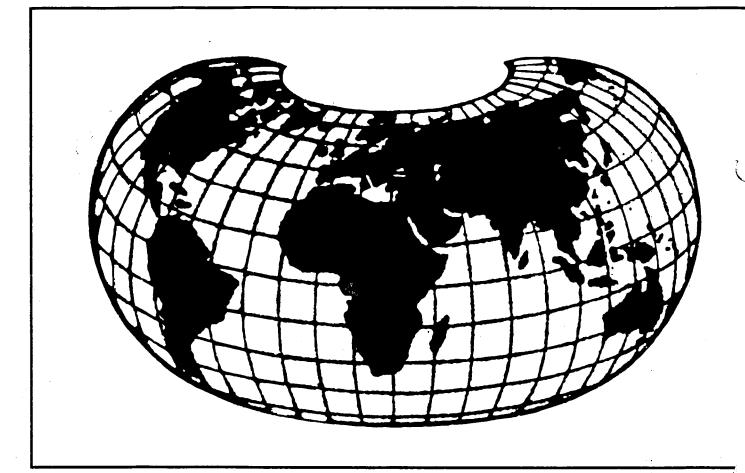
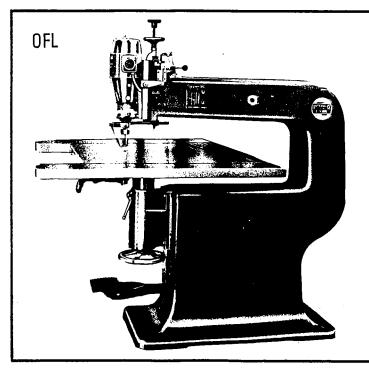
INTERWOOD WORLD-WIDE ROUTING SERVICE

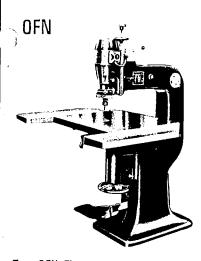
326 Old Street, London, EC1 Tel: 01-739 9866 TX: 25345



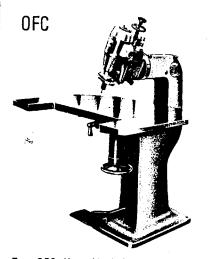


SELECTION...

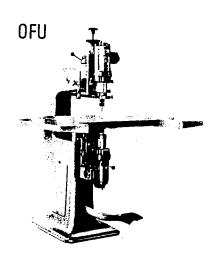
Being specialists in Electric High-Speed Routing Machines we have developed various types for different purposes and each type has been brought to the highest stage of perfection. Before commencing to outline the unique and proven features common to all the routers in the Interwood range, we here describe the different machine constructions.



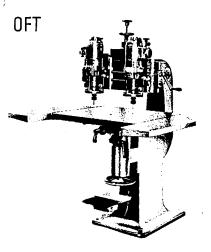
Type OFN. The most popular machine, with its heavy main frame, carrying either the $2\frac{1}{2}/3\frac{3}{4}$ or $3/4\frac{1}{2}$ hp High Speed motors and designed for simplicity of operation.



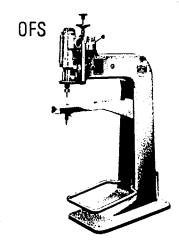
Type OFC. Almost identical in design to the OFN with its 360° swivelling head, but also equipped with canting head slides—permitting borings at any angle up to 45° to the right or left.



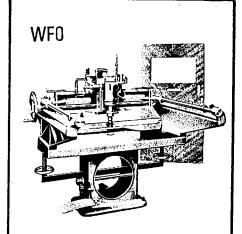
Type OFU. 'Over and Under Router' with two vertically opposed heads which by the use of both in one operation allows for the routing or grooving of both sides of the workpiece simultaneously. Can also be used as a pin copying Router.



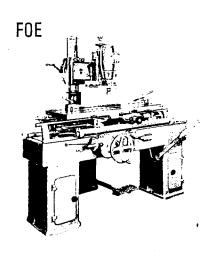
Type OFT. Constructed with two heads, this machine can be easily set for double grooving or edging and can also be used as a pin copying Router.



