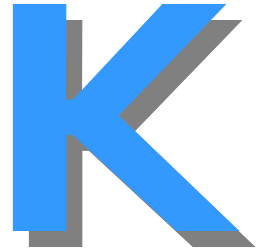


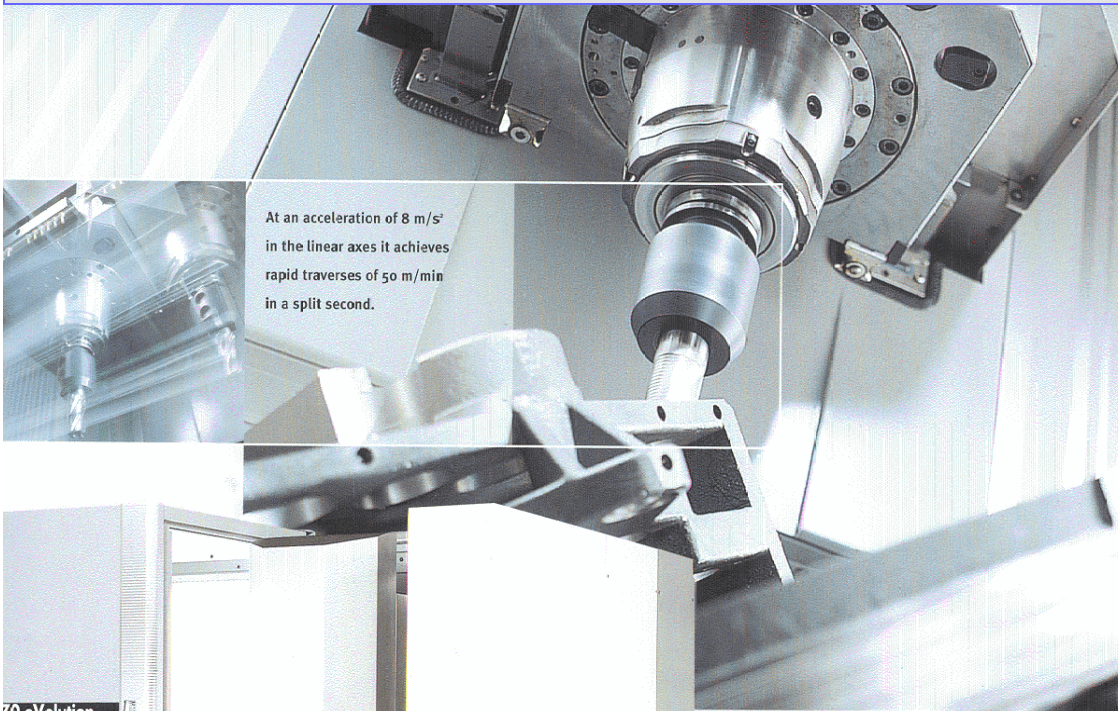
PLANT LIST



BS EN ISO 9001 : 2000

Cert No. Q5153 MOD Approved to AQAP 4 MOD Defence Contractors List No. 1V6K01

New 5 Axis DMU 70 evolution 18,000 RPM With dynamic 8 m/s²



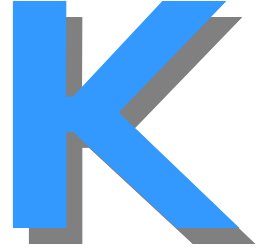
At an acceleration of 8 m/s² in the linear axes it achieves rapid traverses of 50 m/min in a split second.

This universal milling machine with a 2 axis NC swivel-rotary table offers maximum performance for 5 sided machining, 5 axis positioning and 5 axis simultaneous contour machining. At an acceleration of 8 m/s² in the linear axes it achieves rapid traverses of 50 m/min in a split second. The main advantage of the DMU 70 evolution is the possibility of complete 5 sided machining in only one setting, which leads to reduced fixture costs and an increase in accuracy.



THE KROUSE ENGINEERING CONNECTION

J.D. KROUSE ENGINEERING LTD
CARTERTON SOUTH INDUSTRIAL ESTATE, BLACK BOURTON ROAD, CARTERTON, OXON, OX18 3EZ
TELEPHONE: (01993) 843683 FAX: (01993) 840539 E-Mail: sales@jdkrouse.co.uk
WEB SITE ADDRESS: www.jdkrouse.co.uk



PLANT LIST



VMC 1500
 15,000 RPM VERTICAL MACHINING CENTRE
 X AXIS 1500mm Y AXIS 800mm Z AXIS 500mm

VMC 1000
 10,000 RPM VERTICAL MACHINING CENTRE
 X AXIS 1020mm Y AXIS 510mm Z AXIS 600mm



These new machines are at the forefront of technology. With digital drives and digital CNC control allowing the CNC control to transmit digital information to the drives quicker and smoother than was previously possible. This smoothness around corners and over “bumps” in three dimensional work, avoids damage to the machine and cutters. It also avoids work hardening caused by “dwells” around corners at the extremely high 15,000 RPM spindle speed and feed rates, even during 3D work, of 5 to 10 metres per minute or more. The machines are capable of feeding accurately, at up to 15 metres per minute, even on 3D surfaces, as cutter technology catches up. This is possible on some materials now, however on tool steels and hardened tool steels, (up to 58-60 Rc) feed rates will be restricted to under 6 metres per minute. Our Delcam Duct 3D CAD CAM will output data as Nurbs and the digital machine control will accept NURBS and output in this format to the digital drive motors, if instructed to. These machines are capable of machining all types of materials including copper (and other difficult materials), tool steel, hardened tool steel blanks for male and female mould cavities, aluminium, in fact all ferrous and non ferrous materials, such as; composite, nylons, plastics etc....



