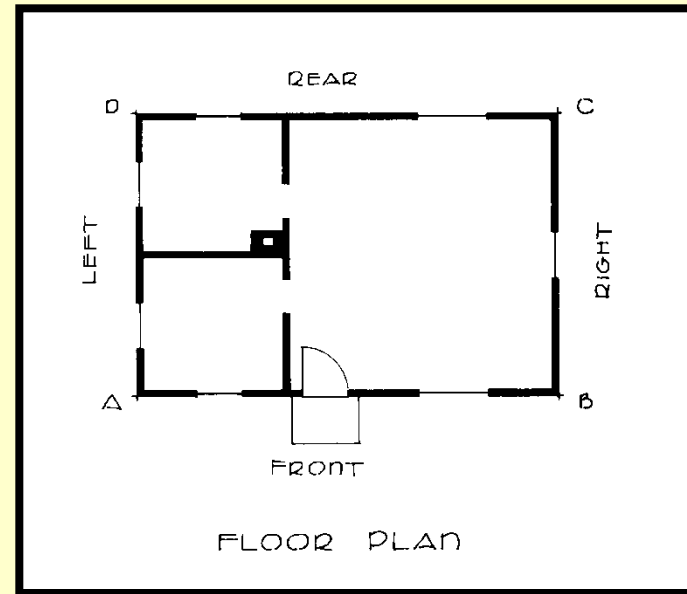
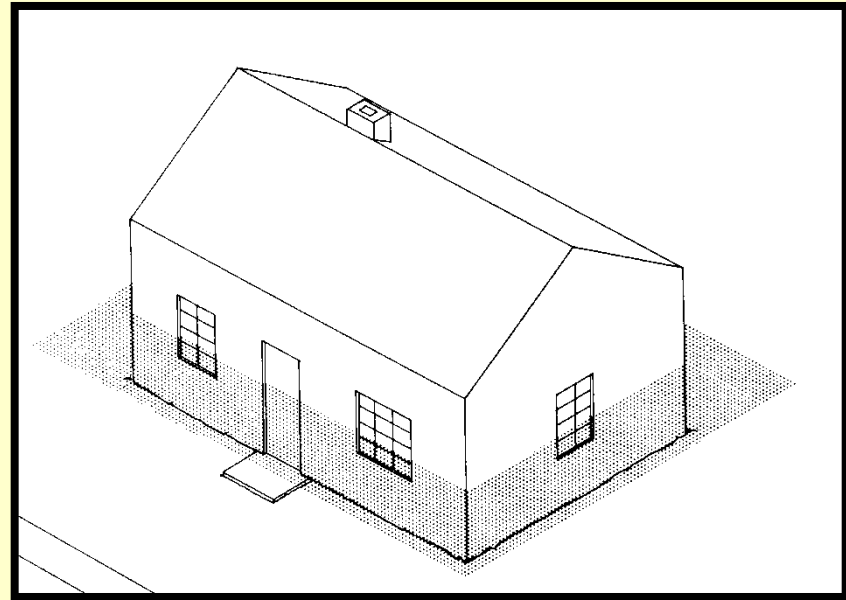
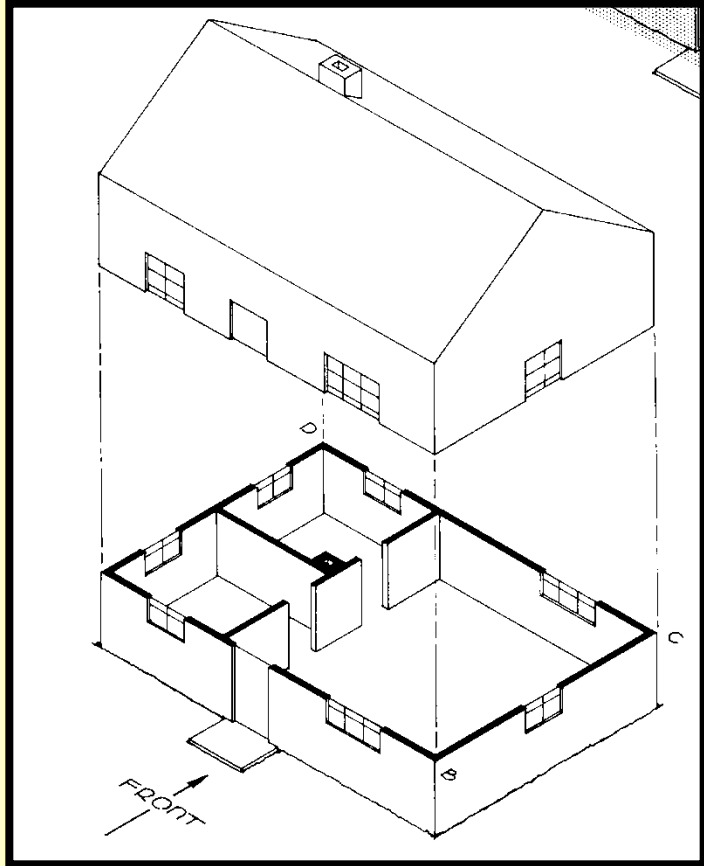


