

Vishnav Tuli

H2 123

### Fitting shop

Q1 write down the answers of the following questions in Two/three sentences.

- what is Deburring?
- for what Purpose Twist Drills are used?
- ~~which~~ which are the three Filing methods used in Fitting shop?

⇒ Ans:

① Deburring is a material modification process that removes sharp edges, or burrs, from a material, and leaves the material with smooth edges. Deburring is commonly performed after machining operations, which typically leave sharp edges on the material.

② Twist drills are the most widely used of all drill bit types; they will cut anything from wood and plastic to steel and concrete. They are most frequently used for metal cutting, so they are generally made from M2 high-speed steel.

③ There are three commonly used filing techniques that are widely used, these are: Cross filing, draw filing and Lathe filing.

Q2 Explain in brief with Labeled diagram what is Hack saw? Types of frames, types of blades and use of hack saw?

Ans:

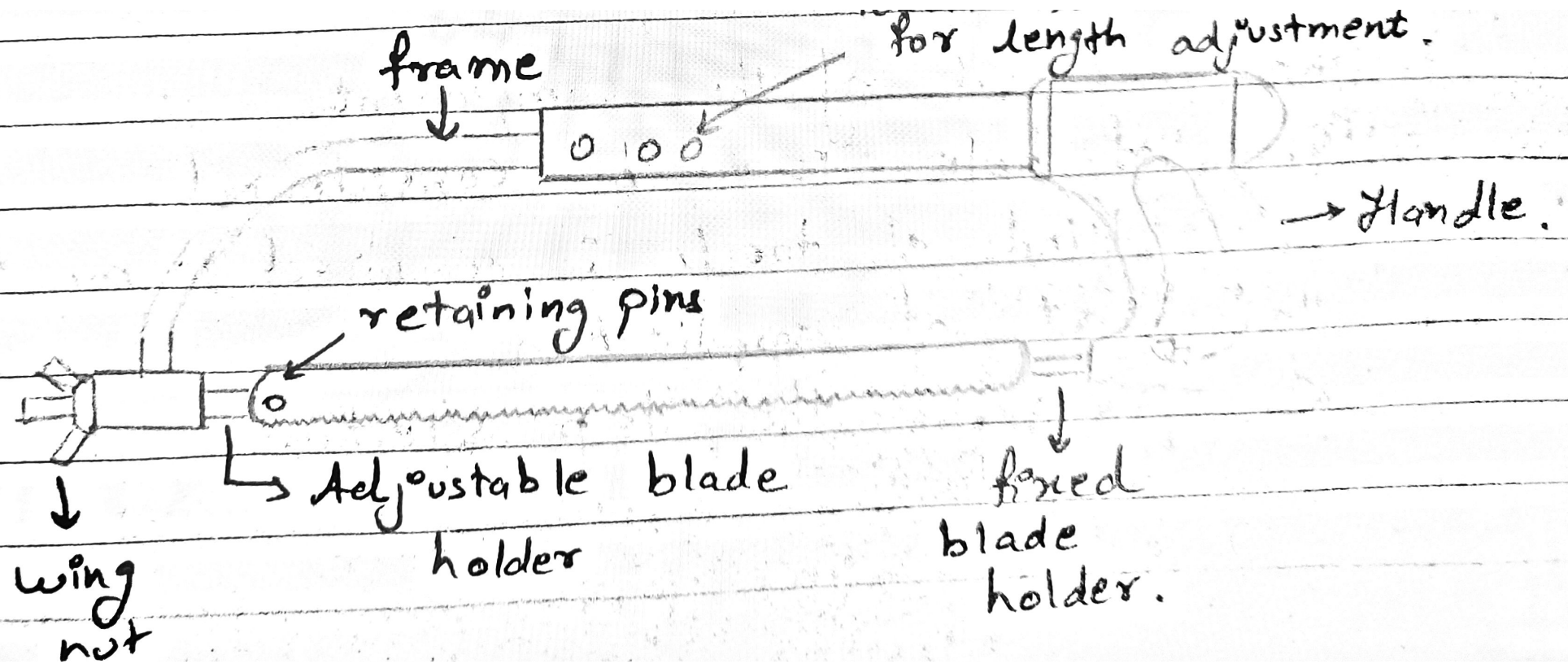
⇒ Hacksaw are principally made for cutting metals but they can also be used to cut various other metals.

⇒ Types of Hacksaw frame, blades and use of Hacksaw

- |                       |                          |
|-----------------------|--------------------------|
| i) Adjustable Hacksaw | iv) Coarse grade Hacksaw |
| ii) Flexible blade    | v) stud                  |
| iii) Air Hard blade   | vi) Handle               |

⇒ ~~xxx~~ Use of Hacksaw:

- Mainly used for cutting plastics such as PVC, PEX, or ABS on pipes or on sheet goods made of PVC, Polystyrene, and more. A Hacksaw should not be used for cutting wood or stone.



Q.3 List the Cutting tools, measuring and Marking tools used in fitting shop.

- Marking tools

- i) Scriber

- ii) Dot Punch

- iii) Center Punch

- Measuring tools

- i) Divider

- ii) Surface Plate

- iii) Inside Caliper

- Cutting tools
- i) Hack saw (cutting tool)
- ii) Files (finishing tool)

Q4 what is the use of Files in workshops? Explain in brief Types of Files according to size, shape, grade and cut of Files.

⇒ There are various different files, they are classified on the basis of their Length, section/shape and cut [tooth shape].

• The different types of files are,

① Hand file

⇒ It is used for general filing of metals such as steel. They are rectangular in section.

② Half Round file

⇒ It is used for filing curved surfaces, especially it is used for filing internal curves.

③ Three Square file

⇒ It is triangular in section and very useful when filing 'tight corners'. The sharp edges allow the file to fit into corners when filing.

④ Knife file

⇒ These are very useful during filing where there is very little space. It is very thin and can fit into small gaps.

⑤ Square file

⇒ they are very thin and fit into corners well. They are used to file slots in metal or for filing where there is little space.



Q.5 Prepare Process plan for performing the Fitting Job with help of Points given below.

Operat <sup>n</sup> number	operation Description	Machine used	Tools used	Meas. Instrum <sup>t</sup>
1.	Cutting the flat of size 50x5 in 50mm length.	Power saw machine	HSS Blade (8 TPI)	steel rule
2.	Inspection of piece for size and defects.	-	-	steel rule
3.	Burr Removing	Bench wire vice	Rough flat file	-
4.	one side filing as base side. straightness & flatness.	Bench vice	Flat file rough & smooth	steel rule
5.	Marking for Job size	surface Plate & block	chalk	height gauge
6.	Final Inspection	-	-	vernier calliper