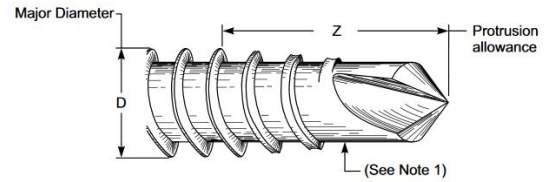
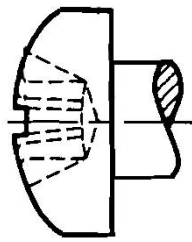
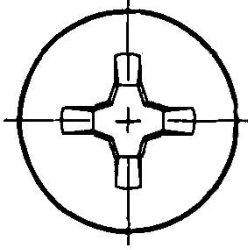


# Pan Head - Type I (Phillips) - Self-drilling Screw - Type BSD, Style 3 Point



Typical Self-Drilling Tapping Screw Point

THREAD DATA		
Size: #10	Threads per in.: 16	Thread Class or Type: BSD
Major Diameter: 0.1890 - 0.1820	Standard: ASME B18.6.3-2013	
DIMENSIONAL DATA		
Type: Pan Head - Type I (Phillips) - Self-drilling Screw - Type BSD, Style 3 Point	Standard: IFI - 113	Nominal Diameter: 0.19
A - Head Diameter: 0.373 - 0.357	H - Head Height: 0.133 - 0.122	Driver Size: 2
Penetration Depth: 0.113 - 0.089	Wobble: 12°	M - Ref. Recess Dim.: 0.192
Z - Min. Point Protusion: 0.300	L - Minimum Practical Length: 1/2	L - Length: 1-1/4
Length Tolerance: ± 0.05		
PHYSICAL REQUIREMENTS		
Nominal: 0.19	Standard: IFI - 113/SAE J78 / ASTM C1513	Typical Materials: carbon steel: 1018-1022
Test Plate Thickness in.: 0.060 - 0.064	Torsional Strength, Min. (in.lbf): 61	Core Hardness: HRC 32 - 40
Case Hardness: HRC 52 - 58	Case Depth (in.): .009-.004	Ductility Test Angle: 5°
Axial Test Load +/- 5% (0.0003 in. max. finish): 35	Axial Test Load +/- 5% (over 0.0003 in. finish): 40	Max. time to drill & form thread (seconds): 3.5
Test Drill Speed (RPM): 1800 - 2500	Straightness Factor: N/A	
FINISH DATA		
Finish: Zinc & Clear, non-hexavalent/Cr(VI) free - .0001" / 3µm	K factor (ref. DIN 946): 0.22	Standard: ASTM F1941/F1941M-2016, Fe/Zn 3AN

<sup>1</sup> These torque values are based on K factors determined using DIN 946, tightening tension of 75% of the yield strength, and the calculation formula T=KDP. These values are advisory only. The torque for assembling critical joints should be determined and/or verified through actual experimentation by the user. The IFI is not responsible for any losses or claims resulting from the use of these values.<sup>2</sup> Calculated Pretension is equal to 75% of the bolt's yield strength achieved when using the indicated Tightening Torque.

