

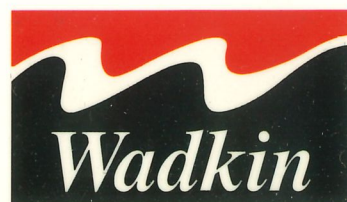
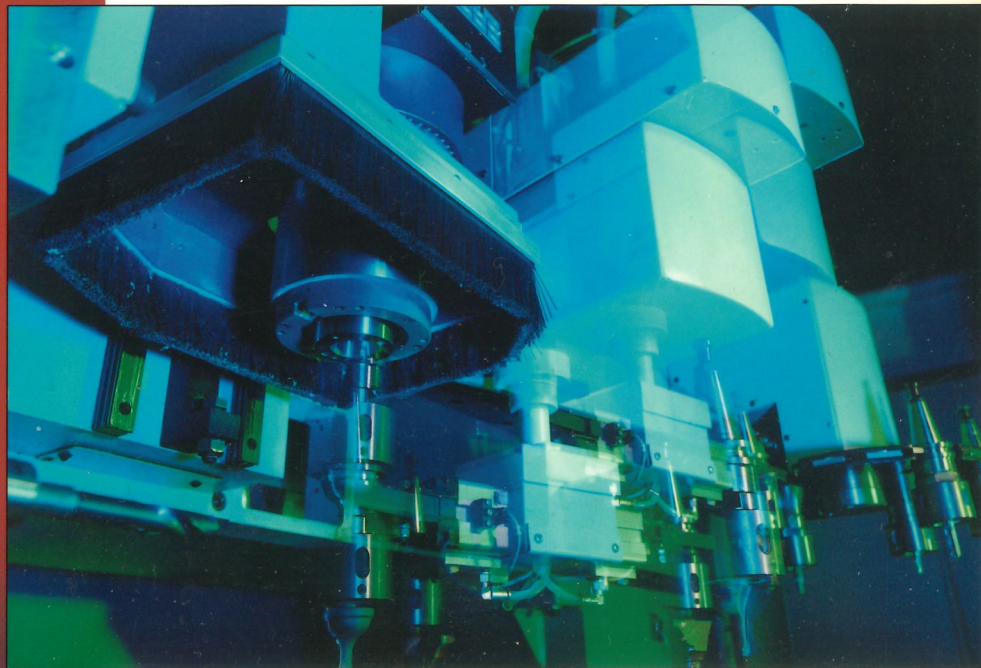
**MACHINING
CENTRES**

CNC - High

Performance

Machining

Centres



A global supplier of High Quality Machining Centres

Wadkin Worldwide

Wadkin is a world leader in the design and manufacture of high quality machining centres. The company is truly international with facilities in the UK, Australia, USA and Far East, all backed by a worldwide network of sales and distribution centres. Wadkin CNC machines can be found world wide working in a diverse range of industries operating on timber, plastics, metals and polymers.

All machines are designed and manufactured 'in-house' using the latest CAD design techniques and automated machining centres. Wadkin are accredited with BS5750 (ISO 9001) certification and all machines supplied into the EC are built to the 'CE' European Specification.

Demonstration Centre

At the Wadkin Headquarters in Leicester, England, a permanent demonstration and exhibition

centre houses many of the latest Wadkin machines. Here, customers have the opportunity to see how Wadkin machines operate on their own materials and can witness machine performance under realistic working conditions.

After-Sales Service

Wadkin Service Division provides a variety of specialised services. The department offers technical advice to customers and has a team of skilled service engineers who install, commission and provide on-site maintenance for the full range of Wadkin machines.

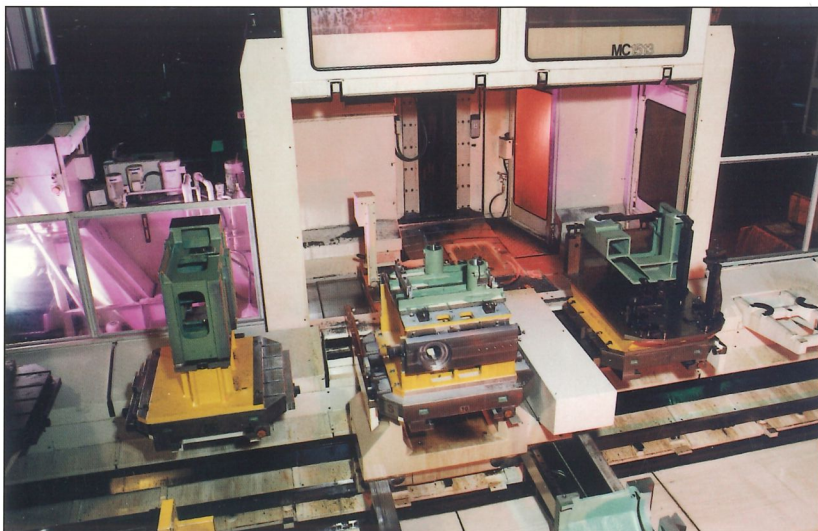
Based at Leicester, the division offers a fast and efficient parts service. Additionally, the division provides customers with in-depth training in the operation of Wadkin machinery, either on customers premises or in the Wadkin Training Suite and Demonstration area.

