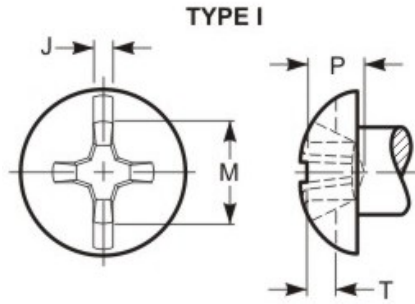


# Round Head- Type I (Phillips) - Combination Slt



This type of recess has a large center opening, tapered wings, and blunt bottom, with all edges relieved or rounded. A slot crosses the head aligned with one pair of wings.



## 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)                        | Length: 1-1/2  |
| Length Tolerance: -0.06  |   |  |
| DIMENSIONAL DATA   |   |  |
| Type: Round Head- Type I (Phillips) - Combination Slt          | Standard: ASME B18.6.3 - 2013                             | Nominal Diameter: 0.25                                       |
| A - Head Diameter: 0.472 - 0.443                               | H - Head Height: 0.175 - 0.160                            | J - Slot Width: 0.075 - 0.064                                |
| T - Slot Depth: 0.109 - 0.082                                  | Driver Size: 3  | Penetration Depth: 0.130 - 0.104                             |
| Wobble: 10°  | M - Ref. Recess Dim.: 0.261                               |  |
| PHYSICAL REQUIREMENTS  |   |  |
| Nominal: 0.25  | Standard: ASME B18.6.3-2013, Machine Screw (carbon steel) | Typical Materials: low carbon steel, 1010 through 1022       |
| Hardness: HRB 100 - 70   | Tensile Load, Min. (lbf): 1,908                           | Yield PSI, 2% Offset, Machined Specimen: 36,000              |
| 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 <sup>2</sup> (lbf) : 859            | Tightening Torque <sup>1</sup> : 4 ft.lbf, 47 in.lbf, 5.3 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                  |

<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.