

Chapter 8: Principle of Projection

Projection

Projection is the process in which the rays of sight are taken in a particular direction from an object to form an image on a plane. If straight lines (rays) are drawn from various points on the contour of the object to meet a transparent plane, thus the object is said to be projected on that plane. The figure or view formed by joining, in correct sequence, the points at which these lines meet the plane is called the projection of the object.

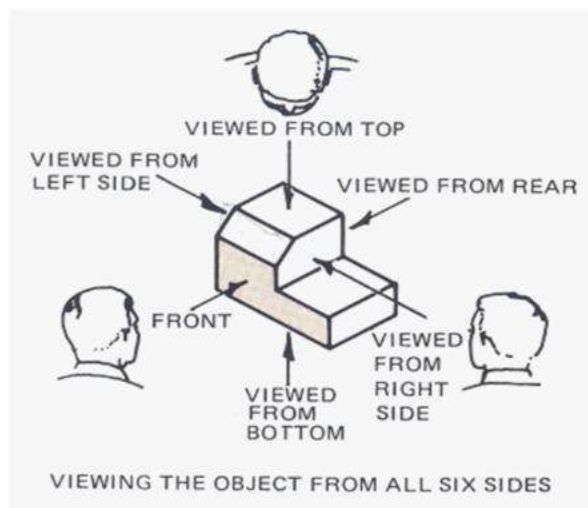
Types of Projection

1. Orthographic/ multi view Projection
2. Pictorial Projection
3. Perspective Projection

Orthographic Projection

'ORTHO' means right angle and orthographic means right angled drawing. When the projectors are perpendicular to the plane on which the projection is obtained, it is known as orthographic projection. Following six views are possible in orthographic projection of a solid object.

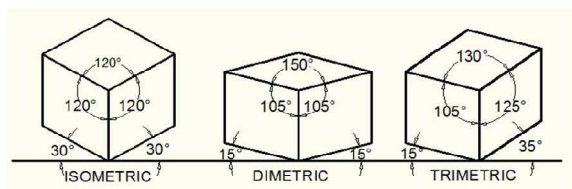
- a. Top View
- b. Front view
- c. Left View
- d. Right View
- e. Rear view
- f. Bottom view



Projection	Symbol
First angle	
Third angle	

Pictorial Projection

The Projections in which the description of the object is completely understood in one view is known as pictorial projection. They have the advantage of conveying an immediate impression of the general shape and details of the object, but not its true dimensions or sizes.



Perspective Projection

It is a type of pictorial projection in which projectors are not parallel to each other and they occur at an angle to the picture plane in such a way that they converge to a point as if an observer sees the view on the picture plane from that point. In case of perspective projection observer is considered to be at finite distance where in case of any other type of projection observer is considered to be at infinity.

