

## Plant & Equipment List 16/7/21

### Premises

Operating from a modern 6,600 sq ft factory, fully alarmed including 24-hour CCTV surveillance. Air-conditioned offices and inspection facility operating to BSI Quality Management System and ISO 9001:2015 approval.

### CNC Machining Centres

All the machines listed are DNC linked and programmed using OneCNC XR8 expert full 3D system or "Visicam" CAM system.

**Doosan DNM 400** Direct drive spindle power 18.5KW, 12,000 rpm spindle, 40 position tool charger, grease lubricated roller, travels 520 X 400 X 480mm with rapid rates of 48m/min on all axes.

**Doosan DNM 500** Full 4 axis Machine with 12,000 rpm spindle, 15HP spindle motor count, coolant spindle. Travel (X) 40" (Y) 21.25" (Z) 20" Renishaw OMP 60 Spindle probing system

**Doosan DNM 5700** Simultaneous 4 axis machining centre, 12,000 rpm spindle speed, spindle motor power 18.5 KW with a tooling taper of 40. Fast tool change, spindle thermal error compensation function for stable cutting, travel (X) 1050 (Y) 570 (Z) 510mm. Renishaw OMP 60 Spindle probing system.

**Daewoo Mynx 500** 1m travel. Machining Centre X1020 Y514 Z775, refrigerated Spindle, 8000 rpm, 1.5 second pre-select tool change, swarf conveyor, tool breakage detection/offset probing, rigid tapping, box way machine for heavier / larger work.

**Fadal VMC 4020** Full 5 axis machine, 10,000 rpm spindle, refrigerated spindle & ball screws, X1000, Y500, Z508, high speed 3D machining facility, tool breakage Renishaw OMP / MP10 spindle probing system, rigid tapping.

**Haas VF4 Super speed machining centre** 1.5m travel Machining centre, full 4<sup>th</sup> Axis capability, light work, super speed high productivity machine.

### CNC Turning Equipment

**Doosan Lynx 220LMSA** Twin spindle driven tooling lathe with long bed, Hydrafeed MV65 magazine bar feed, Max Turning Dia 300mm x 510mm. Fanuc control with manual guide programming.

**Doosan Lynx 220LSYC** 5 axis twin spindle driven tooling lathe with Y and C axis machining, Hydrafeed MV65 magazine bar feed, Max Turning Dia 300mm x 510mm. Fanuc control with manual guide programming.

**Mori Seiki CL25 Turning Centre** 25 Kilowatt main spindle drive motor, for machining difficult materials such as stainless steels up to 300mm diam. Fitted with Renishaw LT02 Job contact inspection probing, Heavy box way machine for heavier / larger work.

**Daewoo Lynx 200B Turning Centre (bar fed)** Fanuc control, chucking diam up to 200mm 2" / 50mm bar capacity. Hydrafeed 3m magazine bar feed, automated tool offset measurement, parts catcher.

### **Wire Eroding**

**AGIE CLASSIC 2** 5 axis CNC wire erosion machine. X 350mm, Y 250mm, Z 256mm, max taper 30 degrees. Max workpiece dimensions 750mmx550mmx250mm

### **Conventional Services**

- \* **Bridgeport** Turret & Jig Milling (with DRO)
- \* **Colchester** Centre Lathe Turning to 15" swing
- \* **Jones & Shipman 540** Surface Grinding
- \* Range of Drilling & Specialist tapping facilities
- \* **Diprofil** Die Polishing
- \* Horizontal Bandsaw, semi-automatic cutting, with capacity up to 250mm
- \* **Welding: Kemppi Miniarc Mig** – Aluminium / Stainless steels / Steel welding

### **Surface Finishing**

**Vapormatt Cougar** Bead / Vapour blast part finishing cabinet (wet), 1 metre x 1 metre x 1 metre

**Vapormatt Lynx** Vapour blast machine

### **CAM / Production Software**

**Pegasus Operations II** production and inventory control with MRP.

**OneCNC XR8** Full 3D system milling and turning up to 5 axes and twin spindle programming.

**Visi Cam** Mill / Turn 5 with surface modelling 3D interface

**N-See** virtual CNC program verification with solid modelling software

DNC link to all machining centres. File transfer including IGES / DXF (2D or 3D) CATIA, Solidworks, etc.

## **Inspection Equipment**

Fully air-conditioned, dedicated inspection department, all gauging is calibrated and traceable to NAMAS standards. Quality control systems operate under BSI Quality Management System ISO 9001:2015 approval.

**DEA Global 2105 CNC Co-Ordinate measuring machine** large capacity X700mm Y1000mm Z500mm, with full CNC control and QCT Inspect 3D PRO software, Renishaw motorized PH10 auto index probing system, with MCR20 6 station probe rack.

**Zeiss Universal Microscope** measuring machine, measuring accuracy better than 0.0005mm. Rotary axis facility, enables measuring of large diameter screw cut items, helical milling etc.,

**Verdict Trimos 500A** Digital Height gauge (granite table).

**Talysurf** Surface measuring equipment.

**Taylor Hobson S100 series** Digital surface measuring equipment

**Small Inspection equipment** A full range of supporting equipment including plug gauges, screw plug gauges, Vernier calipers, micrometers etc.