (30.2)	5 ¹ / ₂ (1.67)	5/16" (7.9)	9 (4.1)
24-1	1" (25)	2 ⁵ / ₈ " (66.7)	1 ⁵ / ₁₆ " (33.3)	1 ³ / ₁₆ " (30.2)	6 (1.83)	5/16" (7.9)	9 (4.1)
24-1 ¹ / ₄	1 ¹ / ₄ " (32)	3" (76.2)	1 ¹ / ₂ " (38.1)	1 ³ / ₁₆ " (30.2)	6 ¹ / ₂ (1.98)	5/16" (7.9)	11 (5.0)
24-1 ¹ / ₂	1 ¹ / ₂ " (40)	3 ¹ / ₄ " (82.5)	1 ⁵ / ₈ " (42.3)	1 ³ / ₁₆ " (30.2)	7 (2.13)	5/16" (7.9)	12 (5.4)
24-2	2" (50)	3 ¹¹ / ₁₆ " (93.7)	1 ²⁷ / ₃₂ " (43.6)	1 ³ / ₁₆ " (30.2)	8 (2.44)	5/16" (7.9)	15 (6.8)

All dimensions in charts and on drawings are in inches. Dimensions shown in parentheses are in millimeters unless otherwise specified.

Pipe Clamps

TOLCO™ Fig. 25 - Surge Restrainer

Size Range: — One size fits 3/4" (20mm) thru 2" (40mm) pipe.

Material: — Pre-Galvanized Steel

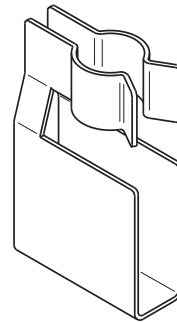
Function: — Designed to be used in conjunction with Fig. 200 band hangers to restrict the upward movement of piping as it occurs during sprinkler head activation or earthquake type activity. The surge restrainer is easily and efficiently installed by snapping into a locking position on the band hanger. This product is intended to satisfy the requirements as indicated in the National Fire Protection Association NFPA 13, 2010 edition, 9.2.3.4.4.1 and 9.2.3.4.4.4 Can be used to restrain either steel pipe or CPVC plastic Pipe.

Approvals: — Underwriters Laboratories Listed only when used with band hanger Fig. 200, in the USA (UL) and Canada (cUL).

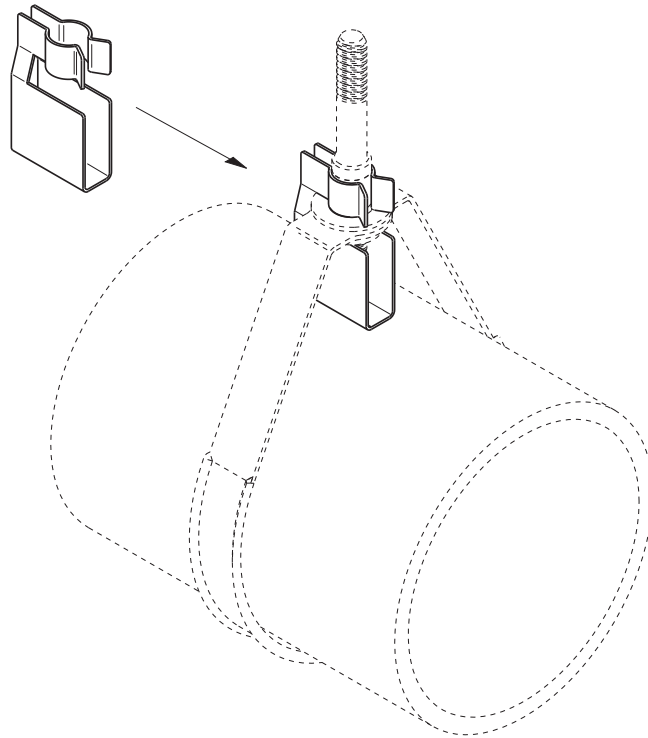
Finish: Pre-Galvanized

Order By: Part number and band hanger, size from 3/4" (20mm) thru 2" (40mm).

