

CARPENTRY SHOP DUSTER

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Ex No: 11

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Arm

To construct a duster from the given work piece

Application

Cross bars in a cot, shelves

Material Specifications:

Yenteek wood of size $150 \times 45 \times 30$ mm

Tools required

- 1) Pencil
- 2) steel rule
- 3) Try square
- 4) Marking gauge
- 5) Hand saw
- 6) Firmer chisel
- 7) Mortise chisel
- 8) Rasp
- 9) wooden mallet

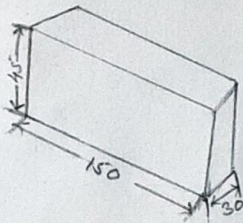
Sequence of operation

- 1) Preparing
- 2) Marking
- 3) cutting/sawing/chiseling
- 4) Finishing

Working Steps:

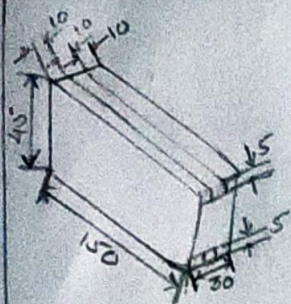
1) Preparing:

Prepare the work piece as per the specification in a length of 150 mm, width 45 mm and thickness 30 mm

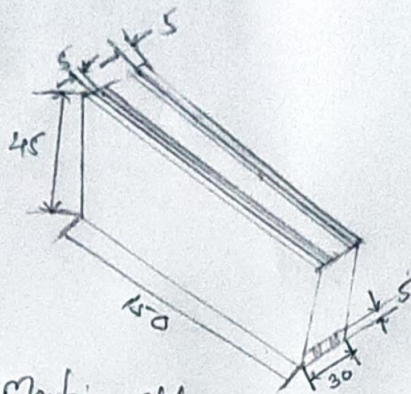


2) Marking

- 1) Adjust the marking gauge to 10 mm and set out the distance from the same along all the four sides of the piece on the 30 mm thickness side from both ends
- 2) Again, adjust the marking gauge to 5 mm and set out distance along all the four sides of the piece
- 3) Now mark a distance of 5 mm perpendicular to these lines on the 30 mm x 45 mm sides from both ends
- 4) Mark a diagonal line on at the inner square thus formed



Marking Step-1



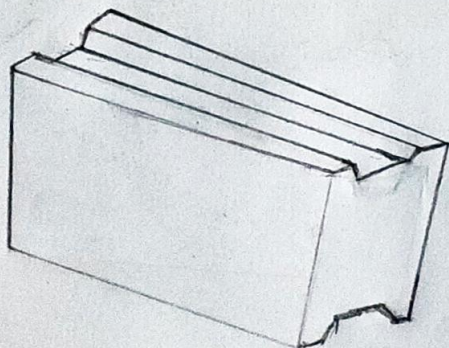
Marking Step-2

3) Cutting / Sawing / Chiseling:

- 1) Hold the piece horizontally in away such that the portion to be cut is just above the jaw. Use a hand saw to cut along the required line marking but slightly inside the line as shown in figure to the required 5mm depth
- 2) Now using a firmer chisel take series takes a series of cuts to remove the wood up to this 5mm depth
- 3) Hold the piece again a firmer chisel slowly chip off the wood from the along the material side

4) Finishing:

Take a series of small cuts delicately on both the side piece to remove to the excess wood. obtain a fine finish of the socket and shoulder assembly joint and clear off the waste by rasp



Finished Duster

Pre Lab Questions

- 1) Which is the weakest wood joint?
Miter joint
- 2) List out 3 types of chisels
 - 1) Bevel edge chisel
 - 2) Firmer chisel
 - 3) Mortise chisel
- 3) How many types of rasp and Mention any two?
There are 8 types of rasp. Ex - 1) half round rasp
2) round rasp
- 4) Mention 4 types of timber
 - 1) Pine
 - 2) Venetian
 - 3) Ebony
 - 4) Cedar
- 5) What is the function of chisel
It is used to cut and shape wood

Post LAB QUESTIONS

- 1) What is vice and name various types of vice
Vice is a holding tool which is used to hold the workpiece securely while performing operation. Types of vice are
 - 1) bench vice
 - 2) Drill vice
 - 3) Tool maker vice
 - 4) pipe vice
- 2) How many types of joints are there in carpentry
5 types
- 3) Classify the chisels and their application?
Chisels are classified as cutting tools. These mainly used to remove large portion of wood from wooden workpiece and shape it.
- 4) List out types of hand saw.
 - 1) Cross cut saw
 - 2) Rip saw
 - 3) Panel saw
 - 4) Bone saw
 - 5) Coping saw
 - 6) Back saw
 - 7) Dovetail saw
 - 8) Keyhole saw
 - 9) Compass saw
- 5) What is main purpose table saw
Table saw is used to cut straight in wood.

Result

The duster was produced from the given work piece and submitted for evaluation