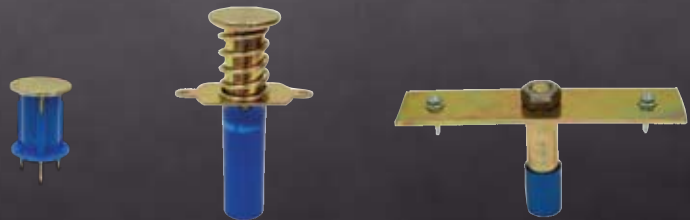




*In the Specs – On the Job – At Your Service™*

# Blue Banger Hanger®

Cast-in-place, Internally Threaded Rod Hanger



**SPEED**

**PERFORMANCE**

**VERSATILITY**

## BLUE BANGER HANGER®

A system of threaded inserts that will change the way you look at hanging threaded rod for overhead applications.



### SPEED

- Before the concrete pour, Blue Banger Hangers mount on forms or decking quickly and easily, speeding up installation.
- The 3" blue sleeve on the Metal Deck insert makes it easy to locate the insert after the pour, even after fireproofing has been applied to the underside of the deck. It also protects the threads, so the rod installs easily every time.
- On the wood form insert, the blue ring acts as a locator after the pour and creates a countersunk recess to protect the threads.



### PERFORMANCE

- Large flanged head provides high tension loads for overhead attachments.
- Full thread engagement prevents the rod from stripping out of the insert.
- Positive connection to the form or deck keeps the insert vertical and in the correct position before and during the pour ensuring that the insert stays where you put it.



Full thread engagement provides maximum performance.



No Equal head stamp allows easy identification before the concrete pour.

### VERSATILITY

- Patented multi-thread design allows each hanger to accept multiple diameters of threaded rod. Three sizes of Blue Banger Hanger rod hangers can handle all applications, reducing contractor and distributor inventories.
- Multi-thread design allows threaded rod size to be changed after the anchor is in the concrete.



Multiple rod diameters are no problem with the Blue Banger Hanger.



# BLUE BANGER HANGER®

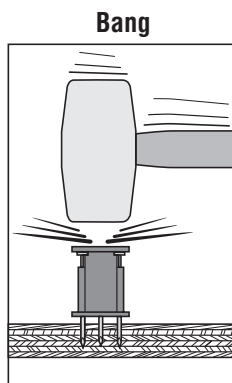
## WOOD FORM INSERT

### FEATURES

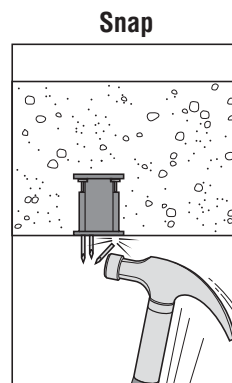
- Blue plastic ring acts as an insert locator when forms are removed.
- Plastic ring creates a countersunk recess to keep internal threads clean from concrete residue.
- Nails snap off with the swipe of a hammer after the forms are removed.
- Multi-thread design: Each insert accepts multiple rod diameters.



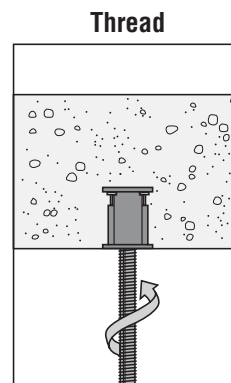
## INSTALLATION



**Bang**  
Strike the top of the hanger and drive the 3 mounting nails into the forming material until the bottom of the hanger is flush with the bottom of the plywood. The hanger should be sitting 90° from the forming material.



