

## B303-B309 - Beam Clamps

**Size Range:** 1/4"-20 thru 5/8"-11 rod

**Material:** Steel

**Function:** Designed for attaching a hanger rod to the flange of a beam.

**Approvals:** Conforms to Federal Specification WW-H-171E & A-A-1192A, Type 19 and Manufacturers Standardization Society ANSI/MSS SP-69 & SP-58, Type 19.

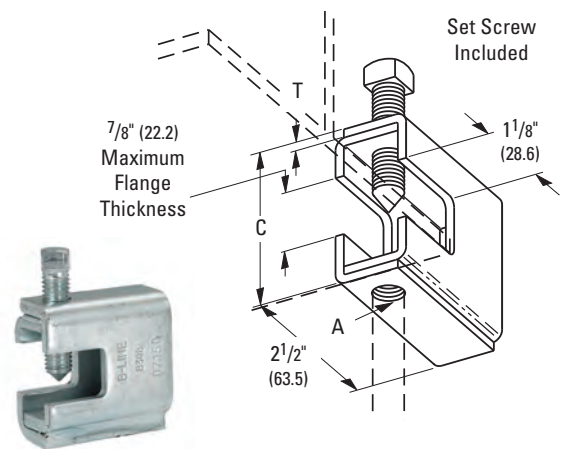
**Finish:** Electro-Galvanized or Hot-Dip Galvanized

**Order By:** Part number and finish. When retaining strap is required, order B312 separately. See page 39.

**Recommended Set Screw Torque:**

3/8"-16 = 150 in-lbs (16.9 N•m)

1/2"-13 = 350 in-lbs (39.5 N•m)



Part No.	Rod Size A	Setscrew Size	C		T		Design Load		Approx. Wt./100	
			in.	(mm)	in.	(mm)	Lbs.	(kN)	Lbs.	(kg)
<b>B303</b>	1/4"-20	3/8"-16	2 <sup>5</sup> / <sub>16</sub> "	(58.7)	11 Ga.	(3.0)	400	(1.78)	72	(32.6)
<b>B304</b>	5/16"-18	3/8"-16	2 <sup>5</sup> / <sub>16</sub> "	(58.7)	11 Ga.	(3.0)	600	(2.67)	72	(32.6)
<b>B305</b>	3/8"-16	3/8"-16	2 <sup>5</sup> / <sub>16</sub> "	(58.7)	11 Ga.	(3.0)	600	(2.67)	72	(32.6)
<b>B306</b>	3/8"-16	1/2"-13	2 <sup>7</sup> / <sub>16</sub> "	(61.9)	7 Ga.	(4.5)	1100	(4.89)	97	(44.0)
<b>B307</b>	1/2"-13	1/2"-13	2 <sup>7</sup> / <sub>16</sub> "	(61.9)	7 Ga.	(4.5)	1100	(4.89)	97	(44.0)
<b>B308</b>	1/2"-13	1/2"-13	2 <sup>9</sup> / <sub>16</sub> "	(65.1)	1/4"	(6.3)	1500	(6.67)	133	(60.3)
<b>B309</b>	5/8"-11	1/2"-13	2 <sup>9</sup> / <sub>16</sub> "	(65.1)	1/4"	(6.3)	1500	(6.67)	133	(60.3)

## Fig. B321 - Series Beam Clamps

**Size Range:** 3/8"-16 thru 3/4"-10 rod

**Material:** Steel

**Function:** Designed for attaching a hanger rod to the flange of a beam.

**Approvals:** Conforms to Federal Specification WW-H-171E & A-A-1192A, Type 19 and Manufacturers Standardization Society ANSI/MSS SP-69 & SP-58, Type 19.

**Finish:** Electro-Galvanized or Hot-Dip Galvanized

**Ordering:** Part number and finish. When retaining strap is required, order B312 separately. See page 39.

**Recommended Set Screw Torque:**

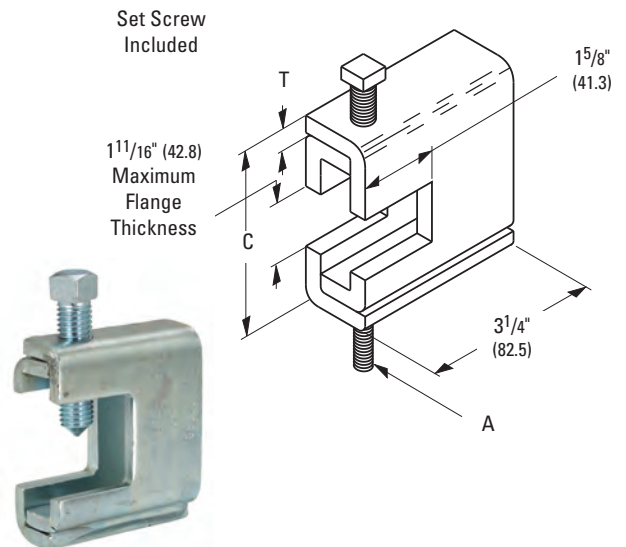
1/2"-13 = 350 in-lbs (39.5 N•m)