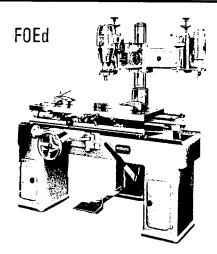
Type OFS. A specially designed machine mainly used by the Cabinet Making industries for Routing Shells and Curved workpieces. Its exceptionally narrow table and specially designed, all round, foot lever allow for ease of operation when handling cumbersome workpieces.



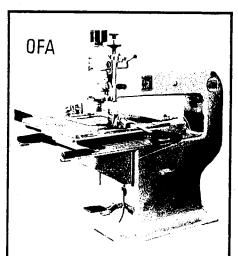
Type WFO. One of the earlier machines to satisfy the requirements of flush-door manufacturers and producers operating with heavy workpieces. This machine will ensure the routing of apertures exactly to requirements. with perfect right-angles, without the use of a template.



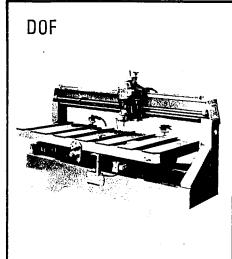
Type FOEd. Equipped with two heads $(2\frac{1}{4}/3\frac{3}{4})$ and $3/4\frac{1}{2}$ hp), this machine is known as the Pattern Makers' Router bearing the basic design and function of its fore-runner the FOE.



Type FOE. Many operations can be carried out on this compound table Router without the use of a template. Ideal for Pattern Making and, when required, as a copying Router as it is also equipped with a guide pin arrangement. (See page 10.)



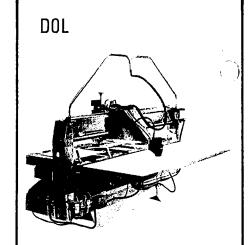
Type OFA. This machine is fitted with a $3/4\frac{1}{2}$ hp high speed head and incorporates a compound table operating from hydraulically controlled compressed air. This machine allows for the routing of regular and irregular shapes to be carried out, without supervision.



Type DOF. Automatic Overhead Beam and Traversing Table Router, cuts apertures in doors automatically, and is also installed by manufacturers for straight cutting and grooving work.

DOP

Type DOP. An automatic Routing Machine, controlled from a plug-board console. The arrangement of programming allows for the quick setting up of new projects and the simple repetition of previous operations.

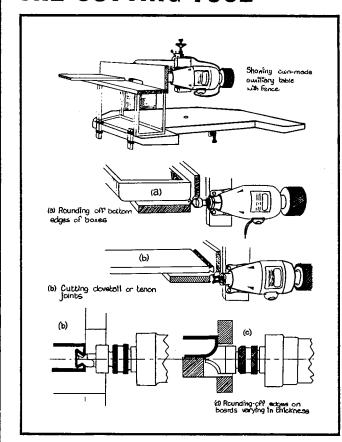


Type DOL. This fully automatic Router incorporates a line or edge scanning device which allows for the Routing of regular and irregular shapes direct from a line drawing or silhouette edge. No templates are required.

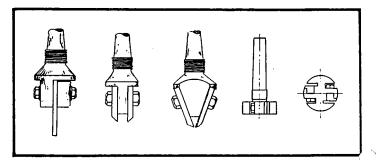
NOTED FEATURES

Many points about the Interwood Router have now become standard features, and the machines are recognised by these points. It is necessary, however, to explain in greater detail the use and workings of some of these refinements.

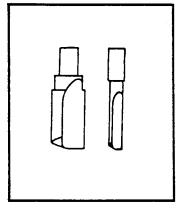
THE CUTTING TOOL



The use of the Router head in the horizontal position.



Flat knife chucks for holding 1 or 2 knife blanks.



Standard straight concentric cutters of Super High Speed Steel.



A typical profile cutter block made to customers' requirements.

