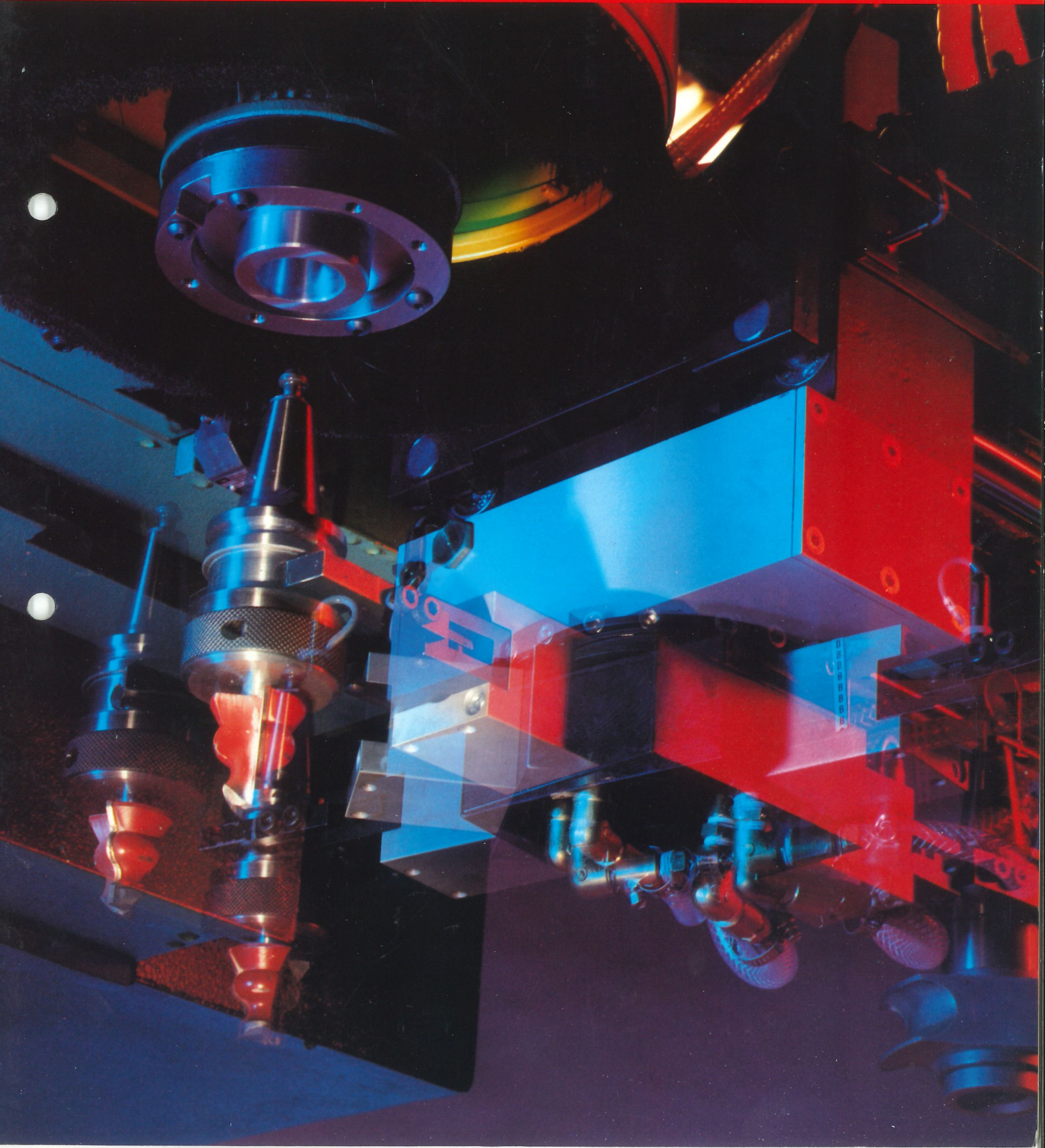




OLYMPUS

SERIES

CNC MACHINING CENTRES





OLYMPUS SERIES

ADVANCED RANGES OF CNC MACHINING CENTRES

The Wadkin Olympus CNC Machining Centres comprise a series of advanced design gantry-type machining centres offering the most versatile solutions to 'just-in-time' production needs for large workpieces up to 3215 x 2600mm or multiple set-ups. Incorporating many unique design features and a well provisioned range of options catering for almost every conceivable application for machining a wide variety of materials such as wood, composites, plastics, phenolics, carbon fibres, and non-ferrous metals, the Olympus Series are competitively priced and represent the most attractive value-for-money investment in the class.

- *High volume production capability, using single table or twin table pendulum machining techniques*
- *Single head or multi-head configurations for routing, drilling, vertical and horizontal boring, sawing, and sanding with minimum set-ups*
- *Equal flexibility for low volume production and 'just-in-time' mass production*
- *Advanced control systems, easy to programme*
- *Consistent high accuracy and repeatability*

The design concept of the Olympus Series has been arrived at with due ingenuity to present the widest choice of specification to the user – choice of number of heads, type of heads, table sizes, control systems, programmable axes – in all totalling over 15 variant models. The unparalleled expertise of Wadkin applications engineers will ensure that the specification of your Olympus is the optimum.

Models are available from among 4 Olympus Ranges designed for widely differing production needs – from long cycle machining using a single head to complex cycle machining using multiple heads. Ranges are designated initially by the number of CNC axes (i.e. 3, 4 or 5) and the number of heads carried on a head slide (e.g. 01, 02 or 03).

OLYMPUS 300 RANGE

Range of two 3-axis variants fitted with a single head slide carrying 1 or 2 heads. The ideal choice for long cycle machining applications requiring frequent tool changes.

OLYMPUS 300P RANGE

Range of five 3-axis variants fitted with a single parallel head slide with capacity for carrying up to 6 heads, each with adjustable centres. The ideal choice for parallel machining applications for mass production using multi-heads.

OLYMPUS 400 RANGE

Range of two 4-axis variants fitted with 2 separate head slides ganged to pre-determined centres and carrying up to 2 heads per slide. The ideal choice for parallel machining applications of multiple components.

OLYMPUS 500 RANGE

Range of two 5-axis variants fitted with 2 separate head slides operating with independent axes, and carrying up to 2 heads per slide. The ideal choice for the most complex machining operations, with flexibility of programmable centres between each head slide and fully programmable synchronisation electronics.

Wadkin quality assurance standards will ensure that your Olympus gives consistently high performance under sustained volume production: quality assurance backed by a guarantee that is second to none, from a manufacturer renowned worldwide for high performance computer-controlled routers.

HIGH PRODUCTIVITY MACHINING

... with choices

CHOICE OF HIGH PERFORMANCE ROUTER HEADS

Wadkin proven high speed router heads are available for all models, including combination of different types to meet production needs. Heads are driven by low energy demand static inverters offering precise speed control plus rapid regenerative braking for optimum safety. Effectively shrouded by Wadkin patented Guardex dust extraction systems.

■ TC HEAD

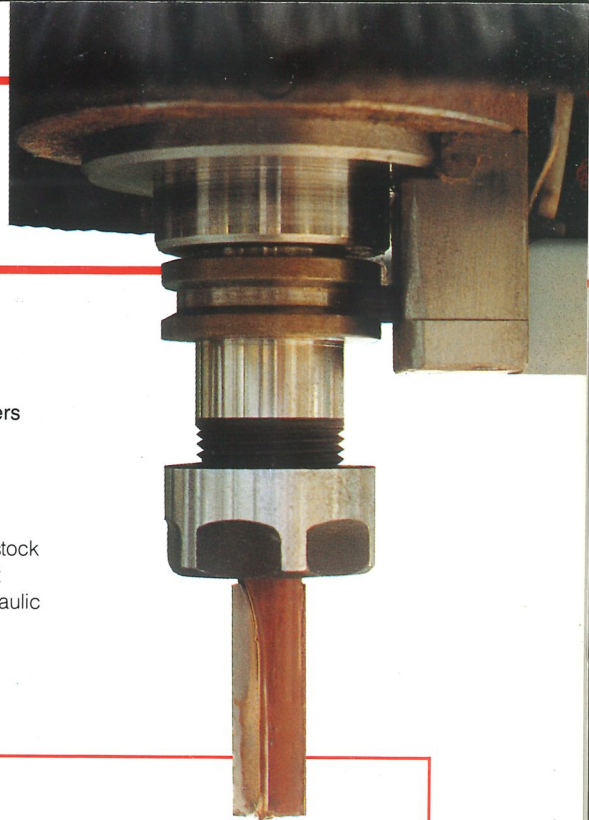
High speed air cooled head fitted as standard to all models, combining fast speed with heavy stock removal and an excellent finish. Fully variable spindle speeds of 0-20000 rev/min with constant power above 7500 rev/min at 7.5kW continuous rating. Standard 30 ISO spindle bore with hydraulic release cylinder for manual or optional automatic tool changing.