5/8"-11 = 700 in-lbs (79.0 N•m)

**Minimum Flange Thickness:**

For B321-1 thru B321-3 = 3/8" (9.5)

For B321-4 & B321-5 = 5/8" (15.9)



Part No.	Rod Size A	Setscrew Size	C		T		Design Load		Approx. Wt./100	
			in.	(mm)	in.	(mm)	Lbs.	(kN)	Lbs.	(kg)
<b>B321-1</b>	3/8"-16	1/2"-13	3 <sup>9</sup> / <sub>16</sub> "	(92.1)	1/4"	(6.3)	1300	(5.78)	187	(84.8)
<b>B321-2</b>	1/2"-13	1/2"-13	3 <sup>9</sup> / <sub>16</sub> "	(92.1)	1/4"	(6.3)	1400	(6.23)	186	(84.3)
<b>B321-3</b>	5/8"-11	1/2"-13	3 <sup>9</sup> / <sub>16</sub> "	(92.1)	1/4"	(6.3)	1600	(7.12)	185	(83.9)
<b>B321-4</b>	5/8"-11	5/8"-11	3 <sup>23</sup> / <sub>32</sub> "	(94.4)	5/16"	(7.9)	1800	(8.00)	239	(108.4)
<b>B321-5</b>	3/4"-10	5/8"-11	3 <sup>23</sup> / <sub>32</sub> "	(94.4)	5/16"	(7.9)	2000	(8.89)	238	(107.9)

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

# Beam Clamps

## TOLCO™ Fig. 69 - Beam Clamp Retaining Strap

**Size Range:** 3/8"-16 thru 3/4"-10 rod  
 4" (101.6mm) thru 16" (406.4mm) lengths  
 Note: longer lengths are available consult factory

**Material:** Pre-Galvanized Steel

**Function:** To offer more secure fastening of various types of beam clamps to beam where danger of movement might be expected. NFPA 13 requires the use of retaining straps with all beam clamps installed in earthquake areas. Satisfies requirements of NFPA 13.

**Important Note:** Good installation practice of a retaining strap requires that the strap be held tightly and securely to all component parts of the assembly. Therefore a locking mechanism of some kind, such as a hex nut or the beveled locking slot of the Fig. 69R will provide a more secure reliable installation.

**Approvals:** Underwriters Laboratories Listed in the USA (**UL**) and Canada (**cUL**). Approved for use with any listed beam clamp. Included in the 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 OSHPD projects, please refer to the Seismic Restraint System Guidelines.

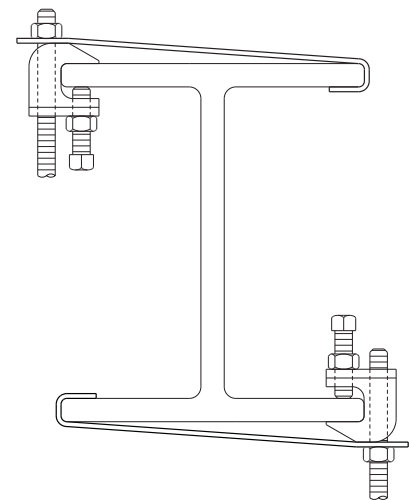
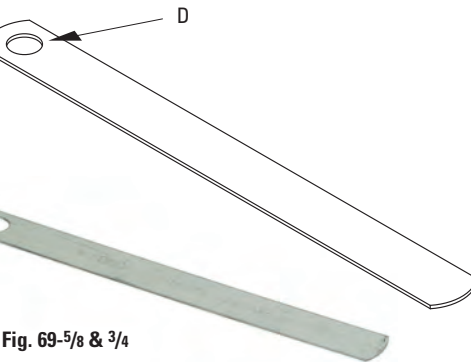
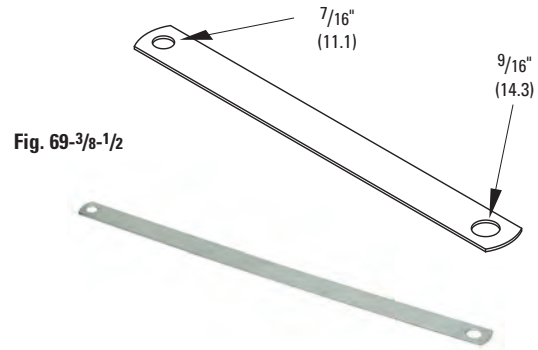
**Finish:** Pre-Galvanized

