

## CAD/CAM SYSTEM

### **CAD – Solidworks 2008**

Solid Machining Systems, including Part and Assembly Modelling. Solidworks can import a variety of formats including Step, STL, Parasolid, ProE, Catia Graphics and IGES.

### **CAM – Open Mind Hypermill**

Full 5 axis simultaneous system with collision avoidance, which is fully integrated to operate within Solidworks & Vericut environments.

### **CAM – Camworks**

Multi Axis CAM system which is fully integrated to operate within Solidworks environment to offer the most advanced CAM solutions possible.

### **CAM - Licom**

Advanced Mill – 2 & 3D CAD for programming horizontal or vertical machining centres, with 3 axis plus 2 positioning axes. Advanced Lathe – 2D Cad for programming turning and turn/mill with C & Y axis

### **Machining Program Verification – Vericut**

Multi Axis machine and part simulation and verification software. Checks machining programs to solid models and corrects errors prior to machining.

### **Mazak Camware Partner**

Mazatrol PC-Fusion-CNC 640 offline programming and storage

## INSPECTION

**D.E.A Global Performance** – 5 axis CNC CMM – PCDMIS solid modelling software.

Capacity 2200 x 1200 x 1000 m/m installed in a purpose built temperature controlled environment.

**Etalon Derby 454** – 3 axis manual co-ordinate measuring machine.

**Tesa –Rugosurf 90G** – surfave finish measurement with full printed report

Mitutoyo Toolmakers Microscope. Mitutoyo Linear height gauge with 600 x 600 granite surface plate, Mitutoyo height gauges and a numerous selection of smaller instruments, all within the calibration system.

## MACHINING CENTRES

**1 x MAZAK VARIAXIS 730-5X.** Mazatrol PC-Matrix with full 5 axis simultaneous machining. 120 tool magazine. Renishaw laser probing and spindle probing. Heat displacement controlled. Through spindle coolant. Swarf management.

Spindle speed 0-10,000 rpm. Rapid 42m/min. Capacity (X) 730mm (Y) 850mm (Z) 560mm

**2 x MAZAK VTC300C-2** with 4 axis interface. Mazatrol PC-Fusion CNC 640M control with Mazacc 3D high speed software. 48 tool magazine. Renishaw spindle probing and tool sensor probe, 1 machine with laser probing. Through spindle coolant. Swarf management system. Spindle speed 40-12,000 rpm. Rapid 30m/min. Capacity (X) 1740mm (Y) 760mm (Z) 660mm

**1 x MAZAK VTC 200B.** Mazatrol PC- Fusion CNC 640M control with Mazak 2D high speed software. 24 tool magazine. Renishaw spindle and tool sensor probing. Through spindle coolant. Spindle speed 40-10,000 rpm. Rapid 30m/min. Capacity (X) 1120mm (Y) 510mm (Z) 510mm.

**1 x MAZAK VTC30** with 4th axis interface, Mazatrol M Plus control with Mazak 3D high speed software. 2 x 24 tool magazines. Renishaw spindle and tool sensor probing. Through spindle coolant. Ethernet interface. Swarf management system. Spindle speed 40-10,000 rpm. Rapid 24m/min. Capacity (X) 1660mm (Y) 760mm (Z) 660mm.

**1 x MAZAK VTC200C** with 4<sup>th</sup> axis interface Mazatrol PC\_Fusion CNC 640M control. 30 tool magazine. Renishaw spindle probing and tool sensor probe, Through spindle coolant. Swarf management system. Spindle speed 40-12,000 rpm. Rapid 36m/min. Capacity (X) 1660mm (Y) 510mm (Z) 510mm.

**1 x MAZAK VTC200C-2** with 4<sup>th</sup> axis interface Mazatrol PC Fusion CNC 640M control. 30 tool magazine. Renishaw laser probing and tool sensor probe, Through spindle coolant. Swarf management system. Spindle speed 40-12,000 rpm. Rapid 36m/min. Capacity (X) 1660mm (Y) 510mm (Z) 510mm

**1 x MAZAK VTC300C.** Mazatrol PC-Fusion CNC 640M control with Mazacc 3D high speed software. 30 tool magazine. Renishaw spindle probing and tool sensor probe. Through spindle coolant. Spindle speed 40-10,000 rpm. Rapid 30m/min. Swarf management system. Capacity (X) 1740mm (Y) 760mm (Z) 660mm.

## TURN MILL

**1 x MAZAK SQT 250MY.** C axis indexing increment 0.001 deg & Y axis travel +/- 50m/m from centre line. 16 station turret. Mazatrol Fusion 640T control. 200m/m maximum turning diameter with 49m/m bar capacity

**1 x MAZAK NEXUS SQT 200MY** C axis indexing increment 0.001 deg & Y axis travel +/- 50m/m from centre line. 16 station turret. Mazatrol Fusion 640T control. 200m/m maximum turning diameter with 65 m/m bar capacity

**1 x MAZAK SQT 200M** C axis indexing increment 0.001 deg. 12 station turret. Multifeed 1.5 metre bar feed. Mazatrol Fusion 640T control. 200m/m maximum turning diameter with 51 m/m bar capacity

## CNC TURNING

**1 x YANG CK3B** with 8 station turret - 88.9m/m bar capacity and 380m/m maximum turning diameter. Fanuc O-T control. RS232 computer linked. 380 m/m maximum turning diameter with 89.9 m/m bar capacity

**1 x HYUNDAI HIT 30** with 8 station turret. 90m/m bar capacity and 310m/m maximum turning diameter. Fanuc O-T control. RS232 computer linked 310m/m maximum turning diameter with 90m/m bar capacity

## CNC ACCESSORIES

Modular Vacuum work holding systems. Using 1200mm x 400mm work plates.  
350mm diameter 4<sup>th</sup> Axis contouring tables + tailstock for Mazak Machining Centres

## UNIVERSAL MILLS

**1 x HURON MU6** 3 axis readout. Capacity 60" x 27"  
with ROTARY TABLE 600 dia rotary table drilling head right angle milling attachment D'Andrea  
boring heads from 6 dia to 300mm

## SUB ASSEMBLY AND TESTING

Plant and Equipment includes:-

- 4 Stage Aqueous Ultrasonic Cleaning
- Clean Air Assembly to Class 5 (ISO14644-1)
- Dedicated assembly work areas, storage and staff
- Anti Static workbench facilities
- Vacuum testing equipment with large capacity roughing pump
- Calibrated leak testing.