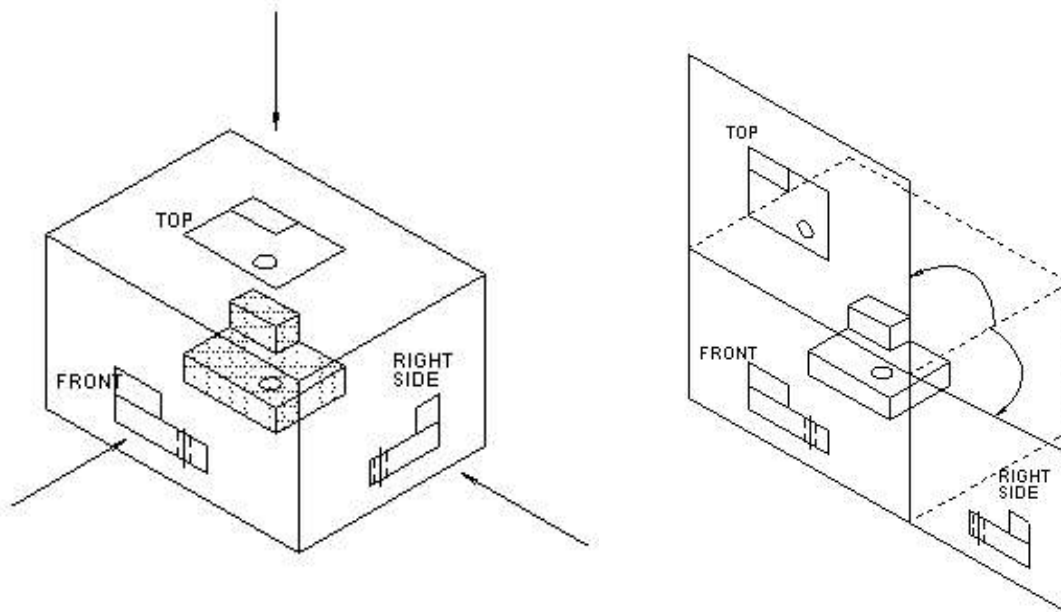


THEORY - Orthographic Projection

3 View Drawing

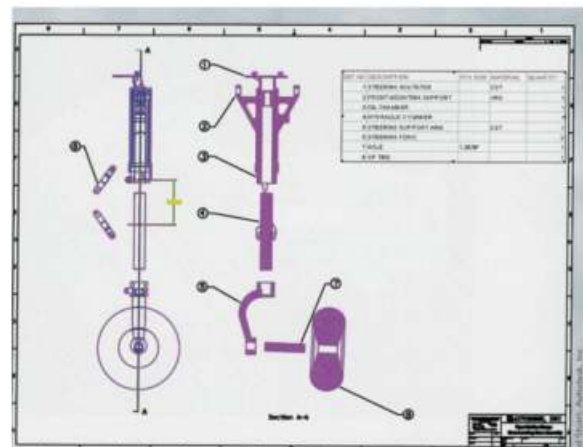
What is Orthographic Projection?

Orthographic Projection allows you to look directly at each side or face of the object, such as the front view, top view, or right side view.



Why use Orthographic Projection?

Orthographic projection is the most commonly used drafting method because it describes shapes of objects completely and exactly

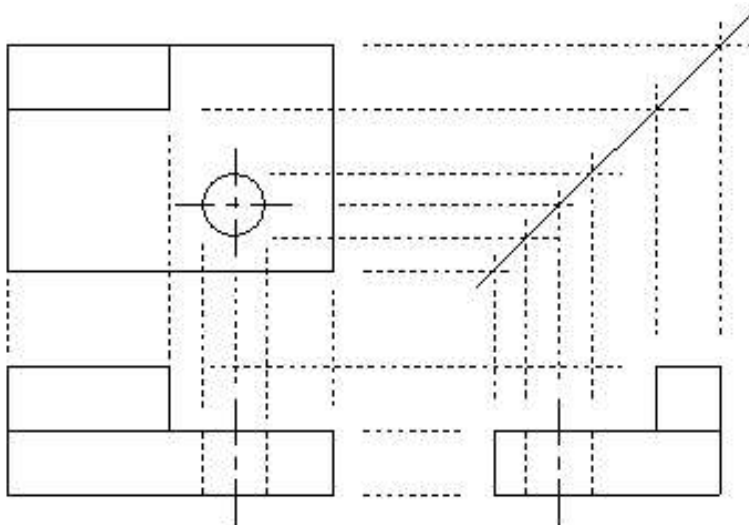


Guidelines To Determine Views to Show...

- Draw only those views that are necessary to fully explain the shape
- There are 1, 2, 3, 4, 5, or 6 view drawings
- 3 view drawings are the most common with the top, front and right side views of an object
- The front view is usually the "key view" and gives the most information about its shape. Draw the object so that it will seem balanced
- Choose views to show the most visible lines and avoid excessive use of "hidden" lines

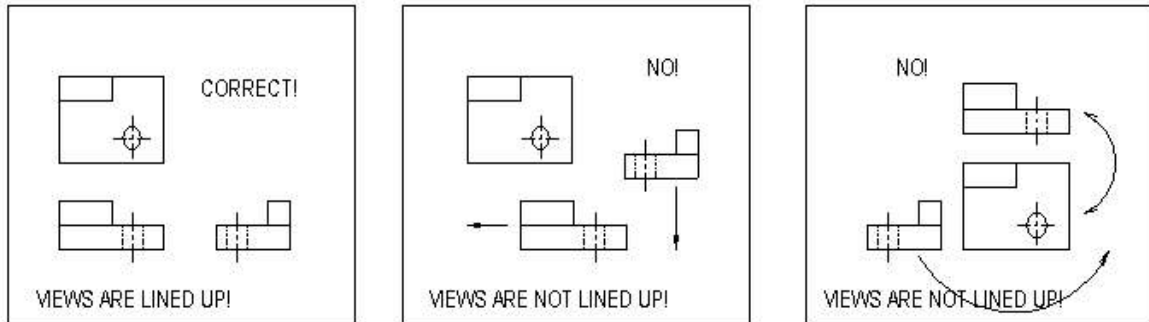
The Miter Line and Projection Lines...

- The use of a 45° miter line and Projection Lines provide a quick, accurate method of drawing the other views once one view is completed. Sometimes you will need to work on separate views and project lines to each other to fully complete any view.
- Newbie drafters will sometimes try to avoid using the miter line, but as the drawings become more difficult their work will slow down and the accuracy will diminish.
- Once the miter line technique is mastered your speed and accuracy will increase significantly.
- Note: When drawing circles always draw the view with the circle on it first (top view on drawing below) then project the lines to the other views



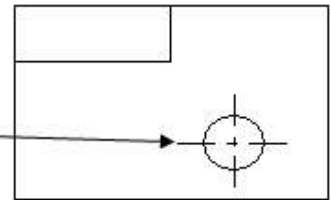
The Views Must Line Up!!!

- The worst mistake you can make in technical drawing is to draw the views out of place
- The last 2 drawings would need to be redone or reworked



The Circular Features and Centerlines....

- Used for center points of circles and arcs
- Used for centerlines of cylindrical parts or holes



The Hidden Lines....

- Used to show hidden detail (lines, shapes and features)
- Generally begin and end touching an object line

