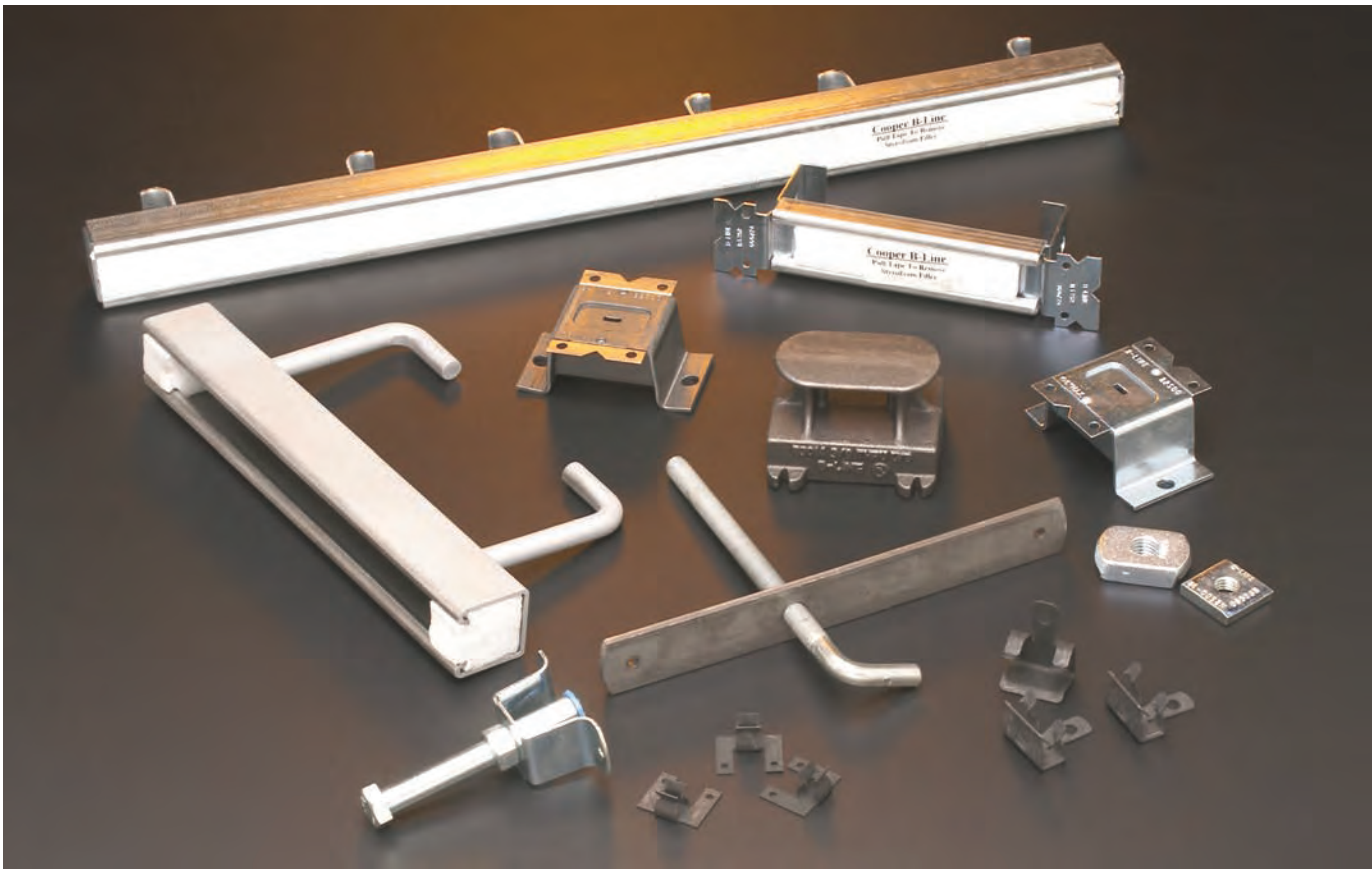


Concrete Inserts



Concrete Inserts

Concrete inserts offered in this section are designed to provide a pre-set support point in concrete ceilings, walls, and floors. A range of inserts with varying design loads are available.

Materials

Carbon Steel and Malleable Iron are used in the manufacture of concrete inserts. 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™ 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.

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

B3019 - Adjustable Metal Deck Ceiling Bolt

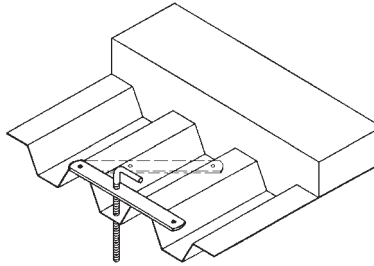
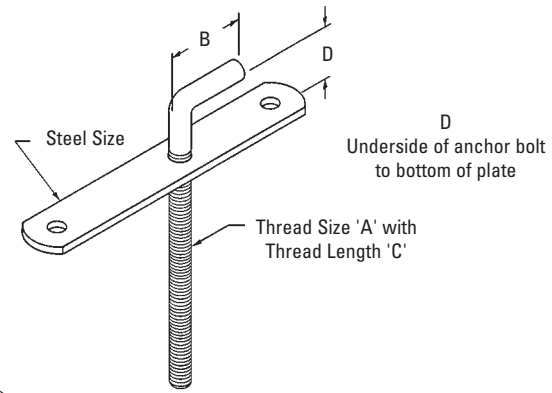
Size Range: 3/8"-16 thru 3/4"-10 rod

Material: Steel

Function: For use in metal deck formed concrete to attach hanger rods. Allows for pre-positioning of hanger rods in poured concrete decks.

Finish: Plate: Plain Steel. Rod: Electro-Galvanized. Contact Cooper B-Line for alternative finishes and materials.

Order By: Part number and finish. Contact customer service for custom rod lengths.



