

STEP TURNINGAIM:

To perform plain turning and step turning on a cylindrical work piece.

MATERIALS REQUIRED:

Mild steel Rod.

TOOLS REQUIRED:

Chuck key, vernier caliper, single-point cutting tool.

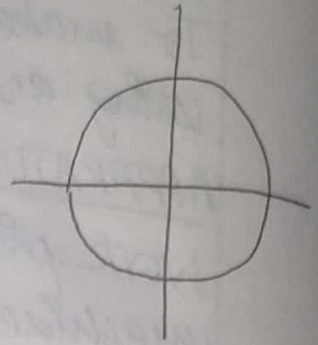
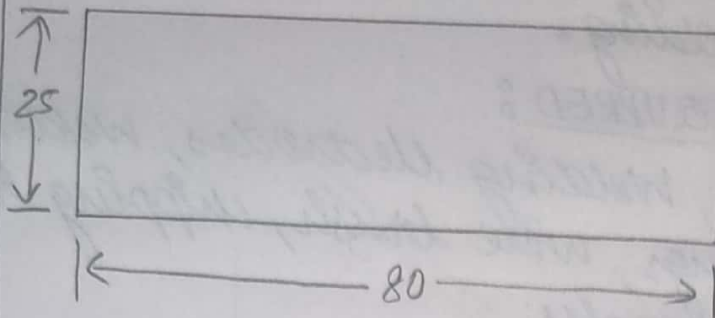
PROCEDURE:

- 1) First loosen the jaw in the chuck to position the work piece, and then tighten the jaw.
- 2) Fix the cutting tool in the tool post.
- 3) Switch on the lathe & move the carriage near to the work piece. Give it a small cross feed, then move carriage longitudinally to the required length slowly.
- 4) Bring the carriage to the original position, give a small cross feed and move carriage longitudinally. Repeat this step until required diameter is obtained.
- 5) To get smooth surface give a very feed small when the diameter is nearing the required value.
- 6) The turning operation is done with cutting tool to reduce the diameter upto the required dimension for two steps of various diameter.
- 7) The diameter of the work piece is to be reduced according to the given dimension for the step turning by turning process.
- 8) While doing the work piece one ends of the work piece is reduced to the required diameter & this after, chamfering.
- 9) This process removes all sharp edges of the component.

RESULT:

Thus, the required shape and size is obtained by step turning.

MODEL DIAGRAM:



Given material

