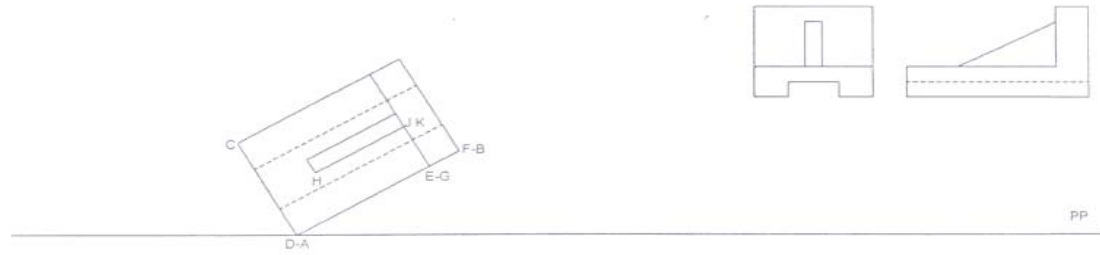


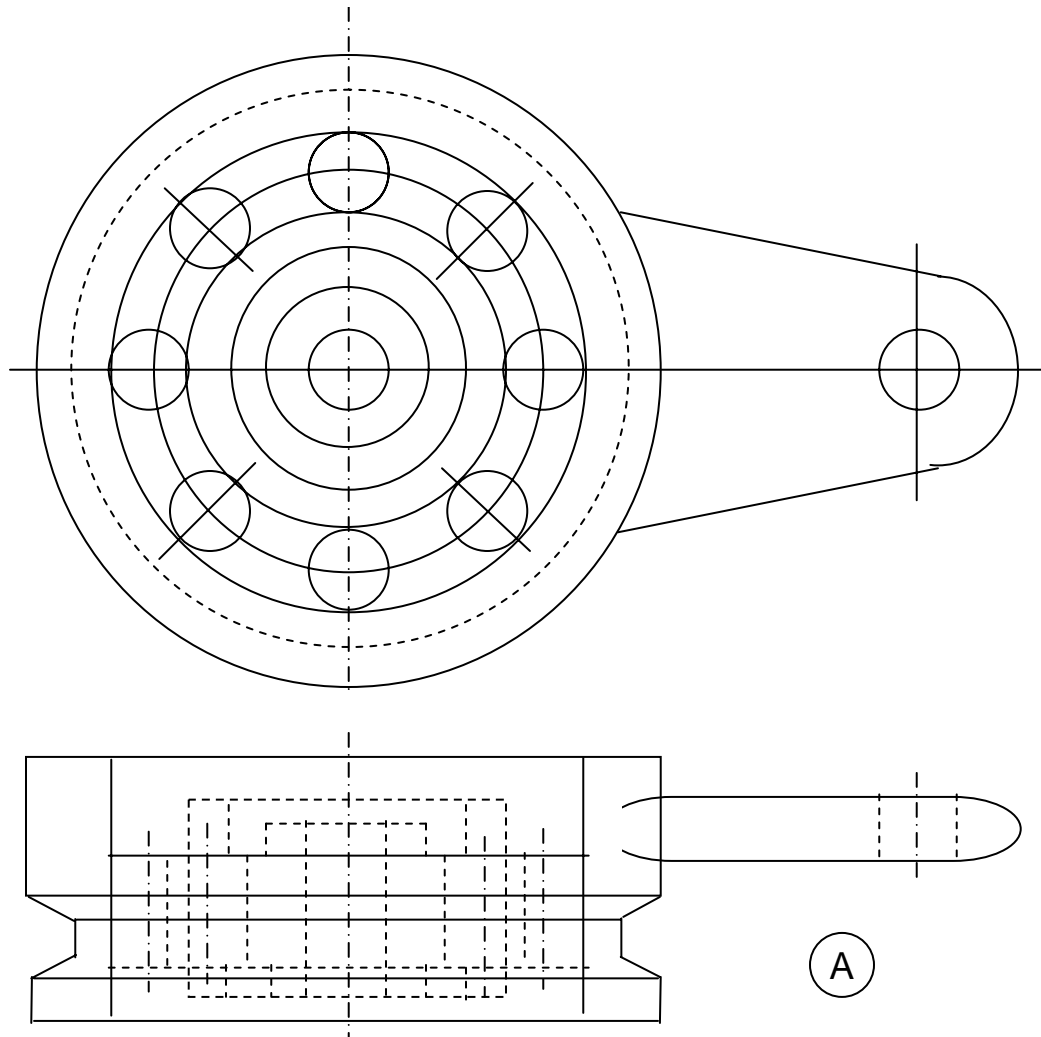
# TA 101

Lecture - 12

# Sketching



Home Assignment - Perspective Drawing  
 (to be submitted with Home Assignment 5)



