

HORIZONTAL MACHINING CENTRES

HITACHI SEIKI HG 630

| | |
|----------------------------|---------------------------|
| Year of Manufacture | 1996 |
| Control System | Fanuc 15MB |
| 'X' axis Stroke | 1120mm |
| 'Y' axis Stroke | 800mm |
| 'Z' axis Stroke | 710mm |
| 'B' axis | 1 degree |
| Tool Magazine Capacity | 90 |
| Max Spindle Speed | 4,500 RPM |
| Spindle Motor | 18.5KW |
| Axis Repeatability | +/- 0.002 |
| Pallet size | 630mm by 630mm |
| Number of pallets | 2 (4 spare) |
| Heavy Tool option | 35kg |
| High Pressure | (Coolant Through Spindle) |
| With Full Renishaw Probing | |

HITACHI SEIKI HG 500

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|----------------------------|---------------------------|
| Year of Manufacture | 1994 |
| Control System | Fanuc 15MB |
| 'X' axis Stroke | 710mm |
| 'Y' axis Stroke | 680mm |
| 'Z' axis Stroke | 600mm |
| 'B' axis | 1 degree |
| Tool Magazine Capacity | 90 |
| Max Spindle Speed | 4,500 RPM |
| Spindle Motor | 18.5KW |
| Axis Repeatability | +/- 0.002 mm |
| Pallet size | 500mm by 500mm |
| Number of pallets | 2 (4 spare) |
| High Pressure | (Coolant Through Spindle) |
| With Full Renishaw Probing | |

TOSHIBA BMC 800

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|----------------------------|---------------------------|
| Year of Manufacture | 2002 |
| Control System | Tosnuc 888 |
| 'X' axis Stroke | 1600mm |
| 'Y' axis Stroke | 1250mm |
| 'Z' axis Stroke | 1200mm |
| 'B' axis | 1 degree |
| Tool Magazine Capacity | 90 |
| Max Spindle Speed | 5000 RPM |
| Spindle Motor | 30KW |
| Axis Repeatability | +/- 0.0015 mm |
| Pallet size | 800mm by 800mm |
| Number of pallets | 2 (4 spare) |
| Pallet load capacity | 2000kg |
| Heavy Tool option | 35kg |
| High Pressure | (Coolant Through Spindle) |
| With Full Renishaw Probing | |

OKUMA MA 600HB

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|------------------------------------|---------------------------|
| Year of Manufacture | 2005 |
| Control System | OSP200M |
| 'X' axis Stroke | 1000mm |
| 'Y' axis Stroke | 900mm |
| 'Z' axis Stroke | 1000mm |
| 'B' axis | 1 degree |
| Tool Magazine Capacity | 100 |
| Max Spindle Speed | 6000 RPM |
| Spindle Motor | 30KW |
| Axis Repeatability (linear scales) | +/- 0.0001 mm |
| Pallet size | 630mm by 630mm |
| Number of pallets | 2 (4 spare) |
| Pallet load capacity | 1200kg |
| Heavy Tool option | 35kg |
| High Pressure | (Coolant Through Spindle) |
| With Full Renishaw Probing | |

TOSHIBA BMC 63B

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|------------------------|----------------|
| Year of Manufacture | 1989 |
| Control System | Tosnuc 600MB |
| 'X' axis Stroke | 1000mm |
| 'Y' axis Stroke | 800mm |
| 'Z' axis Stroke | 850mm |
| 'B' axis | 0.001 degree |
| Tool Magazine Capacity | 60 |
| Max Spindle Speed | 5000 RPM |
| Spindle Motor | 22KW |
| Axis Repeatability | +/- 0.003 mm |
| Pallet size | 630mm by 630mm |
| Number of pallets | 2 (2 spare) |

VERTICAL MACHINING CENTRES

HITACHI SEIKI VS60

Hi-Speed Machine

1.1 Sec Toolchange & 40m/min rapid

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|----------------------------|--------------|
| Control System | Fanuc 16i |
| 'X' axis Stroke | 1270mm |
| 'Y' axis Stroke | 610mm |
| 'Z' axis Stroke | 450mm |
| Tool Magazine Capacity | 90 |
| Max Spindle Speed | 10,000 RPM |
| Spindle Motor | 25KW |
| Axis Repeatability | +/- 0.002 mm |
| Number of pallets | 2 (4 spare) |
| With Full Renishaw Probing | |