■ F HEAD

Optional well proven high speed head rated at 6kW for a superfine finish with reliability at speeds up to 24000 rev/min, the fastest and most efficient router head available. Fully variable spindle speeds of 6000-24000 rev/min. Electrically interlocked spindle brake/lock lever for full safety.

■ LC HEAD

Optional well proven Wadkin heavy duty head designed especially for use with large diameter tooling and for heavy stock removal with a continuous power rating of 9kW. Fully variable spindle speeds of 6000-18000 rev/min.



CHOICE OF TABLE SIZES

To accommodate wide ranging production needs, 3 choices of table sizes are available.

■ 1626 MODELS

A machine with a single worktable 1640x2660mm providing maximum machining capacity of 1600x2600mm.

■ 3216 MODELS

A machine with twin worktables 1640x1640mm mounted adjacent and operable independently or synchronised to provide a maximum machining capacity of 3215x1600mm.

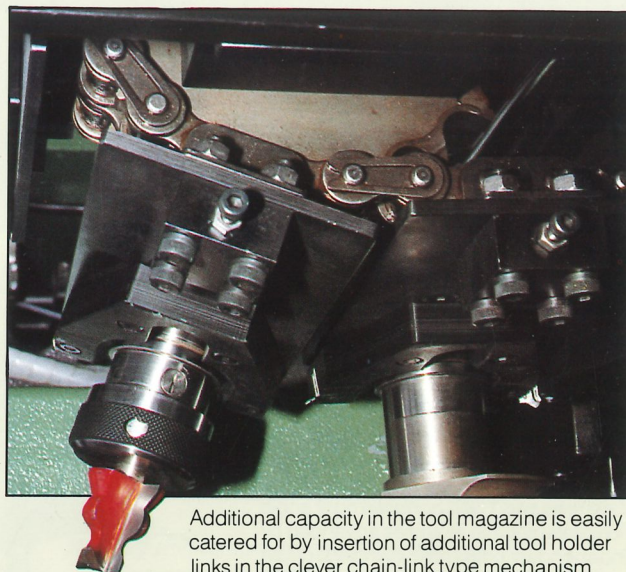
■ 3226 MODELS

A machine with twin worktables 1640x2660mm mounted adjacent and operable independently or synchronised to provide a maximum machining capacity of 3215x2600mm.



AUTO TOOL CHANGING

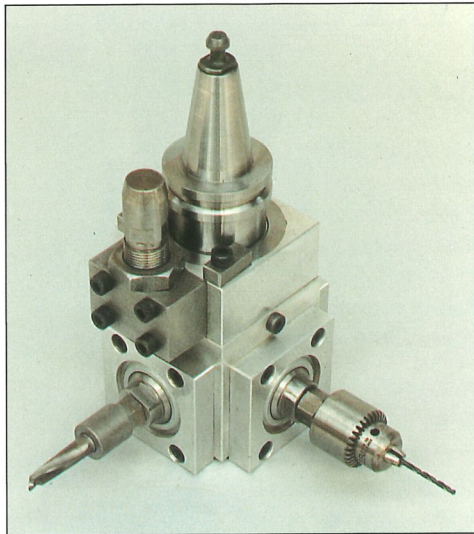
Optional auto tool changers can be fitted to selected heads to enhance productivity through programmable tool changing with minimal operator involvement. Fast action fail-safe changing mechanism with tool pre-selection from 10 station tool magazine for minimum out-of-cut time. Optional extension of tool magazine capacity up to 20 or more tools. (Toolchanger not available on parallel head slide models).



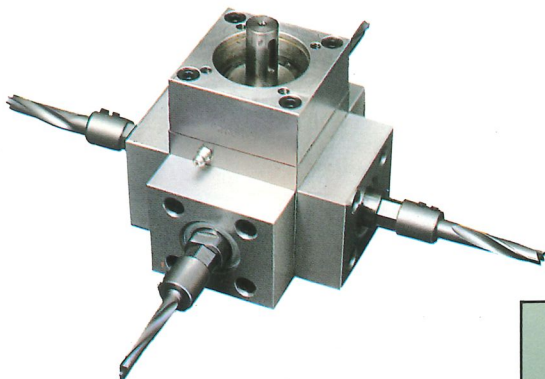
Additional capacity in the tool magazine is easily catered for by insertion of additional tool holder links in the clever chain-link type mechanism.

ADVANCED PRODUCTION

... with special head options



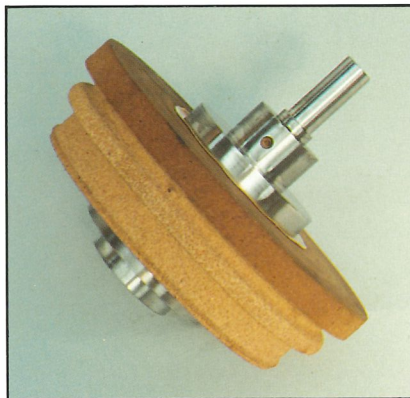
UNIVERSAL HORIZONTAL HEAD
An efficient head with 4 horizontal spindles at right angles, running at 4500 rev/min. Can be used to mount standard 10mm boring bits.



RIGHT ANGLE DRILL
Attachment which fits into an air motor drill unit to convert spindle for right angle drilling.

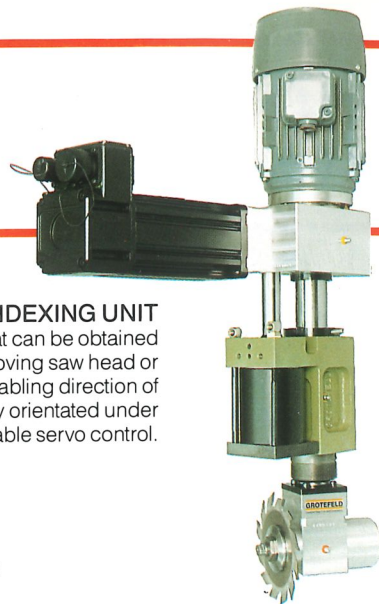
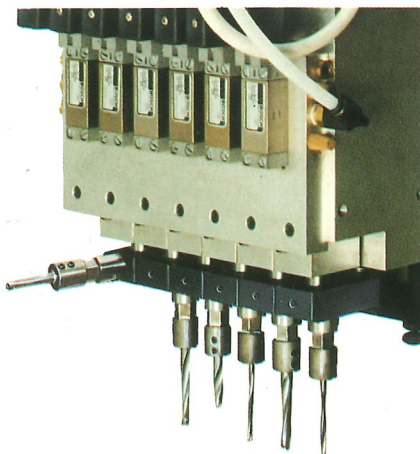
SANDING HEAD ARBOR AND PROFILE MAKER

The finest profile sanding operations can be undertaken, using a profile maker mounted on the Olympus table to form the required shape in a profile sanding disc blank in the head arbor, under programme control.



MULTI-DRILL HEAD

A 6-spindle independently programmable drill unit for point-to-point boring and pattern drilling, featuring 5 vertical spindles at 32mm centres and 1 twin opposed right angle horizontal spindle. Spindles advanced by independent pneumatic cylinders, depth controlled by machine Z axis. (Not available on Olympus 301).



SERVO INDEXING UNIT

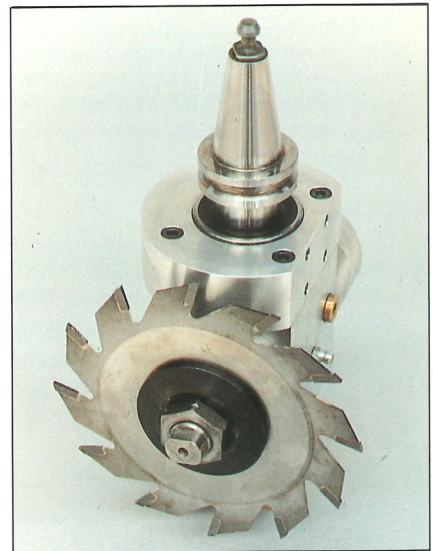
Special 360° indexing unit that can be obtained as either a universal head, grooving saw head or horizontal router head, enabling direction of spindle to be precisely orientated under programmable servo control.

