

## EXP-9:- SCOOP Making

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### Pre Lab questions:-

1) What type of material used in sheet metal generally?

A) Some common materials used are, Aluminium, Brass, Copper, Steel, tin and titanium.

2) Explain the use of scoop?

A) SCOOP is an utensil used for removing or moving an amount of something.

3) What is the minimum and maximum sheet metal thickness?

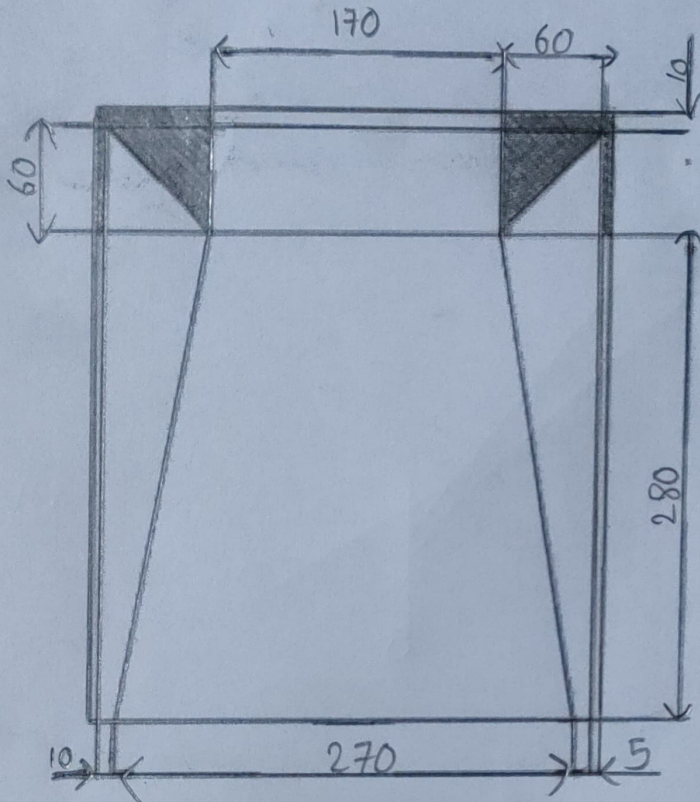
A) The thickness of sheet metal starts from 0.5mm and goes up to 6mm.

4) Mention the least count for steel rule.

A) 0.5mm is the least count of the steel rule.

