

Mill Drawing

➡ Answers to questions:

1. The R8 dimension indicates the common radius in all four pocket corners as 8 mm
2. The closed slot is 3 mm deep and 8 mm wide
3. At the lower left corner of the 150 x 100 block
4. The material is aluminum - specifics are not given in the drawing
5. It describes the stock dimensions as a block 150 mm long, 100 mm wide, and 12.5 mm thick
6. The 10X M6 dimension identifies all ten holes being tapped holes with 6 mm nominal thread diameter
7. The cutouts are 5 mm deep
8. The M6 designation is a coarse metric thread, where the pitch is not given. It can, however be found in various charts as 1 mm. Normally, only fine pitch metric threads are identified with pitch - for example M6 x 0,75
9. The XY coordinates for the upper right tapped hole are X132.0 Y73.0
10. The most suitable tap drill selection would be between $\varnothing 4.8$ and $\varnothing 5$ mm

➡ Bonus questions:

11. The XY coordinates for the start point in the middle of pocket will be X75.0 Y49.0
12. Clamp the block horizontally in a vise and face off the top to 12mm thickness. Rough out the two side steps, the pocket and three front cutouts with $\varnothing 15$ mm end mill. Use the same end mill or select a similar end mill for finishing the steps, the pocket and the cutouts. Use $\varnothing 6-7$ mm end mill to rough end finish the closed slot (two separate tools may also be used). Spot drill, drill and tap all ten holes. Chamfering sharp edges should also be considered.