**Order By:** Part number, length (L), and finish.

**Notes:** Minimum return on strap is 1" (25.4mm)  
 Lengths over 16" (406mm) are not UL Listed



Component of State of California OSHPD Approved Seismic Restraints System



Part No.	Hole Dia. D		For Use With	Length
	in.	(mm)		
69-3/8-1/2-L	see drawing		B3033-3/8, B3034-3/8, B3031-3/8, 65-3/8, 65XT-3/8, 66-3/8 B3033-1/2, B3034-1/2, 65-1/2, 66-1/2	Specify
69-5/8-L	11/16"	(17.5)	B3033-5/8, 65-5/8, 66-5/8	Specify
69-3/4-L	13/16"	(20.6)	B3033-3/4	Specify

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

## TOLCO™ Fig. 69R - Retrofit Capable Beam Clamp Retaining Strap

**Size Range:** 3/8"-16 & 1/2"-13 rod  
 4" (101.6mm) thru 16" (406.4mm) lengths  
 Note: longer lengths are available consult factory



Component of State of California OSHPD Approved Seismic Restraints System

**Material:** Pre-Galvanized Steel

**Function:** To offer more secure fastening of various types of beam clamps to beam where danger of movement might be expected. NFPA 13 requires the use of retaining straps with all beam clamps installed in earthquake areas. Satisfies requirements of NFPA 13.

**Features:** Beveled locking slot\* is precisely formed to align with the threaded section of a hanger rod or set screw and engage the unit securely. May be used as shown in Section "A-A" or inverted. Allows easy installation for new construction or retrofit applications.

**Important Note:** Good installation practice of a retaining strap requires that the strap be held tightly and securely to all component parts of the assembly. Therefore a locking mechanism of some kind, such as a hex nut or the beveled locking slot of the Fig. 69R will provide a more secure reliable installation.

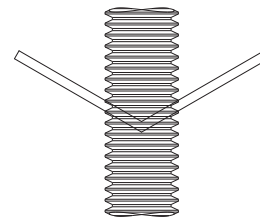
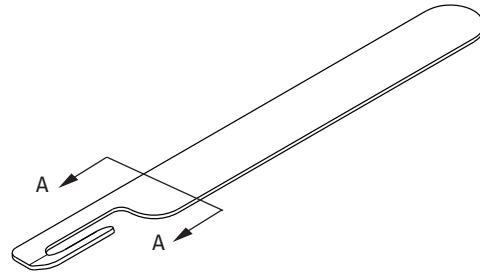
**Approvals:** Underwriters Laboratories Listed in the USA (UL) and Canada (cUL). Approved for use with any listed beam clamp. Included in the Seismic Restraints Catalog approved by the State of California Office of Statewide Health Planning and Development (OSHPD). For additional load spacing and placement information relating OSHPD projects, please refer to the Seismic Restraint System Guidelines.