DRILL UNITS

Programmable air motor operated 3000 rev/min drill units that can be mounted to any head unit, singly or in pairs for fixed drilling cycles, peck cycles or customer-written canned cycles. Mounted adjacent to router head for precise control under Z axes, the feed being advanced prior to drilling by pneumatic cylinder. Chuck capacity 12.7mm.

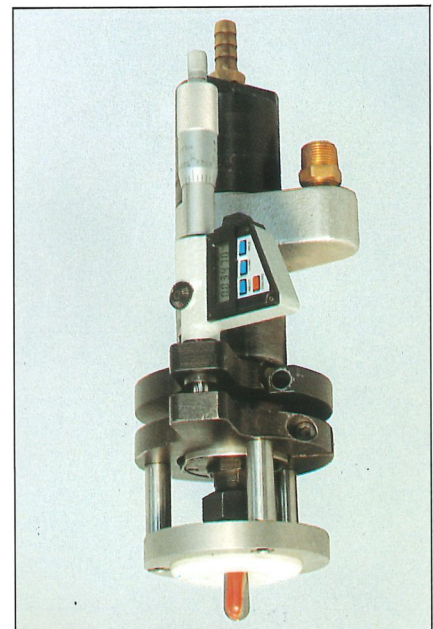
HORIZONTAL ROUTER HEAD

Two spindle router head for horizontal routing at 6000 rev/min continuous or 8000 rev/min intermittent operation.



GROOVING SAW COMBINATION HEADS

Choice of 3 combination heads comprising a single grooving saw blade with $\pm 90^\circ$ manual indexing, or combined with either a horizontal router spindle or boring spindle running at 4500 rev/min.



VEINING HEADS

Two attachments which convert an air motor drill unit into a light duty router head for veining small slots, dovetail slots, T mould edge grooving, and similar light duty routing. Alternatively, can be fitted also as a floating veining head for accurate constant depth veining in variable thickness stock. Digital micrometer adjustment for very precise depth of cut.

ADVANCED TECHNOLOGY CONTROL SYSTEMS

... at your fingertips

Olympus machining centres are fitted with advanced design microprocessor-based full function CNC systems mounting a sophisticated high performance capability, yet designed for simplicity of operation and ease of programming.

COMPREHENSIVE FEATURES

Users have a choice of the latest systems technology from Bosch or Telenumerics, all systems offering the most comprehensive features as standard – built-in programmable controller with diagnostics capability, DNC options, background editing, RS232C standard communication interfaces, parametric programming, sub-routines, scaling, mirror image, backlash compensation, tool radius and length compensation, part rotation, helical interpolation, canned cycles, and spindle speed programming.

EASY TO OPERATE

No sophisticated control systems can be easier to operate.

- Compact design electronics featuring a single control cabinet.
- Main controls grouped on a single panel incorporating soft touch keys for easy operation and a v.d.u. for displaying operating parameters and graphics.
- Built-in diagnostics continually monitor operation of control system and drives.



Wadkin Organiser

EASY TO PROGRAM

No sophisticated control systems offer greater flexibility for programming on-line and off-line.

MANUAL ON-LINE

- Manual data input using keys integral to the operator's panel.
- Manual movement of axes by handwheel or jog buttons.
- 'Teach-in' facility (except NUM 750 F) using digitising with manual handwheel axis control and stylus in the spindle.

AUTO OFF-LINE

- Program fed to memory from Wadkin Organiser.
- Program downloaded from external cassette.
- Programmed from remote CAD system post processor.

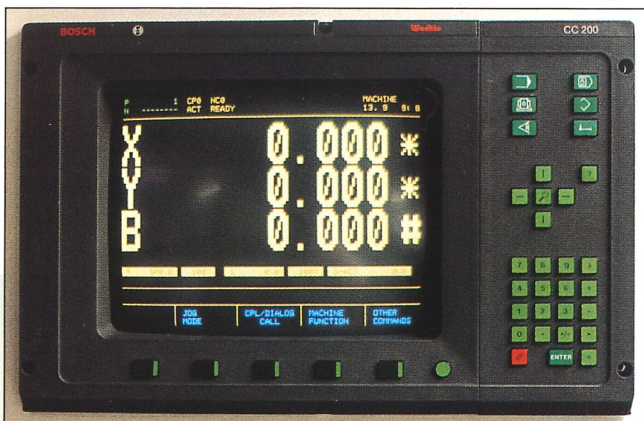
ADVANCED CONTROL SYSTEMS

... the choice is yours

BOSCH CC100M CONTROL

Reliable 3 or 4 axis control system with 4 main modes of operation and 10" v.d.u. Facilities for background editing, zero shifts and fixture offsets. Interfaces compatible with optional peripherals.

- **MEMORY MODE.** Permits auto operation from extensive 32k storage covering 99 part programs, 99 sub-routines and 69 cycles. Optional 128k memory. Facilities for background editing, zero shifts and fixture offsets. Interfaces compatible with optional peripherals.
- **MACHINE MODE.** Allows full manual control of machine in incremental steps, by manual handwheel or jog buttons, or programming by 'teach-in' facility.
- **AUTO MODE.** Used for dry test run of a program, tool collision test, program start and break points, and a drip feed facility for mega programs.
- **INFO MODE.** Allows operator to monitor and edit programs with clear text dialogue including error messages, self-generated graphics and cycles, and display status details (diagnostics).



Bosch CC200M

BOSCH CC200M CONTROL

Full function multi-axis control system of up to 8 axes as standard for Olympus 500 range, optional on other models. Features 6 main modes of operation, 12" colour v.d.u., simulation graphics, CPL programming language, full size keyboard and many other standards. Available with special optional features including nesting, programmable corner acceleration and deceleration, and shift tables.

- **AUTO MODE.** Permits auto operation from extensive 64k part program storage covering optional number of programs and sub-routines, or dry run testing with inhibited axes. Optional 352k memory.
- **MANUAL DATA INPUT MODE.** Allows operation of the machine by use of manual data input keys on the control panel. A facility normally used for setting up.
- **MACHINE MODE.** Permits full movement of axes by use of the axis selector, speed selector and jog buttons.
- **PROGRAM MEMORY MODE.** Comprehensive mode activated for manipulation of memory when loading, deleting, editing, and down loading programs. Facilities for password protection, program copying, listing and searching.
- **DIAGNOSTICS MODE.** Provides full access to control and machine diagnostics information including input/output status. Enables data display of PLC monitoring.
- **CORRECTION MODE.** Used for introducing tool and fixture offsets from accessed reference tables. Other special tables can be introduced.



Bosch CC100M



Optional computer graphics to enhance performance

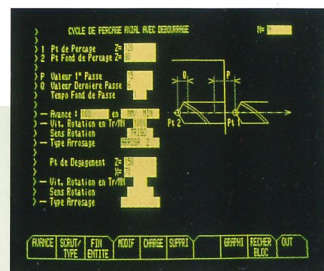
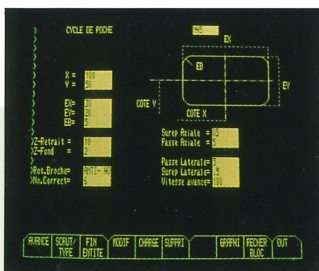
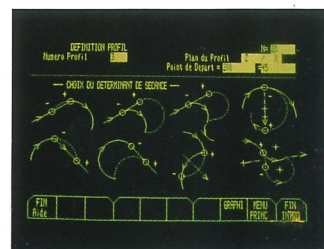
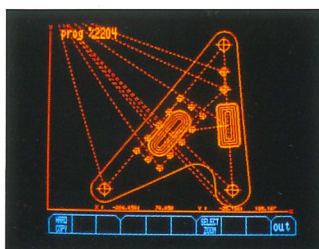
NUM 750F CONTROL

High level performance multi-axis control for all Olympus models, with 6 main modes of operation, and 9" v.d.u. Velocity feed forward feature for accurate high speed machining, and cycles for moulds and forms using NUMAFORM® OPTION. Input/output status for diagnostics assistance.

- **AUTO MODE.** Used for auto operation from extensive 142k part program storage (optional 256k memory).
- **SINGLE BLOCK MODE.** Permits actuation of program in single steps to check for program errors.
- **MANUAL DATA INPUT MODE.** Allows operation of machine by use of manual data input keys on control panel. A facility normally used for setting-up.
- **EDIT MODE.** Allows operator straightforward facility for editing and monitoring programs.
- **DRY RUN MODE.** Allows full dry run testing with inhibited axes.
- **DATA INPUT MODE.** Used with external programming systems such as Wadkin Organiser to input data to memory.