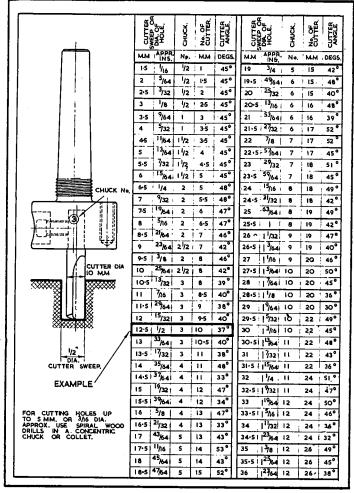


Table showing correct cutter and chuck combinations.



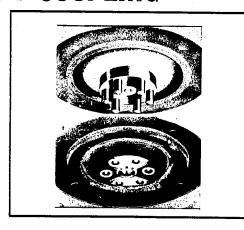
Eccentric Chuck and Concentric Cutter.

TOOL SPINDLE AND BEARINGS

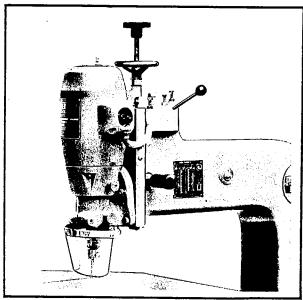
The bearings of a high-speed spindle are subject to special laws. Apart from the requirement of a much greater degree of precision than need be attained for slow speeds the bearings have to be specially developed to allow for minimum, calculated expansion. Over-greasing of high-speed bearings is excessively harmful and our operating manual therefore gives most careful directions.

FLEXIBLE SHOCK ABSORBANT COUPLING

Flexible Shock-Absorbing Coupling with easily replaceable cushion bushes placed between the high-speed motor and the cutterspindle housing.

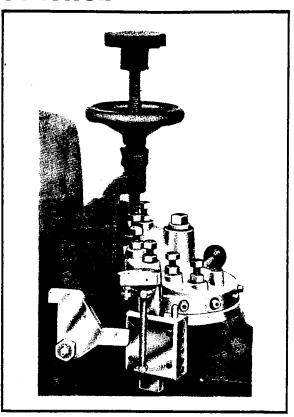


BACKPLATE AND CASTING SLIDES



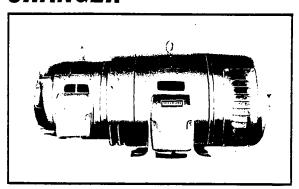
The above illustration indicates the efficient backplate and casting guides on Interwood Routers. They are a full 305 mm (12") long for positive guidance and accurancy in cutting.

PRE-SELECTIVE MULTI-DEPTH CONTROL



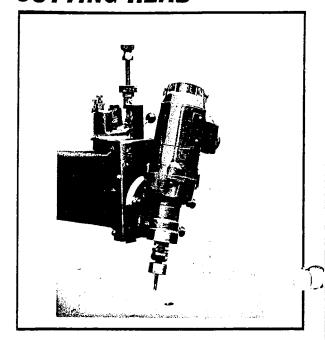
This unit (Pat. No. 793889) enables the operator to set the depth control for two or more cutting depths before commencing a series run. When the work at one depth is completed, the action of raising the Router head brings the depth control to the next position and the cutter penetrates to the next cutting depth.

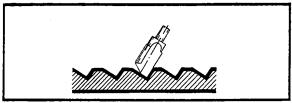
FREQUENCY CHANGER



The frequency changer is for converting the 50 cycles A.C. supply to 200 and 300 cycles and accordingly when the high frequency motors are connected to it they will run at 12,000 r.p.m. and 18,000 r.p.m. A frequency changer for a 60 cycles A.C. supply has exactly the same appearance but having an output supply of 240 and 360 cycles, a high frequency motor connected to it would run at 14,400 and 21,600 r.p.m.

360° SWIVELLING CUTTING HEAD

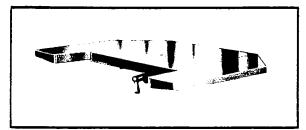




The High-Speed Cutter Head in canted position enables many operations to be done on Interwood Routers which would be quite impossible on machines confined to a fixed vertical head. For numerous operations, special and large diameter tools can often be avoided and standard straight cutters or small simple cutters used by canting the head, which has a full swivelling movement of 360 degrees.