Customer training on CNC Router functions is tailored to suit your abilities.



Centralised service department gives rapid response to customer's maintenance requirements.

The Makino automatic multi-function machining centre with 28 machining pallets is central to Wadkin's just-in-time machining philosophy.



A choice of machines for your production needs

The strength of the Wadkin range of CNC machining centres is based upon the application of sound engineering techniques which assure the high levels of accuracy and repeatability required by all end users, whatever the industry.

With technical experience which is second to none, of a diverse range of applications Wadkin can specify the right machine for your production needs. Wadkin machining centres are to be found working in the following applications:

- Training in college and educational establishments.
- Aerospace.
- Sign making.
- Point of sale material manufacturing.
- Shopfitting.
- Production of furniture components.
- Door manufacture.
- Kitchen and bedroom furniture.
- Composites.
- Plastics.
- Light engineering.
- Caravan/coach building.
- Car industry.
- Boat building.

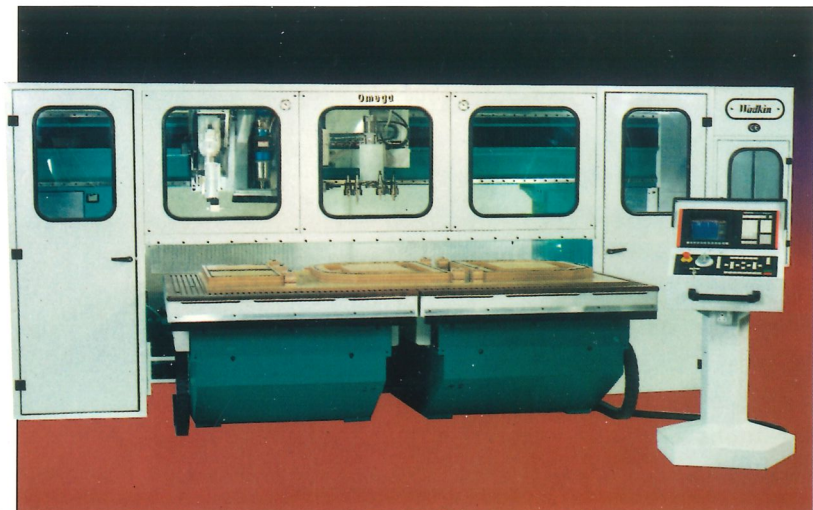
And many more!



CC2000



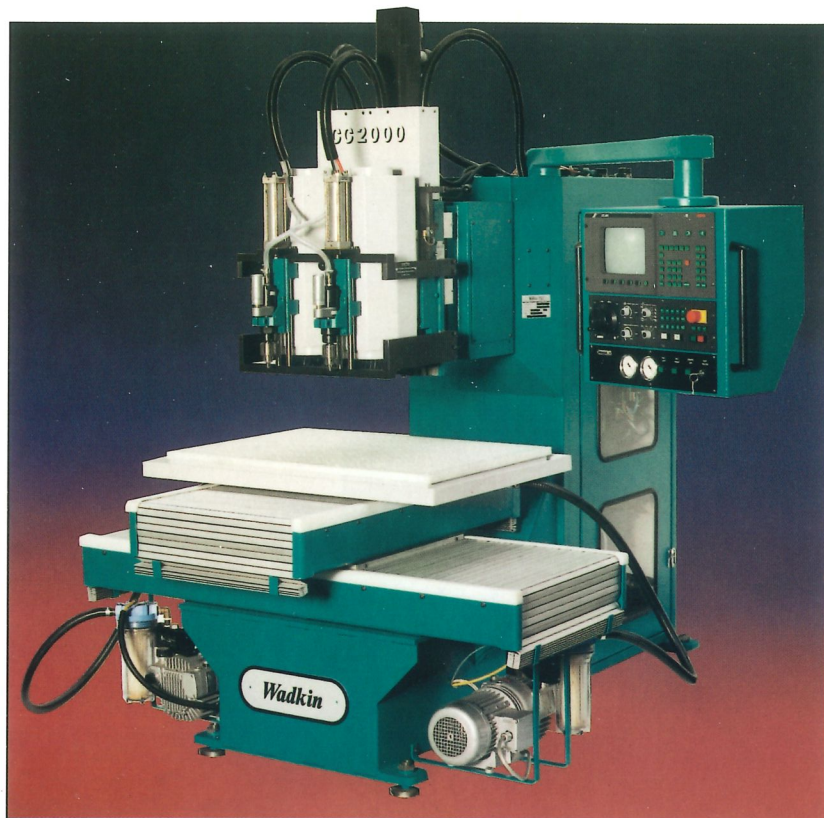
UX 1691



Omega

WHICH MACHINE FOR YOU?

