

# Threaded Accessories



Threaded accessories offered in this section are designed to reduce installation time. A wide range of types and sizes are available for various applications.

## Materials

For maximum loading design, Carbon Steel, Forged Steel, and Malleable Iron are used in the manufacturing of threaded accessories. Stainless Steel and other materials are available.

## Finishes

The standard finishes for threaded accessories are plain steel (oil coated) sometimes referred to as black and Electro-Galvanized Zinc (ASTM B633 SC1). Hot-Dip Galvanized After Fabrication (ASTM A153) and other special coatings are available upon request.

## Approvals (as noted)

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

## B3222 - Eye Socket

**Size Range:** 1/4"-20 thru 3/4"-10 rod

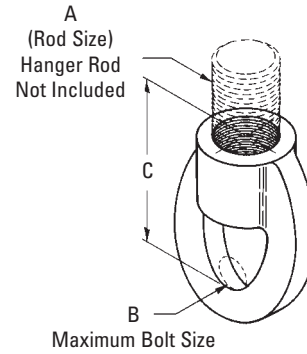
**Material:** Malleable Iron

**Function:** To provide an adjustable threaded connection for hanger rods.

**Approvals:** Underwriters Laboratories Listed 3/8"-16 thru 3/4"-10. Conforms to Federal Specification WW-H-171E & A-A-1192A, Type 16 and Manufacturers Standardization Society ANSI/MSS SP-69 & SP-58, Type 16.

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

**Order By:** Part number and finish



Part No.	Rod Size	Max. Bolt Size B		C		Design Load		Approx. Wt./100	
	A	in.	(mm)	in.	(mm)	Lbs.	(kN)	Lbs.	(kg)
B3222-1/4	1/4"-20	1/4"	(6.3)	1 1/8"	(28.6)	400	(1.78)	6	(2.7)
B3222-3/8	3/8"-16	1/4"	(6.3)	1 3/8"	(34.9)	730	(3.25)	9	(4.1)
B3222-1/2	1/2"-13	1/4"	(6.3)	1 1/2"	(38.1)	1350	(6.00)	16	(7.2)
B3222-5/8	5/8"-11	3/8"	(9.5)	1 3/4"	(44.4)	1580	(7.03)	21	(9.5)
B3222-3/4	3/4"-10	1/2"	(12.7)	2"	(50.8)	1900	(8.45)	38	(17.2)

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

# Threaded Accessories

## B3200 - Weldless Eye Nut

**Size Range:** 3/8"-16 thru 2 1/2"-4 1/2 machine thread.

**Material:** Forged Steel

**Quality Assurance:** Conforms to the requirements of NCA 3800.

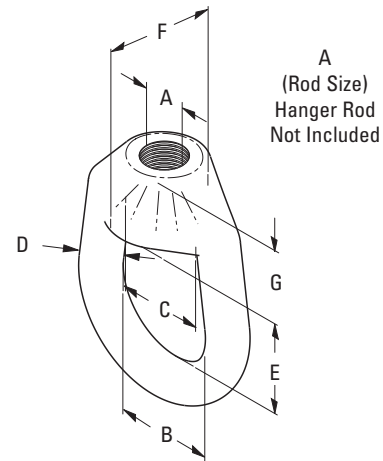
**Threads:** Tapped UNC Class 2B. Right hand threads are standard. Left hand threads supplied upon request.

**Function:** Used on piping installations where high strength and swivel action are required. Left hand tap is also available.

**Approvals:** Conforms to Federal Specification WW-H-171E & A-A-1192A, Type 17 and Manufacturers Standardization Society ANSI/MSS SP-69 & SP-58, Type 17.

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

**Order By:** Part number and finish.



Part No.	Rod Size	B		C		D		E		F		G	
	A	in.	(mm)	in.	(mm)	in.	(mm)	in.	(mm)	in.	(mm)	in.	(mm)
B3200-3/8	3/8"-16	1 1/2"	(38.1)	1 3/16"	(30.2)	1/2"	(12.7)	2"	(50.8)	1 3/8"	(34.9)	1 1/16"	(17.5)
B3200-1/2	1/2"-13	1 1/2"	(38.1)	1 3/16"	(30.2)	1/2"	(12.7)	2"	(50.8)	1 3/8"	(34.9)	1 1/16"	(17.5)
B3200-5/8	5/8"-11	1 1/2"	(38.1)	1 3/16"	(30.2)	1/2"	(12.7)	2"	(50.8)	1 3/8"	(34.9)	1 1/16"	(17.5)
B3200-3/4	3/4"-10	1 1/2"	(38.1)	1 3/16"	(30.2)	1/2"	(12.7)	2"	(50.8)	1 3/8"	(34.9)	1 1/16"	(17.5)
B3200-7/8	7/8"-9	2"	(50.8)	1 11/16"	(42.9)	3/4"	(19.0)	2 5/8"	(66.7)	1 15/16"	(49.2)	1"	(25.4)
B3200-1	1"-8	2"	(50.8)	1 11/16"	(42.9)	3/4"	(19.0)	2 5/8"	(66.7)	1 15/16"	(49.2)	1"	(25.4)
B3200-1 1/8	1 1/8"-7	2 1/2"	(63.5)	1 13/16"	(46.0)	1"	(25.4)	3 3/8"	(85.7)	2 3/8"	(60.3)	1 1/4"	(31.7)
B3200-1 1/4	1 1/4"-7	2 1/2"	(63.5)	1 13/16"	(46.0)	1"	(25.4)	3 3/8"	(85.7)	2 3/8"	(60.3)	1 1/4"	(31.7)
B3200-1 1/2	1 1/2"-6	2 1/2"	(63.5)	1 13/16"	(46.0)	1"	(25.4)	3 3/8"	(85.7)	2 3/8"	(60.3)	1 1/4"	(31.7)
B3200-1 3/4	1 3/4"-5	4"	(101.6)	4"	(101.6)	1 1/2"	(38.1)	6 1/4"	(158.7)	4"	(101.6)	2 1/4"	(57.1)
B3200-2	2"-4 1/2	4"	(101.6)	4"	(101.6)	1 1/2"	(38.1)	6 1/4"	(158.7)	4"	(101.6)	2 1/4"	(57.1)
B3200-2 1/4	2 1/4"-4 1/2	4"	(101.6)	4"	(101.6)	1 1/2"	(38.1)	6 1/4"	(158.7)	4"	(101.6)	2 1/4"	(57.1)
B3200-2 1/2	2 1/2"-4 1/2	4"	(101.6)	4"	(101.6)	1 1/2"	(38.1)	6 1/4"	(158.7)	4"	(101.6)	2 1/4"	(57.1)

Part No.	Design Load				Approx. Wt./100	
	650°F (343°C)		750°F (399°C)			
	Lbs.	(kN)	Lbs.	(kN)	Lbs.	(kg)
B3200-3/8	610	(2.71)	540	(2.40)	63	(28.6)
B3200-1/2	1130	(5.02)	1010	(4.49)	60	(27.2)
B3200-5/8	1810	(8.05)	1610	(7.16)	59	(26.7)
B3200-3/4	2710	(12.05)	2420	(10.76)	56	(25.4)
B3200-7/8	3770	(16.77)	3360	(14.94)	170	(77.1)
B3200-1	4950	(22.02)	4420	(19.66)	174	(78.9)
B3200-1 1/8	6230	(27.71)	5560	(24.73)	373	(169.2)
B3200-1 1/4	8000	(35.58)	7140	(31.76)	364	(165.1)
B3200-1 1/2	11630	(51.73)	10370	(46.12)	345	(156.5)
B3200-1 3/4	15700	(69.83)	14000	(62.27)	1657	(751.6)
B3200-2	20700	(92.07)	18460	(82.11)	1614	(732.1)
B3200-2 1/4	27200	(120.98)	24260	(107.91)	1562	(708.5)
B3200-2 1/2	33500	(149.01)	29880	(132.90)	1506	(683.1)



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

## B501 - Light Weight U-Bolt with 2 Hex Nuts

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

**Material:** Carbon Steel

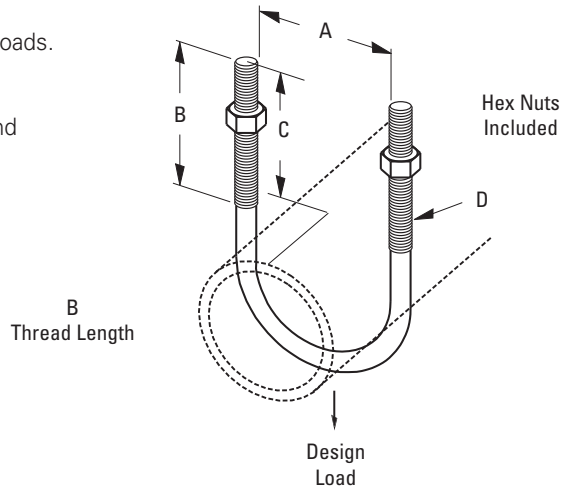
**Function:** Recommended for supporting or anchoring light pipe loads.