NUM 750F

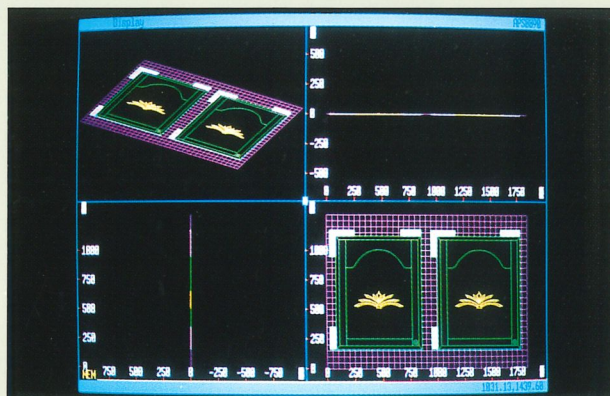
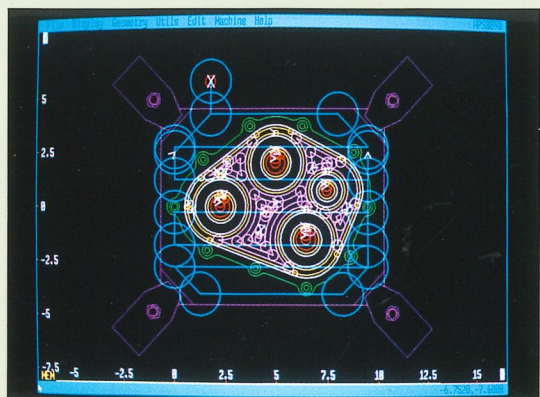


Conversational programming with graphics guides operator step-by-step through data entry

OPTIONAL ADVANCED PROGRAMMING SYSTEMS

... fast, powerful and easy to use

Wadkin APS is an easy to use complete graphical system for creating NC programs to produce designs of any complexity, including undimensioned parts such as artistic designs and customer logos which can be easily digitised.



- Part geometry quickly and easily defined by APS.
- No need for any CAD system.
- APS generates complete and accurate NC code in minutes.
- Machining operations performed graphically on computer screen for verification.



OLYMPUS 500 RANGE

*present the capability for the
most complex machining*

OLYMPUS 502 • 3216



The two machines of the Olympus 500 Range mount a superior machining capability for the most complex applications, using two completely independent head slides.

MODEL 501 – single head fitted to both head slides.

MODEL 502 – two heads fitted to both head slides on 330mm fixed centres.

A full 5-axis control provides fully independent operation of cross and vertical axes (X & U, Z & E) plus fully variable programmable centres between head slides down to 700mm min.

Available to 3216 and 3226 table formats giving maximum machining capacities of 3215x1600x350mm and 3215x2600x350mm respectively. Tables can be controlled independently or synchronised for parallel machining operations or machining large workpieces.



PENDULUM MACHINING

Independent operation of worktables contribute to optimum productivity from pendulum machining procedures.

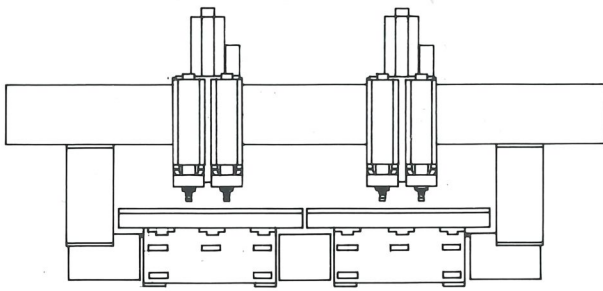
OLYMPUS 400 RANGE

Range of two machines similar in specification to the 500 Range but with head slides ganged to pre-determined fixed centres using slave bars, with unilateral cross axis control for parallel machining with independent operation of vertical axes (Z & E). Full function 4-axis control.

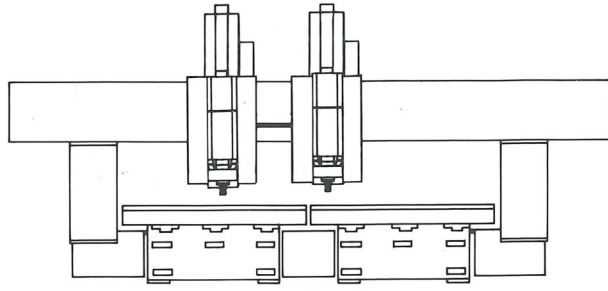
MODEL 401 – single head fitted to both head slides.

MODEL 402 – two heads fitted to both head slides on 330mm fixed centres.

Available to 3216 and 3226 table formats giving maximum machining capacities of 3215x1600x350mm and 3215x2600x350mm respectively.



Typical independent head slides (Model 502)



Typical slave bar head slides (Model 401)

X & U axes Machining Capacities

Model	Head	Centres	Capacity (mm)	Remarks
501	1		0-3215	
	2		0-3215	
502	1		0-3050	
	2		0-3215	
	3		0-3215	
	4		165-3215	

X axis Machining Capacities

Model	Head	Centres	Capacity (mm)	Remarks
401	1			Depending on length of slave bars
	2			
402	1			Depending on length of slave bars
	2			
	3			
	4			