**Finish:** Pre-Galvanized

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

**Note:** Minimum return on strap is 1" (25.4mm)

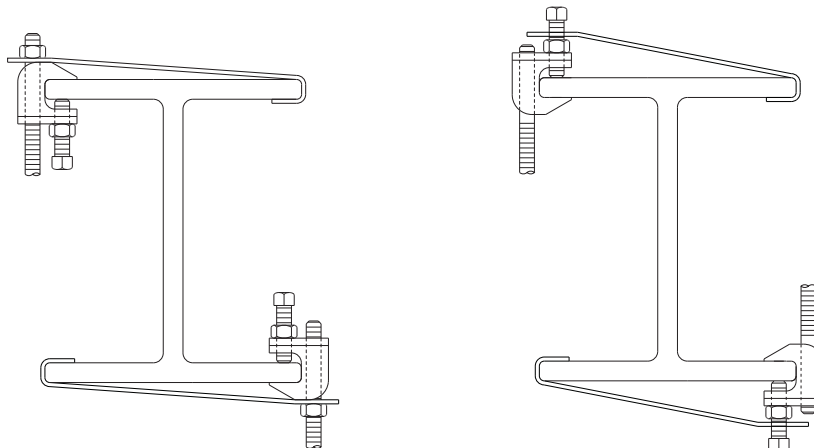
\* Patent #5,947,424



A - A



Part No.	Slot Width in. (mm)	For Use With	Length
69R-3/8-L	7/16" (11.1)	B3033-3/8, B3034-3/8, B3031-3/8, 65-3/8, 65XT-3/8, 66-3/8	Specify
69R-1/2-L	9/16" (14.3)	B3033-1/2, B3034-1/2, 65-1/2, 66-1/2	Specify



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

# Beam Clamps

## B312 - Retaining Strap

**Size Range:** 9" (228.6mm) to 18" (457.2mm) strap lengths

**Material:** Steel

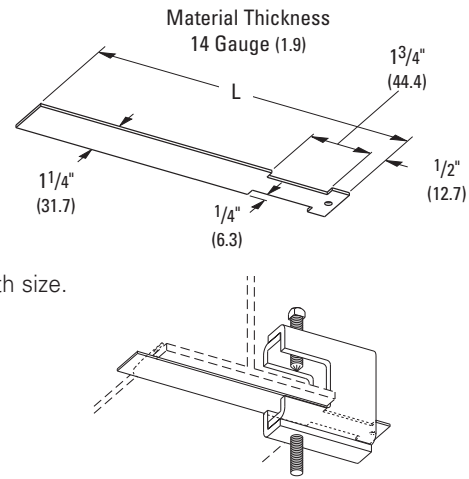
**Function:** Designed for use with B303-B309 and B321 beam clamps.

**Finish:** Pre-Galvanized

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

**Notes:**

Maximum beam thickness  $\frac{3}{4}$ " (19.0). For thicker beams step up one flange width size. Requires field forming on beam.



Part No.	For Flange With		L		Approx. Wt./100	
	in.	(mm)	in.	(mm)	Lbs.	kg
B312-6	6"	(152.4)	9"	(228.6)	22	(10.0)
B312-9	9"	(228.6)	12"	(304.8)	30	(13.6)
B312-12	12"	(304.8)	15"	(381.0)	40	(18.1)
B312-15	15"	(381.0)	18"	(457.2)	49	(22.2)

Beam Clamps

## B3040 - Adjustable Beam Clamp

**Size Range:**  $\frac{3}{8}$ "-16 thru  $\frac{3}{4}$ "-10 rod

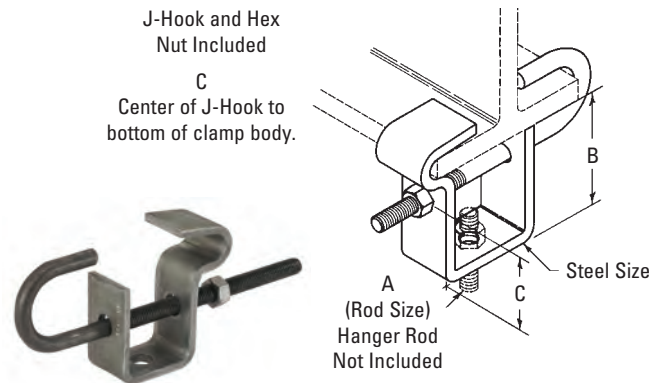
**Material:** Steel

**Function:** Fits structural I-Beams and wide flange beams, flange widths  $3\frac{1}{2}$ " (88.9mm) to 8" (203.2mm), thickness up to  $\frac{1}{2}$ " (12.7mm).

**Approvals:** Conforms to Federal Specification WW-H-171E & A-A-1192A, Type 54, and Manufacturers Standardization Society ANSI/MSS SP-69 & SP-58, Type 27.

