Bang-It™ and Wood-Knocker™ *Concrete Inserts*

PRODUCT DESCRIPTION

Bang-It concrete inserts are designed for installation in and through metal composite deck (i.e. "pan-deck") used to support newly poured concrete floors or roof slabs. After pre-drilling the deck and installation, the protective sleeve of the insert protrudes below the surface of the deck allowing overhead attachment of steel threaded rod in sizes ranging from 1/4" to 7/8" in diameter. The sleeve prevents sprayed fireproofing material and acoustical dampening products from clogging the internal threads of the insert. It also prevents burying, masking or losing the insert location. The hex impact plate offers resistance to rotation within the concrete as a steel threaded rod is being installed.

Wood-Knocker concrete inserts are installed onto wooden forms used to support newly poured concrete floor slabs, roof slabs or walls. When the forms are stripped, the color-coded flange is visibly embedded in the concrete surface. The inserts allow the attachment of steel threaded rod or threaded bolts in sizes ranging from 1/4" to 3/4" in diameter. The hex impact plate offers resistance to rotation within the concrete as a steel threaded rod or threaded bolt is being installed.

A coil thread design is available for Wood-Knocker upon request in 1/2" and 3/4" sizes for forming applications.

GENERAL APPLICATIONS AND USES

- Hanging Pipe and Sprinkler Systems
- Lighting Systems and Overhead Utilities
- Suspended Ceilings
- Suspending Conduit and Cable Trays
- HVAC Ductwork and Strut Channels
- Concrete Formwork

FEATURES AND BENEFITS

+ Hex head does not rotate when set
+ High load values due to full thread engagement
+ Color coded by size for simple identification
+ Low overall installed cost

APPROVALS AND LISTINGS

FM Global (Factory Mutual) File No. J.I 3015153
Underwriters Laboratories (UL) File No. EX 1289. Recognized also for use in air handling spaces.

GUIDE SPECIFICATIONS

CSI Divisions: ***03151-Concrete Anchoring*** **and** ***05090-Metal Fastenings.*** Concrete inserts shall be Bang-It and/or Wood-Knocker as supplied by Powers Fasteners, Inc., Brewster, NY.

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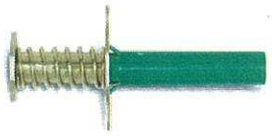
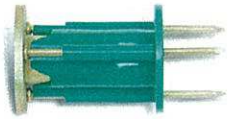


Bang-It Metal Deck Insert



Wood-Knocker Wood Form Insert

ANCHOR MATERIALS

Carbon Steel and Engineered Plastic

ROD/ANCHOR SIZE RANGE (TYP.)

1/4" to 7/8" threaded rod for Bang-It Concrete Inserts

1/4" to 3/4" threaded rod for Wood-Knocker Concrete Inserts

1/2" and 3/4" coil thread for Wood-Knocker Concrete Inserts

SUITABLE BASE MATERIALS

Normal-Weight Concrete

Structural Lightweight Concrete

MATERIAL SPECIFICATIONS

Bang-It

Anchor Component	Component Material
Insert Body	AISI 1008 Carbon Steel
Flange	AISI 1008 Carbon Steel
Spring	Steel Music Wire
Zinc Plating	ASTM B 633 (Yellow Dichromate)
Protective Sleeve	Engineered Plastic

Wood-Knocker

Anchor Component	Component Material
Insert Body	AISI 1008 Carbon Steel
Flange	Engineered Plastic
Zinc Plating	ASTM B 633 (Yellow Dichromate)

STEEL SPECIFICATIONS

Material Properties for Threaded Rod

Steel Description	Steel Specification (ASTM)	Rod Diameter (inch)	Minimum Yield Strength, f_y (ksi)	Minimum Ultimate Strength, f_u (ksi)
Standard carbon rod	A 36 or A 307, Grade C	1/4 to 7/8	36.0	58.0
High strength carbon rod	A 193, Grade B7	1/4 to 7/8	105.0	120.0
Stainless Rod (Type 304 / 316 SS)	F 593, Condition CW	3/8 to 5/8	65.0	100.0
		3/4 to 7/8	45.0	85.0

