**Lathes**

Mazak Integrex 50Y

4 Axis Lathe with milling capacity X,Y,Z, and C axis. Capacity 3M bed, with programmable steady and tailstock chucking up to 580mm. Robot loaded system up to 100kg max. Unattended capacities.

Mazak Integrex 400

5 Axis Lathe with milling capacity X,Y,Z,C and T axis. Capacity 1M bed with programmable steady and tailstock chucking up to 280MM. Robot loaded system up to 100kg max. Unattended capacities.

**CNC Milling Machines and Machining Centres**

Okuma MC600 Horizontal Machining Centre

Capacity: x = 1000mm, y + 800mm, z = 750mm. B-axis rotary axis resolution: 0.001o. Pallet 635mm square

10-pallet carousel (fully unattended machining capacity)

Okuma MA600 Horizontal Machining Centre

Capacity: x = 1000mm, y + 800mm, z = 750mm. B-axis rotary axis resolution: 0.001o. Pallet 635mm square

AGV LOADED pallet system (fully unattended machining capacity)

Mazak VTC-20B Fixed Bed Vertical Machining Centre

Capacity: x = 1200mm, y = 510mm, z = 510mm

**CNC Lathes**

Okuma LB25 CNC High Speed Chucking lathe with OSP 5020L controller

Capacity:  420mm swing x 1000mm between centres

Okuma LCS-15 high Speed Lathe with OSP 700L controller, 4000mm hydraulic bar feed, and no Tail Sock

Capacity: 270 swing x 280 long

Okuma LH35-N Lathe with OSP 500L-G Controller

Capacity: 610mm swing x 3000mm between centres

Okuma Soarer L300E-M with OSP-P20L-R Controller

Capacity =300mm swing x 1060mm between centers

12 tool turret with milling attachments 3800 max rpm

Okuma LB35iii Lathe with OSP-P300L Controller

Capacity: 460mm swing x 1500mm between centres

**Wire Cutting**

Wire Cut 5-Axis EDM Unit

Milling Machines

Horizontal and Turret Mills to 1800mm x 400mm table x 500mm height

Quantum Turret Mill FM-5V

Table Travel 920mm x 380mm, Max Permissible Load on Table 420 KG

Cincinnati Dial Type Mill 315-15VT

Table Travel 2200mm x 900mm

Cincinnati Universal Mill No. 30

Table Travel 1700mm x 700mm

**Manual Lathes**

835mm Diameter Swing x 2000mm between centres

770mm Diameter Swing x 2000mm between centres

640mm Diameter Swing x 2800mm between centres

**Gear Cutting and Grinding Equipment**

Hofler Gear Grinder

Capacity: 1500mm diameter

                   600mm grinding stroke

                   Up to 18 Module (depending on tooth data)

                   6000kg maximum table load

Lorenz hobbing machine

Capacity:  1500mm diameter x 700mm travel

Staehely hobbing machine

Capacity:  200mm diameter x 250mm travel, 600mm maximum overall length

Churchill hobbing machine

Capacity:  400mm diameter x 250mm travel

Pfauter hobbing machine

Capacity:  500mm diameter x 200mm travel;

Barber Coleman hobbing machine

Capacity:  300mm diameter x 400mm travel

Lorenz sharper

Capacity:  1000mm diameter x 185mm stroke

Fellows shaper machine

Capacity:  500mm diameter x 120mm stroke;

Slotter

Capacity:  305mm. Stroke. Table diameter 600mm

Klinge­lnberg Lead and Involute inspection machine

            Capacity: Maximum gear diameter 1100mm to maximum of 1500kg

            Capacity between centers 900mm

            Worm wheel checker

            Capacity: 800mm diameter

Klingelnberg Hob Sharpening Machine

Niles  Gear Grinder

Capacity:  300mm PCD maximum

Cross Tooth Rounder

Capacity:  400mm diameter

Matrix Thread Grinder

Capactiy:  350mm diameter x 1000mm

Pfauter Thread Mill

Capacity:  350mm diameter x 1000mm

**Grinders**

Okuma Gi-20N Multi-Purpose Internal CNC Grinder with OSP 5020G controller and Double Quill

