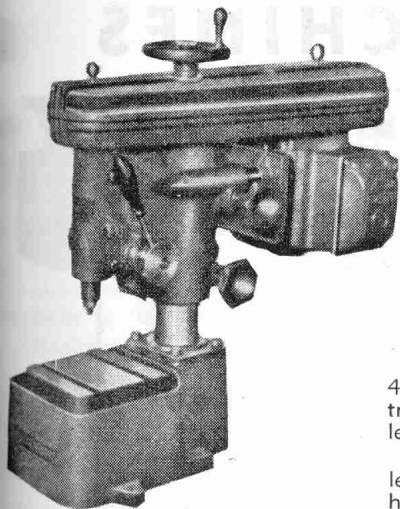


ELECTRIC BENCH DRILLS



V85

V85— $\frac{1}{4}$ " CAPACITY

A high speed precision machine, with a range of six speeds: 12,000, 10,750, 6,500, 6,000, 5,800 and 3,300 r.p.m. Entire head can be raised and lowered 4 ins. Vertical travel of quill 2 ins.

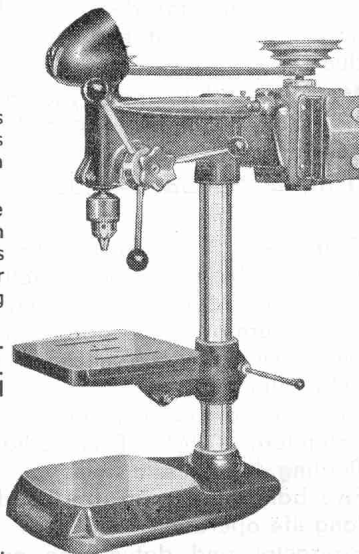
Supplied with $\frac{1}{2}$ h.p., 415 V., 3-phase motor.

V86—THE NEW WALDOWN $\frac{1}{2}$ in. DRILLING MACHINE

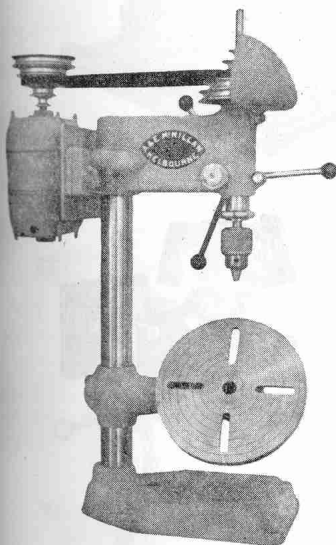
The stroke or travel of the quill is 4". Power from the operator is transmitted by a three-handle capstan lever.

A clearly graduated dial on the left side of the head is friction held on to the pinion spindle. This permits quick and easy setting for ascertaining the depth of hole being drilled.

A quick-acting drill stop is provided on the right side of the head. This is actuated by a star hand wheel in the centre of the capstan.



V86



V87

V87—MACBRO BENCH DRILL $\frac{1}{2}$ " CAPACITY

Ball-bearing with specially designed bronze driving sleeve.

Drills to the centre of a 14 inch circle.

Fitted with half-inch Jacobs pattern chuck as standard equipment or No. 1 Morse tapered spindle can be supplied alternatively.

Easily adjustable depth stop. Calibrated rotary dial which is adjustable for determining depth of drilling.

Adjustable clutch on cross shaft is an aid to sensitive drilling.

Drill has vertical travel of $3\frac{1}{2}$ inches.

The table can be rotated and tilted to any angle in the full 360 degrees. The table can also be removed from its bracket and jigs mounted quickly in its place. Four slots for bolting purposes are provided.

Motor $\frac{1}{3}$ rd h.p. supplied in either single or 3 phase, complete with starter and flex.

