

## QUALITY | PRECISION | SERVICE

### Flexible Machining Centres



#### Mitsubishi M-H5B

A multiple pallet magazine supporting up to 8 pallets. Continuous machining is aided by tool breakage detection. Basic specifications:  
 Maximum work piece size - 800 mm x 760 mm  
 120 Tool ATC  
 500 mm x 500 mm work piece probing  
 Rapid traverse 40m/min  
 4 Axis



#### Mitsubishi M-H60E

A multi-pallet horizontal machining centre with seven pallets supporting up to seven separate fixtures. Offers true flexible machining 24/7. Basic specifications:  
 Max. machining envelope: 1000 mm x 800 mm x 800 mm  
 80 Tool ATC  
 Maximum spindle speed: 12000 RPM  
 Pallet change time: 20 seconds (chip to chip)



#### Tsugami FMA 5

A multi-pallet Flexible Machining Centre designed for high accuracy. Allows for continuous machining for two out of three shifts. Basic specifications:  
 Max. machining envelope: 500 mm x 500 mm x 500 mm  
 Supports 8 pallets  
 126 Tool ATC

### Machining Centres



#### Fadal VMC 6030

A vertical machining centre with a 30 tool turret and Renishaw work probing. Basic specifications:  
 Table size: 1524 mm x 762 mm x 762 mm  
 Maximum spindle speed: 10,000 RPM  
 4 Axis



#### Fadal VMC 4020

A vertical machining centre with a 30 tool turret and Renishaw work probing. Basic specifications:  
 Table size: 1016 mm x 508 mm x 711 mm  
 Maximum spindle speed: 10,000 RPM  
 4 Axis



#### Doosan DNM 750 (x2)

A flexible machining centre with a full 4th axis. Basic specifications:  
 Axis: (x) 1525 mm x (y) 762 mm x (z) 625 mm  
 Maximum spindle speed: 12,000 RPM  
 30 tool ATC

### Machining Centres



#### Mitsubishi FA30V EDM Wire Erosion Machine

This process is to NADCAP Aerospace standard. Basic specifications:  
 Stroke (X/Y/Z): 750 mm x 500 mm x 670 mm  
 Max. work piece: 1300 mm x 1000 mm x 670 mm  
 Max. work piece weight: 3000 kg

### Turning Centres



#### Tsugami FMA 5

A multi-pallet Flexible Machining Centre designed for high accuracy. Allows for continuous machining for two out of three shifts. Basic specifications:  
 Max. machining envelope: 500 mm x 500 mm x 500 mm  
 Supports 8 pallets  
 126 Tool ATC



#### Puma 600

A large capacity, high productivity CNC turning centre with 12 position turret. Basic specifications:  
 Rapid traverse: 12/16m / min  
 Spindle bore: 152 mm  
 Swing capacity: 1030 mm  
 1650 mm Z Axis



#### Puma 700 LM (x2)

A large capacity, high productivity CNC turning centre. Basic specifications:  
 Max. turning diameter: 900 mm  
 Max. turning length: 3200 mm  
 Spindle RPM: 1500  
 Swing capacity: 1030 mm



#### Mori Seiki SL 603

Designed for accuracy, rigidity and speed, this machine features high speed feed on all axis. Basic specifications:  
 Max. turning diameter: 930 mm  
 Max. turning length: 2000 mm  
 Spindle RPM: 1500  
 Swing capacity: 1000 mm



#### Mori Seiki MT2500

State of the art turning/milling centre with 5 axis milling capability. Basic specifications:  
 Max. turning diameter: 550 mm  
 Max. turning length: 1528 mm  
 Swing capacity: 1000 mm  
 Supports 120 tools



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## Turning Centres



### Hitachi Seiki HT30G

Horizontal lathe/turning machine. Basic specifications:  
Max. turning diameter: 500 mm  
Max. turning length: 600 mm  
Swing capacity: 620 mm  
Spindle speed: 20-2500 min<sup>-1</sup>  
12 station turret head



### Hitachi Seiki HT40G (x 2)

Horizontal lathe/turning machine. Basic specifications:  
Max. turning diameter: 620 mm  
Max. turning length: 1120 mm  
Swing capacity: 1000 mm  
Spindle speed: 20-2000 min<sup>-1</sup>  
12 station turret head



### Swedturn 20

High speed precision CNC lathe. Basic specifications:  
Max. turning diameter: 700 mm  
Max. turning length: 300 mm  
Swing capacity: 1200 mm



### Hitachi Seiki HC40 Hi-Cell

A combined CNC lathe and milling machine.  
Basic specifications:  
Max. turning diameter: 330 mm  
Max. turning length: 1050 mm  
24 station automatic tool change facility

## Inspection Equipment



### LK CMM G-90C

A vertical spindle with moving ceramic bridge CMM machine. The machine works on high efficiency air bearings and has a granite surface plate base with bonded straight edge. In common with the Merlin, this machine is automated but benefits from a larger working surface. Basic specifications:  
Working surface: 100 mm x 700 mm x 600 mm



### Ferranti Merlin 750

A 3-dimensional CMM co-ordinate measuring machine. Basic specifications:  
Traverse: (x) 750 mm x (y) 750 mm x (z) 500 mm  
Ferranti profile analysis software  
SPC software



### Etalon Derby 4.5.4

Used for fast dimensional measurement of components in the workshop. This intelligent measurement system automatically recognises geometric features, calculates dimensional data and shows the results geographically.



### DEA Scirocco

A 5 axis co-ordinate measuring machine. Basic specifications:  
Stroke: (x) 1000 mm x (y) 1500 mm x (z) 800 mm

## Miscellaneous Tools



### Microbore EC011

The microset tool pre-setting unit serves as a measuring unit for the operation of drilling, milling and turning with their functional dimensions. The machine gives a readout with linear and rotary encoders. It can also send the data recorded through a post processor function to many of our machine tools.



### CEMB Balancing Machine

Enables easy calibration and highly accurate measurements, which is achieved by inputting the geometrical dimensions.

### Accreditations

AS9100 REV C, BS EN ISO 9001:2008, BS EN 9100:2009  
2008 'Best Machining' MWP Award Winner

### Additional Capabilities

Precision machining - CNC turning  
Universal & horizontal milling  
Lathes & anilam digital read outs  
Altendorf panel sizing saw  
MIG, TIG & ARC welding  
Vapour blasting