

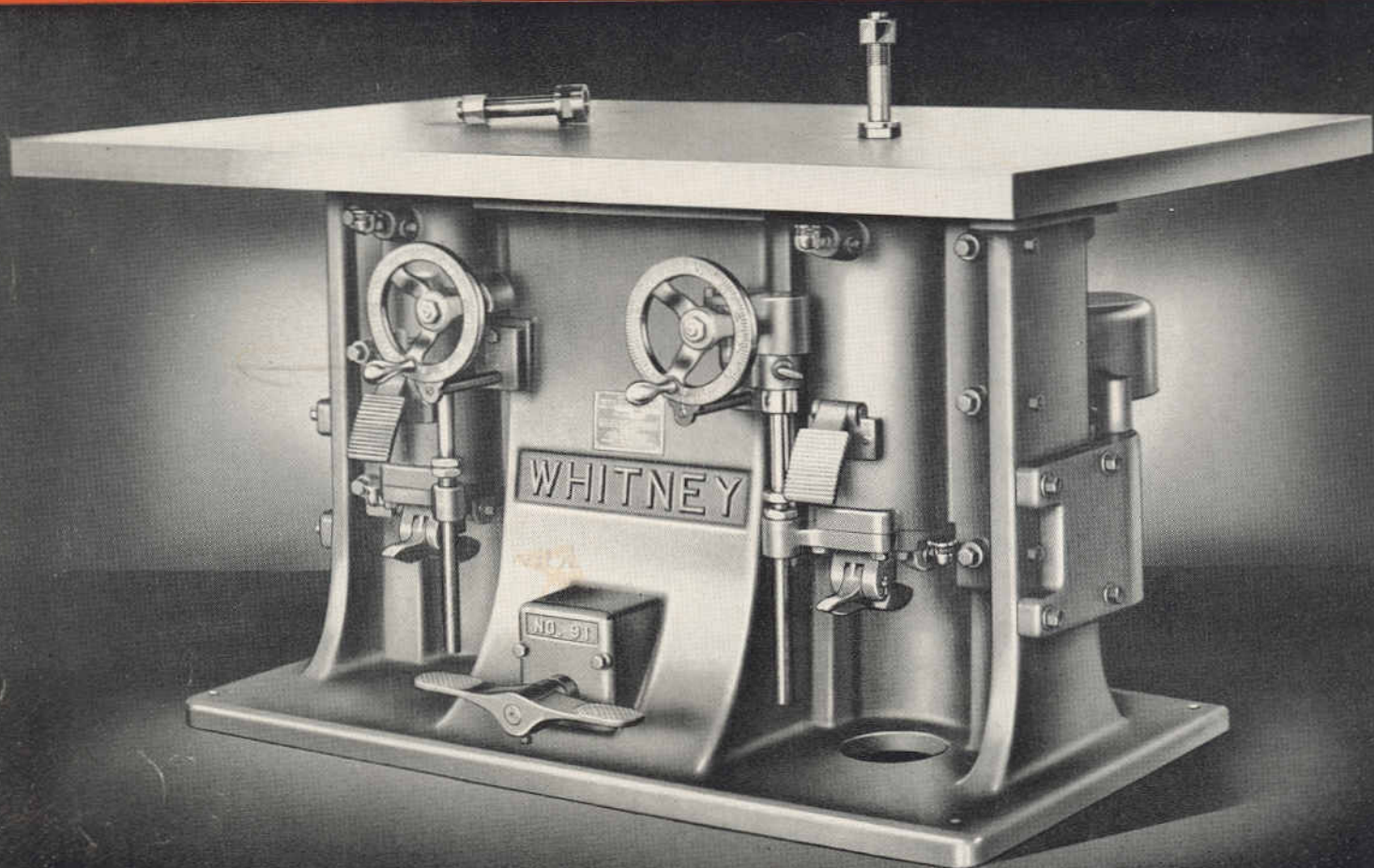
# **WHITNEY**

## **PRODUCTION SHAPERS**

**BELTED MOTOR DRIVEN  
NO FREQUENCY CHANGER REQUIRED**

**BAXTER D. WHITNEY & SON, INC.**  
WINCHENDON, MASSACHUSETTS, U. S. A.





**WHITNEY NO. 91 MOTOR DRIVEN SHAPER**

Motors are mounted on shaper base and belted directly to the spindles. Table, 66" x 42", Spindles, 30" on centers.