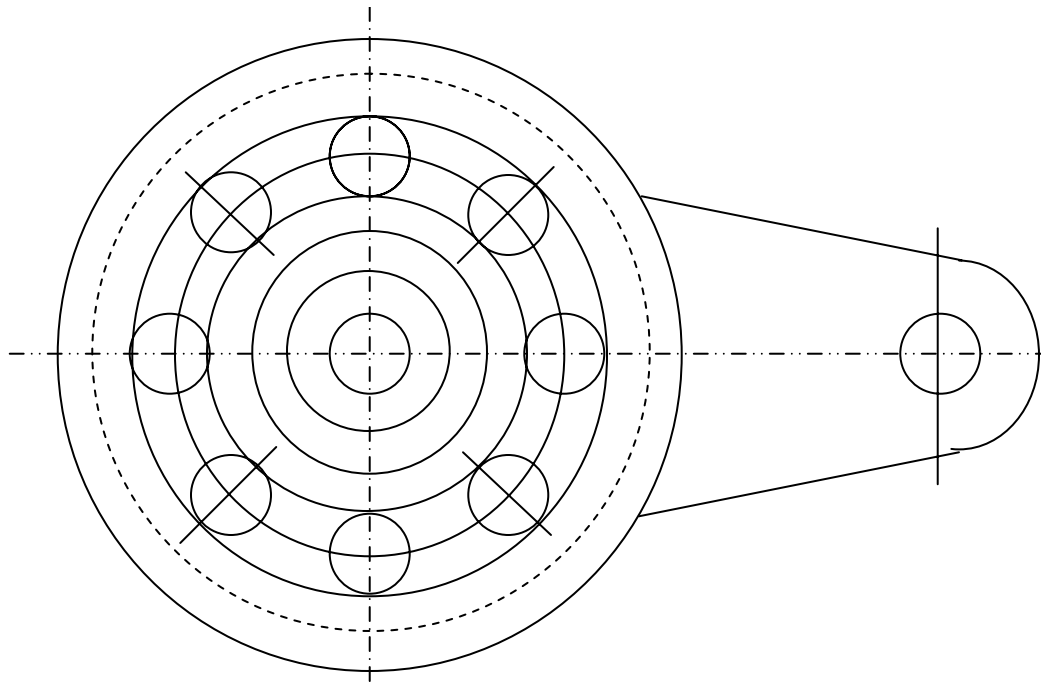
Make out the object



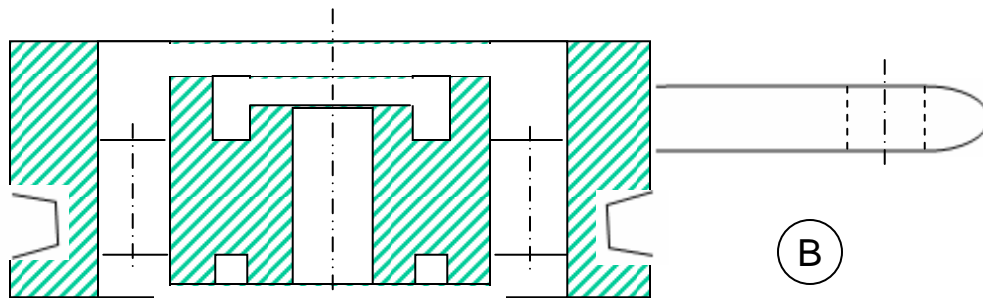
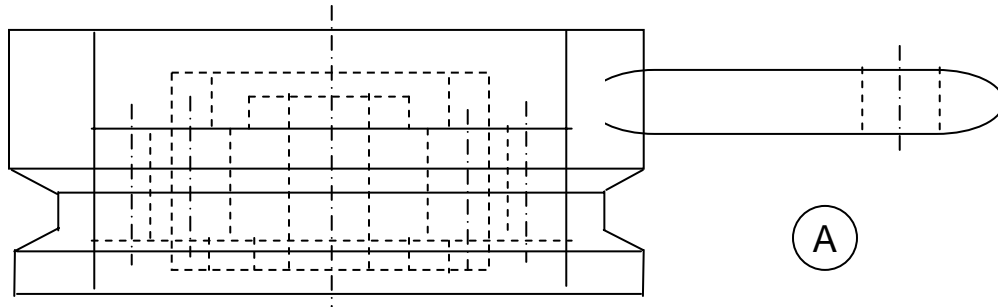
## **Sectional Views**

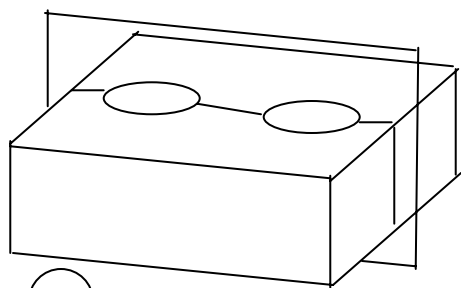


- Get Interior details for clarity**
- Where to cut?**
- How much to cut?**
- Yet do not lose the overall shape and dimension**
- More important, sectional views should be non-destructive**
- Doctors do X-ray, CT-Scan .. but uncertain/unknown .... But Engineers...**

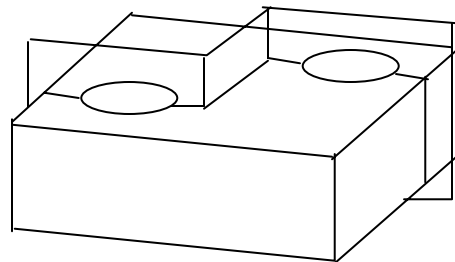
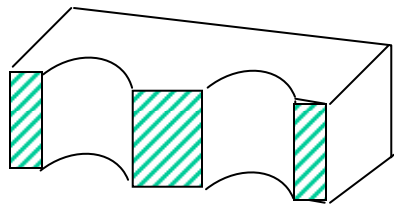