**Maximum Temperature:** 650°F (343°C)

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

**Order By:** Part number and finish.

**Note:** When furnished in Hot-Dip Galvanized finish, oversize tapped hex nuts must be used.



Part No.	A		B		C		D	Design Load		Approx. Wt./100	
	in.	(mm)	in.	(mm)	in.	(mm)		Lbs.	(kN)	Lbs.	(kg)
B501-1/2	15/16"	(23.8)	13/4"	(44.4)	11/2"	(38.1)	5/16"-18	600	(2.67)	12	(5.4)
B501-3/4	1 1/8"	(28.6)	13/4"	(44.4)	1 5/8"	(41.3)	5/16"-18	600	(2.67)	13	(5.9)
B501-1	1 3/8"	(29.9)	1 7/8"	(47.6)	1 5/8"	(41.3)	5/16"-18	900	(4.00)	14	(6.3)
B501-1 1/4	1 23/32"	(43.6)	1 3/4"	(44.4)	1 15/32"	(37.3)	5/16"-18	900	(4.00)	15	(6.8)
B501-1 1/2	2"	(50.8)	1 3/4"	(44.4)	1 7/16"	(36.5)	5/16"-18	900	(4.00)	16	(7.2)
B501-2	2 7/16"	(61.9)	2 1/16"	(52.4)	1 7/8"	(47.6)	3/8"-16	1200	(5.34)	27	(12.2)
B501-2 1/2	2 15/16"	(74.6)	2 1/16"	(52.4)	1 13/16"	(46.0)	3/8"-16	1200	(5.34)	32	(14.5)
B501-3	3 9/16"	(90.5)	2"	(50.8)	1 3/4"	(44.4)	3/8"-16	1800	(8.00)	36	(16.3)
B501-3 1/2	4 3/32"	(94.6)	2"	(50.8)	1 23/32"	(43.6)	3/8"-16	1800	(8.00)	38	(17.2)
B501-4	4 19/32"	(116.7)	2 1/4"	(57.1)	1 21/32"	(50.0)	3/8"-16	1800	(8.00)	42	(19.0)
B501-5	5 21/32"	(143.6)	2 1/4"	(57.1)	2"	(50.8)	1/2"-13	2400	(10.70)	92	(41.7)
B501-6	6 3/4"	(171.4)	2 5/8"	(66.7)	2 3/8"	(60.3)	5/8"-11	2400	(10.70)	176	(79.8)
B501-8	8 3/4"	(222.2)	2 5/8"	(66.7)	2 3/8"	(60.3)	5/8"-11	2400	(10.70)	191	(86.6)

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

# Threaded Accessories

## B3188 - Standard U-Bolt with 4 Hex Nuts

## B3188C - Standard Plastic Coated U-Bolt

**Size Range:** 1/2" (15mm) thru 30" (900mm) pipe

**Material:** Steel

**Function:** Recommended for support, anchor or guide of pipe.

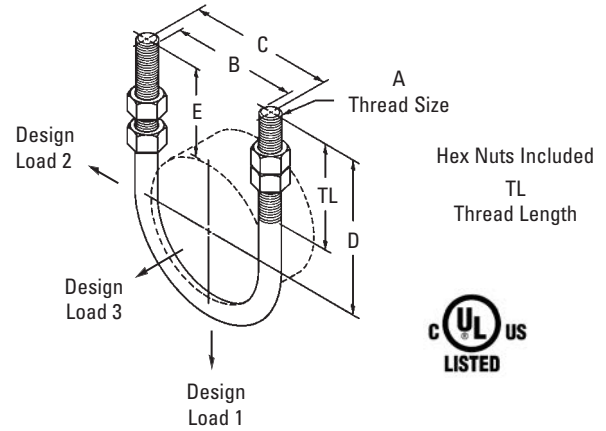
**Approvals:** Underwriters Laboratories Listed 3/4" (20mm) thru 12" (300mm). Conforms to Federal Specification WW-H-171E & A-A-1192A, Type 24 and Manufacturers Standardization Society ANSI/MSS SP-69 & SP-58, Type 24.

**Maximum Temperature:** 750°F (399°C)

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

**Order By:** Part number and finish. U-bolt can be furnished with longer tangents "D" or with longer threads "TL". Consult factory.

**Note:** When furnished in Hot-Dip Galvanized finish, oversize tapped hex nuts must be used. B3188NS - Non-standard (NS) U-bolts are available upon request. Specify dimensions other than standard. B3188DI - For ductile iron pipe.



Part No.	Pipe Size		Thread Size	Thread Length TL		B	
	in.	(mm)		in.	(mm)	in.	(mm)
B3188-1/2	1/2"	(15)	1/4"-20	2 1/8"	(54.0)	15/16"	(23.8)
B3188-3/4	3/4"	(20)	1/4"-20	2 1/8"	(54.0)	1 1/8"	(28.6)
B3188-1	1"	(25)	1/4"-20	2 1/8"	(54.0)	1 3/8"	(34.9)
B3188-1 1/4	1 1/4"	(32)	3/8"-16	2 1/8"	(54.0)	1 11/16"	(42.9)
B3188-1 1/2	1 1/2"	(40)	3/8"-16	2 1/2"	(63.5)	2"	(50.8)
B3188-2	2"	(50)	3/8"-16	2 1/2"	(63.5)	2 7/16"	(61.9)
B3188-2 1/2	2 1/2"	(65)	1/2"-13	3"	(76.2)	2 15/16"	(74.6)
B3188-3	3"	(80)	1/2"-13	3"	(76.2)	3 9/16"	(90.5)
B3188-3 1/2	3 1/2"	(90)	1/2"-13	3"	(76.2)	4 1/16"	(103.2)
B3188-4	4"	(100)	1/2"-13	3"	(76.2)	4 9/16"	(115.9)
B3188-5	5"	(125)	1/2"-13	3"	(76.2)	5 21/32"	(143.6)
B3188-6	6"	(150)	5/8"-11	3 3/4"	(95.2)	6 3/4"	(171.4)
B3188-8	8"	(200)	5/8"-11	3 3/4"	(95.2)	8 3/4"	(222.2)
B3188-10	10"	(250)	3/4"-10	4"	(101.6)	10 7/8"	(276.2)
B3188-12	12"	(300)	7/8"-9	4 1/4"	(107.9)	12 7/8"	(327.0)
B3188-14	14"	(350)	7/8"-9	4 1/4"	(107.9)	14 1/8"	(358.8)
B3188-16	16"	(400)	7/8"-9	4 1/4"	(107.9)	16 1/8"	(409.6)
B3188-18	18"	(450)	1"-8	4 3/4"	(120.6)	18 1/8"	(460.4)
B3188-20	20"	(500)	1"-8	4 3/4"	(120.6)	20 1/8"	(511.2)
B3188-24	24"	(600)	1"-8	4 3/4"	(120.6)	24 1/8"	(612.8)
B3188-30	30"	(750)	1"-8	4 3/4"	(120.6)	30 1/8"	(765.2)

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

## B3188 - Standard U-Bolt with 4 Hex Nuts cont.

Part No.	C		Tangent D		E		Approx. Wt./100	
	in.	(mm)	in.	(mm)	in.	(mm)	Lbs.	(kg)
B3188-1/2	1 <sup>3</sup> / <sub>16</sub> "	(30.2)	2 <sup>3</sup> / <sub>4</sub> "	(69.8)	2 <sup>5</sup> / <sub>16</sub> "	(58.7)	10	(4.5)
B3188-3/4	1 <sup>3</sup> / <sub>8</sub> "	(34.9)	2 <sup>3</sup> / <sub>4</sub> "	(69.8)	2 <sup>7</sup> / <sub>32</sub> "	(56.3)	11	(5.0)
B3188-1	1 <sup>5</sup> / <sub>8</sub> "	(41.3)	2 <sup>3</sup> / <sub>4</sub> "	(69.8)	2 <sup>3</sup> / <sub>32</sub> "	(53.2)	11	(5.0)
B3188-1 <sup>1</sup> / <sub>4</sub>	2 <sup>3</sup> / <sub>32</sub> "	(53.2)	2 <sup>7</sup> / <sub>8</sub> "	(73.0)	2 <sup>1</sup> / <sub>32</sub> "	(51.6)	28	(12.7)
B3188-1 <sup>1</sup> / <sub>2</sub>	2 <sup>3</sup> / <sub>8</sub> "	(60.3)	3"	(76.2)	2 <sup>1</sup> / <sub>16</sub> "	(52.4)	29	(13.1)
B3188-2	2 <sup>13</sup> / <sub>16</sub> "	(71.4)	3 <sup>1</sup> / <sub>4</sub> "	(82.5)	2 <sup>1</sup> / <sub>16</sub> "	(52.4)	31	(14.0)
B3188-2 <sup>1</sup> / <sub>2</sub>	3 <sup>7</sup> / <sub>16</sub> "	(87.3)	3 <sup>3</sup> / <sub>4</sub> "	(95.2)	2 <sup>5</sup> / <sub>16</sub> "	(58.7)	72	(32.6)
B3188-3	4 <sup>1</sup> / <sub>16</sub> "	(103.2)	4"	(101.6)	2 <sup>1</sup> / <sub>4</sub> "	(57.1)	79	(35.8)
B3188-3 <sup>1</sup> / <sub>2</sub>	4 <sup>9</sup> / <sub>16</sub> "	(115.9)	4 <sup>1</sup> / <sub>4</sub> "	(107.9)	2 <sup>1</sup> / <sub>4</sub> "	(57.1)	84	(38.1)
B3188-4	5 <sup>1</sup> / <sub>16</sub> "	(128.6)	4 <sup>1</sup> / <sub>2</sub> "	(114.3)	2 <sup>1</sup> / <sub>4</sub> "	(57.1)	94	(42.6)
B3188-5	6 <sup>5</sup> / <sub>32</sub> "	(156.3)	5"	(127.0)	2 <sup>7</sup> / <sub>32</sub> "	(56.3)	104	(47.2)
B3188-6	7 <sup>3</sup> / <sub>8</sub> "	(187.3)	6 <sup>1</sup> / <sub>8</sub> "	(155.6)	2 <sup>13</sup> / <sub>16</sub> "	(71.4)	203	(92.1)
B3188-8	9 <sup>3</sup> / <sub>8</sub> "	(238.1)	7 <sup>1</sup> / <sub>8</sub> "	(181.0)	2 <sup>13</sup> / <sub>16</sub> "	(71.4)	241	(109.3)
B3188-10	11 <sup>5</sup> / <sub>8</sub> "	(295.3)	8 <sup>3</sup> / <sub>8</sub> "	(212.7)	3"	(76.2)	412	(186.9)
B3188-12	13 <sup>3</sup> / <sub>4</sub> "	(349.2)	9 <sup>5</sup> / <sub>8</sub> "	(244.5)	3 <sup>1</sup> / <sub>4</sub> "	(82.5)	661	(299.8)
B3188-14	15"	(381.0)	10 <sup>1</sup> / <sub>4</sub> "	(260.3)	3 <sup>1</sup> / <sub>4</sub> "	(82.5)	707	(320.7)
B3188-16	17"	(431.8)	11 <sup>1</sup> / <sub>4</sub> "	(285.7)	3 <sup>1</sup> / <sub>4</sub> "	(82.5)	782	(354.7)
B3188-18	19 <sup>1</sup> / <sub>8</sub> "	(485.8)	12 <sup>5</sup> / <sub>8</sub> "	(320.7)	3 <sup>5</sup> / <sub>8</sub> "	(92.1)	1344	(609.6)
B3188-20	21 <sup>1</sup> / <sub>8</sub> "	(536.6)	13 <sup>5</sup> / <sub>8</sub> "	(346.1)	3 <sup>5</sup> / <sub>8</sub> "	(92.1)	1458	(661.3)
B3188-24	25 <sup>1</sup> / <sub>8</sub> "	(638.2)	15 <sup>5</sup> / <sub>8</sub> "	(396.9)	3 <sup>5</sup> / <sub>8</sub> "	(92.1)	1687	(765.2)
B3188-30	31 <sup>1</sup> / <sub>8</sub> "	(790.6)	18 <sup>5</sup> / <sub>8</sub> "	(473.1)	3 <sup>5</sup> / <sub>8</sub> "	(92.1)	2030	(920.8)

