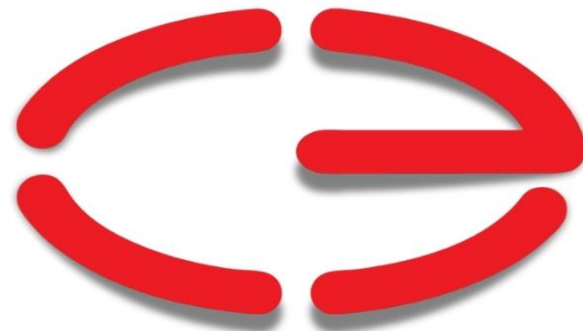




oxford engineering



Plant List 2025-2026



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CNC Turning/Milling and Integrated Machining

Multi-Axis Machining Centres



Equipment	Capabilities	Work Envelope
MTE 3500RT	• 5 axis Vertical Milling Centre. • The RT type milling machine unites all the advantages of a traditional table type boring mill with those of a milling machine. • Features a combination of highly stable, built-in NC 360 Degree rotary table with an automatically swivelling milling head, in addition to regular drill centre machining operations, to make complex workpieces with five sides and all conceivable angle positions in a single set-up with up to 5 processing axes. • Zero Point systems from Lang and SMW Autoblock to achieve repeatability and accuracy on work holding.	• X axis travel 3500mm • Y axis travel 1500mm • Z axis travel 2000mm • A + B Axis – automatic swivelling head – 360-degree rotation • Touch probe for rapid set up and co-ordinate measuring capabilities



Equipment	Capabilities	Work Envelope
Hartford HAS 320 EAY	• Double column, bridge type vertical machining centre with high performance linear guideways for enhanced accuracy and high-speed cutting performance, extended y-axis operation, fixed automatic universal head or head changer with extension and right angled milling heads • Zero Point systems from Lang and SMW Autoblock to achieve repeatability and accuracy on work holding	• X axis travel 3000mm • Y axis travel 2800mm • Z axis travel 1000mm • C axis 1.0 degrees increments • Maximum part envelope 2.5m x 2.5m x 0.7m



Equipment	Capabilities	Work Envelope
Matsuura Cublex- 63/PC18	• 5-Axis Mill/Turn Machining Centre • All 5 axes combine with the added feature of advanced turning operations. • Advanced machining centre with 18 pallets and latest processing technology for unmanned machining. • Large capacity tool changers. • Definitive multi-tasking platform for reliable unmanned production of complex billets, components and castings requiring milling and turning operations.	• Max. turning diameter 630mm • Max. turning height 450mm • Max. work piece weight – 350Kg • 18 pallet system • X axis travel 760mm • Y axis travel 845mm • Z axis travel 660mm • C axis 360 degrees of travel.



Equipment	Capabilities	Work Envelope
Matsuura Cublex- 35/PC32	• 5-Axis Mill/Turn Machining Centre • All 5 axes combine with the added feature of advanced turning operations. • Advanced machining centre with 32 pallets along with the latest technologies for high performance processing and unmanned machining. • Large capacity tool changers. Definitive multi-tasking platform for reliable unmanned production of complex billets, components and castings, requiring milling and turning operations. • Zero Point Systems from Lang to achieve repeatability and accuracy on work holding.	• Max. turning diameter 350mm • Max. turning height 315mm • Max. work piece weight – 60kg • 32 pallet system • X axis travel 550mm • Y axis travel 440mm • Z axis travel 580mm • C axis 360 degrees of travel.



Equipment	Capabilities	Work Envelope
Mazak Vertical Integrex e 1060 V	• Done in One Performance • 150-degree B-axis tilt milling spindles • Powerful turning/C-axis spindles with 5 AXIS (integrated B & C axis) twin pallet machining cell • Large capacity tool magazine • Zero-point systems from SMW Autoblock to achieve repeatability and accuracy on work holding.	• Maximum swing 1250mm • Maximum length 1875mm • X axis travel 1875mm • Y axis travel 1365mm • Z axis travel 1045mm • B axis 150 degrees o travel • C axis 360 degrees of travel • 1 meter - Chuck



Equipment	Capabilities	Work Envelope
Doosan SMX2600S with Bar Feed	• Multi-tasking with Orthogonal Structure • Ergonomic design and great structural integrity ensuring stability and accuracy • Tilting head (B-axis) • 12,00 rpm spindle • Doosan's next generation of multi-tasking turning centres are high productivity, high-precision machines. • Integrated functionalities of multiple machines, resulting in a multi-tasking workflow that reduces machining time and operations. • Thermal compensation sensors and systems minimize thermal deformation.	• Max. Length 1540mm • Max. Swing 660mm • X axis 630mm • Y axis 300mm (±150mm) • Z axis 1585mm • A axis 1605mm • B axis 240deg. (±120 deg.) • C axis 360 degrees of travel • 12" Chuck, Main 10" Chuck sub spindle