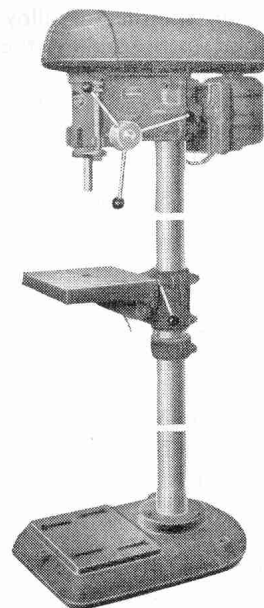
Five speeds — 360 to 5,000 r.p.m. Distance from chuck to base is 15 inches. Table diameter 10 inches.

V88—SINGLE SPINDLE FLOOR MODEL 17" DRILL PRESS

A highly adaptable machine of proved performance in many types of production work. Modern design and high-grade workmanship.

With table-raising mechanism.

Surface of Tilting Table 11 x 12 ins.	Column $3\frac{1}{2}$ ins. x 60 ins.
Height 66 ins.	Spindle to Table . . . 34 ins.
Floor Base Surface $13\frac{3}{4}$ ins. x 10 ins.	Weight 425 lbs.



V88

DRILLING MACHINES

V89—UTILITY RADIAL BENCH DRILL HALF-INCH CAPACITY

This very versatile drilling machine is admirably suited for the tool room, production workshop, and hobbyist. It is truly a precision built machine tool and embodies the design, workmanship, finish and dependability that characterise all Waldown Products.

Motor.—Ball-bearing type, available for 230 V., $\frac{1}{3}$ h.p. single phase, or 415 V., three phase $\frac{1}{2}$ h.p., 50 cycle supply.

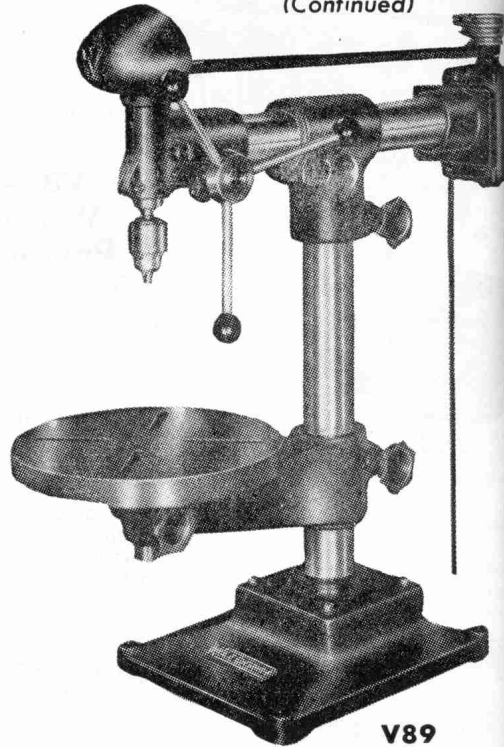
Drilling Speeds.—4,000, 2,000, 1,000, 500 r.p.m

Chuck.— $\frac{1}{2}$ " capacity key type. Positive adjustable stop as well as graduated rotary dial, supplied for depth drilling. Quill return by means of torsion spring. Maximum distance from chuck to table, 11". Table diameter, 14".

Distance from column to chuck centre with arm fully extended, 18 $\frac{1}{2}$ ". Drill spindle, four spline, full floating, high tensile steel.

Five ball bearings in drill head ensure trouble-free long life operation.

Protractor and datum line on radial arm permit of easy adjustment for angle drilling. Weight — 240 lbs. unpacked.



V89

V90—TOUGH $\frac{1}{2}$ in. MOTORISED DRILLING MACHINE

The main spindle, of alloy steel, passes through a driving sleeve attached to the pulley, the actual drive being by splines cut into the spindle.

Two ball-races carry this spindle in the barrel, and two more which carry the pulley give the spindle further support.

The barrel can be locked for routing and a graduated stop is provided for drilling to specified depth.

The table revolves for quick alignment of work, and is slotted for holding down work or jigs.