Part No.	Design Load 1		Design Load 2		Design Load 3	
	650°F (343°C) Lbs. (kN)	750°F (399°C) Lbs. (kN)	650°F (343°C) Lbs. (kN)	650°F (343°C) Lbs. (kN)	650°F (343°C) Lbs. (kN)	650°F (343°C) Lbs. (kN)
B3188-1/2	580 (2.58)	454 (2.02)	145 (0.64)	180 (0.80)		
B3188-3/4	580 (2.58)	454 (2.02)	145 (0.64)	300 (1.33)		
B3188-1	580 (2.58)	454 (2.02)	145 (0.64)	480 (2.13)		
B3188-1 <sup>1</sup> / <sub>4</sub>	1460 (6.49)	1144 (5.09)	365 (1.62)	600 (2.67)		
B3188-1 <sup>1</sup> / <sub>2</sub>	1460 (6.49)	1144 (5.09)	365 (1.62)	600 (2.67)		
B3188-2	1460 (6.49)	1144 (5.09)	365 (1.62)	720 (3.20)		
B3188-2 <sup>1</sup> / <sub>2</sub>	2700 (12.01)	2114 (9.40)	675 (3.00)	720 (3.20)		
B3188-3	2700 (12.01)	2114 (9.40)	675 (3.00)	900 (4.00)		
B3188-3 <sup>1</sup> / <sub>2</sub>	2700 (12.01)	2114 (9.40)	675 (3.00)	900 (4.00)		
B3188-4	2700 (12.01)	2114 (9.40)	675 (3.00)	900 (4.00)		
B3188-5	2700 (12.01)	2114 (9.40)	675 (3.00)	1080 (4.80)		
B3188-6	4320 (19.21)	3382 (15.04)	1080 (4.80)	1080 (4.80)		
B3188-8	4320 (19.21)	3382 (15.04)	1080 (4.80)	--	--	
B3188-10	6460 (28.73)	5060 (22.50)	1615 (7.18)	--	--	
B3188-12	9960 (44.30)	7016 (31.21)	2490 (11.07)	--	--	
B3188-14	9960 (44.30)	7016 (31.21)	2490 (11.07)	--	--	
B3188-16	9960 (44.30)	7016 (31.21)	2490 (11.07)	--	--	
B3188-18	11800 (52.48)	9240 (41.10)	--	--	--	--
B3188-20	11800 (52.48)	9240 (41.10)	--	--	--	--
B3188-24	11800 (52.48)	9240 (41.10)	--	--	--	--
B3188-30	11800 (52.48)	9240 (41.10)	--	--	--	--

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

# Threaded Accessories

## B3201 - Forged Steel Clevis with Pin

## B3201W0 - Forged Steel Clevis without Pin

**Size Range:** 3/8"-16 thru 2"-4 1/2 rod

**Material:** Forged Steel

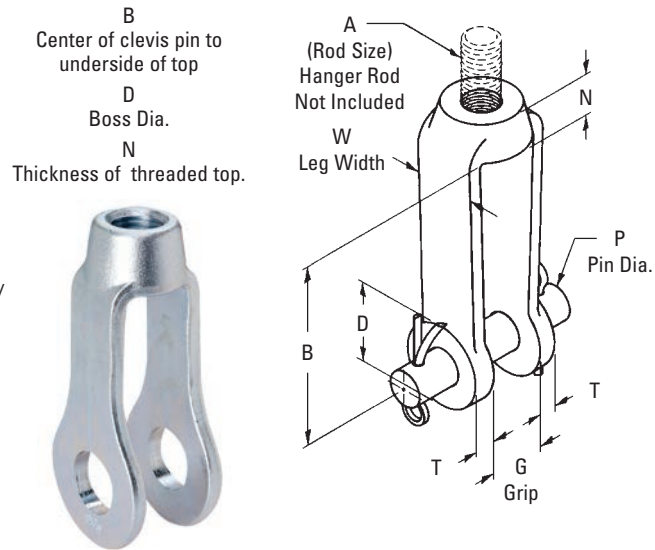
**Function:** For use on high temperature piping installations providing hanger rod adjustability.

**Features:** Complies fully with code for pressure piping. Supports loads equal to the full limitation of the hanger rod. Available with pin and cotter pins, if required.

**Approvals:** Conforms to Federal Specification WW-H-171E & A-A-1192A, Type 14 and Manufacturers Standardization Society ANSI/MSS SP-69 & SP-58, Type 14.

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

**Order By:** Part number, rod size and finish. If pin and cotter pins are required, specify "with pin". If other than standard combination of clevis size and rod tapping is required, specify clevis number, special rod tapping size and grip.



Part No.	Rod Size	B		D		Grip G		Pin Dia. N		P	
	A	in.	(mm)	in.	(mm)	in.	(mm)	in.	(mm)	in.	(mm)
B3201-3/8	3/8"-16	39/16"	(90.5)	17/16"	(36.5)	1/2"	(12.7)	5/8"	(15.9)	1/2"	(12.7)
B3201-1/2	1/2"-13	39/16"	(90.5)	17/16"	(36.5)	1/2"	(12.7)	5/8"	(15.9)	5/8"	(15.9)
B3201-5/8	5/8"-11	39/16"	(90.5)	17/16"	(36.5)	5/8"	(15.9)	5/8"	(15.9)	3/4"	(19.0)
B3201-3/4	3/4"-10	4"	(101.6)	2 1/2"	(63.5)	3/4"	(19.0)	1 1/8"	(28.6)	7/8"	(22.2)
B3201-7/8	7/8"-9	4"	(101.6)	2 1/2"	(63.5)	7/8"	(22.2)	1 1/8"	(28.6)	1"	(25.4)
B3201-1	1"-8	5 1/16"	(128.6)	3"	(76.2)	1"	(25.4)	1 1/4"	(31.7)	1 1/8"	(28.6)
B3201-1 1/8	1 1/8"-7	5 1/16"	(128.6)	3"	(76.2)	1 1/8"	(28.6)	1 1/4"	(31.7)	1 1/4"	(31.7)
B3201-1 1/4	1 1/4"-7	5 1/16"	(128.6)	3"	(76.2)	1 1/4"	(31.7)	1 1/4"	(31.7)	1 3/8"	(34.9)
B3201-1 1/2	1 1/2"-6	6"	(152.4)	3 1/2"	(88.9)	1 1/2"	(38.1)	1 1/2"	(38.1)	1 5/8"	(41.3)
B3201-1 3/4	1 3/4"-5	5 15/16"	(150.8)	4"	(101.6)	1 1/2"	(38.1)	1 3/4"	(44.4)	1 7/8"	(47.6)
B3201-2	2"-4 1/2	7"	(177.8)	5"	(127.0)	2 1/2"	(63.5)	2 1/4"	(57.1)	2 1/4"	(57.1)

Part No.	T in. (mm)	W in. (mm)	Design Load		Approx. Wt./100	
			650°F (343°C) Lbs. (kN)	750°F (399°C) Lbs. (kN)	With Pin Lbs. (kg)	Without Pin Lbs. (kg)
B3201-3/8	5/16" (7.9)	1 1/16" (27.0)	730 (3.25)	572 (2.54)	102 (46.2)	85 (38.5)
B3201-1/2	5/16" (7.9)	1 1/16" (27.0)	1350 (6.00)	1057 (4.70)	112 (50.8)	82 (37.2)
B3201-5/8	5/16" (7.9)	1 1/16" (27.0)	2160 (9.61)	1692 (7.52)	134 (60.8)	78 (35.4)
B3201-3/4	3/8" (9.5)	1 1/4" (31.7)	3230 (14.37)	2530 (11.25)	250 (113.4)	163 (73.9)
B3201-7/8	3/8" (9.5)	1 1/4" (31.7)	4480 (19.93)	3508 (15.60)	305 (138.3)	161 (73.0)
B3201-1	1/2" (12.7)	1 1/2" (38.1)	5900 (26.24)	4620 (20.55)	656 (297.5)	449 (203.6)
B3201-1 1/8	1/2" (12.7)	1 1/2" (38.1)	7450 (33.14)	5830 (25.93)	718 (325.7)	433 (196.4)
B3201-1 1/4	1/2" (12.7)	1 1/2" (38.1)	9500 (42.25)	7440 (33.09)	603 (273.5)	382 (173.3)
B3201-1 1/2	1/2" (12.7)	1 3/4" (44.4)	13800 (61.38)	10807 (48.07)	952 (431.8)	600 (272.1)
B3201-1 3/4	1/2" (12.7)	2" (50.8)	18600 (82.73)	14566 (64.79)	1357 (615.5)	800 (362.9)
B3201-2	5/8" (15.9)	2 1/2" (63.5)	24600 (109.42)	19625 (87.29)	2403 (1090.0)	1600 (725.7)

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

## B3203 - Extension Piece

**Size Range:** 3/8"-16 thru 7/8"-9 rod

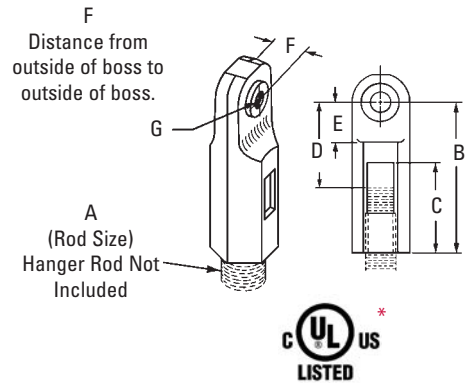
**Material:** Malleable Iron

**Function:** For use in attaching hanger rod to other attachments. (Use with B3054.)

**Approvals:** Underwriters Laboratories Listed \*

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

**Order By:** Part number, rod size and finish



Part No.	Rod Size A	For Pipe Sizes		B		C		D	
		in.	(mm)	in.	(mm)	in.	(mm)	in.	(mm)
B3203-3/8 *	3/8"-16	3/4" to 2"	(20 to 50)	2 1/16"	(52.4)	1 1/4"	(31.7)	1 1/4"	(31.7)
B3203-1/2 *	1/2"-13	2 1/2" to 3 1/2"	(65 to 90)	2 1/16"	(58.7)	1 3/8"	(34.9)	1 3/8"	(34.9)
B3203-5/8	5/8"-11	4"-5"	(100 to 125)	2 7/16"	(61.9)	1 1/2"	(38.1)	1 7/16"	(36.5)
B3203-3/4	3/4"-10	6"	(150)	2 7/8"	(73.0)	1 3/4"	(44.4)	1 11/16"	(42.9)
B3203-7/8	7/8"-9	8" to 12"	(200 to 300)	3"	(76.2)	1 7/8"	(47.6)	1 3/4"	(44.4)