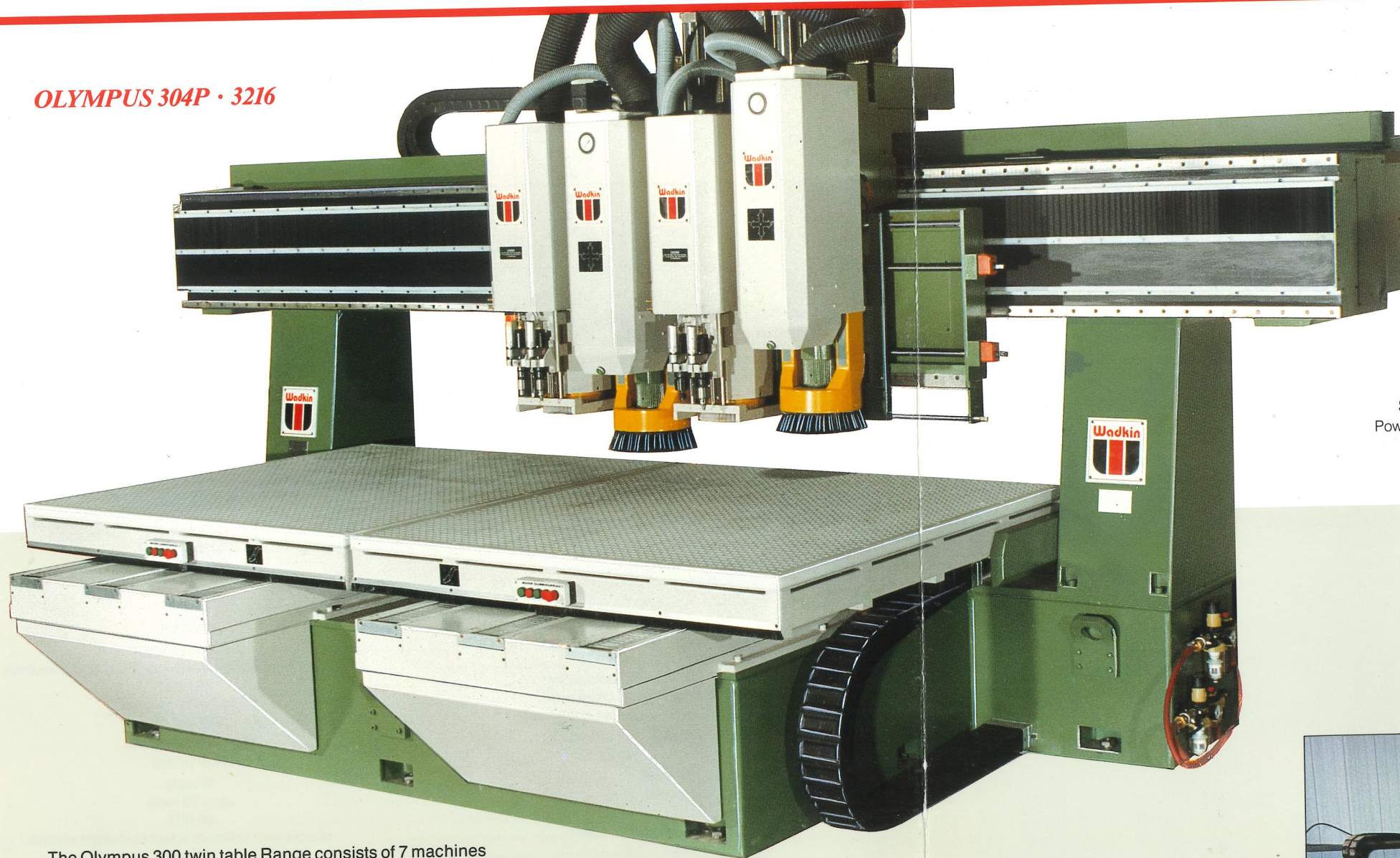
SPECIFICATION

	3216 machine	3226 machine
Table size, each table.....	1640x1640mm (64½x64½")	1640x2660mm (64½x104¾")
Programmable movements, X axis.....	3915mm (154")	3915mm (154")
Y axis.....	1600mm (63")	2600mm (102¼")
Z axis.....	350mm (14")	350mm (14")
Machining capacity, X axis.....	see above tables	
Y axis.....	1600mm (63")	2600mm (102¼")
Z axis.....	350mm (14")	350mm (14")
Head slide centres, min.....	700mm	
Spindle nose to table, min.....	25mm (1")	
max.....	375mm (14¾")	
Feed speeds, X, U and Y axes.....	0-15m/min	
Z & E axes.....	0-8m/min	
Rapid traverse speeds, X, U and Y axes.....	20m/min	
Z & E axes.....	10m/min	
Router head, standard, type TC, spindle speed.....	0-20000 rev/min	
power.....	7.5kW (10hp) constant between 7500-20000 rev/min	
spindle taper.....	30 ISO	
optional, type F, spindle speed.....	6000-24000 rev/min	
power, continuous.....	6kW (8hp)	
optional, type LC, spindle speed.....	6000-18000 rev/min	
power.....	9kW (12hp)	
Tool changer, capacity, standard.....	10 tools	
optional.....	up to 30 tools	
taper.....	30 ISO	
holder, Vee-flange, Din 69871.....	chucks with collets to adapt to straight shanks	
tool dia., max.....	200mm	
collet dia., max.....	25mm (1")	
CNC system, standard, 500 range machines.....	Bosch CC200M, 5-axis, 64k part program storage	
400 range machines.....	Bosch CC100M, 4-axis, 32k part program storage	
optional, both ranges.....	NUM750F, 4 or 5-axis, 142k part program storage	
Extraction, connection dia.....	150mm	
air vol. to each head.....	850m³/hr (500Cfm)	
Vacuum pump, each table, motor power.....	3kW	
pressure, max.....	100mbar	
vol., standard size.....	80m³/hr	
optional large size.....	128m³/hr	
Floor space.....	6280x3290mm (247¼x129½")	6280x5260mm (247¼x207")
Height.....	2700mm (106½")	2700mm (106½")
Weight, approx.....	10200kg	12200kg

OLYMPUS 300 RANGE

*the largest range with
application flexibility*

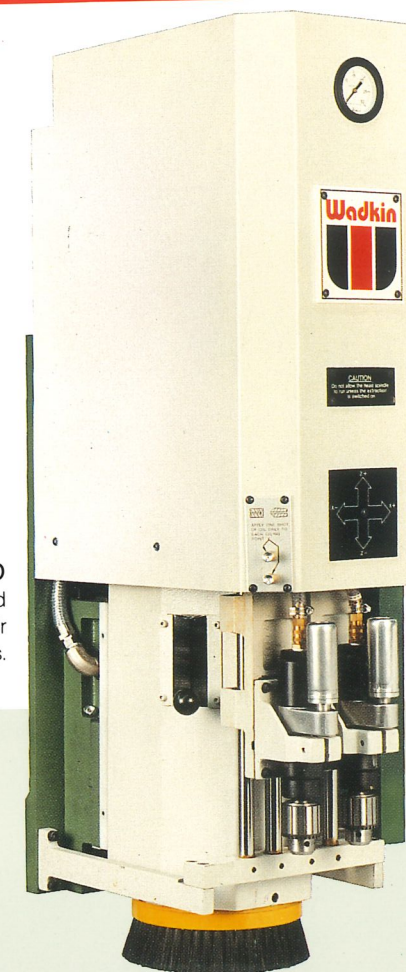
OLYMPUS 304P · 3216



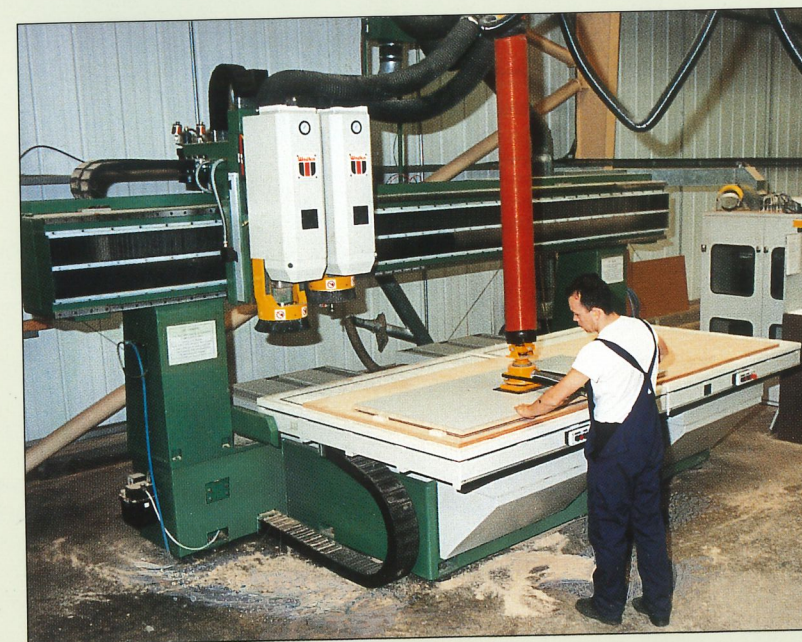
The Olympus 300 twin table Range consists of 7 machines offering the widest choice of specifications from single head up to 6 parallel head configurations, based on a single head slide and full function 3-axis control (X, Y, & Z). The capacious parallel head slide of the 300P Range provides a facility for mounting multiple heads on adjustable centres between 280 and 1665mm.

- MODEL 301 – single head fitted to head slide.
- MODEL 302 – two heads fitted to head slide.
- MODEL 302P – two heads fitted to parallel head slide.
- MODEL 303P – three heads fitted to parallel head slide.
- MODEL 304P – four heads fitted to parallel head slide.
- MODEL 305P – five heads fitted to parallel head slide.
- MODEL 306P – six heads fitted to parallel head slide.

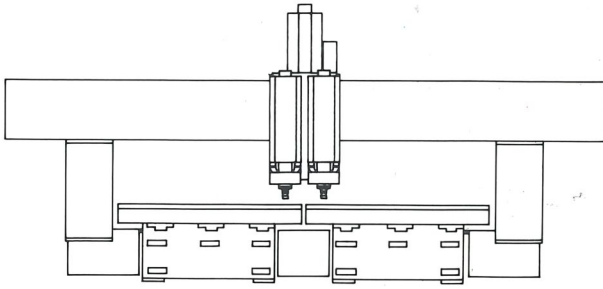
Twin table models are available to 3216 and 3226 table formats giving maximum machining capacities of 3215×1600×350mm and 3215×2600×350mm respectively. Tables can be controlled independently or synchronised for machining large components.



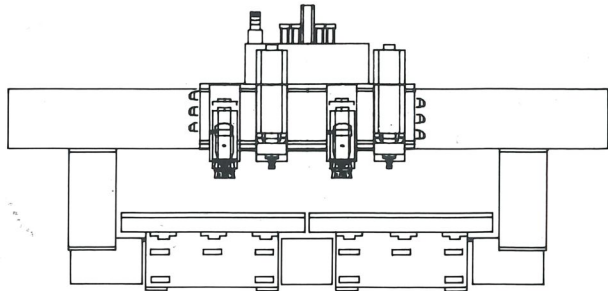
STANDARD TC HEAD
Powerful high speed TC head mounted with optional air motor drill units.



STANDARD HEAD SLIDE
Head slides of Models 301 and 302 have heads mounted symmetrically about the centre line, dual heads being mounted on 330mm centres.