Sketching Section Views

- **Uses**
- **New Features**
- **Examples**
- **Characteristics**

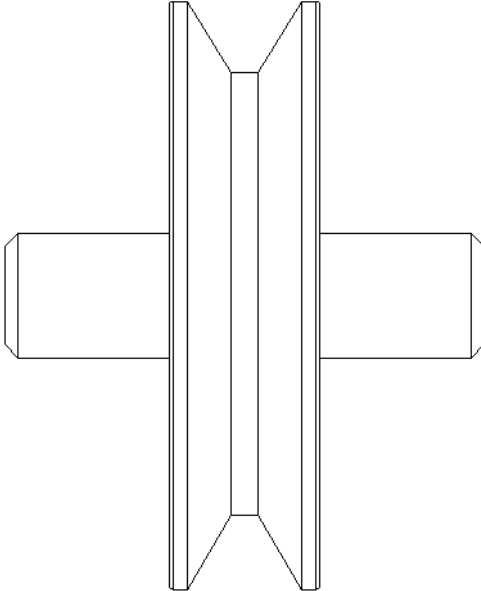


Uses - Floor Plan



Uses - Assembly Drawing

REVISIONS			
REV	DESCRIPTION	DATE	APPROVED

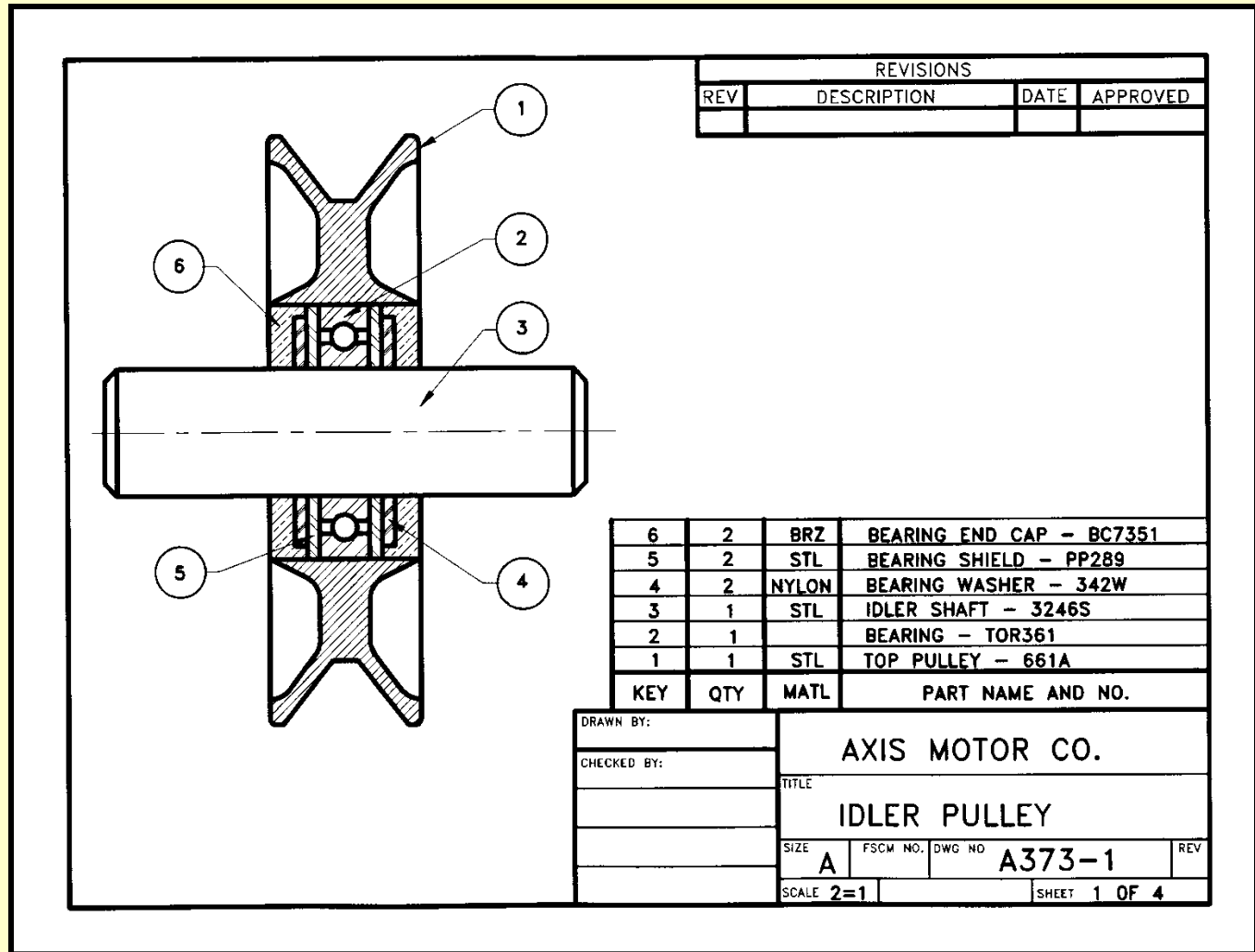


6	2	BRZ	BEARING END CAP - BC7351
5	2	STL	BEARING SHIELD - PP289
4	2	NYLON	BEARING WASHER - 342W
3	1	STL	IDLER SHAFT - 3246S
2	1		BEARING - TOR361
1	1	STL	TOP PULLEY - 661A
KEY	QTY	MATL	PART NAME AND NO.

DRAWN BY:		AXIS MOTOR CO. IDLER PULLEY	
CHECKED BY:			
		TITLE	
		IDLER PULLEY	
SIZE	FSCW NO.	DWG NO	REV
A		A373-1	
SCALE 2=1		SHEET 1 OF 4	

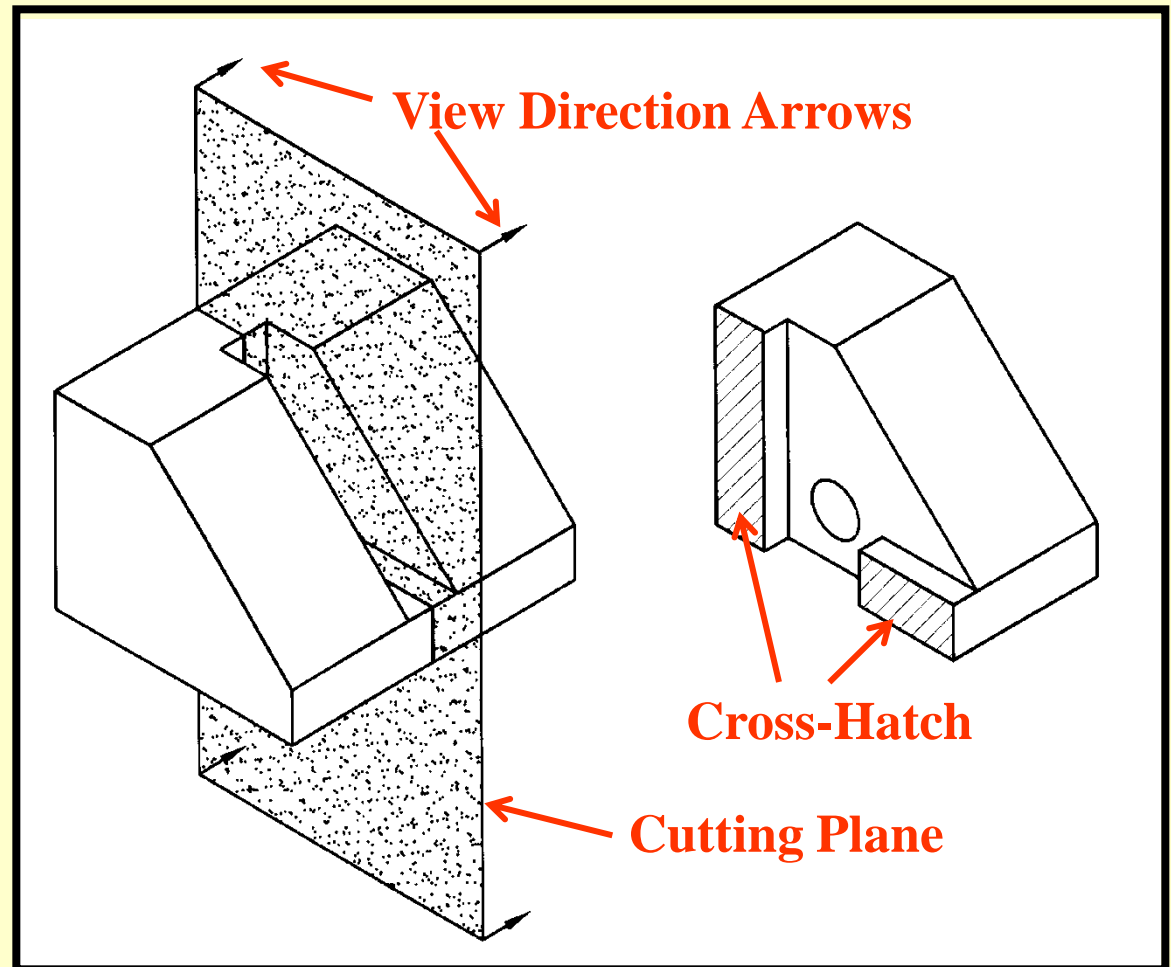


Uses - Assembly Drawing (Full Section)

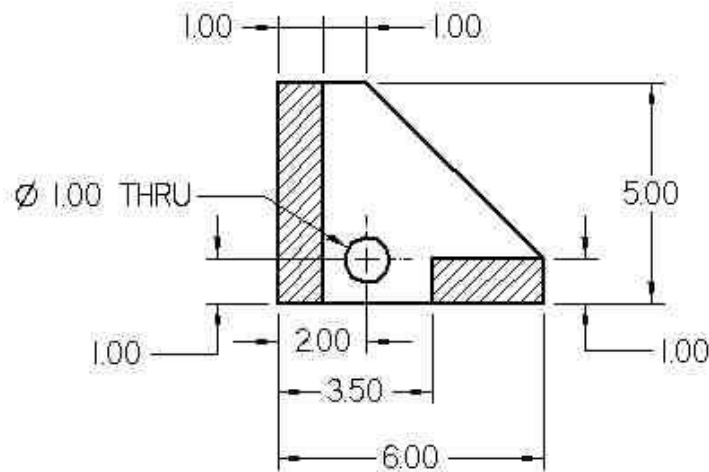


Section View Basics

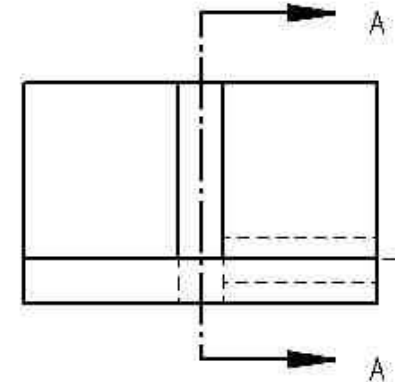
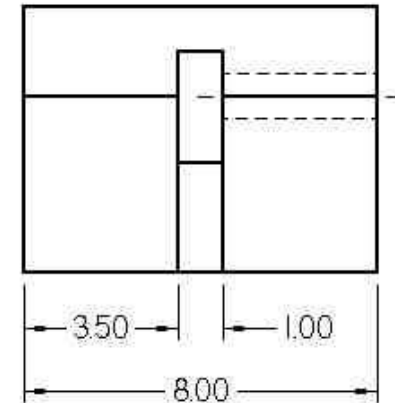
Reveal part or assembly inner structure details



