



## 307A

GRADE MARK

THREAD DATA		
Size: 3/4	Threads per in.: 10	Series Designation: UNC
Thread Class or Type: 2A Plated (3A GO/ 2A NOGO)	Major Diameter: 0.7500 - 0.7353	Pitch and Functional Dia.: 0.6850 - 0.6773
Tensile Stress Area: 0.3345	Standard: ASME B1.1 - 2019	
DIMENSIONAL DATA		
Type: Hex Bolts	Standard: ASME B18.2.1-2012	Nominal Diameter: 0.75
E - Body Diameter : 0.768 - 0.729	F - Width Across Flats: 1.125 - 1.088	G - Width Across Corners: 1.299 - 1.240
R - Fillet Radius: 0.060 - 0.020	H - Head Height: 0.524 - 0.455	L <sub>T</sub> - Thread Length for Screw Length 6 in. or less: 1.750
Point Type: Non-pointed	LG max./LB min.: 0.00/0.00 (Fully Threaded)	L - Length: 2
Length Tolerance: +0.08/-0.10		
PHYSICAL REQUIREMENTS		
Nominal: 0.75	Standard: ASTM A307A-2014e1	Typical Materials: low carbon steel, 1006 through 1022
Hardness: HRB 69 - 100	Tensile Load, Min. (lbf): 20,040	Yield PSI, 2% Offset, Machined Specimen: 36,000
Elongation, min. %, Machined Specimen: 18	Tensile Strength, Min. (psi): 60,000	Calculated Shear Load-BODY (ref.)(lbf): 12,024
Calculated Shear Load-THREADS (ref.)(lbf): 10,020	Straightness Factor: 0.012	Calculated Pretension <sup>2</sup> (lbf) : 9,018
Tightening Torque <sup>1</sup> : 124 ft.lbf, 1,490 in.lbf, 168.4 Nm		
FINISH DATA		
Finish: Zinc & Clear, non-hexavalent/Cr(VI) free - .0001"/ 3Åµm	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.