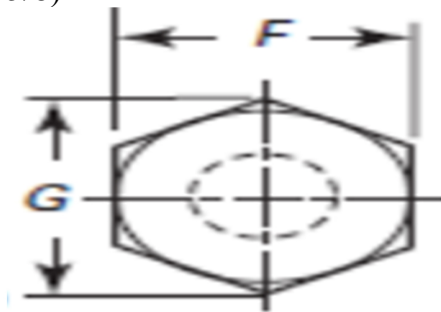
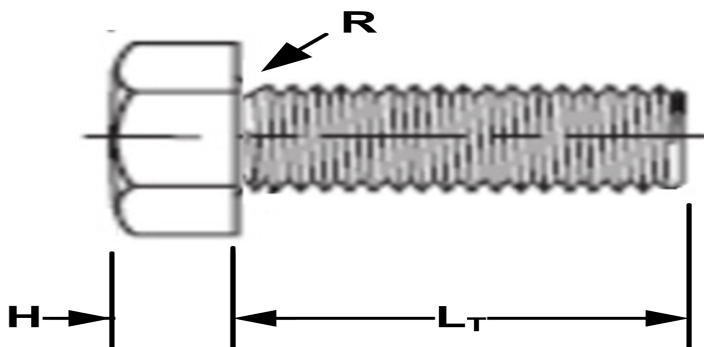


## Hex Tap Bolts (1/4 thru 5/8)



### F593C

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)	
DIMENSIONAL DATA		
Type: Hex Tap Bolts (1/4 thru 5/8)	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	L <sub>T</sub> - Thread Length for Screw Length 6 in. or less: Fully Threaded	Point Type: Non-pointed
L - Length: 3/4	Length Tolerance: +0.02/-0.03	
PHYSICAL REQUIREMENTS		
Nominal: 0.313	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): 5,240	Tensile Load, Max. (lbf): 7,860
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): 3,144	Calculated Shear Load-THREADS (ref.)(lbf): 2,620
Straightness Factor: N/A	Calculated Pretension <sup>2</sup> (lbf) : 2,555	Tightening Torque <sup>1</sup> : 13 ft.lbf, 160 in.lbf, 18.1 Nm
FINISH DATA		
Finish: As received steel	K factor (ref. DIN 946): 0.2	

<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.

