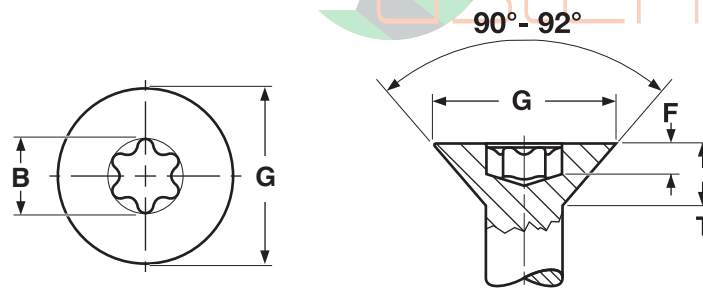


# MACHINE SCREWS

ISO 14581  
Flat Six-Lobe



| METRIC - ISO 14581 90° FLAT SIX-LOBE MACHINE SCREWS |              |                |       |                |                 |                    |                | ISO 14581   |
|---|--------------|----------------|-------|----------------|-----------------|--------------------|----------------|-------------|
| Nominal Size  | Thread Pitch | G              |       | T              | B               | F                  |                | Recess Size |
|   |              | Head Diameter  |       | Height of Head | Recess Diameter | Recess Penetration |                |             |
|   |              | Max            | Min   | Max            | Ref             | Max                | Min            |             |
| • M1.6  | 0.35         | 3.0            | 2.75  | 0.96           | -               | -                  | 0.40           | T4          |
| M2  | 0.4          | 4.4            | 3.5   | 1.2            | 1.75            | 0.64               | 0.51           | T6          |
| M2.5  | 0.45         | 5.5            | 4.4   | 1.5            | 2.4             | 0.79               | 0.66           | T8          |
| M3  | 0.5          | 6.3            | 5.2   | 1.65           | 2.80            | 0.83               | 0.70           | T10         |
| M4  | 0.7          | 9.4            | 8.04  | 2.70           | 3.95            | 1.53               | 1.14           | T20         |
| M5  | 0.8          | 10.4           | 8.94  | 2.70           | 4.50            | 1.51               | 1.12           | T25         |
| M6  | 1            | 12.6           | 10.87 | 3.30           | 5.60            | 1.78               | 1.39           | T30         |
| M8  | 1.25         | 17.3           | 15.37 | 4.65           | 7.95            | 2.54               | 2.15           | T45         |
|   |              |                |       |                |                 |                    |                |             |
| Tolerance on Length                                 |              | 3mm: ±0.20     |       |                | 4-6mm: ±0.24    |                    | 7-10mm: ±0.29  |             |
|   |              | 11-16mm: ±0.35 |       |                | 20-30mm: ±0.42  |                    | 35-50mm: ±0.50 |             |

• Dimensions for M1.6 are independent of the ISO 14581 standard.

|                                 |  |  |
|---------------------------------|--|--|
| <b>Description</b>              | A countersunk head, straight shank fastener with a six-lobe shaped recess and a metric thread pitch designed to go through a hole or nut that is re-tapped to form a mating thread for the screw. The head has a flat top surface and a cone-shaped bearing surface with a head angle of approximately 90 degrees. |  |
| <b>Applications/ Advantages</b> | Ideal for applications where extra driving torque is required, especially where fasteners are subject to repetitive vibration; and where protrusion above the mating surface is unacceptable.  | Used in applications where protrusion above the mating surface is unacceptable. The stainless variety is ideal for equipment used in the food industry or in corrosive environments. |
| <b>Material</b>                 | <b>Class 8.8 Steel</b>   | <b>Stainless</b>   |
|                                 | Medium carbon steel that conforms to the following chemical composition: <b>Carbon:</b> 0.25 - 0.55%; <b>Phosphorous:</b> 0.04% maximum; <b>Sulfur:</b> 0.05% maximum  | Class A2-50  |
| <b>Heat Treatment</b>           | Class 8.8 machine screws shall be heat treated by quenching in a liquid medium from above the transformation temperature and reheating to a tempering temperature of 425°C.  | -  |
| <b>Hardness</b>                 | Rockwell C 22 - 32   | -  |
| <b>Tensile Strength</b>         | 640 N/mm <sup>2</sup> minimum  | -  |
| <b>Plating</b>                  | See Appendix-A   | Stainless machine screws are usually supplied with a plain finish.   |