No. 90: Table, 48" x 35". Spindles, 24½" on centers.

## **WHITNEY MOTOR DRIVEN SHAPERS**

### **HEAVY AND LIGHT DUTY TYPE WITH BELTED SPINDLES**

Whitney Belted Motor Driven Single and Double Spindle Shapers are designed for large production, and high spindle speeds without the use of a frequency changer. In this complete new line of Whitney motor driven shapers may be found a size and model for every shaping need in furniture and general woodworking plant, ranging from the 10 HP Heavy Duty Series with spindle speeds up to 9000 RPM, to the 2 HP Light Series with speeds up to 15,000 RPM available.

Vertical, ball bearing motors are hinge-mounted on the base of the shaper for rigidity and to relieve all direct strain from the spindles. The drive is by endless, woven, flat belts



with adjustable spring tension provided. Belts drive the spindles directly, spindle pulleys being integral with the spindles.

Vertical adjustment of the spindles is permitted by the wide belt area provided on the spindles. Spindle adjustment on the Heavy Duty Series is 6" and on the Light Series, 5".

Lubrication of the spindle bearings is by an oil mist or vapor system developed by Whitney for maximum service. Visible oil level gages are provided for convenience.

By means of the wide, flat belts full power is delivered to the spindles. This type of construction permits the spindles to run in perfect balance and give long, uninterrupted service as evidenced by the hundreds of these shapers today turning out large production and giving trouble-free service.

#### SLIDE OR SPINDLE HOUSING

Rear view, showing opening for belt, one-piece spindle, and spindle lock



## BASE

- Solid, ribbed construction, flaring at bottom for stability
- Hinge mounts for motors bolted directly to base
- Bottom of base machined for even support on foundation

## TABLE

- Heavily ribbed, fine grained casting
- Steel content for longer wear
- Accurately finished top, bottom and sides
- Corners and edges slightly rounded

## SLIDES

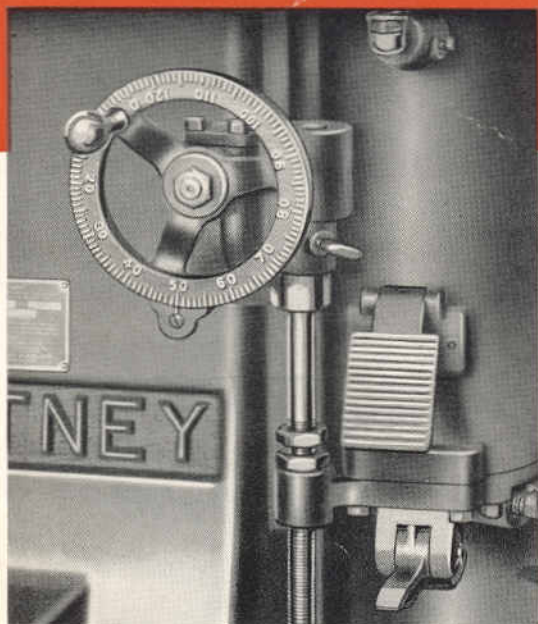
- Heavy duty, one-piece design, with opening in rear for belt

- Ball bearing housings enclosed, dust-proof, of advanced design
- Slide bearings hand-scraped for accuracy and long wear
- Elevating screws equipped with helical gears and thrust ball bearings for easy operation
- Slides may be positively locked at any height

## HANDWHEELS

- 8" dia. on Heavy Duty Series, graduated and indexed on rim in thousandths of an inch of vertical adjustment of spindle
- One complete revolution of handwheel raises spindle  $\frac{1}{8}$ "