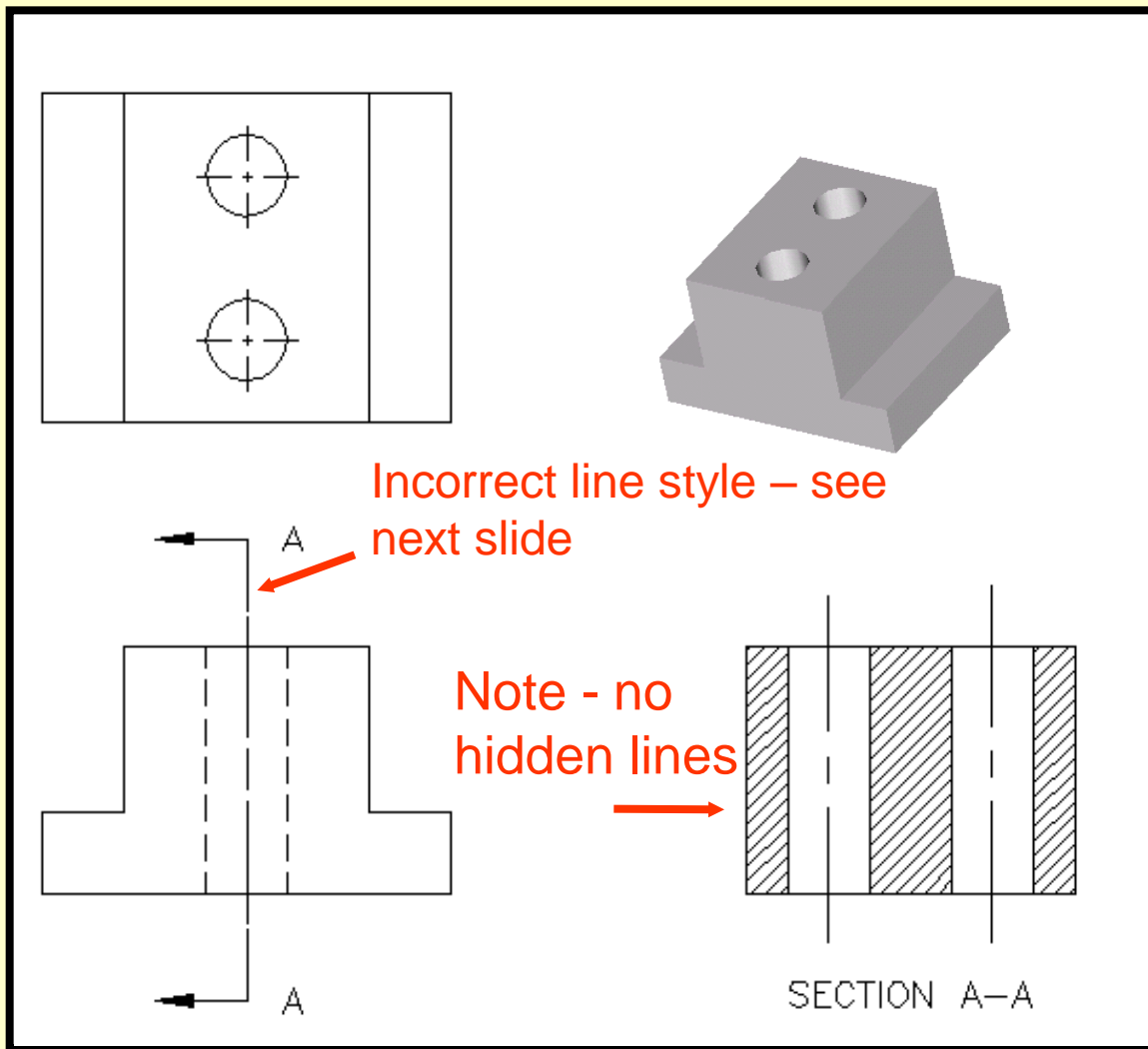
Fully Dimensioned Section View



SECTION A-A

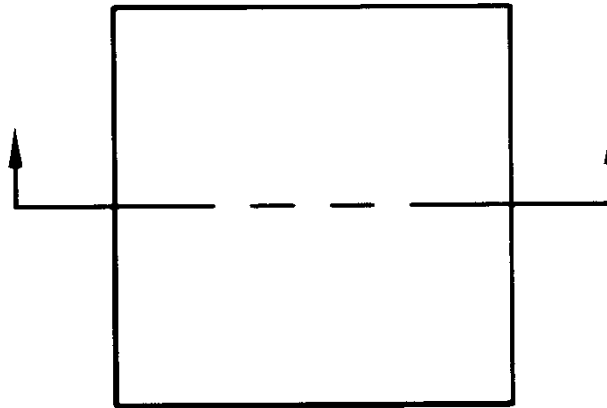


Full Section Example



Cutting Plane Line Type

Thick – like visible

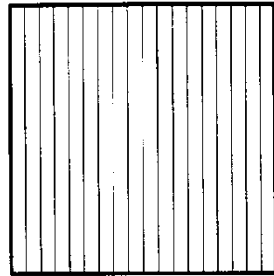


1/8" dashes
1/16" gaps
Used in this course

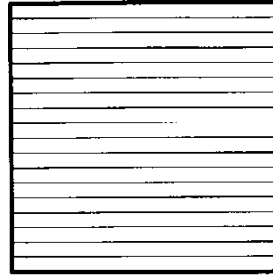


Cross Hatch Practices

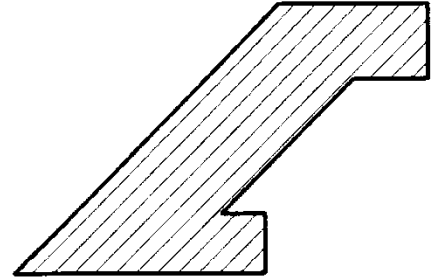
Lines of the cross hatch pattern should not be parallel nor perpendicular to boundaries of view



