CNC

Key Revision Facts: GCSE Technology

Computer Numerical Controlled (CNC) machines work with computer software to transfer a design to reality. CNC machines are automated and driven by number codes (Numerical). CNC machines are ideal for prototyping and making limited production runs of complex components (one-to-batch production).

CNC Routers

CNC routers, also called Milling Machines, can cut 2D or 3D shapes from a block of material via different cutting tools. The machines can have 2-axis, 3-axis, or 5-axis.

2-Axis

The tool moves left and right or forwards and backward.

3-Axis

The tool moves left, right, forwards, backward, up, and down.

5-Axis

The tool moves the same as the 3-axis machine, with the added extra that the job (material) can rotate being the fifth axis.

Pro's and Con's of CNC

Advantages of CNC	Disadvantages of CNC
Speed	Expensive equipment
Accuracy	Relatively slow production process.
Efficient transfer from design to reality	

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VERSION INFORMATION

Date	Arthur	Comment
13-Mar-2021	Andrew Seaford	Initial release.