

C.W. Fletcher & Sons Limited

Plant List

C.N.C. Mill/Turn

Mazak Integrex e-1550V/10 II.

5 axis mill/turn multifunction

80 tools - 10 000 rpm mill/drill etc., 300 rpm turning

Maximum workpiece diameter = 2 000mm

Maximum workprice height = 1 440mm

X axis travel 1 875mm, Y axis travel 1 550mm, Z axis travel 1 345mm, B axis tilt +120 degree/-30 degree

C.N.C Turning

Traub TNC65(4) Twin spindle.

Turning length 450mm. C-axis polyform and Y-axis. 10 station driven tool turret

Heavy Duty Slant Bed CNC Lathe SA-45-1200 (1200) between centres, maximum cutting \varnothing 1145mm,

Fanuc 18T Control

Hardinge Conquest T51

51mm bar diameter, Swing over way cover 300mm, Swing over tooling top plate 67mm. X axis travel 281mm, Z axis travel 304mm. Equipped with live tooling and bar feed.

Heid (2 off)

Swing over bed 1200mm

Broadbent Stanley

Heavy Duty Slant Bed CNC Lathe SA-45-1200 (1200) between centres, maximum cutting \varnothing 1145mm,

Fanuc 18T Control

Doosan S670L (2 off)

2 axis (X = 15.16mm Z = 70.87), V12 Turret Type, Fanuc 18T Control

Doosan S550L

450mm chuck, 1130mm between centres. V12 Turret Type, Fanuc 18T Control

Doosan VT740

Vertical turning centre. 2 axis (X = 395mm Y = 740mm). Fanuc 21i-TB Control. Renishaw tool presetter

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C.N.C. Milling

Mazak Vari-Axis 630 5x IL

5 axis (X=630mm Y=765mm Z=510mm C=360° A=+30°/-120°)

Maximum work piece Ø 630mm, maximum work piece height 500mm

Deckel Maho DMU85 Monoblock

5 axis (X=850mm Y=850mm Z=650mm C=360° A=+120°/-120°)

Maximum work piece Ø 1040mm, maximum work piece height 590mm

Deckel Maho DMU 70V

Machining Centre (5-axis). NC rotating table plus NC swivel axis 0° -180° allowing 5 side machining of a 600mm cube. 3D contouring

Deckel Maho - MH 800 C (2 off)

5 axis, 500mm Ø Table 3 axis, Rigid Table

Deckel Maho - DMC 80 U

5 axis (X = 800mm Y = 700mm Z = 600mm), 800mm Ø Rotary Table, 60 tools

Deckel Maho - DMC 160 U

5 axis (X = 1600mm Y = 1250mm Z = 1000mm), 1600mm Ø Rotary Table, 60 tools

Deckel Maho - DMU 100

MonoBlock Machining Centre (5-axis). X axis 1250mm Y axis 710mm Z axis 710mm. 800mm integrated rotary table. Heidenhain control and probe.

Mikron VCE 1600 Pro (2 off)

Vertical Machining Centre. X axis 1600mm Y axis 900mm Z axis 800mm. Heidenhain control and probe. 10 000 rpm spindle.

Fadal VMC15 Machining Centre

(3-axis). X axis 500mm Y axis 400mm Z axis 500mm. Equipped with 21 tool automatic tool changer with rigid tapping

Fadal VMC 40 Machining Centre

(4-axis). Capacity 700 x 550 x 400mm. 300mm rotary table. 21 station tool change. Maximum table weight 450kg.

Maho 600C (4 off)

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Machining Centre (4-axis). Capacity 600 x 400 x 500mm. NC controlled 630mm diameter rotary table. Automatic indexing between vertical and horizontal milling. 32 station universal tool change

Boko F30

Universal Milling/Boring Machine. Capacity 2000 x 1200 x 1200mm. Equipped with Heidenhain TNC415 control

Parpas SL-90

Universal bed type 5 axis milling machine. X axis 2000mm, Y axis 1050mm, Z axis 1000mm. Maximum table weight 5000kg. 24 tool automatic tool changer with rigid tapping. Equipped with Heidenhain TNC530i control and Heidenhain TS630 work piece probe.

C.N.C. Grinding

Matra Schnieder Vertical Grinder - Internal bores, external diameters, surfaces. 420mm bore depth x 900mm external diameter x 700mm high

Turning

EMI-MEC Automatic Lathe - 25mm diameter bar feed

Colchester Student 3100 Centre Lathe - 308mm swing over bed, 600mm between centres 381mm swing in gap, 914mm between centres.

Harrison M400 Centre Lathe - 609mm swing in gap, 1016mm between centres.

Mitchell Centre Lathe - 1168 swing in gap, 2133mm between centres.

Mitchell Centre Lathe - 812 swing in gap

Tadu F5750 Face Plate Machine - 1500mm swing. 1000mm and 1370mm face plates.