A wide choice of specification



CC2000

CC2000

A compact single table machine with a choice of single or twin spindle models, the CC2000 is available with 3 axis control and a generous machining capacity of 1275 x 620mm. With a high specification as standard, the CC2000 is the ideal start to CNC machining for colleges and smaller workshops where space is at a premium. A complete range of options not normally associated with machines of this size are available, such as a 4 position rotary tool changer which makes the performance of multi-headed machining possible on a single head model. The CC2000 is ideally suited to both high and low volume production environments where component size is relatively small.

UX1691

Offering excellent value for money, this machine of robust construction has a machining capacity of 1650 x 915mm. The UX1691 can accommodate with ease, spindles which have been especially designed for heavy duty applications, it can also be supplied as a single or twin spindle machine to meet individual requirements. A complete range of options and multiple machining facilities ensure that the UX1691 is suited to high production and full flexibility of application. When fitted with a tool changer, the UX1691 offers the flexibility of multi-operation machining over the full table area.



UX1691



Omega Machining Centre with twin table.

Omega

With a top of the range specification, the Omega has been designed to meet current and anticipated safety requirements. The Omega has a fixed gantry style construction with a single axis moving table which saves on valuable floor space. The Omega can be supplied as a single or twin table machine with a range of machining capacities extending from 2600 x 1380mm to 3200 x 3200mm. Tandem loading can be performed on twin table models where the high productivity of non stop machining is required. Upto 6 spindles can be specified, and when fitted with twin spindles, parallel machining can be performed over the full programmable table area.

High performance heads

Wadkin have a long involvement in the development of high spindle speed technology and have selected nothing but the best head units for its range of CNC machining centres.

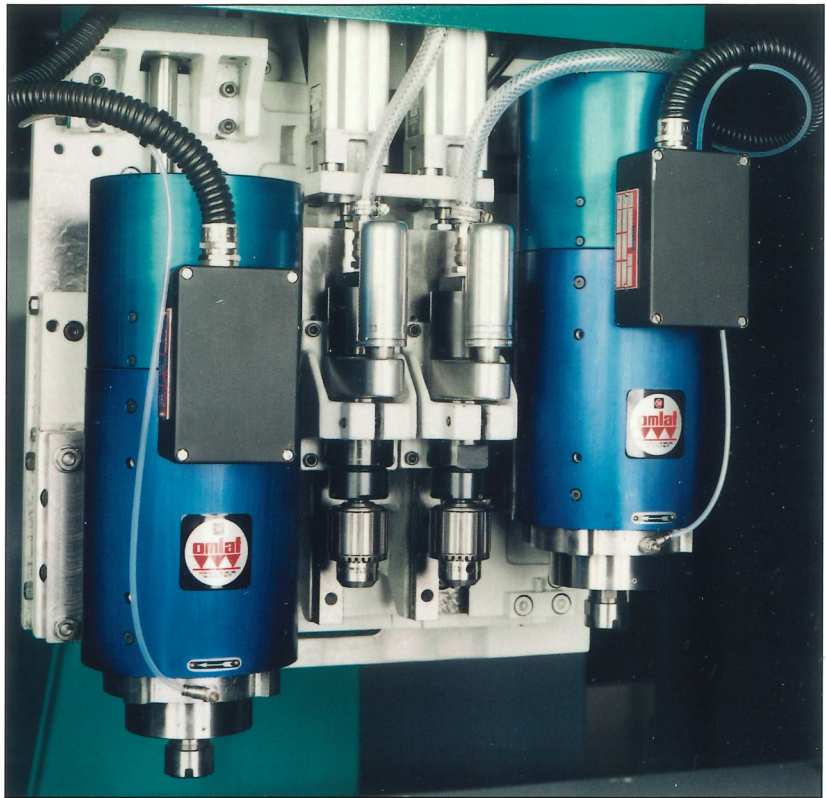
Wadkin offer a choice of Woodline high frequency spindle units with either 4kW, 7½kW or 10kW motors.

