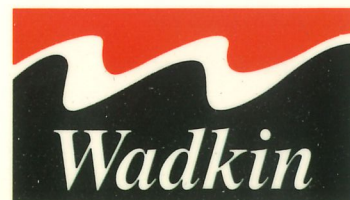
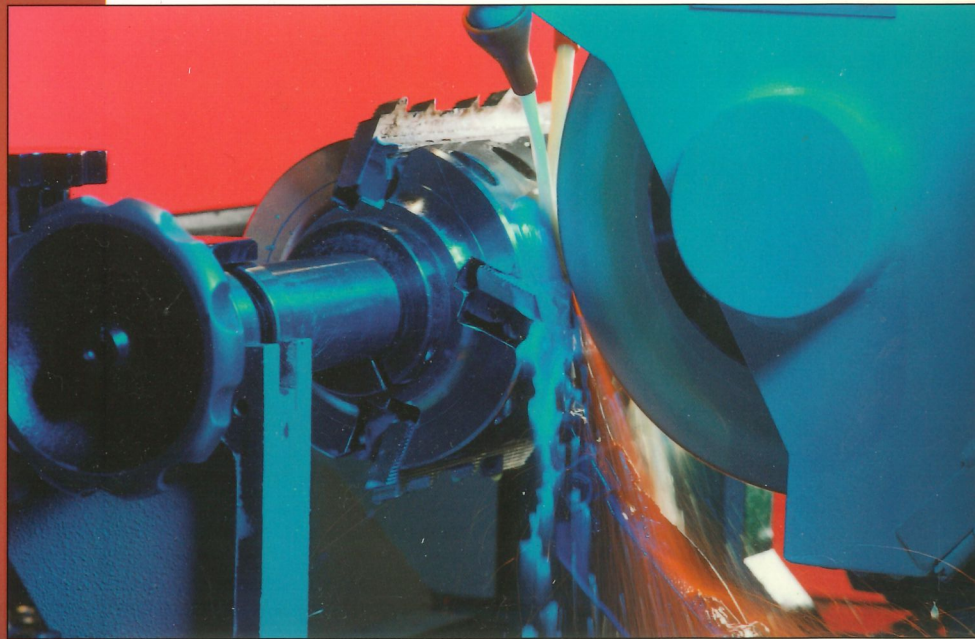


TOOL ROOM EQUIPMENT

A range of

Grinding

Centres



Silhouette

Profile Grinding Centre

The Silhouette Grinding Centre combines innovations in grinding technology with supreme accuracy to create a simple to use and highly productive toolroom machine. Central to the design is a twin grinding head which enables extremely fast changes from profile to straight knife grinding or solid profile cutter resharpening.

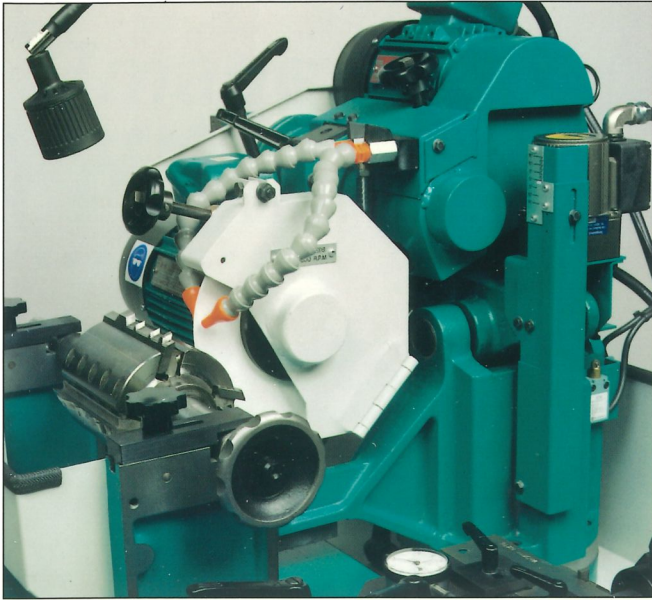
The Silhouette has a full 300 x 350mm grinding capacity and achieves the same high levels of accuracy to be found with fully automatic grinding machines.