**Snap**  
Once concrete is hardened, and forms are stripped, strike the mounting nails to break them off.



**Thread**  
Insert the rod into the sleeve and thread it into the hanger.

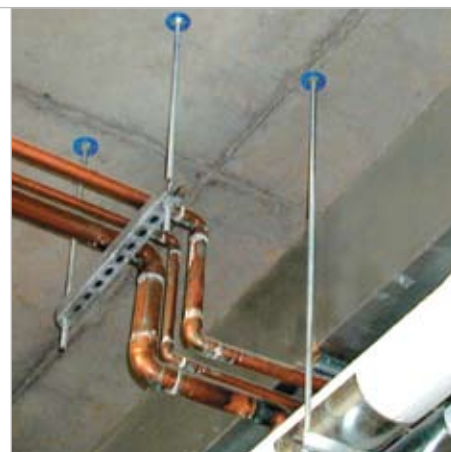
### Product Data

Hanger Type	For Rod Diameter (in)	Model Number	Carton Qty.
Wood Form Insert	1/4, 3/8, 1/2	BBWF2550	200
	3/8, 1/2, 5/8	BBWF3762	150
	5/8, 3/4	BBWF6275	150

**CODES:** Factory Mutual 3024378  
Underwriters Laboratories File EX3605;  
See pipe size limit tables.



**Material:** Carbon Steel  
**Finish:** Yellow zinc dichromate coating



# BLUE BANGER HANGER®

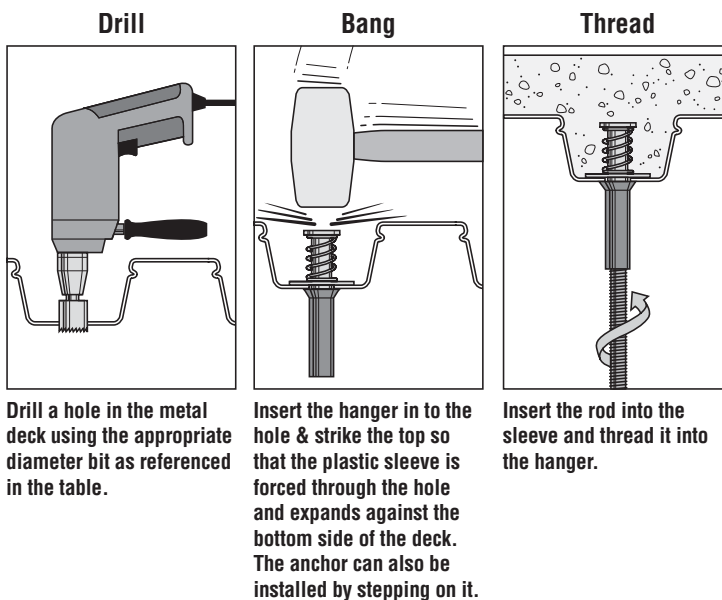
## METAL DECK INSERT

### FEATURES

- 3" Plastic sleeve keeps internal threads clean.
- Extended length of the sleeve allows easy location of the insert even with fireproofing on the underside of the deck. Also provides guidance to align threaded rod with the internal threads.
- Installed height of 2" allows the insert to be used on top of, or between, deck flutes.
- Compression spring keeps the insert perpendicular to the deck, even if it is bumped or stepped on after installation.
- Multi-thread design: Each insert accepts multiple rod diameters.



## INSTALLATION



### Product Data

Hanger Type	For Rod Diameter (in)	Deck Hole Diameter (in)	Model Number	Carton Qty.
Metal Deck Insert	1/4, 3/8, 1/2	13/16 - 7/8	BBMD2550	100
	3/8, 1/2, 5/8	1 1/8 - 1 13/16	BBMD3762	50
	5/8, 3/4	1 3/16 - 1 1/4	BBMD6275	50