Cutting Plane

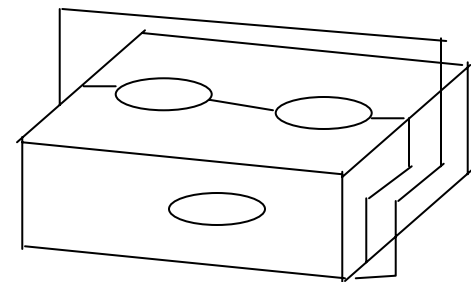
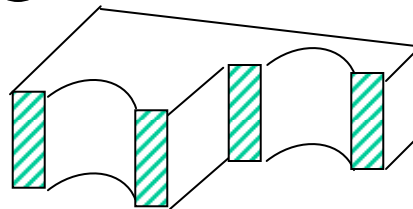




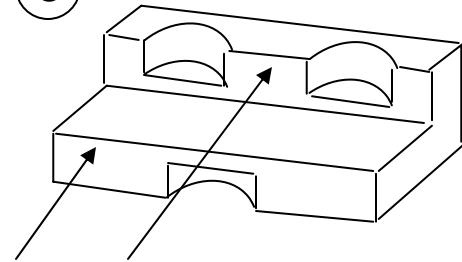
A



B

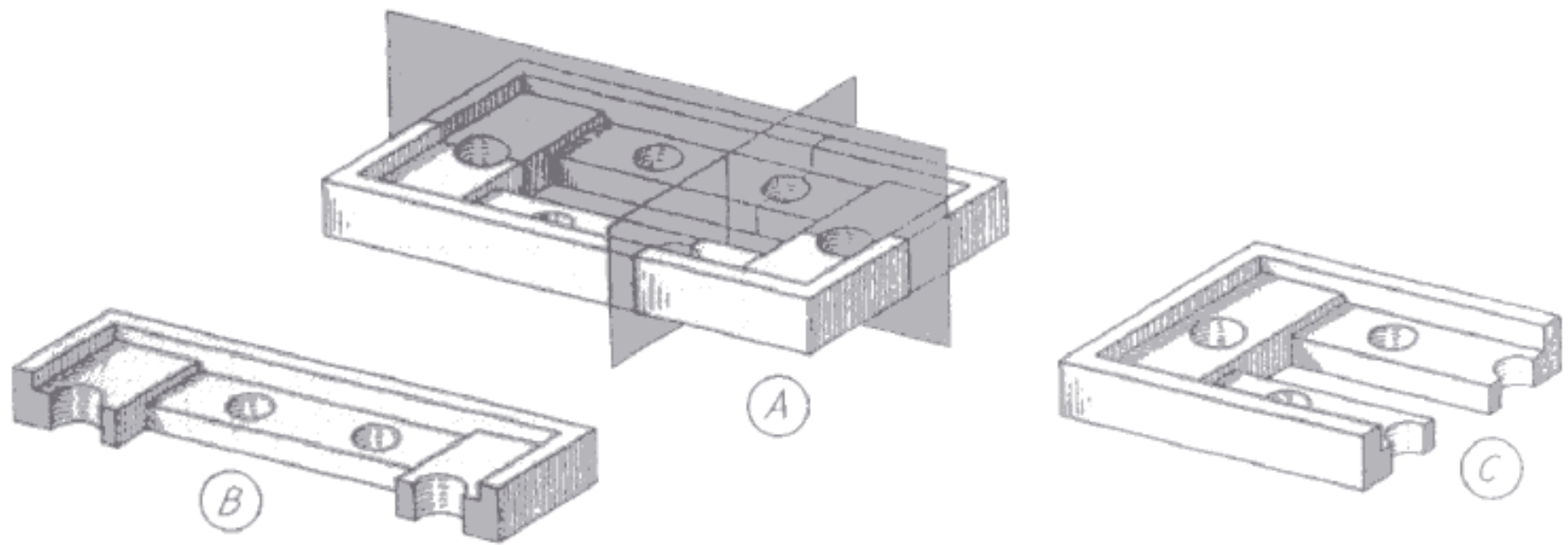


C



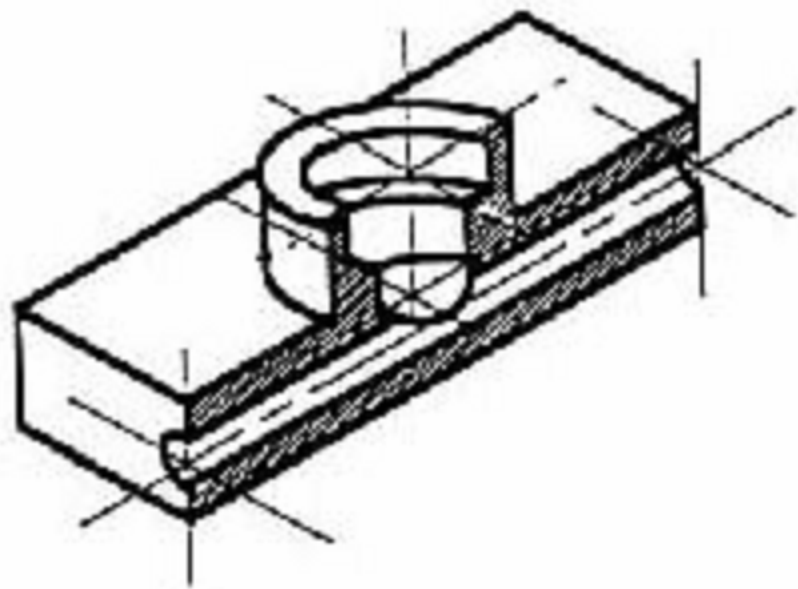
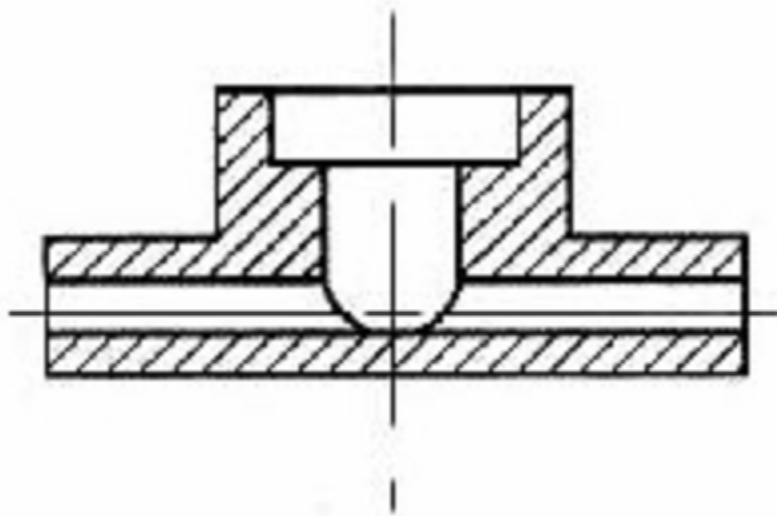
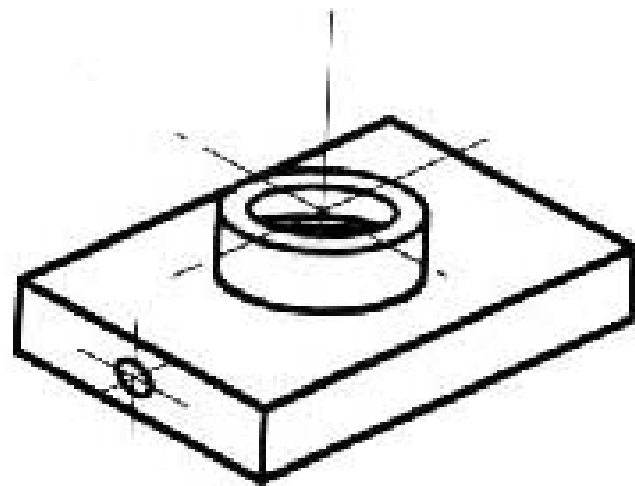
Face to be hatched

In B, C offsetting the cutting plane to get full information

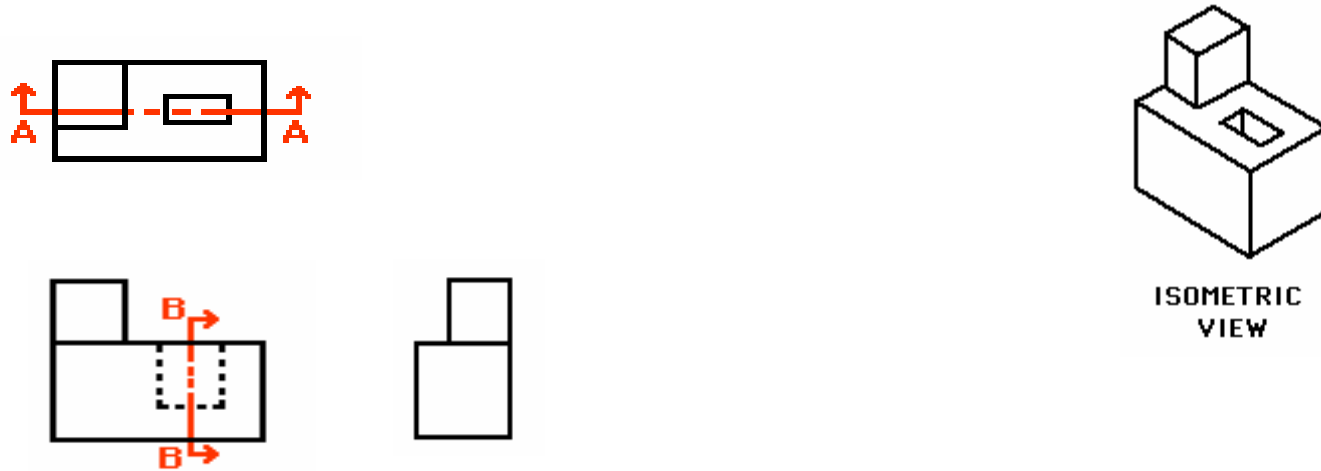


## **General Principles of Section Drawing**

- Identify the place where section is taken in drawing
- Solid portions and voids must be differentiated
- Direction arrow to show how the object is being looked at
- Observe some conventions
- The imaginary plane that cuts the object is called cutting plane or section plane – generally parallel to plane on which sectioned view is to be projected.
- Differentiate between Solid and Void – Hatch the cut solid
- Within sectioned (hatched) view, dashed lines are omitted unless absolutely essential
- Hatching lines should be uniformly spaced and lighter than object lines – use 3H/2H pencil