Patent #5,344,108



Part No.	Approx. Wt./100	
	lbs.	(kg)
25	4.8	(2.2)



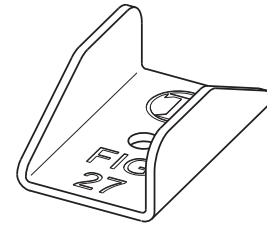
TOLCO™ Fig. 27B - Speed Nut

Size Range: — Fits screws supplied with all CPVC hangers.

Material: — Pre-Galvanized Steel

Finish: — Pre-Galvanized

Function: — To be used anywhere a screw cannot achieve full embedment due to thickness of wood structural material when installed. Fig. 27B allows full pull out load capacity of screws when installed to the standard screws supplied with all CPVC hangers (Fig. 22, 23, 24, 28, 28M, 29, and B3184).



Part No.	Approx. Wt./100	
	lbs.	(kg)
27B	1.2	(0.5)



Fig. 27B
(1) Required High
Side of Hanger
Application

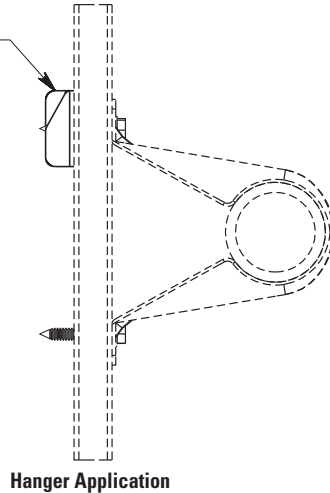
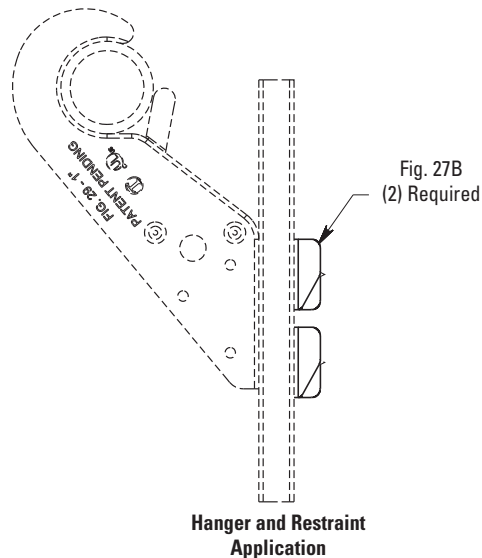
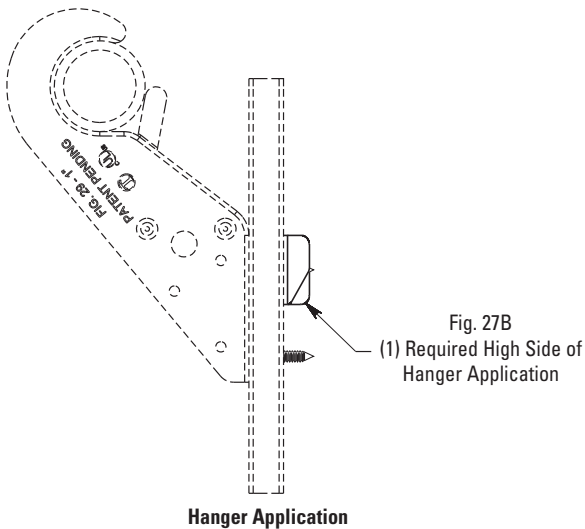
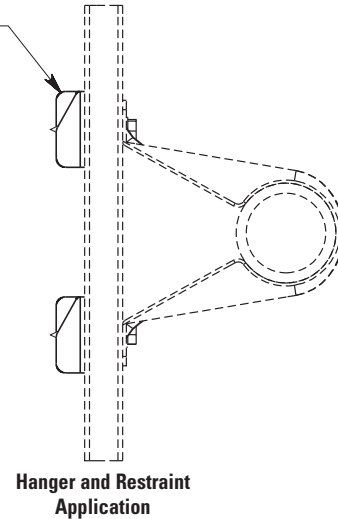


Fig. 27B
(2) Required



All dimensions in charts and on drawings are in inches. Dimensions shown in parentheses are in millimeters unless otherwise specified.

