Workshop

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Section: M

Department: CSE IOT

USN: 20BTRC0067

Aditi Maharjan (20BTRC0067)

T-FITTING

AIM: To make Ms plate into required model by T-fitting.

Tools required

1) Bench vice
2) Steel rule
3) Try square
4) Ball peen hammer
5) Scriber
6) Hack saw with blade
7) Surface plate
8) Dot punch and centre punch
9) Venire hight gauge.
10) Rough and smooth flat files
11) Flat chisel and triangular file

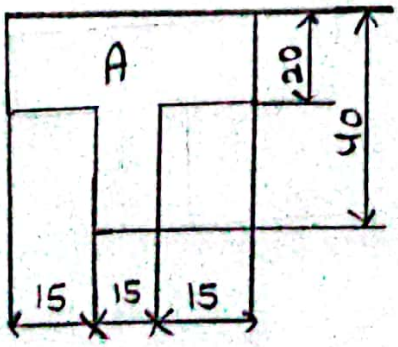
Material Required

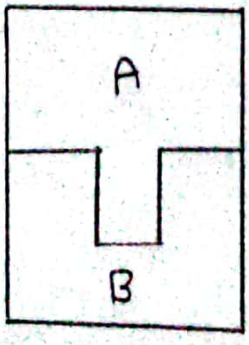
Mild steel (MS) plate of size 48 x 34 - 2 Nos

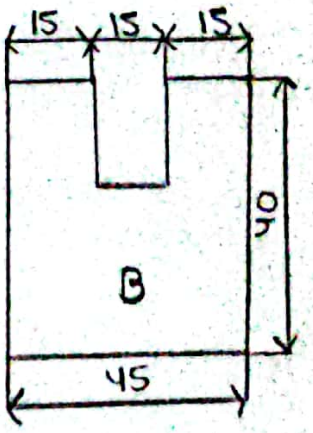
Sequence of operations:

1) Filing
2) checking flatness and squareness
3) Marking and measuring
4) Punching
5) Sawing
6) Chipping
7) Finishing.

T-FITTING







ALL DIMENTIONS ARE IN MM.

PROCEDURE

1) The burrs in the pieces are removed and the dimensions are checked with a steel rule.
2) The pieces are clamped one after the other and the outer mating edges are filled by using rough and smooth files.
3) The flatness, straightness and squareness i.e right angle between adjacent sides are checked with help of Try-square.
4) Chalks is then applied on the surface of the two pieces.
5) The given dimension of the T-fitting are maked with help of vernier height gause carefully.
6) Using the dot punch, dots are punched along the above scribed lines.
7) Using the hack saw, the unwanted portions are removed.
8) Using the flat chisel, the unwanted material in the piece Y is removed.
9) The cut edges are filed by the half round file.
10) The corners of the stepped surfaces are filed by using a square or triangolar file to get the sharp corners.
11) The pieces (X and Y) are fitted together and the mating is checked for the correctness of the fit.

Aditi Maharjan (20BTRC0067)

V-FITTING

AIM: To make M.S plate into required model by v-fitting.

Tools required:

1) Bench vice
2) Steel rule
3) Try square
4) Bell peen hammer
5) Scriber
6) Hack saw with blade.
7) Surface plate
8) Dot punch and centre punch
9) Venire hight gauge.
10) Rough and smooth flat files.
11) Flat chisel and triangular files.

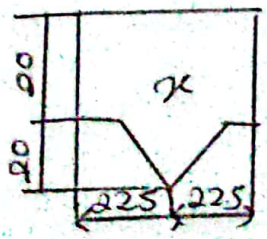
material required.

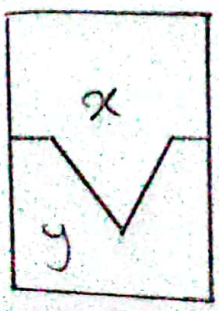
Mild steel (MS) plate of size 48 x 34 - 2 NOS.

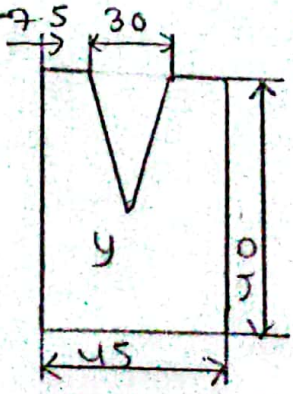
Sequence of operations.

1) Filing
2) Checking flatness and squareness
3) Marking and measoring.
4) Punching.
5) Sawing
6) Chipping
7) Finishing.

V-FITTING







PROCEDURE

1) The burrs in the pieces are removed and the dimensions are checked with a steel rule.
2) The pieces are clamped one after another and the outer mating edges are filled by using rough and smooth files.
3) The flatness, straightness and squareness i.e right angle between adjacent sides are checked with help of try square.
4) Chalks is then applied on the surface of the two pieces.
5) The given dimension of the V-fitting are marked with help of vernier height gause carefully.
6) Using the dot punch, dots are punched along the above scribed lines.
7) Using the hack saw, the unwanted portions are removed.
8) Using the flat chisel, the unwanted material in the piece Y is removed
9) The cut edges are filed by the half round file.
10) The corners of the stepped surface are filed by using a square or triangular file to get the sharp corners.
11) The piece (x and y) are fitted together and the mating is checked for the correctness of the fit.