2 High Speed 18,000 RPM CNC Routers

WADKIN 1631 CNC 3D ROUTER
 18,000 RPM
 X AXIS 3300 mm Y AXIS 1600 mm
 Extrusion up to 9 metres long

WADKIN 2612 CNC 3D ROUTER
 18,000 RPM
 X AXIS 2600 mm Y AXIS 1250 mm

These new machines have a top speed of 18,000 RPM, which gives a virtually burr free finish and exerts much less load on the component, allowing thin webs to be left without distortion. They also allow high feeds to be used. The maximum contouring feed rate the computer can handle is 12 metres per minute (472 inches). The machines are capable of allowing large parts to be milled and drilled and also allowing many smaller parts to be machined at one setting. All conventional milling and drilling in non ferrous and plastics etc can be carried out on this machine with the added advantage of a vacuum table of over 3300 mm x 1600 mm. The 1631 can also machine extrusion up to 9 metres long. Both machines are connected directly to our Cad-Cam system and this allows us to nest parts, in a sheet or plate, to make the best use of material and avoid wastage

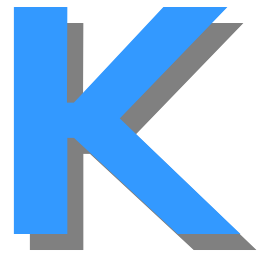
Charmilles ROBOFIL 290P Wire Erosion



High precision linear glass scales maintain accuracy over the life of the machine
 Five Axis Cutting X,Y,Z,U,V
 X,Y,Z travel 400x250x200 mm
 U,V travel 400x250 mm
 Exceptional taper machining (30°/200 mm)
 Maximum part weight 500 kg
 Integrated anticollision system on all 5 axes.



PLANT LIST



Two Hurco BMC 30 Vertical Machining Centres

Axis Travel 'X' 760 mm 'Y' 510 mm 'Z' 510 mm

Both machines are equipped with fourth axis (rotary) in either vertical or horizontal modes and 24 station automatic tool changes. Positioning accuracies are +/- 0.01 mm with repeatability of +/- 0.005 mm. These machines are powerful enough to machine stainless at high feed rates and non-ferrous materials at speeds up to 18,000 RPM with high speed milling attachments.

Three Bridgeport Series II Interact

CNC Milling and Drilling Machines

Table size 1200 mm x 422 mm. Computer controlled area 760 mm x 380 mm.

All eight of these CNC Milling Machines are capable of machining jobs larger than the controlled area.

Hitachi Seiki 4NE11-600 CNC Lathe

12 station automatic tool changer. 20-3150 RPM infinitely variable spindle speed. Max swing 580 mm. 'X' axis travel 200 mm, 'Z' axis travel 600 mm. Hydro Sameco barfeed up to 60 dia. Fully tooled for bar and chuck work.

Feeler 180 CNC Lathe

35— 3500 RPM Spindle Speed.

0.3 second tool change.

24 Metres per minute rapid traverse.

This modern fast and accurate machine, (Hardinge type) will turn to very fine limits.

Complete CAD-CAM System 2D/3D

[DNC links to all CNC machine tools in factory.](#)

This system reduces programming costs, lead times and also accepts customer design information. The solid modelling facility allows us to quickly understand the shape of complex parts, prior to establishing manufacturing methods and also automatically writing the programming.

Four Huron Universal Milling Machines

Fully equipped with horizontal milling equipment, the head can be set at simple or compound angles. With the milling/drilling head attachment, will mill and drill at any angle. Overhead ram is powered to give large 700 mm Y cross traverse.

Traverses, 'X' 1500 mm, 'Y' 700 mm, 'Z' 550 mm.

CNC Controlled Fourth Axis Units

Available for use with all CNC and standard milling machines.

Twelve Universal Turret Milling Machines

Fitted with digital readouts capable of measuring slide movements to 0.0001" imperial and 0.001 mm metric. All machines are fully equipped for jig boring, drilling and reaming, rotary table, dividing head work and milling.

Two Sajo Vertical Milling Machines

Table sizes 1524 mm x 305 mm and 1270 mm x 254 mm.

Both fitted with digital readout.

Colchester Mascot 1600 Gap Bed Centre Lathe

229 mm centre height, 1422 mm between centres, 740 mm swing in gap. Both machines fitted with digital readout.

Two Colchester Triumph 2000 Gap Bed Centre Lathe

190 mm centre height, 1422 mm between centres. 609 mm swing in gap. Both machines fitted with digital readout.

CVA High precision Toolroom Lathe

Fitted with digital readout

Two Britan Repetition Lathes

With 31.75 mm diameter automatic bar feed.

Archdale Radial Drill 914 mm

Surface Grinder 152 mm x 457 mm

Sub Assembly and Component Finishing section Well equipped with, drills, tapping machines, fly presses and bead blasting etc.

Large Assembly Area

Excellent Sawing Section Equipped with automatic ferrous, non ferrous and band sawing.

Aberlink Axiom 3 co-ordinate measuring machine Leading edge inspection centre.

Inspection

We also have an excellent range of standard measuring and gauging equipment. Including a 2 co-ordinate measuring machine, bore and surface measuring equipment and Optical Projector.

Forklift Facilities

Delivery service using our vehicles