# Simple Object and Concept

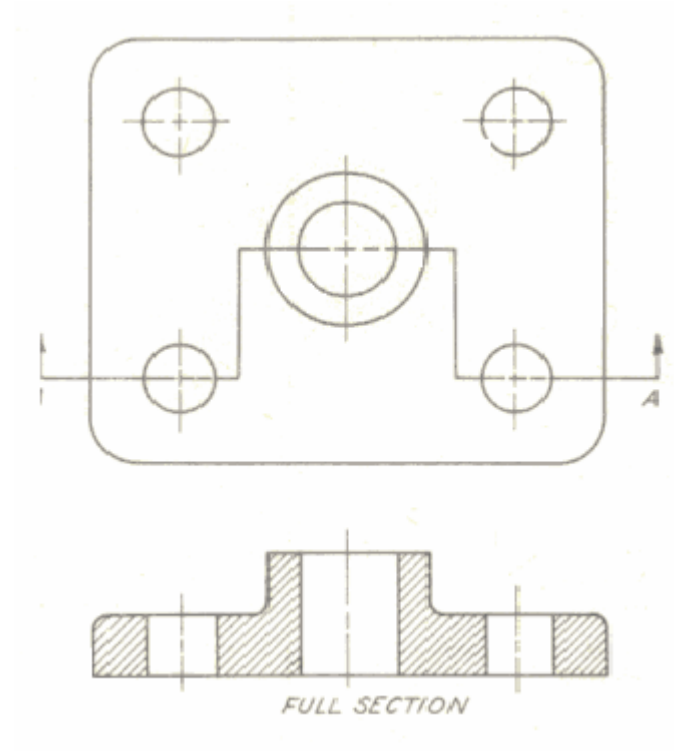
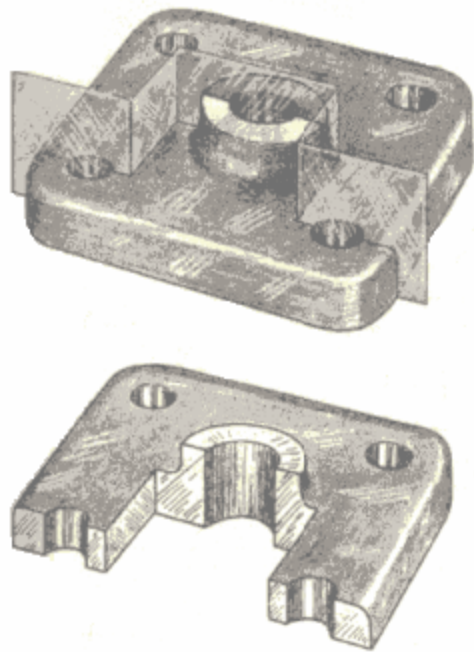


**Results of section at A-A will be reflected in the front view**

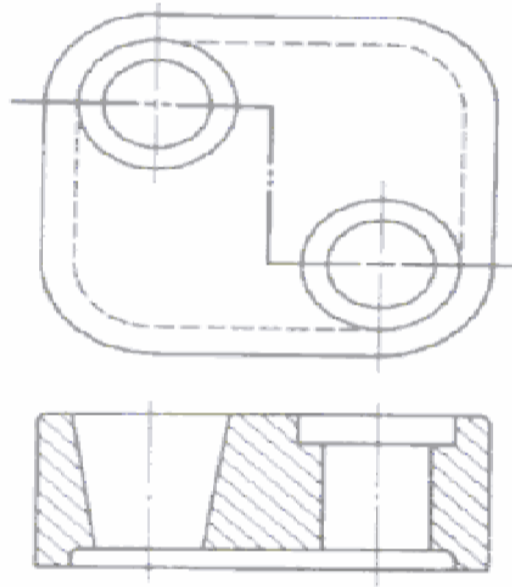


**Results of section at B-B will be reflected in the side view**

- Observe – (i) How to show section plane and what arrow means**  
**(ii) Hatching to differentiate solid and void/spaces**