Part No.	Thread Size A	B		Thread Length C		D		Steel Size		Design Load		Approx. Wt./100	
		in.	(mm)	in.	(mm)	in.	(mm)	in.	(mm)	Lbs	(kN)	Lbs.	(kg)
B3019-3/8	3/8"-16	2 1/2"	(63.5)	6 3/8"	(161.9)	1 1/4"	(31.7)	7 Ga. x 1 1/4" x 10"	(4.5 x 31.7 x 254.0)	730	(3.25)	80	(36.3)
B3019-1/2	1/2"-13	2 1/2"	(63.5)	6 1/2"	(165.1)	1 1/4"	(31.7)	7 Ga. x 1 1/4" x 10"	(4.5 x 31.7 x 254.0)	1350	(6.00)	99	(44.9)
B3019-5/8	5/8"-11	2 1/2"	(63.5)	6 3/4"	(171.4)	1 1/4"	(31.7)	7 Ga. x 1 1/4" x 10"	(4.5 x 31.7 x 254.0)	2160	(9.61)	129	(58.5)
B3019-3/4	3/4"-10	2 1/2"	(63.5)	6 3/16"	(157.2)	2 1/4"	(57.1)	1/4" x 3" x 10"	(6.3 x 76.2 x 254.0)	3230	(14.37)	238	(107.9)

B2499 - Concrete Insert

Size Range: 5/8"-11 thru 1 1/2"-6 rod

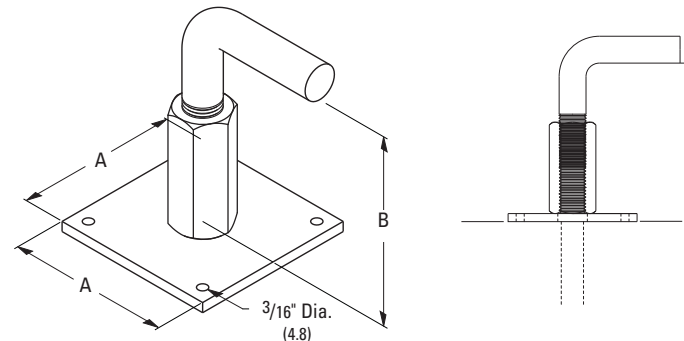
Material: Steel

Function: Designed to be embedded in concrete to provide a point of support for 5/8"-11 thru 1 1/2"-6 rod or bolt sizes.

Finish: Plain anchor bolt with Electro-Galvanized coupling. Contact B-Line for alternative finishes and materials.

Note: For rod sizes 3/8"-16 and 1/2"-13, refer to B2501 see page 198.

Order By: Part number and rod size.
For 1 1/8"-7, 1 1/4"-6, and 1 1/2"-6 consult factory.



Part No.	Rod Size	A	Min. Embedment B	Max. Recommended Loads		Approx. Wt./100			
				(in 3000 lb. (13.34kN) Hard Rock Concrete)					
in.	(mm)	in.	(m)	lbs.	(kN)	lbs.	(kg)		
B2499-5/8	5/8"-11	3"	(76.2)	3 1/2"	(88.9)	1810	(8.05)	118.0	(53.5)
B2499-3/4	3/4"-10	3"	(76.2)	3 1/2"	(88.9)	2710	(12.05)	154.0	(69.8)
B2499-7/8	7/8"-9	3"	(76.2)	4"	(101.6)	3770	(16.77)	210.0	(95.3)
B2499-1	1"-8	3"	(76.2)	4"	(101.6)	4960	(22.06)	276.0	(125.2)



Consult factory for specifications on rod sizes 1 1/8"-7, 1 1/4"-6, and 1 1/2"-6

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

Concrete Inserts

TOLCO™ Fig. 109DD - DDI+™ † - Concrete Deck Insert - Hanger Application

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

Material: Steel

Function: For use in concrete filled metal deck (20 GA. min.) assemblies (i.e. pan deck, Q-deck) applications. After installation, the threaded male hanger of the insert protrudes below the surface of the deck. The threaded bolt offers adjustability for precise height requirements and guarantees the minimum embedment depth. The longer plate enables a variety of installation locations across the deck. Pre-mounted drill screws included for installation.

Approvals: International Code Council, Evaluation Service (ICC-ES), ESR-3958 for concrete, for 3/8"-16 thru 5/8"-11" anchor sizes. Approved for seismic and wind loading.

UL (Underwriters Laboratories) Listed

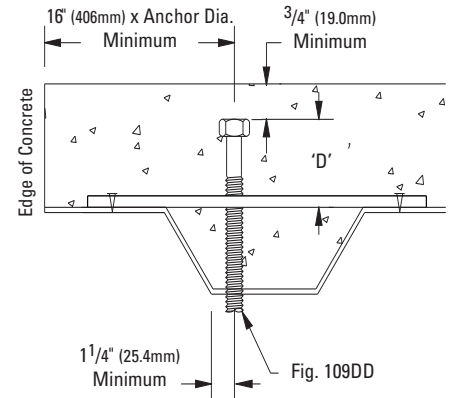
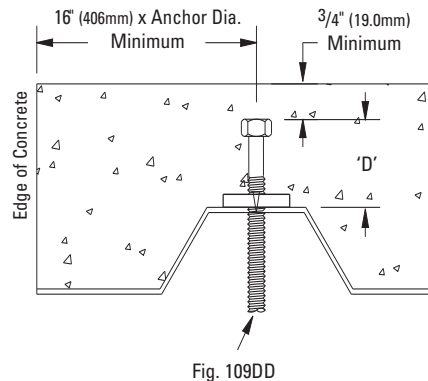
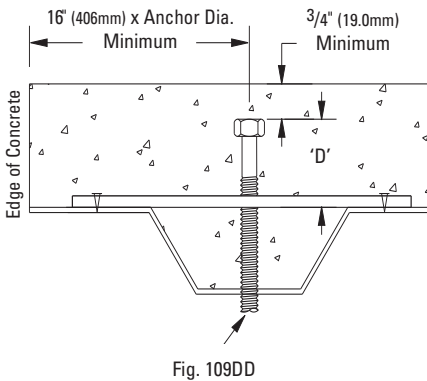
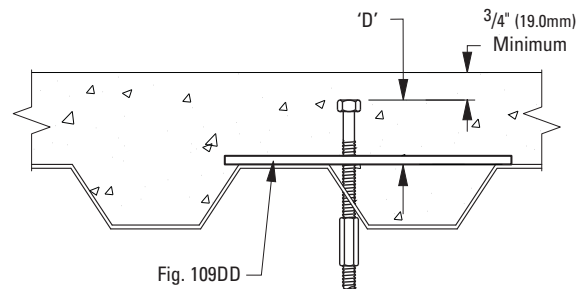
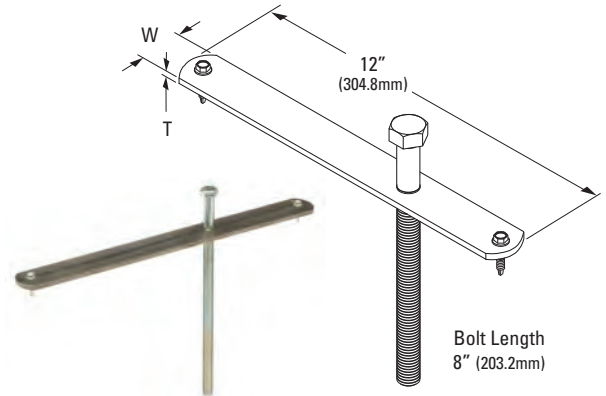
FM (Factory Mutual) Approved

