



Engineering Graphics Overview

# What is Technical Graphics?

Q1 What is 'Technical Graphics'?

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Q2 Why are 'Technical Graphics' relevant in engineering?

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Q3 Why are graphics increasingly important for product manufacture?

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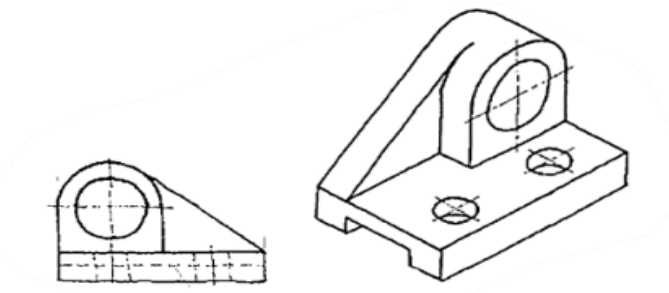
Q4 What is 'freehand' drawing in engineering?

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## Engineering Graphics Overview

# What is Technical Graphics?

**Q1 What is 'Technical Graphics'?**

Engineers use graphics as the universal language. Drawing to 'Standards' allows for clear and precise communication. The rules are standardised throughout the world, so drawings can be understood wherever they are produced and distributed. Engineers use graphics to plan and design every product.

The start of every project is commenced with a drawing.

The final design of every project is completed with a drawing.

**Q2 Why are 'Technical Graphics' relevant in engineering?**

Technical graphics are the major tool of design and manufacture.

Graphics are used to design the product and then convey all of the product specifications required for manufacturing.

**Q3 Why are 'Technical Graphics' increasingly important for product manufacture?**

Technology now is not only used to communicate specifications to humans. The technical drawings are produced using CAD software (Computer Aided Drawing / Computer Aided Design). The graphics are used to direct the manufacturing equipment, both for product prototyping through to final manufacturing production.

The software also allows for numerous mechanical calculations to be completed (stress analysis and material volumes are two common examples) based on the graphics.

**Q4 What is 'freehand' drawing in engineering?**

Engineers often are required to collect and record information while on the worksite. They use 'freehand' drawings so that they can record information with clarity. Sizes and angles are recorded using drawing 'standards' with views drawn to scale and in projected positions. Freehand can be both 2D and 3D style.