Typical standard head slide (Model 302)



Typical parallel head slide (Model 304P)

X axis Machining Capacities

Model	Head	Centres	Capacity (mm)	Remarks
301	1		0-3215	
302	1	Fixed at 330mm	0-3215	
	2		0-3215	
302P	1	Up to 700mm	0-3215	Any heads
	2		0-3215	
	1	At 800mm (1/2-table)	0-2732	Any heads
	2		483-3215	
303P	1	Minimum	0-3215	Any heads
	2		0-3215	
	3		0-3215	
304P	1	All heads at minimum	0-3145	Max 2TC heads plus any other heads
	2		0-3215	
	3		0-3215	
	4		70-3215	

Model	Head	Centres	Capacity (mm)	Remarks
304P	1	At 1/2-table for parallel machining	0-3025	Max 2TC heads plus any other heads
	2		0-3215	
	3		0-3215	
	4		190-3215	
305P	1	Minimum	0-3005	Max 2TC heads plus any other heads
	2		0-3215	
	3		0-3215	
	4		0-3215	
	5		210-3215	
306P	1	Minimum	0-2865	Max 1TC head plus 5 other heads
	2		0-3145	
	3		0-3215	
	4		0-3215	
	5		70-3215	
	6		350-3215	

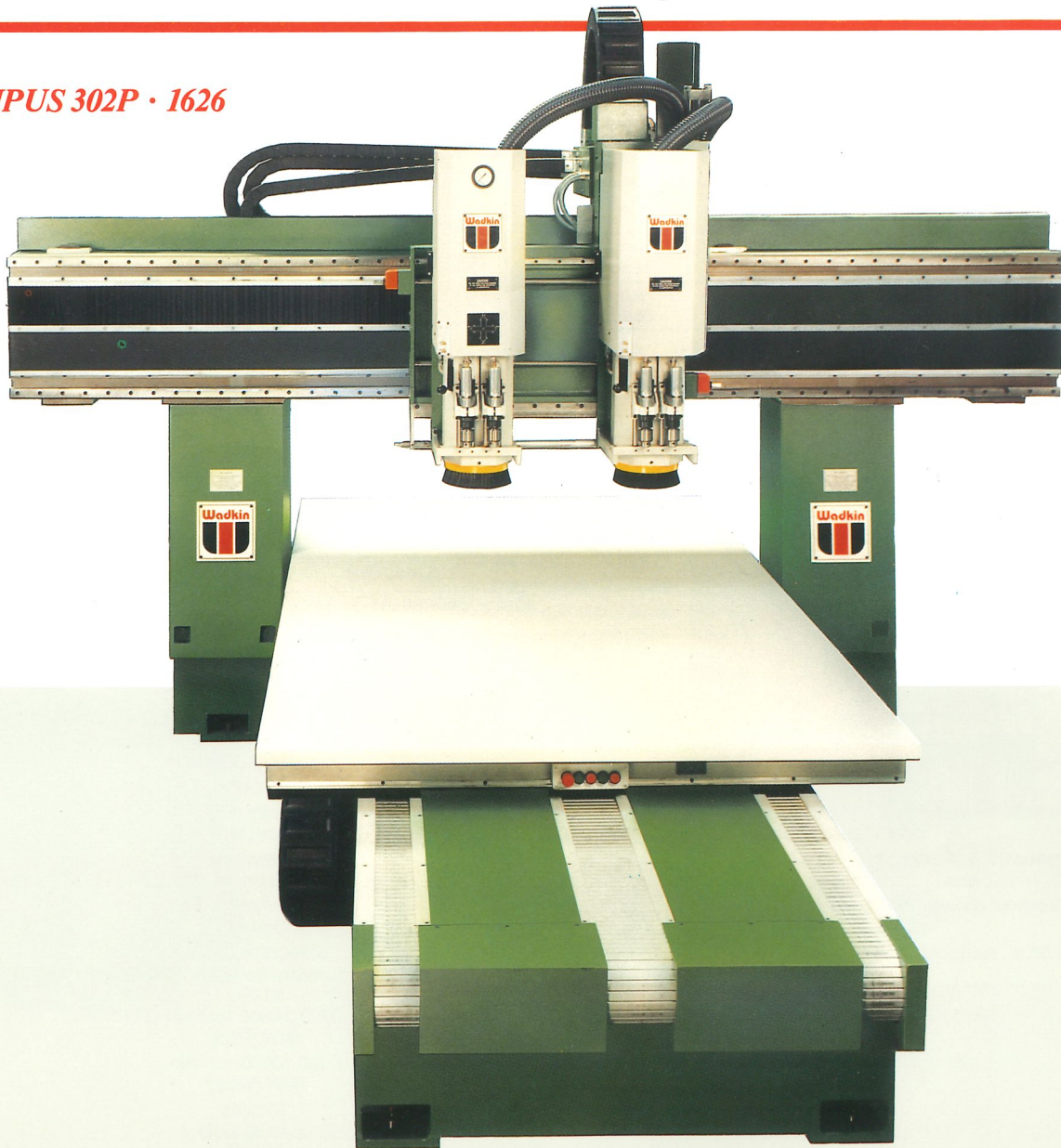
SPECIFICATION

Table size, each table.....	1640x1640mm (64 1/2 x 64 1/2")	1640x2660mm (64 1/2 x 104 3/4")
Programmable movements, X axis.....	3915mm (154")	3915mm (154")
Y axis.....	1600mm (63")	2600mm (102 1/4")
Z axis.....	350mm (14")	350mm (14")
Machining capacity, X axis.....	see above tables	
Y axis.....	1600mm (63")	2600mm (102 1/4")
Z axis.....	350mm (14")	350mm (14")
Adjustment between head centres, models 302P-306P, min.....	280mm	
max., outside heads.....	1665mm	
Spindle nose to table, min.....	25mm (1")	
max.....	375mm (14 3/4")	
Feed speeds, X & Y axes.....	0-15m/min	
Z axis.....	0-8m/min	
Rapid traverse speeds, X & Y axes.....	20m/min	
Z axis.....	10m/min	
Router head, standard, type TC, spindle speed.....	0-20000 rev/min	
power.....	7.5kW (10hp) constant between 7500-20000 rev/min	
spindle taper.....	30 ISO	
optional, type F, spindle speed.....	6000-24000 rev/min	
power, continuous.....	6kW (8hp)	
optional, type LC, spindle speed.....	6000-18000 rev/min	
power.....	9kW (12hp)	
Tool changer, capacity, standard.....	10 tools	
optional.....	up to 30 tools	
taper.....	30 ISO	
holder, Vee-flange, Din 69871.....	chucks with collets to adapt to straight shanks	
tool dia., max.....	200mm	
collet dia., max.....	25mm (1")	
CNC system, standard.....	Bosch CC100M, 3-axis, 32k part program storage	
optional.....	Bosch CC200M, 3-axis, 64k part program storage NUM750F, 3-axis, 142k part program storage	
Extraction, connection dia., 1 or 2 heads.....	150mm	
3 or more heads.....	250mm	
air vol. to each head.....	850m ³ /hr (500Cfm)	
Vacuum pump, each table, motor power.....	3kW	
pressure, max.....	100mbar	
vol., standard size.....	80m ³ /hr	
optional large size.....	128m ³ /hr	
Floor space.....	6280x3290mm (247 1/4 x 129 1/2")	6280x5260mm (247 1/4 x 207")
Height.....	2700mm (106 1/2")	2700mm (106 1/2")
Weight, approx.....	10200kg (model 301) to 12200kg (model 306P)	

OLYMPUS

300 RANGE – Single Table

OLYMPUS 302P • 1626



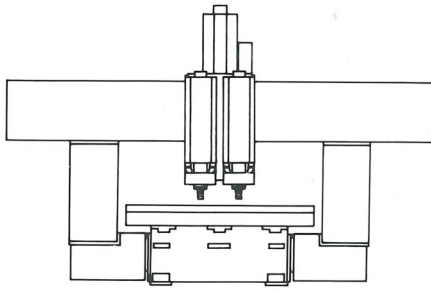
Five single table variants of the 300 Range offering a large longitudinal machining capacity of 2600mm are available with choice of head configurations on either single head slide or parallel head slide. Capacity of parallel head slide is limited to maximum of 2 TC type high speed heads plus other optional heads from the large range for specialised production needs.

- MODEL 301 – single head fitted to head slide.
- MODEL 302 – two heads fitted to head slide.
- MODEL 302P – two heads fitted to parallel head slide.
- MODEL 303P – three heads fitted to parallel head slide.
- MODEL 304P – four heads fitted to parallel head slide.