Finish: Plate: Plain Steel. Rod: Electro-Galvanized.

Order By: Figure number, rod size and finish.

Applications Per NFPA 13 (2010): UL Listed as a component of a hanger assembly per Section 9.1.1.4.1
See dimensions and installation Detail below.

Note: Fig. 109DD replaces Fig. 109A which has been discontinued.



Part No.	Rod Size	T in. (mm)	W in. (mm)	Max. Vertical Load lbs. (kn)	'D' Min. Anchor Embedment Depth in. (mm)	Approx. Wt./100 lbs. (kg)
109DD-3/8	3/8"-16	3/16" (4.7)	1 1/4" (31.7)	467 (2.08)	2 1/2" (63.5)	98.1 (44.5)
109DD-1/2	1/2"-13	3/16" (4.7)	1 1/4" (31.7)	680 (3.02)	2 1/2" (63.5)	112.8 (51.1)
109DD-5/8	5/8"-11	3/16" (4.7)	1 1/4" (31.7)	647 (2.88)	2 1/2" (63.5)	139.3 (63.2)
109DD-3/4	3/4"-10	3/8" (9.5)	2" (50.8)	612 (2.72)	2 1/2" (63.5)	112.8 (153.6)
109DD-7/8	7/8"-9	3/8" (9.5)	2" (50.8)	577 (2.56)	2 1/2" (63.5)	381.2 (172.9)

NOTES:

1. Mounting holes are standard. If the plate is not mechanically secured to the deck ribs, a jam nut is required to prevent the anchor bolt from laying over when concrete is poured. There is no structural strength added from the use of a mechanical fastener to hold the product in place before the pour.
2. Minimum spacing between inserts shall be not less than 3 times the embedment depth or 12 times the anchor diameter (whichever is greater)

† DDi+™ is a registered trademark used by DEWALT®

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

TOLCO™ Fig. 109DD-DDI+™ † - Concrete Deck Insert - Brace Application

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

Material: Steel

Function: For use in concrete filled metal deck (20 GA. min.) assemblies (i.e. pan deck, Q-deck) applications. After installation, the threaded male hanger of the insert protrudes below the surface of the deck. The threaded bolt offers adjustability for precise height requirements and guarantees the minimum embedment depth. The longer plate enables a variety of installation locations across the deck. Pre-mounted drill screws included for installation.

Approvals: International Code Council, Evaluation Service (ICC-ES), ESR-3958 for concrete, for 3/8"-16 thru 5/8"-11" anchor sizes. Approved for seismic and wind loading.

UL (Underwriters Laboratories) Listed

FM (Factory Mutual) Approved

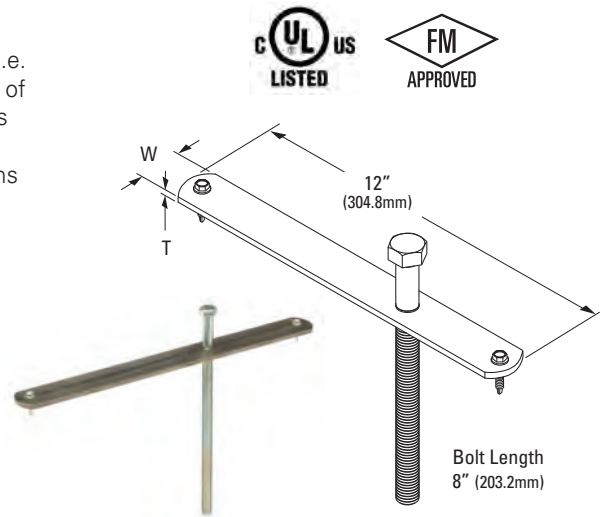
Finish: Plate: Plain Steel. Rod: Electro-Galvanized.

Order By: Figure number, rod size and finish.

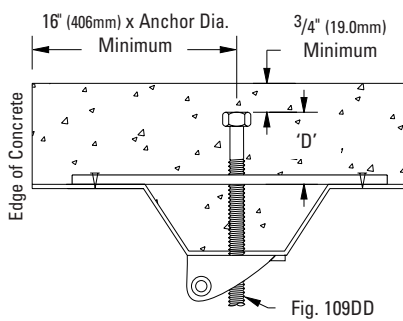
Applications Per NFPA 13 (2010): UL Listed as a component of a hanger assembly per Section 9.1.1.4.1

See dimensions and installation Detail below.

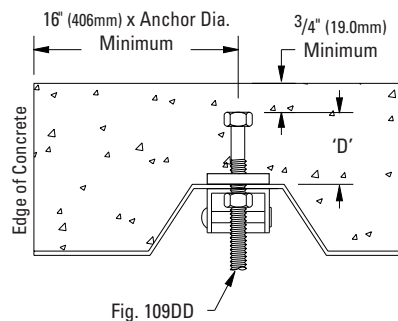
Note: Fig. 109DD replaces Fig. 109A which has been discontinued.