Wadkin Spindle Units Standard Features

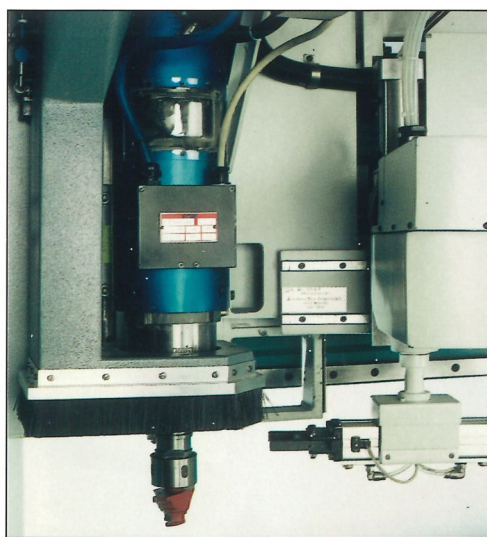
- All spindles are driven through static inverters which allow the correct spindle speed to be selected for each application.
- 4 pole high frequency unit for smoother running.
- Air cooling by integral fan.
- Built in sensors to indicate spindle stop.
- The nose of all spindles is positively pressurised to ensure dust free running for a longer bearing life.
- Sealed and greased for life bearings makes for maintenance free running.
- Absolute accuracy is guaranteed by a super high precision multiple bearing arrangement.

Additional features:

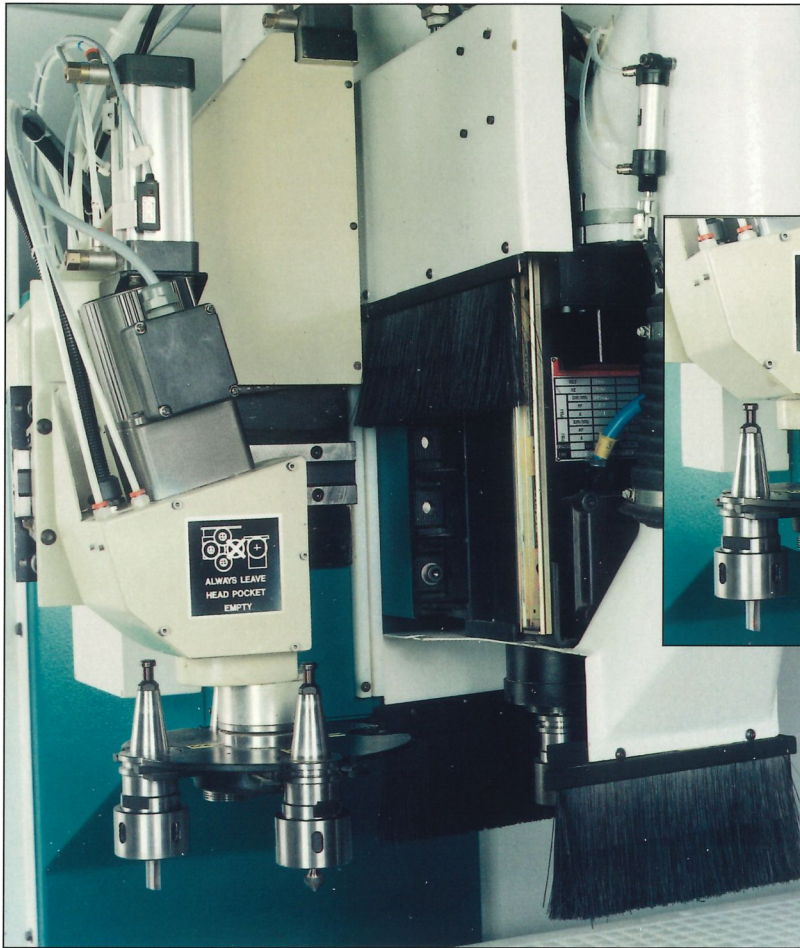
- Spindle speeds up to a maximum of 24000rpm on 4 & 7½kW heads.
- 10kW heads run at maximum speeds of 18000rpm and produce high torque at low rpm.
- Euro universal collet (type ER25) fixing to accept up to 16mm dia. shank tools on 4kW head with ISO30 spindle taper on larger heads.
- Pneumatic operation of tool clamping and release with built in sensors for tool in/ tool out and spindle stop is featured on all 7½ & 10kW heads.



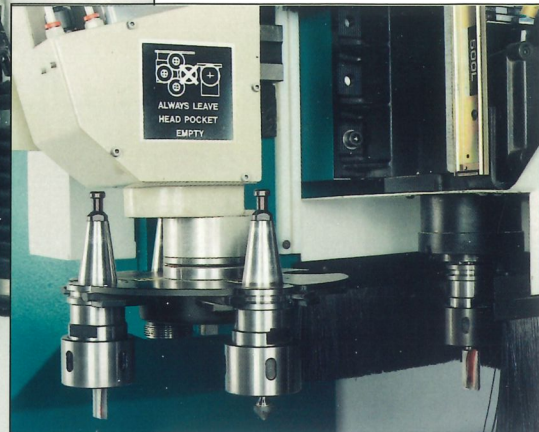
4kW Woodline spindle unit.



7½kW Woodline spindle unit.



4 position movable rotary tool changer.



