

#14 HD FASTENER

Heavy Duty Roofing Fastener for Steel, Wood or Structural Concrete Decks

DESCRIPTION

#14 HD Fasteners are specifically engineered to secure insulation, coverboards, and base sheets to corrugated steel, wood and concrete substrates. This all purpose roofing fastener is engineered to secure insulation, coverboards and base sheets to corrugated steel and wood substrates.

ADVANTAGES

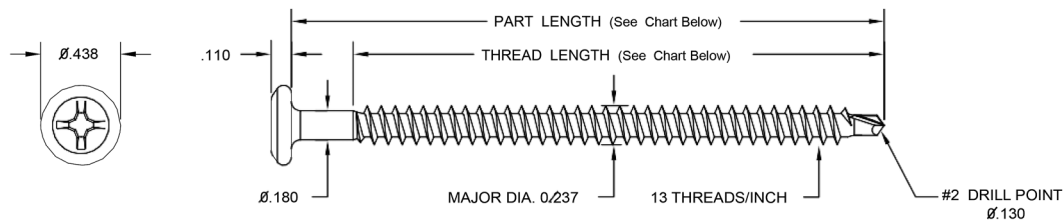
- ▶ Heavier shank and buttress thread diameter for increased pullout resistance and shear strength
- ▶ Epoxy based coating to enhance corrosion resistance
- ▶ Our exclusive double fluted self-drilling point with tapered entry thread design, quickly penetrates for superior drill speeds

TYPICAL PROPERTIES*

PROPERTY	VALUE
Material	SAE C1022, heat treated
Coating	Epoxy E-coat
Fastener Head	#3 Phillips flat truss head
Fastener Tip	#2 Double flute self-drilling point
Thread Size	.237 in
Thread/Inch	13
Tensile Strength	3,200 lbf
Shear Strength	2,200 lbf (thread zone)
Corrosion Resistance	<15% Red rust after 30 cycles
Recycled content	20%

* All values shown are nominal.

PRODUCT SPECIFICATIONS



PACKAGING

PART #	PART LENGTH		THREAD LENGTH		PACKAGING		QTY/ PALLET
	Inches	MM	Inches	MM	QTY/Bucket	Weight (lb)	
HD-1500	1 ½	38.1	Full	41.3	1,000	12.9	80,000
HD-2000	2	50.8	Full	57.2	1,000	15.5	80,000
HD-2500	2 ½	63.5	Full	63.5	1,000	19.4	80,000
HD-3000	3	76.2	Full	73.0	1,000	23.7	80,000
HD-3500	3 ½	88.9	2 7/8	73.0	1,000	26.4	80,000
HD-4000	4	101.6	2 7/8	73.0	1,000	30.9	80,000
HD-4500	4 ½	114.3	3 7/8	98.4	1,000	33.6	60,000
HD-5000	5	127.0	3 7/8	98.4	1,000	37.3	60,000
HD-5500	5 ½	139.7	3 7/8	98.4	1,000	40.8	60,000
HD-6000	6	152.4	3 7/8	98.4	500	44.0	60,000
HD-7000	7	177.8	3 7/8	98.4	500	25.9	40,000
HD-8000	8	203.2	3 7/8	98.4	500	29.7	40,000
HD-9000	9	228.6	3 7/8	98.4	250	16.6	15,000
HD-10000	10	254.0	3 7/8	98.4	250	18.5	15,000
HD-11000	11	279.4	3 7/8	98.4	250	20.1	15,000
HD-12000	12	304.8	3 7/8	98.4	250	22.0	15,000

* All values shown are nominal. Thread length measured from tip of the drill point to end of the threads



Enlarged to show detail

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AVERAGE ULTIMATE PULLOUT VALUES*

For Wood Substrates

SUBSTRATE	THICKNESS (Inches)			
	7/16	1/2	5/8	3/4
OSB	270	290	310	410
Plywood	—	360	410	730

SPF #2	
Including Tip	Excluding Tip
—	795*

* lbf/inch of thread penetration

For Corrugated Steel Decks at Various Yield Strengths

THICKNESS	YIELD STRENGTH (ksi)			
	33.0	36.5	80.0	102.0
16 Gauge	850		1,115	1,240
18 Gauge	675	—	885	985
20 Gauge	420	—	615	710
22 Gauge	315	—	480	560
24 Gauge	—	255	—	—

For Concrete Decks

Concrete (3000 psi)
Including Tip
450*

* lbf/inch of thread penetration

* NOTE: The physical properties listed above are presented at typical average values as determined by accepted ASTM test methods and are subject to normal manufacturing variation. Ultimate Pullout values must be reduced by a minimum safety factor of ≥ 3.0 to determine allowable working load.

INSTALLATION

For Steel and Wood Decks: Using the #3 Phillips drive bit provided and a 0-2500 rpm screw gun, install the fastener into the deck. The fastener must penetrate the deck a minimum of $\frac{3}{4}$ inch, as measured from the underside of the deck to the fastener tip.

For Concrete Decks: Predrill a $\frac{3}{16}$ inch pilot hole at least $\frac{1}{2}$ inch deeper than fastener embedment using a carbide tip SDS or straight shank bit. Using the #3 Phillips drive bit provided and a 0-1500 rpm screw gun, install the fastener into the deck. The fastener must penetrate structural concrete decks a minimum of 1 inch.

Care should be taken to orient the fastener perpendicular to the deck and not to overdrive the fastener to prevent damage to the insulation or membrane.

PULLOUT TESTING

The strength of different roof decks can vary widely and can be adversely affected by moisture and other conditions. Therefore, it is recommended that a fastener pull test be conducted to help evaluate deck condition and fastener suitability. Contact Performance Roof Systems Technical Services to schedule testing.

APPROVED ACCESSORIES

- 3" Metal Insulation Plate
- 2" and 2.4" Barbed Metal Seam Plates
- 3" Recessed Metal Insulation Plate
- Flat and Recessed Batten Bars