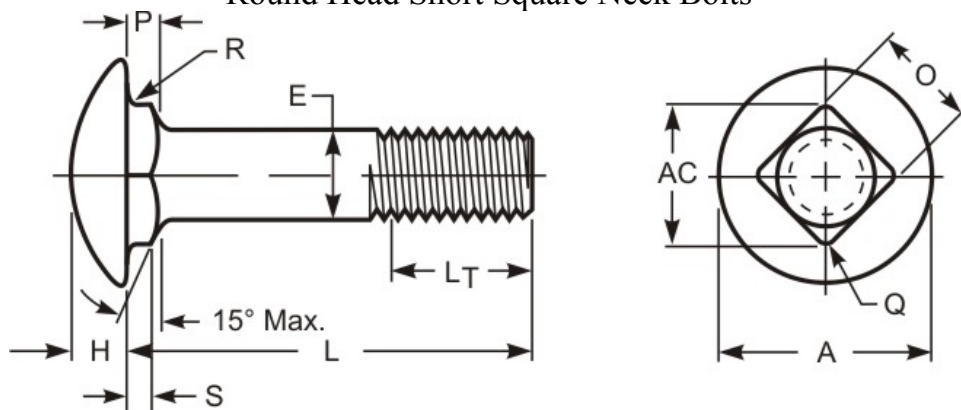


Round Head Short Square Neck Bolts



307A

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 - 2019	
DIMENSIONAL DATA		
Type: Round Head Short Square Neck Bolts	Standard: ASME B18.5-2017	Nominal Diameter: 0.25
E - Body Diameter : 0.260 - 0.213	A - Head Diameter: 0.594 - 0.563	R - Fillet Radius: 0.031 Max
H - Head Height: 0.145 - 0.125	L _T - Thread Length for Screw Length 6 in. or less: 0.750	Point Type: Non-pointed
O - Square Width: 0.260 - 0.245	P - Square Depth: 0.124 - 0.093	Q - Max. Corner Radius: 0.031
AC - Minimum Square Across Corners: 0.321	S - Minimum Square Corner Height: 0.055	L - Length: 1-1/2
Length Tolerance: +0.02/-0.04		
PHYSICAL REQUIREMENTS		
Nominal: 0.25	Standard: ASTM A307A-2014e1	Typical Materials: low carbon steel, 1006 through 1022
Hardness: HRB 69 - 100	Tensile Load, Min. (lbf): 1,908	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): 1,145
Calculated Shear Load-THREADS (ref.)(lbf): 954	Straightness Factor: N/A	Calculated Pretension ² (lbf) : 859
Tightening Torque ¹ : 4 ft.lbf, 47 in.lbf, 5.3 Nm		
FINISH DATA		
Finish: Zinc & Clear, non-hexavalent/Cr(VI) free - .0001"/ 3Åµm	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.