

# **HP-XTRA Fasteners and PIRANHA<sup>™</sup> XTRA Plates**



# Overview

Carlisle's HP-XTRA Fasteners are used with PIRANHA XTRA Fastening Plates to secure mechanically fastened Sure-Weld roofing systems to 22-gauge (0.76 mm) steel decks. HP-XTRA Fasteners are #21 steel-threaded fasteners that feature deep buttress threads (13 threads per inch), a mini-drill point for enhanced back-out resistance, and an oversized truss head with a #3 Phillips drive. Enhanced Factory Mutual uplift approvals have been achieved due to the increased pullout valves associated with the HP-XTRA Fastener. (Contact Carlisle for specifics regarding FM approvals).

PIRANHA XTRA Plates are 2 <sup>3</sup>/<sub>8</sub>" diameter plates made from 20-gauge steel with 12 barbs for increased slip resistance of membrane during uplift conditions. PIRANHA XTRA Plates are designed with an oversized diameter hole to accommodate the larger wire size of HP-XTRA Fasteners.

## **Features and Benefits**

- » One #3 Phillips screwdriver bit is included in each bucket
- » Buttress thread puts a flatter and wider surface area in contact with the bottom of the deck, increasing pullout and backout resistance: typical pullout values of 900 pounds are achieved in 22-gauge Grade E steel deck
- » 13 threads per inch increase the thread engagement, providing additional backout 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

 No pre-drilling is necessary for steel decks. Simply insert the HP-XTRA Fastener through the PIRANHA XTRA seam plate and install with a standard clutch drive electric screw gun (0-1800 rpm). Optimal fastener performance is achieved when the fastener is installed perpendicular to the deck 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-torqueing the fastener.

## **Typical Properties and Characteristics**

Typical Pullout Value	900 lbf. (4000N)
Minimum Penetration	1" (25 mm)
Maximum Penetration	4" (100 mm)
Typical Static Backout	25 in. lbs. (2.8N-m)
Typical Drill Times	1.5 seconds

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.