Pipe Clamps

TOLCO™ Fig. 28 - “Stand-Off” Hanger & Restrainer for CPVC Plastic Pipe

Size Range: — 3/4" (20mm) through 2" (50mm)

Material: — Steel, Pre-Galvanized

Function: — Designed to be used as a hanger and restrainer for CPVC piping where the "stand-off" design will ease installation by eliminating the need for wood blocking.

Features:

- Flared edge design protects CPVC pipe from any rough or abrasive surfaces.
- Unique twist and lock design holds pipe firmly in place and allows retrofit type of installation.
- The "Stand-Off" design eliminates the need for wood block extension.
- Can be installed on horizontal or vertical piping regardless of mounting surface orientation.
- Attaches easily to wood structure with two hex head self-threading screws furnished with product.
- Installs easily using rechargeable electrical driver with 5/16" (7.9mm) extension socket eliminating impact tool damage to pipe.
- Attaches easily to steel, minimum 18 gauge (1.024mm) with (2) 1/4" x 1" tek type self drilling tapping screws.
- UL Listed as a hanger and a restrainer for fire sprinkler piping.

Approvals: — Underwriters Laboratory Listed in the USA (UL) and Canada (cUL) to support automatic fire sprinkler systems. May be installed into wood using fasteners supplied with product, or into minimum 18 gauge steel using (2) 1/4" x 1" tek type screws. Meets and exceeds the requirements of NFPA 13, 13R and 13D. Fig. 28 satisfies the UL vertical restraint requirement where needed. UL Listed as a hanger and vertical restraint when installed on 3/8" (9.5mm) composite wood material. Use two Fig. 27B Speed Nuts when used as a hanger and restraint. Use one Fig. 27B Speed Nut on the upper installed screw when used as a hanger only.

Order by: — Part number and pipe size.

Pat. # 7,455,268, Pat. # 7,832,248

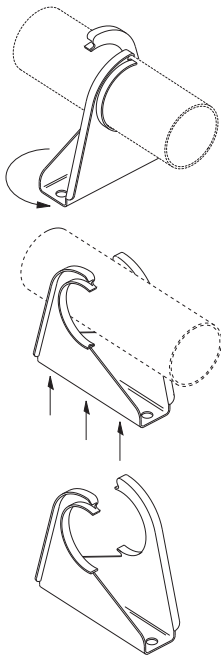
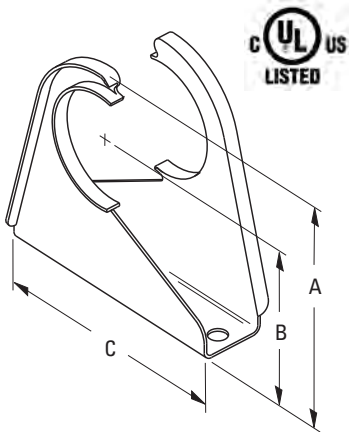
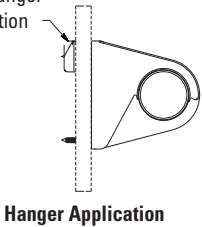
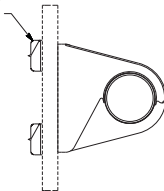


Fig. 27B
(1) Required High
Side of Hanger
Application

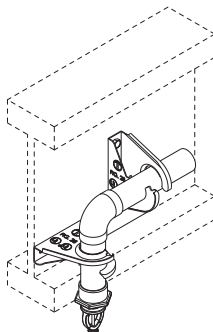
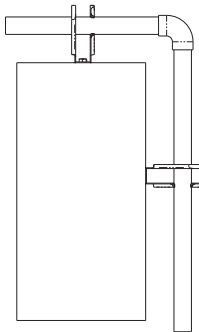


