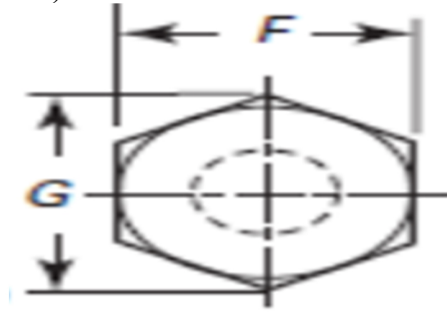
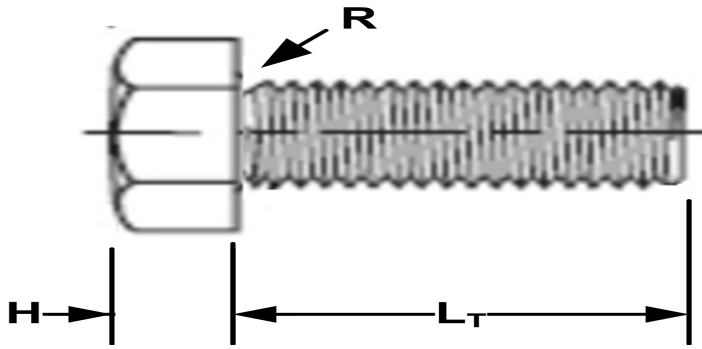


Hex Tap Bolts (1/4 thru 5/8)



F593C

GRADE MARK

| THREAD DATA | | |
|--|---|---|
| Size: 1/4 | Threads per in.: 20 | Series Designation: UNC |
| Thread Class or Type: 2A | Major Diameter: 0.2489 - 0.2408 | Pitch and Functional Dia.: 0.2164 - 0.2127 |
| Tensile Stress Area: 0.0318 | Standard: ASME B1.1 - 2003 (R2008) | |
| DIMENSIONAL DATA | | |
| Type: Hex Tap Bolts (1/4 thru 5/8) | Standard: IFI - 199 | Nominal Diameter: 0.25 |
| F - Width Across Flats: 0.438 - 0.425 | G - Width Across Corners: 0.505 - 0.484 | R - Fillet Radius: 0.030 - 0.010 |
| H - Head Height: 0.188 - 0.150 | L_T - Thread Length for Screw Length 6 in. or less: Fully Threaded | Point Type: Non-pointed |
| L - Length: 1/2 | Length Tolerance: +0.02/-0.03 | |
| PHYSICAL REQUIREMENTS | | |
| Nominal: 0.25 | Standard: ASTM F593-2013a, Condition CW1_18-8/304 | Typical Materials: stainless steel, 304, 304L, 305, 384, 18-9LW, 302HQ |
| Hardness: HRB 95 - C32 | Tensile Load, Min. (lbf): 3,180 | Tensile Load, Max. (lbf): 4,770 |
| Yield PSI, 2% Offset, Machined Specimen: 65,000 | Elongation, min. %, Machined Specimen: 20% in 4D | Tensile Strength, Min. (psi): 100,000 |
| Tensile Strength, Max. (psi): 150,000 | Calculated Shear Load-BODY (ref.)(lbf): 1,908 | Calculated Shear Load-THREADS (ref.)(lbf): 1,590 |
| Straightness Factor: N/A | Calculated Pretension² (lbf) : 1,550 | Tightening Torque¹ : 6 ft.lbf, 78 in.lbf, 8.8 Nm |
| FINISH DATA | | |
| Finish: As received steel | K factor (ref. DIN 946): 0.2 | |

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.

