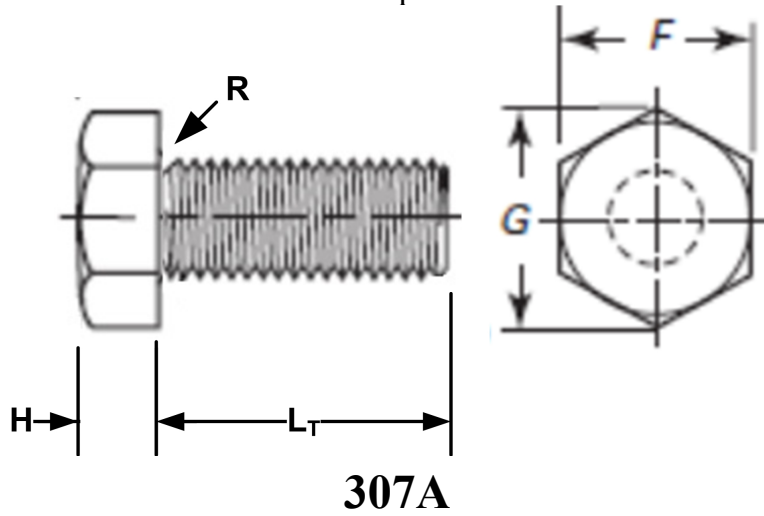


# Hex Tap Bolts



**307A**

GRADE MARK

THREAD DATA		
Size: 3/8	Threads per in.: 16	Series Designation: UNC
Thread Class or Type: 2A	Major Diameter: 0.3737 - 0.3643	Pitch and Functional Dia.: 0.3331 - 0.3287
Tensile Stress Area: 0.0775	Standard: ASME B1.1 - 2003 (R2008)	Length: 3-1/2
Length Tolerance: +0.04/-0.06		
DIMENSIONAL DATA		
Type: Hex Tap Bolts	Standard: IFI - 199	Nominal Diameter: 0.375
F - Width Across Flats: 0.562 - 0.544	G - Width Across Corners: 0.650 - 0.620	R - Fillet Radius: 0.030 - 0.010
H - Head Height: 0.268 - 0.226	Point Type: Non-pointed	
PHYSICAL REQUIREMENTS		
Nominal: 0.375	Standard: ASTM A307A-2014	Typical Materials: low carbon steel, 1006 through 1022
Hardness: HRB 69 - 100	Tensile Load, Min. (lbf): 4,650	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): 2,790
Calculated Shear Load-THREADS (ref.)(lbf): 2,325	Straightness Factor: 0.021	Calculated Pretension <sup>2</sup> (lbf) : 2,093
Tightening Torque <sup>1</sup> : 14 ft.lbf, 173 in.lbf, 19.5 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.