Part No.	E		F		G		Design Load Lbs. (kN)	Approx. Wt./100 Lbs. (kg)	
	in.	(mm)	in.	(mm)	in.	(mm)		Lbs.	(kg)
B3203-3/8	9/16"	(14.3)	1/2"	(12.7)	1/2"	(12.7)	730 (3.25)	18	(8.1)
B3203-1/2	1 1/16"	(17.5)	5/8"	(15.9)	1/2"	(12.7)	1350 (6.00)	37	(16.8)
B3203-5/8	3/4"	(19.0)	5/8"	(15.9)	1/2"	(12.7)	1550 (6.89)	42	(19.0)
B3203-3/4	7/8"	(22.2)	5/8"	(15.9)	1/2"	(12.7)	2100 (9.34)	56	(25.4)
B3203-7/8	7/8"	(22.2)	3/4"	(19.0)	9/16"	(14.3)	2350 (10.45)	75	(34.0)

## B3223-3/8" - Offset Eye Socket

**Size Range:** 3/8"-16 rod

**Material:** Steel

**Function:** Designed for attachment of 3/8"-16 hanger rod to structure.

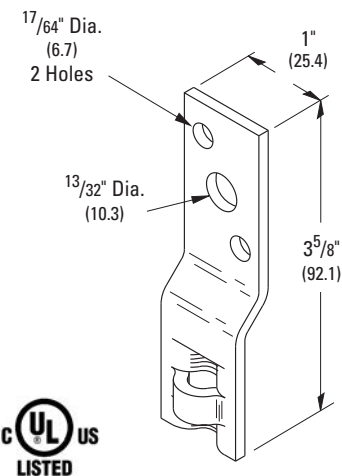
**Approvals:** Underwriters Laboratories Listed for up to 2" (50mm) pipe.

**Weight:** Approx. Wt./100 - 6.0 lbs. (2.7kg)

**Finish:** Electro-Galvanized

**Order By:** Part number and finish

**Design Load:** 610 lbs (2.71kN)



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



# Threaded Accessories

## B3224 - Hanger Adjuster

### B3224CT - Copper Tubing Hanger Adjuster

**Size Range:** 1/4"-20 thru 3/4"-10 rod

**Material:** Malleable Iron

**Function:** To provide an adjustable threaded connection for hanger rods.

**Approvals:** Conforms to Federal Specification WW-H-171E & A-A-1192A, Type 15 and Manufacturers Standardization Society ANSI/MSS SP-69 & SP-58, Type 15.

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

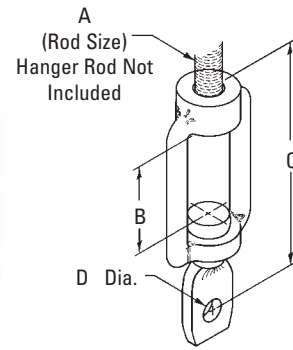
**Order By:** Part number, rod size and finish



B3224



B3224CT



Part No.	Rod Size		For Pipe Sizes		B		C		D		Design Load Lbs. (kN)	Approx. Wt./100 Lbs. (kg)
	A		in.	(mm)	in.	(mm)	in.	(mm)	in.	(mm)		
B3224-1/4	1/4"-20		3/8"	(10)	1 3/4"	(44.4)	3 7/8"	(98.4)	7/32"	(5.5)	230 (1.02)	9 (4.1)
B3224-3/8	3/8"-16		1/2" to 2"	(15 to 50)	1 3/4"	(44.4)	3 7/8"	(98.4)	13/32"	(10.3)	730 (3.25)	28 (12.7)
B3224-1/2	1/2"-13		2 1/2" to 3 1/2"	(65 to 90)	1 3/4"	(44.4)	3 7/8"	(98.4)	13/32"	(10.3)	730 (3.25)	29 (13.1)
B3224-5/8	5/8"-11		4" to 5"	(100 to 125)	2 1/4"	(57.1)	5 1/8"	(130.2)	1/2"	(12.7)	730 (3.25)	30 (13.6)
B3224-3/4	3/4"-10		6"	(150)	2 1/4"	(57.1)	5 1/8"	(130.2)	9/16"	(14.3)	860 (3.82)	74 (33.5)

## B3202 - Turnbuckle

**Size Range:** 3/8"-16 thru 2"-4 1/2 machine thread

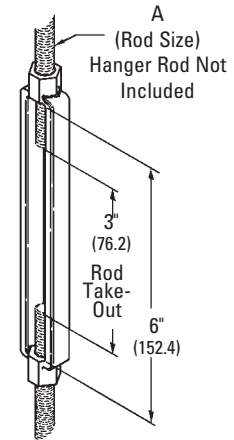
**Material:** Forged Steel

**Function:** Standard turnbuckle tapped right and left hand which provides 6" (152.4mm) take up (3" (76.2mm) rod take out).

**Approvals:** Conforms to Federal Specification WW-H-171E & A-A-1192A, Type 13, 3/8"-16 thru 1 1/2"-6 rod, and Manufacturers Standardization Society ANSI/MSS SP-69 & SP-58, Type 13.

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

**Order By:** Part number, rod size and finish



Part No.	Rod Size A	Design Load				Approx. Wt./100	
		650°F (343°C)		750°F (399°C)		Lbs.	(kg)
		Lbs.	(kN)	Lbs.	(kN)		
B3202-3/8	3/8"-16	730	(3.25)	572	(2.54)	38	(17.2)
B3202-1/2	1/2"-13	1350	(6.00)	1057	(4.70)	54	(24.5)
B3202-5/8	5/8"-11	2160	(9.61)	1692	(7.52)	91	(41.3)
B3202-3/4	3/4"-10	3230	(14.37)	2530	(11.25)	130	(58.9)
B3202-7/8	7/8"-9	4480	(19.93)	3508	(15.60)	202	(91.6)
B3202-1	1"-8	5900	(26.24)	4620	(20.55)	270	(122.5)
B3202-1 1/8	1 1/8"-7	7450	(33.14)	5830	(25.93)	354	(160.6)
B3202-1 1/4	1 1/4"-7	9500	(42.25)	7440	(33.09)	445	(201.8)
B3202-1 1/2	1 1/2"-6	13800	(61.38)	10807	(48.07)	640	(290.3)
B3202-1 3/4	1 3/4"-5	18600	(82.73)	14566	(64.79)	1100	(498.9)
B3202-2	2"-4 1/2	24600	(109.42)	19625	(87.29)	1490	(675.8)

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

## B3205 - Threaded Rod (right-hand threads - both ends)

## B3205L - Threaded Rod (right & left hand threads)

**Size Range:** 3/8"-16 thru 3"-4 rod

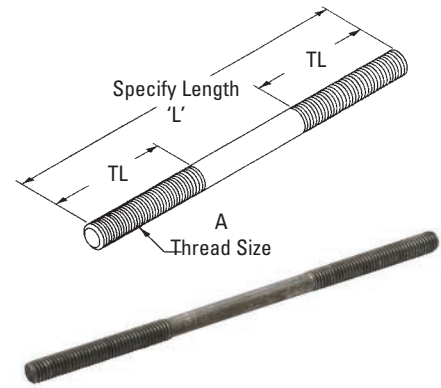
**Material:** Steel

**Function:** Recommended for use as a hanger support in hanger assemblies. Rod is threaded on both ends with right hand threads of the length shown. Also available with left and right hand threads - specify Fig. B3205L when ordering.

**Maximum Temperature:** 750°F (399°C)

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

**Order By:** Part number, rod size, length and finish



Part No.	Thread Size A	Standard Thread Length TL in. (mm)	Design Load	
			650°F (343°C) Lbs. (kN)	750°F (399°C) Lbs. (kN)
B3205-3/8 x 'L'	3/8"-16	2 1/2" (63.5)	730 (3.25)	572 (2.54)
B3205-1/2 x 'L'	1/2"-13	2 1/2" (63.5)	1350 (6.00)	1057 (4.70)
B3205-5/8 x 'L'	5/8"-11	2 1/2" (63.5)	2160 (9.61)	1692 (7.52)
B3205-3/4 x 'L'	3/4"-10	3" (76.2)	3230 (14.37)	2530 (11.25)
B3205-7/8 x 'L'	7/8"-9	3 1/2" (88.9)	4480 (19.93)	3508 (15.60)
B3205-1 x 'L'	1"-8	4" (101.6)	5900 (26.24)	4620 (20.55)
B3205-1 1/8 x 'L'	1 1/8"-7	4 1/2" (114.3)	7450 (33.14)	5830 (25.93)
B3205-1 1/4 x 'L'	1 1/4"-7	5" (127.0)	9500 (42.25)	7440 (33.09)
B3205-1 1/2 x 'L'	1 1/2"-6	6" (152.4)	13800 (61.38)	10807 (48.07)
B3205-1 3/4 x 'L'	1 3/4"-5	7" (177.8)	18600 (82.73)	14566 (64.79)
B3205-2 x 'L'	2"-4 1/2	8" (203.2)	24600 (109.42)	19625 (87.29)
B3205-2 1/4 x 'L'	2 1/4"-4 1/2	9" (228.6)	32300 (143.67)	25295 (112.51)
B3205-2 1/2 x 'L'	2 1/2"-4	10" (254.0)	39800 (177.03)	31169 (138.64)
B3205-2 3/4 x 'L'	2 3/4"-4	11" (279.4)	49400 (219.73)	38687 (172.08)
B3205-3 x 'L'	3"-4	12" (304.8)	60100 (267.32)	47066 (209.35)