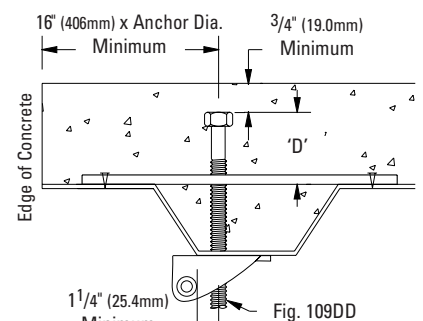
Concrete Inserts



Detail 1



Detail 2



Detail 3

Part No.	Rod Size	T in. (mm)	W in. (mm)	Details 1 & 2 Max. Horizontal Load Brace At 45°		Detail 3 Max. Horizontal Load Brace At 45°		'D' Min. Anchor Embedment Depth in. (mm)	Approx. Wt./100 lbs. (kg)
				lbs. (kN)	lbs. (kN)				
109DD-3/8	3/8"-16	3/16" (4.7)	1 1/4" (31.7)	311 (1.38)	257 (1.14)	2 1/2" (63.5)	98.1 (44.5)		
109DD-1/2	1/2"-13	3/16" (4.7)	1 1/4" (31.7)	424 (1.89)	332 (1.48)	2 1/2" (63.5)	112.8 (51.1)		
109DD-5/8	5/8"-11	3/16" (4.7)	1 1/4" (31.7)	482 (2.14)	363 (1.61)	2 1/2" (63.5)	139.3 (63.2)		
109DD-3/4	3/4"-10	3/8" (9.5)	2" (50.8)	482 (2.14)	363 (1.61)	2 1/2" (63.5)	338.7 (153.6)		
109DD-7/8	7/8"-9	3/8" (9.5)	2" (50.8)	482 (2.14)	363 (1.61)	2 1/2" (63.5)	381.2 (172.9)		

Seismic bracing design load calculated in compliance with the requirements of IBC 2015 / CBC 2016.

NOTES:

1. Mounting holes are standard. If the plate is not mechanically secured to the deck ribs, a jam nut is required to prevent the anchor bolt from laying over when concrete is poured. There is no structural strength added from the use of a mechanical fastener to hold the product in place before the pour.
2. Minimum spacing between inserts shall be not less than 3 times the embedment depth or 12 times the anchor diameter (whichever is greater)

† DDi+™ is a registered trademark used by DEWALT®

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

Concrete Inserts

B2500 - Light Duty Spot Insert

Material: Steel

Function: Designed to be embedded in concrete to attach 1/4"-20 to 7/8"-9 hanger rods.

How to Install: Attach concrete insert to forms and install reinforcing rods as required. After forms are dismantled, the knockout can be removed from the insert. The N2500 insert nut can be installed and the rod fastened to the nut. The rod should touch the inside top of the insert but should not be forced further to avoid damaging the insert.

Approvals: Underwriters Laboratories Listed for maximum pipe size 6" (150). Conforms to Federal Specification WW-H-171E & A-A-1192A, Type 19 and Manufacturers Standardization Society ANSI/MSS SP-69 & SP-58, Type 18.

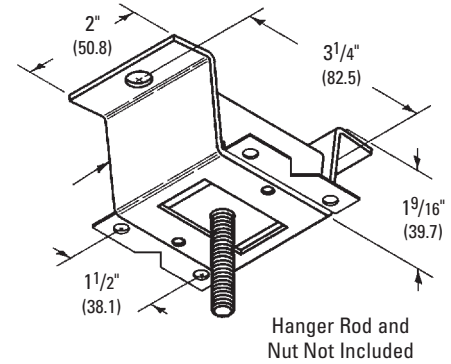
Weight: Approx. Wt./100 - 46 Lbs. (20.8kg)

Finish: Electro-Galvanized.

Order By: Part number and finish.
(Order N2500 nuts separately).

Design Load: Loading based on a straight pull of 600 Lbs. (2.67kN).

Note: Before installation ensure that concrete is sufficient to carry the load.



Material Thickness
12 Gauge (2.6)



N2500 - Steel Insert Nut

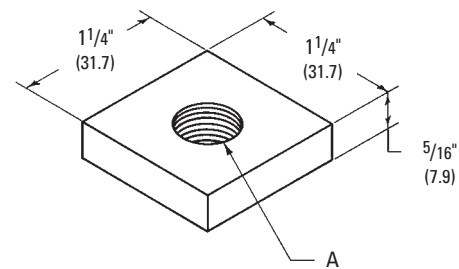
Size Range: 1/4"-20 through 7/8"-9.

Material: Steel

Function: Designed for use with B2500 spot insert.

Finish: Plain or Electro-Galvanized.

Order By: Part number and size.



Part No.	Tap Size A	Approx. Wt./100 Lbs. (kg)
N2500-1/4	1/4"-20	14 (6.3)
N2500-3/8	3/8"-16	13 (5.9)
N2500-1/2	1/2"-13	12 (5.4)
N2500-5/8	5/8"-11	11 (5.0)
N2500-3/4	3/4"-10	11 (5.0)
N2500-7/8	7/8"-9	10 (4.5)

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

B3014 - Malleable Iron Insert

Material: Malleable Iron

Function: Designed to be embedded in concrete to attach 3/8"-16 to 7/8"-9 hanger rods.

How to Install: Attach concrete insert to forms and install reinforcing rods as required. After forms are dismantled, the B3014N nut can be installed and the rod fastened to the nut. The rod should touch the inside top of the insert.

Approvals: Underwriters Laboratories Listed when used with B3014N Insert Nut. Conforms to Federal Specification WW-H-171E & A-A-1192A, Type 18 and Manufacturers Standardization Society ANSI/MSS SP-69 & SP-58, Type 18.

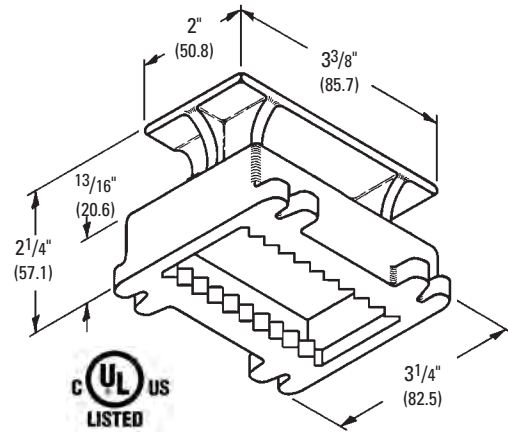
Weight: Approx. Wt./100 - 166 Lbs. (75.3kg)

Finish: Plain or Electro-Galvanized.