Allowable Steel Strength for Threaded Rod

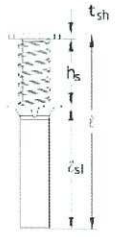
Anchor Diameter d in. (mm)	Area of Rod in.^{2} (mm^2)	Allowable Tension				Allowable Shear			
		ASTM A36 lbs. (kN)	ASTM A307 Grade C lbs. (kN)	ASTM A193 Grade B7 lbs. (kN)	ASTM F593 304/316 SS lbs. (kN)	ASTM A36 lbs. (kN)	ASTM A307 Grade C lbs. (kN)	ASTM A193 Grade B7 lbs. (kN)	ASTM F593 304/316 SS lbs. (kN)
1/4 (6.4)	0.0491 (1.2)	940 (4.2)	940 (4.2)	2,160 (9.7)	1,210 (5.4)	485 (2.2)	485 (2.2)	1,030 (4.6)	625 (2.8)
3/8 (9.5)	0.1104 (2.8)	2,115 (9.5)	2,115 (9.5)	4,375 (19.7)	3,630 (16.3)	1,090 (4.9)	1,090 (4.9)	2,255 (10.1)	1,870 (8.4)
1/2 (12.7)	0.1963 (5.0)	3,755 (16.9)	3,755 (16.9)	7,775 (35.0)	6,470 (29.1)	1,940 (8.7)	1,940 (8.7)	4,055 (18.2)	3,330 (15.0)
5/8 (15.9)	0.3068 (7.8)	5,870 (26.4)	5,870 (26.4)	12,150 (54.7)	10,130 (45.6)	3,025 (13.6)	3,025 (13.6)	6,260 (28.2)	5,210 (23.4)
3/4 (19.1)	0.4418 (11.2)	8,455 (38.0)	8,455 (38.0)	17,495 (78.7)	12,400 (55.8)	4,355 (19.6)	4,355 (19.6)	9,010 (40.5)	6,390 (28.8)
7/8 (22.2)	0.6010 (15.3)	11,510 (51.8)	11,510 (51.8)	23,810 (107.1)	16,860 (75.9)	5,930 (26.7)	5,930 (26.7)	12,265 (55.2)	8,680 (39.1)

1. Allowable tension = f_u (A_{nom}) (0.33); Allowable shear = f_u (A_{nom}) (0.17)

INSTALLATION SPECIFICATIONS

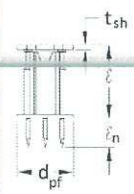
Bang-It

Dimension	Notation	Nominal Rod/Anchor Size					
		1/4"	3/8"	1/2"	5/8"	3/4"	7/8"
Metal Hole Saw Diameter (in.)	d_{bit}	13/16	13/16	13/16	1 3/16	1 3/16	1 3/16
Drilling Speed (rpm)	-	700-900	700-900	700-900	500-700	500-700	500-700
Height of Spring (in.)	h_s	2	2	2	2	2	2
Insert Thread Length (in.)	-	3/8	5/8	11/16	15/16	1-1/8	1-5/16
Length of Sleeve (in.)	ℓ_{sl}	3-3/8	3-3/8	3-3/8	3-3/8	3-3/8	3-3/8
Thread Size, UNC	-	1/4-20	3/8-16	1/2-13	5/8-11	3/4-10	7/8-9
Overall Length (in.)	ℓ	5-5/16	5-5/16	5-5/16	5-5/16	5-5/16	5-5/16
Steel Flange Thickness (in.)	t_{sh}	5/64	5/64	5/64	5/64	5/64	5/64