## ATR - All Threaded Rod 120" (3.05m) Lengths

### Fig. 99 - All Threaded Rod Cut To Length

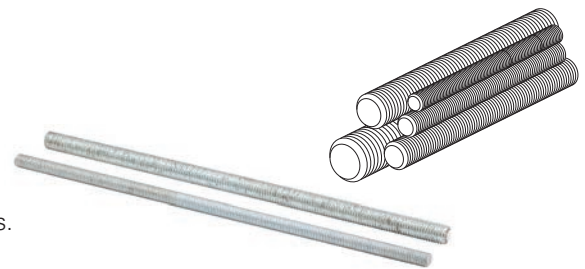
**Size Range:** 3/8"-16 thru 1 1/2"-6 rod in 120" (3.05m) lengths or cut to length

**Material:** Steel

**Maximum Temperature:** 750°F (399°C)

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

**Order By:** Part number, rod diameter and finish



Part No. - Size x Length ATR	Fig.99	Threads Per Inch	Recommended Load		Approx. Wt./100 Ft.	
			Lbs.	(kN)	Lbs.	(kg)
ATR 1/4" x 120	99-1/4" x length	20	240	(1.07)	12	(5.44)
ATR 3/8" x 120	99-3/8" x length	16	730	(3.24)	29	(13.15)
ATR 1/2" x 120	99-1/2" x length	13	1350	(6.00)	53	(24.04)
ATR 5/8" x 120	99-5/8" x length	11	2160	(9.60)	89	(40.37)
ATR 3/4" x 120	99-3/4" x length	10	3230	(14.37)	123	(55.79)
ATR 7/8" x 120	99-7/8" x length	9	4480	(19.93)	170	(77.11)
ATR 1" x 120	99-1" x length	8	5900	(26.24)	225	(102.06)
ATR 1 1/8" x 120	99-1 1/8" x length	7	7450	(33.14)	280	(127.01)
ATR 1 1/4" x 120	99-1 1/4" x length	7	9500	(42.25)	351	(159.21)
ATR 1 1/2" x 120	99-1 1/2" x length	6	13800	(61.38)	510	(231.33)

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

# Threaded Accessories

## TOLCO™ Fig. 98 - Rod Stiffener

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

**Size Range:** Secures 3/8"-16 thru 7/8"-9 hanger rod

**Material:** Steel

**Function:** Secures channel to hanger rod for vertical seismic bracing. Slight distortion of the channel (strut) may occur upon installation of rod stiffeners.

**Approvals:** 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 TOLCO Seismic Restraint Systems Guidelines

**Finishes:** Fig. 98B - Electro Galvanized  
Fig. 98 - HDG or SS

Contact customer service for alternative finishes and materials.

**Weight:** Approx. Wt./100: Fig. 98 - 11.8 Lbs. (5.3kg)  
Fig. 98B - 12.7 Lbs. (5.7kg)

**Order By:** Part number

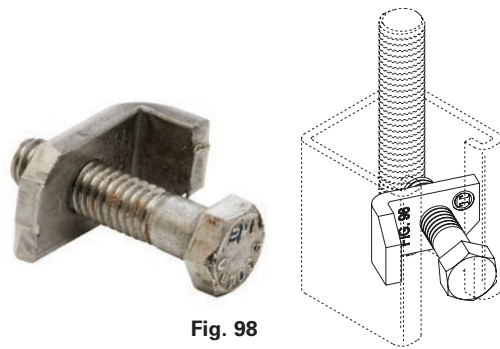


Fig. 98

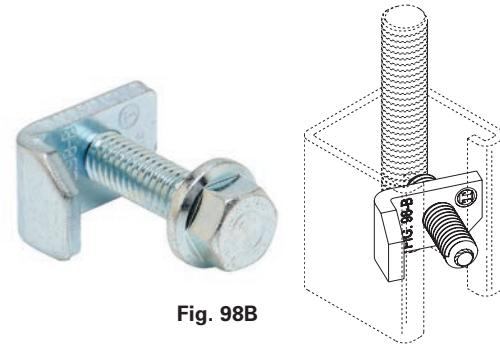


Fig. 98B

## SC228 - Hanger Rod Stiffener

**Size Range:** Secures 3/8"-16 thru 5/8"-11 hanger rod

**Material:** Steel

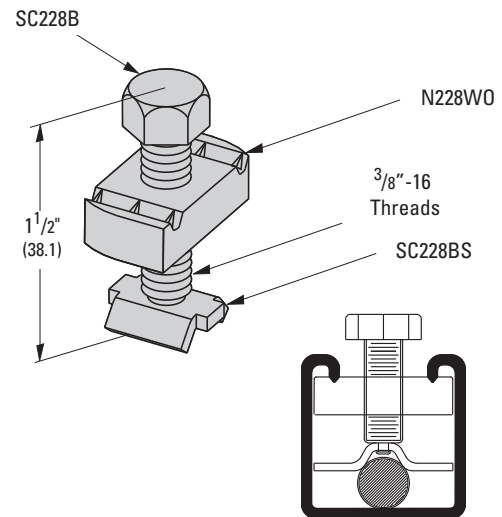
**Function:** Secures channel to hanger rod for vertical seismic bracing. Slight distortion of the channel (strut) may occur upon installation of rod stiffeners.

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

**Weight:** Approx. Wt./100: 21.0 Lbs. (9.5kg)

**Order By:** Part number

**Note:** Order channel separately



## Rod Stiffener Requirements

Rod Size	Maximum Rod Length Without Rod Stiffener	Maximum Spacing Between Rod Stiffeners
3/8"	19" (482mm)	13" (330mm)
1/2"	25" (635mm)	18" (457mm)
5/8"	31" (787mm)	23" (584mm)
3/4"	37" (940mm)	28" (711mm)
7/8"	43" (1092mm)	33" (838mm)
1"	50" (1270mm)	38" (965mm)
1 1/4"	60" (1524mm)	43" (1092mm)

### Notes:

- 1.) Rod stiffeners are required only on hanger and trapeze assemblies that have seismic bracing attached at or within 4" (101.6mm) of the rod. A minimum of two rod stiffeners (Figure 98, 98B, or SC228) must be installed.
- 2.) Recommended torque on Figure 98 and SC228 is 8 ft-lbs. (10.8Nm) or finger tight and one full turn with a wrench. Figure 98B has the break off bolt head.

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

## TOLCO™ B3214 - Tie Bolt

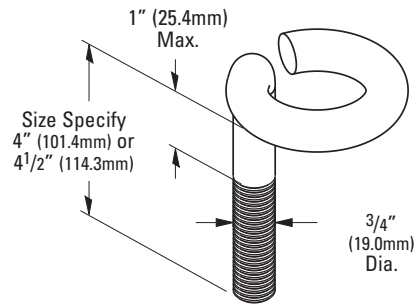
**Material:** Steel

**Function:** Recommended for securing the connection of steel pipe to ductile pipe first attach tie bolts to pipe flanges then connect tie rods. May be used in vertical or horizontal applications.

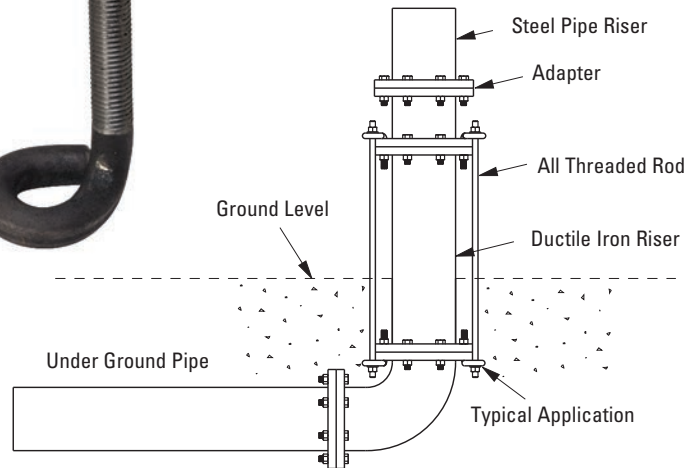
**Approvals:** Conforms to NFPA Pamphlet 24, Installation of Private Fire Service Maintenance 4" (100mm) - 12" (300mm) pipe size.

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

**Order By:** Part number, size and finish.  
Custom lengths for thicker flange available.



Part No.	Length		Approx. Wt./100	
	in.	(mm)	Lbs.	(kg)
B3214-4	4"	(101.6)	107.5	(48.5)
B3214-4 1/2	4 1/2"	(114.3)	113.7	(51.6)



## B3213 - Coach Screw Rod

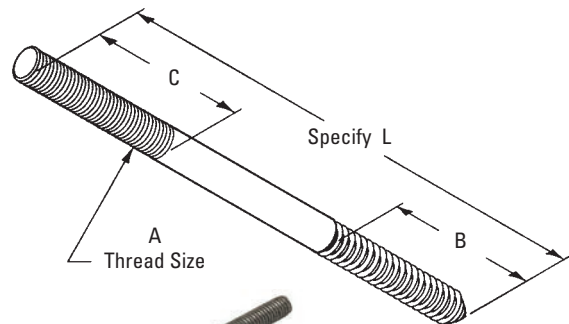
**Size Range:** 3/8"-16 rod thru 1/2"-13 rod

**Material:** Steel

**Function:** Typically used to suspend pipe from wood joists. Machine threaded on one end and lag threaded on the other end. It is recommended that pilot holes be pre-drilled to prevent beam from splitting and to aid in starting lag threads.

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

**Order By:** Part number, rod size, length and finish



Part No.	Thread Size A	Standard Rod Lengths L	Coach Screw Thread Length B	Rod Thread Length C	Design Load
		in. (mm)	in. (mm)	in. (mm)	Lbs. (kg)
B3213-3/8 x 'L'	3/8"-16	*3 1/2", 8" (88.9, 203.2)	2" (50.8)	2" (50.8)	390 (1.73)
B3213-1/2 x 'L'	1/2"-13	*3 1/2", 8" (88.9, 203.2)	2 1/2" (63.5)	2 1/2" (63.5)	640 (2.84)

\*3/8 x 3 1/2 and 1/2 x 3 1/2 will have a coach screw thread length of 2" (50.8) and a rod thread length of 1" (25.4). Design Load is based on proper installation and solid wood.