Equipment	Capabilities	Work Envelope
Hankook VTB100 Vertical Turning Centre	Heavy duty 3-axis fixed & elevating Crossrail ram type CNC vertical boring and turning machine with hardened & Ground Box Guideways, C-axis & live tools.	- Max. Turning Diameter 1250mm - Max. Turning Height 800mm - Max. work piece weight 4000Kg 1 metre Chuck
Daewoo Puma 5100MB – Turn/Mill Centre	- This series features CNC control systems such as spindle speed override, arbitrary speed threading and threading repair functions, mitigating many common issues - All axes simultaneously controlled	- Max. Swing over bed 900mm - Max. Swing over saddle 690mm - Max. machining diameter 650mm - Max. work length 952mm - X axis travel 362mm - Z axis travel 1105mm - C axis (rotating) 21" Chuck



Equipment	Capabilities	Work Envelope
Daewoo Puma 5100LM	• Turn/Mill Centre • All axes simultaneously controlled • This series features CNC control systems such as spindle speed override, arbitrary speed threading and threading repair functions, mitigating many common issues	• Max. swing over bed 900mm • Max. swing over saddle 690mm • Max. machining diameter 650mm • Max. work length 2002mm • Heinbuch 0 point • X axis travel 362mm • Z axis travel 2155mm • C axis (rotating) • 21" Chuck



Equipment	Capabilities	Work Envelope
Doosan Lynx 2100 LYB	• Turn/Mill Centre • Integrated C axis • All axes simultaneously controlled.	• Max. Swing 600mm • X axis 205mm • Y axis 105mm • Z axis 560mm • Max. machining diameter 300mm • Max. work length 510mm • C axis (rotating) • 8" Chuck



Equipment	Capabilities	Work Envelope
H-14A Horizontal Band Saw	- Designed for high production with a carbide dipped blade. 8.8HP variable frequency drive motor. - Heavy-duty shuttle vise powered by a ball screw and vector motor. - Material indexing up to 24" in a single stroke with multi-indexing capability.	- Blade size 32mm x 4623mm - Blade Drive 6.5kW VFD - Machine Voltage 480v - Blade Speed 15-116m/min - Automatic multi-indexing 0-610mm - Machine weight 2800kg - Table height 864mm - Dimensions (w x l x h) 2235 x 1600 x 1981mm
2000B Spark Erosion Machine M2- M30 Tap Extractor	- Efficient Tap and Bolt Removal - Removal of broken taps, drills, drifts, bolts, screws, and plug gauges with precision.	360 Degree Rotating Head 2000W Power Supply - Processing speed 1-2 mm/min
Zoller Venturion 500	Universal presetting and measuring device for measuring and presetting of tools of every kind.	- Z axis 400 – 600mm - X axis 160 – 200mm - Measuring Diameter 320-400mm - Repeat Accuracy $\pm 0.002\text{mm}$

CNC Milling



Equipment	Capabilities	Work Envelope
Doosan DNM 750L Mk II 2 machines at Oxford Engineering	• 4 axis vertical milling centre • Zero-point systems from Lang to achieve repeatability and accuracy on work holding.	• 2160mm x 762mm x 650mm • 12,000 rpm • Nikken 4th axis



Equipment	Capabilities	Work Envelope
Doosan DNM6700	• 4 axis Vertical Milling Centre • Zero-point systems from Lang to achieve repeatability and accuracy on work holding.	• 1300mm x 670mm x 625mm • 1200rpm • Nikken 4th axis
Helios 2i Model 425	• 5 axis vertical milling centre	• X axis travel 4200mm • Y axis travel 3200mm • Z axis travel 1000mm • C axis 2.5 degrees increments • 4.0 x 2.0 metre bed • Maximum part envelope 3.5 metre x 2.5 metre x 0.7 metre
Matsuura HP300	• Twin pallet 4 axis • Horizontal high speed, 20,000RPM, machining centre. • Automatic tool probing, 80 tool cassette with automatic changer.	• X axis travel 500mm • Y axis travel 500mm • Z axis travel 500mm to spindle nose

