

## GENERAL INFORMATION

# DECK SCREWS

### PRODUCT DESCRIPTION

Deck Screws are designed for attaching rigid insulation board, single-ply membrane, and wood blocking to steel and wood decks. Available in carbon steel with a Perma-Seal™ coating. The deck screws are used in conjunction with insulation or membrane plates and can also be used with batten bar. For corrosion protection the screws are coated with Perma-Seal, which meets the requirements of FM Global Standard 4470.

### APPROVALS AND LISTINGS

- FM Global (FM Approvals) - see listings  
Steel and Wood
- No. 12 Perma-Seal Deck Screw – J.I. 0K4A2.AM, J.I. 1M4A5.AM, J.I. 1M2A4.AM  
Recover Construction
- Powers-Deck Screw – J.I. 1N2A4.AM  
All Deck Types
- Fully Adhered Single-Ply and Modified Bitumen Roof Coverings – J.I. 1T9A4.AM

### MATERIAL SPECIFICATIONS

Component	No. 12 Deck Screws
Screw Body	Case Hardened AISI 1018 – 1022 Carbon Steel
Coating	Perma-Seal

### INSTALLATION SPECIFICATIONS

Dimension	No. 12 Deck Screw
Driver Bit Size	#3
Head Style	Phillips Truss Head
Head Height (in.)	1/8
Head Width (in.)	7/16
Washer O.D.	(see stress plate information)
Thread Size	#12-13
Point Style	R

Point Style: Ricoh "S" Point or Equivalent

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NO. 12 DECK SCREW

## ANCHOR MATERIALS

- Perma-Seal Coated Carbon Steel

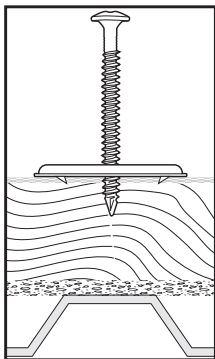
## ANCHOR SIZE RANGE (TYP.)

- No. 12 x 1-5/8" to No. 12 x 8"

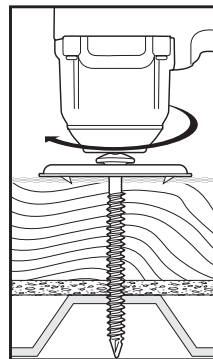
## SUITABLE BASE MATERIALS

- Steel
- Wood

## INSTALLATION GUIDELINE



Insert the Phillips driver into Deck Screw head, then position screw in the plate.



Insert Deck Screw through hole in plate, and drive until flush.

Note: Screw must penetrate base material a minimum of 3/4".

Note: In steel and wood deck, the screw should penetrate through the base material at least 3/4-inch. To select the proper length, determine the thickness of insulation to be fastened and add this to the thickness of the base material. Then add 3/4-inch. This will be the minimum screw length required.

**PERFORMANCE DATA**

**Ultimate Load Capacities for Deck Screws installed in Steel Deck<sup>1,2</sup>**

Fastener Size	Tension, lbs. (kN)			
	Nominal Gauge			
	18	20	22	24
No. 12	560 (2.5)	455 (2.0)	450 (2.0)	335 (1.5)

1. Typical steel deck used in the tests was manufactured according to ASTM A446, Grade C having a minimum yield strength of 40,000 psi and a minimum ultimate tension strength of 55,000 psi. The deck was galvanized according to ASTM A 525, G 60. Variations in coating and deck type will affect performance. In some cases, especially with thick steel deck materials, pre-drilled holes may be required.  
2. Ultimate load capacities must be reduced by a minimum safety factor of 3.0 or greater to determine allowable working loads.

**Ultimate Load Capacities for Deck Screws installed in Plywood<sup>1,2</sup>**

Fastener Size	Tension, lbs. (kN)			
	Plywood Thickness			
	3/8"	1/2"	5/8"	3/4"
No. 12	285 (1.3)	415 (1.9)	495 (2.2)	575 (2.5)

1. Ultimate load capacities must be reduced by a minimum safety factor of 3.0 or greater to determine allowable working loads.

**Ultimate Load Capacities for Deck Screws fasteners<sup>1</sup>**

Screw Size	Torsion lbs. (kN)	Tension lbs. (kN)	Tension lbs. (kN)
No. 12	75 (0.3)	2,410 (10.8)	1,815 (8.2)

1. Ultimate load capacities are for the screws and do not consider base material.

**ORDERING INFORMATION**

**No. 12 Deck Screw**

Cat. No.	Size	Min. Thread Length	Insulation Thickness	Standard Box	Standard Carton
2613	No. 12 x 1-5/8"	1-1/2"	1/8" to 7/8"	1,000	1,000
2618	No. 12 x 2-1/4"	2"	1/4" to 1-1/2"	1,000	1,000
2624	No. 12 x 2-7/8"	2-5/8"	1/4" to 2-1/8"	1,000	1,000
2530	No. 12 x 3-1/4"	3"	3/4" to 2-1/2"	1,000	1,000
2632	No. 12 x 3-3/4"	3"	3/4" to 3"	1,000	1,000
2636	No. 12 x 4-1/2"	3"	1-1/2" to 3-3/4"	1,000	1,000
2640	No. 12 x 5"	3"	2" to 4-1/4"	1,000	1,000
2648	No. 12 x 6"	4"	2" to 5-1/4"	500	500
2656	No. 12 x 7"	4"	2" to 6-1/4"	500	500
2664	No. 12 x 8"	4"	4" to 7-1/4"	500	500

All deck screws have a Perma-Seal coating and a Phillips truss head (#3 driver bit size).