Wood-Knocker

Dimension	Notation	Nominal Rod/Anchor Size				
		1/4"	3/8"	1/2"	5/8"	3/4"
Insert Thread Length (in.)	-	3/8	5/8	11/16	15/16	1-1/8
Plastic Flange Dia. (in.)	d_{pf}	1-3/8	1-3/8	1-3/8	1-5/8	1-5/8
Plastic Flange Thickness (in.)	t_{sh}	7/64	7/64	7/64	7/64	7/64
Thread Size, UNC	-	1/4-20	3/8-16	1/2-13	5/8-11	3/4-10
Overall Length (in.)	ℓ	1-7/8	1-7/8	1-7/8	1-7/8	1-7/8
Break-Off Nail Length (in.)	ℓ_n	3/4	3/4	3/4	3/4	3/4
Steel Flange Thickness (in.)	t_{sh}	5/64	5/64	5/64	5/64	5/64



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INSTALLATION GUIDELINES

Bang-It

Prior to pouring concrete, use the recommended diameter metal hole saw to drill a hole through the metal deck at the location the insert is needed. Typically, inserts are installed in the upper flute (valley) of the metal deck for easier access during installation. However, it is also acceptable to install the insert in the lower flute of the metal deck.(see detail)

From the topside of the metal deck, place the Bang-It concrete insert's color-coded, plastic protective sleeve through the pre-drilled hole. The oversized steel flange will balance the spring-loaded impact plate and cause it to stand upright. Either step on the Bang-It with your foot or using a hand held hammer, strike the head of the Bang-It with enough force to cause the tapered portion of the protective plastic sleeve to push through the metal deck, clamping the deck surface between the sleeve and the flange. When all inserts are installed, concrete pouring may commence. The clamping pressure generated by the spring keeps the sleeve perpendicular to the deck surface during the pour.

Either before or after the concrete has been placed, tap the appropriate diameter steel threaded rod or threaded bolt through the opening at the end of the plastic sleeve and screw into the internally threaded insert. Minimum thread engagement should be one anchor diameter. Concrete should be allowed to properly cure and achieve its design compressive strength before loading the threaded rod with the intended assembly.

For safety purposes, it is best to wait until the insert is ready to be put in service before screwing the steel threaded rod into place.

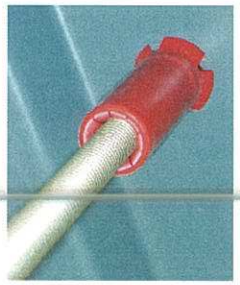
Note: UL listing for 1/2" Bang-It is for the valley of the metal deck only. (see detail)

1. Chuck Carbide Hole Saw

2. Drill Deck Holes

3. Push Bang-It into Place

4. Set by Stepping on Bang-It



5. Pour Concrete. Allow to Cure. Then Install Rod.

Wood-Knocker

Prior to pouring concrete over the wood form, place the Wood-Knocker concrete insert (break-off nails down) on the surface of the wood form at the desired location. Strike the impact plate of the insert with a hand held hammer, until the plastic color-coded flange is flush with the wood surface. When all inserts are installed, concrete pouring may commence.

After the wood forms are removed, the three break-off nails and color-coded flange are left exposed. Carefully remove any unbroken nails by swiping with a hammer. Eye protection should be worn when removing the break-off nails. The appropriate diameter steel rod or threaded bolt can be inserted into the opening of the flange and screwed into the internally threaded insert.

Minimum thread engagement should be one anchor diameter. Concrete should be allowed to properly cure and achieve its design compressive strength before loading the rod or threaded bolt with the intended assembly.

For safety purposes, it is best to wait until the insert is ready to be put in service before screwing the steel threaded rod into place.

Note: UL listing for 5/8" Wood-Knocker is for 8" pipe maximum.