#### GRADUATED HANDWHEEL,

Elevating Mechanism and Spindle Brake, on Heavy Duty Series

## SPINDLES

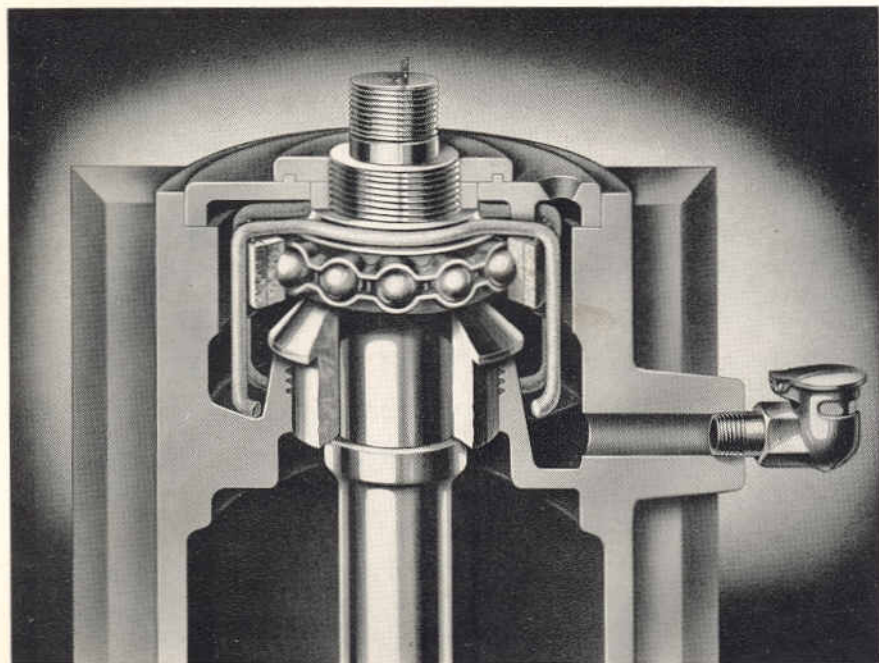
- Spindle arbors forged from special alloy steel, heat treated, precision ground and carefully balanced, for strength, accuracy and long life
- Mounted in high speed, deep grooved, selected ball bearings
- Exclusive, Whitney developed, oil vapor lubrication
- Vertical adjustment
- 6" on No. 89, 90 and 91 Shapers
- 5" on No. 110, 118 and 128 Shapers
- Spindles run "out" unless otherwise ordered

## SPINDLE LOCK AND BRAKE

- Spindle lock is foot-operated on Heavy Duty Series, hand-operated on Light Series. Has automatic release feature. Prevents "burning" of belts
- Foot-operated spindle brake on Heavy Duty Series saves set-up time

## SPINDLE TOPS

- Interchangeable detachable spindle tops furnished. Tops can be furnished in sizes from  $\frac{5}{8}$ " dia. by 5" long (above shoulder) on Light Series to  $1\frac{1}{2}$ " dia. by 9" long on Heavy Series.
- Are self-centering and self-aligning
- Specially designed spindle tops for use with overhead bearings available



## SPINDLE SPEEDS

- Standard for Heavy Duty Series, 7200 RPM. (8400 or 9000 RPM may be obtained as optional equipment)
- Standard for Light Series, 10,500 RPM. (12,000 or 15,000 RPM obtained as special equipment at slight additional cost)