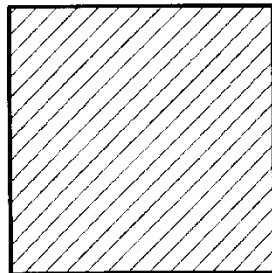
POOR



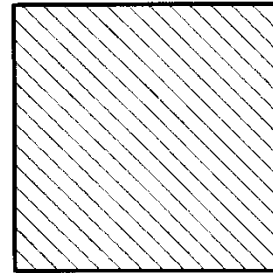
POOR



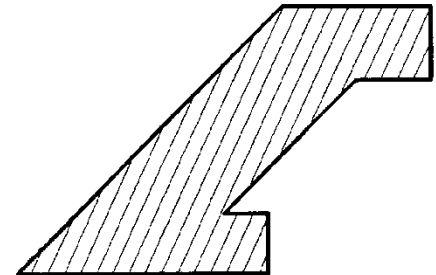
POOR



GOOD



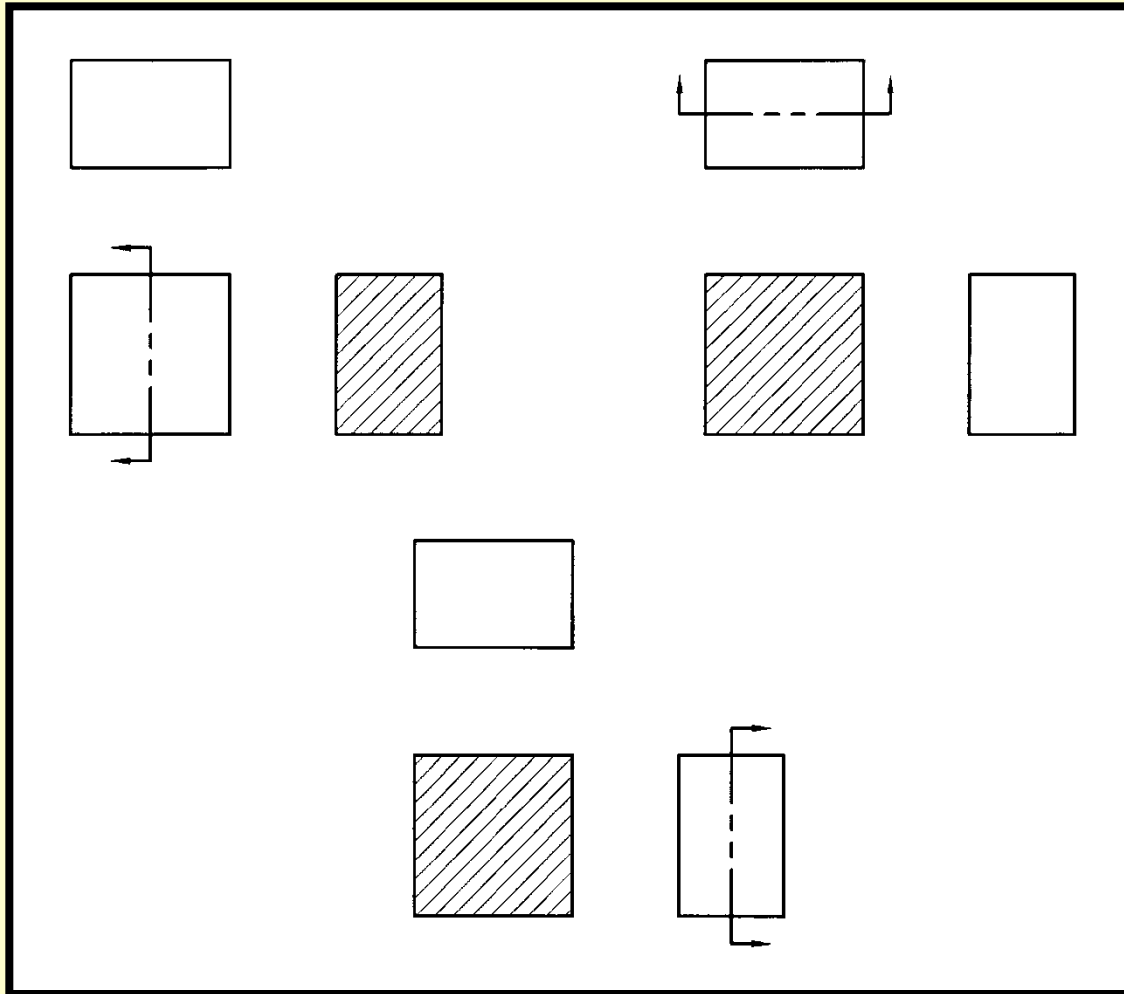
GOOD



GOOD



Cutting Plane Arrows and Section Location

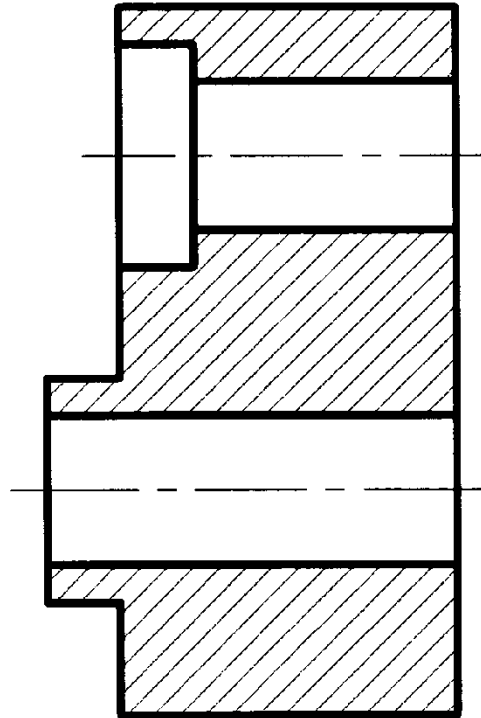
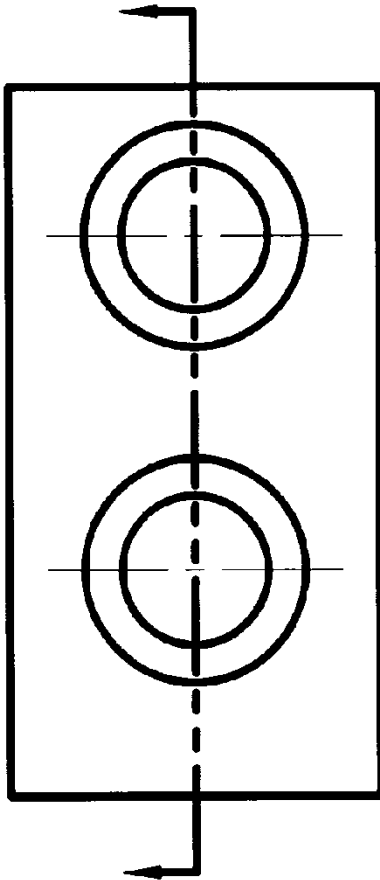


**Section View
Behind Arrows -**

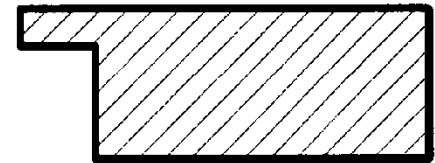
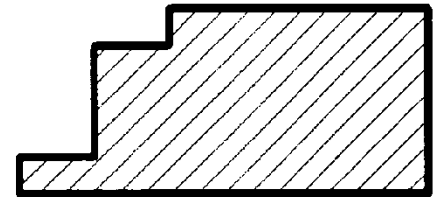
**- but may be on a
separate sheet**



