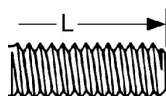


# 80°/82° - Flat Head - Type III-Type I Combo (Square-Phillips Combo)



## GRADE MARK

THREAD DATA		
Size: #6	Threads per in.: 32	Series Designation: UNC
Thread Class or Type: 2A	Major Diameter: 0.1372 - 0.1312	Pitch and Functional Dia.: 0.1169 - 0.1141
Tensile Stress Area: 0.0091	Standard: ASME B1.1 - 2003 (R2008)	
DIMENSIONAL DATA		
Type: 80°/82° - Flat Head - Type III-Type I Combo (Square-Phillips Combo)	Standard: ASME B18.6.3 - 2013 (reference)	Nominal Diameter: 0.138
A - Head Diameter: 0.262 - 0.238	H - Head Height: 0.083 ref	Driver Size: 1S
Penetration Depth: Sq.: 0.055 - 0.040 (Ph: 0.072 ref.)	Wobble: Sq: 3° max.	F - Protrusion Height: 0.036 - 0.021
G - Gage Diameter: 0.220	M - Ref. Recess Dim.: 0.168	L - Length: 3/4
Length Tolerance: -0.03		
PHYSICAL REQUIREMENTS		
Nominal: 0.138	Standard: ASME B18.6.3-2013, Machine Screw (carbon steel)	Typical Materials: low carbon steel, 1010 through 1022
Hardness: HRB 100 - 70	Tensile Load, Min. (lbf): 545	Yield PSI, 2% Offset, Machined Specimen: 36,000
Tensile Strength, Min. (psi): 60,000	Calculated Shear Load-BODY (ref.)(lbf): 327	Calculated Shear Load-THREADS (ref.)(lbf): 273
Straightness Factor: N/A	Calculated Pretension <sup>2</sup> (lbf) : 246	Tightening Torque <sup>1</sup> : 1 ft.lbf, 7 in.lbf, 0.8 Nm
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.