Stylus and template set up is quick and easy on the Silhouette. A unique turret holder accepts up to six styli for a variety of work. The template slide permits quick coarse adjustment with fine adjustment of template location achieved via dial indicators. Positive location of templates is made via traditional methods or by a simple clamping system.

Ergonomic design makes the Silhouette operator friendly, with an adjustable arm rest and all controls including the coolant tank easily accessible from the front of the machine. Space saving features ensure that the Silhouette will fit into the smallest of toolrooms.

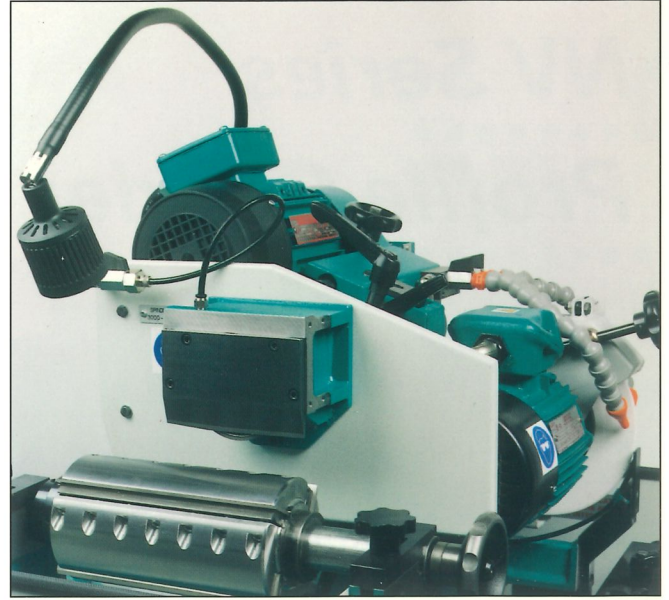


The Silhouette Grinding Centre



① Profile grinding

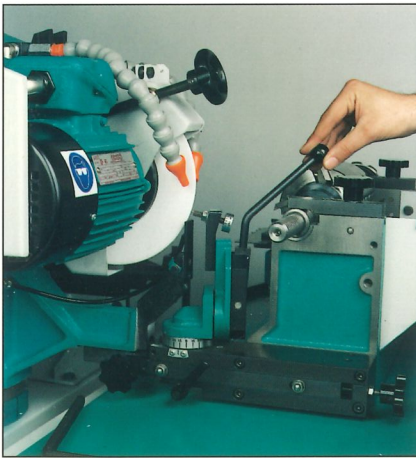
① The Silhouette in the profile grinding position. Electronically controlled variable spindle speeds are standard to ensure optimum finish and performance.



② Straight knife grinding

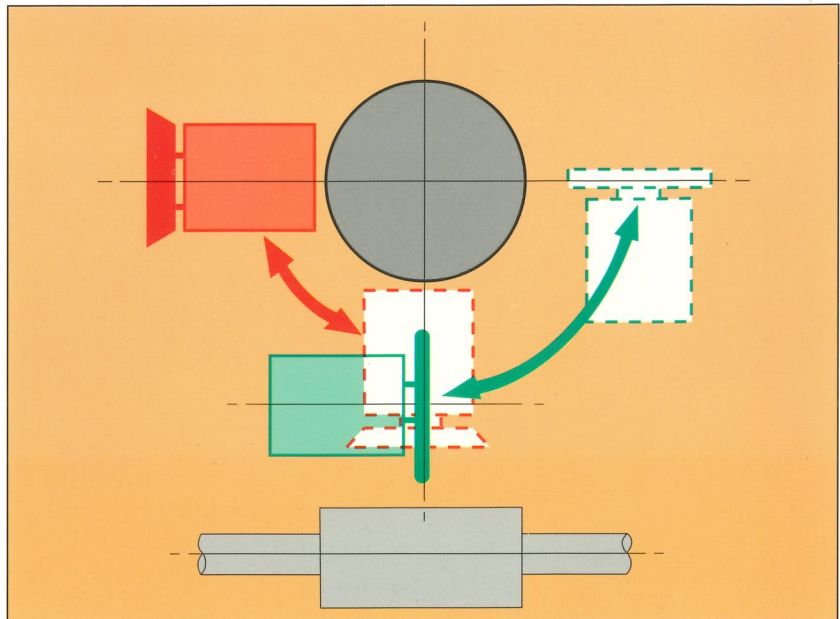
② By simply turning the head unit through 90 degrees the Silhouette can be set up for straight knife grinding. Power and coolant flow to each head is automatically switched when changing from one operation to another.