1. Set Wood-Knocker into Place

2. Hammer in Insert

3. Pour Concrete and allow to cure.

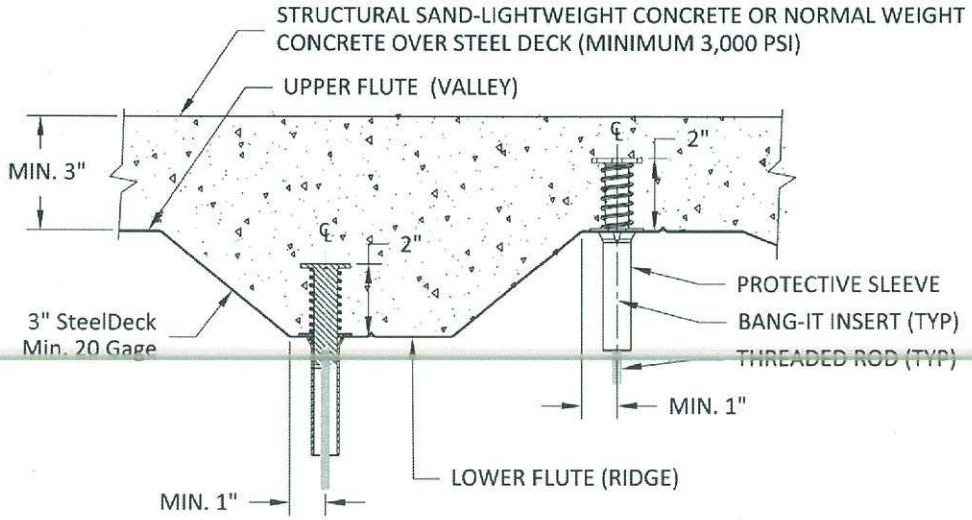
4. Install Rod

PERFORMANCE DATA

Ultimate and Allowable Load Capacities for Bang-It Inserts Installed in Structural Lightweight Concrete or Nominal Weight over Metal Deck[1,2,3]

Rod/Insert Diameter d in. (mm)	Embedment Depth h_v in. (mm)	Flute Location in Deck	Minimum Insert Spacing in. (mm)	Minimum End Distance in. (mm)	$f'_c \geq 3{,}000$ psi (20.7 MPa)			
					Ultimate Load		Allowable Load	
					Tension lbs. (kN)	Shear lbs. (kN)	Tension lbs. (kN)	Shear lbs. (kN)
1/4 (6.4)	2 (50.8)	Upper	9 (228.6)	12 (304.8)	4,450 (20.0)	2,500 (11.3)	1,115 (5.0)	835 (3.8)
		Lower			3,320 (14.9)	2,500 (11.3)	830 (3.7)	625 (2.8)
3/8 (9.5)	2 (50.8)	Upper	9 (228.6)	12 (304.8)	5,750 (25.9)	3,350 (15.1)	1,915 (8.6)	1,115 (5.0)
		Lower			3,320 (14.9)	3,350 (15.1)	830 (3.7)	840 (3.8)
1/2 (12.7)	2 (50.8)	Upper	9 (228.6)	12 (304.8)	7,110 (32.0)	3,350 (15.1)	2,370 (10.7)	1,115 (5.0)
		Lower			3,320 (14.9)	3,350 (15.1)	830 (3.7)	840 (3.8)
5/8 (15.9)	2 (50.8)	Upper	9 (228.6)	12 (304.8)	8,810 (39.6)	3,350 (15.1)	2,935 (13.2)	1,115 (5.0)
		Lower	9 (228.6)		3,960 (17.8)	–	990 (4.5)	–
			12 (304.8)		3,960 (17.8)	3,350 (15.1)	990 (4.5)	840 (3.8)
3/4 (19.1)	2 (50.8)	Upper	9 (228.6)	12 (304.8)	8,810 (39.6)	3,350 (15.1)	2,935 (13.2)	1,115 (5.0)
		Lower	9 (228.6)		3,960 (17.8)	–	990 (4.5)	–
			12 (304.8)		3,960 (17.8)	3,350 (15.1)	990 (4.5)	840 (3.8)
7/8 (22.2)	2 (50.8)	Upper	9 (228.6)	12 (304.8)	8,810 (39.6)	3,350 (15.1)	2,935 (13.2)	1,115 (5.0)
		Lower	9 (228.6)		3,960 (17.8)	–	990 (4.5)	–
			12 (304.8)		3,960 (17.8)	3,350 (15.1)	990 (4.5)	840 (3.8)

1. Allowable load capacities listed are calculated using an applied safety factor of 3.0 for installations in the upper flute and 4.0 for installations in the lower flute.
2. The allowable working load must be the lesser of the insert capacity or the steel strength of the threaded rod.
3. NFPA 13 design requirements are five times the weight of the water filled pipe plus 250 pounds.