The three-spoked racking handle ensures a comfortable position for all work.

The motor is mounted on a hinged bracket, for quick adjustment of belt tension.

Four-step motor pulley is supplied.

A $\frac{1}{3}$ rd h.p. motor is recommended.

Models available to suit Jacobs or other popular chucks also to take No. 1 Morse or No. 2 Morse taper shanks.

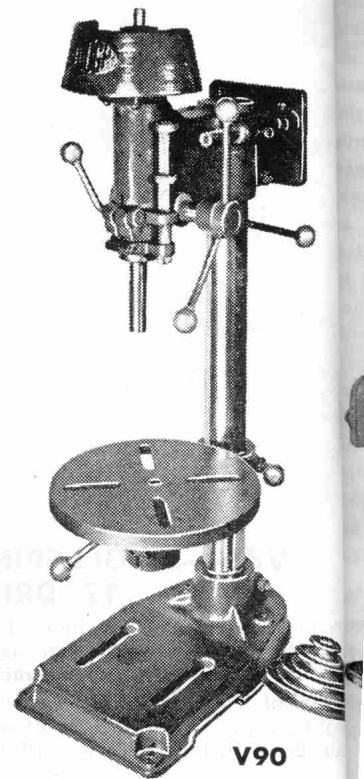
Capacity—0 to $\frac{1}{2}$ inch. Drills to centre of 12 $\frac{3}{4}$ in. circle.

Drilling depth—4 inches. Distance chuck to table—10 $\frac{1}{2}$ inches.

Distance chuck to base—17 $\frac{3}{4}$ inches. Table—11 $\frac{1}{2}$ inch. diameter.

Base where machined—9 in. x 9 in.

Approximate speeds, with 50 cycle motor, 4,300, 2,300, 900 and 475.



V90

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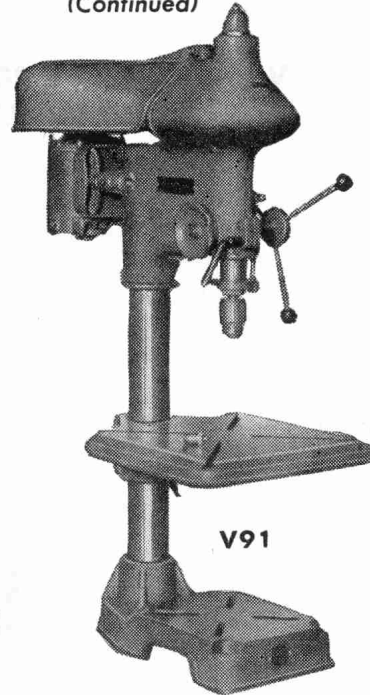
DRILLING MACHINES

V91—HYCO 16-IN. BENCH DRILL

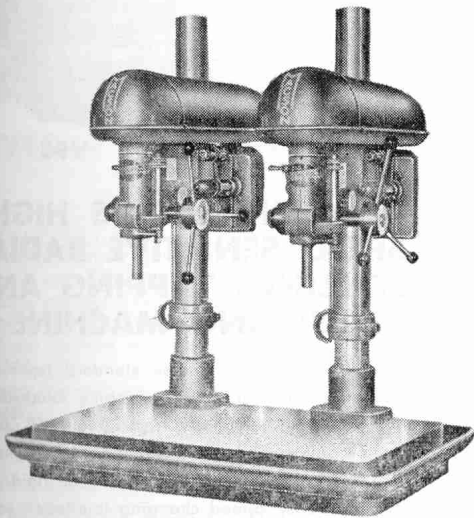
The machine is fitted with ball bearings throughout, and has a spring return to the spindle.