The unique Wadkin Silhouette Head Movement viewed from above.



③ Dresser arrangement

③ Operational safety is ensured with the unique diamond dresser design which keeps the operator clear of the wheel. A powered tilt facility is provided for setting relief and clearance angles at the touch of a button. The dressing unit maintains a correct wheel to stylus relationship at all times to guarantee a high level of accuracy.



By simply turning the head arrangement through 90 degrees a change over can easily be made from profile to straight knife grinding.

NV Series Profile Grinder

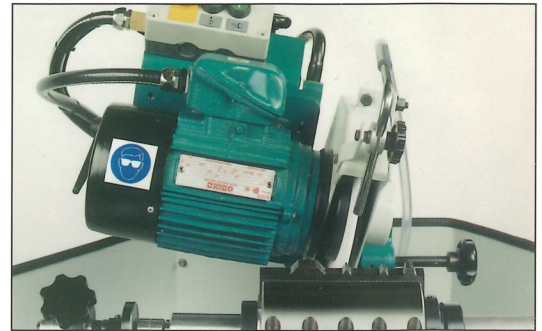
The NV Series Profile Grinder offers superior performance in the production and maintenance of moulding and planing knives to a concentric accuracy from a master template. The NV grinds HSS, Stellite and Tungsten Carbide tipped knives with maximum precision. The NV incorporates a bi-lateral linear action table which reduces operator fatigue by keeping movement to a single plane.

- 1 The diamond dresser unit is mounted directly on to the carriage and positioned away from the workpiece to allow safe wheel dressing without the need to remove safety guarding. The design of the dresser ensures highly accurate and controlled dressing of the wheel. The relationship between the grinding

wheel, tool and template is automatically maintained during dressing thereby overcoming the need to re-set after each operation. Calibrated adjustments allow for controlled variation of wheel width and form.