Capacity: Bore Dia: 5mm – 200mm x 200 long

Multi grinders with the following capacities:

Internal:                       450mm diameter x 400mm stroke

External:                      400mm diameter x 2000mm long

Centreless:                   to 150mm diameter

Surface:                       to 3000mm x 1500mm

Hill Vertical Spindle Surface Grinder with 2400mm x 450mm magnetic chuck

Lumsden Slide-way Grinding Machine with twin wheel head and 3000mm x 1000mm table

Excel No 3 Horizontal Surface Grinder

600 x 220mm Magnetic Chuck 12” Diameter Wheel

**Manual Turning**

5 Centre lathes to 800mm swing x 3000mm between centres

**Vertical Borers**

Berthiez 54” Vertical Borer

Capacity:  1570mm diameter

Webster & Bennett

Capacity: 1 Metre Chuck

**Horizontal Borers**

SMTCL TPX 6113  - 2000mm x 2000mm table, Max Permissable Load on Table 10000 KG

Richards-  Table Travel 2000mm x 1200mm,

Richards PRT - 900mm x 900mm table

Capacity: 2400mm diameter

Richards No. 2 Horizontal Borer

**Heat Treatment Equipment**

GE Induction Hardener (Vertical Axis), with 3.8kHz (150kW) and 10kHz (100W) generators

Capacities:

To 250mm diameter x 890 long

Horizontal to 250mm diameter x 3000mm long

Vertical axis to 1660mm diameter x 150mm high

Induction Hardener 370 kHz for gear teeth to 6 MOD (4DP) x 660mm diameter

4 off QHT FH69M Computer Controlled and Automated Fluidised Bed Furnaces

Process: Gas Carburising, Neutral Hardening and Nitrocarburising

Capacity:  600mm diameter x 900mm deep

**Foundry**

2 Furnaces with maximum melt capacity 380kg

GE Centrifugal (spin) casting machine

CHROME PLATING

Hard Chrome plating facility with 3000A transformer

Capacity:  up to 2000mm length

**Toolroom Equipment**

Jig Borer Societe Genevoise Hydroptic 7

Capacity:  1422 x 1000mm; Positional accuracy (X&Y): 2.5u

**Makino Tool and Cutter Grinder**

Churchill Grinder: 300mm diameter and 1000mm between centres; internal/external with digital readout

3-Axis vertical/horizontal milling centre with digital readout to 5u

Wasino Optic Progile Grinder with x25 and x50 optical magnification

Pratt and Whitney 6” tool room slotter

Holbrook relieving lathe

**Gear Inspection Equipment**

Klingelnberg Lead & Involute tester

Capacity: 1200mm diameter x 1000mm face width;  1500kg maximum load

Parkson Worm and Wheel Centre Distance Tester

Olympus Optical Viewer

**NDT and Metallurgical Test Equipment**

Krautkramer USL32 Ultrasonic Flaw Detector, with angle and straight probes

2 Magnetic Particle Inspection systems (Wet Fluorescent technique)

Leco M400G micro-hardness

Leco 500 Inverted Metallurgical Microscope with CCD Colour Camera, display and colour image copy processor

2 Vickers Hardness testers

Rockwell Superficial Hardness tester

Rockwell “C” Hardness tester

Zeiss Surface Texture test

2 Equotip Protable Hardness testers

Portable Vickers Hardness tester

Leco VP-160 Polisher/Grinder

Mettler H3 Balance

**Miscellaneous Equipment**

Karl Klink Internal Spline Broach (Auto-cycle)

Fanuc Robot a – 1C

3 Radial Drills

37kw Hydraulic Press (200 tonne, 4 column with horizontal press vice)

Keyway Broach

Pedestal Drills

25mm Drill Capacity – 2 off

Bandsaw

12” Diameter Cutting Capacity

Associated Equipment

Linishers, Off Hand and Tool Grinders