

OCR ENGINEERING: REVISION GUIDE & HOMEWORK BOOK

R109

Developments in engineering processes:

- Computer numerical control
 - CNC lathes and milling/router machines
 - Multi Axis Machining centres
 - Water jet cutters
 - Punching machines
 - Press brake machines

- Laser applications
 - Laser cutting/Welding

- Additive manufacturing and rapid prototyping processes
 - Selective Laser Sintering (SLS)
 - Stereolithography (SLA)
 - Direct Metal Laser Sintering (DMLS)
 - Fused Deposition Modelling (FDM/3D printing; electron beam melting)



Eat . Sleep . D&T . Repeat

Computers in Engineering:

Definition:



CNC:



CAD:

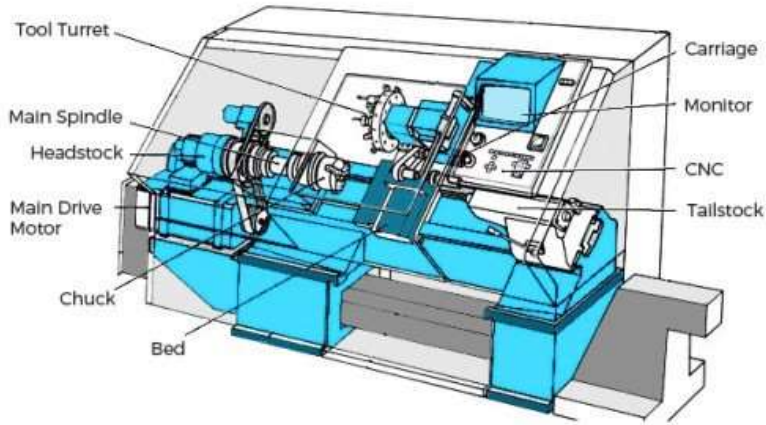
Examples:



CAM:

Examples:

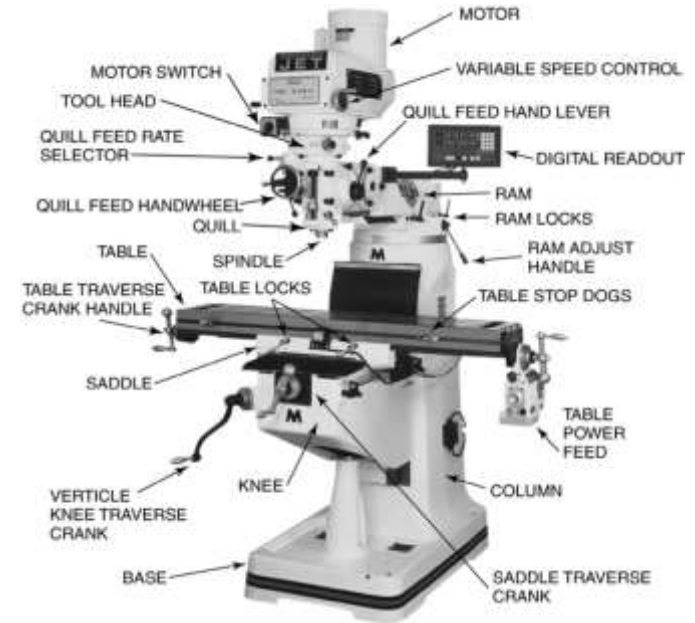
CNC: Lathes and milling machines



Description of CNC machine:

Application/Uses of CNC machine:

Description of CNC machine:



Application/Uses of CNC machine:

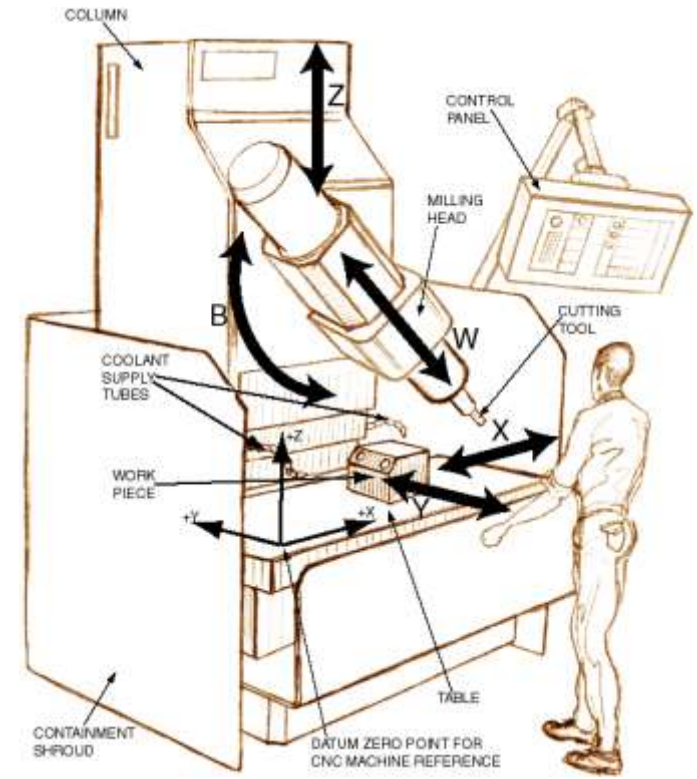
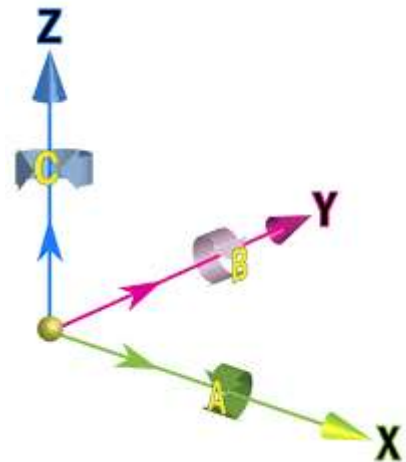
CNC: Routing and multi-axis machines