No Islands



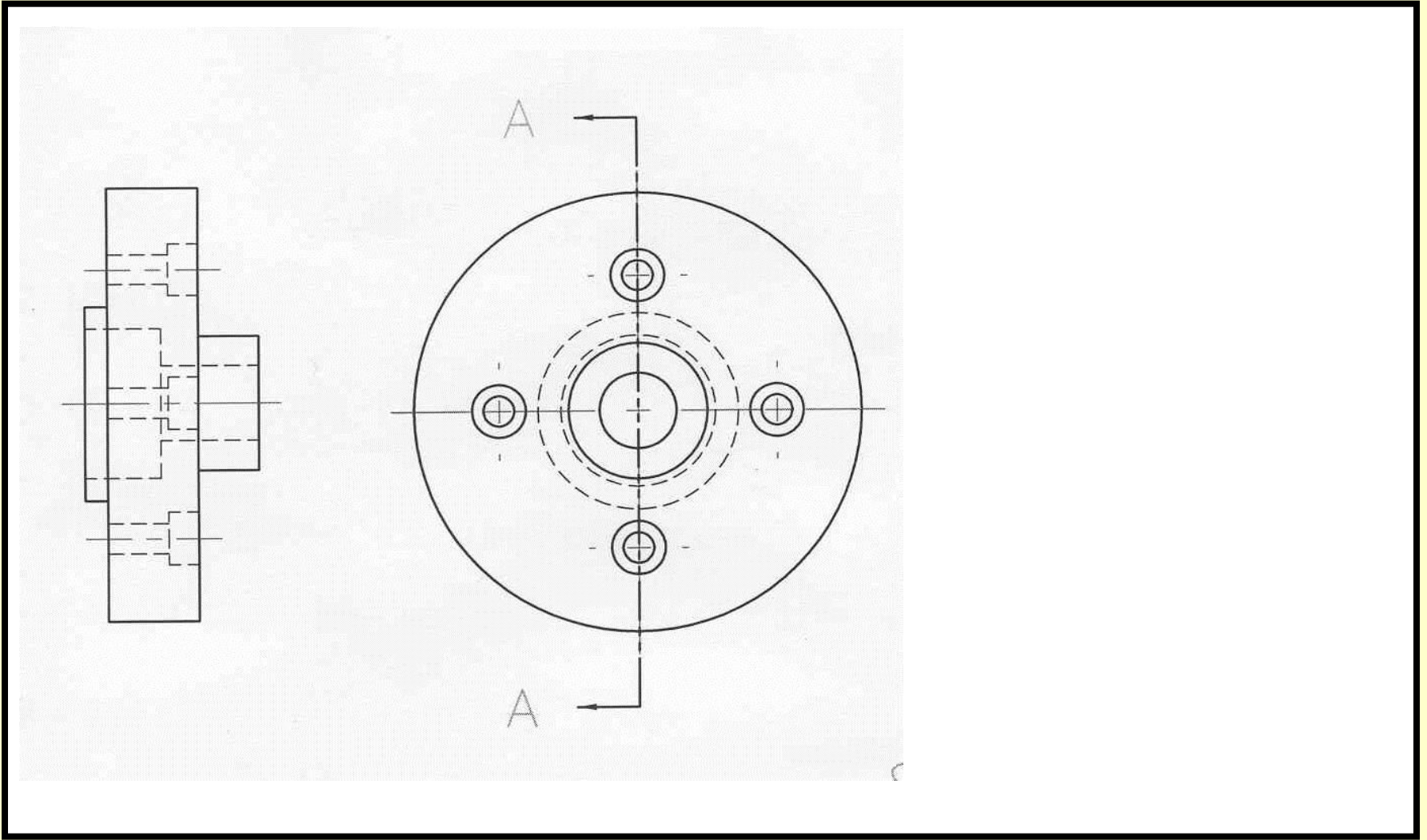
CORRECT



INCORRECT



Section View – Easier to Interpret



Section View Characteristics

Cutting Plane Line –

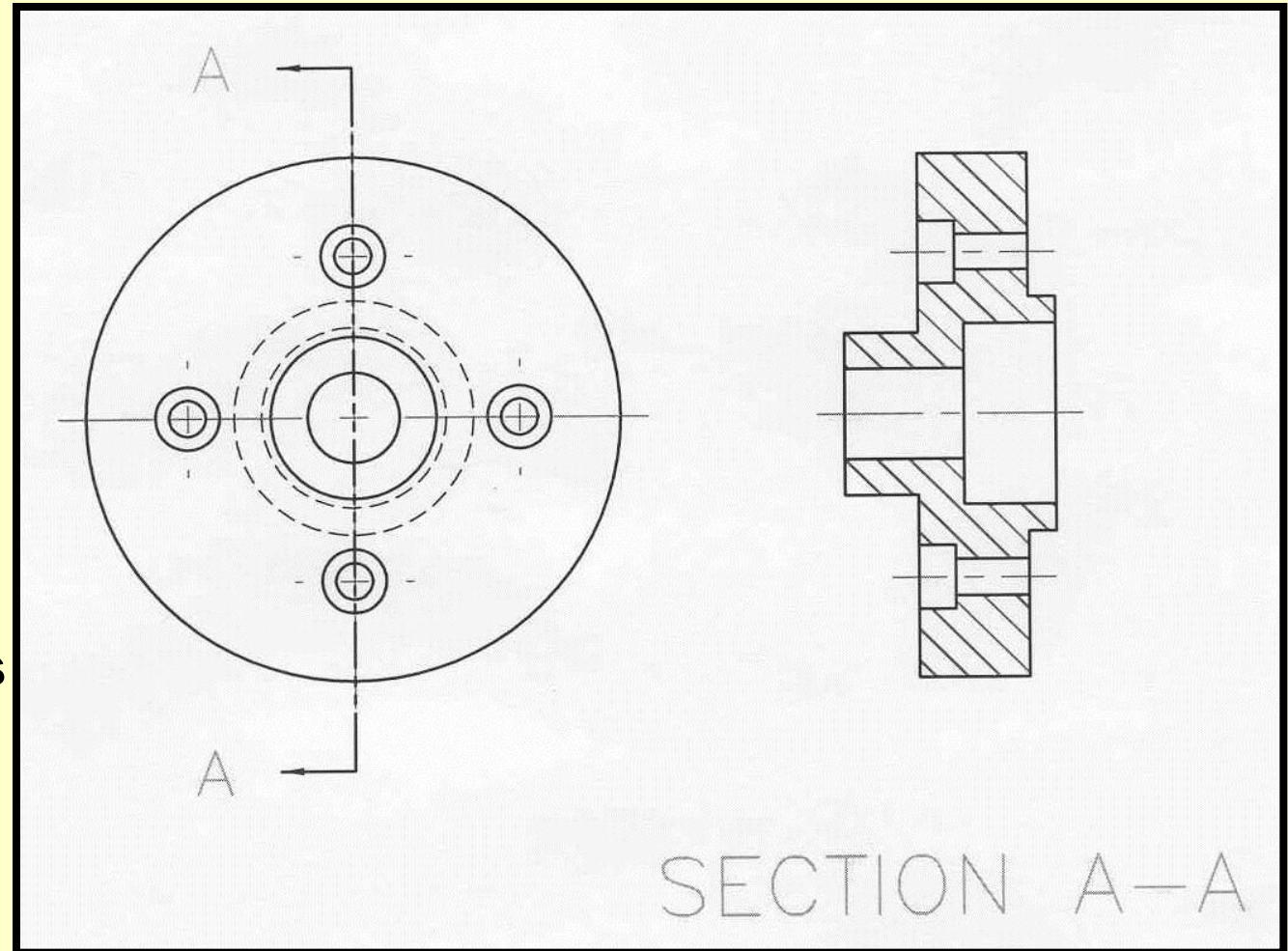
- type
- placement
- arrows
- label

Section View –

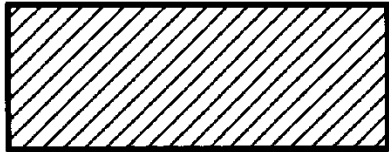
- orientation
- position
- label
- visible lines
- center lines
- no hidden lines

Cross Hatch –

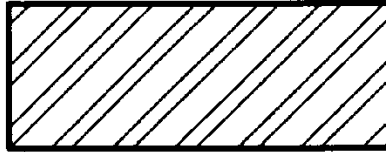
- line type
- uniform
- line slope
- only “cut” regions



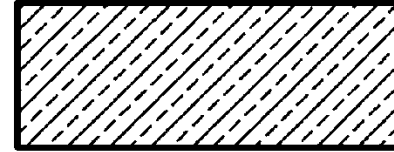
Cross Hatch - Material Symbols



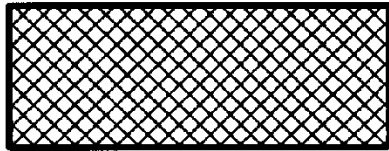
(a) General use,
Cast or Malleable
Iron



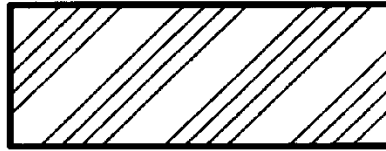
(b) Steel



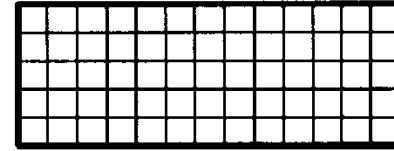
(c) Bronze, brass,
copper and
compositions



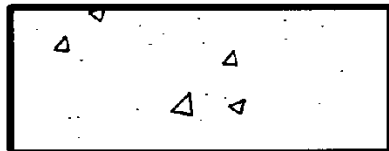
(d) White metal, zinc,
lead, babbitt, and
alloys



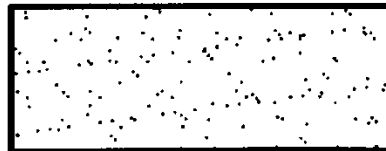
(e) Rubber, plastic,
and electrical
insulation



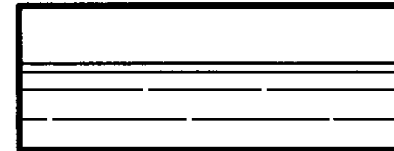
(f) Electric windings,
resistance, etc.



