

TECHNICAL DRAWING

Chapter V : Pictorial Drawing

Isometric – Oblique – Perspective

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ENP

May 20, 2026

- 1 Introduction
- 2 Isometric Drawing
- 3 Oblique Projection
- 4 Perspective Projection

Section 1

Introduction

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- ▶ To avoid this confusion, **pictorial projection** is the best method to show an object in **one view only**.
- ▶ Pictorial projection represents the three-dimensional shape of an object in a single view that indicates **length**, **breadth** and **height** simultaneously.

An object is more easily visualised from a pictorial projection than from its orthographic projection. Pictorial projections are divided into:

- 1 **Isometric projection**

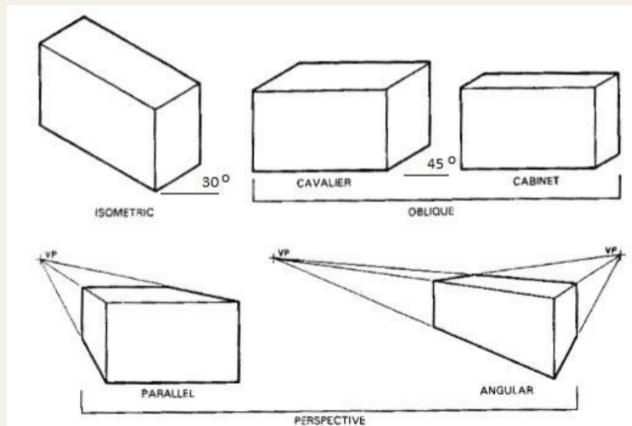
An object is more easily visualised from a pictorial projection than from its orthographic projection. Pictorial projections are divided into:

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- ① **Isometric projection**
- ② **Oblique projection**
- ③ **Perspective projection**

- In this chapter you will learn about pictorial drawings, with a focus on **Isometric** and **Oblique** drawings.



Section 2

Isometric Drawing

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- ③ Oblique Projection
- ④ Perspective Projection

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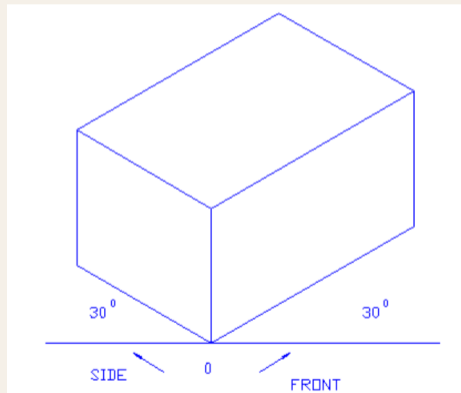
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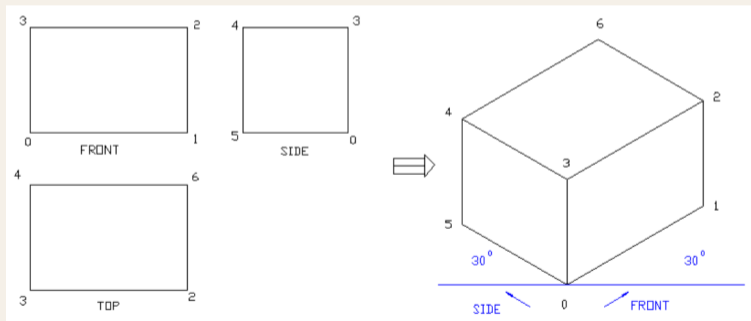
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- ▶ Horizontal lines in the Front, Side, or Top are tilted by 30° in isometric, depending on the direction.
- ▶ **Vertical lines remain vertical** — only true vertical lines, not projections of inclined lines.

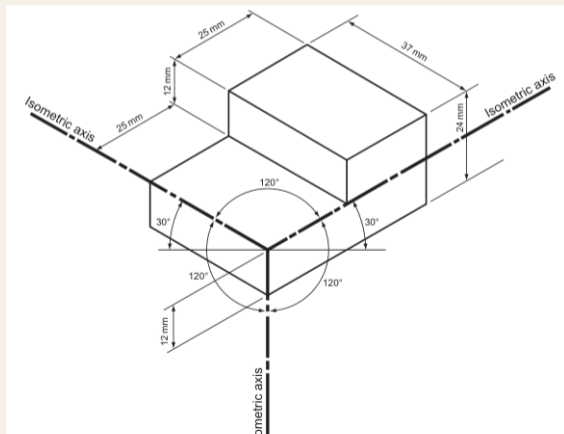
The principle of isometric projection is illustrated in the figure below.