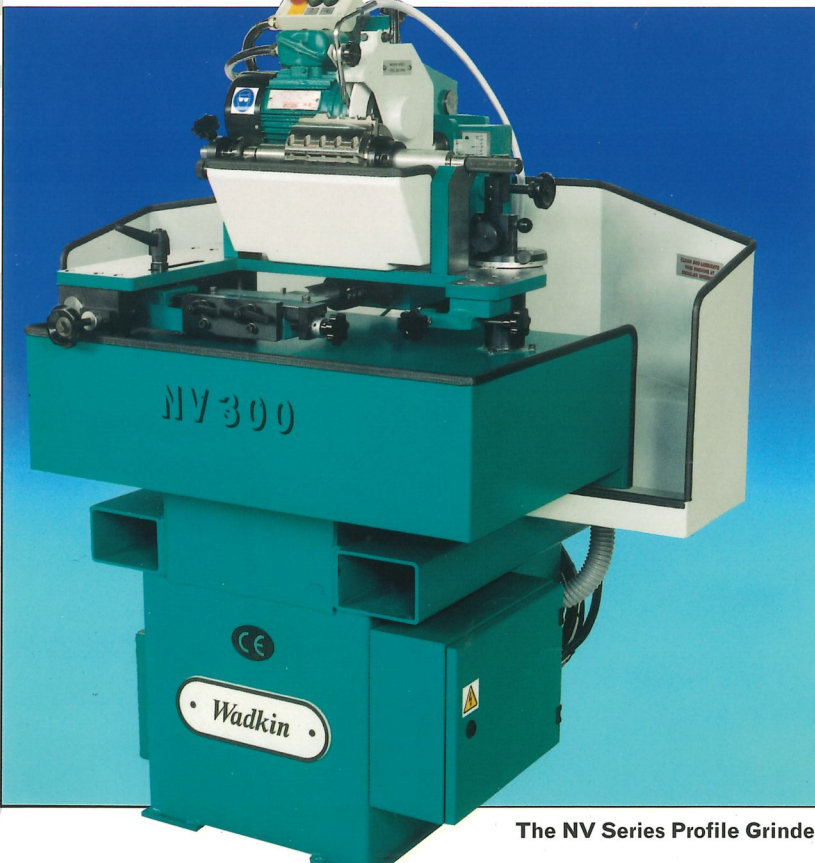


1 Diamond dresser

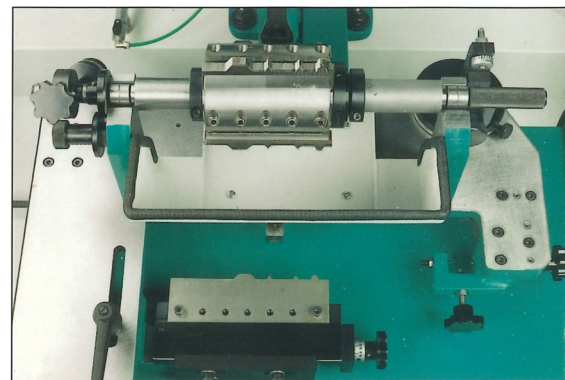


2 Head tilt mechanism

- 2 The 2 way head tilt mechanism is calibrated to allow an accurate and controlled side-relief grind, making redressing the grinding wheel unnecessary. The clearance angle is ground by re-positioning the grinding wheel relative to the cutter which remains in a constant position, with simple calibrated adjustments the wheel can easily be returned to the datum position.



The NV Series Profile Grinder



3 Arbor assembly

- 3 The NV arbor assembly is designed for simple, rapid set-up and set-down. The cutterhead can be conveniently and accurately positioned along the arbor with the aid of two clamping collars. The knives are held on the cutter rest by the counter balance weight which enhances operator flexibility and reduces fatigue.

Image 150

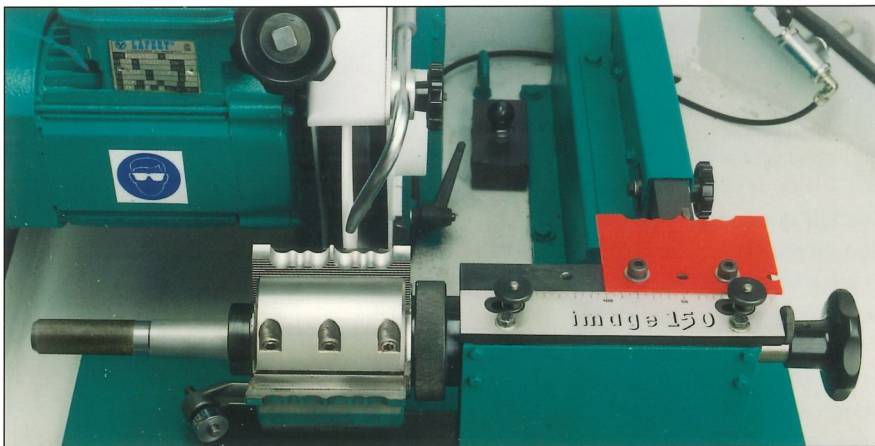
Profile Grinder

The Image 150 Profile Grinder brings the benefits of controlled in-house grinding to all users of woodworking machinery. Full linear table movement ensures exceptional accuracy and ease of use when grinding HSS and TCT knives. The Image 150 is a highly cost effective package providing the logical step towards a totally independent machining operation.

- 1 The Image 150 grinder has a unique arbor assembly which offers minimal downtime when mounting or dismounting tools. This utilises a simple sleeve arrangement to accommodate different bore sizes. The arbor assembly is mounted on quality engineered linear bearings ensuring an accurate blend of position and "feel".