Hanger Application

Fig. 27B
(2) Required



Hanger and Restraint
Application



Part No.	Pipe Size		A		B		C		Approx. Wt./100	
	in.	(mm)	in.	(mm)	in.	(mm)	in.	(mm)	lbs.	(kg)
28-3/4	3/4"	(20)	3 1/32"	(77.0)	2"	(50.8)	3 1/2"	(88.9)	18	(8.1)
28-1	1"	(25)	3 5/16"	(84.1)	2 3/16"	(55.6)	3 1/2"	(88.9)	21	(9.5)
28-1 1/4	1 1/4"	(32)	3 5/8"	(92.1)	2 3/8"	(60.3)	3 1/2"	(88.9)	23	(10.4)
28-1 1/2	1 1/2"	(40)	4"	(101.6)	2 1/2"	(63.5)	3 1/2"	(88.9)	31	(14.0)
28-2	2"	(50)	4 1/2"	(114.3)	2 11/16"	(68.3)	3 5/8"	(92.1)	34	(15.4)

All dimensions in charts and on drawings are in inches. Dimensions shown in parentheses are in millimeters unless otherwise specified.

TOLCO™ Fig. 28M - Offset Hanger & Restrainer for CPVC Plastic Pipe

Size Range: 3/4" (20mm) thru 2" (32mm)

Material: Steel, Pre-Galvanized

Function: Designed to be used as a hanger and restrainer for CPVC piping where the "stand-off" design will ease installation by eliminating the need for wood blocking.

Features:

- Flared edge design protects CPVC pipe from any rough or abrasive surfaces
- Unique snap-on design holds pipe firmly in place and allows retrofit type of installation
- The "Stand-Off" design eliminates the need for wood block extension
- Can be installed on horizontal or vertical piping regardless of mounting surface orientation
- Attaches easily to wood structure with two hex head self-threading screws furnished with product
- Installs easily using rechargeable electrical driver with 5/16" (7.9mm) extension socket eliminating impact tool damage to pipe
- Attaches easily to steel, minimum 18 gauge (1.024mm) with (2) 1/4" x 1" tek type self drilling tapping screws
- **cULus** Listed as a hanger and a restrainer for fire sprinkler piping

Installation Note: When installed in wood structural members and threads from the #10 x 1" screws are exposed, use Fig. 27B speed nut to secure

Approvals: Underwriters Laboratory Listed in the USA (**UL**) and Canada (**cUL**)

to support automatic fire sprinkler systems.

May be installed into wood using fasteners screws.

Meets and exceeds the requirements of NFPA 13, 13R and 13D. Fig. 28M satisfies the UL vertical restraint requirements where needed.

Order By: Part number and pipe size

Patent #7,744,042

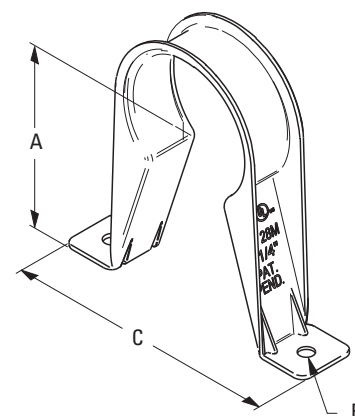
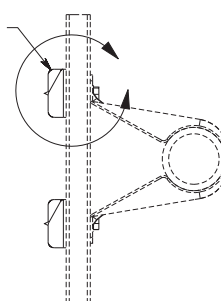
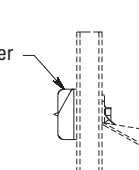