AIR RISE AND FALL ROUTER HEAD

GUIDE PIN ASSEMBLY



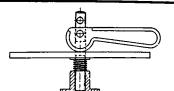
The above illustration indicates the simplified, pistol type, handgrip for raising and lowering the guide pin. Mounted beneath the table, this provides an easy method of adjustment which is essential for workpiece with multiple cutting depths.

CUTTERS, CHUCKS, CLAMPS AND THER ACCESSORIES

Tool Cabinet complete with lock and key.



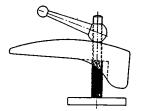
A.III. Heavy type Eccentric Top Pressure Template Clamp. Made either with 4" or 6" screwed stem. State size required when ordering.



Canting Face-Plate Guide Fence 0283C, complete with plastic handles: without wooden cheek plate. Can be adjusted towards the front and rear of the table.



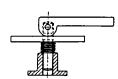
A.IV. Eccentric Top Pressure Clamp. Only used with Routers type FOE and FOEd as dove-tail base fits in the table grooves.



Cast Iron Table Guide Fence 0283A, complete with plastic handles, and best hardwood adjustable face blocks. Can be adjusted to the front and rear of the table



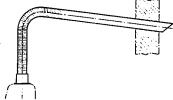
A.V. Light type Eccentric Top Pressure Template Clamp.



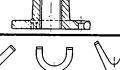
Round base for A.III and A.V Clamps. Enables further templates to be made ready and the top part of existing clamps can be screwed into these



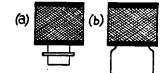
Fresh air hood for high-speed motor. (Air hood with flexible end.)

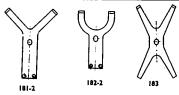


A.VI. Quick Thread Screw Type Side



4A. Air filter for 3/4½ hp motor.





4B. Air filter for $2\frac{1}{2}/3\frac{3}{4}$ hp motor.

Adjustable Depth Controller fitted to the base of the Cutter-spindle housing. Converts Standard Interwood Router to



Alternative Clamp Plates for types A.III and A.V. Clamp. Used for certain jobs instead of standard rectangular plates.

floating head type. Ensures pre-set uniformity of the routing depth in relation to the surface of the timber. Invaluable when doing veining, decorative and carving work or letting in joint plates, and

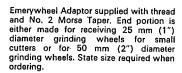


Eccentric Chuck for concentric cutters. Each chuck is marked with a number to indicate the amount of eccentricity in mm. The sizes of cutters which may be inserted are also indicated. Being also marked 30° and 50°, movement of the cutting edge between these degrees increases or decreases the width of cut, enabling constant accuracy to be maintained.



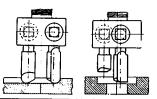
Balancing roll. An invaluable precision instrument. Supplied in Wooden Box.

1

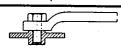




Twin Centre chucks to take concentric straight cutters and produce grooves up to 44 mm (1½") alternatively 38 mm (1½") wide. Will also accommodate shaped concentric cutters as shown on diagram 5008.



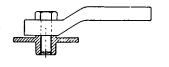
A.I. Side pressure Eccentric Template



Drill Chuck with expanding jaws to take shanks 0 to 6 mm (‡") diameter. Recommended speed: 12,000 or 14,000 r.p.m.



A.II. Side pressure Eccentric Template



Nickel Chrome Single Flat Knife Chuck. Flat knives may be ground in customers' workshops to profiles suitable for simple moulding work. Recommended speed: 12,000 or 14,000 commended. Recommended 14,000 r.p.m.



Nickel Chrome Double Flat Knife Chuck Pairs of knives for this chuck may be ground to shape for rectangular or shaped channelling or edge work. Recommended speed: 12,000 or 14,000 r.p.m.



