Engineering Graphics Overview

Technical Graphics Styles

Q1 What are the two broad technical drawing styles used in engineering graphics?

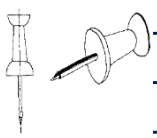
Q2 What are 'Orthogonal Drawings'?

Q3 What types of 'Orthogonal Drawings' are used in engineering?

Q4 What are ''Pictorial Drawings'?

Q5 What types of Pictorial Drawings are used in engineering?

Q6 What is CAD?



Engineering Graphics Overview

Technical Graphics Styles

Q1 What are the two broad types of technical drawing styles used in engineering graphics?

Technical drawing can generally be seperated into 2D orthogonal drawings or 3D pictorial drawings. They include freehand, instrument and computer software graphics.

Q2 What are 'Orthogonal Drawings'?

'Orthogonals' are 2D views of the object. They are drawn accuratly with all sizes (dimensions) drawn to scale. They are drawn applying 'conventions and standards' in order to be understood with clarity. They are used specifically in engineering to communicate technical sizes, shapes and manufacturing detail.

Q3 What types of 'Orthogonal Drawings' are used in engineering?

There are many specific types appropriate for particular information. Orthogonals are drawn 'viewing' the object 'square' on to the surface being drawn. To gain full size and shape information about the object, more than one view is drawn. The views of the object are projected from each other. Types include sectioned, assembly and detail drawings. Architects and other fields have their specific variations. All orthogonals are drawn to scale.

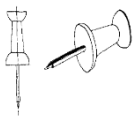
Q4 What are ''Pictorial Drawings'?

Pictorials are used to visualise the object or system. They provide an overall 3D view of the object. The sizes (dimensions of the object) may be varied to achieve a more realistic visual.

Q5 What types of Pictorial Drawings are used in engineering?

There are many variations of 3D pictorial drawing styles used in engineering including isometric, oblique, and perspective drawings.

Q6 What is CAD?



CAD is Computer Aided Drawing. They are technical drawings created using computer software. They are used for all final drawings. Initial concepts and sizing is regularly completed freehand (with hand held instruments if appropriate), but a CAD is required for the final design and often for the objects manufacture. The CAD can be both pictorial (3D) and orthogonal (2D).