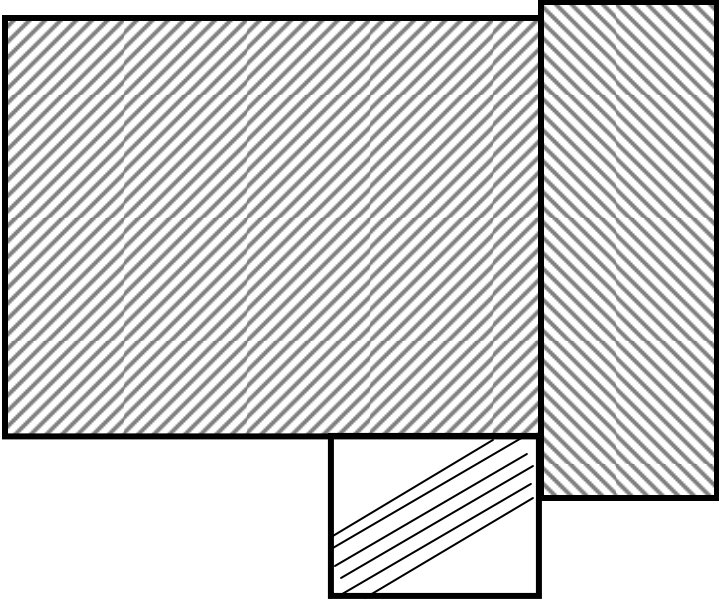
Full Section with Offset



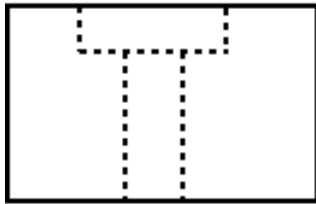
Full Section with Offset



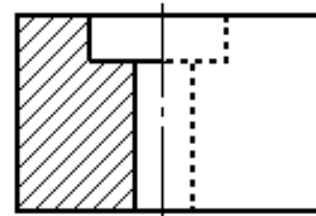
Line to indicate cutting plane  
- use little longer dashes



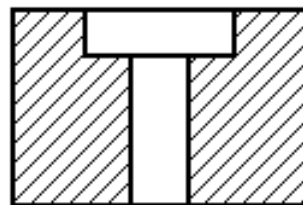
Show three different pieces  
In section (change in direction