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

**Order By:** Part number and finish



Part No.	Rod Size	B		C		Steel Size		Design Load	Approx. Wt./100
	A	in.	(mm)	in.	(mm)	in.	(mm)		
B3040- $\frac{3}{8}$	$\frac{3}{8}$ "-16	$2\frac{3}{4}$ "	(69.8)	$1\frac{3}{16}$ "	(46.0)	$1\frac{1}{4}$ " x $1\frac{1}{4}$ "	(6.3 x 31.7)	300 (1.33)	120 (54.4)
B3040- $\frac{1}{2}$	$\frac{1}{2}$ "-13	$2\frac{3}{4}$ "	(69.8)	$1\frac{3}{4}$ "	(44.4)	$1\frac{1}{4}$ " x $1\frac{1}{2}$ "	(6.3 x 38.1)	700 (3.11)	160 (72.6)
B3040- $\frac{5}{8}$	$\frac{5}{8}$ "-11	3"	(76.2)	$1\frac{3}{4}$ "	(44.4)	$1\frac{1}{4}$ " x $1\frac{3}{4}$ "	(6.3 x 44.4)	1000 (4.45)	216 (98.0)
B3040- $\frac{3}{4}$	$\frac{3}{4}$ "-10	$3\frac{3}{8}$ "	(85.7)	$1\frac{7}{8}$ "	(47.6)	$\frac{3}{8}$ " x 2"	(9.5 x 50.8)	1800 (8.00)	442 (200.5)

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

## B3050 - Beam Clamp

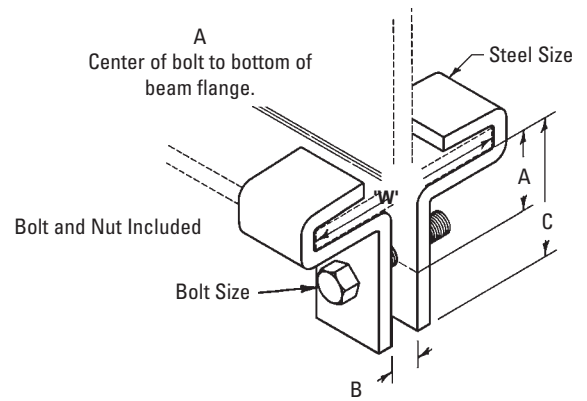
**Material:** Steel

**Function:** Recommended for the suspending of hanger rod from the center of an I-beam, equally distributing the load on both sides of the beam. Use with B3210 eye rod, B3211 welded eye rod or B3200 weldless rye nut.

**Approvals:** Conforms to Federal Specification WW-H-171E & A-A-1192A, Type 21 and Manufacturers Standardization Society ANSI/MSS SP-69 & SP-58, Type 21.

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

**Order By:** Part number, type, width of flange and finish.



Part Number & Size	Bolt Size	Flange Thickness		A	B	C	Steel Size	Design Load
		Min. in. (mm)	Max. in. (mm)					
B3050-2X*	1/2"-13	3/16" (4.8)	1/2" (12.7)	1 3/8" (34.9)	5/8" (15.9)	2 1/8" (54.0)	1/4" x 1 1/4" (6.3 x 31.7)	1000 (3.11)
B3050-5X*	3/4"-10	5/8" (25.9)	1" (25.4)	1 7/8" (47.6)	7/8" (22.2)	3" (76.2)	1/2" x 2" (12.7 x 50.8)	3000 (6.67)

\* Any flange width shown in bottom chart.

Flange Width *	'W' in. (mm)	Approx. Wt./100 For Beam Clamp Size	
		2 lbs. (kg)	5 lbs. (kg)
4	4" (101.6)	116 (52.6)	429 (194.6)
5	5" (127.0)	125 (56.7)	458 (207.8)
6	6" (152.4)	134 (60.8)	486 (220.5)
7	7" (177.8)	143 (64.9)	514 (233.2)
8	8" (203.2)	152 (69.0)	543 (246.3)
9	9" (228.6)	160 (72.6)	571 (259.0)
10	10" (254.0)	169 (76.7)	599 (271.8)
12	12" (304.8)	187 (84.8)	656 (297.6)