PERFORMANCE DATA

Ultimate and Allowable Load Capacities for Wood-Knocker Inserts Installed in Normal-Weight Concrete[1,2,3,4]

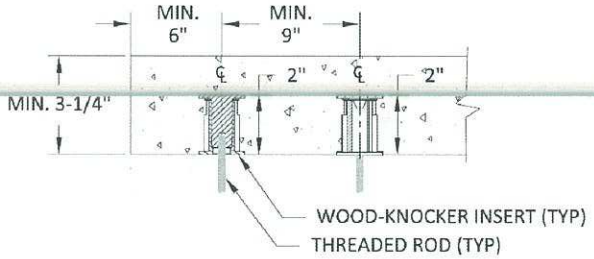
Rod/ Insert Diameter d in. (mm)	Embed. Depth h_v in. (mm)	Minimum Insert Spacing in. (mm)	Minimum End Distance in. (mm)	Minimum Concrete Compressive Strength (f'_c)							
				3,000 psi (20.7 MPa)				4,500 psi (31.1 MPa)			
				Ultimate Load		Allowable Load		Ultimate Load		Allowable Load	
				Tension lbs. (kN)	Shear lbs. (kN)	Tension lbs. (kN)	Shear lbs. (kN)	Tension lbs. (kN)	Shear lbs. (kN)	Tension lbs. (kN)	Shear lbs. (kN)
1/4 (6.4)	2 (50.8)	9 (228.6)	6 (152.4)	3,720 (16.7)	1,490 (6.7)	1,240 (5.6)	495 (2.2)	4,250 (19.1)	1,610 (7.2)	1,415 (6.4)	535 (2.4)
3/8 (9.5)	2 (50.8)	9 (228.6)	6 (152.4)	4,820 (21.7)	5,330 (24.0)	1,605 (7.2)	1,775 (8.0)	7,190 (32.4)	5,620 (25.3)	2,395 (10.8)	1,875 (8.4)
1/2 (12.7)	2 (50.8)	9 (228.6)	6 (152.4)	4,820 (21.7)	7,400 (33.3)	1,605 (7.2)	2,465 (11.1)	7,190 (32.4)	8,590 (38.7)	2,395 (10.8)	2,865 (12.9)
5/8 (15.9)	2 (50.8)	9 (228.6)	6 (152.4)	4,650 (20.9)	–	1,550 (7.0)	–	8,440 (38.0)	–	2,815 (12.7)	–
		12 (304.8)	9 (228.6)	4,650 (20.9)	11,360 (51.1)	1,550 (7.0)	3,785 (17.0)	8,440 (38.0)	13,010 (58.5)	2,815 (12.7)	4,335 (19.5)
3/4 (19.1)	2 (50.8)	9 (228.6)	6 (152.4)	4,650 (20.9)	–	1,550 (7.0)	–	7,350 (33.1)	–	2,450 (11.0)	–
		12 (304.8)	9 (228.6)	4,650 (20.9)	11,360 (51.1)	1,550 (7.0)	3,785 (17.0)	7,350 (33.1)	14,590 (65.7)	2,450 (11.0)	4,865 (21.9)

1. Allowable load capacities listed are calculated using an applied safety factor of 3.0.
2. The allowable working load must be the lesser of the insert capacity or the steel strength of the threaded rod.
3. Linear interpolation may be used to determine ultimate loads for intermediate compressive strengths.
4. NFPA 13 design requirements are five times the weight of the water filled pipe plus 250 pounds.