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

# Threaded Accessories

## B3210 - Eye Rod (right-hand threads)

## B3210L - Eye Rod (left-hand threads)

## B3211 - Welded Eye Rod (right-hand threads)

## B3211L - Welded Eye Rod (left-hand threads)

**Size Range:** 3/8"-16 thru 2"-4 1/2 rod

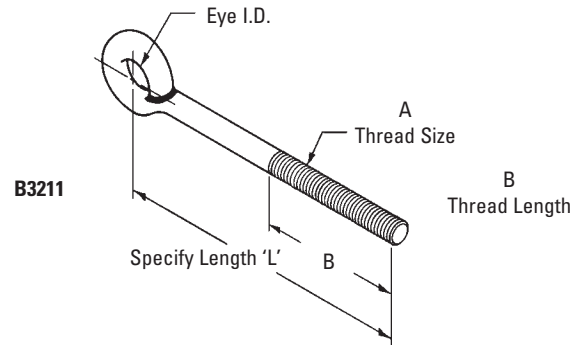
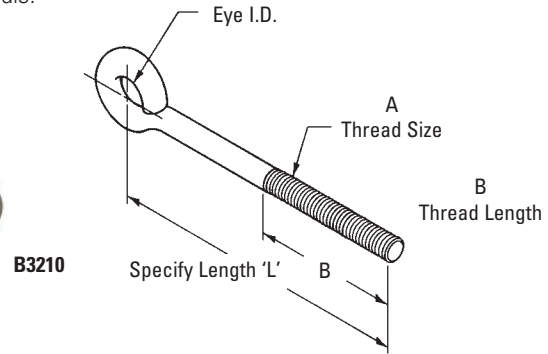
**Material:** Steel

**Function:** Designed for use as support hanger rod that may be attached directly to structure or to other pipe support product. The welded eye allows for heavier loads.

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

**Order By:** Part number, rod size, length and finish

**Important Note:** The Eye I.D. dimension may be larger if needed. Contact B-line if larger Eye I.D. dimension is required.



Part No.		Thread Size A	Thread Length B in. (mm)	Eye I.D. in. (mm)	Design Load			
					B3210 650°F (343°C) Lbs. (kN)		B3211 650°F (343°C) 750°F (399°C) Lbs. (kN) Lbs. (kN)	
B3210-3/8 x 'L'	B3211-3/8 x 'L'	3/8"-16	2 1/2" (63.5)	1/2" (12.7)	240 (1.07)	730 (3.25)	572 (2.54)	
B3210-1/2 x 'L'	B3211-1/2 x 'L'	1/2"-13	2 1/2" (63.5)	5/8" (15.9)	440 (1.96)	1350 (6.00)	1057 (4.70)	
B3210-5/8 x 'L'	B3211-5/8 x 'L'	5/8"-11	2 1/2" (63.5)	3/4" (19.0)	705 (3.13)	2160 (9.61)	1692 (7.52)	
B3210-3/4 x 'L'	B3211-3/4 x 'L'	3/4"-10	3" (76.2)	7/8" (22.2)	1050 (4.67)	3230 (14.37)	2530 (11.25)	
B3210-7/8 x 'L'	B3211-7/8 x 'L'	7/8"-9	3 1/2" (88.9)	1" (25.4)	1470 (6.54)	4480 (19.93)	3508 (15.60)	
B3210-1 x 'L'	B3211-1 x 'L'	1"-8	4" (101.6)	1 1/8" (28.6)	1940 (8.63)	5900 (26.24)	4620 (20.55)	
B3210-1 1/8 x 'L'	B3211-1 1/8 x 'L'	1 1/8"-7	4 1/2" (114.3)	1 1/4" (31.7)	2430 (10.81)	7450 (33.14)	5830 (25.93)	
B3210-1 1/4 x 'L'	B3211-1 1/4 x 'L'	1 1/4"-7	5" (127.0)	1 3/8" (34.9)	3120 (13.88)	9500 (42.25)	7440 (33.09)	
B3210-1 1/2 x 'L'	B3211-1 1/2 x 'L'	1 1/2"-6	6" (152.4)	1 5/8" (41.3)	4650 (20.68)	13800 (61.38)	10807 (48.07)	
B3210-1 3/4 x 'L'	B3211-1 3/4 x 'L'	1 3/4"-5	7" (177.8)	2" (50.8)	6380 (28.38)	18600 (82.73)	14566 (64.79)	
B3210-2 x 'L'	B3211-2 x 'L'	2"-4 1/2	8" (203.2)	2 1/4" (57.1)	8280 (36.83)	24600 (109.42)	19625 (87.29)	

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

## B3210X - Linked Eye Rods (right-hand threads-both ends)

## B3210XL - Linked Eye Rods (left-hand & right-hand threads)

## B3211X - Linked Welded Eye Rods (right-hand threads-both ends)

## B3211XL - Linked Welded Eye Rods (left-hand & right-hand threads)

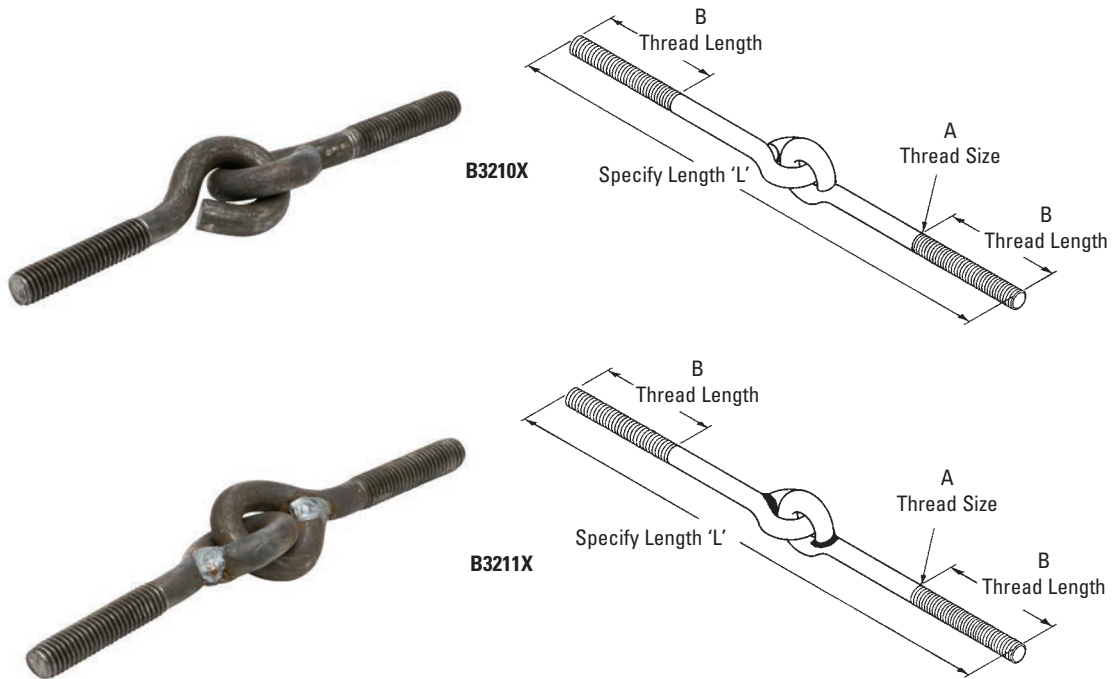
**Size Range:** 3/8"-16 thru 2"-4 1/2 rod

**Material:** Steel

**Function:** Designed for use in a hanger assembly where universal movement is necessary. The welded eye rods allow for heavier loads.

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

**Order By:** Part number, rod size, and length.



Part No.		Thread Size A	Thread Length B in. (mm)	Eye I.D. in. (mm)	Design Load				
					B3210X 650°F (343°C)		B3211X 650°F (343°C) 750°F (399°C)		
				Lbs. (kN)		Lbs. (kN)		Lbs. (kN)	
B3210X-3/8 x 'L'	B3211X-3/8 x 'L'	3/8"-16	2 1/2" (63.5)	1/2" (12.7)	240 (1.07)	730 (3.25)	572 (2.54)		
B3210X-1/2 x 'L'	B3211X-1/2 x 'L'	1/2"-13	2 1/2" (63.5)	5/8" (15.9)	440 (1.96)	1350 (6.00)	1057 (4.70)		
B3210X-5/8 x 'L'	B3211X-5/8 x 'L'	5/8"-11	2 1/2" (63.5)	3/4" (19.0)	705 (3.13)	2160 (9.61)	1692 (7.52)		
B3210X-3/4 x 'L'	B3211X-3/4 x 'L'	3/4"-10	3" (76.2)	7/8" (22.2)	1050 (4.67)	3230 (14.37)	2530 (11.25)		
B3210X-7/8 x 'L'	B3211X-7/8 x 'L'	7/8"-9	3 1/2" (88.9)	1" (25.4)	1470 (6.54)	4480 (19.93)	3508 (15.60)		
B3210X-1 x 'L'	B3211X-1 x 'L'	1"-8	4" (101.6)	1 1/8" (28.6)	1940 (8.63)	5900 (26.24)	4620 (20.55)		
B3210X-1 1/8 x 'L'	B3211X-1 1/8 x 'L'	1 1/8"-7	4 1/2" (114.3)	1 1/4" (31.7)	2430 (10.81)	7450 (33.14)	5830 (25.93)		
B3210X-1 1/4 x 'L'	B3211X-1 1/4 x 'L'	1 1/4"-7	5" (127.0)	1 3/8" (34.9)	3120 (13.88)	9500 (42.25)	7440 (33.09)		
B3210X-1 1/2 x 'L'	B3211X-1 1/2 x 'L'	1 1/2"-6	6" (152.4)	1 5/8" (41.3)	4650 (20.68)	13800 (61.38)	10807 (48.07)		
B3210X-1 3/4 x 'L'	B3211X-1 3/4 x 'L'	1 3/4"-5	7" (177.8)	2" (50.8)	6380 (28.38)	18600 (82.73)	14566 (64.79)		
B3210X-2 x 'L'	B3211X-2 x 'L'	2"-4 1/2	8" (203.2)	2 1/4" (57.1)	8280 (36.83)	24600 (109.42)	19625 (87.29)		

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

# Threaded Accessories

## B3212 - J-Bolt

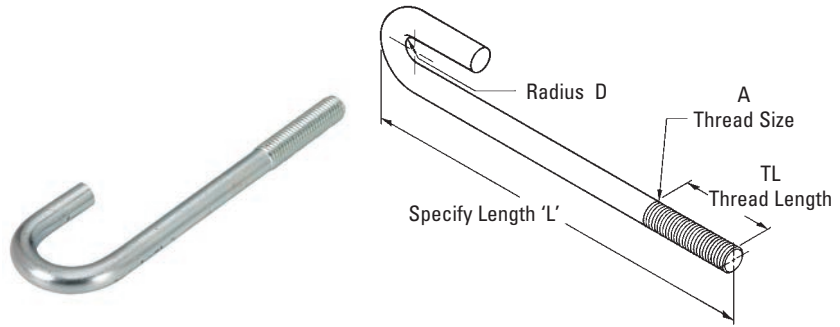
**Size Range:** 3/8"-16 thru 7/8"-19 rod