**WHITNEY OIL LUBRICATION SYSTEM** — Showing large oil reservoir, wicks, oil slinger and large cup with oil level gauge.

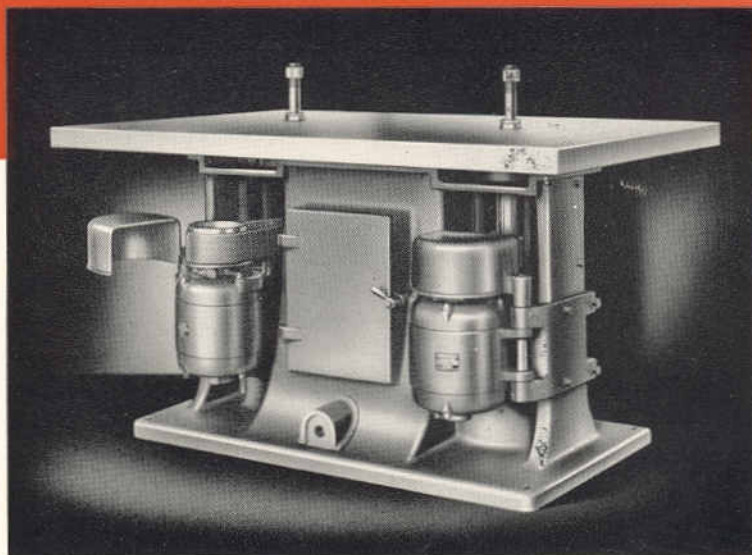


## MOTORS

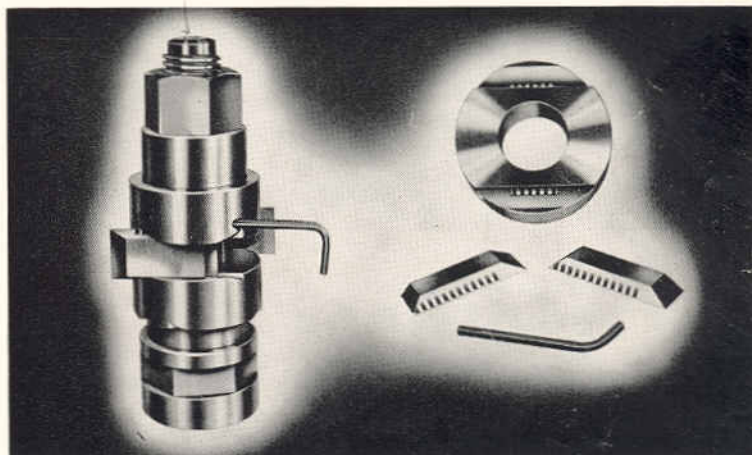
- Heavy duty, ball bearing, self-lubricated.
- 5 HP, 220, 440 or 550 volt, 3-phase AC current, regularly furnished on Heavy Duty Series Shapers, Nos. 89, 90 and 91 (3 or 5 HP, 110V, single phase AC; 5 HP, 115V or 230V DC; or 7½ or 10 HP, 220, 440 or 550 volt, 3-phase AC current, can be furnished on order)
- 2 HP, 220, 440 or 550 volt, 3-phase AC current regularly furnished on Light Series Shapers, Nos. 110, 118 and 128 (2 HP, 110V, single phase AC or 2 HP, 115V or 230V DC current motors can be furnished on order)

## CONTROLS

- Push button control. Hand-operated start switches conveniently placed under front edge of table. Stop switches foot-operated on Heavy Duty Series, hand-operated on Light Series
- Control panels mounted inside base, completely enclosed
- Overload and under-voltage protection prevents spindles starting up unexpectedly upon return of power
- Overload relays hand reset, requiring no fuses



