

DRILLING AND TAPPINGAIM:

To make drill and tap on given mild steel work piece.

SUPPLIED MATERIAL SPECIFICATION:

Mild steel metal plates of dimension ϕ (50x50x6)mm.

TOOLS REQUIRED:

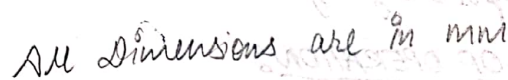
- 1) Hack saw frame with blade.
- 2) Try square.
- 3) Steel rule.
- 4) Jenny caliper.
- 5) Files.
- 6) Drilling M/c.
- 7) Tapping M/c.
- 8) Dot punch.
- 9) Thread pitch gauge.

SEQUENCE OF OPERATION:

- 1) Preparation.
- 2) Marking.
- 3) Drilling.
- 4) Tapping.
- 5) Finishing.

WORKING STEPS:

- 1) PREPARATION: Check the initial dimensions using steel rule. Fix the job on a bench vice & file and two adjacent side using a flat file to form right angles. Check for the perpendicularity with try square.
- 2) MARKING: Apply chalk on the work surface. Measure 20mm using jenny caliper from the steel rule. Transfer the measured dimensions to the work piece with edge 12mm. Draw lines along the dimensions on work piece with scriber. Make dots along these lines using dot punch.



3) DRILLING: Place the work piece on the drilling machine platform. Using drilling machine make two holes on the dotted place made by dot punch. pour some oil for smooth drill and drill the work piece properly by adjusting the pilot. Repeat the steps twice for better finishing. Lastly go to the thread pitch gauge machine & complete the drilling procedure on the work piece.

4) Tapping: Fix the work piece in the bench vice in such a way that it should not move. Using Tapping tool 1 make threads in the holes. Repeat the procedure for both holes, then take the tapping tool 2 and use it carefully by rotating in clockwise, simultaneously do this process for both holes.

5) FINISHING: Using a 10mm screw, check the accuracy of the finish.

RESULT:

The required holes using drilling & Tapping techniques with proper measurements has been obtained.