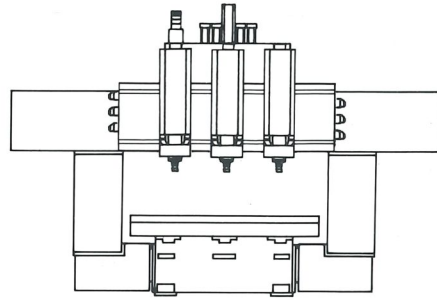
Table size 1640x2660mm.

The arrangement of the head slide is identical to the twin table 300 Range machines, with the positions of heads on the parallel head slide being adjusted by manual leadscrew with digital readout over 280 - 1665mm outside heads.

Full function 3-axis control (X, Y, & Z).



Typical standard head slide (Model 302)



Typical parallel head slide (Model 303P)

X axis Machining Capacities

Model	Head	Centres	Capacity (mm)	Remarks
301	1		0-1600	
302	1		0-1600	
	2		0-1600	
302P	1	Up to 330mm	0-1600	Any heads
	2		0-1600	
302P	1	At 800mm (1/2-table)	0-1375	Any heads
	2		225-1600	
303P	1	Minimum	0-1495	Any heads
	2		0-1600	
	3		105-1600	

Model	Head	Centres	Capacity (mm)	Remarks
304P	1	All heads at minimum	0-1355	Max 2TC heads plus any other heads
	2		0-1600	
	3		0-1600	
	4		245-1600	
304P	1	At 1/2-table for parallel machining	0-1235	Max 2TC heads plus any other heads
	2		0-1515	
	3		85-1600	
	4		365-1600	

SPECIFICATION

1626 Machine

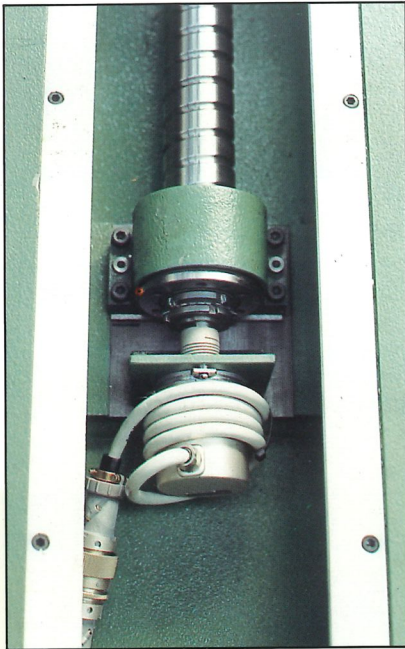
Table size	1640 x 2660mm (64 1/2 x 104 3/4")
Programmable movements, X axis	1950mm (76 1/4")
Y axis	2600mm (102 1/4")
Z axis	350mm (14")
Machining capacity, X axis	see above tables
Y axis	2600mm (102 1/4")
Z axis	350mm (14")
Adjustment between head centres, models 302P-304P, min.	280mm
max., outside heads	1665mm
Spindle nose to table, min.	25mm (1")
max.	375mm (14 3/4")
Feed speeds, X & Y axes	0-15m/min
Z axis	0-8m/min
Rapid traverse speeds, X & Y axes	20m/min
Z axis	10m/min
Router head, standard, type TC, spindle speed	0-20000 rev/min
power	7.5kW (10hp) constant between 7500-20000 rev/min
spindle taper	30 ISO
optional, type F, spindle speed	6000-24000 rev/min
power, continuous	6kW (8hp)
optional, type LC, spindle speed	6000-18000 rev/min
power	9kW (12hp)
Tool changer, capacity, standard	10 tools
optional	up to 30 tools
taper	30 ISO
holder, Vee-flange, Din 69871	chucks with collets to adapt to straight shanks
tool dia., max.	200mm
collet dia., max.	25mm (1")
CNC system, standard	Bosch CC100M, 3-axis, 32k part program storage
optional	Bosch CC200M, 3-axis, 64k part program storage NUM750F, 3-axis, 142k part program storage
Extraction, connection dia., 1 or 2 heads	150mm
3 or 4 heads	250mm
air vol. to each head	850m ³ /hr (500Cfm)
Vacuum pump, each table, motor power	3kW
pressure, max.	100mbar
vol., standard size	80m ³ /hr
optional large size	128m ³ /hr
Floor space	4315 x 5260mm (170 x 207")
Height	2700mm (106 1/2")
Weight, approx.	8700kg (model 301) to 9100kg (model 304P)

Wadkin



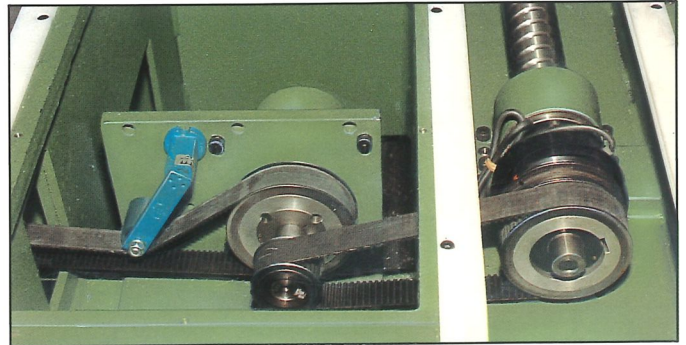
ADVANCED DESIGN AND CONSTRUCTION

The Wadkin hallmarks of superior design, unique features and quality assured construction are to be found throughout the Olympus Series – your guarantee of high performance with reliability and consistent accuracy.



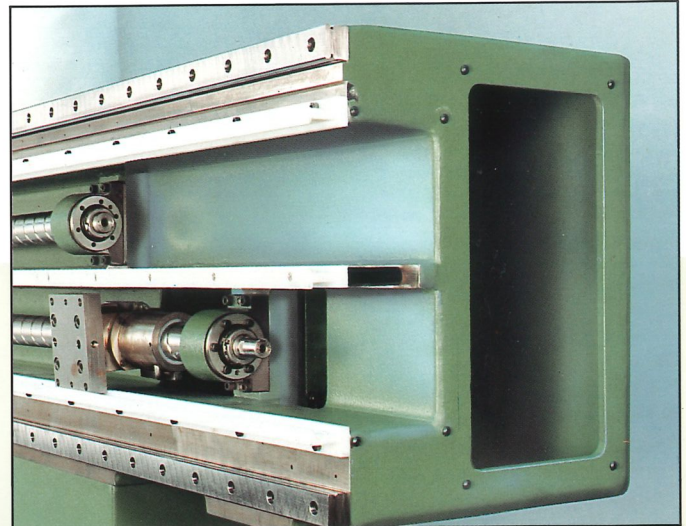
POSITIONAL ENCODER

For maximum positional accuracy of all axes, a high resolution encoder is fitted to every ballscrew, eliminating, by non-violated feedback loop, possibility of any transmission errors.



BALLSCREW DRIVES

All axes are driven by large diameter precision recirculating ballscrews featuring heavy duty auto-lubricated pre-tensioned nuts which permit fast feed speeds of 0-15m/min for X & Y axes and 0-8m/min for Z axis, and rapid traverse rates of 20m/min and 10m/min respectively. Axes are powered by high performance maintenance free ac brushless servo motors.



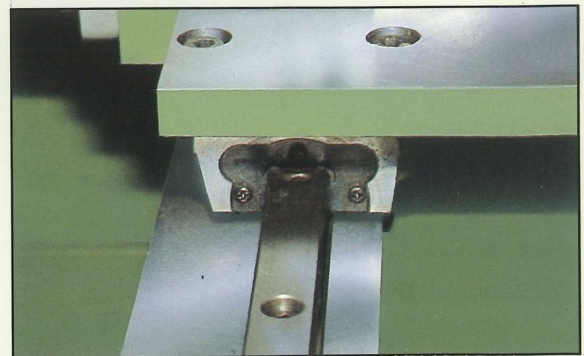
GANTRY CONSTRUCTION

The machine configuration is of an overhead fixed gantry rectangular form structure mounted on twin columns of high quality stress relieved steel, providing a most rigidly supported beam carrying the cross and vertical axis slideways.



BASE AND TABLE

For maximum rigidity under high speed machining conditions, table bases are constructed of high quality stress relieved steel to a substantial web format. Standard worktable of heavy duty steel sheet, mounted on frame. Each table is driven by independent large diameter precision ground recirculating ballscrew.