**Material:** Steel

**Function:** Designed to be hooked or hung from beam flange or purlin.

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

**Order By:** Part number, length and finish



Part No.	Thread Size	Thread Length TL		Radius D		Design Load	
	A	in.	(mm)	in.	(mm)	Lbs.	(kg)
B3212-3/8 x 'L'	3/8"-16	2"	(50.8)	1/2"	(12.7)	240	(1.07)
B3212-1/2 x 'L'	1/2"-13	2"	(50.8)	5/8"	(15.9)	440	(1.96)
B3212-5/8 x 'L'	5/8"-11	2 1/2"	(63.5)	3/4"	(19.0)	705	(3.13)
B3212-3/4 x 'L'	3/4"-10	2 1/2"	(63.5)	7/8"	(22.2)	1050	(4.67)
B3212-7/8 x 'L'	7/8"-9	2 1/2"	(63.5)	1"	(25.4)	1470	(6.54)

## DS 16 x 2 - Drive Screw

**Material:** Steel

**Function:** Equivalent to a nail, but has greater holding power

**Finish:** Plain and Electro-Galvanized

**Order By:** Part number, size and finish



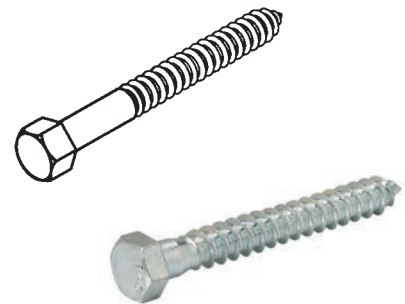
## B3228 - Hex Head Lag Bolt

**Material:** Steel

**Function:** Designed to fasten metal to wood. Lag screws are made with hex heads in lengths of 6" (152.5mm) or shorter and square heads in lengths longer than 6" (152.5mm). Both types have coarse lag threads and gimlet points and are available in diameters of 1/4" (6.3mm) to 5/8" (15.9mm) inclusive. Square-head lag screws are also available in 3/4" (19.0mm), 7/8" (22.2mm) and 1" (25.4mm) diameters.

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

**Order By:** Part number, bolt size, length and finish



Length	Bolt Diameter and Wt./C					
	1/4" (6.3)	3/8" (9.5)	1/2" (12.7)	5/8" (15.9)	3/4" (19.0)	
1 1/2" (38.1)	2.3 (1.0)	6.0 (2.7)	11.8 (5.3)	19.4 (8.8)	32.3 (14.6)	
2" (50.8)	2.8 (1.3)	7.0 (3.2)	14.4 (6.5)	23.2 (10.5)	38.3 (17.4)	
2 1/2" (63.5)	3.3 (1.5)	8.3 (3.7)	16.2 (7.3)	27.0 (12.2)	44.0 (19.9)	
3" (76.2)	3.9 (1.7)	9.8 (4.4)	18.6 (8.4)	31.0 (14.0)	47.7 (21.6)	
3 1/2" (88.9)	4.4 (2.0)	11.4 (5.2)	21.2 (9.6)	34.8 (15.8)	56.3 (25.5)	
4" (101.6)	5.0 (2.2)	12.5 (5.7)	23.3 (10.5)	37.6 (17.0)	58.5 (26.5)	
4 1/2" (114.3)	5.7 (2.6)	14.0 (6.3)	26.1 (11.8)	42.6 (19.3)	64.0 (29.0)	
5" (127.0)	6.3 (2.8)	15.4 (7.0)	29.0 (13.1)	45.5 (20.6)	68.0 (30.8)	
5 1/2" (139.7)	7.0 (3.2)	16.4 (7.4)	31.5 (14.3)	49.3 (22.3)	74.0 (33.5)	
6" (152.4)	7.4 (3.3)	18.3 (8.3)	34.0 (15.4)	53.0 (24.0)	77.0 (34.9)	

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

## B655 - Steel Rod Coupling B656 - Steel Reducing Rod Coupling

**Size Range:** 1/4"-20 thru 1"-8 rod

**Material:** Steel

**Function:** Used for coupling two threaded rods together of equal or reduced rod sizes, with or without inspection hole.

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

**Order By:** Part number and finish

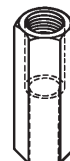
Part No.	For Rod Size	Length in. (mm)	Design Load		Approx. Wt./100	
			Lbs.	(kN)	Lbs.	(kg)
B655-1/4	1/4"-20	7/8" (22.2)	300	(1.33)	1.9	(0.86)
B655-3/8	3/8"-16	1 1/8" (28.6)	730	(3.25)	3.6	(1.63)
B655-1/2	1/2"-13	1 3/4" (44.4)	1350	(6.00)	11.3	(5.12)
B655-5/8	5/8"-11	2 1/8" (54.0)	2160	(9.61)	17.6	(7.98)
B655-3/4	3/4"-10	2 1/4" (57.1)	3230	(14.37)	28.1	(12.74)
B655-7/8	7/8"-9	2 1/2" (63.5)	4480	(19.93)	57.2	(25.94)
B655-1	1"-8	2 3/4" (69.8)	5900	(26.24)	73.7	(33.43)



B655



Part No.	For Rod Size	Length in. (mm)	Design Load		Approx. Wt./100	
			Lbs.	(kN)	Lbs.	(kg)
B656-3/8 x 1/4	3/8"-16 & 1/4"-20	1" (25.4)	300	(1.33)	3.7	(1.68)
B656-1/2 x 3/8	1/2"-13 & 3/8"-16	1 1/4" (31.7)	730	(3.25)	6.6	(2.99)
B656-5/8 x 1/2	5/8"-11 & 1/2"-13	1 1/4" (31.7)	1350	(6.00)	11.6	(5.26)
B656-3/4 x 5/8	3/4"-10 & 5/8"-11	1 1/2" (38.1)	2160	(9.61)	20.6	(9.34)
B656-7/8 x 3/4	7/8"-9 & 3/4"-10	1 3/4" (44.4)	3230	(14.37)	39.4	(17.87)



B656



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



# Threaded Accessories

## B3220 - Rod Coupling

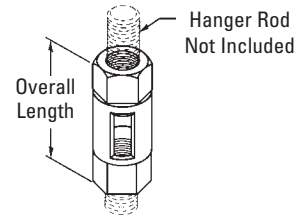
**Size Range:** 3/8"-16 thru 1"-8 rod

**Material:** Malleable Iron

**Function:** Used for coupling two threaded rods together of equal rod sizes, with inspection hole.

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

**Order By:** Part number and finish



Part No.	For Rod Size	Overall Length		Design Load		Approx. Wt./100	
		in.	(mm)	Lbs.	(kN)	Lbs.	(kg)
B3220-1/4	1/4"-20	1 3/8"	(34.9)	300	(1.33)	6	(2.7)
B3220-3/8 x 1/4	3/8"-16 to 1/4"-20	1 5/8"	(41.3)	300	(1.33)	11	(5.0)
B3220-3/8	3/8"-16	1 5/8"	(41.3)	730	(3.25)	10	(4.5)
B3220-1/2 x 3/8	1/2"-13 to 3/8"-16	2 1/8"	(54.0)	730	(3.25)	20	(9.1)
B3220-1/2	1/2"-13	2 1/8"	(54.0)	1350	(6.00)	20	(9.1)
B3220-5/8	5/8"-11	2 1/2"	(63.5)	2160	(9.61)	32	(14.5)
B3220-3/4	3/4"-10	2 5/8"	(66.7)	3230	(14.37)	42	(19.0)
B3220-7/8	7/8"-9	3 3/16"	(55.6)	4480	(19.93)	91	(41.3)
B3220-1	1"-8	2 3/4"	(69.8)	5900	(26.24)	100	(45.3)

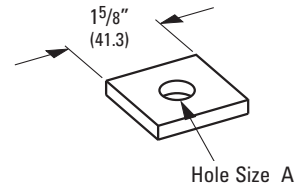
## B200 - Series Square Washer

**Material:** Steel

**Standard Finish:** Electro-Galvanized

**Service:** Designed as a washer to suspend hanger rods.

**Order by:** Part number and finish.



Part No.	Hole Size A		Bolt Size	Thickness		Approx. Wt./100	
	in.	(mm)		in.	(mm)	Lbs.	(kg)
B200	3/8"	(9.5)	5/16"-18	1/4"	(6.3)	18	(8.1)
B201	7/16"	(11.1)	3/8"-16	1/4"	(6.3)	18	(8.1)
B202	9/16"	(14.2)	1/2"-13	1/4"	(6.3)	17	(7.7)
B202-1	11/16"	(17.4)	5/8"-11	1/4"	(6.3)	16	(7.2)
B202-2	13/16"	(20.6)	3/4"-10	1/4"	(6.3)	15	(6.8)

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

## B3248 - Steel Washer Plate

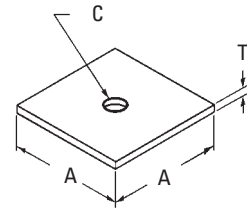
**Size Range:** 3/8" thru 1" rod sizes

**Material:** Steel

**Function:** Heavy duty washer for use on top of channels or angles to support hanger rod.

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

**Order By:** Part number and finish.



Part No.	Rod Size	Hole Size C		A		T		Approx. Wt./100	
		in.	(mm)	in.	(mm)	in.	(mm)	Lbs.	(kg)
B3248-3/8	3/8"-16	7/16"	(11.1)	2"	(50.8)	1/4"	(6.3)	27	(12.2)
B3248-1/2	1/2"-13	9/16"	(14.3)	2"	(50.8)	1/4"	(6.3)	27	(12.2)
B3248-5/8	5/8"-11	11/16"	(17.5)	2 1/2"	(63.5)	1/4"	(6.3)	47	(21.3)
B3248-3/4	3/4"-10	13/16"	(20.6)	2 1/2"	(63.5)	3/8"	(9.5)	52	(23.6)
B3248-7/8	7/8"-9	15/16"	(23.8)	3"	(76.2)	3/8"	(9.5)	85	(38.5)
B3248-1	1"-8	1 1/8"	(28.6)	4"	(101.6)	3/8"	(9.5)	160	(72.6)