**CODES:** Factory Mutual 3024378  
Underwriters Laboratories File EX3605;  
See pipe size limit tables.



**Material:** Carbon Steel  
**Finish:** Yellow zinc dichromate coating



## BLUE BANGER HANGER®

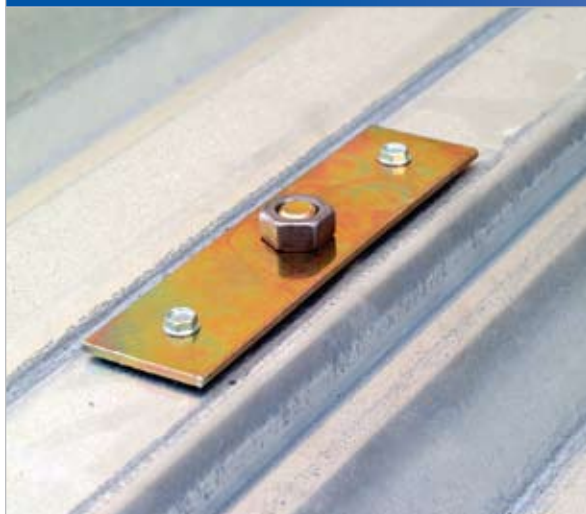
# METAL ROOF DECK INSERT

### FEATURES

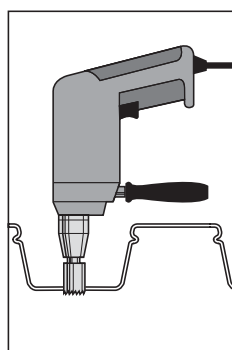
- Low profile design does not interfere with roofing material.
- Positive attachment to the roof deck prevents spinning and keeps the hanger in position.
- Pre-staked, self-drilling screws allow quick installation.
- Multi-thread design: The insert accepts 3 different rod diameters.



## INSTALLATION

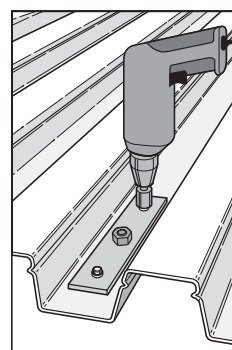


### Drill



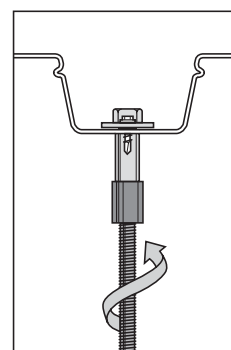
Drill a hole in the metal deck using the appropriate diameter bit as referenced in the table.

### Fasten



Insert the hanger into the hole and fasten to the deck with the two pre-staked screws provided.

### Thread



Insert the rod into the sleeve & thread it into the hanger.

### Product Data

Hanger Type	For Rod Diameter (in)	Deck Hole Diameter (in)	Model Number	Carton Qty.
Roof Deck Insert	1/4, 3/8, 1/2	7/8	BBRD2550	50

Material: Carbon Steel

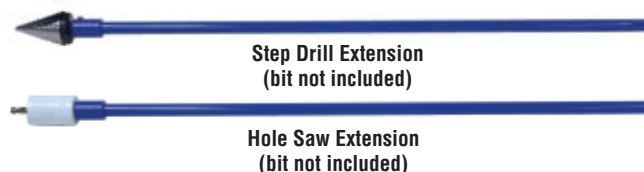
Finish: Yellow zinc dichromate coating

## BLUE BANGER HANGER®

# DRILL EXTENSIONS for use with metal deck Blue Banger Hanger Insert applications

Drill holes for Blue Banger Hangers in metal deck without having to repeatedly bend down. These drill extensions are an ideal way to save installation time and reduce worker fatigue. Available for use with hole saws and step drills.

Description	Model No.
2' extension for use with hole saws	BBDEHS
2' extension for use with 3/8" shank step drills	BBDE37
2' extension for use with 1/2" shank step drills	BBDE50



# BLUE BANGER HANGER®

## Wood Form Insert: Tension Loads in Normal-Weight Concrete

Model No.	Threaded Rod Dia. in.	Embed. Depth in. (mm)	Min. Edge Dist. in. (mm)	Min. Spacing in. (mm)	Tension Load Based on Concrete Strength		Tension Load Based on Rod Strength
					f'c ≥ 3,000 psi (20.7 Mpa)		A307 (SAE 1018)
					Ultimate lbs. (kN)	Allowable lbs. (kN)	Allowable lbs. (kN)
BBWF2550	1/4	2 (51)	7 (178)	8 (203)	6,820 (30.3)	1,705 (7.6)	940 (4.2)
	3/8						2,105 (9.4)
	1/2						3,750 (16.7)
BBWF3762	3/8	2 (51)	7 (178)	8 (203)	7,360 (32.7)	1,840 (8.2)	2,105 (9.4)
	1/2						3,750 (16.7)
	5/8						5,875 (26.1)
BBWF6275	5/8	2 (51)	7 (178)	8 (203)	7,420 (33.0)	1,855 (8.3)	5,875 (26.1)
	3/4						8,460 (37.6)

See notes below.