**REAR VIEW OF NO. 91 SHAPER** — Showing vertical motors, motor hinge-mounts and belted spindles.

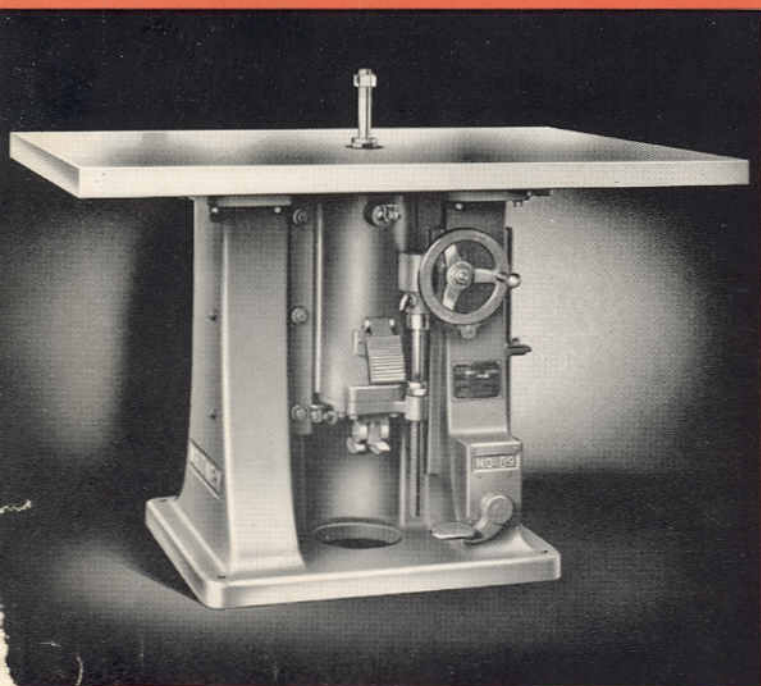


**WHITNEY SAFETY COLLARS** — Provide micrometer adjustment of knives and prevent knives from flying out of the collars.

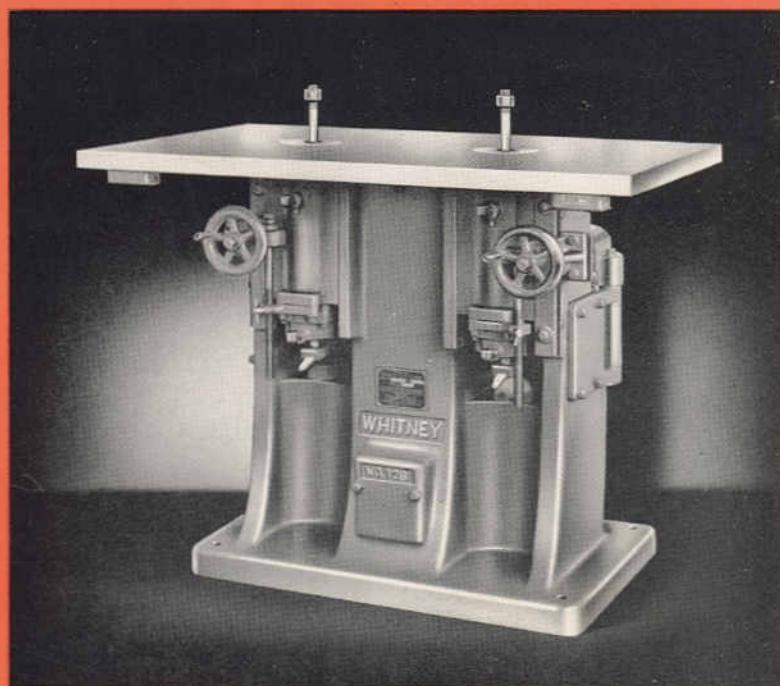
## SAFETY COLLARS

- Whitney Safety Collars and Knives can be furnished at slight additional cost to fit all regular size spindle tops
- Adjustable screws set in safety collar engage notches or serrated edges of knives
- Permit micrometer adjustment of knives. Prevent knives from flying out of collars  
(Your present knives may be notched for use with Whitney Safety Collars)