Tool changing heads

In addition to manual tool changing a choice of 4 or 8 position automatic tool changers are available to offer the flexibility of multi head machining from a single headed machine. For the CC2000 and UX range a 4 position rotary movable tool changer is available. For a faster "chip to chip time" on the Omega range a 4 or 8 position carousel rotary tool changer complete with robotic gripper arm is available.

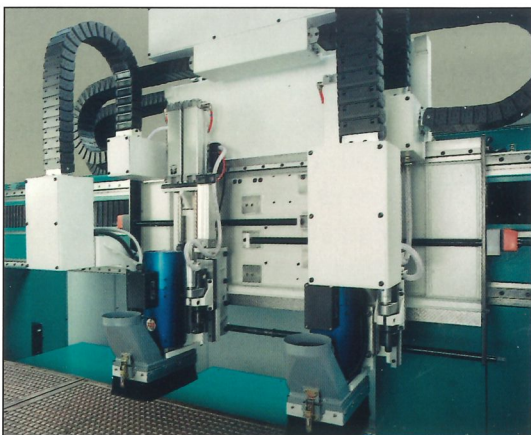
When fitted to a 7½kW head Wadkin's tool changers include as standard a programmable guard to provide the best possible extraction, which is particularly advisable when working with MDF.

Parallel Head Slide

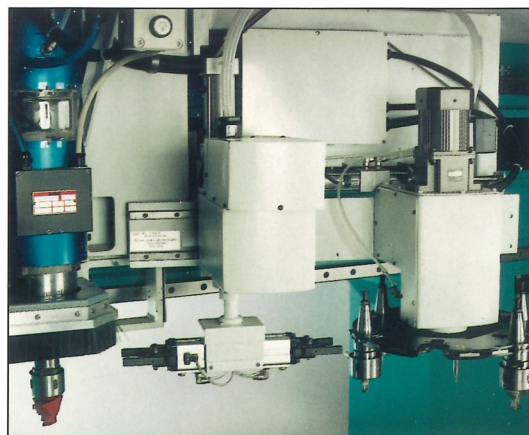
For increased production and flexibility the Omega can be equipped with spindles mounted on to a parallel head slide allowing quick and accurate manual adjustment of the spindle centres by means of a hand wheel and digital readout to suit multi component production.

Automatic Screw Inserter

Wadkin offer an automatic screw inserter for clamping together multiple sheets of non ferrous or composite materials prior to shaping. This option is particularly suited to aerospace applications.



Parallel headslide for multi component machining.



8 position carousel rotary tool changer with robotic gripper arm.

Special options

Servo Indexing Unit

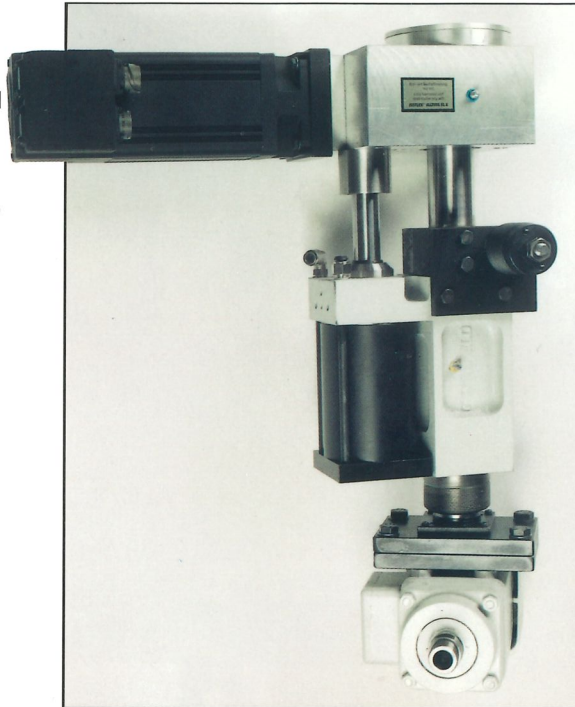
A special 360 degrees indexing unit can be operated as either a universal head, grooving saw head or horizontal router head, with spindle direction precisely orientated by programmable servo control.

Grooving Saw Head Combination

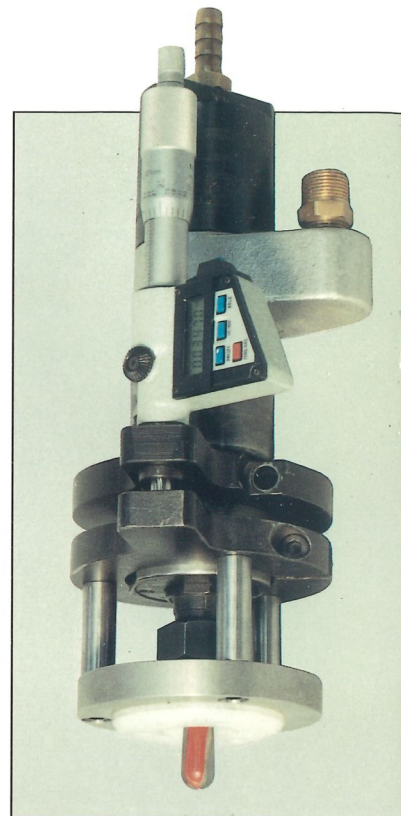
A single grooving saw blade with $\pm 90^\circ$ manual indexing can be combined with either a horizontal router spindle or boring spindle running at 6000 rev/min.