Ultimate and Allowable Load Capacities for Wood-Knocker Inserts Installed in Structural Sand-Lightweight Concrete or Normal-Weight Concrete[1,2,3]

Rod/Insert Diameter d in. (mm)	Embedment Depth h_v in. (mm)	Minimum Insert Spacing in. (mm)	Minimum End Distance in. (mm)	$f'_c \geq$ 3,000 psi (20.7 MPa)			
				Ultimate Load		Allowable Load	
				Tension lbs. (kN)	Shear lbs. (kN)	Tension lbs. (kN)	Shear lbs. (kN)
1/4 (6.4)	2 (50.8)	9 (228.6)	6 (152.4)	4,270 (19.2)	1,680 (7.6)	1,425 (6.4)	560 (2.5)
3/8 (9.5)	2 (50.8)	9 (228.6)	6 (152.4)	4,270 (19.2)	5,280 (23.8)	1,425 (6.4)	1,760 (7.9)
1/2 (12.7)	2 (50.8)	9 (228.6)	6 (152.4)	4,270 (19.2)	7,180 (32.3)	1,425 (6.4)	2,395 (10.8)
5/8 (15.9)	2 (50.8)	9 (228.6)	6 (152.4)	4,600 (20.7)	–	1,535 (6.9)	–
		12 (304.8)	9 (228.6)	4,600 (20.7)	7,590 (34.2)	1,535 (6.9)	2,530 (11.4)
3/4 (19.1)	2 (50.8)	9 (228.6)	6 (152.4)	4,600 (20.7)	–	1,535 (6.9)	–
		12 (304.8)	9 (228.6)	4,600 (20.7)	7,590 (34.2)	1,535 (6.9)	2,530 (11.4)

1. Allowable load capacities listed are calculated using an applied safety factor of 3.0.
2. The allowable working load must be the lesser of the insert capacity or the steel strength of the threaded rod.
3. NFPA 13 design requirements are five times the weight of the water filled pipe plus 250 pounds.



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PERFORMANCE DATA

Underwriter's Laboratories (UL) and Factory Mutual (FM Global) Ultimate Load Capacities for Bang-It Inserts Installed in Lightweight Concrete over Metal Deck[1,2,3,4]

Rod/Insert Diameter d in. (mm)	Embedment Depth h_v in. (mm)	Maximum Pipe Diameter in. (mm)	Flute Location in Deck	$f'_c \geq$ 3,000 psi (20.7 MPa)	
				UL Test[3] lbs. (kN)	FM Test[4] lbs. (kN)
3/8 (9.5)	2 (50.8)	4 (101.6)	Upper	1,500 (6.8)	1,450 (6.5)
			Lower	1,500 (6.8)	1,450 (6.5)
1/2 (12.7)	2 (50.8)	8 (203.2)	Upper	4,050 (18.2)	3,800 (17.1)
5/8 (15.9)	2 (50.8)	12 (304.8)	Upper	–	7,900 (35.6)

1. The values listed above are ultimate load capacities which should be reduced by a minimum safety factor of 3.0 or greater to determine the allowable working load.
2. NFPA 13 Fire protection fastening requirements are five times the weight of the liquid (water) filled pipe plus 250 lbs. Consult the Engineer of Record.
3. Underwriters Laboratories (UL) – File No. EX1289. Recognized and suitable for use in air handling spaces.
4. Factory Mutual (FM Approvals) – File No. J.I. 3015153.

