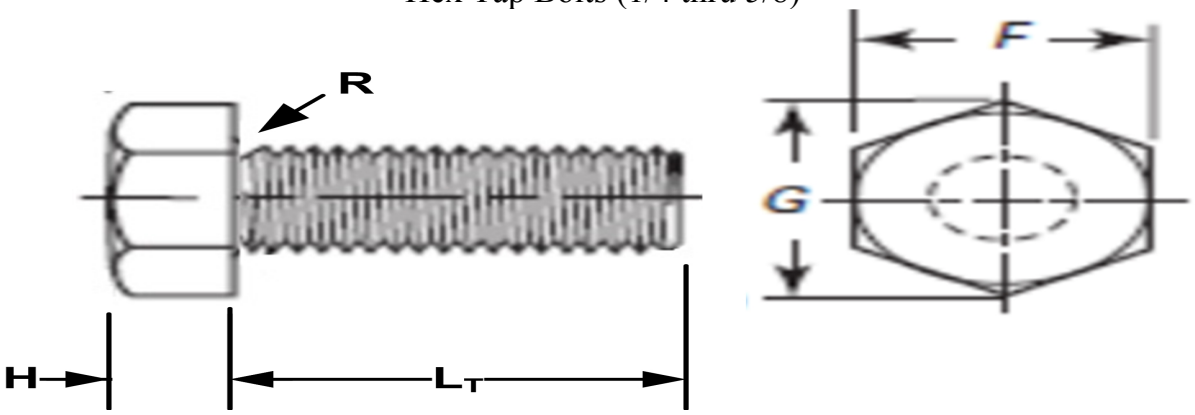
Hex Tap Bolts (1/4 thru 5/8)



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: 1-1/2	**Length Tolerance:** +0.02/-0.04	
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 Pretension[2] (lbf) :** 1,550	**Tightening Torque [1]:** 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.

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