EXTERIOR VIEW



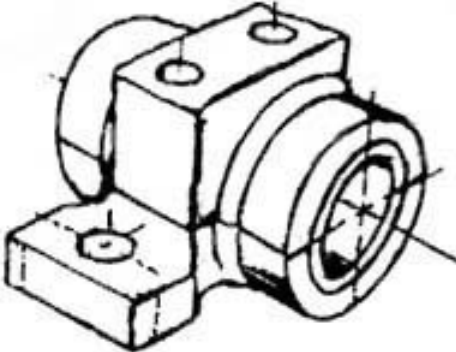
HALF SECTION



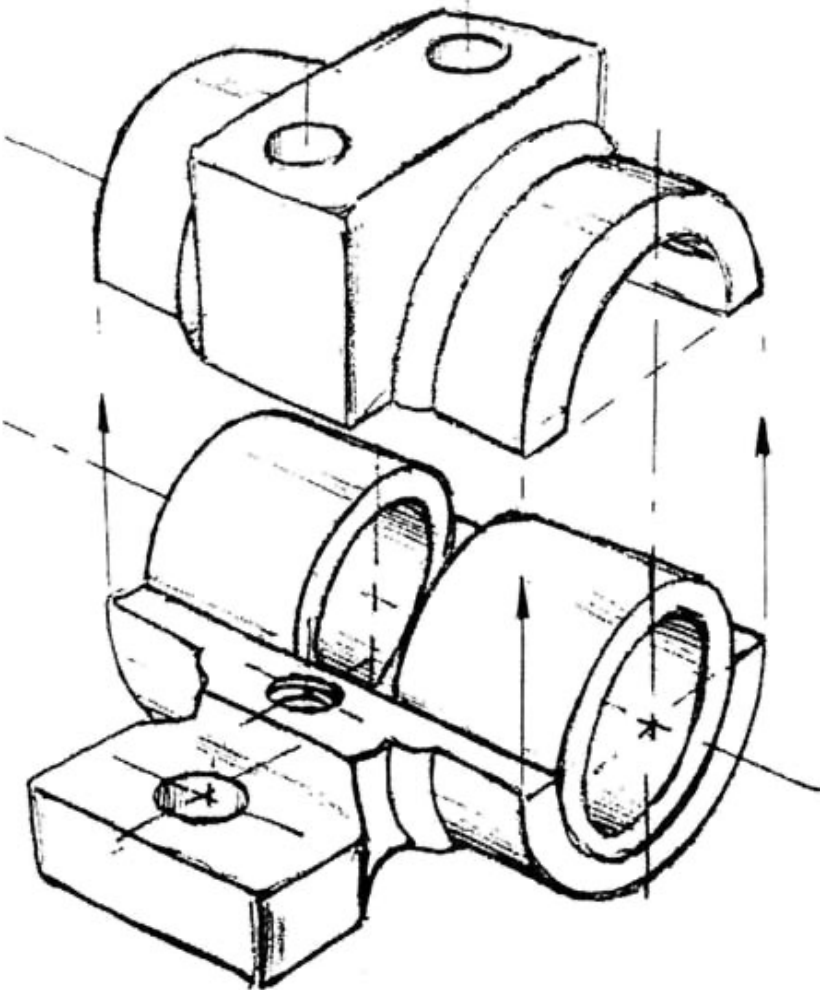
FULL SECTION

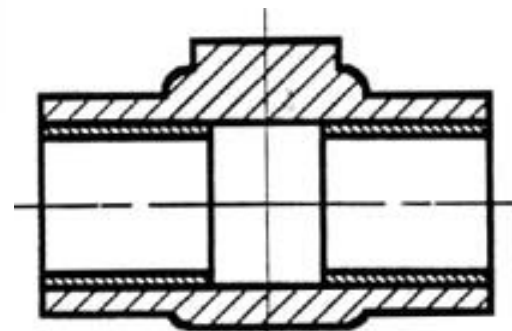
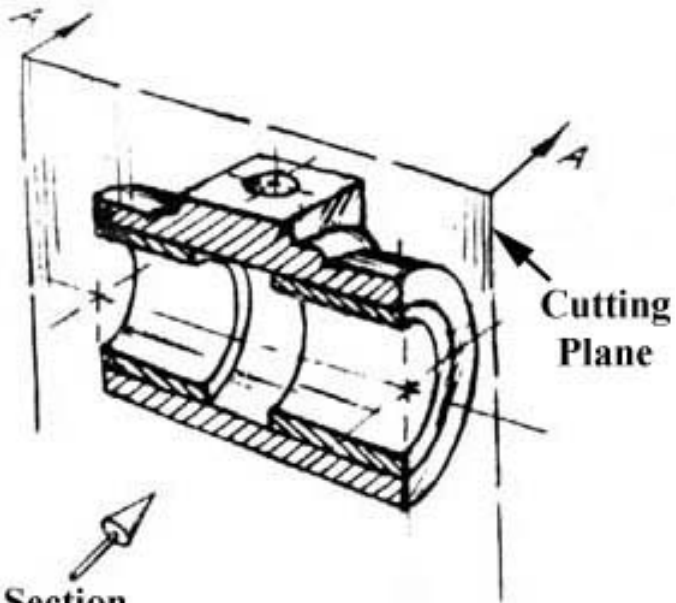
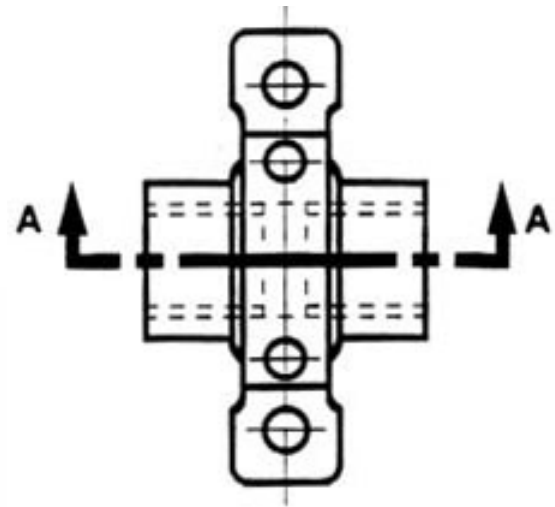
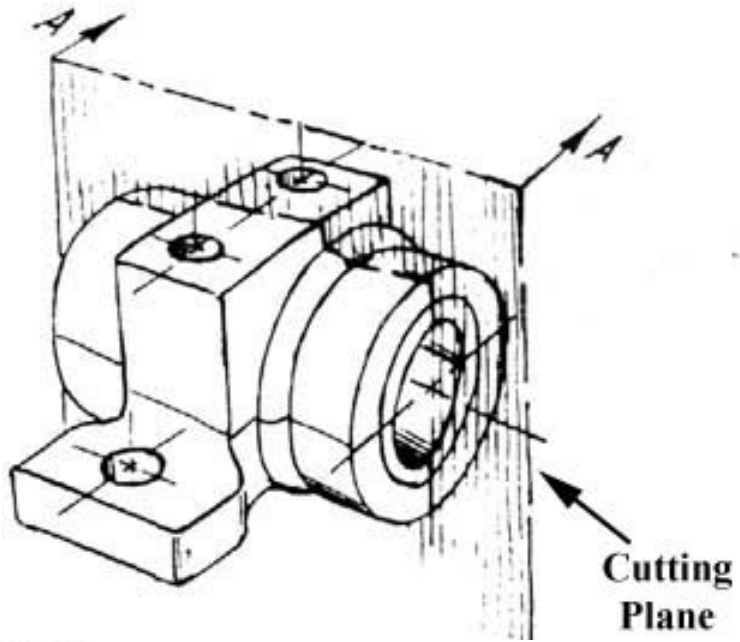
Why Half section?