## Wood Form Insert: Shear Loads in Normal-Weight Concrete

Model No.	Threaded Rod Dia. in.	Embed. Depth in. (mm)	Min. Edge Dist. in. (mm)	Min. Spacing in. (mm)	Shear Load Based on Concrete Strength		Shear Load Based on Rod Strength
					f'c ≥ 3,000 psi (20.7 Mpa)		A307 (SAE 1018)
					Ultimate lbs. (kN)	Allowable lbs. (kN)	Allowable lbs. (kN)
BBWF2550	1/2	2 (51)	7 (178)	8 (203)	8,750 (38.9)	2,185 (9.7)	1,930 (8.6)
BBWF3762	5/8	2 (51)	7 (178)	8 (203)	10,700 (47.6)	2,675 (11.9)	3,025 (13.4)
BBWF6275	3/4	2 (51)	7 (178)	8 (203)	10,460 (46.5)	2,615 (11.6)	4,360 (19.4)

See notes below.

## Wood Form Insert: Tension Loads in Sand-Lightweight Concrete

Model No.	Threaded Rod Dia. in.	Embed. Depth in. (mm)	Min. Edge Dist. in. (mm)	Min. Spacing in. (mm)	Tension Load Based on Concrete Strength		Tension Load Based on Steel Strength
					f'c ≥ 3,000 psi (20.7 Mpa)		A307 (SAE 1018)
					Ultimate lbs. (kN)	Allowable lbs. (kN)	Allowable lbs. (kN)
BBWF2550	1/4	2 (51)	7 (178)	8 (203)	4,280 (19.0)	1,070 (4.8)	940 (4.2)
	3/8						2,105 (9.4)
	1/2						3,750 (16.7)
BBWF6275	5/8	2 (51)	7 (178)	8 (203)	4,400 (19.6)	1,100 (4.9)	5,875 (26.1)
	3/4						8,460 (37.6)

See notes below.

## Wood Form Insert: Shear Loads in Sand-Lightweight Concrete

Model No.	Threaded Rod Dia. in.	Embed. Depth in. (mm)	Min. Edge Dist. in. (mm)	Min. Spacing in. (mm)	Shear Load Based on Concrete Strength		Shear Load Based on Rod Strength
					f'c ≥ 3,000 psi (20.7 Mpa)		A307 (SAE 1018)
					Ultimate lbs. (kN)	Allowable lbs. (kN)	Allowable lbs. (kN)
BBWF2550	1/2	2 (51)	7 (178)	8 (203)	8,600 (38.2)	2,150 (9.6)	1,930 (8.6)
BBWF6275	3/4	2 (51)	7 (178)	8 (203)	9,260 (41.2)	2,315 (10.3)	4,360 (19.4)

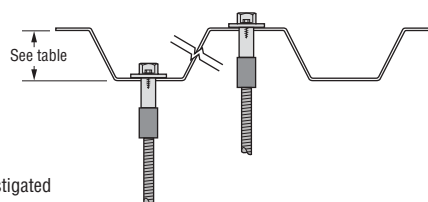
1. Allowable load must be the lesser of the concrete or steel strength.
2. The allowable loads based on concrete strength are based on a factor of safety of 4.0.
3. Allowable loads may not be increased for short-term loading due to wind or seismic forces.
4. Mechanical and plumbing design codes may prescribe lower allowable loads. Verify with local codes.

# BLUE BANGER HANGER®

## Roof Deck Insert: Tension Loads in Metal Deck

Model No.	Drill Bit Dia. in.	Threaded Rod Dia. in.	Allowable Tension Load lbs. (kN)	
			1 1/2" Deck	3" Deck
BBRD2550	13/16 - 7/8	1/4	150 (0.7)	300 (1.3)
		3/8		
		1/2		

## Typical Roof Deck Insert Installation in Metal Deck



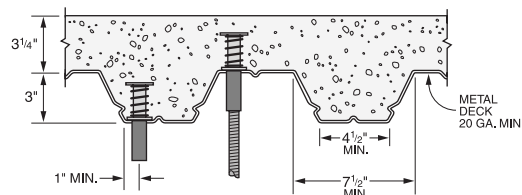
- The allowable loads are based on a factor of safety of 4.0.
- Allowable loads may not be increased for short-term loading due to wind or seismic forces.
- Acceptability of deck deflection due to imposed loads must be investigated separately.
- Threaded rod strength must be investigated separately.
- Anchors may be installed in the top or bottom flute of the metal deck.
- Deck shall be 20 gauge minimum.