Veining head

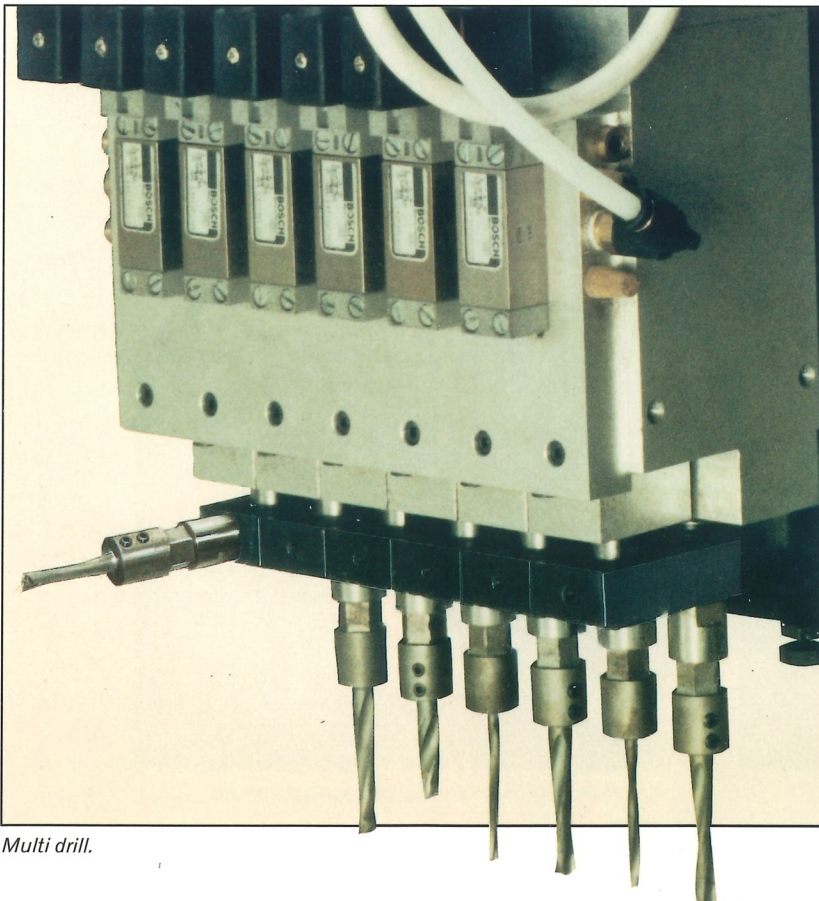
A choice of attachments are available for light duty routing and veining small slots. This attachment can be supplied as a floating veining head for accurate constant depth veining in variable thickness stock. A pressure



Servo indexing unit.



Veining head.



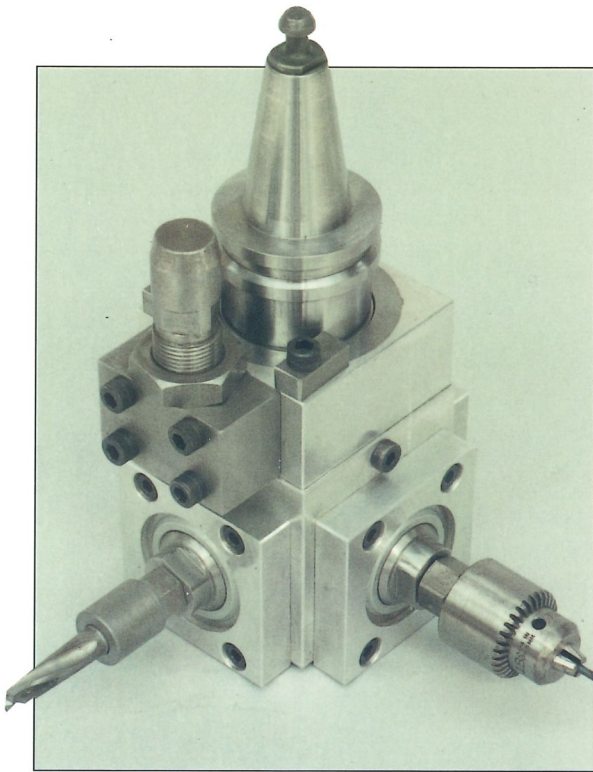
Multi drill.

regulator varies the amount of force exerted onto the component enabling it to follow its contours ensuring a constant depth of cut.