CNC Turning



Equipment	Capabilities	Work Envelope
Binns and Berry Data 90	- Fully rebuilt and upgraded in 2021 - CNC turning centre - Heavy duty, flatbed CNC lathe with heavy duty geared headstock, hardened & ground box guideways. - Large bore and boring equipment options. 4-step automatic gear change. - Heavy duty tailstock - FANUC CNC	- Max. swing over saddle 1040mm - Max. swing over bed 1200mm - Max swing in gap (guard) 1800 x 700mm - Length between centres 2520mm - Max. diameter inside spindle 105mm - Spindle speed 0 – 1360rpm
Colchester Alpha 550	- CNC Controlled X & Y axis - Variable surface speed	- Swing Diameter 554mm 830mm in the gap - Distance between centres 2000mm
Colchester Alpha 400	- CNC Controlled X & Y axis - Variable surface speed	- Swing Diameter 245mm 585mm in the gap

Large Vertical Turning

Equipment	Capabilities
Webste/Bennet EM 90 Vertical Borer	• 2540mm maximum turning diameter
Webster/Bennet EB72 Vertical Borer	• 2100mm maximum turning diameter • Current weight limitation of crane is 500kg

Conventional Machining: Turning

Equipment	Capabilities
Colchester Mastiff	• 370mm swing over bed • 1300mm between centres • 780mm in the gap
Colchester Triumph	• 2 OFF • 190mm diameter over bed • 300mm in the gap
Hardinge	• Type: HLV-H turret lathe • Centre distance 475mm • Centre height 139mm • Spindle bore 31mm • Spindle speed 125 – 3000rpm

Laser and Bending



Equipment	Capabilities
HSG HS-G301 5E-22EG Sheet and Tube Fibre Laser 4KW	• In addition to the classic cutting system for cutting sheets up to 2000 x 1500mm, this machine is equipped with a rotary axis to process pipes, tubes, U and L – profiles in dimensions from $\varnothing$ 20 mm up to $\varnothing$ 325 mm, and from $\varnothing$ 20 * 20 mm up to $\varnothing$ 225 * 225 mm, and lengths up to 6000 mm. • The positioning accuracy of this cutting system for cutting sheet metal corresponds to ± 0.05 mm / m, for the axis of rotation - ± 0.1 mm / m.
Dener Bending Press Smart XL 1550 MM x 60 Ton	• Y1, Y2, X, R Axis • European type punch and die holder • 19" Esa 660 W touch screen 3D control unit. • Manual Crowning • Deeper throat depth (450mm). • Higher stroke and longer daylight (350mm). • Hoerbiger or Rexroth hydraulic system.

Painting and Finishing



Equipment	Capabilities
Todd Engineering Olympian 1000 Series Spray Booth	• 14,000m³/hr Airflow Rating • 3KW direct Drive Bifurcated Fans • VSD Inverter Drive Motor Control • State-of-the-art LED Lighting System • Water-Based Compatible • 3.5 Air Changes per Minute • Diagonal airflow system. No pit excavations required, installed on a flat surface. • Direct fired gas burner • Cabin – White internal/external double insulated panels • Front doors in a twin leaf formant with white internal/external finish. • Internal Dimensions: 2.5m High x 3.9m Wide, 6.8m Long.
Enviraclean 1250 Series	• Shot Blast cabinet with Cyclone, pressure pot and dust extractor • Work Envelope – 940 x 1250 x 2100mm • External Dimensions – 1450 x 1300 x 2100mm • Removal of corrosion, millscale and coatings. • Deburring, peening, surface penetration, cosmetic surface finishing, brazing flux removal.

Assembly, Welding and Testing Equipment

Equipment	Capabilities
Clean Assembly Room	1000sq ft of positively pressurized assembly facility for UHV Diagnostics Assembly and Vacuum testing.
Welding	7 x TIG, 5 x MIG, 1x Orbital and 1 x Gas Welding 7x Manipulators
Plasma Cutting 2 x Units	Hypertherm - Power Max 65amp: Max. plate cut thickness 15mm Hypertherm - Power Max 45amp: Max. plate cut thickness 10mm
Stress Relieving	1 x Vibratory
Soldering	Hard and Soft Soldering
Testing	- Leak Detection – Mass Spectrometers x 5 - Pressure Testing (Pneumatic and Hydrostatic) - Earth Bond Testing x 1 - DVM x 4 - Granite Surface Table 1.5m x 1m

Ultrasonic Cleaning

Equipment	Capabilities
3 x Hot Wash Detergent line with ultrasonic cleaning	- Large (2 Stage) - 1.5mtr x 1.5mtr x .5mtr - Medium (4 Stage) – 0.8mtr x 0.8mtr x 0.8mtr - Small (4 Stage) – 0.5mtr x 0.3mtr x 0.3mtr