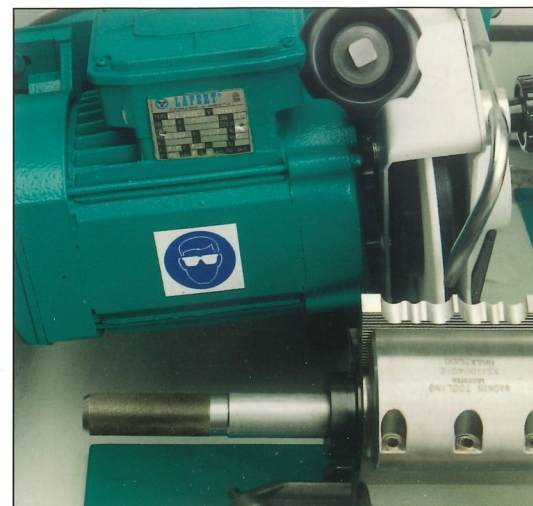


The Image 150 Profile Grinder



- 1 Stub arbor

- 2 The tilting head mechanism allows the operator to add side relief without affecting the cutter profile. Side relief to both left and right-hand planes is achieved with a simple adjustment of one hand wheel.



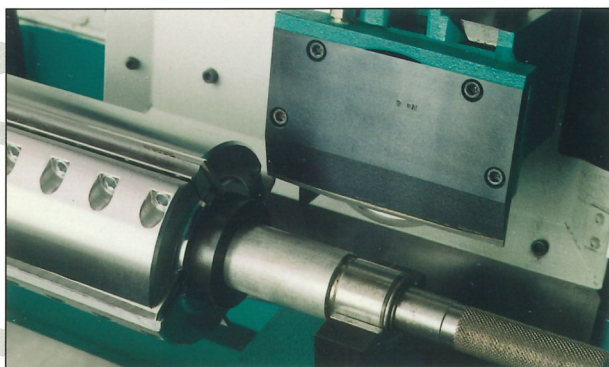
- 2 Relief grinding

NZ Series – Automatic Straight Knife Grinder

The NZ Automatic Knife Grinder is a 330mm capacity machine for grinding planer heads. The NZ's high concentric accuracy makes frequent rejointing on high speed planer moulders possible thereby extending cutter life by minimising the need for cutter sharpening. The machine set-up parameters are aided by computer instruction which maintain and monitor automatically the grinding process.

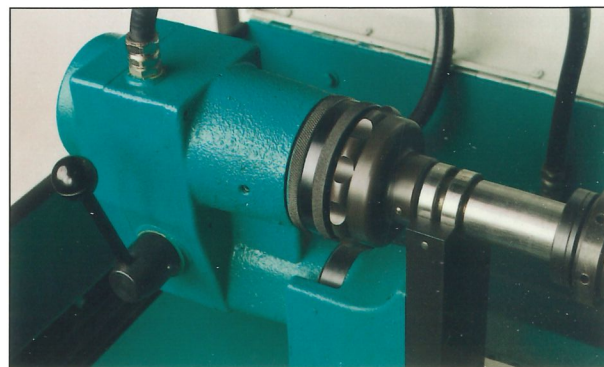


The NZ Automatic Knife Grinder



① Grinding wheel and infeed

① The grinding wheel increments forward automatically to take a predetermined cut off each blade. The machine can distinguish between the roughing operation and finishing cut or sparking out cut to ensure that only the required and minimal amount of material is ground away. A choice of depth of cuts can be pre-programmed to allow for maximum depth of cut when rough grinding, and for minimal finishing cuts or sparking out cuts.



② Arbor assembly

This feature ensures a significant reduction in the cycle time coupled with consistent accuracy and quality of grind.

② The arbor assembly is designed for quick and easy loading/unloading and is attached to the index unit through a quick release coupling to eliminate the need for screws, spanners or keys. The cutterhead is spring loaded against a tungsten carbide knife guide to guarantee a high level of

accuracy. Long term grinding accuracy is assured by sealing the precision steel arbor bearings to prevent grinding debris causing wear to the arbor assembly. The indexing unit can be programmed for any number of knives to permit instant alterations without the need for time consuming mechanical adjustments to the machine.

Mirage – Automatic Template Maker

The Mirage Automatic Template Maker produces accurate templates in a fraction of the time of traditional methods and eliminates the possibility of human error in matching profiles. Using CNC technology complex profiles can be drawn on screen and down loaded to the machining unit for rapid template production.

The Mirage makes light work of jobs which are normally difficult and time consuming to create manually.

- Perfect symmetry of templates is achieved to improve productivity and final component finish.
- CAD production of templates ensures that components run as single pass multiples are identical.
- With CAD control scaling down profiles to suit variations in timber is no longer a problem for the toolroom.
- A perfect fit for male and female profiles can be created.
- Finished component checking gauges can be generated in either brass or plexiglass.