**NO. 89 SINGLE SPINDLE SHAPER** — Table, 56" x 40". Spindle, 18" from front edge. Heavy Duty Series.



**NO. 128 DOUBLE SPINDLE SHAPER**— Light Series — Table, 48" x 31". Spindles, 18" on centers.

**NO. 118:** Table: 36" x 26". Spindles, 12" on centers.

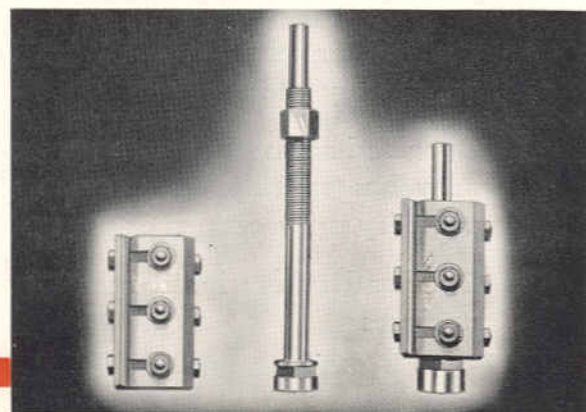
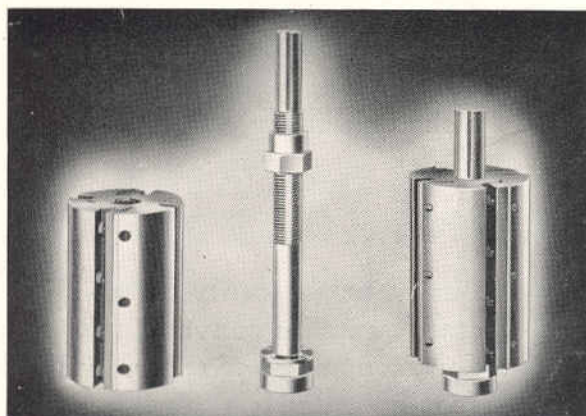
## CUTTERHEADS

- 4-Knife round or 4-Knife square slip-on or screw-on cutterheads with 5 1/4" dia. cutting circle can be furnished for Heavy Duty Series as additional equipment
- Whitney screw-on heads may be stored away with set-ups intact ready for instant use when needed
- 8" and 12" screw-on heads have extension journals for overhead steady bearings

### WHITNEY 4-KNIFE SQUARE SLIP-ON AND SCREW-ON CUTTERHEADS

Whitney Screw-on Heads enable the operator to change set-ups as simply and quickly as he would change spindle tops.

### WHITNEY 4-KNIFE ROUND SLIP-ON AND SCREW-ON CUTTERHEADS





## OVERHEAD STEADY BEARINGS

- Consist of sturdy columns bolted to table, adjustable arms and supporting collars, and ball bearing assemblies which fit over the tops of the spindles or cutterheads for supporting extra long spindle tops when heavy cuts are being taken.
- Can be furnished as extra equipment on Heavy Duty Series

## EQUIPMENT

- Spindle Tops: Heavy Duty Series,  $\frac{5}{8}$ ",  $\frac{3}{4}$ ",  $\frac{7}{8}$ ", 1",  $1\frac{1}{8}$ "\* or  $1\frac{1}{4}$ "\* dia. x 6" long or  $1\frac{1}{8}$ "\*,  $1\frac{1}{4}$ "\*,  $1\frac{3}{8}$ " or  $1\frac{1}{2}$ " dia. x 9" long.

Spindle tops long enough for 6", 8" or 12" cutterheads can be furnished as additional equipment. Have extension journals for overhead steady bearings.

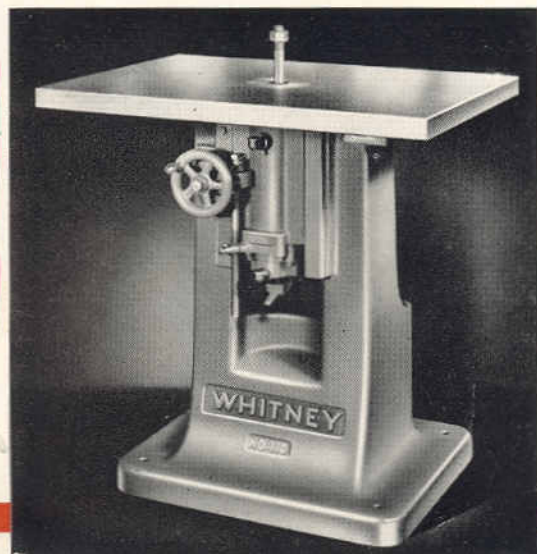
\*Regular equipment

Light Series,  $\frac{5}{8}$ ",  $\frac{3}{4}$ " or  $\frac{7}{8}$ " dia. x 5" long.