Fig. 27B
(2) Required

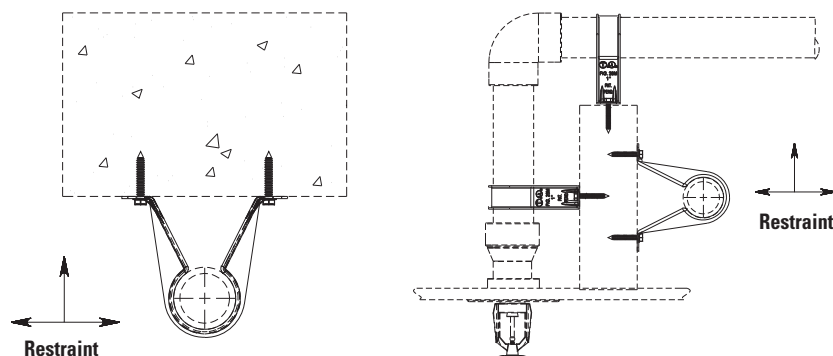


Hanger and Restraint
Application

Fig. 27B
(1) Required
High Side of Hanger



Detail A
Hanger Application



Part No.	Pipe Size in. (mm)	A in. (mm)	Hole Dia. B in. (mm)	C in. (mm)	Max Spacing* in. (mm)	Approx. Wt./100 lbs. (kg)
28M-3/4	3/4" (20)	2" (50.8)	3/16" (4.8)	35/16" (84.1)	5'-6" (1676)	9 (4.1)
28M-1	1" (25)	2 1/8" (54.0)	3/16" (4.8)	3 1/2" (88.9)	6'-0" (1829)	12 (5.4)
28M-1 1/4	1 1/4" (32)	2 5/16" (58.7)	3/16" (4.8)	3 1/2" (88.9)	6'-6" (1981)	13 (5.9)
28M-1 1/2	1 1/2" (49)	2 7/16" (61.9)	3/16" (4.8)	3 7/8" (98.4)	7'-0" (2133)	14 (6.3)
28M-2	2" (50)	2 5/8" (66.7)	3/16" (4.8)	4 7/16" (112.7)	8'-0" (2438)	15 (6.8)

* Required per NFPA 13 for CPVC plastic pipe

All dimensions in charts and on drawings are in inches. Dimensions shown in parentheses are in millimeters unless otherwise specified.

Pipe Clamps

TOLCO™ Fig. 29 - Double Offset Hanger & Restrainer for CPVC Plastic Pipe

Size Range: Available in 3/4" (20mm) and 1" (25mm) pipe sizes

Material: Pre-Galvanized Steel

Function: Intended to perform as a hanger and restrainer for CPVC, plastic fire sprinkler pipe. Provides double offset 1 1/2" (20mm) x 1 1/2" (20mm) from mounting surface. This design will ease installation by eliminating the need for wood block extension and allow retro-fit attachment of hanger to sprinkler pipe.

Features:

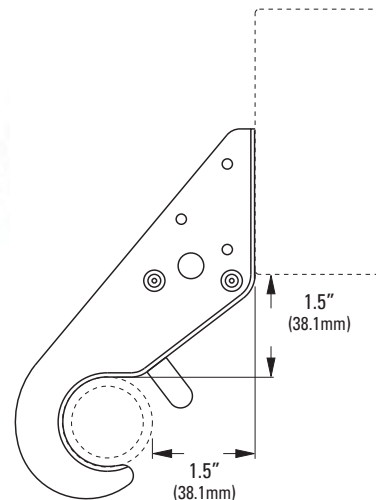
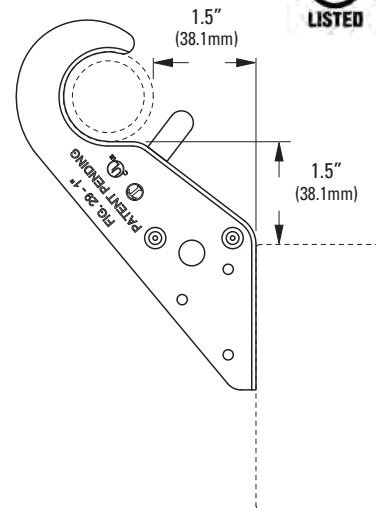
- Thumb tab provides protection to restrain pipe in rough job site conditions. Tab is not required to be bent for listed installation.
- Offset edge eliminates abrasion.
- Attaches easily to wood structure with two special #10 x 1" hex head self-threading screws furnished with product.
- Can be used as a single offset hanger by aligning "dimples" with top of mounting surface and utilizing two fasteners in two of the three holes provided.