## Metal Deck Insert: Tension Loads in Normal-Weight or Sand-Lightweight Concrete over Metal Deck

Model No.	Drill Bit Dia. in.	Threaded Rod Dia. in.	Embed. Depth in. (mm)	Min. Edge Dist. in. (mm)	Min. Spacing in. (mm)	Tension Load Based on Concrete Strength (Install in High Flute)		Tension Load Based on Concrete Strength (Install in Low Flute)		Tension Load Based on Rod Strength
						f'c ≥ 3,000 psi (20.7 Mpa)		f'c ≥ 3,000 psi (20.7 Mpa)		A307 (SAE 1018)
						Ultimate lbs. (kN)	Allowable lbs. (kN)	Ultimate lbs. (kN)	Allowable lbs. (kN)	Allowable lbs. (kN)
BBMD2550	13/16 - 7/8	1/4	2 (51)	7 1/2 (191)	8 (203)	9,320 (41.5)	2,330 (10.4)	3,210* (14.3)	800* (3.6)	940 (4.2)
		3/8								2,105 (9.4)
		1/2								3,750 (16.7)
BBMD3762	1 1/8 - 1 3/8	3/8	2 (51)	7 1/2 (191)	8 (203)	10,540 (46.9)	2,635 (11.7)	3,440* (15.3)	860* (3.8)	2,105 (9.4)
		1/2								3,750 (16.7)
		5/8								5,875 (26.1)
BBMD6275	1 3/16 - 1 3/8	5/8	2 (51)	7 1/2 (191)	8 (203)	12,360 (55.0)	3,090 (13.7)	3,445* (15.3)	860* (3.8)	5,875 (26.1)
		3/4								8,460 (37.6)

See notes below.

## Typical Metal Deck Installation



## Metal Deck Insert: Shear Loads in Normal-Weight or Sand-Lightweight Concrete over Metal Deck

Model No.	Drill Bit Dia. in.	Threaded Rod Dia. in.	Embed. Depth in. (mm)	Min. Edge Dist. in. (mm)	Min. Spacing in. (mm)	Shear Load Based on Concrete Strength (Install in High Flute)		Shear Load Based on Concrete Strength (Install in Low Flute)		Shear Load Based on Rod Strength
						f'c ≥ 3,000 psi (20.7 Mpa)		f'c ≥ 3,000 psi (20.7 Mpa)		A307 (SAE 1018)
						Ultimate lbs. (kN)	Allowable lbs. (kN)	Ultimate lbs. (kN)	Allowable lbs. (kN)	Allowable lbs. (kN)
BBMD2550	13/16 - 7/8	1/2	2 (51)	7 1/2 (191)	8 (203)	9,720 (43.2)	2,430 (10.8)	2,790* (12.4)	700* (3.1)	1,930 (8.6)
BBMD3762	1 1/8 - 1 3/8	5/8	2 (51)	7 1/2 (191)	8 (203)	9,400 (41.8)	2,350 (10.4)	3,360* (14.9)	840* (3.7)	3,025 (13.4)
BBMD6275	1 3/16 - 1 3/8	3/4	2 (51)	7 1/2 (191)	8 (203)	9,720 (43.2)	2,430 (10.8)	3,360* (14.9)	840* (3.7)	4,360 (19.4)

- Allowable load must be the lesser of the concrete or rod strength.
- The allowable loads based on concrete strength are based on a factor of safety of 4.0.
- Allowable loads may not be increased for short-term loading due to wind or seismic forces.
- Anchors may be installed off-center in the flute, up to 1" from the edge of flute.
- Shear loads shall be applied flush with metal deck surface.
- Deck shall be 20-gauge minimum.
- Mechanical and plumbing design codes may prescribe lower allowable loads. Verify with local codes.