AXIS SLIDEWAYS

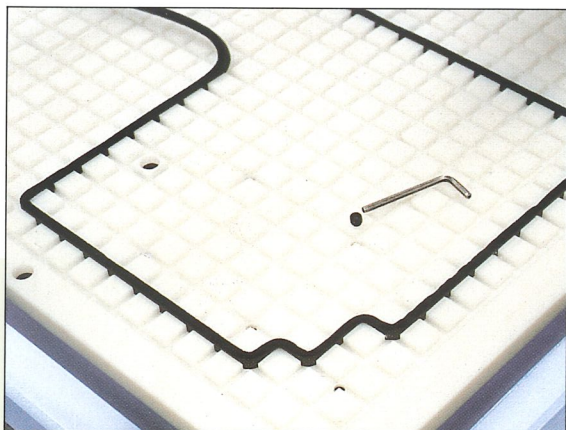
All axis movements are traversed on substantial prismatic slideways using the latest type of auto-lubricated recirculating ballbearing units. Trouble-free design for minimal frictional losses capable of sustaining fast feed speeds and rapid traverse speeds. Slideways fully protected by retractable covers.

FOR SUPERIOR RELIABILITY



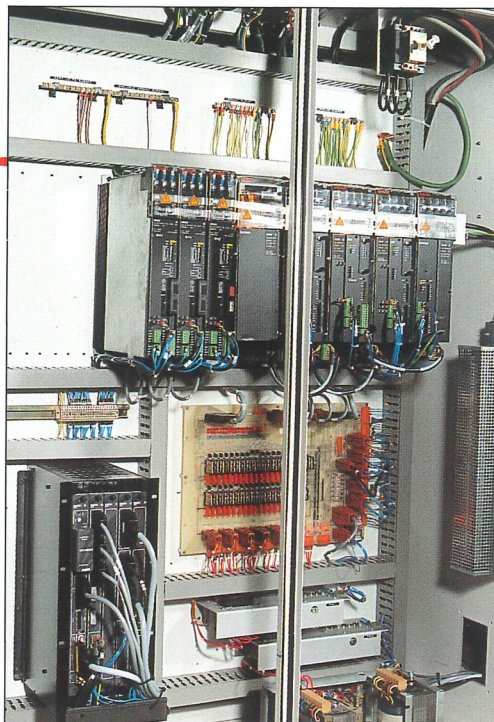
GUARDEX DUST EXTRACTION SYSTEM

For maximum machining efficiency coupled with stringent environmental protection measures, every head is totally shrouded by unique Wadkin patented Guardex dust extraction system (LC head uses Routex hood). For safety the system incorporates a retractable hood which is positioned under programme control for tool changing, idling, and machining operations.



VACUUM TABLE

Optional vacuum table top of high molecular weight polythene, machined in a matrix pattern at 30mm pitch, is available as a fast clamping medium. Features removable plugs and rubber seal strip for forming local vacuum device. Twin vacuum system is provided, controlled by table mounted pushbuttons to provide independent suction to individual tables for pendulum machining, with override pressure switches for utmost safety.



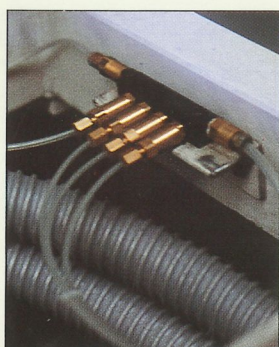
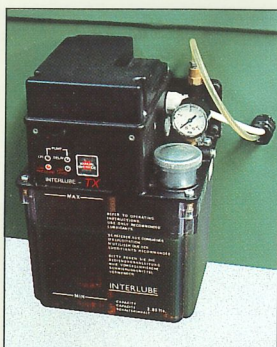
ELECTRONICS CABINET

Control electronics are to the most up-to-date large scale integrated circuitry of the most compact design. Racks are housed in a single control cabinet together with CNC system, with ready access through double doors fitted with polycarbonate clearview panels.



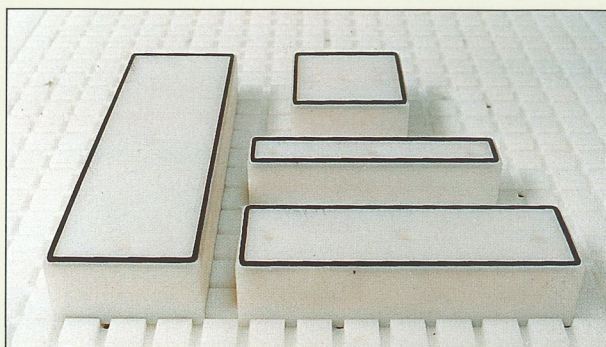
DIGITAL READOUT

For maximum positional accuracy of heads mounted on parallel head slides of the Olympus 300 Range, all head movements are by manual lead screw fitted with readouts with easy to read digital display.



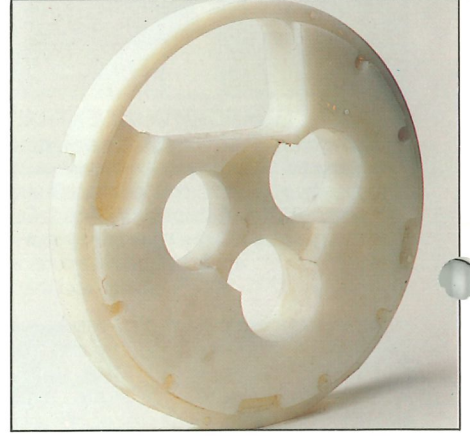
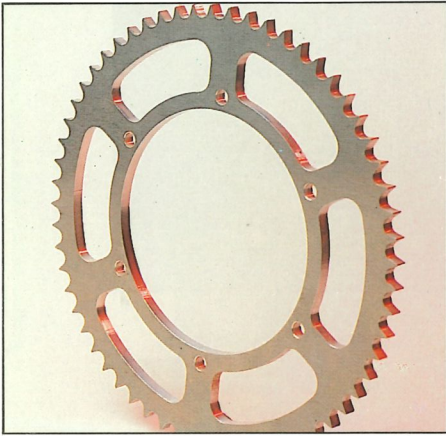
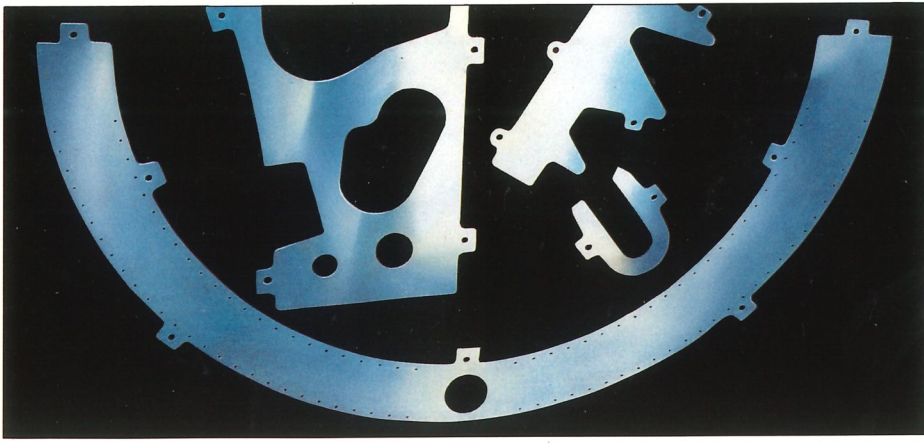
AUTO-LUBRICATION SYSTEM

Comprehensive lubrication to slideways, head slides, ballscrew nuts, and recirculating ballbearing units is provided automatically by a reliable electronically controlled lubrication system mounted externally for easy access. Introduces reliability with minimal maintenance attention.



VACUUM CUPS

Optional vacuum cups in a range of sizes are available as an alternative to use of fixtures. Used in conjunction with pneumatic auto-lifting devices, retractable stops, and anti-friction rollers for easier handling of large components for faster, and safer operating and set-up.



PROFESSIONAL TRAINING AND AFTER SALES BACK-UP



Wadkin professionalism extends well beyond the selling date, since full training of operators by highly experienced training personnel, both at Wadkin Colne and on-site, is part of the thorough introduction to the Olympus world of advanced machining. Training fully extends to programming procedures augmented by on-the-job familiarisation and continuing after-sales care. Frequent on-site follow up visits are conducted as a matter of routine to ensure that everyone achieves the maximum benefit from investment in Wadkin CNC machining centres.

As our policy is to constantly improve design, the details provided in this leaflet are not to be regarded as binding



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