- Collars: Heavy Series, for each spindle — 1 pair knife collars each,  $2\frac{1}{2}$ " dia. x 1" thick and  $3\frac{1}{2}$ " dia. x 1" thick, slotted for 2 knives; 1 filling collar each,  $\frac{1}{2}$ " thick, 1" thick and  $1\frac{1}{2}$ " thick x 2" dia. (Knife collars for 1" dia. spindle tops and smaller are  $2\frac{1}{2}$ " and  $1\frac{3}{4}$ " dia. and filling collars are  $1\frac{1}{2}$ " dia.)
- Light Series, for each spindle — 1 pair knife collars,  $1\frac{3}{4}$ " dia. x  $\frac{3}{4}$ " thick, slotted for 2 knives; 1 filling collar each,  $\frac{1}{2}$ " thick and 1" thick x  $1\frac{1}{2}$ " dia.

- Table Rings: Heavy Series, openings in table are 8" dia., are fitted with rings having  $3\frac{9}{16}$ " dia. openings. Rings having  $2\frac{9}{16}$ " dia. openings are fitted into the larger rings.

Light Series, openings in table are 6" dia. into which are fitted rings with 2" dia. openings.



NO. 110 SINGLE SPINDLE SHAPER — Light Series, Table, 36" x 26". Spindle, 12" from edge. Spindle speeds up to 15,000 RPM.

NO. 110 SHAPER, REAR VIEW — Shows belted spindle, adjustable spring tension for belt, and control panels totally enclosed in base.



# BELTED, MOTOR DRIVEN SHAPERS

## Specifications

	No. 89 Single	No. 90 Double	No. 91 Double
ies	56" x 40"	48" x 35"	66" x 42"
able to	18"	15"	18"
pindle		24 1/2"	30"
lar*	7200 RPM	7200 RPM	7200 RPM
lar	1 1/8" or 1 1/4" dia. 6" or 9" long	1 1/8" or 1 1/4" dia. 6" or 9" long	1 1/8" or 1 1/4" dia. 6" or 9" long
	5HP AC 220, 440, 550V-3Ph.	5HP AC 220, 440, 550V-3Ph.	5HP AC 220, 440, 550V-3Ph.
	46" x 40"	48" x 40"	66" x 43"
	1900 lbs.	2500 lbs.	3050 lbs.

8400 or 9000 RPM (Optional)  
P or 5 HP — 110V Single Ph. AC  
P, 115V or 230 Volt DC  
or 10 HP, 220, 440 or 550V 3Ph. AC

Light Series	No. 110 Single	No. 118 Double	No. 128 Double
Table	36" x 26"	36" x 26"	48" x 31"
Distance front of table to spindle centers	12"	12"	15"
Distance between spindle centers		12"	18"
Spindle speed, regular*	10,500 RPM	10,500 RPM	10,500 RPM
Spindle Tops	5/8", 3/4" or 7/8" dia. 5" long	5/8", 3/4" or 7/8" dia. 5" long	5/8", 3/4" or 7/8" dia. 5" long
Motors, regular*	2 HP AC 220, 440, 550V-3 Ph.	2 HP AC 220, 440, 550V-3 Ph.	2 HP AC 220, 440, 550V-3 Ph.
Floor space	36" x 29"	36" x 29"	48" x 32"
Net weight	850 lbs.	1050 lbs.	1350 lbs.

\*Special Equipment —  
Spindle speeds, 12,000 or 15,000 RPM.  
Motors 2 HP 110V Single Phase AC  
2 HP 115V or 230 Volt DC



One Hundred Years of  
Dependable Performance

Investigate Whitney Automatic Power Feed Shapers with  
belted, motor driven spindles for extra large production.

# BAXTER D. WHITNEY & SON, INC.

WINCHENDON, MASSACHUSETTS, U. S. A.