Approvals: Underwriters Laboratories Listed in the USA (UL) and Canada (cUL) as a hanger and restrainer to support fire sprinkler systems. Meets and exceeds requirements of NFPA 13, 13R and 13D.

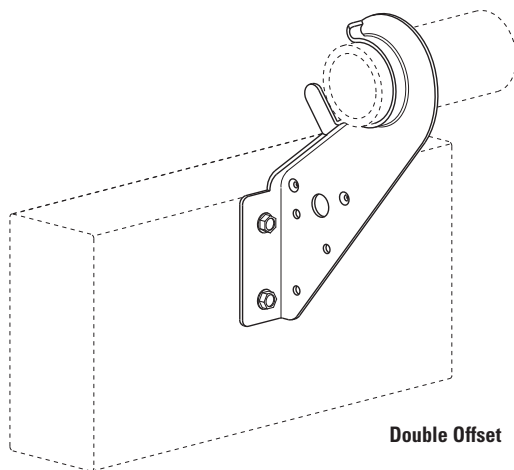
Finish: Pre-Galvanized

Order By: Part number and pipe size.

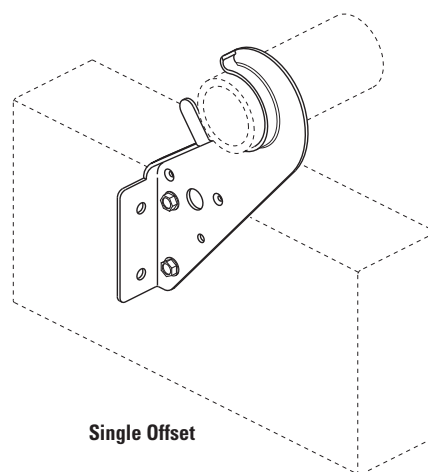
Patent Pending



Part No.	Pipe Size in. (mm)	Approx. Wt./100 lbs. (kg)
29-3/4	3/4" (20)	17.0 (7.7)
29-1	1" (25)	18.6 (8.4)



Double Offset



Single Offset

Install using a rechargeable electric drill fitted with a 5/16" (7.9mm) socket attachment with the special hex head self-tapping screws provided. Install screws until they bottom out. Pipe can be "snapped" into hanger before or after installation of the screws to the mounting surface. "Thumb tab" may be bent up to provide additional protection to the pipe, but is not required for performance of the hanger / restrainer function.

All dimensions in charts and on drawings are in inches. Dimensions shown in parentheses are in millimeters unless otherwise specified.

B3184 - Offset Hanger for CPVC Plastic Pipe and IPS Pipe

Size Range: 3/4" (20mm) thru 2" (50mm)

Material: Pre-Galvanized Steel

Function: Designed to be used as a hanger for CPVC piping or steel piping where the "stand-off" design will ease installation by eliminating the need for wood blocking.