Nickel Chrome Panel Chuck, Pairs of knives are also necessary for this chuck. Similar characteristics to the chuck described in panel above. Recommended speed: 12,000 or 14,000 r.p.m.

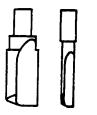


Whitehill Cutterblock recommended speed: 12,000 or 14,000 r.p.m. Pairs of knives either of toughened High Speed Steel or T.C.T. are available for these cutter blocks.





Standard Straight Cutters of Super High Speed Steel 'SHS' Nos. 3 to 26 in their appropriate Eccentric Chucks provide infinite variety of hole diameters and groove widths from ½" to 1½" (3 to 36 mm). See Instruction Diagram 0290. These and some other Router cutters are available with Carbide Tungsten to Stift various materials. suit various materials.



Half Round type Cutter of Super High Speed Steel 'SHS' for nosing timber edges. Please state thickness of timber when ordering i.e. ‡", ‡", †", \$", ‡" or ‡". Larger sizes only made specially to exact instructions.



Full Half Round type Cutter of Super High Speed Steel 'SHS'. Made standard $\frac{3}{6}$ ", $\frac{1}{2}$ " and $\frac{3}{6}$ " thickness. Other sizes made specially to order.



Dovetail Grooving Cutter of Super High Speed Steel 'SHS', Nos. 9, 11, 15, 18, 21 and 25 supplied from stock. Other sizes made specially to order. Carbide tipped available in No. 15, 18, 22 and 25.

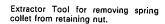


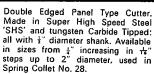
Standard Straight Bush Cutter of Super High Speed Steel inserted in its appropriate bush. Made in sizes to cut from \$\displaystyle{\text{cut}}\$ to \$\displaystyle{\text{du}}\$ (2 to 3-6 mm), a bush is required for each different cutter diameter. Bush is inserted in a No. \$\frac{1}{4}\$ Eccentric Chuck. Used for veining when machine is equipped with Adjustable Depth Controller.

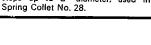


Spring Collet, specially made for inserting directly into the Router spindle instead of eccentric chuck. Spirition instead of eccentric chuck. Backed off and double cutting edge tools are placed in these spring collets, which are available for \$\frac{1}{4}", \frac{1}{2}", \frac{1}{2}", \frac{1}{4}", \frac{1}{4}" (9.5 mm and 12 mm) diameter shanks.

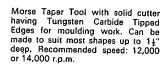
Collet retaining nut tightens spring collet in Router spindle.



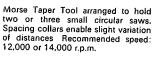




Counterbore, Countersink and Quarter round or Quadrant cutters available on special request.

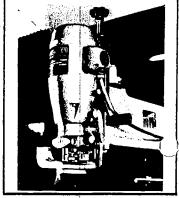


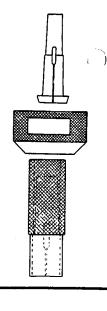
Small Circular Saw on Morse Taper Tool. Used for $1\frac{1}{2}$ mm $(\frac{1}{16})$ and 3 mm $(\frac{1}{4})$ wide grooves for letting in plywood shelves, brass or other metal strips. Recommended speed: 12,000 or 14,000 r.p.m.



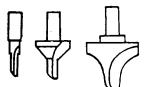
DUST REMOVAL

A recently developed unique extrac-tion unit has now become a standard accessory for all Interwood Routers.
This simple effective device is provided with a flexible skirt which surrounds the tool, and from this space small waste material is sucked when connected to a suitable when connected extraction system. a suitable



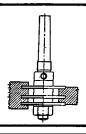








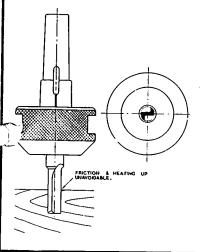




CONCENTRIC **OR ECCENTRIC?**

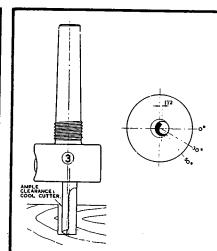
Have you ever asked yourself this question and realised the importance of knowing the best features of the two systems?