Underwriter's Laboratories (UL) and Factory Mutual (FM Global) Ultimate Load Capacities for Wood-Knocker Inserts Installed in Normal-Weight Concrete[1,2,3,4]

Rod/Insert Diameter d in. (mm)	Embedment Depth h_v in. (mm)	Maximum Pipe Diameter in. (mm)	$f'_c \geq$ 3,000 psi (20.7 MPa)	
			UL Test[3] lbs. (kN)	FM Test[4] lbs. (kN)
3/8 (9.5)	2 (50.8)	4 (101.6)	1,500 (6.8)	1,450 (6.5)
1/2 (12.7)	2 (50.8)	8 (203.2)	4,050 (18.2)	3,800 (17.1)
5/8 (15.9)	2 (50.8)	8 (203.2)	4,050 (18.2)	–

1. The values listed above are ultimate load capacities which should be reduced by a minimum safety factor of 3.0 or greater to determine the allowable working load.
2. NFPA 13 Fire protection fastening requirements are five times the weight of the liquid (water) filled pipe plus 250 lbs. Consult the Engineer of Record.
3. Underwriters Laboratories (UL) – File No. EX1289. Recognized and suitable for use in air handling spaces.
4. Factory Mutual (FM Approvals) – File No. J.I. 3015153.

DESIGN CRITERIA (ALLOWABLE STRESS DESIGN)

Combined Loading

For anchors loaded in both shear and tension, the combination of loads should be proportioned as follows:

$$\left(\frac{N_u}{N_n}\right)^{\frac{5}{3}} + \left(\frac{V_u}{V_n}\right)^{\frac{5}{3}} \leq 1 \quad \text{OR} \quad \left(\frac{N_u}{N_n}\right) + \left(\frac{V_u}{V_n}\right) \leq 1$$

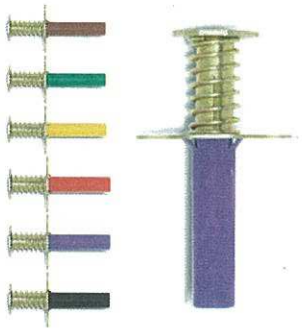
Where: N_u = Applied Service Tension Load
N_n = Allowable Tension Load
V_u = Applied Service Shear Load
V_n = Allowable Shear Load

For spacing, edge and end distances reference the information in the performance data tables.

ORDERING INFORMATION

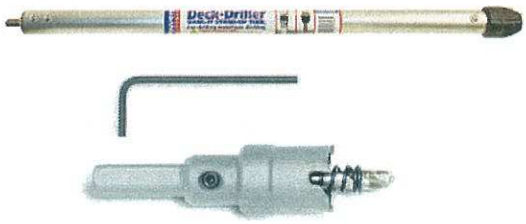
Bang-It Deck Insert (UNC)

Cat. No.	Description	Color Code	Pre-Drilled Hole	Standard Box	Std. Pallet
7540	1/4" Bang-It	Brown	13/16"	100	4,000
7542	3/8" Bang-It	Green	13/16"	100	4,000
7544	1/2" Bang-It	Yellow	13/16"	100	4,000
7546	5/8" Bang-It	Red	1 3/16"	50	2,400
7548	3/4" Bang-It	Purple	1 3/16"	50	2,400
7549	7/8" Bang-It	Black	1 3/16"	50	2,400



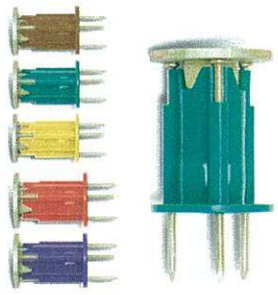
Bang-It Installation Accessories

Cat. No.	Description	Standard Box
7560	Bang-It Stand Up Pole Tool	1
7562	13/16" Carbide Hole Saw for 1/4", 3/8" and 1/2" sizes	1
7564	1 3/16" Carbide Hole Saw for 5/8", 3/4" and 7/8" sizes	1
7566	Extra Carbide Hole Saw Center Bit	1



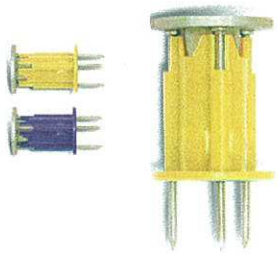
Wood-Knocker Form Insert (UNC)

