

Computer to Machine - The Process



Post Processor



G-Code



iCAM Machines use industry Standard G-Code programming language. Before you can process a job there are other steps that need to be taken. For the novice user below is a brief summary of the process and a brief introduction into some of the terminology used.

CAD (Computer Aided Draughting) Software

This software is used to draw your part geometry. Parts are drawn in this software accurately. Files are saved for later use and modification when required.

Files are usually exported as DXF format for the next step.

CAM (Computer Aided Manufacturing) Software

This software is used to apply toolpaths to the part geometry. The DXF file is imported in the toolpath software. When creating a toolpath you will specify things such as what tool you want the machine to use, spindle RPMs, feed rates, machining strategy and depth of cut.

Postprocessor

The post processor is a file that allows the CAM software to output the toolpath data in the correct language for the machine.

G-Code

G-Code is the programming language that the machine understands. A G-Code file is a text file with lots of lines of type containing letters and numbers, these are instructions for the machine. The G-Code file is saved for the next step.

Operator interface: WinAMC

The WinAMC operator interface is the software that instructs the machine. The job is selected by choosing the G-Code file that has been created, WinAMC will display the file name and the actual path of the job on the screen. The material height is set in WinAMC, and the job is started with the click of the mouse. Once the machine has started processing the job the operator can adjust feed rates if required and view the path the machine is following in real time.

The iCAM Machine

The iCAM Machine is equipped with a Spindle capable of 18000rpm, a 10 station on board rotary tool changer and pneumatic pop up pins for part location. The tool lengths are sensed with the automatic tool length sensor and recalled automatically as the machine changes tools. A vacuum pump is used to create suction and hold the material down on the bed for processing.

iCAM



CNC Machining Centres Built in New Zealand

27 The Boulevard, Hamilton, New Zealand

Phone 0800 422 669

www.icam.co.nz