Milling

Bridgeport 2S (2 off) Capacity 1371 x 305mm. Digital Read-out

Ajax No.1 Mk 11 Capacity 1000mm x 200mm

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Cincinnati Capacity 1219mm x 305mm

Maho MH800 Capacity 200 x 700 x 450mm

Mostana Capacity 1000 x 400mm

Grinding

Jones and Shipman (2 off) External and Internal Cylindrical Grinder. 254mm diameter x 686mm length

Unison Deadtrue Grinding Attachment. 127mm diameter x 152mm length

Elliot Surface Grinder. Capacity 450 x 200mm

Jones and Shipman Surface Grinder. Capacity 457 x 152mm

Jones and Shipman Surface Grinder. Capacity 686 x 254mm

Miscellaneous Cutting Machines

Brown 300SA Circular Saw 275mm blade diameter

Various cutter grinders, bandsaws. etc Various drilling machines

Radial arm to high speed

Herbert No.2 Flash Tapper 11 to 48 TPI

Sunnen Honing Machine 150mm diameter

Societe Genevoise MP3K Jig Borer Capacity 381 x 508mm with 355 rotary table and digital readout

C.N.C. Presses

LVD Press Brake, Type PPEB EQ 80/25. 2.5 metre, 80 tonne, colour graphic control with V-axis CNC crowning

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Amada Arcade 210 Turret Punch Press. 19 stations including 3 indexing stations programmed using Ampunch CAM software

Presses

HME Crank Press. 152 tonne. Area 1321 x 990mm. Stroke variable to 152mm

HME Crank Press. 76 tonne. Area 914 x 609mm. Stroke variable to 152mm

HME Knuckle Press. 366 tonne. Area 508 x 432mm. Stroke fixed at 62mm

Gavani and Goldini 350 tonnes

Hydraulic Engineering Deep Draw. 203 tonne. Area 787 x 609mm. Stroke 381mm at top and bottom

Craig and Donald Drawing Press. 406 tonne. Area 2100 x 1500mm. Stroke variable to 610mm

CWF Hydraulic Ram. 120 tonne. Stroke 133mm max.

Miscellaneous Press Equipment

Elga Guillotine Capacity 3048mm x 6mm thick mild steel

S & B Handfly (13 off) Various sizes

Rhodes Pierce-All Shape Piercing Machine

Eckold Piccolo Sheetmetal Shaping Machine

Guilfil Upstroke Hydraulic Press Brake Capacity 2000mm x 30 tonne

Fusion Welding

Miller 351 Miller Maxstar (7 off)

Miller 300A/BPS AC/DC TIG. Capacity 3.25mm x 0.7mm low alloy and stainless steel.

Miller 300CY50 Analog Pulse. Capacity 6.35mm x 0.08mm. All materials

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Miller 200

Resistance Welding

Sciaky RAMU 100 Seam Welder. Capacity 2.6mm to 0.7mm, all materials

Sciaky PMC02 STQ-10036 Spot Welder. Capacity 2.6mm to 0.7mm, all materials

Sciaky SAC50 Spot Welder. Capacity 2.0mm to 0.7mm, all materials

Sciaky SAC75 Stitch Welder. Capacity 2.6mm to 0.7mm, all materials

Processes

Abrasive Developments Aquablast Cabinet

Carbolite High Temperature Furnace Normal working temperature 650°-1100°C. Capacity 350 x 600 x 1000mm. Wild Barfield High Temperature Furnace Normal working temperature 650°-1100°C. Capacity 380 x 380 x 900mm

Autoveyor Low Temperature Oven Normal working temperature 150°-800°C. Capacity 400 x 800 x 1200mm.

Biliks and Bullows (2 off) Paint Spray Booth

Hedin Stove Enamelling Oven

Osro Vibrating Barrel for Metal Finishing

Inspection

Co-ordinate Measuring Machine Both running PC-DMISS CAD operating system capable of offline programming, programme proofing and the direct importation of 2D & 3D CAD models in a variety of formats. 10M probe.

DEA Global Advantage Capacity 1500 x 2000 x 1400mm. Equipped with Renishaw PH10M probe.

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CAD/CAM

Siemens NX 7.5 (5 off) Full suite of design and manufacturing modules

SolidEdge v20 (2 off) Design and drafting software

PC-DMIS offline CMM programming with direct CAD interface to Siemens NX

Ampunch C.N.C. Punching. Includes nesting software and DNC link to Amada Arcade turret punch press

2-D Matrix Part Marking

Pryor Chemical Etch Master Pro Electrolytic system

Domino A300 Ink marker Pryor Multidot 2-D Data Matrix. 75mm x 75mm marking area.

Pryor Multidot 2-D Data Matrix. 150mm x 150mm marking area.