

Ex.no:

Date:

TURNING, FACING AND CHAMFERING

Aim:

To make turning, facing and chamfering on the given metal work piece to get the required dimension.

Material Supplied:

Mild Steel rod of 25 mm diameter x 77 mm length

Tools required:

Single point cutting tool, vernier caliper, steel rule, chuck key, tool post key, wire brush.

Sequence of Operation:

- a. Checking
- b. Work piece setting
- c. Tool setting
- d. Facing
- e. Turning
- f. Chamfering

Working Steps:

1. The given work piece is checked for its given dimensions.
2. The work piece is held in the three jaw chuck. Chuck key is used to tighten the job rigidly ensuring centering of the work piece.
3. The single point cutting tool is fixed in the tool post of the lathe machine using tool post key and spanners. Sometimes the packing material like hacksaw blade pieces, thick sheet paper materials can be used to set the tool appropriately pointing towards the centre of the job.
4. Facing operation is done to obtain the required length of the job.
5. Turning operation is done to obtain the required diameter of the job.
6. Chamfering is done to remove sharp edges and corners of the work piece by keeping the tool at an angle of 45° to the lathe axis.
7. Finally the work piece dimensions are checked to conform to the specification given in the drawing.

Result:

Hence the required shape and size are obtained using turning, facing and chamfering operations on the given work piece.