Order By: Part number and finish.
(Order B3014N nuts separately).

Design Load: Design Loads based on B3014N malleable iron insert nut below.

Note: Before installation ensure that concrete is sufficient to carry the load.



Horizontal Adjustment:

For 3/8"-16, 1/2"-13, 5/8"-11 rods - Adjustment is 1 3/4" (44.4)

For 3/4"-10, 7/8"-9 rods - Adjustment is 1 3/16" (30.2)



Concrete Inserts

B3014N - Malleable Iron Insert Nut

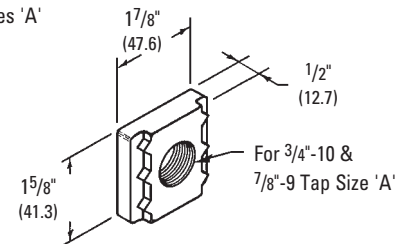
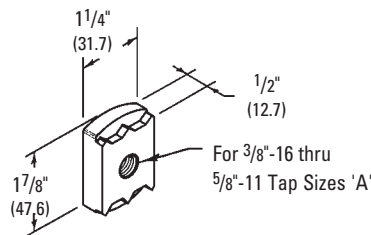
Size Range: 3/8"-20 through 7/8"-9.

Material: Malleable Iron

Standard Finish: Plain or Electro-Galvanized

Service: Designed for use with the B3014 malleable iron insert shown above.

Ordering: Part number and finish.



Part No.	Tap Size 'A'	UL Max. Pipe Size	Design Load*		Approx. Wt./100	
			Lbs.	(kN)	Lbs.	(kg)
B3014N-3/8	3/8"-16	4"	730	(3.25)	22	(10.0)
B3014N-1/2	1/2"-13	8"	1350	(6.00)	22	(10.0)
B3014N-5/8	5/8"-11	10"	1400	(6.23)	20	(9.1)
B3014N-3/4	3/4"-10	10"	1400	(6.23)	29	(13.1)
B3014N-7/8	7/8"-9	10"	1400	(6.23)	29	(13.1)

* When used with B3014 Malleable Iron Insert.



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

Concrete Inserts

B2501 - Light Duty Spot Insert - Hanger Application

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

Material: Steel

Standard Finish: Electro-Plated

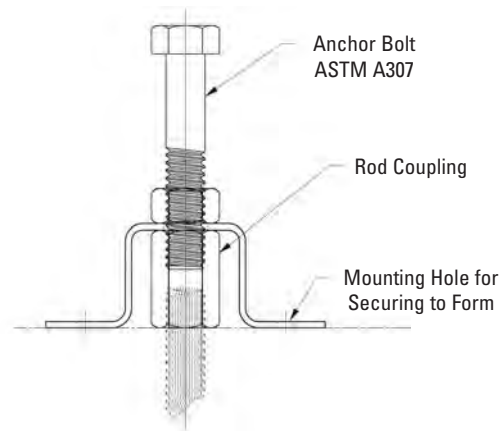
Approvals: 3/8" & 1/2" rod sizes are Underwriters Laboratories listed in the USA (UL) and Canada (cUL).

Service: Designed to be embedded in concrete for attachment of 3/8"-16 & 1/2"-13 hanger rods.

Ordering: Specify part number and size.

How to Install: Locate and nail to form. Pour concrete and strip forms when set. Remove color coded plug, install rod and lock with jam nut.

Note: Design load is based off of rod sizes. Before installation ensure that concrete is sufficient to carry the load.



B2501 - Data

Part No.	Rod Size	UL Listed	Approx. Wt./C Lbs. (kg)
B2501-3/8	3/8"-16	Up to 4" IPS	22 (10.0)
B2501-1/2	1/2"-13	Up to 8" IPS	26 (11.8)

Concrete Inserts

B2505 thru B2508 - Spot Insert

Material: Steel (Stainless steel available on B2505 only)

Standard Finish: Plain or Pre-Galvanized

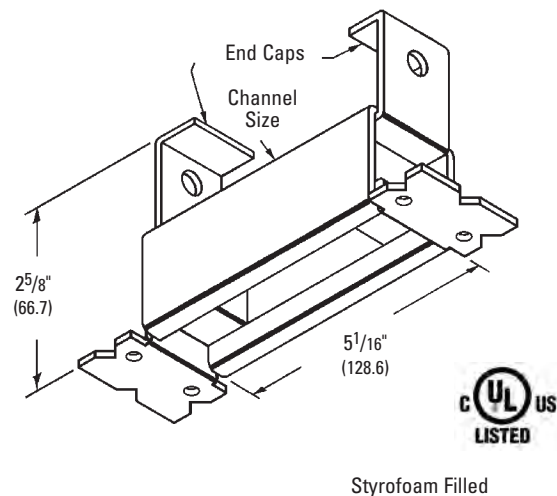
Function: Designed to be embedded in concrete to attach 1/4"-20 to 7/8"-9 hanger rods.

How to Install: Attach concrete insert to forms and install reinforcing rods as required. After forms are dismantled, the channel nut can be installed and the rod fastened to the nut. The rod should touch the inside top of the insert.

Approvals: Underwriters Laboratories Listed. Conforms to Manufacturers Standardization Society ANSI/MSS SP-69 & SP-58, Type 18.

Order By: Part number and finish. When supporting 10" (254mm) pipe, order B2505 Insert with 5/8"-11 channel nuts.

Note: For appropriate channel nut selection, see page 18. Before installation ensure that concrete is sufficient to carry the load.



Styrofoam Filled

Part No.	Channel Size	End Cap Part No.	Design Load Lbs. (kN)	Max. Pipe Size in. (mm)	Approx. Wt./100 Lbs. (kg)
B2505	B22	B3322	1200 (5.34)	10" (250)	96 (43.5)
B2506	B32	B3332	1000 (4.45)	8" (200)	88 (39.9)
B2508	B52	B3352	1000 (4.45)	8" (200)	69 (31.3)



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

B2503 - Heavy Duty Spot Insert

Material: Steel

Standard Finish: Electro-Galvanized

Function: Designed to be embedded in concrete where heavy loads are required in curtain wall applications. Styrofoam end caps prevent concrete seepage into the channel.