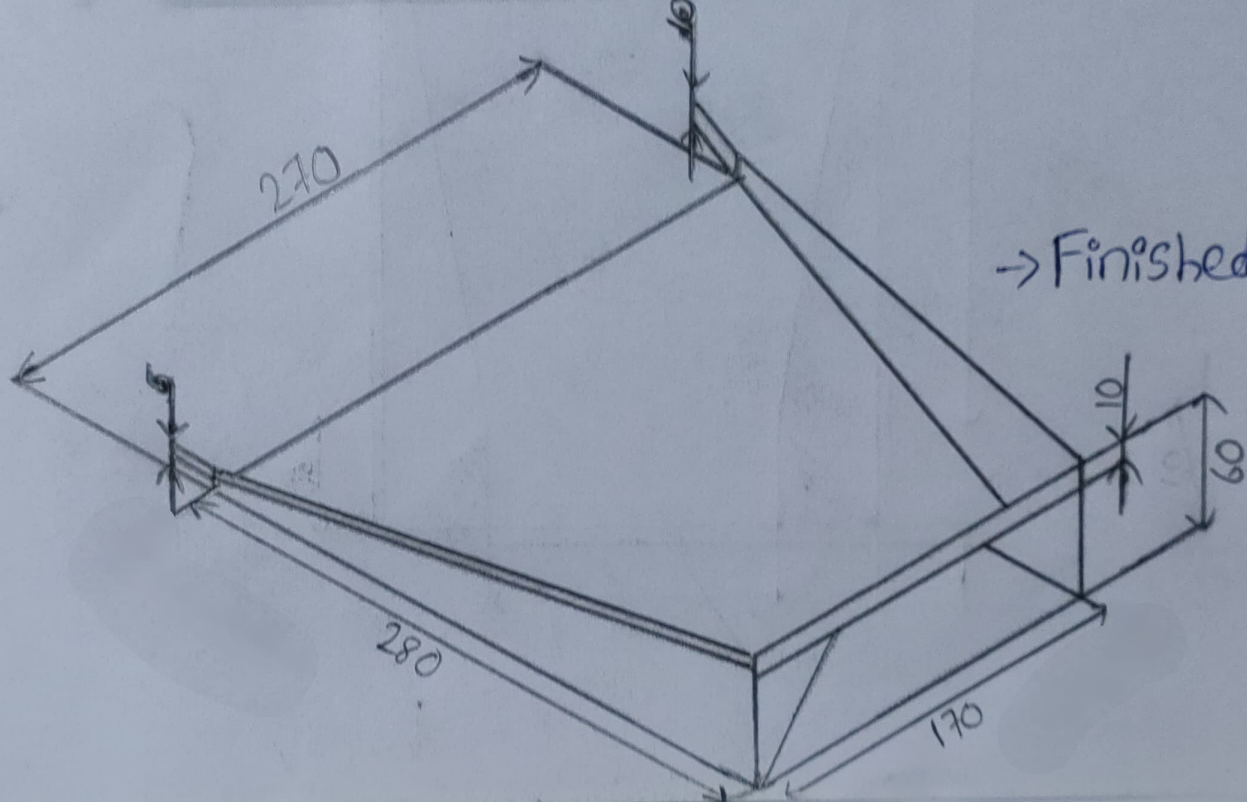
5) Define layout.

A) The way in which the parts of something are arranged or laid out.



■ unwanted portion.

→ Layout of sloop (All dimensions are in mm.)



→ Finished SCOOP.



Aim:- To make a big scoop of given specification from a sheet metal piece.

Application:- It's a device use to carry, pick and transfer the things

Material specifications:-

material :- Galvanized iron

sheet of dimensions :- 300mm x 350mm thickness 33 gauge

Tools Required:-

1) steel rule 2) scriber 3) straight snip 4) stake 5) Anvil 6) mallet

Sequence of operation:-

1) checking 2) Layout marking 3) shearing 4) Folding  
5) Locking and finishing.

1) Checking:-

Check whether the given sheet is having its dimension as 300mm x 350mm. If the dimension is excess trim off using hand shear. If it's less change the given sheet.

2) Layout marking:-

From reference point, draw vertical line 280mm, 60mm and remaining position 10mm for hemming allowance. Now place 300mm side, first to be draw 5mm line both side. On the 280 line to be mark both side 60mm point. Then draw the vertical line at both points. Connect the points above and the points below.

3) Shearing:-

Remove the unwanted portion with help of snip, while cutting, cut along the line properly & remove the unwanted portions.

4) Folding:-

Fold the 5mm hemming portion with  $180^\circ$  towards marking side. Then fold 60mm height portion with  $90^\circ$  opp. to marking side. Again fold two slant lines opp. to marking side. The scoop is having two incomplete corners. In align the corner of stake, fold the triangular shape both side with help of mallet.



## 5) Locking and finishing :-

Fold the remaining portion  $180^\circ$  outwards using stake & mallet to lock the folds. Check for dimensions.

## Post-Lab Questions :-

1) What is the purpose of Anvil?

A) Anvil is used for supporting the work while the hot metal hammering.

2) Which tool is used for measuring the thickness of sheet metal?

A) Sheet metal gauge tool.

3) Mention the diagonal angle in scoop making layout?

A) 90 degrees.

4) At what stage the sheet metal is called as pattern?

A) When the unwanted portion are snipped and the workpiece is ready to fold that sheet is called pattern.

5) What is a GI sheet? Why is it called so?

A) Galvanized Iron (GI) sheets are basically steel sheets which have been coated with zinc.