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

# Beam Clamps

## B3055 - Steel Beam Clamp

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

**Material:** Steel

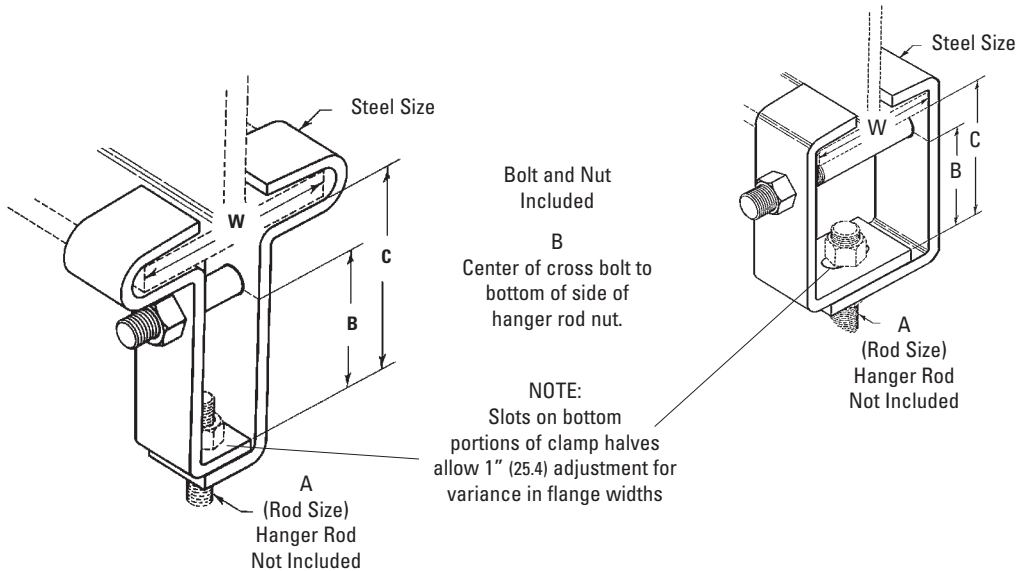
**Function:** Designed for attaching a hanger rod to be centered under beam flanges. 2" (50.8mm) vertical adjustment is provided in the clamp.

**Approvals:** Conforms to Federal Specification WW-H-171E & A-A-1192A, Type 21 and Manufacturers Standardization Society ANSI/MSS SP-69 & SP-58, Type 21.

**Finish:** Plain or Electro-Galvanized

**Order By:** Part number, flange width, and finish.

**Note:** Consult factory for additional flange widths.



Part No.	Rod Size	B		C		Steel Size		Design Load	
	A	in.	(mm)	in.	(mm)	in.	(mm)	Lbs.	(kN)
B3055-3/8	3/8"-16	3"	(76.2)	4"	(101.6)	1/4" x 1 1/4"	(6.3 x 31.7)	550	(2.44)
B3055-1/2	1/2"-13	3"	(76.2)	4"	(101.6)	1/4" x 1 1/2"	(6.3 x 38.1)	850	(3.78)
B3055-5/8	5/8"-11	3 1/4"	(82.5)	4 1/2"	(114.3)	3/8" x 1 1/2"	(9.5 x 38.1)	1100	(4.89)
B3055-3/4	3/4"-10	3 1/4"	(82.5)	4 1/2"	(114.3)	3/8" x 2"	(9.5 x 50.8)	1500	(6.67)
B3055-7/8	7/8"-9	3 1/2"	(88.9)	5"	(127.0)	1/2" x 2"	(12.7 x 50.8)	2600	(11.56)
B3055-1	1"-8	3 1/2"	(88.9)	5 1/2"	(139.7)	1/2" x 2"	(12.7 x 50.8)	4300	(19.12)

Flange Width W		Approximate Wt./100 For Beam Clamp Size Lbs. (kg)											
in.	(mm)	B3055-3/8"		B3055-1/2"		B3055-5/8"		B3055-3/4"		B3055-7/8"		B3055-1"	
4"	(101.6)	168	(76.2)	201	(91.2)	328	(148.8)	434	(196.8)	657	(298.0)	797	(361.5)
5"	(127.0)	181	(82.1)	217	(98.4)	352	(159.6)	466	(211.4)	667	(302.5)	824	(373.7)
6"	(152.4)	193	(87.5)	231	(104.8)	373	(169.2)	495	(224.5)	705	(319.8)	877	(397.8)
7"	(177.8)	205	(93.0)	246	(111.6)	395	(179.2)	525	(238.1)	744	(337.5)	926	(420.0)
8"	(203.2)	214	(97.1)	256	(116.1)	411	(186.4)	546	(247.6)	773	(350.6)	962	(436.3)
10"	(254.0)	235	(106.6)	282	(127.9)	449	(203.6)	596	(270.3)	840	(381.0)	1046	(474.4)
12"	(304.8)	259	(117.5)	311	(141.0)	493	(223.6)	655	(297.1)	918	(416.4)	1143	(518.4)