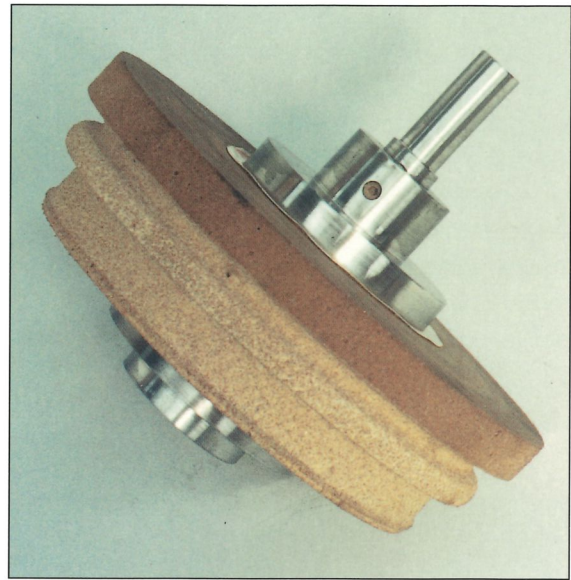
Drilling Units

Wadkin offer an air driven drilling unit with 2500rpm spindle speed and a full range of horizontal routing/drilling units which are either driven independently or by the main spindle. A multi spindle independently programmable drill unit for point-to-point boring and pattern drilling, is available. This drill unit can feature from 4 to 16 vertical or horizontal spindles at 32mm centres. Spindles are advanced by independent pneumatic cylinders, and depth is controlled by machine Z axis.

VERSATILITY IN PRODUCTION



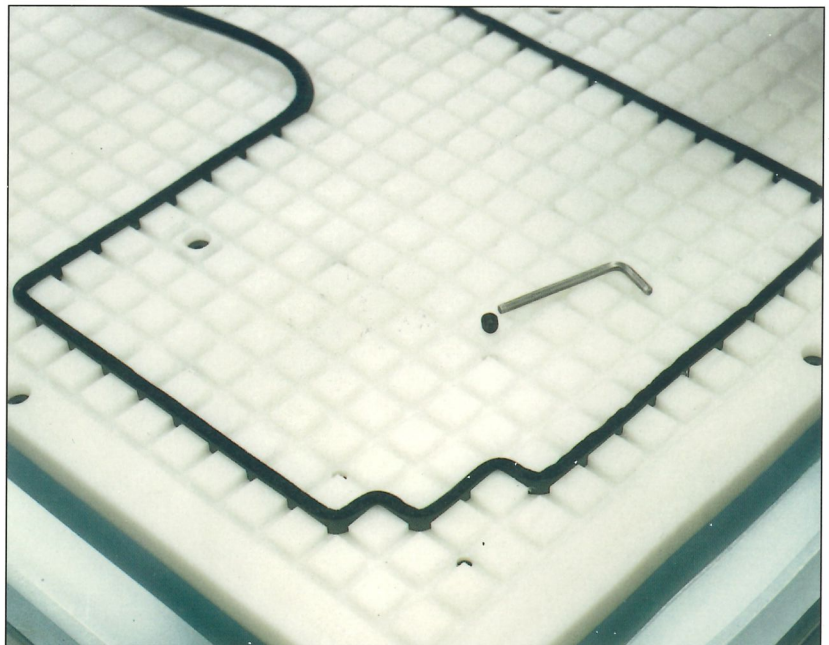
Universal horizontal head with spindles at right angles.



The finest profile sanding operations can be undertaken, utilising profile sanding disks.

Vacuum Systems

A number of vacuum hold down devices and matrix tables are available for safe, accurate and quick changeovers. A choice of polyethylene and high precision Lignostone matrix table tops are offered. Vacuum cups can be supplied as an alternative to the use of fixtures.

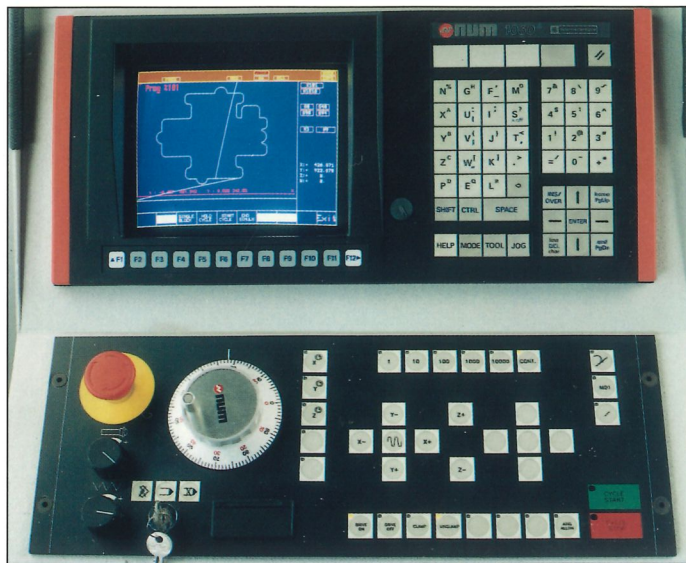


Vacuum Table.