**Disassembled Pillow-block**



**Pillow-block (Freehand sketch)**

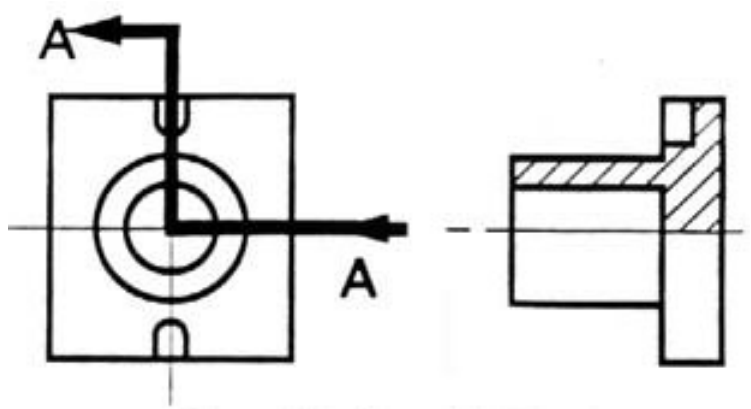
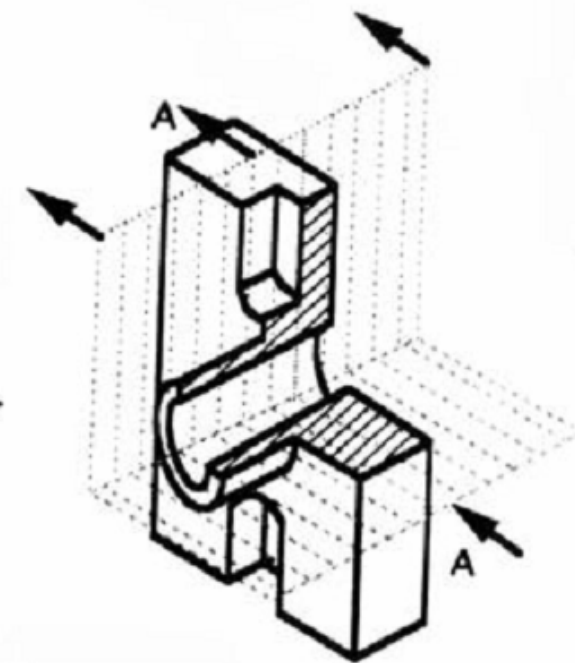
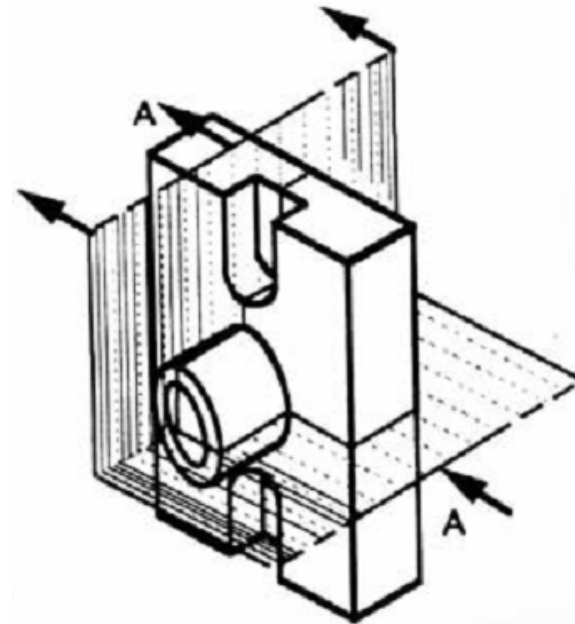




Section "A-A"

Section "A-A"

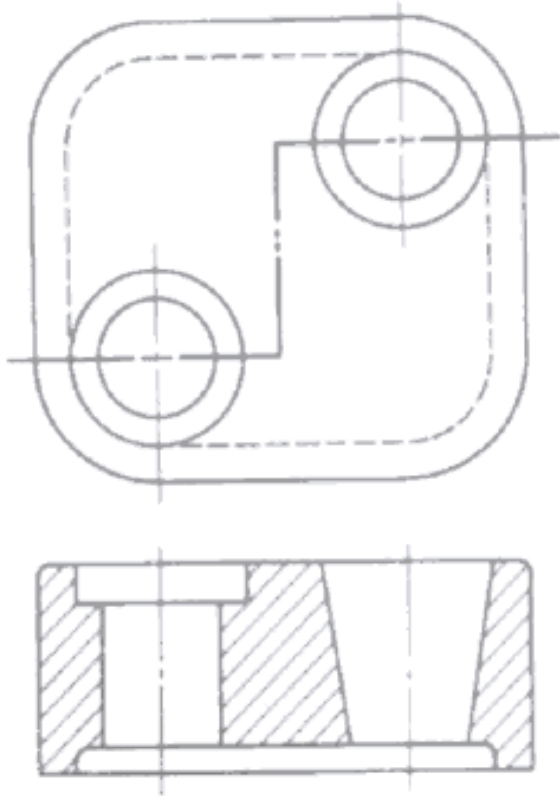
Full Section



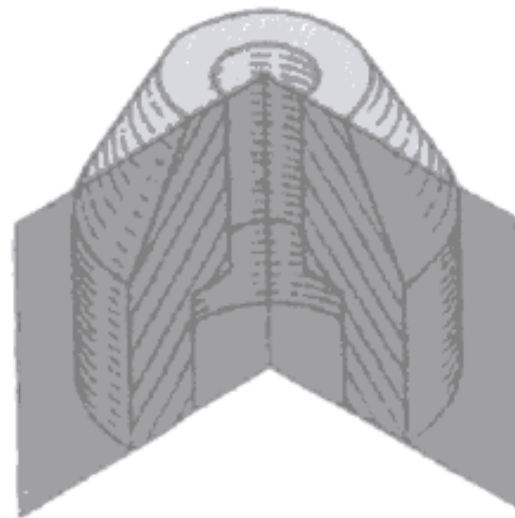
FV

SV- Section

Half Section



Full Section



Half Section