Cat. No.	Description	Color Code	Standard Box	Std. Pallet
7550	1/4" Wood-Knocker	Brown	200	9,600
7552	3/8" Wood-Knocker	Green	200	9,600
7554	1/2" Wood-Knocker	Yellow	200	9,600
7556	5/8" Wood-Knocker	Red	150	6,000
7558	3/4" Wood-Knocker	Purple	150	6,000



Wood-Knocker Form Insert (Coil Thread)

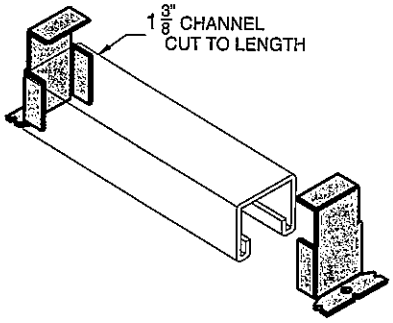
Cat. No.	Description	Color Code	Standard Box	Std. Pallet
7567	1/2" Coil Thread Wood-Knocker	Yellow	200	9,600
7568	3/4" Coil Thread Wood-Knocker	Purple	150	6,000



H-142-IN

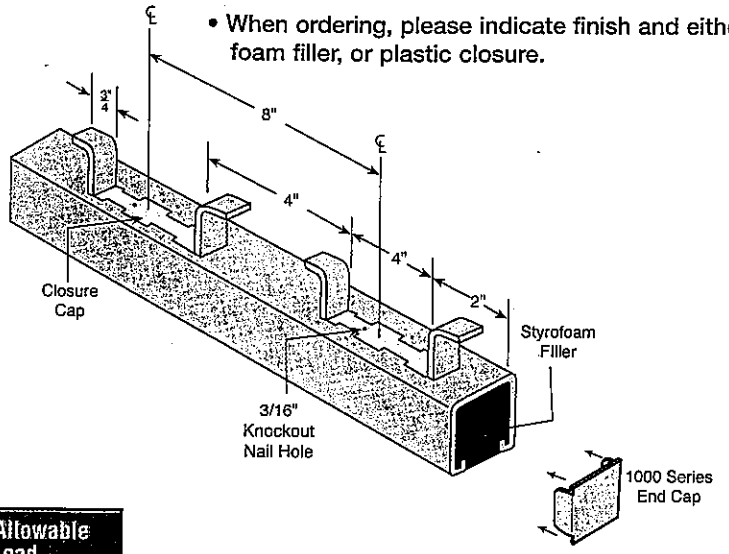
Concrete Insert

CHANNEL: 1⅜" x 1⅝" x 12 Gauge
Stocked in Pre-Galvanized & Plain
in 10' & 20' lengths.
*other lengths available



FEATURES

- Loading data was calculated in a concrete mixture which was proportioned so that the compression strength of the concrete was 2,500 to 3,000 pounds per square inch and that the load is dependent on the surrounding concrete.
- Tests were performed with a safety factor of 3, and in accordance with the MFMA Specifications.
- H-STRUT concrete inserts are supplied with either the 1000 or 1001 series end cap and either a styrofoam filler or plastic strip (C-900P) installed in the insert channel to prevent any concrete seepage.
- Stocked in either plain and pre-galvanized, see technical data section for ASTM specifications.
- Inserts should be secured to forms at 16" intervals.
- When ordering, please indicate finish and either foam filler, or plastic closure.



Catalog No.	Length in Inches	Wt./100 Pcs.	Max. Allowable Load
H-142-IN	3	87	500 Lbs.
H-142-IN	4	103	800 Lbs.
H-142-IN	6	134	1000 Lbs.
H-142-IN	8	206	1200 Lbs.
H-142-IN	12	188	No More Than 1800 Lbs. Per 12" Section
H-142-IN	18	282	
H-142-IN	24	376	
H-142-IN	30	470	
H-142-IN	36	564	
H-142-IN	48	752	
H-142-IN	60	940	
H-142-IN	72	1128	
H-142-IN	84	1316	
H-142-IN	96	1504	
H-142-IN	108	1692	
H-142-IN	120	1880	
H-142-IN	240	3760