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

## B3054 - Malleable Iron Beam Clamp With Extension B3054WO - Malleable Iron Beam Clamp Without Extension

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

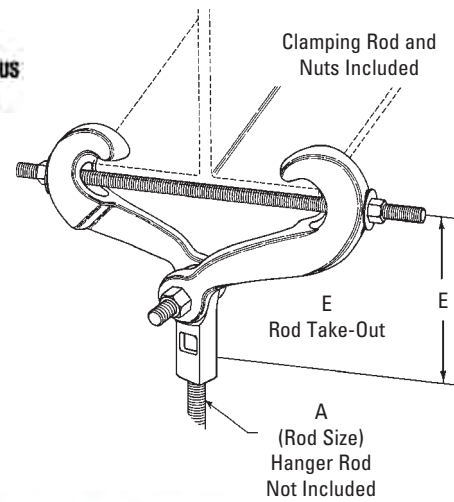
**Material:** Malleable Iron

**Function:** Designed for attaching a hanger rod to the bottom flange of a beam. Adjustable for flange widths of 3" (76.2mm) to 7" (177.8mm) and a flange thickness of no greater than 5/8" (15.9mm).

**Approvals:** Underwriters Laboratories Listed. Conforms to Federal Specification WW-H-171E & A-A-1192A, Type 30 and Manufacturers Standardization Society ANSI/MSS SP-69 & SP-58, Type 30.

**Finish:** Plain or Electro-Galvanized

**Ordering:** Part number and finish



Part No.	Rod Size A	Rod Take Out 'E' For Beam Flange Width Of in. (mm)				
		3" (76.2)	4" (101.6)	5" (127.0)	6" (152.4)	7" (177.8)
<b>B3054-3/8</b>	3/8"-16	4 1/16" (119.1)	4 9/16" (115.9)	4 5/8" (117.5)	4" (101.6)	3 1/8" (79.4)
<b>B3054-1/2</b>	1/2"-13	4 13/16" (122.2)	4 1/2" (114.3)	4 5/16" (109.5)	3 15/16" (100.0)	3 1/4" (82.5)
<b>B3054-5/8</b>	5/8"-11	4 7/8" (123.8)	4 5/8" (117.5)	4 3/8" (111.1)	3 3/4" (95.2)	3 5/16" (84.1)
<b>B3054-3/4</b>	3/4"-10	5 1/8" (130.2)	5" (127.0)	4 5/8" (117.5)	4 1/4" (107.9)	3 3/4" (95.2)
<b>B3054-7/8</b>	7/8"-9	5 3/16" (131.8)	4 7/8" (123.8)	4 11/16" (119.1)	4 5/16" (109.5)	3 3/4" (95.2)

Part No.	Design Load		Max. Iron Pipe Size Per UL in. (mm)	Approx. Wt./100	
	Lbs.	(kN)		Lbs.	(kg)
<b>B3054-3/8</b>	730	(3.25)	4" (100)	236	(107.0)
<b>B3054-1/2</b>	1350	(6.00)	8" (200)	254	(115.2)
<b>B3054-5/8</b>	1365	(6.07)	10" (250)	260	(117.9)
<b>B3054-3/4</b>	1365	(6.07)	10" (250)	278	(126.1)
<b>B3054-7/8</b>	1365	(6.07)	10" (250)	292	(132.4)

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

# Beam Clamps

## B3291, B3292, B3293, B3294, B3295, B3296, B3297, B3298

### UFS Beam Clamp With Weldless Eye Nut

Available with left hand threads by adding an L to part number Example: B3291L-\*

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

**Material:** Forged Steel

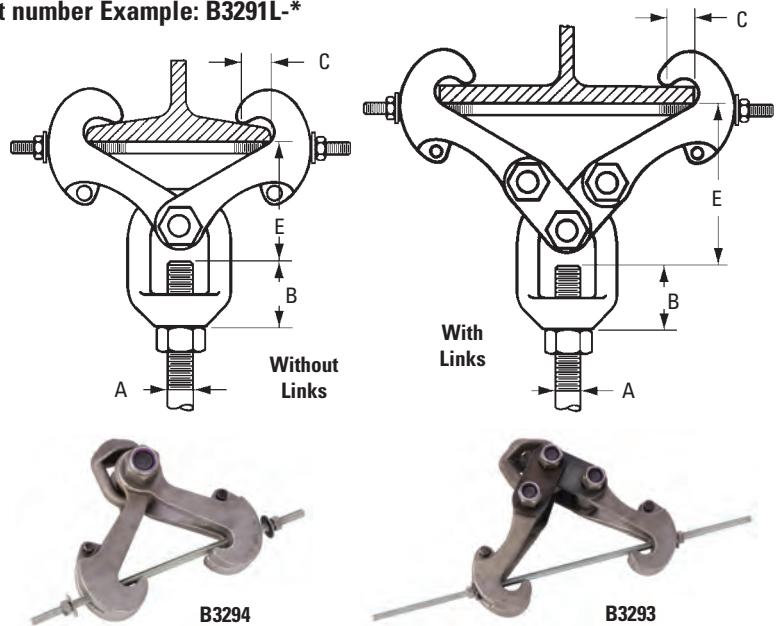
**Function:** Designed for attaching a hanger rod to the bottom flange of a beam. Adjustable from flange widths of 3" (76.2mm) to 15" (381.0mm). and flange thickness of no greater than 1 1/32" (26.2mm).

