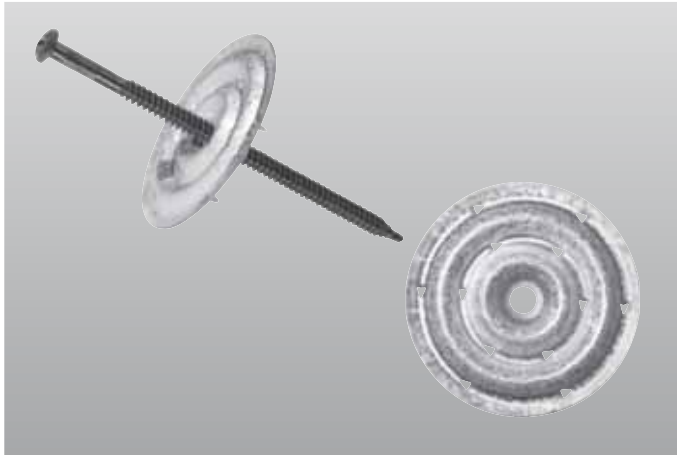


HP-X Fasteners and PIRANHA™ Plates



Overview

Carlisle's HP-X Fasteners are used with PIRANHA Fastening Plates to secure mechanically fastened Sure-Weld® TPO and Sure-Flex™ PVC roofing systems to 20- and 22-gauge steel decks or minimum $\frac{15}{32}$ " CDX plywood decks. HP-X Fasteners are #15 steel-threaded fasteners that offer excellent driving and pull-out performance and outstanding resistance to back-out and corrosion. PIRANHA Plates are 2 $\frac{3}{8}$ "-diameter, 20-gauge steel plates with 12 barbs that provide increased slip resistance of membrane during uplift conditions.

Features and Benefits

- » One #3 Phillips screwdriver bit is included in each bucket
- » 12 threads per inch increase thread engagement and provide additional back-out resistance
- » Mini drill-point design cuts a hole in the steel deck, maintaining contact between the deck and the minor diameter of the fastener for increased back-out resistance
- » Black epoxy electro-deposition coating provides excellent corrosion resistance, surpassing the FM 4470 corrosion test of less than 15% red rust after 15 cycles in the Kesternich cabinet

Installation

1. No pre-drilling is necessary for steel and wood decks. Simply insert the HP-X Fastener through the PIRANHA Plate and install with a standard clutch drive electric screw gun (0-2500 rpm). Optimal fastener performance is achieved when the fastener is installed perpendicular to and into the top flutes of the steel deck.

Review Carlisle specifications and details for complete installation information.

Precautions

- » Eye protection is recommended during installation.
- » Use care to avoid over-torquing the fastener.

Typical Properties and Characteristics

	Steel Deck (20- or 22-gauge)	Wood Deck ($\frac{15}{32}$ " CDX Plywood)
Typical Pull-out Value	710 lbf (3158N) 22-ga.	375 lbf (1668 N)
Minimum Penetration	$\frac{3}{4}$ " (19 mm)	1" (25 mm)
Maximum Penetration	4" (100 mm)	4" (100 mm)
Typical Static Back-out	15 in lbs (1.7N-m)	N/A
Typical Drill Time	1.5 seconds	N/A

Typical properties and characteristics are based on samples tested and are not guaranteed for all samples of this product. This data and information is intended as a guide and does not reflect the specification range for any particular property of this product.