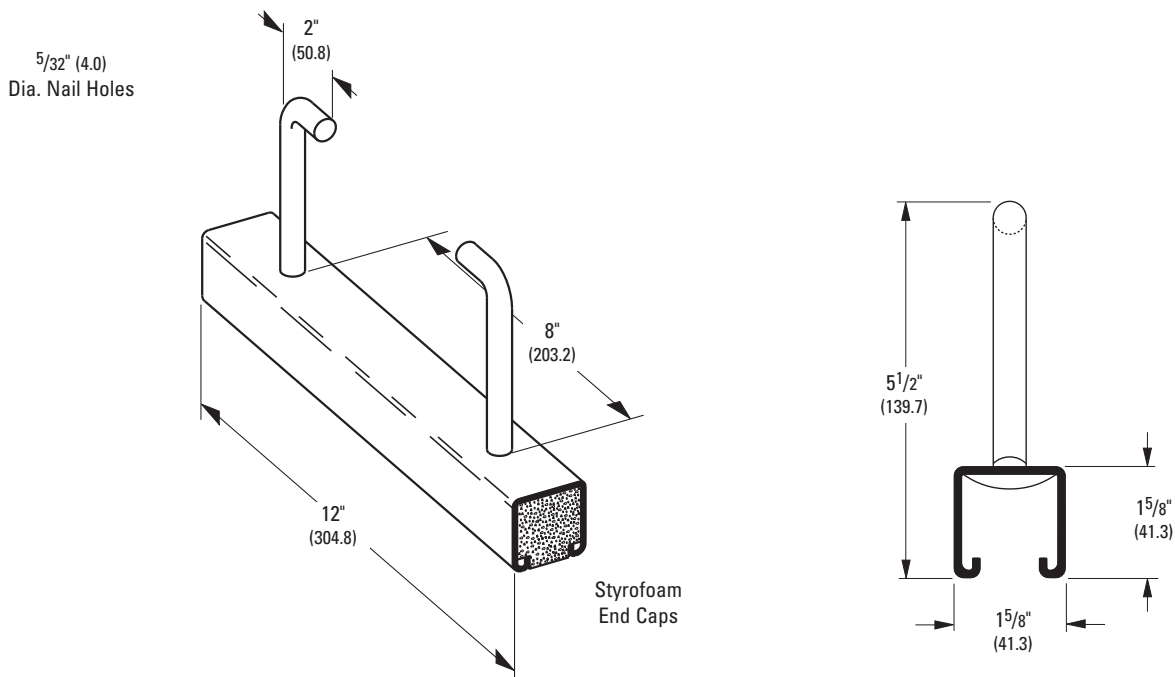
How to Install: Attach concrete insert to forms and install reinforcing rods as required. After forms are dismantled, the channel nut can be installed and the rod fastened to the nut. The rod should touch the inside top of the insert.

Approvals: Conforms to Manufacturers Standardization Society ANSI/MSS SP-69 & SP-58, Type 18.

Design Load: 5000 Lbs. (22.2kN).
Loading based on two N225 channel nuts spaced 3" (76.2mm) on center and a minimum of 2" (50.8mm) from the end of the insert.

Weight: Approx. Wt./100 - 42 Lbs. (19.0kg)

Order By: Part number and finish. Channel nuts are sold separately, see page 18 for appropriate selection.



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

Concrete Inserts

B22I - Continuous Concrete Insert

Material: Steel

Standard Finish: Plain, Pre-Galvanized, or Hot-Dip Galvanized

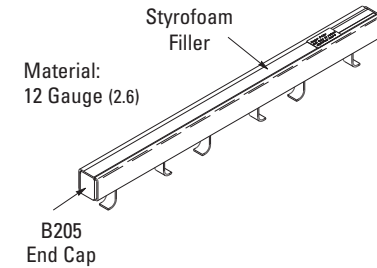
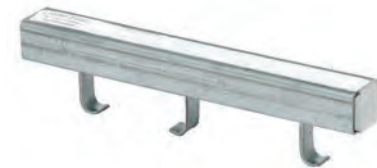
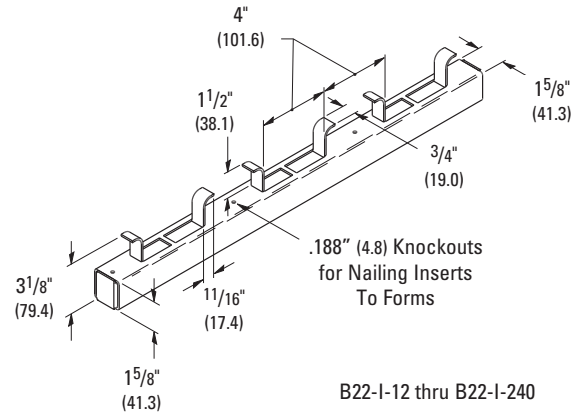
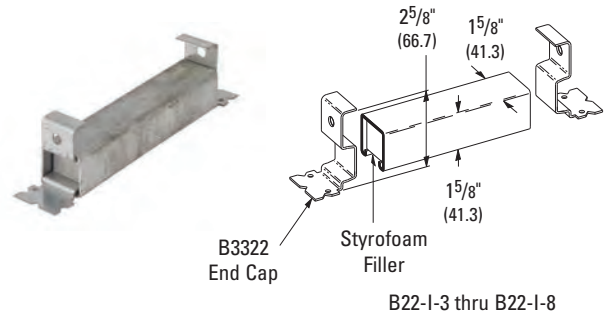
Function: Concrete insert should be secured to forms on 16" (406.4mm) to 24" (609.6mm) intervals.

How to Install: Attach concrete insert to forms and install reinforcing rods as required. After forms are dismantled, the channel nut can be installed and the rod fastened to the nut. The rod should touch the inside top of the insert.

Approvals: Conforms to Manufacturers Standardization Society ANSI/MSS SP-69 & SP-58, Type 18.

Design Load: 2000 Lbs. (8.89kN) per foot for B22-I-12 thru B22-I-240 in 3000 psi concrete. Loads concentrated within the last 2" (50.8mm) of inserts 8" (203.2mm) and longer should not exceed 1000 Lbs. (4.45kN).