Advanced control systems

Advance control systems

All Wadkin CNC machining centres are supplied with the very latest control system from NUM, the 1060 Series II with a large capacity 100k part program memory. The 10" VDU makes the NUM controller user friendly, with on screen colour graphics enabling the operator to follow at a glance the complexities of the machining program. A range of alternative control systems can also be offered where compatibility with existing systems is required.



NUM 1060 Series II controller.



NC program production on the APS system.

Advanced Programming Systems

To assist busy production departments with preparations prior to machining Wadkin offer a number of software options to aid the creation of NC programs. The Wadkin APS (Advanced Programming System) is a powerful, fast and easy to use graphical system which creates 100% complete and accurate NC programs in a matter of minutes instead of hours. Designs of any complexity including undimensioned parts such as artistic designs and logos can easily be digitised using the Wadkin APS system. Complex part geometry can be quickly and easily defined without the need for a CAD system, although the APS can accept compatible DXF or IGES files from any CAD system. The APS allows machining operations to be dry run on screen to eliminate the need for lengthy calculations and guess work and also avoids costly machining errors.

SPECIFICATION		
Table size	CC2000 1360x790mm	UX1691 1730x975mm
Programmable movements X Y Z	1275mm 620mm 175mm	1650mm 915mm 250mm
Feed speeds X & Y Z	0-10m/min 0-5m/min	0-10m/min 0-5m/min
CNC system – standard – optional	NUM 1060 Series II 110k memory Bosch CC220M 64k memory Bosch CC120M 32k memory	NUM 1060 Series II 110k memory Bosch CC220M 64k memory Bosch CC120M 32k memory
Vacuum pumps Motor power Volume per pump	2x1kW 27cu.m/hr	3kW 80cu.m/hr
Woodline spindle units	4kW, 7½kW	4kW, 7½kW, 10kW
Tool changer capacity No. of tools	4 tools	4 tools
Taper 4kW 7½kW 10kW standard	ER25 collet ISO30 –	ER25 collet ISO30 ISO30
Max. collet dia. 4kW 7½kW 10kW	16mm 25.5mm –	16mm 25.5mm 25.5mm

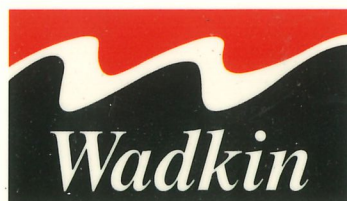
Technical Information Specification of Omega Range	OMEGA 1	OMEGA 2	OMEGA 3	OMEGA 4	OMEGA 5	OMEGA 6
Table size	Single table 2655x1450mm	Twin table 1325x1450mm each table	Single table 3270x1750mm	Twin table 1630x1750mm each table	Single table 1750x3270mm	Twin table 1640x3280mm each table
Programmable movements X Y V Z	2925mm 1380mm – 250mm	2925mm 1380mm 1380mm 250mm	3525mm 1680mm – 250mm	3525mm 1680mm 1680mm 250mm	1950mm 3200mm – 250mm	3915mm 3200mm 3200mm 250mm
Feed speeds X Y V Z	0-24m/min 0-24m/min – 0-10m/min	0-24m/min 0-24m/min 0-24m/min 0-10m/min	0-24m/min 0-24m/min – 0-10m/min	0-24m/min 0-24m/min 0-24m/min 0-10m/min	0-20m/min 0-20m/min – 0-10m/min	0-20m/min 0-20m/min 0-20m/min 0-10m/min
Vacuum pumps Motor power Volume per pump	2x3kW 80cu.m/hr	2x3kW 80cu.m/hr	2x3kW 128cu.m/hr	2x3kW 128cu.m/hr	2x3kW 128cu.m/hr	2x3kW 128cu.m/hr

Technical features available throughout the Omega range	
CNC system – standard – optional	NUM 1060 Series II 100k memory NUM 720 110k memory Bosch CC220M 64k memory Bosch CC120m 32k memory
Woodline spindle units	4kW, 7½kW, 10kW
Tool changer capacity No. of tools	4 & 8 tools
4kW 7½kW & 10kW	ER25 collet ISO30
Max. collet dia. 4kW 7½kW & 10kW	16mm 25.5mm

As our policy is to constantly improve design, the details given in this leaflet are not to be regarded as binding. Certain models illustrated are of CE Specification, please ask your local Wadkin representative for details of specifications to suit your area.

Certain illustrations show guarding removed for clarity.

CE



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