

## CAPACITY LIST

### MAXIMUM CAPACITIES

#### Vertical Milling

X = 1800.0mm  
Y = 0920.0mm  
Z = 0700.0mm

#### Horizontal Milling

X = 1000.0mm  
Y = 1000.0mm  
Z = 1000.0mm

#### CNC Turning

Diameter = 800.0mm  
Swing = 1030.0mm  
Between Centres = 2500.0mm  
Hydraulic steady units, programmable

#### CMM Inspection

X = 1000.0mm  
Y = 1000.0mm  
Z = 0650.0mm

### GENERAL DESCRIPTION OF SPECIALIST SERVICES

C.S. Simmons Engineering provide a CNC machining service to many industries, including oil, valve and defence. All types of machining are undertaken, including heavy stainless steel machining and machining of exotic materials such as Inconel, Hastelloy, Monel, 17-4 PH, S316 Super Duplex, Zeron 100 and Waspalloy.\* Manufacture and inspection meet the requirements of the updated BS EN ISO 9001 : 2015 certification (Certificate can be provided on request). Quality and performance are monitored closely with set procedures and with Tricorn Job Processing software that allows unparalleled traceability during the machining process and long after delivery.

C. S. Simmons Engineering continually invests in the latest CNC precision machining technology available, to always remain very competitive, and to be able to meet very demanding delivery times without compromising quality.

### MAIN SERVICES OFFERED

CS Simmons Engineering provide Large Component, Complex Component, Prototype Component, and Reverse Engineering CNC Precision Machining Services in both Regular and Super Alloys. Specific precision machining services include CNC Turning, CNC Machining, CAD/CAM Design and CNC CMM Inspection.

### QUALITY APPROVALS

C.S. Simmons Engineering is a BS EN ISO 9001 : 2015 Quality Management Certified Firm, Certificate No. 9835, and are audited by NQA.



### MACHINING CENTRE (CNC)

#### CNC Hartford HCMC-2082AG

##### Vertical Machining Centre

Single Table Open Fronted Vertical Machining Centre, with hardened & ground box guideways for heavy cutting capabilities. FANUC 0iMD CNC Control System.

X-axis 1800mm  
Y-axis 920mm  
Z-axis 700mm  
Table 2000mm x 920mm  
Table Load 3000kg



### CNC CMM INSPECTION

#### Aberlink Zenith Too 1000 CNC CMM

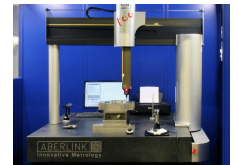
Various inspection reports are available with the Zenith Too 1000 CNC CMM.

Measurement Volume:

X-axis 1000mm  
Y-axis 1000mm  
Z-axis 600mm

Accuracy:

B89: 0.008/300mm  
VDI(U3): 0.0038 + L/250



### MACHINING CENTRE (CNC)

#### CNC Doosan Heavy Duty HM 630

The HM 630 combines a high torque spindle drive and powerful axis drives for a large chip removal rate. The massive meehanite cast structure and wrap around box guideways provide the rigidity required for both heavy cutting and superb surface finishes. Fanuc 18i-MB controls.

Max Diameter — 1000mm  
Height Z-axis — 1000mm  
Max Weight — 1200kg



### SAWING (VERTICAL BAND) THROAT — 350mm

### TURNING CENTRE (CNC)

#### CNC Puma 12L High response turning

centre with FAPT conversational programming with Fanuc 15TA system. Fully programmable tailstock.

Length Z-axis — 1100mm  
Chuck Dia. — 400mm  
Max Chucking Diameter — 580mm



### TURNING CENTRE (CNC)

**CNC Puma 10HC Lathe** with Fanuc OT-C controls. Fully programmable tailstock.

Length Z-axis — 450mm  
Chuck Diameter — 250mm  
Max Chucking Diameter — 280mm



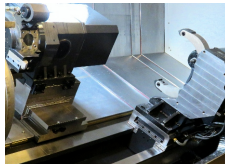
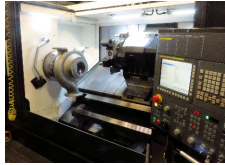
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### TURNING CENTRE (CNC)

#### Hyundai-Wia L500LMA CNC

**Turning Centre** equipped with Fanuc 18i control system and Steady Rest Type RX-5-Z 75-430 (*Workpiece: 430mm max. dia. – 30mm min. dia.*)  
Maximum Turning Diameter — 690mm  
Live Tools ER40 (*03-025mm Tool Fitting / 140 N Maximum Torque*)

Length Z-axis 2500mm (*maximum workpiece length, ideal for machining long shafts accurately*)  
Chuck diameter — 24"  
Maximum swing over bed — 1030mm



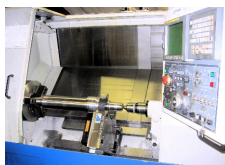
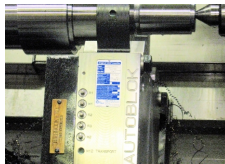
**NEW FOR 2019**

### TURNING CENTRE (CNC)

#### Daewoo Puma 400LA CNC

**Turning Centre** equipped with Fanuc 18i control system. Fully programmable tailstock. Fully retrofitted SMV Autoblock steady. (*Workpiece: 230mm max. dia. — 30mm min. dia.*)  
Maximum Turning Diameter — 580mm

Length Z-axis 2200mm (*maximum workpiece length, ideal for machining long shafts accurately*)  
Chuck diameter — 18"  
Maximum swing over bed — 800mm



### MACHINING CENTRE (CNC)

#### CNC Hartford Kappa VMC130

4 Axis, Fully programmable 4th 'B' axis. 'Hartrol' programming system with Fanuc 18i controls. Thermal heat dissipation. High pressure through coolant. Many macro functions to reduce programming set up times.

Length X-axis — 1500mm  
Width Y-axis — 700mm  
Height Z-axis — 800mm



### SPLINING



### MANUAL MACHINES

**Ormerod Slotter** — with 250mm stroke, cuts keyways along the length of a bore.

**Tarnow Centre Lathe** — New arrival bought specifically for machining 1 off items of large size. Solid Cast Bed construction, digital readout and positioning capabilities.

Length Z-axis — 2000mm  
Chuck diameter — 500mm  
Maximum chuck diameter — 750mm



**Gang Drills** — 2 sets for finishing operations, i.e., drilling, tapping, reaming & deburring.



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