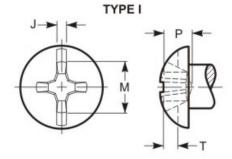
## Round Head- Type I (Phillips) - Combination Sltd



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**

|  | Grand Minda   |  |
|--|---|--|
| THREAD DATA  |   |  |
| Size: #10  | Threads per in.: 32                                       | Series Designation: UNF                                      |
| Thread Class or Type: 2A   | Major Diameter: 0.1891 - 0.1831                           | Pitch and Functional Dia.: 0.1688 - 0.1658                   |
| Tensile Stress Area: 0.0200                                      | Standard: ASME B1.1 - 2003 (R2008)                        | Length: 1/2  |
| Length Tolerance: -0.02  |   |  |
| DIMENSIONAL DATA   |   |  |
| <b>Type:</b> Round Head- Type I (Phillips) - Combination Sltd    | <b>Standard:</b> ASME B18.6.3 - 2013                      | Nominal Diameter: 0.19                                       |
| A - Head Diameter: 0.359 - 0.334                                 | H - Head Height: 0.137 - 0.123                            | <b>J - Slot Width:</b> 0.060 - 0.050                         |
| T - Slot Depth: 0.087 - 0.065                                    | Driver Size: 2  | Penetration Depth: 0.108 - 0.082                             |
| Wobble: 12°  | M - Ref. Recess Dim.: 0.188                               |  |
| PHYSICAL REQUIREMENTS  |   |  |
| Nominal: 0.19  | 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): 1,200                           | Yield PSI, 2% Offset, Machined Specimen: 36,000              |
| Tensile Strength, Min. (psi): 60,000                             | Calculated Shear Load-BODY (ref.)(lbf): 720               | Calculated Shear Load-THREADS (ref.)(lbf): 600               |
| Straightness Factor: N/A   | Calculated Pretension <sup>2</sup> (lbf): 540             | Tightening Torque <sup>1</sup> : 2 ft.lbf, 23 in.lbf, 2.6 Nm |
| FINISH DATA  |   |  |
| Finish: Zinc & Clear, non-hexavalent/Cr(VI) free0001"/ 3 $\mu$ m | K factor (ref. DIN 946): 0.22                             | <b>Standard:</b> ASTM F1941/F1941M-2016, Fe/Zn 3AN           |
|  |   |  |

<sup>&</sup>lt;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.