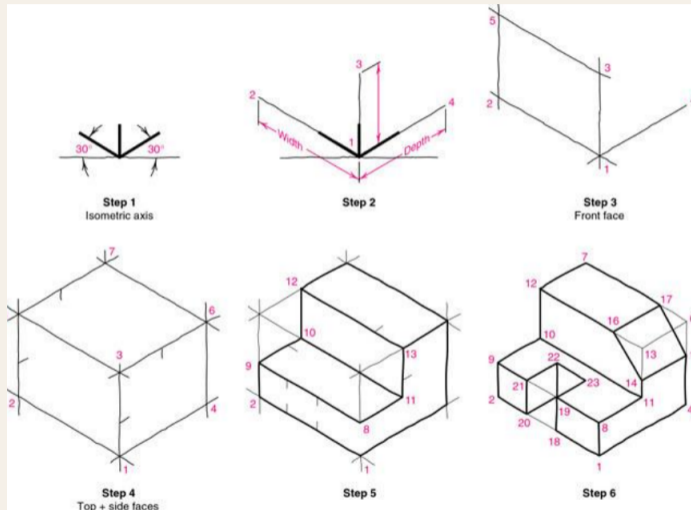


The three orthographic views of a box are shown, with each corner numbered from (0) to (7). Corner (7) is hidden inside the model and is therefore not shown in the isometric view.



- ▶ A shaped block drawn in conventional isometric projection has **three isometric axes**.
- ▶ These axes are inclined at 120° to each other.





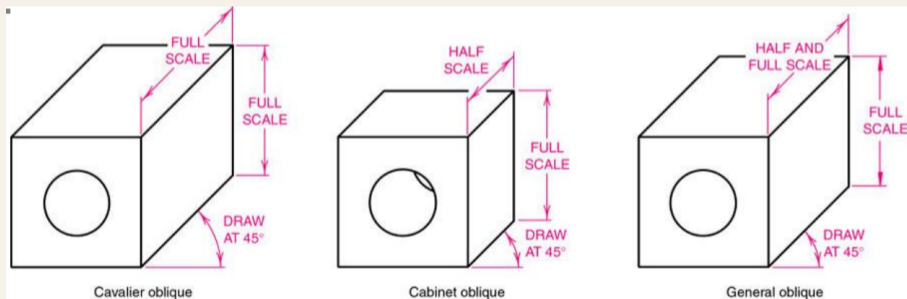
Section 3

Oblique Projection

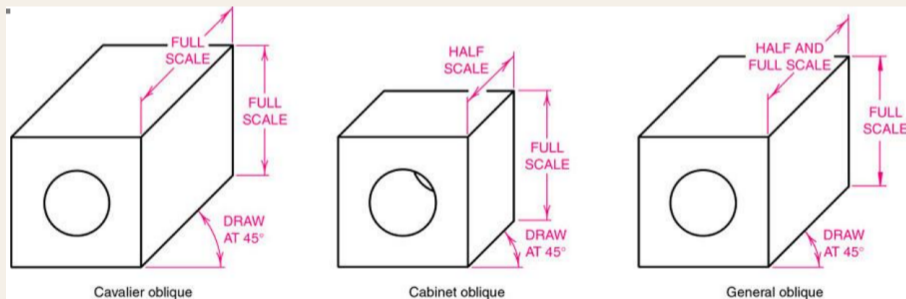
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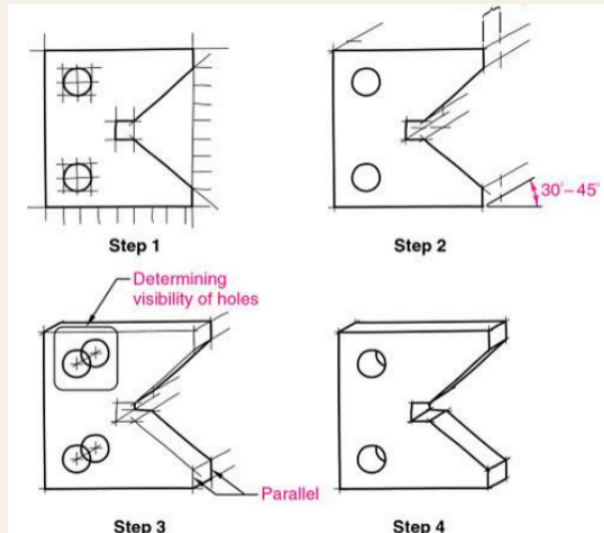
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- In oblique projection, the **front face** of the object appears in its **true size and shape**, as it is placed parallel to the picture plane.