Drying and Baking

Equipment
3 x Ovens

Marking Equipment

Equipment
• SIC Marking Systems • P123 Handheld unit with e10 controller and bar code reader • P122 Handheld unit with e6 controller • HALO Cube 100 • Laser engraving marking system • Workpiece door 638mm x 400mm

Computer Systems

Equipment	Capabilities
Siemens NX (3 seats)	NX CAM provides comprehensive and integrated NC programming capabilities in a single system. This enables the use of consistent 3D models, data and processes to seamlessly connect planning and shop floor operations with a digital thread. Automated NC programs reduce cycle time and use powerful, application-specific tools.
Edgecam (2 seats)	Cad Cam System, reading DXF/IGES/DWG/SAT/PAR files, multi-tasking, post process control of DNC linked machines. Surface Design & 3D m/cing capability, Multi plane m/cing via Solid Modelling and tool path verification packages.
CGTech Vericut	CNC simulating machining, tool path motion and material removal process, detecting errors or areas of inefficiency in NC programs.
Siemens Solid Edge (2 seats)	Solid Edge Software - Solid modelling CAD system. Interfaces with Edge Cam and facilitates transfer of 3D designs to CNC files.
Solidworks (2 seats)	Solid modelling computer-aided design and computer-aided engineering computer program.
Zoller TMS	Optimal and flexible management of tool data from the office or directly at the presetting and measuring machine. Standardized: central data storage in the Zoller system.
Miscellaneous	• Radan • Designer • RadBend • RadTube • Gauge Database

Business Decision Tools

Equipment	Capabilities
Siemens OpCenter	Advanced scheduling with ability to prioritise work automatically & ability to fix booked slots. Holistic Manufacturing Operations Management (MOM) solution that enables strategy implementation for the complete digitalisation of manufacturing operations.
Microsoft Power BI	Bridging the gap between data and decision making.
Javelin	Advanced production control software
Exchequer	Exchequer Accounting software is an accounting and business solution package.

Inspection Equipment/NDT



Equipment	Capabilities	Work Envelope
Globels S Chrome Laser CMM 12-22-10	• CNC Co-ordinate measuring machine. • Lights out quality reporting and speeds in points per second from 1 currently to 1,00 for cavities and 600,000 for surfaces.	• X axis 1200mm • Y axis 2200mm • Z axis 1000mm • Accuracy 3 microns • Resolution 0.1 microns • Repeatability 3.5 microns • Speed (m/min) 30 • Max. Component Weight 1000kg

Equipment	Capabilities
Mitutoyo	• Surf test, surface roughness measuring machine
Mic Trac	• Guage Maker • A fully complimentary range of inspection, shadow graphing & workshop equipment is available, traceable to national standards
VCR-CCC-A3-K Analyser	• Vanta C Series Handheld XRF Analyzer including rhodium (Rh) anode 40 kV X-ray tube, SDD (Silicon Drift Detector), In-line camera for aiming, 3mm X-ray spot collimation and 5-megapixel sample camera for documenting tests. • Primary Method: Calibration Alloy Plus METHOD-A3-VCR. Analysis for metal samples measuring Mg, Al, Si, P, S, Ti, V, Cr, Mn, Fe, Co Ni, Cu, Zn, W, Hf, Ta, Re, Pb, Bi, Zr, Nb, Mo, Pd, Ag, Cd, Sn, Sb. Grade comparison on the base of international or customizable grade libraries.
Dye Penetrant Testing and Visual Inspection	• PCN Level 2 (3 inspectors)
Demagnetising	• 500mm x 500mm Capacity

Forklifts and Pallet Trucks

Equipment	Capabilities
Heli	• Diesel • 3500kg Capacity
Hyster	• Electric • 1600kg Capacity
BT Staxio (x2)	• 800kg Capacity

Special Processes

- **Oxford Engineering Ltd. can also offer clients a range of special processes through our network of trusted subcontractors.**

Process	Process
• Anodise • Hard Anodise • Stress Relieve • Annealing • Nitride Case Harden • K33 Kolsterising • Water Cutting • Vacuum Braze • Diamond like Carbon Coated • Deep hole drilling/boring/gun drilling/honing • WS2 coating • NDT X-Ray • Flow Deburring • Cadmium Plate • Ceramic Coating	• Electroless Nickel Plate • Nickel Plate • Powder Coating • Load Testing • Fluoropolymer Release Coating (Armourcote 4540) • Zinc Plate • Electro-Beam Welding • Grinding and Chrome Plate • PTFE Coating • Tube Fabrication/Roll and Weld • Phosphor Coating • Lapping • Weld Cladding • Metal Spinning



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