- Capacity 0- $\frac{1}{2}$ " Drill
- 6 Speeds . . . 400, 690, 1150, 1900, 3150, 5100 r.p.m.
- Maximum travel of Quill 5"
- Motor required $\frac{1}{2}$ h.p., 240/415V.
- Drills to the centre of a 16" circle.
- Maximum distance from chuck to base 21 $\frac{1}{2}$ "
- Column 3 $\frac{1}{4}$ " bright steel shaft
- Overall height 3' 9"
- Working surface of the table, 14" square, with suds-lip, with four only $\frac{5}{8}$ " wide diagonal Tee Slots.

(Continued)



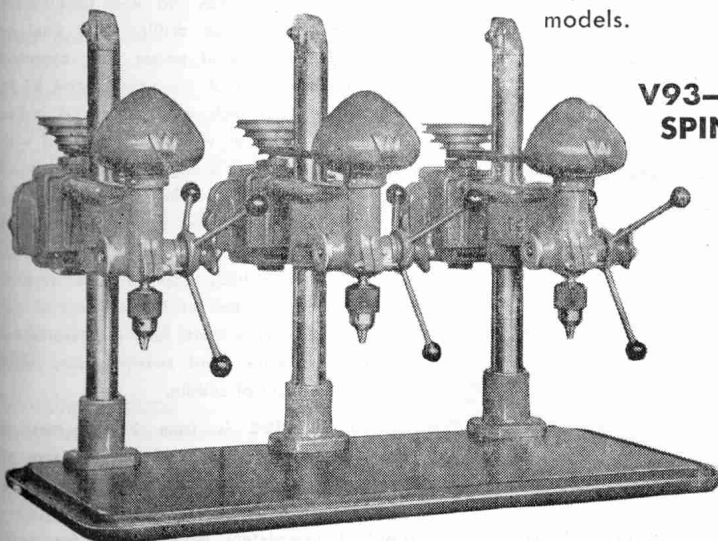
V91



V92

V92—"MACSON" TWO-SPINDLE FLOOR MODEL DRILL

- Drilling capacity $\frac{3}{4}$ " (cast iron)
- Quill stroke 5"
- Surface of table 19" x 36"
- Distance between Spindles 18"
- Oil trough drilled $\frac{1}{2}$ " gas thread for oil return.
- Also available as single, three and four spindle models.



V93

V93—"WALDOWN" MULTIPLE SPINDLE FLOOR MODEL DRILL

Illustrated is the new $\frac{1}{2}$ " Waldown. Multiple and counterbalanced drill heads which can be raised or lowered on the column, mounted on a common base.

Full particulars on request.

OTHER DRILLS

As we are continually adding to our range of bench and floor drills, this catalogue does not show our full range.

Should there be a type or size not described herein, we probably can supply particulars on application.

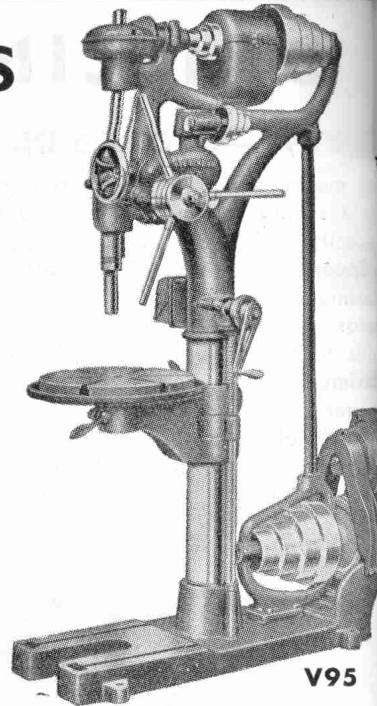
DRILLING MACHINES

(continued)

V95—DENBIGH 20 in. and 24 in. HIGH-SPEED DRILLING MACHINE

Back-Geared, Worm and Lever and Automatic Feeds.
Direct Motor Drive, Drills up to 1 1/4 inch in Steel.
Worm and Worm Wheel always in gear.
The change from Wheel or Automatic Feeds to Lever Feed, or vice versa, is made by the simple movement of levers.

