

Impax™ — Heavy Metal Thickness — Structural Drill Screws

12-24 Impax 4.5 and 5 self-drill  
For metal to metal

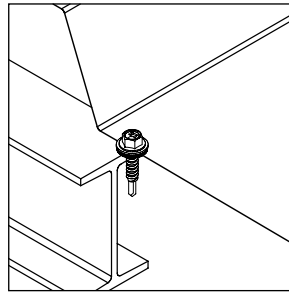
- Precision cold forged assuring superior point strength and the fastest drilling time performance through high strength steel and nested purlins.
- Delivers ultimate performance in medium and heavy gage applications.
- Designed and engineered to have low driving and thread engagement torque and provide maximum clamp load.
- Corrosion resistant coating system.

Application

12-24 Impax 4.5

Metal to metal

Drilling capacity: .075 – .375"  
Thickness is based on normal, single thickness purlin/girt or multiple material thickness combined for total.  
Thread length:  
12-24 x 1-1/4": .650  
Min projection: 3/16" of threads below substrate

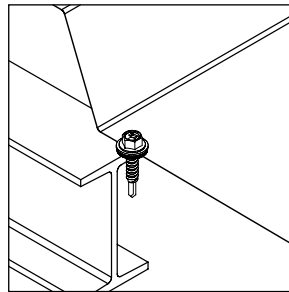


5/16" AF Hex Washer Head  
Thread Major Dia: .216 – .210  
Thread Minor Dia: .186 – .181  
**Strength (lbs ult.):**  
Tensile: 3450  
Torsional: 100 in-lbs  
Shear: 2420  
**Pull-out (lbs ult.):**  
12 ga (.105): 1378  
3/16" (.187): Exceeds tensile value  
1/4" (.250): Exceeds tensile value  
**Pull-over with Bond Seal (lbs ult.):**  
22 ga (.030): 1049  
24 ga (.024): 861  
26 ga (.018): 584

12-24 Impax 5

Metal to metal

Drilling capacity: .075 – .500"  
Thickness is based on normal, single thickness purlin/girt or multiple material thickness.  
Thread length:  
12-24 x 1-1/4": .520  
12-24 x 1-1/2": .770  
12-24 x 2": 1.020  
Min projection: 3/16" of threads below substrate



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Notes

Dimensions are nominal inches unless noted. Self-drill pull out values (pounds ultimate) are based on 57,000 psi hot rolled steel material. Ultimate values listed are the result of laboratory testing. The specific job conditions should be considered and appropriate safety factors applied when specifying the proper fasteners.

Selection

Description	Available Lengths (L)	Example Code				
		SD5	#12x	1-1/2-	HW5/16-	GB19/32
		Type	Diameter	Length	Head Style	Washer
#12-24 Impax SD4.5 with Bond Seal	1-1/4"	SD45-	#12x	L-	HW5/16-	GB19/32
#12-24 Impax SD4.5 No Washer	1-1/4"	SD45-	#12x	L-	HW5/16-	–
#12-24 Impax SD5 with Bond Seal	1-1/4", 1-1/2", 2"	SD5-	#12x	L-	HW5/16-	GB19/32
#12-24 Impax SD5 No Washer	1-1/4", 1-1/2", 2"	SD5-	#12x	L-	HW5/16-	–

Installation

Tools: 0 – 2000 rpm screw gun equipped with depth sensing nose piece.

Painted



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