(g) Concret



(h) Sand



(i) Water



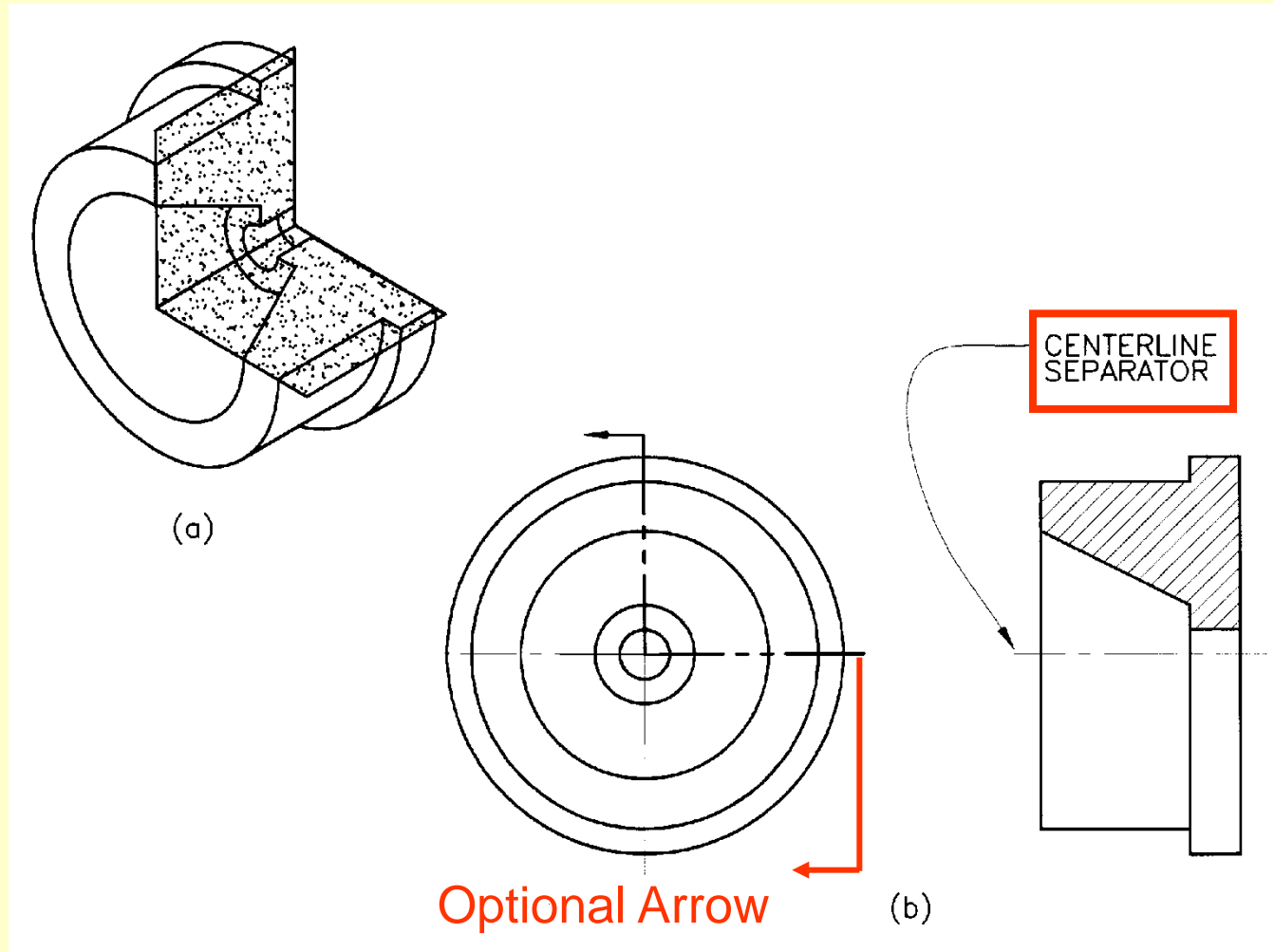
Half Section

Often used for assemblies or symmetric parts.

Interior on one side, exterior on the other side.



Half Section



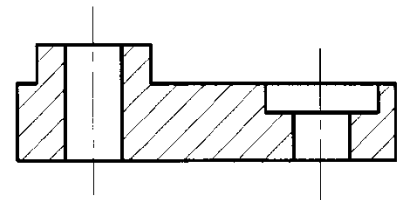
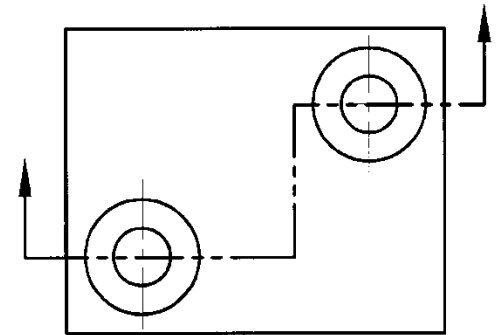
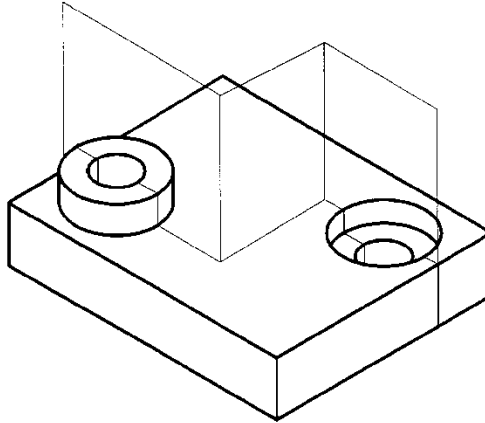
Offset Section



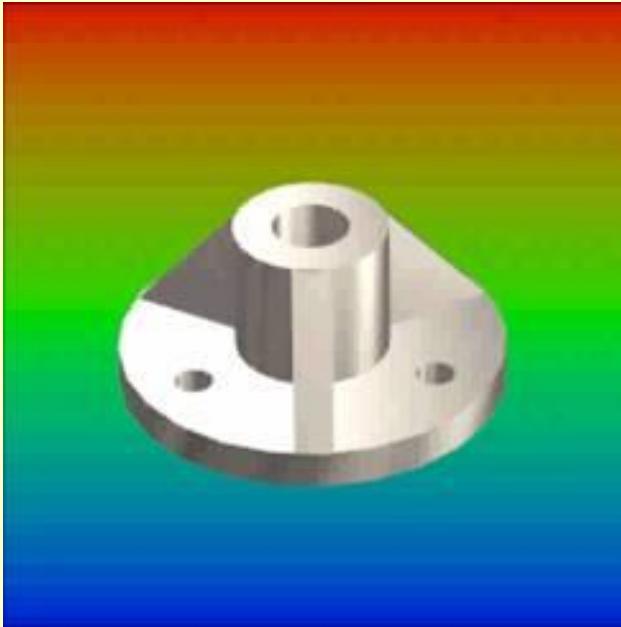
- Used when features do not fall on straight line.
- All turns in cutting plane are right angles.
- Turns in cutting plane not shown in section view.