## B3234 - Bevel Washer

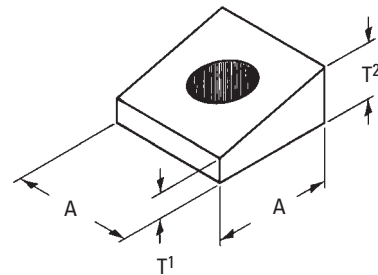
**Size Range:** 3/8"-16 thru 7/8"-9 bolt

**Material:** Malleable Iron

**Function:** Designed to match taper of flange of I-beam or channel to permit right angle fastening of bolt.

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

**Order By:** Part number size and finish



Part No.	For Bolt Size	A		T <sup>1</sup>	T <sup>2</sup>	Approx. Wt./100			
		in.	(mm)	in.	(mm)	in.	(mm)	Lbs.	(kg)
B3234-3/8	3/8"-16	1 1/4"	(31.7)	5/32"	(3.9)	11/32"	(8.7)	9	(4.1)
B3234-1/2	1/2"-13	1 1/4"	(31.7)	5/32"	(3.9)	11/32"	(8.7)	9	(4.1)
B3234-5/8	5/8"-11	1 1/2"	(38.1)	5/32"	(3.9)	13/32"	(10.3)	14	(6.3)
B3234-3/4	3/4"-10	1 1/2"	(38.1)	7/32"	(5.5)	15/32"	(11.9)	16	(7.2)
B3234-7/8	7/8"-9	2"	(50.8)	7/32"	(5.5)	9/16"	(14.3)	33	(14.9)

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

# Threaded Accessories

## HN - Standard Hex Nut

**Size Range:** 1/4"-20 thru 7/8"-9

**Material:** Steel

**Finish:** Plain or Electro-Galvanized.

Contact customer service for alternative finishes and materials.

**Order By:** Part number size and finish



Part Number	For Rod Size	Width Across Flats		Width Across Points		Thickness		Approx. Wt./100	
		in.	(mm)	in.	(mm)	in.	(mm)	lbs.	(kg)
HN-1/4	1/4"-20	7/16"	(11.1)	1/2"	(12.7)	7/32"	(5.7)	0.7	(0.3)
HN-3/8	3/8"-16	9/16"	(14.3)	21/32"	(16.6)	21/64"	(8.3)	1.6	(0.7)
HN-1/2	1/2"-13	3/4"	(19.0)	55/64"	(21.8)	7/16"	(11.1)	3.7	(1.7)
HN-5/8	5/8"-11	15/16"	(23.8)	13/32"	(27.8)	35/64"	(13.9)	7.3	(3.3)
HN-3/4	3/4"-10	1 1/8"	(28.6)	1 5/16"	(33.3)	41/64"	(16.3)	12.0	(5.4)
HN-7/8	7/8"-9	1 5/16"	(33.3)	1 33/64"	(38.5)	3/4"	(19.0)	19.0	(8.6)

## HNN - Heavy Hex Nut

**Size Range:** 1/4"-20 thru 7/8"-9

**Material:** Steel

**Finish:** Plain or Electro-Galvanized.

Contact customer service for alternative finishes and materials.

**Order By:** Part number size and finish



Part Number	For Rod Size	Width Across Flats		Width Across Points		Thickness		Approx. Wt./100	
		in.	(mm)	in.	(mm)	in.	(mm)	lbs.	(kg)
HNN-1/4	1/4"-20	1/2"	(12.7)	37/64"	(14.7)	15/64"	(5.9)	1.2	(0.5)
HNN-3/8	3/8"-16	1 1/16"	(17.5)	51/64"	(20.2)	23/64"	(9.1)	3.1	(1.4)
HNN-1/2	1/2"-13	7/8"	(22.2)	1 1/8"	(28.6)	31/64"	(12.3)	6.5	(2.9)
HNN-5/8	5/8"-11	1 1/16"	(27.0)	1 15/64"	(31.3)	39/64"	(15.5)	12.0	(5.4)
HNN-3/4	3/4"-10	1 1/4"	(31.7)	1 29/64"	(36.9)	47/64"	(18.6)	19.0	(8.6)
HNN-7/8	7/8"-9	1 7/16"	(36.5)	1 21/32"	(42.6)	55/64"	(21.8)	30.0	(13.6)

## FW - Flat Washer

**Size Range:** 1/4"-20 thru 1"-8 rods

**Material:** Steel

**Finish:** Plain or Electro-Galvanized.

Contact customer service for alternative finishes and materials.

**Order By:** Part number size and finish



Part Number	For Rod Size	Outside Diameter		Approx. Wt./100	
		in.	(mm)	lbs.	(kg)
FW-1/4	1/4"-20	3/4"	(19.0)	0.7	(0.3)
FW-3/8	3/8"-16	1"	(25.4)	3.9	(1.7)
FW-1/2	1/2"-13	1 3/8"	(34.9)	6.7	(3.0)
FW-5/8	5/8"-11	1 3/4"	(44.4)	7.3	(3.3)
FW-3/4	3/4"-10	2"	(50.8)	11.0	(5.0)
FW-7/8	7/8"-9	2 1/4"	(57.1)	19.0	(8.6)
FW-1	1"-8	2 1/2"	(69.8)	22.0	(10.0)

## LW - Lock Washer

**Size Range:** 1/4"-20 thru 1"-8 rods

**Material:** Steel

**Finish:** Plain or Electro-Galvanized.

**Note:** Available in Hot Dip Galvanized finish or Stainless Steel materials.

**Order By:** Part number size and finish



Part Number	For Rod Size	Outside Diameter		Approx. Wt./100	
		in.	(mm)	lbs.	(kg)
LW-1/4	1/4"-20	.49"	(12.4)	0.3	(0.13)
LW-3/8	3/8"-16	.68"	(17.3)	0.6	(0.27)
LW-1/2	1/2"-13	.88"	(22.3)	1.3	(0.59)
LW-5/8	5/8"-11	1.08"	(27.4)	2.4	(1.09)
LW-3/4	3/4"-10	1.27"	(32.2)	3.8	(1.72)
LW-7/8	7/8"-9	1.46"	(37.1)	5.9	(2.67)
LW-1	1"-8	1.66"	(42.1)	8.8	(3.99)

## FFW - Flat Fender Washer

**Size Range:** 3/8"-16 and 1/2"-13 rods

**Material:** Steel

**Function:** To provide a greater bearing surface than standard washer.

**Finish:** Plain or Electro-Galvanized.

Contact customer service for alternative finishes and materials.

**Order By:** Part number and size



Part Number	For Rod Size	Inside Diameter		Outside Diameter		Approx. Wt./100	
		in.	(mm)	in.	(mm)	lbs.	(kg)
FFW-3/8	3/8"-16	1/2"	(12.7)	1 1/8"	(28.6)	3.0	(1.3)
FFW-1/2	1/2"-13	9/16"	(14.3)	2"	(50.8)	2.8	(1.3)

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

# Threaded Accessories

## ATB - Toggle Bolt

**Material:** Steel

**Function:** Used with threaded rod in hollow walls

**Finish:** Electro-Galvanized

**Order By:** Part number and size



Part Number	Rod Size	Drill Size		Approx. Wt./100	
		lbs.	(kg)		
ATB-18-300	3/16"-24	1/2"	(12.7)	3.8	(1.7)
ATB-18-400	3/16"-24	1/2"	(12.7)	4.4	(2.0)
ATB-25-300	1/4"-20	5/8"	(15.9)	6.6	(3.0)
ATB-25-400	1/4"-20	5/8"	(15.9)	7.8	(3.5)
ATB-37-300	3/8"-16	7/8"	(22.2)	15.6	(7.1)
ATB-37-400	3/8"-16	7/8"	(22.2)	17.6	(8.0)

## AWA - Wedge Anchor

**Material:** Steel or Stainless Steel

**Function:** Designed for use in solid concrete and grout fill blocks

**Finish:** Electro-Galvanized

**Order By:** Part number and finish



Part Number	Anchor Size	Thread Length		Approx. Wt./100	
		in.	(mm)	lbs.	(kg)
AWA-25-175	1/4"-20 x 1 3/4" (44.4mm)	3/4"	(19.0)	3.2	(1.4)
AWA-25-225	1/4"-20 x 2 1/4" (44.4mm)	1 1/4"	(31.7)	3.7	(1.7)
AWA-25-325	1/4"-20 x 3 1/4" (44.4mm)	2 1/4"	(57.1)	4.8	(2.2)
AWA-37-225	3/8"-16 x 2 1/4" (44.4mm)	1 1/4"	(31.7)	9.4	(4.2)
AWA-37-275	3/8"-16 x 2 3/4" (69.8mm)	1 5/8"	(41.3)	10.4	(4.7)
AWA-37-300	3/8"-16 x 3" (76.2mm)	1 7/8"	(47.6)	11.4	(5.2)
AWA-37-350	3/8"-16 x 3 1/2" (88.9mm)	2 3/8"	(60.3)	12.2	(5.5)
AWA-37-375	3/8"-16 x 3 3/4" (95.2mm)	2 5/8"	(66.7)	13.2	(6.0)
AWA-37-500	3/8"-16 x 5" (127.0mm)	3 7/8"	(98.4)	16.0	(7.2)
AWA-50-275	1/2"-13 x 2 3/4" (69.8mm)	1 3/8"	(34.9)	19.0	(8.6)
AWA-50-375	1/2"-13 x 3 3/4" (95.2mm)	2 3/8"	(60.3)	23.0	(10.4)
AWA-50-450	1/2"-13 x 4 1/2" (114.3mm)	3 1/8"	(79.4)	26.6	(12.0)
AWA-50-550	1/2"-13 x 5 1/2" (139.7mm)	4 1/8"	(104.8)	34.0	(15.4)
AWA-50-700	1/2"-13 x 7" (177.8mm)	5 5/8"	(142.9)	38.0	(17.2)
AWA-62-350	5/8"-11 x 3 1/2" (88.9mm)	2"	(50.8)	41.2	(18.7)
AWA-62-450	5/8"-11 x 4 1/2" (114.3mm)	3"	(76.2)	47.6	(21.6)
AWA-62-500	5/8"-11 x 5" (127.0mm)	3 1/2"	(88.9)	52.0	(23.6)
AWA-62-600	5/8"-11 x 6" (152.4mm)	4 1/2"	(114.3)	58.8	(26.7)
AWA-62-700	5/8"-11 x 7" (177.8mm)	5 1/2"	(139.7)	65.2	(29.6)

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