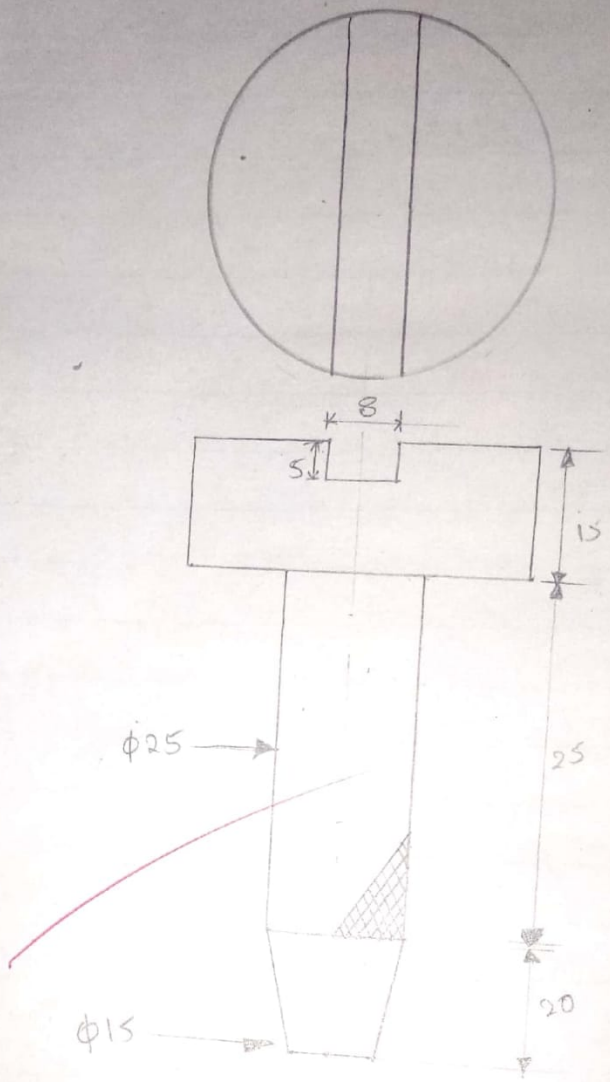
Aim :- To perform horizontal milling.

Appratus :- M/c handle, spaner, milling cutter.



All diamensions are in mm

(1) Tolerance :- ± 0.5 mm
(2) material :- M.S Round Bar
(3) Base size :- ϕ30 × 70 mm
(4) Actual size :- ϕ30 × 65 mm

Experiment No - 10

Aim :- To perform horizontal milling

Appratus :- M/c handle, spaner, milling cutter.

Measuring Instrument :- steel rule, vernier calliper.

Size of job :-

Base size :- $\phi 30 \times 70$ mm

Actual size :- $\phi 30 \times 65$ mm.

procedure :-

1. Firstly fix the job horizontally in lathe machine.
2. perform turning operation on job make it of diameter 25 mm upto distance 45 mm
3. Then by facing reduce the length of job by 5 mm.
4. perform taper turning on job of diameter 25 mm upto length 20 mm and make it of 15 mm diameter at one end.
5. Remove the job from lathe machine and fix it in milling machine.
6. Take a cut of 40 mm from axis of job on face at 30 mm diameter and depth 5 mm.