- ▶ In oblique projection, the **front face** of the object appears in its **true size and shape**, as it is placed parallel to the picture plane.
- ▶ The receding lines representing the other two faces are drawn at 30° , 45° or 60° to the horizontal. 45° is the most common practice.



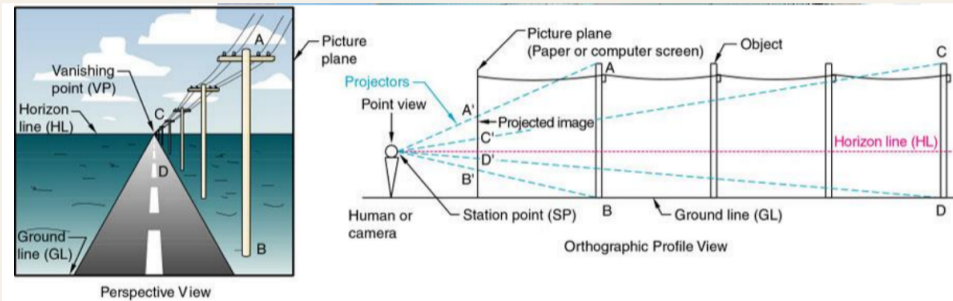


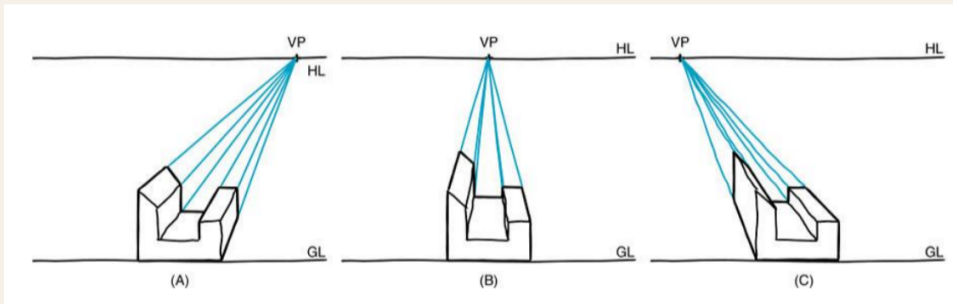
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Perspective Projection

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Perspective projections are broadly classified into three categories:

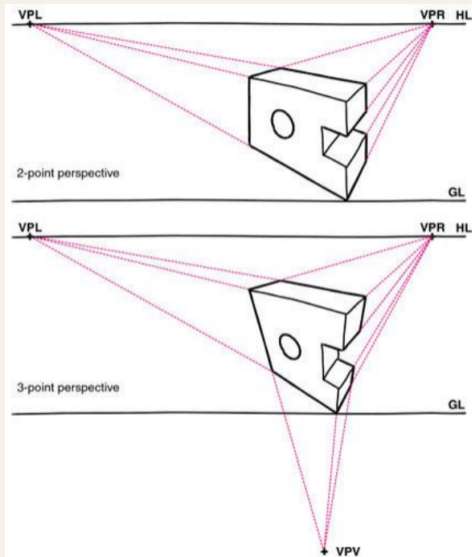
- 1 **Parallel perspective** — single-point perspective

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- ① **Parallel perspective** — single-point perspective
- ② **Angular perspective** — two-point perspective

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- ① **Parallel perspective** — single-point perspective
- ② **Angular perspective** — two-point perspective
- ③ **Oblique perspective** — three-point perspective



Thank you for your attention.

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