Features:

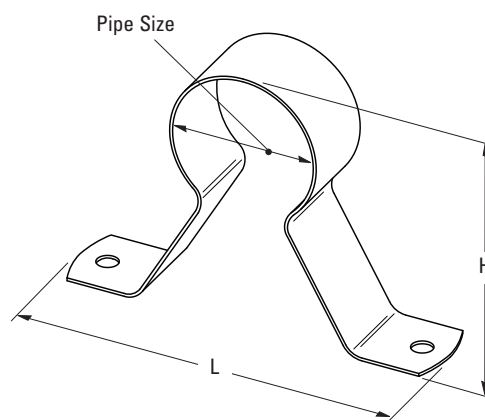
- Flared edge design protects CPVC pipe from any rough or abrasive surfaces
- The "Stand-Off" design eliminates the need for wood block extension
- Can be installed on horizontal or vertical piping regardless of mounting surface orientation
- Attaches easily to wood structure with two hex head self-threading screws furnished with product
- **cULus** Listed as a hanger for fire sprinkler piping

Installation Note: When installed in wood structural members and threads from the #10 x 1" screws are exposed, use Fig. 27B speed nut to secure

Approvals: Underwriters Laboratory Listed in the USA (**UL**) and Canada (**cUL**) 3/4" (20mm) thru 2" (50mm) to support automatic fire sprinkler systems. May be installed into wood using fasteners screws. Meets and exceeds the requirements of NFPA 13, 13R and 13D.

Order By: Part number and pipe size

Patent # 7,744,042



Part No.	CPVC Pipe Size in. (mm)	H Overall in. (mm)	L Overall in. (mm)	Max. Hanger Spacing ft. (m)	Fastener Hex Head Size in. (mm)	Approx. Wt./100 Lbs. (kg)
B3184-3/4	3/4" (20)	2 9/16" (65.1)	4 1/4" (107.9)	5 1/2 (1.67)	5/16" (7.9)	9.0 (4.1)
B3184-1	1" (25)	2 13/16" (71.4)	4 1/2" (114.3)	6 (1.83)	5/16" (7.9)	10.0 (4.5)
B3184-1 1/4	1 1/4" (32)	3 3/16" (81.0)	4 5/8" (117.5)	6 1/2 (1.98)	5/16" (7.9)	12.0 (5.4)
B3184-1 1/2	1 1/2" (40)	3 7/16" (87.3)	5" (127.0)	7 (2.13)	5/16" (7.9)	12.0 (5.4)
B3184-2	2" (50)	3 7/8" (98.4)	5" (127.0)	8 (2.44)	5/16" (7.9)	15.0 (6.8)

All dimensions in charts and on drawings are in inches. Dimensions shown in parentheses are in millimeters unless otherwise specified.

Pipe Clamps

KWIK-CLIP™ Series

Size Range:

1/2" (15mm) thru 2" (50mm) Copper Tubing or CPVC pipe sizes
3/8" (9.5mm) thru 2 1/8" (54mm) O.D. Tubing sizes

Material: Plastic - Black

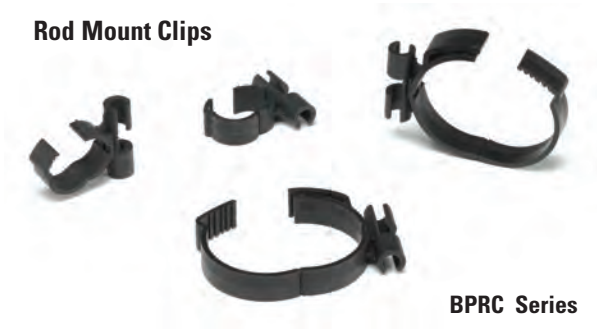
Features:

- One piece design greatly reduces installation time.
- No tools required to install.
- Non-metallic design eliminates metal-to-metal contact; preventing galvanic corrosion.
- Easily snaps into channel or onto 3/8"-16 all thread rod.
- Meets UL2043 requirements for plenum rating; and UL94 HB flame rating.
- Working temperature range of -40°F (-40°C) to +275°F (135°C).
- BPIC and BPSC clips can be used with insulation, maintaining an unbroken barrier seal and eliminating sweating.
- BPRC rod clip can be snapped onto 3/8"-16 all thread rod at any location.

Order By: Part number.



