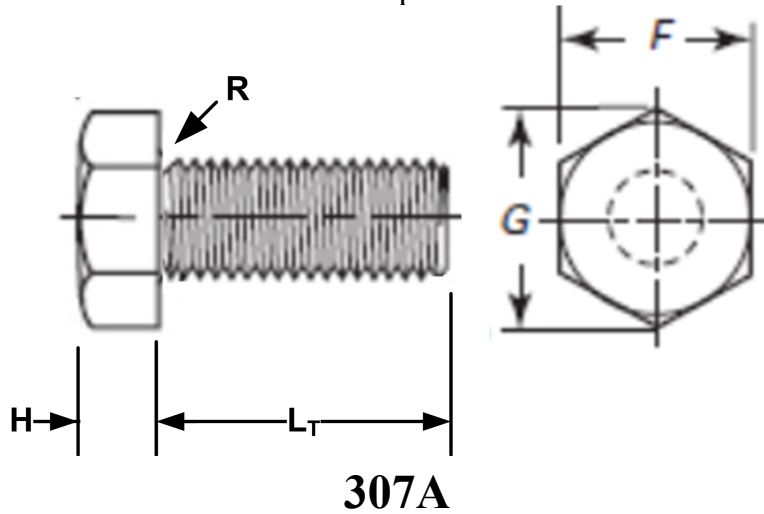


Hex Tap Bolts



307A

GRADE MARK

| THREAD DATA | | |
|--|---|--|
| Size: 5/16 | Threads per in.: 18 | Series Designation: UNC |
| Thread Class or Type: 2A | Major Diameter: 0.3113 - 0.3026 | Pitch and Functional Dia.: 0.2752 - 0.2712 |
| Tensile Stress Area: 0.0524 | 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: 0.313 |
| F - Width Across Flats: 0.500 - 0.484 | G - Width Across Corners: 0.577 - 0.552 | R - Fillet Radius: 0.030 - 0.010 |
| H - Head Height: 0.235 - 0.195 | Point Type: Non-pointed | |
| PHYSICAL REQUIREMENTS | | |
| Nominal: 0.313 | Standard: ASTM A307A-2014 | Typical Materials: low carbon steel, 1006 through 1022 |
| Hardness: HRB 69 - 100 | Tensile Load, Min. (lbf): 3,144 | 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): 1,886 |
| Calculated Shear Load-THREADS (ref.)(lbf): 1,572 | Straightness Factor: 0.021 | Calculated Pretension ² (lbf) : 1,415 |
| Tightening Torque ¹ : 8 ft.lbf, 97 in.lbf, 11.0 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 |

¹ 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.² Calculated Pretension is equal to 75% of the bolt's yield strength achieved when using the indicated Tightening Torque.