Offset Sections



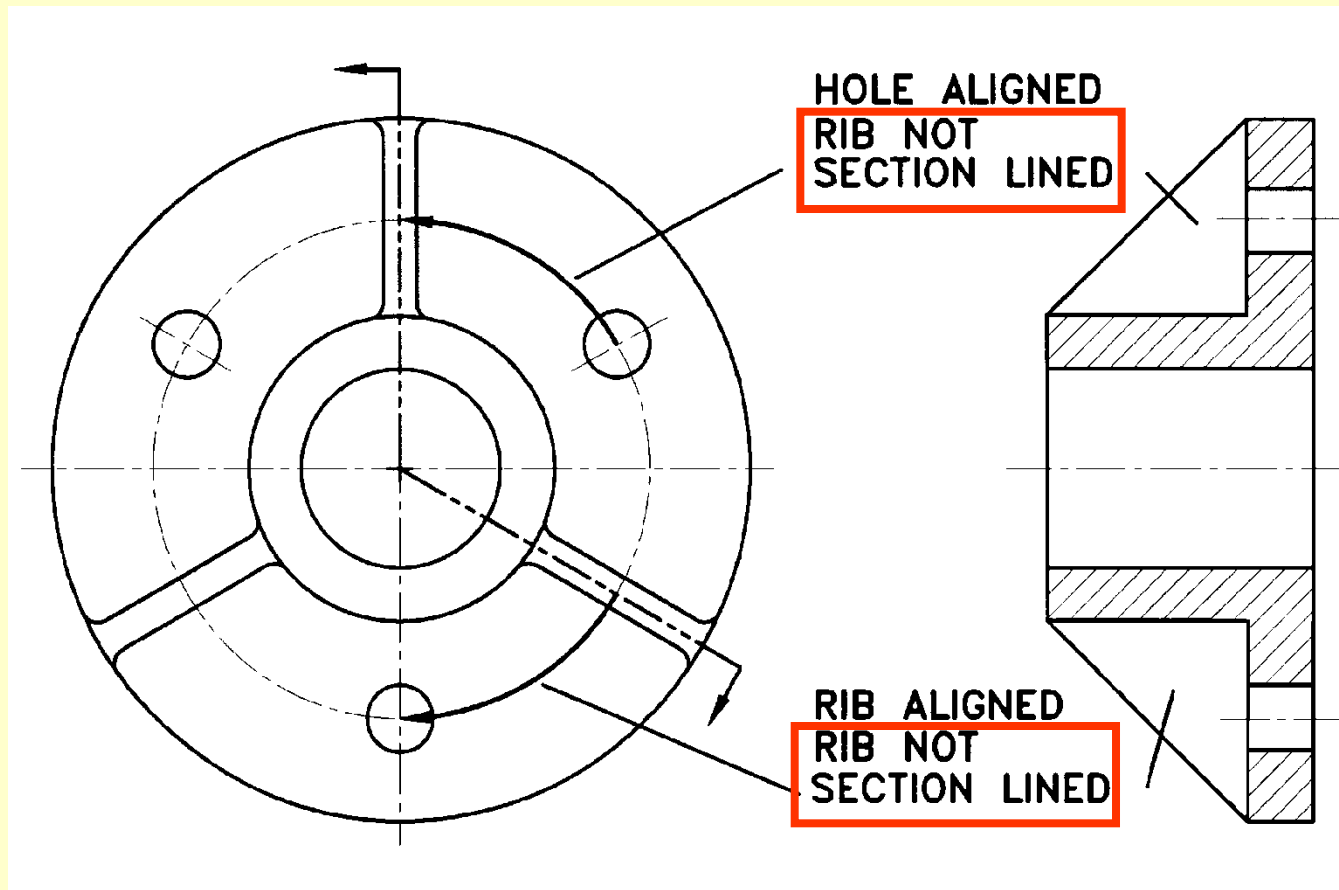
Aligned Section



- Aligned sections use a bent cutting plane to include all radial elements in the section.
- Radial features (holes, ribs, spokes, etc.) are revolved into a position that would be cut by a standard full section.



Aligned Section



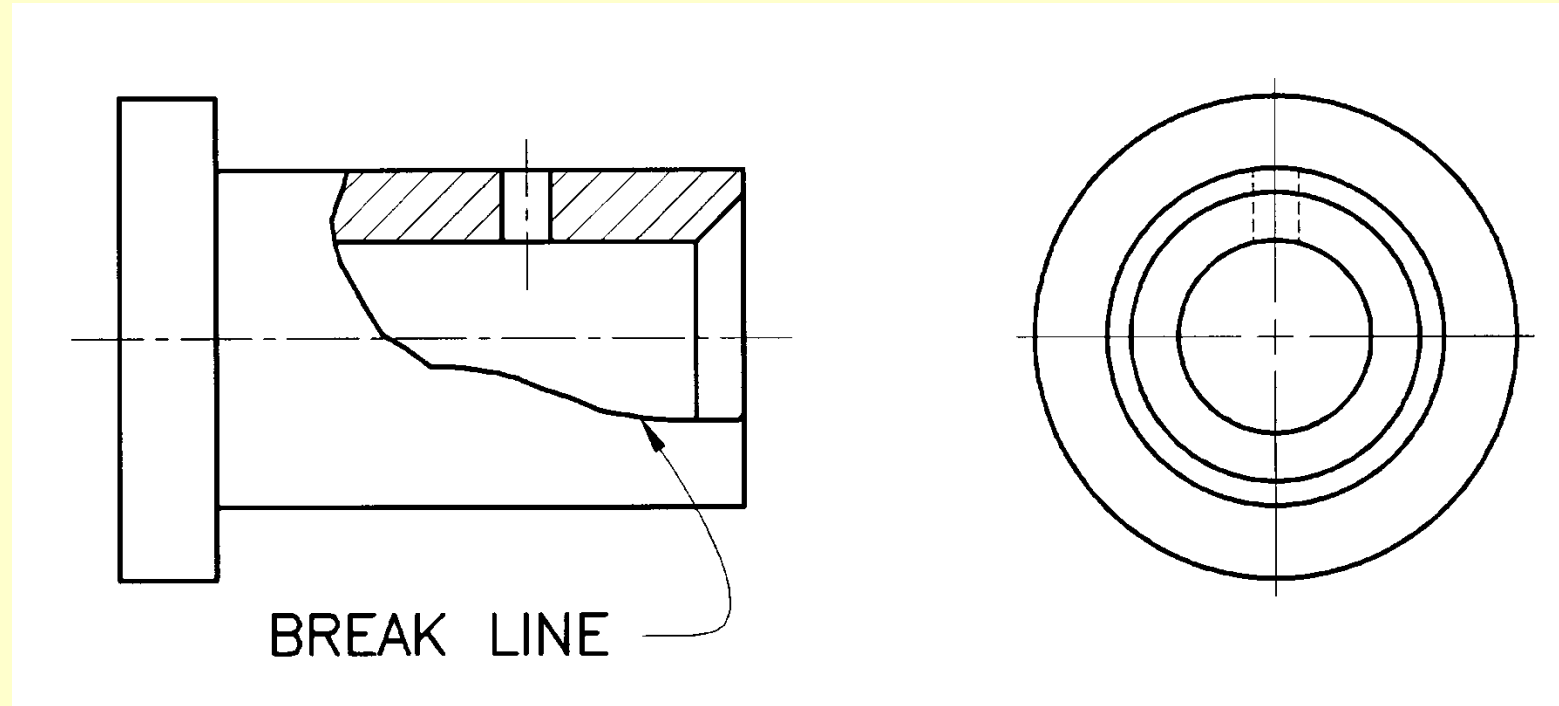
Broken Out Section



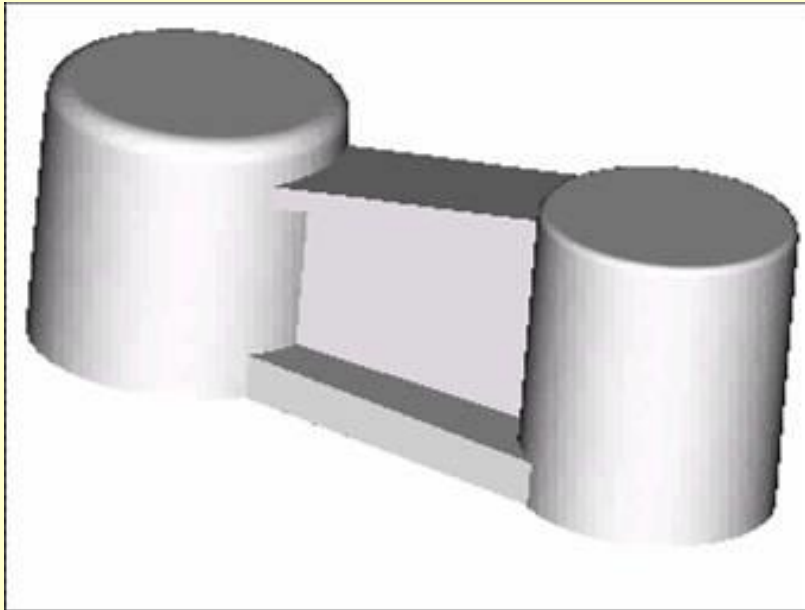
- Shows a partial view of interior features.
- Irregular lines represent the break.
- Shows part details with a minimum of views.