7. After all operation the actual size of job become $\phi 30 \times 65$ mm.

Precautions :-

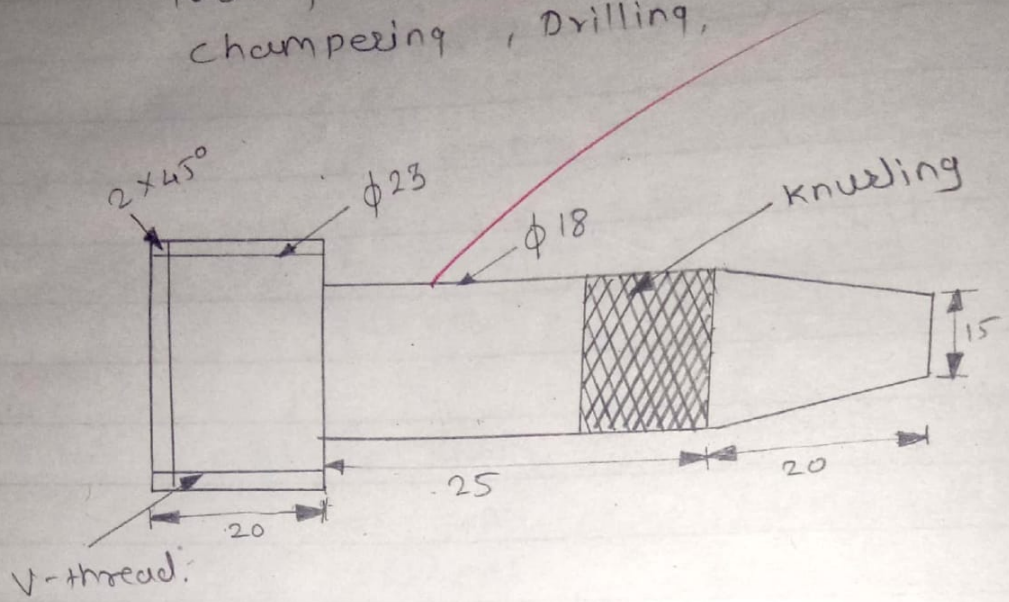
1. Use goggles while working.
2. Apron should be used
3. Feed should be given at constant rate
4. Depth of cut should be minimum.

Result :-

In these way study and perform milling operation.

Sam
20-5-15

Aim :- To perform various operation on the lathe machine, Turning, Facing, step turning, Taper turning, operation, threading, Knurling, champering, Drilling,



All dimension are - In mm

1] Tolerance : ± 0.5 mm
2] Material : M.S. Round Bar
3] Basic dimension : ϕ 25 × 70 mm
4] Actual diamension : Ø 23 × 65 mm.

AIM : To perform various operation on the Lathe machine

Appratus :- chuck key, steel rule, vernier calliper, single point, cutting tool, knurling tool, Drill bit, Drill chuck with key, socket key.

size of JOB :- 1) Basic Diamension :- $\phi 25 \times 70$ mm
2) Actual Diamension : $\phi 23 \times 65$ mm.

Lathe operation :- 1] Turning 2] facing 3] step turning 4] Taper turning 5) Threading 6) knurling 7] champering 8) drilling.

PROCEDURE :- 1] 1st the basic size of job held in chuck or lathe Machine.

2] Single point cutting tool fitted in tool post by using tumller key.

3] Feed the tool against workpiece for facing & turning facing perpendicular to axis or job.

4] For facing single point cutting tool feed perpendicular to axis of job.

5] For turning single point tool feed parallel to the axis of job.

6] Facing is done to reduce the length of job and due to turning operation the diameter of job reduce.

7] Turning is done one job up to 45 mm from Left as right and make diameter of that part 18 mm and also turning is done on another side up to 20 mm length of job and make diameter of that part 23 mm.

8] ON the part which diameter is 18 mm in which the taper turning is done.

9] For taper turning tool post is move at an angle of 11°c up to length 20 mm in taper turning tool is feed at an certain angle against workpiece with the help of compound slide.

10] The drilling operation is done with help of drill bit the is hold in a tail stock with the help of socket.

11] The drilling operation is done on slide which having 23 mm diameter. and the length of drill ~~will~~ will inserted in job

is 20 mm.

12) Knurling is to be done on the jobe whose diameter is 18 mm.

13] Knurling is done by using knurling tool which is hold on the tool post.

14]. Threading is carried out with help of single point cutting tool firstly the tool is held in tool post and the job is fixed in chuck with help of chuck key. In threading operation the work rotate and the tool post is fed towards the workpiece automatically the threading operation is depends upon what pitch we want and the gears play an important role in threading operations.

15] After all operations done the job actual size of job becomes $\phi 23 \times 65$ mm.

RESULT :-

In this way we have performed various operation on lathe machine.