Order By: Part number and finish. Channel nuts are sold separately, see page 18 for appropriate selection. To order inserts without styrofoam and end caps add insert only to the part number.



Part No.	Length	Approx. Wt./100		Design Load	
	in. (mm)	Lbs. (kg)		Lbs. (kN)	
B22-I-3	3" (76)	72 (32.6)		500 (2.22)	
B22-I-4	4" (101)	88 (39.9)		800 (3.56)	
B22-I-6	6" (152)	120 (54.4)		1000 (4.45)	
B22-I-8	8" (203)	152 (68.9)		1200 (5.34)	

Part No.	Length	Approx. Wt./100	
	in. (mm)	Lbs. (kg)	
B22-I-12	12" (305)	224 (101.6)	
B22-I-16	16" (406)	289 (131.1)	
B22-I-20	20" (508)	353 (160.1)	
B22-I-24	24" (609)	420 (190.5)	
B22-I-32	32" (813)	553 (250.8)	
B22-I-36	36" (914)	620 (281.2)	
B22-I-40	40" (1016)	686 (311.1)	
B22-I-48	48" (1219)	820 (371.9)	
B22-I-60	60" (1524)	1018 (461.7)	
B22-I-72	72" (1829)	1218 (552.5)	
B22-I-84	84" (2133)	1417 (642.7)	
B22-I-96	96" (2438)	1616 (733.0)	
B22-I-108	108" (2743)	1816 (823.7)	
B22-I-120	120" (3048)	2016 (914.4)	
B22-I-144	144" (3657)	2416 (1095.9)	
B22-I-168	168" (4267)	2816 (1277.3)	
B22-I-192	192" (4877)	3216 (1458.7)	
B22-I-216	216" (5486)	3616 (1640.2)	
B22-I-240	240" (6096)	4016 (1821.6)	

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

B32I - Continuous Concrete Insert

Material: Steel

Standard Finish: Plain, Pre-Galvanized, or Hot-Dip Galvanized

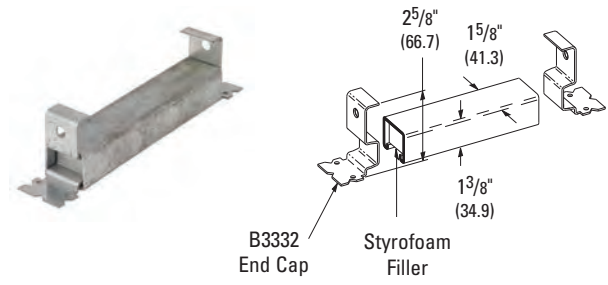
Function: Concrete insert should be secured to forms on 16" (406.4mm) to 24" (609.6mm) intervals.

How to Install: Attach concrete insert to forms and install reinforcing rods as required. After forms are dismantled, the channel nut can be installed and the rod fastened to the nut. The rod should touch the inside top of the insert.

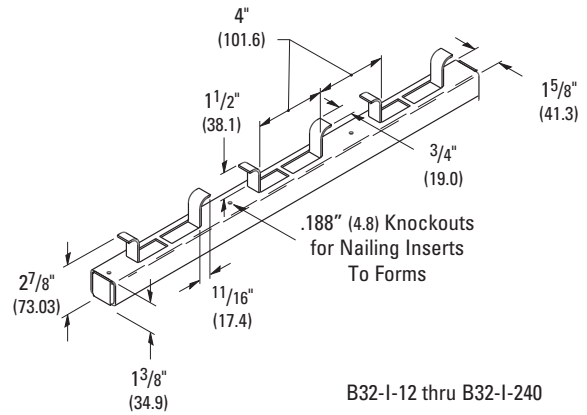
Approvals: Conforms to Manufacturers Standardization Society ANSI/MSS SP-69 & SP-58, Type 18.

Design Load: 2000 Lbs. (8.89kN) per foot for B32-I-12 thru B32-I-240 in 3000 psi concrete. Loads concentrated within the last 2" (50.8mm) of inserts 8" (203.2mm) and longer should not exceed 1000 Lbs. (4.45kN).

Order By: Part number and finish. Channel nuts are sold separately, see page 18 for appropriate selection. To order inserts without styrofoam and end caps add insert only to the part number.



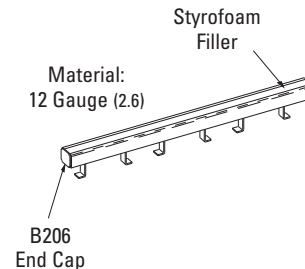
B32-I-3 thru B32-I-8



B32-I-12 thru B32-I-240

Part No.	Length in. (mm)	Approx. Wt./100		Design Load	
		Lbs.	(kg)	Lbs.	(kN)
B32-I-3	3" (76)	65	(29.5)	500	(2.22)
B32-I-4	4" (101)	80	(36.3)	800	(3.56)
B32-I-6	6" (152)	108	(49.0)	1000	(4.45)
B32-I-8	8" (203)	137	(62.1)	1200	(5.34)

Part No.	Length in. (mm)	Approx. Wt./100	
		Lbs.	(kg)
B32-I-12	12" (305)	202	(91.6)
B32-I-16	16" (406)	262	(118.8)
B32-I-20	20" (508)	316	(143.3)
B32-I-24	24" (609)	376	(170.5)
B32-I-32	32" (813)	496	(225.0)
B32-I-36	36" (914)	556	(252.2)
B32-I-40	40" (1016)	616	(279.4)
B32-I-48	48" (1219)	736	(333.8)
B32-I-60	60" (1524)	915	(415.0)
B32-I-72	72" (1829)	1095	(496.7)
B32-I-84	84" (2133)	1274	(577.9)
B32-I-96	96" (2438)	1453	(659.0)
B32-I-108	108" (2743)	1633	(740.7)
B32-I-120	120" (3048)	1813	(822.3)
B32-I-144	144" (3657)	2173	(985.6)
B32-I-168	168" (4267)	2533	(1148.9)
B32-I-192	192" (4877)	2893	(1312.2)
B32-I-216	216" (5486)	3253	(1475.5)
B32-I-240	240" (6096)	3613	(1638.8)