Which cutting system should be used with which operation? As a choice of two interchangeable systems is available with Interwood Routers, a specially prepared comparison chart is illustrated here. This is given solely for guidance and is not a directive for use.



CENTRE BORE SYSTEM BACKED OFF CUTTERS

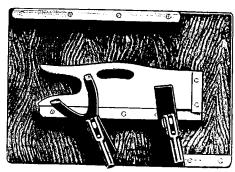
- Limited life.
- Lose diameter and clearance
- with each successive grinding. Not easily ground without special equipment, especially in the case of double edge cutters.
- Cutters very costly.
- Allow of no adjustment to cutting diameter.
- 6. Limited clearance; burning not uncommon.
- 7. Range of sizes usually limited
- to standard range. Not usually satisfactory for sinking.
- 9. Standard straight cutters nearly impossible to grind to shape in workshop for profile work.



ECCENTRIC CHUCK CONCENTRIC CUTTERS

- Long life—can be sharpened very many times.
- Retain original cutting diameter from first grind to the
- 3. Easily ground without previous experience using simple attachment provided
- Considerably cheaper.
- Cutting diameter adjustable for working to precision limits.
- 6. Far greater clearance giving cool, clean cutting and long life between regrinding.
- Provide infinite variety of frac-tions of an inch and metric
- 8. Perfect for sinking. Bore clean-
- er holes than most wood drills. Standard straight cutters easily ground on machine to required shape for profile work.

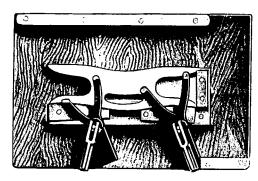
HE TEMPLATE AND CLAI



No. 1

Template Operation No. 1

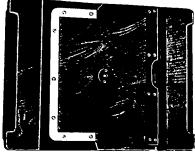




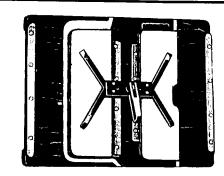
No. 2

Some of the template clamps and special clamping plates shown on page 7. Some or the template cramps and special clamping plates snown on page 1. items 9-16, are fitted in the templates depicted here. Although metal plates are shown screwed to the underside of one of these templates—and production of simple shapes metal negatives are excellent—it is more usual nowadays to shape bakelite and hard plastic sheets to provide an enduring guide for the operator. Original samples are frequently used to make a few copies or to cut the

Underside of

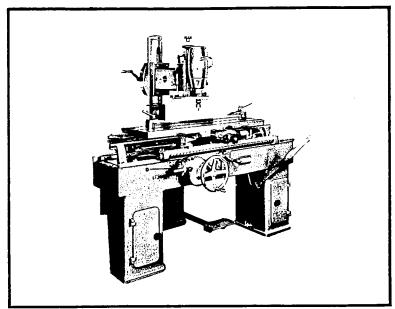


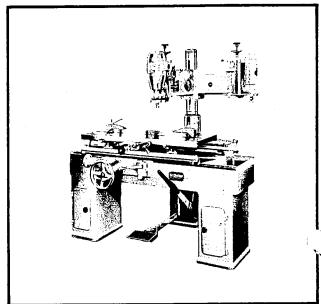
Template for doing the work shown on the right material which will be screwed to the under surface of the template for series production. Users of Routers are well advised to make fairly heavy templates. A good test is to allow the cutter to sink into the blank on the top of the templates. and observe that the unheld template does not move. Such a template does not require to be held down by the operator but merely moved against the guide pin.



Top surface of template

FOE and FOEd COMPOUND TABLE ROUTER





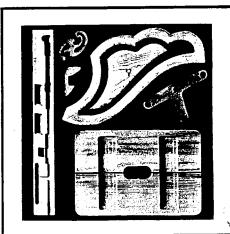
SPECIFICATION

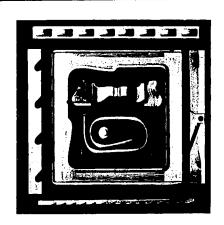
The machine consists of two main parts: The column with its high frequency, high power head.