OKUMA VMC 60 VAE

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|----------------------------|----------------|
| Control System | Okuma OSP7000M |
| 'X' axis Stroke | 1500mm |
| 'Y' axis Stroke | 630mm |
| 'Z' axis Stroke | 610mm |
| Tool Magazine Capacity | 20 |
| Max Spindle Speed | 5000 RPM |
| Spindle Motor | 22KW |
| Axis Repeatability | +/- 0.002 mm |
| With Full Renishaw Probing | |

DAH-LIH MCV-2100

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|----------------------------|--------------|
| Control System | Fanuc OMC |
| 'X' axis Stroke | 2200mm |
| 'Y' axis Stroke | 850mm |
| 'Z' axis Stroke | 760mm |
| Tool Magazine Capacity | 32 |
| Max Spindle Speed | 4,500 RPM |
| Spindle Motor | 22KW |
| Axis Repeatability | +/- 0.004 mm |
| With Full Renishaw Probing | |

LATHES

OKUMA LB 45 CNC ****Hi-Power Machine 45KW****

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|------------------------------------|---------------|
| Control System | Okuma OSP7000 |
| Max Swing dia | 1000mm |
| Max Turn dia | 850mm |
| Max Swing over cross slide | 550mm |
| Chuck | 600mm |
| Tool Capacity | 12 |
| Max Spindle Speed | 2,800 RPM |
| Spindle Motor | 45KW |
| Gear Ranges | 4 |
| Bar Capacity | 125mm |
| Programmable hydraulic tail stock. | |

OKUMA LU35M **5 axis CNC**

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|--------------------------------|-------------------------------------|
| Control System | Okuma OSP7000 |
| Max Swing dia | 650mm |
| Max Turn dia | 560mm |
| Max Swing over cross slide | 480mm |
| Chuck | 450mm |
| Tool Capacity | 12(Top Turret) 10(Bottom Turret) |
| Max Spindle Speed | 3,200 RPM |
| Spindle Motor | 37KW |
| Gear Ranges | 4 |
| Bar Capacity | 125mm |
| Hydraulic tail stock. | |
| **C axis /M Function ** | |
| Controllable angle | 360deg (0.001 increments) |
| Max Spindle Speed | 2000 RPM |
| Spindle Motor | 5.5KW |

Mori-Seiki NL3000Y **4 axis CNC**

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|----------------------------|---|
| Year of manufacture | 2007 |
| Control System | Mitsubishi MSX-850BM |
| Max Swing dia | 995mm |
| Max Turn dia | 420mm |
| Max Swing over cross slide | 820mm |
| Chuck | 380mm |
| Tool Capacity | 10 (y axis allows multiple tools/index) |
| Max Spindle Speed | 3,000 RPM |
| Spindle Motor | 30KW |
| Gear Ranges | 2 |
| Bar Capacity | 105mm |
| Hydraulic Tailstock | 1350mm between centres |

C & Y axis/M Function

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|-------------------|---------------------------|
| Y Axis | +/-70mm |
| C Axis | 360 deg (0.001 increment) |
| Max Spindle Speed | 6,000 RPM |
| Spindle Motor | 7.5 KW Direct Drive |

MISCELLANEOUS

INSPECTION DEPARTMENT

ELEY METROLOGY 200-90-85

| | |
|---------------------|----------------------|
| Control | PC based |
| 'X' axis Stroke | 2000mm |
| 'Y' axis Stroke | 900mm |
| 'Z' axis Stroke | 850mm |
| Probe | Renishaw PH10 |
| Volumetric accuracy | +/- 0.001 mm + L/300 |
| Probe head | Renishaw TP7 |

HORIZONTAL BORING SECTION

UNION BFT 90/3-2

| | |
|--------------------|---------------------|
| Control | Acu-rite Millvision |
| 'X' axis Stroke | 1600mm |
| 'Y' axis Stroke | 1120mm |
| 'Z' axis Stroke | 2000mm |
| 'W' quill | 102mm dia x 700mm |
| Max Spindle Speed | 1,600 RPM |
| Spindle Motor | 11KW |
| Axis Repeatability | +/- 0.002 mm |