Profile design can be generated by a digitising tablet enabling the operator to work directly from a sample or a sketch; a print out of the design can also be produced for verification purposes. Designs can be stored on file for immediate production of identical duplicate templates.

Grinding accuracies are maintained by utilising plastic templates which are less abrasive on the grinder stylus. Template designs are produced with a 1mm diameter router bit which can cut small delicate features without the need for further hand finishing with a file.



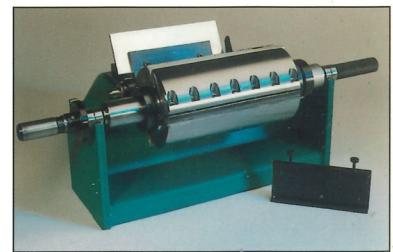
The Mirage Automatic Template Maker



1 Opti-cass

- 1 The Opti-cass is a versatile and economic computer aided setting system, incorporating all the features required for positioning the cutterhead accurately on a moulder with the minimum of delay. Simple and accurate to use the Opti-cass enhances efficiency by allowing the machine head references to be pre-set in the tool room.

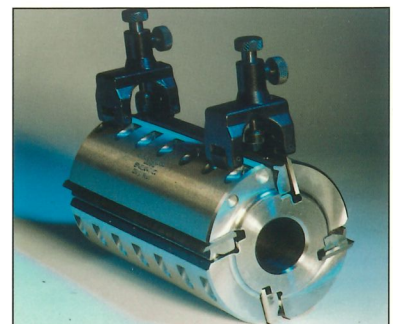
The setting operation is carried out using a powerful hand held computer in conjunction with the MSS Setting Stand and a high definition Swiss made optic probe.



2 Simpla-Set

- 2 The Simpla-set is a quality manufactured setting system for planing only or planing and moulding knife settings.

The Simpla-set is simple to operate and position, the compact unit provides a cost effective answer to setting requirements.



3 Magna-Set

- 3 The Magna-Set is a compact setting system for planing knives and is available at an affordable price. The system is easy to operate and utilises a pair of simple magnetic setting devices. The Magna-Set can be used either in the tool room or in the workshop to set knives already fitted on a machine.

Technical Information	SILHOUETTE	NZ300	NV300	IMAGE 150
Maximum cutterhead length Mechanical Hydrofix Solid profile	315mm/12.4" 335mm/13" 245mm/9.6"	310mm/12.25" 330mm/13" -	310mm/12.25" 310mm/12.25" -	150mm/5.9" - -
Maximum cutterhead diameter Profiling Straight knife Solid profile	350mm/13.8" 300mm/11.8" 300mm/11.8"	- 300mm/11.8" -	300mm/11.8" - -	230mm/9" - -
Minimum cutting circle	70mm/2.75"	80mm/3.15"	75mm/3"	70mm/2.75"
Spindle speeds Profile grinding Optional variable speed Optional variable speed -60HZ supply Straight knife/solid profile	1500-3000rpm - - 3000-6000rpm	- - - 5000rpm	3000rpm 1500-3000rpm 3600rpm -	3000rpm - - -
Table traverse speed		0-3M/0-10ft per/min		
Motor powers Profile grinding spindle Straight knife/solid profile spindle Powered tilt Coolant pump Table traverse	1.5kW/2HP 0.75kW/1HP 0.025kW/0.03HP 0.09kW/0.12HP -	- 0.75kW/1HP - 0.06kW/0.08HP 0.09kW/0.12HP	1.5kW/2HP - - 0.06kW/0.08HP -	1.5kW/2HP - - 0.06kW/0.08HP -
Coolant system tank capacity	36ltr/8gal	31ltr/7gal	36ltr/8gal	32ltr/7gal
Machine dimensions Height Depth Length Weight	1560mm/62" 1090mm/43" 1150mm/45" 570kgs 1256lbs	1115mm/44" 1090mm/43" 1825mm/72" 800kgs 1762lbs	1500mm/59" 1100mm/43" 1270mm/50" 400kgs 881lbs	1340mm/53" 900mm/35" 800mm/32" 180kgs 397lbs

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.



Wadkin Tooling

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