

Holbro Engineering Ltd - Capacity List

We work as part of your team to genuinely understand your business, your production processes and component requirements, delivering the best service from concept to completion.

Our capabilities include:

- CNC Turning
- CNC Folding
- Centre Lathe Turning
- CNC Milling
- Vertical Milling
- Horizontal Milling
- Boring, Slotting & Drilling
- Grinding—Cylindrical/Surface
- Fitting—Sub Assembly work
- Laser Profiling/Cutting
- Fabrication
- Prototype Work
- CAD/CAM Workstations
- Inspection (CMM Inspection)
- Kitting of Components
- 3D Scanning
- 3D Printing
- Sub Assembling Kits and Components
- Repairs to Original OEM Specification
- Retrofit to Original OEM Specification
- Electric Bench Mounted Resistance Welding
- Spark Eroding
- Brazing
- Powder Coating
- Painting
- Zinc Plating
- Anodising
- Mouldings

CNC Turning

| Machine | Max Dia (mm) | Max Length (mm) |
|------------------------|--------------|-----------------|
| Doosan Puma 280M | 410 | 1030 |
| Doosan Puma 400MB | 550 | 2100 |
| Colchester Tornado T8M | 390 | 540 |

Centre Lathe Turning

| Machine | Max Dia (mm) | Max Length (mm) |
|-------------------------|--------------|-----------------|
| Colchester Mastiff | 800 | 1400 |
| Colchester Student | 300 | 1000 |
| Colchester Mastiff 1400 | 370 | 2032 |
| Colchester Mastiff 1800 | 554 | 2000 |
| Colchester Mascot 2000 | 460 | 1500 |

CNC Milling

| Machine | X (mm) | Y (mm) | Z (mm) | No. of Axis |
|--------------------|--------|--------|--------|-------------|
| Doosan DNM 650 | 1270 | 670 | 625 | 4 & 5 |
| Bridgeport VMC 800 | 800 | 510 | 450 | 3 |
| Quaser MV 184 | 1000 | 500 | 700 | 4 & 1 |
| Bridgeport VMC 560 | 540 | 410 | 480 | 3 |

Manual Milling

| Machine | |
|---------------------------------------|-----------------------------------|
| Bridgeport (x2) | complete with electrical readouts |
| Cincinnati Milacron Horizontal Miller | |

Milling, Slotting and Drilling

| Machine | Table |
|------------------------|-----------|
| Bridgeport Turret Mill | 48" x 9" |
| Chester Turret mill | 54" x 10" |

Spark Eroding

| Machine |
|-------------------------|
| Charmilles Isopulse P25 |

Grinding - Cylindrical/Surface

| Machine | Max Size (mm) |
|--------------------------------------|---------------|
| Jones & Shipman 1430 Surface Grinder | 600 x 300 |

Laser Profiling/Cutting

Our new Laser Cutting office has the capability to cut a wide range of metals with a variety of thicknesses.

| Machine | Working Range X x Y x Z (mm) | Power | Max. Axis (m/min) | Cutting Thickness |
|--------------------------------|---------------------------------|-------|----------------------|----------------------|
| AMADA LCG-AJ Series | 3070 x 1550 x 100 | 4000W | 170 | - |
| (AMADA LCG-AJ) Mild Steel | - | - | - | 20mm |
| (AMADA LCG-AJ) Stainless Steel | - | - | - | 18mm |
| (AMADA LCG-AJ) Aluminium | - | - | - | 16mm |
| (AMADA LCG-AJ) Brass | - | - | - | 10mm |
| (AMADA LCG-AJ) Copper | - | - | - | 8mm |
| (AMADA LCG-AJ) Titanium | - | - | - | 10mm |

Inspection (CMM Inspection)

Our inspection department is run by experienced and qualified staff with the help of a CMM measuring machine linked to a database running state of the art software.

| Machine | X (mm) | Y (mm) | Z (mm) | Resolution |
|--------------------|--------|--------|--------|------------|
| Nikon Altera 8.7.6 | 813 | 710 | 610 | 0.05µm |

| Machine | Max. Capacity |
|-----------------------|---|
| Micro Vertex 750-1000 | 1000mm Air Pressure Base Double Tool Setting Points |

3D Scanning Equipment

Our maximum 3D Printing capabilities are 320mm x 130mm x 150mm. Software used is Autodesk Power Shape and Featurecam.

| Machine | Measuring Range | Point Repeatability (mm) | Volumetric Accuracy (mm) | Laser Accuracy |
|----------------------------|-----------------|--------------------------|--------------------------|----------------|
| Nikon LC60DX Laser Scanner | Unlimited | - | - | 6µm |
| Nikon MCAx 7-Axis | 2.5m | 0.049 | 0.069 | 66µm |

CAD/CAM Workstations

Installation of our Edge Cam Solid Cad Cam Production System and our new DNC link system brings the interface between the programming and machining together.

Holbro Engineering Ltd
Copse Hill Works,
Kilbane Street,
Fleetwood,
Lancashire,
FY7 7PF

Telephone: 01253 876 060
Fax: 01253 875252
Email: enquiries@holbro.co.uk
Web Site: www.holbro.co.uk