The multi-purpose compound movement table. The Router head (A) is fitted on the arm of the column in such a way that its rise and fall movements are easily and accurately controlled by foot lever, and when advantageous for certain work, the head can be canted to any angle up to and beyond the right-hand and left-hand horizontal positions. A scale is calibrated in degrees for this purpose. Handle (E) operates the rise and fall of the entire head mounting to accommodate varying depths of work.

When the machine is not being operated, the head is held in the resting position by an automatic lock.

The cutting depth is adjusted by means of an adjusting screw and capstan type variable depth stop. Instead of the capstan depth stop the automatic depth control (Patent No. 793889) shown on page 4 can be ordered. The high frequency router head (A) consists of a high-speed motor and a cutter-spindle housing connected by a flexible coupling. A guard for the cutter-spindle is provided as illustrated. Instant stopping of the cutting tool after the current is switched off is effected by a brake at the base of the router head.

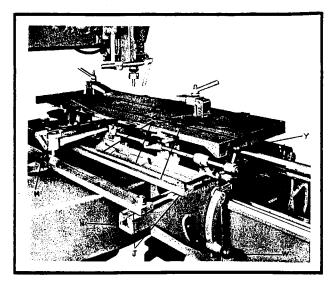


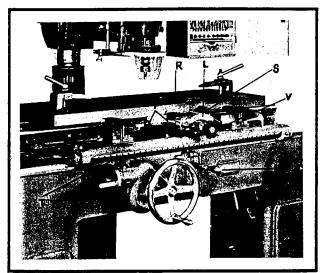


Illustrated above are samples of typical workpieces produced on Interwood Routers, these machines are noted for their cleaness of cut, as can be seen from the illustration.

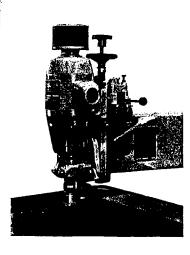
The table is of cast iron. Longitudinal movement is operated by hand wheel (F) and transverse movement by hand lever (G). Gears behind the hand wheel (F) permit two rates of feed, and in addition the special hand wheel (D) is fitted for fine longitudinal travel of the table (one quarter turn of the disc moves the table 0.5 mm (0.02 inch). The hand lever (G) enables the table to be moved at any desired speed.

Stops (H) are provided at the rear of the table for the longitudinal movements, and two strong flat bars (J) act as stops for the transverse movements. These are particularly useful when slotting and drilling. The guide pin with roller (M), movable up and down by lever (L) from the operating position, can be made to slide against the flat bars when desired to produce rectangular and tapered shapes. Templates can also be fixed on the bars for more intricate profiles. Adjustable stops (O) are fitted on a further bar to limit the longitudinal movement. Bolts, fixed in tee slots (N) permit quick and exact adjustment of the flat bars (J). The central position of the lever (W) disengages the stops (O) and locking the table's transverse movement is effected by handle (Y), thus permitting even the cutting of long shapes and mouldings without the cutter running out of line in the transverse direction.

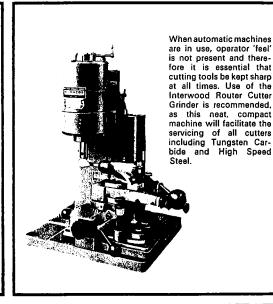




IMPORTANT



Illustrated at the base of the cutter spindle housing is the adjustable depth control developed for use on the Interwood high-speed head. The device enables a determined depth of cut to be made using the surface of the work-piece as the final stopping position.

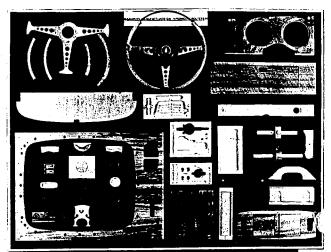


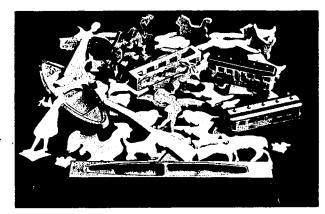
POINTS...