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

Concrete Inserts

B52I - Continuous Concrete Insert

Material: Steel

Standard Finish: Plain, Pre-Galvanized, or Hot-Dip Galvanized

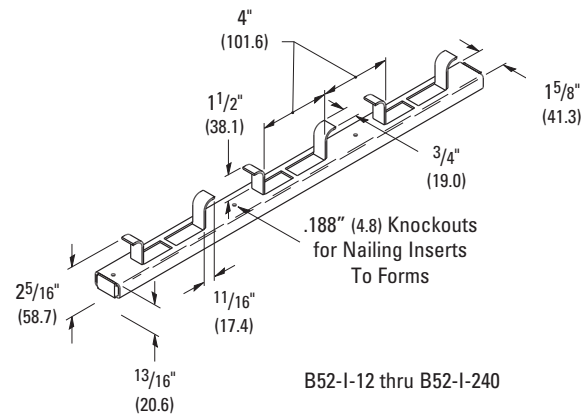
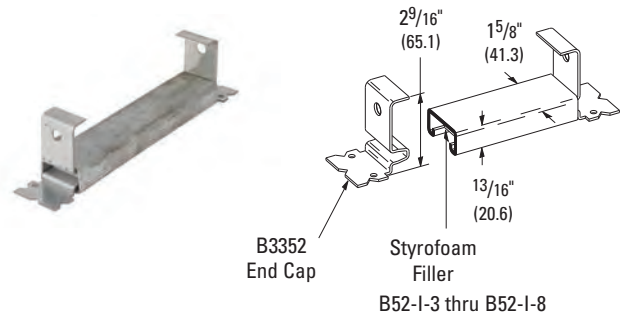
Function: Concrete insert should be secured to forms on 16" (406.4mm) to 24" (609.6mm) intervals.

How to Install: Attach concrete insert to forms and install reinforcing rods as required. After forms are dismantled, the channel nut can be installed and the rod fastened to the nut. The rod should touch the inside top of the insert.

Approvals: Conforms to Manufacturers Standardization Society ANSI/MSS SP-69 & SP-58, Type 18.

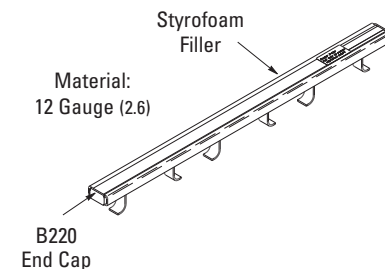
Design Load: 1500 Lbs. (6.67kN) per foot for B52-I-12 thru B52-I-240 in 3000 psi concrete. Loads concentrated within the last 2" (50.8mm) of inserts 8" (203.2mm) and longer should not exceed 750 Lbs. (3.33kN).

Order By: Part number and finish. Channel nuts are sold separately, see page 18 for appropriate selection. To order inserts without styrofoam and end caps add insert only to the part number.



Part No.	Length		Approx. Wt./100		Design Load	
	in.	(mm)	Lbs.	(kg)	Lbs.	(kN)
B52-I-3	3"	(76)	53	(24.0)	400	(1.78)
B52-I-4	4"	(101)	63	(28.6)	500	(2.22)
B52-I-6	6"	(152)	85	(38.5)	750	(3.33)
B52-I-8	8"	(203)	106	(48.1)	1000	(4.45)

Part No.	Length		Approx. Wt./100	
	in.	(mm)	Lbs.	(kg)
B52-I-12	12"	(305)	157	(71.2)
B52-I-16	16"	(406)	202	(91.6)
B52-I-20	20"	(508)	237	(107.5)
B52-I-24	24"	(609)	282	(127.9)
B52-I-32	32"	(813)	373	(169.2)
B52-I-36	36"	(914)	419	(190.0)
B52-I-40	40"	(1016)	464	(210.4)
B52-I-48	48"	(1219)	556	(252.2)
B52-I-60	60"	(1524)	692	(313.9)
B52-I-72	72"	(1829)	829	(376.0)
B52-I-84	84"	(2133)	965	(437.7)
B52-I-96	96"	(2438)	1107	(502.1)
B52-I-108	108"	(2743)	1237	(561.1)
B52-I-120	120"	(3048)	1374	(623.2)
B52-I-144	144"	(3657)	1648	(747.5)
B52-I-168	168"	(4267)	1922	(871.8)
B52-I-192	192"	(4877)	2196	(996.1)
B52-I-216	216"	(5486)	2470	(1120.4)
B52-I-240	240"	(6096)	2744	(1244.6)



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

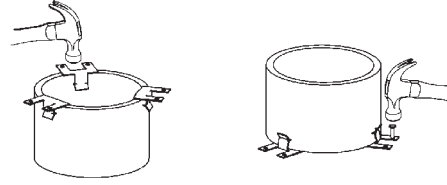
BD40 - Pipe Sleeve Fastener

Material: Steel

Function: Designed to attach pipe sleeves to wall or floor forms before concrete pours.

Standard Finish: Zinc Phosphate

Order By: Part number and finish.



Part No.	Sleeve Diameter	Wall Thickness	Approx. Wt./100
			Lbs. (kg)
BD40	All Diameters	$\frac{5}{16}$ " (7.9mm) and under	1.5 (.68)
	2" (50.8mm) to 6" (152.4mm)	Schedule 40 Pipe	

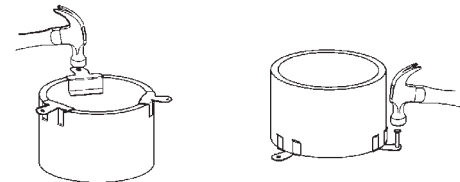
BE-5-8 and BE-9-12 - Pipe Sleeve Fastener

Material: Steel

Function: Designed to attach pipe sleeves to wall or floor forms before concrete pours.

Standard Finish: Zinc Phosphate

Order By: Part number and finish.



Part No.	Sleeve Diameter		Wall Thickness	Approx. Wt./100
	in.	(mm)		Lbs. (kg)
BE-5-8	6"	(152.4)	Schedule 80 Pipe	3.5 (1.6)
	8" to 10"	(203.2 to 254.0)	Schedule 40 Pipe	
BE-9-12	9" to 14"	(228.6 to 355.6)	Schedule 80 Pipe	4.0 (1.8)

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