Rod Mount Clips



BPRC Series

Part Number	Copper/CPVC Pipe		O.D. Tubing		Sch.40 Pipe		Approx. Wt./100	
	in.	(mm)	in.	(mm)	in.	(mm)	lbs.	(kg)
BPRC062	1/2"	(15)	5/8"	(15.9)	--	(--)	1.2	(0.54)
BPRC075	5/8"	(16)	3/4"	(19.0)	--	(--)	1.3	(0.59)
BPRC087	3/4"	(20)	7/8"	(22.2)	1/2"	(12.7)	1.4	(0.63)
BPRC100	--	(--)	1"	(25.4)	3/4"	(19.0)	1.5	(0.68)
BPRC112	1"	(25)	1 1/8"	(28.6)	--	(--)	1.6	(0.72)
BPRC125	--	(--)	1 1/4"	(31.7)	1"	(25.4)	1.7	(0.77)
BPRC137	1 1/4"	(32)	1 3/8"	(34.9)	--	(--)	1.8	(0.81)
BPRC150	--	(--)	1 1/2"	(38.1)	--	(--)	2.1	(0.95)
BPRC162	1 1/2"	(40)	1 5/8"	(41.3)	--	(--)	2.3	(1.04)
BPRC200	--	(--)	2"	(50.8)	--	(--)	2.5	(1.13)
BPRC212	2"	(50)	2 1/8"	(54.0)	--	(--)	2.7	(1.22)



All dimensions in charts and on drawings are in inches. Dimensions shown in parentheses are in millimeters unless otherwise specified.

KWIK-CLIP™ Series - cont.



Part Number	Copper/CPVC Pipe in. (mm)	O.D. Tubing in. (mm)	Sch.40 Pipe in. (mm)	Approx. Wt./100 lbs. (kg)
BPSC037	1/4" (6)	3/8" (9.5)	-- (--)	2.3 (1.0)
BPSC050	3/8" (10)	1/2" (12.7)	-- (--)	2.6 (1.2)
BPSC062	1/2" (15)	5/8" (15.9)	-- (--)	2.8 (1.3)
BPSC075	5/8" (16)	3/4" (19.0)	-- (--)	3.3 (1.5)
BPSC087	3/4" (20)	7/8" (22.2)	1/2" (12.7)	3.9 (1.7)
BPSC112	1" (25)	1 1/8" (28.6)	-- (--)	4.5 (2.0)
BPSC137	1 1/4" (32)	1 3/8" (34.9)	-- (--)	5.0 (2.2)
BPSC162	1 1/2" (40)	1 5/8" (41.3)	-- (--)	5.5 (2.5)



Part Number	Copper/CPVC Pipe in. (mm)	O.D. Tubing in. (mm)	Sch.40 Pipe in. (mm)	Approx. Wt./100 lbs. (kg)
BPIC062	1/2" (15)	5/8" (15.9)	-- (--)	2.9 (1.3)
BPIC075	5/8" (16)	3/4" (19.0)	-- (--)	2.9 (1.3)
BPIC087	3/4" (20)	7/8" (22.2)	1/2" (12.7)	3.0 (1.4)
BPIC100	-- (--)	1" (25.4)	3/4" (19.0)	3.2 (1.4)
BPIC112	1" (25)	1 1/8" (28.6)	-- (--)	3.3 (1.5)
BPIC125	-- (--)	1 1/4" (31.7)	1" (25.4)	3.4 (1.5)
BPIC137	1 1/4" (32)	1 3/8" (34.9)	-- (--)	3.5 (1.6)
BPIC150	-- (--)	1 1/2" (38.1)	-- (--)	3.8 (1.7)
BPIC162	1 1/2" (40)	1 5/8" (41.3)	-- (--)	4.0 (1.8)
BPIC200	-- (--)	2" (50.8)	-- (--)	4.2 (1.9)
BPIC212	2" (50)	2 1/8" (54.0)	-- (--)	4.4 (2.0)



Insert in channel.



Twist into place.



Lay tubing/pipe into clip.



Snap clip closed.

All dimensions in charts and on drawings are in inches. Dimensions shown in parentheses are in millimeters unless otherwise specified.