Description of CNC machine:

Application/Uses of CNC machine:

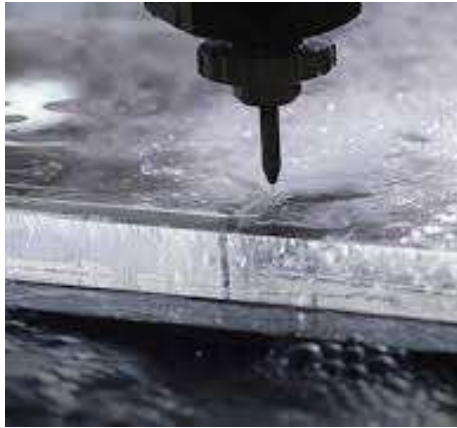
Description of CNC machine:



Application/Uses of CNC machine:

CNC: Water jet & Plasma cutting

Standard Cutting Head

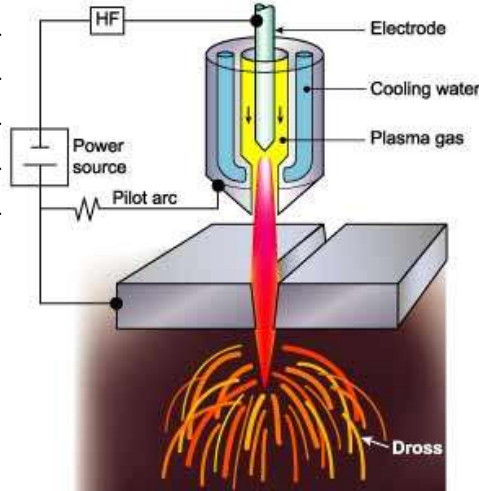


Description of CNC machine:



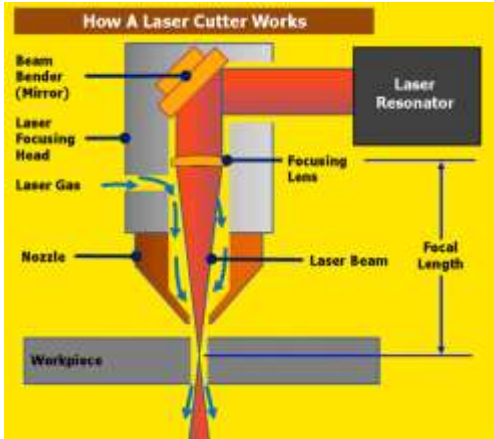
Description of CNC machine:

Application/Uses of CNC machine:

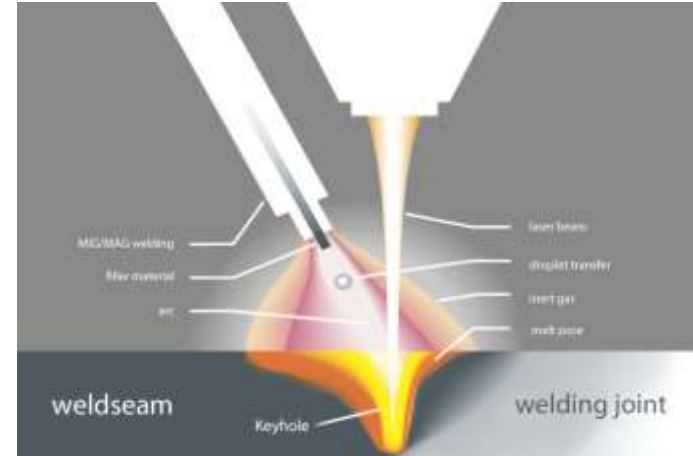


Application/Uses of CNC machine:

CNC: Laser cutting & Welding

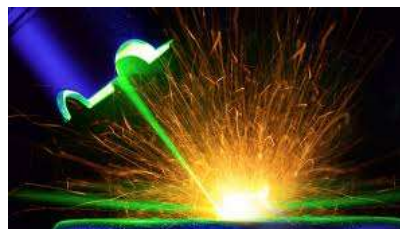


Description of CNC machine:



Description of CNC machine:

Application/Uses of CNC machine:



Application/Uses of CNC machine:

Additive manufacturing and rapid prototyping:

Definition:

Examples:

Additive
manufacturing

Rapid
Prototyping

Examples:

RAPID PROTOTYPING