\* Simpson Strong-Tie® has determined that it is appropriate to revise these values. Installations built in accordance with prior published load values will still achieve the prior published allowable load due to the factor of safety used in the original load values.

# BLUE BANGER HANGER®

## Wood Form Insert: Factory Mutual and Underwriters Laboratories Pipe Size Limits

Model No.	Rod Dia. in.	FM Max. Nominal Pipe Size in.	UL Max. Nominal Pipe Size in.
BBWF2550	1/4	N/L	4
	3/8	4	4
	1/2	8	8
BBWF3762	3/8	4	4
	1/2	8	8
	5/8	N/L	8
BBWF6275	5/8	N/L	
	3/4		

1. N/L = Not listed for this pipe size.

## Metal Deck Insert: Factory Mutual & Underwriters Laboratories Pipe Size Limits

Model No.	Rod Dia. in.	FM Max. Nominal Pipe Size		UL Max. Nominal Pipe Size	
		Install in High Flute in.	Install in Low Flute in.	Install in High Flute in.	Install in Low Flute in.
BBMD2550	1/4	N/L	N/L	4	4
	3/8	4	4	4	4
	1/2	8	N/L	8	4
BBMD3762	3/8	4	4	4	4
	1/2	8	N/L	8	4
	5/8	N/L	N/L	8	4
BBMD6275	5/8	12	N/L	12	N/L
	3/4	12	N/L	12	N/L

1. N/L = Not listed for this pipe size.

## INSTALLED COST COMPARISON

### Blue Banger Hanger for Wood Forms vs. Drop-In Anchor

Type of Anchor	Time Required to Install the Anchor	Total Cost of Installation*	Savings per 100 Installations when Using BBH Instead	Savings per 1000 Installations when using BBH Instead	% Saved by Using BBH
3/8" Dia. Drop-In	2 min., 8 sec.	\$2.10	\$90.00	\$900.00	43%
1/2" Dia. Drop-In	2 min., 19 sec.	\$2.36	\$116.00	\$1,160.00	49%
BBWF2550 (Wood Form version for use with 1/4", 3/8" and 1/2" rod)	10 sec.	\$1.20	—	—	—

Comparison assumes a \$55.00 / hour labor rate.

\* Includes the cost of the anchor.

### Blue Banger Hanger for Metal Deck vs. Drop-In Anchor

Type of Anchor	Time Required to Install the Anchor	Total Cost of Installation*	Savings per 100 Installations when Using BBH Instead	Savings per 1000 Installations when using BBH Instead	% Saved by Using BBH
3/8" Dia. Drop-In	2 min., 19 sec.	\$2.27	\$24.00	\$240.00	11%
1/2" Dia. Drop-In	2 min., 30 sec.	\$2.53	\$50.00	\$500.00	20%
BBMD2550 (Metal Deck version for use with 1/4", 3/8" and 1/2" rod)	18 sec.	\$2.03	—	—	—

Comparison assumes a \$55.00 / hour labor rate.

\* Includes the cost of the anchor.

### Save Time and Reduce Worker Fatigue!

Working on top of the forms or metal deck before concrete is poured is easier and faster than installing drop-in anchors from underneath after the concrete is in place. Consider the realities of working overhead:

- Drilling overhead is hard work, contributing to worker fatigue.
- Moving ladders or maneuvering scissor-lifts slows down work.
- Working overhead poses inherent safety risks.
- Installing anchors after the pour means you may have to deal with fixtures installed by other trades.



**No Overhead Drilling!**

**IN THE SPECS – ON THE JOB – AT YOUR SERVICE™**

Simpson Strong-Tie® offers a full line of anchors, adhesives, powder and gas-actuated tools, and carbide drill bits for all of your anchoring and fastening applications. Visit our website or request our full line catalog for complete information.

*This flier is effective until June 30, 2012, and reflects information available as of March 1, 2010. This information is updated periodically and should not be relied upon after June 30, 2012; contact Simpson Strong-Tie for current information and limited warranty or see www.simpsonanchors.com.*

**800-999-5099**  
**www.simpsonanchors.com**