Broken Out Sections



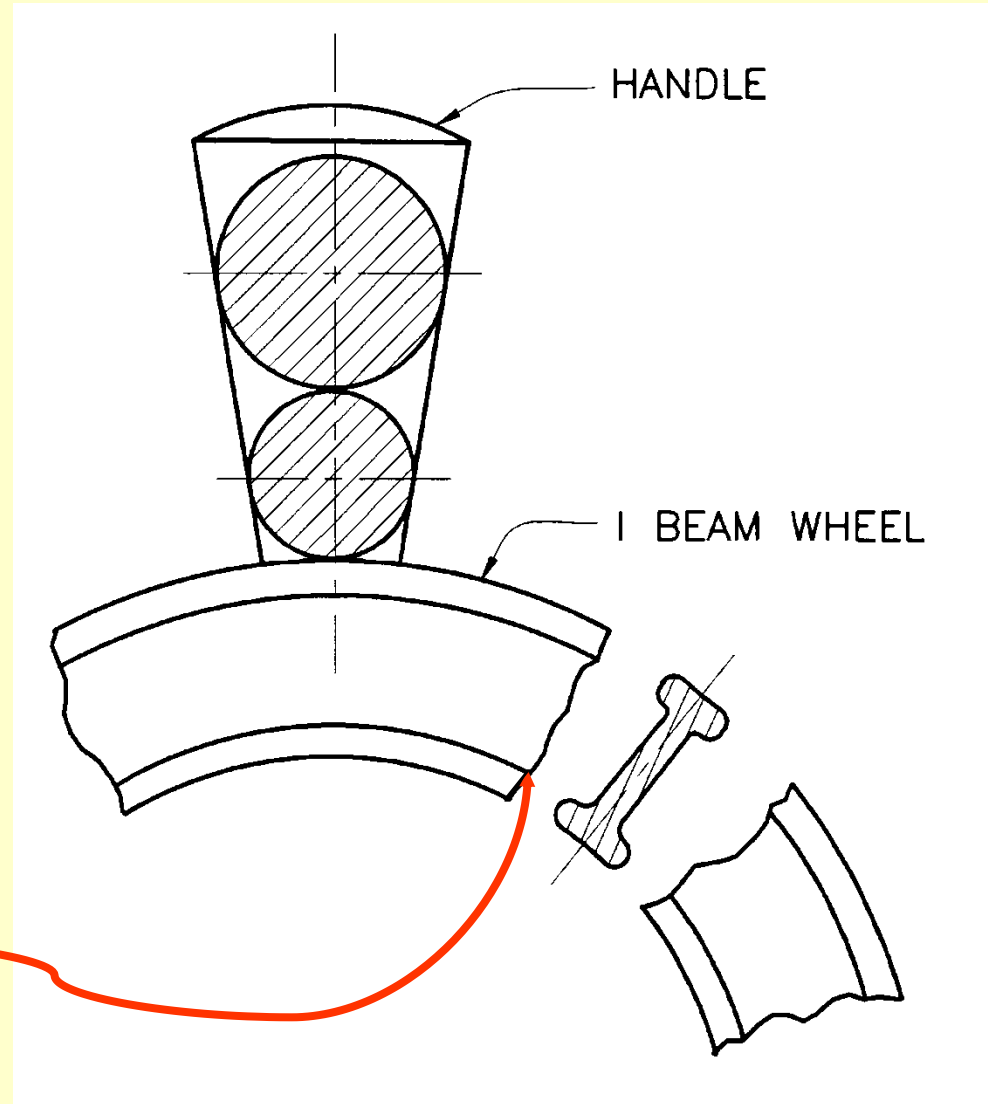
Revolved Section Animation



The cross section is revolved about an axis of revolution and placed on the view where the revolution occurred.



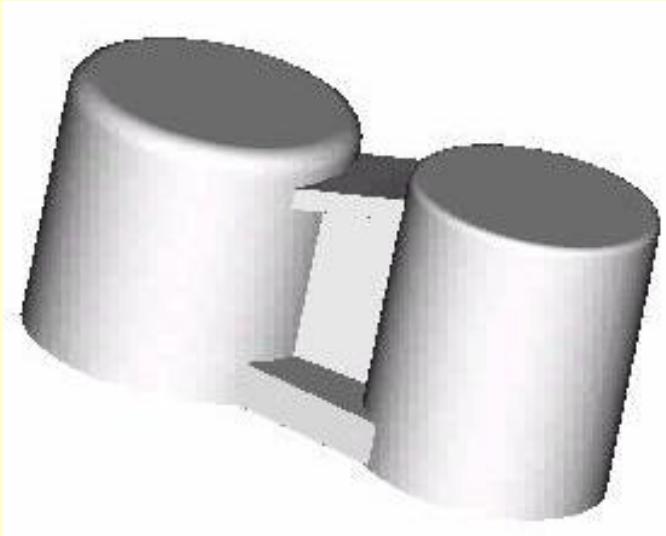
Revolved Section



with breaks



Removed Section Animation

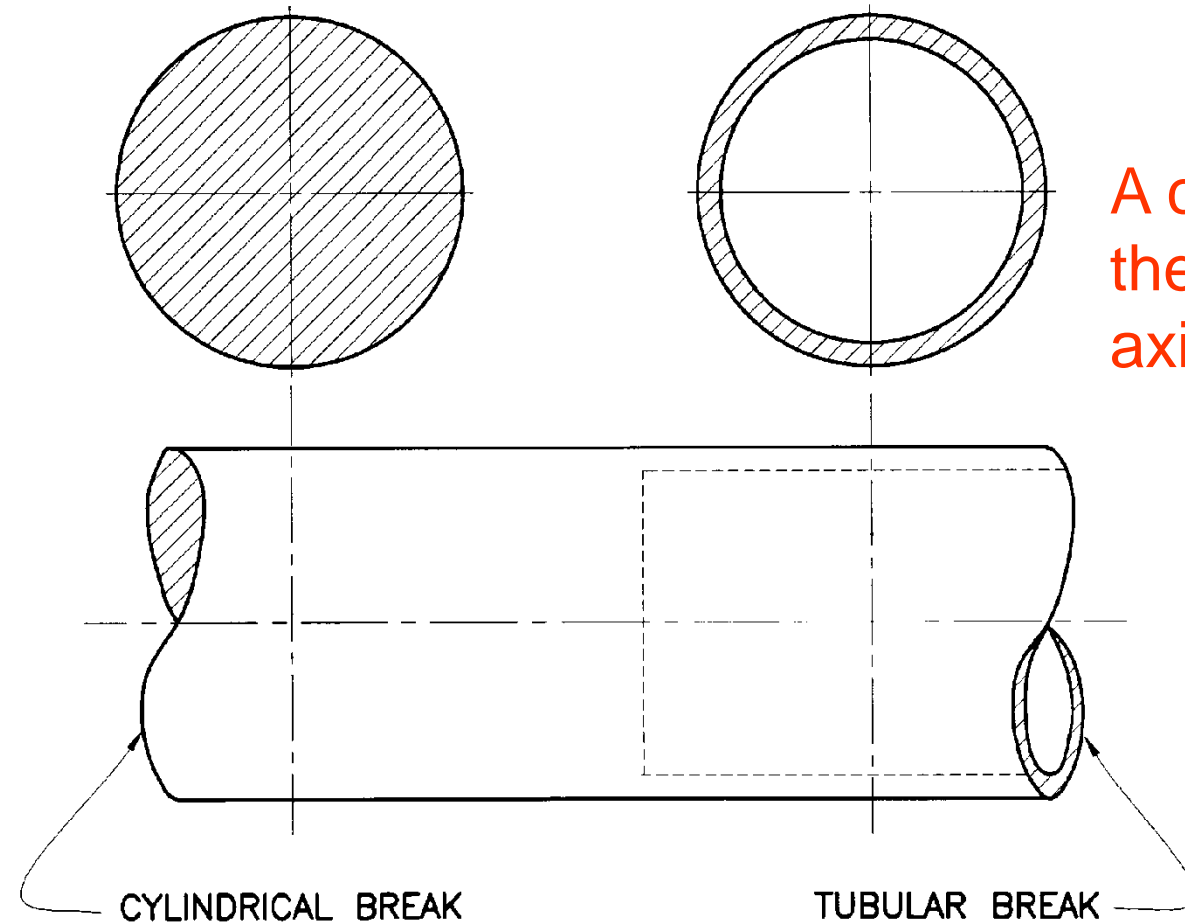


A revolved section shown outside the view in which it is revolved.

Used when there is not enough room for a revolved section.



Removed Section



A centerline shows the location of the axis of revolution.