**Approvals:** Complies with Federal Specification WW-H-171E & A-A-1192A (Type 28 without links; Type 29 with links.) and ANSI/MSS SP-58 (Type 28 without links; Type 29 with links).

**Finish:** Plain or Electro-Galvanized

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

**Note:** Design load for B3291 thru B3295 based on maximum rod size shown. Use the appropriate all threaded rod design load shown on page 313 for sizes less than maximum.



Part No. *Rod Size	Maximum Beam Flange Thickness		Rod Size A (Specify) *	B		C		Design Load		Approx. Wt./100	
	In.	(mm)		In.	(mm)	In.	(mm)	Lbs.	(kN)	Lbs.	(kg)
B3291-*	.60	(15.2)	3/8"-16, 1/2"-13, 5/8"-11, 3/4"-10	1 1/4"	(31.7)	1 1/8"	(28.6)	3230	(14.36)	390	(176.9)
B3292-*	.60	(15.2)	7/8"-9, 1"-8	1 1/16"	(42.9)	1 1/8"	(28.6)	5900	(26.24)	915	(415.0)
B3293-*	.60	(15.2)	3/8"-16, 1/2"-13, 5/8"-11, 3/4"-10, 7/8"-9, 1"-8	1 1/16"	(42.9)	1 1/8"	(28.6)	5900	(26.24)	1300	(589.6)
B3294-*	1.031	(26.2)	7/8"-9, 1"-8	1 1/2"	(38.1)	1 1/8"	(28.6)	5900	(26.24)	2165	(982.0)
B3295-*	1.031	(26.2)	7/8"-9, 1"-8	1 1/2"	(38.1)	1 1/8"	(28.6)	5900	(26.24)	3385	(1535.4)
B3296-*	1.031	(26.2)	1"-8, 1 1/8"-7, 1 1/4"-7, 1 1/2"-6	2 1/8"	(54.0)	1 1/8"	(28.6)	11500	(51.15)	2390	(1084.1)
B3297-*	1.031	(26.2)	1 1/8"-7, 1 1/4"-7, 1 1/2"-6	2 1/8"	(54.0)	1 1/8"	(28.6)	11500	(51.15)	3575	(1621.6)
B3298-*	1.031	(26.2)	1 3/4"-5, 2"-4 1/2	4 9/16"	(115.9)	1 1/8"	(28.6)	11500	(51.15)	3675	(1666.9)

#### 'E' Rod Take-Out For Flange Width

Part No.	3"	4"	5"	6"	7"	8"	9"	10"	11"	12"	13"	14"	15"
B3291-*	4 1/2"	5 5/16"	4 1/16"	3 5/8"	2 7/8"	--	--	--	--	--	--	--	--
B3292-*	--	4 3/4"	4 7/16"	4 1/16"	3 3/8"	--	--	--	--	--	--	--	--
B3293-*	--	--	--	--	5 15/16"	6"	5 5/16"	5"	--	--	--	--	--
B3294-*	--	6 13/16"	6 5/8"	6 3/8"	5 7/8"	5 7/8"	5 3/8"	4 13/16"	--	--	--	--	--
B3295-*	--	--	--	--	--	--	--	--	8 1/8"	7 3/4"	7 1/8"	6 5/8"	6 1/16"
B3296-*	--	7 3/16"	7"	6 3/4"	6 1/4"	6 5/16"	5 13/16"	5 3/16"	--	--	--	--	--
B3297-*	--	--	--	--	--	--	--	--	8 1/2"	8 1/8"	7 1/2"	7"	6 7/16"
B3298-*	--	8 3/8"	8 7/16"	8 3/16"	7 3/4"	7 3/4"	7 1/4"	6 5/8"	--	--	--	--	--

To determine (mm) in the above chart, multiply inches by 25.4.

\* Rod Size required to finish part number (see Rod Size 'A' in top chart).

Δ These part numbers are furnished with links.

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