.. 16 good reasons why the Interwood Router has been acclaimed, and accepted, throughout the world as a machine for reliability, versatility and value for money.

- No simpler method of tool removal, and either concentric or backed off cutters can be used at will, without loss of time or alterations to machine.
- Speeds and power related to the type of work.
- Automatic lock for the resting position of the cutter head.
- Fine screw vertical adjustment with micrometer ring setting. Simple and easy for high precision cutting depths.
- Pistol grip rise and fall of guide pin in table to four pre-set positions.
- High-speed motor protected against impact shocks by flexible coupling.
- Brake quickly stops cutter spingle.
- Standard 770 mm $\,\times$ 710 mm (30" $\,\times$ 28") table instantly ready for large work with side extensions providing 1260 mm \times 920 mm (49½" \times 36") table area.
- Maximum output with minimum fatigue.
- Cleanest cut and finest finish on wood, plastics and light materials.
- Combines simplicity of operation with high speed and unrivalled economy.
- Precision construction.
- Correct h.p. motor and the appropriate frequency changer for the type of work and the factory's capacity.
- Choice of Grease or Oil Film Lubrication for the high-speed bearings.
- Pre-selective Automatic Multiple Depth Control (Pat. No. 793889).
- High efficiency Dust Extraction Unit.

Further illustrations showing the vast applications of the Interwood Router throughout many Industries.





ТҮРЕ	LONGI- TUDINAL MOVEMENT OF TABLE		TRANSVERSE MOVEMENT OF TABLE		SIZE OF TABLE				(Throat) DISTANCE BETWEEN MACHINE CASTING & ROUTER SPINDLE		(Gap) DISTANCE BETWEEN TABLE & ROUTER SPINDLE		VERTICAL STROKE ROUTER HEAD		CODE WORD	WEIGHT OF MACHINE AND FREQUENCY CHANGER	
İ	mm	ins.	mm	ins.	mm	ins.	mm	ins.	mm	ins.	mm	ins.	mm	ins.		kilos	lbs.
					LENGTH		BREADTH										
OFN	STATIONARY		STATIC	NARY	•770	•30	° 710	*28	600	24	+280	+11	115	4 ½	OEFEN	600	1300
OFC	STATIONARY		STATIONARY		•770	•30	. 710	*28	600	24	÷280	+11	115	41/2	OEFEC	600	1300
OFL	STATIONARY		STATIONARY		1260	49½	1125	441/2	1000	40	+280	÷11	115	4½	OEFEL	900	1900
OFS	STATIONARY		STATIONARY		100	4	785	31	600	24	216	8 1	75	3	OEFES	450	1000
FOE	1000 39½		460	18	1200	471	410	16 <u>1</u>	580	223	495	19½	140	5½	EFOINT	1200	2600
FOEd	1000	39½	460	18	1200	471	410	16 <u>1</u>	580	223	495	19 1	140	5 1	FODINT	1250	2700
OFA	450	18	610	24	1000	40	870	34	1000	40	280	11	115	41/2	OFACR	950	2000
DOP	NIL		760 30		2335	92	965	38	Not Applicable		Not Applicable		150	6	DEOPE	1500	3300
DOF	NIL		760	30	2335	92	965	38	Not Ap	plicable	Not Applicable		150	6	DEEOF	1400	3100
OFT	STATIONARY		STATIONARY		1265	49%	900	36	600	24	280	11	115	41/2	OFTEE	650	1400
OFU	STATIONARY		STATIONARY		1265	493	900	36	600	24	280	11	115	41/2	OFTWU	650	1400
WFO	STATIONARY		STATIONARY		1220	48	635	25	Not Applicable		Not Applicable		130	51/2	WEFOE	690	1500

All measurements and weight details are approximate. "With extension side pieces these measurements are increased to $49\frac{1}{2} \times 36$ ins. (1260 \times 920 mm). +Head adjustable on back plate to give 14 ins. (350 mm).