

## Product Image



## Steel Rod Hangers

Steel rod hangers are designed for applications where threaded rod needs to be installed into structures involving steel joists and beams. These carbon steel fasteners are manufactured with a self-drilling tip that requires no pre-drilling and can easily be installed with a power drill. Suitable applications for use are electrical conduit and cable-tray applications, pipe hanging, fire protection, and suspension of HVAC equipment.

Features:

- Self-drilling tip
- Single piece construction

## Material Specifications

Component	Material
Screw Body	Carbon steel
Coupling/Eyelet	Carbon steel
Zinc Plating	ASTM B633, SC1, Type III (Fe/Zn5)

## Suitable Base Materials

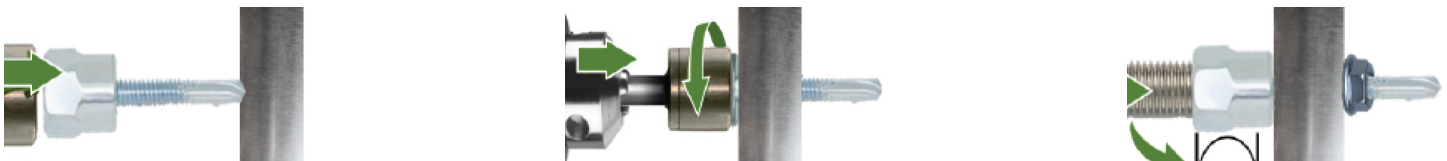
- Steel purlins
- Beams
- Bar joists

## Product Specifications

Point Style	#3	#5			
Self-Drilling Range	0.036" (20 gauge) - 0.188" (3/16")	0.188" (3/16") - 0.500" (1/2")			
Thread Length (in.)	1-3/16" (1-1/2" screw)	31/32" (1-1/2" screw)			
Screw Size	1/4"-20 thread				
Root Diameter (in.)	13/64"				
Flange Thickness (in.)	1/16"				
Drill Speed (RPM)	500-1,500				
Coupling Size and Type	Vertical Mount			Side Mount	
	1/4"	3/8"	1/2"	1/4"	3/8"
Coupling Thread Size (UNC)	1/4"-20	3/8"-16	1/2"-13	1/4"-20	3/8"-16
Coupling Thread Depth (in.)	3/8"	3/8"	3/8"	5/8" (through)	5/8" (through)
Width - flat to flat (in.)	5/8"	5/8"	5/8"	5/8"	5/8"
Coupling Height (in.)	13/16"	13/16"	13/16"	13/16"	13/16"

Note: install with Dottie PN# UNIB.

## Installation Instructions



## Installation Instructions:

1. Using the Dottie Universal Installation Bit (PN# UNIB) insert the rod hanger coupling into the socket driver and install perpendicular to the base material surface. Drive the fastener with a smooth steady motion until the coupling is seated against the surface of the base material.
2. Thread the appropriate diameter steel threaded rod or threaded bolt into the coupling. The threaded rod or bolt should fully engage the thread length of the coupling on a vertical mount fastener. The threaded rod or threaded portion of the bolt can pass through coupling of a side mount fastener.

## Steel Rod Hanger – Ultimate Load Capacities when Installed in Steel<sup>1,2,3,4</sup>

PN#	Screw Size	Mount Direction	Rod Coupler Size	Steel Gauge Thickness (lbs)						
				20 0.036"	18 0.048"	16 0.060"	14 0.075"	12 0.105"	3/16" 0.187"	1/4" 0.250"
<b>For Purlins</b>										
SSM14B	1/4"-20 x 1" #3	Vertical	1/4"	450	620	985	1,160	1,560	1,965	1,965
SSM38BR*	1/4"-20 x 1-1/2" #3	Vertical	3/8"	1,275	1,275	3,296	3,296	4,035	4,223	4,085
SSM14S	1/4"-20 x 1" #3	Side	1/4"	405	620	985	1,160	1,560	1,965	1,965
SSM38SR*	1/4"-20 x 1-1/2" #3	Side	3/8"	1,453	1,453	2,827	2,827	2,656	2,536	2,679
<b>For Beams</b>										
SSM12BR	12-24 x 1-1/2" #5	Vertical	1/2"	-	-	-	-	1,030	3,178	3,804
* With nut 1. Minimum ASTM A 36 Steel (Beams) and ASTM A 572 Steel (Purlins). 2. In order to determine the allowable working load the user should reduce the values by a minimum safety factor of 3.0 or greater. 3. Install at a minimum edge distance of 1" from free edge. 4. Strength of threaded rod used with Dottie Rod Hangers must be considered when determining the controlling load capacity of the assembly.										

## Steel Rod Hanger – Allowable Strength Load Capacities when Installed in Steel<sup>1,2,3,4</sup>

PN#	Screw Size	Mount Direction	Rod Coupler Size	Steel Gauge Thickness (lbs)						
				20 0.036"	18 0.048"	16 0.060"	14 0.075"	12 0.105"	3/16" 0.187"	1/4" 0.250"
<b>For Purlins</b>										
SSM14B	1/4"-20 x 1" #3	Vertical	1/4"	135	207	328	387	520	655	655
SSM38BR*	1/4"-20 x 1-1/2" #3	Vertical	3/8"	425	425	1,100	1,100	1,345	1,410	1,360
SSM14S	1/4"-20 x 1" #3	Side	1/4"	135	207	328	387	520	655	655
SSM38SR*	1/4"-20 x 1-1/2" #3	Side	3/8"	485	485	940	940	885	845	895
<b>For Beams</b>										
SSM12BR	12-24 x 1-1/2" #5	Vertical	1/2"	-	-	-	-	345	1,060	1,270
* With nut 1. Minimum ASTM A 36 Steel (Beams) and ASTM A 572 Steel (Purlins). 2. The values listed above are based on a safety factor of 3.0 applied to the average ultimate load capacities referenced in table 1. 3. Install at a minimum edge distance of 1" from free edge. 4. Strength of threaded rod used with Dottie Rod Hangers must be considered when determining the controlling load capacity of the assembly.										