Drills to centre of 20 in. or 24 in.
Diameter of Spindle 1 5/16 in.
Feed of Spindle 9 in.
Hole in Spindle No. 3 Morse
Diameter of Table 16 in.



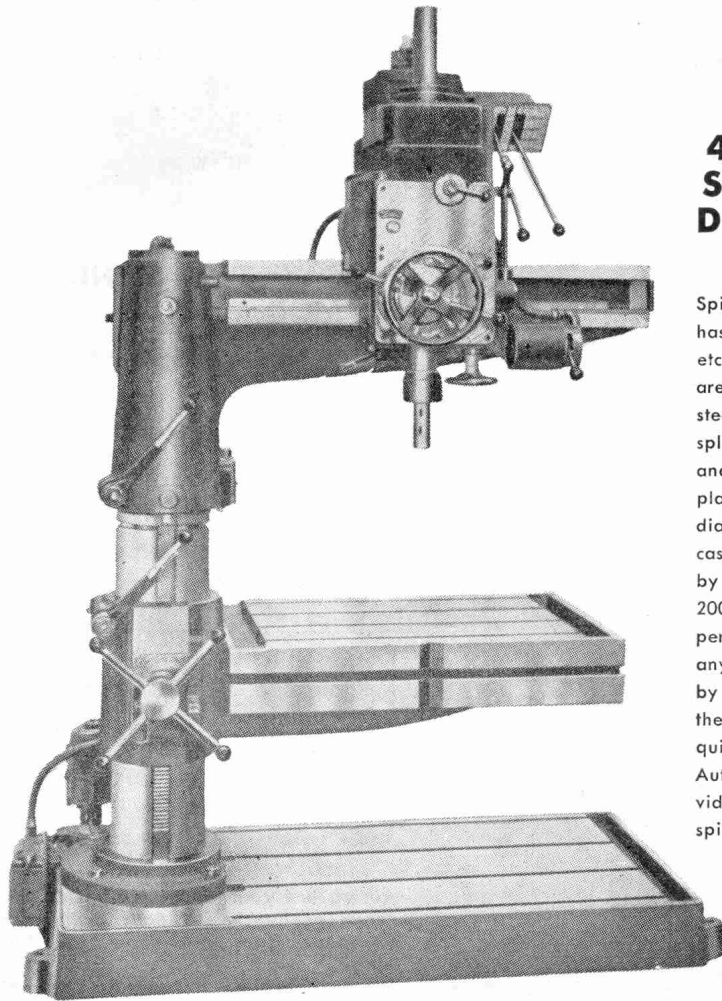
V95

42 INCH RADIUS HIGH SPEED SENSITIVE RADI DRILLING, TAPPING AND STUDDING MACHINE

Spindle is bored to morse standard taper. It has cotter hole for holding tapping attachments etc. Nine spindle speeds, from 88 to 1,450 r.p.m. are obtained through hardened nickel chrome steel gears, mounted on short and rigid splined shafts. Speed changing is effected and quickly by two levers. Direct reading plates show correct speeds and feeds for different diameters of drill, when drilling mild steel, cast iron. Three rates of power feed, operated by lever on the front of the saddle, give 80, 200 revolutions per inch, or .013 to .005 inch per revolution, any of which can be used at any speed. Power feed is engaged or disengaged by slight push or pull of the double handle. At the front of the saddle, the same handle gives quick hand feed when power feed is not in use. Automatic depth drilling stop up to 4" is provided and this can be set in any part of the spindle traverse. Fine hand feed is operated by small hand wheel and sensitive hand feed by lever at right of saddle.

SPINDLE DRIVE is from 2 h.p. constant speed reversing motor, underslung at rear of the saddle. Stop, start and reverse are operated by single lever.

60



Motor can be supplied either for A.C. or D.C. and machine is supplied completely wired, ready for motor power leads.

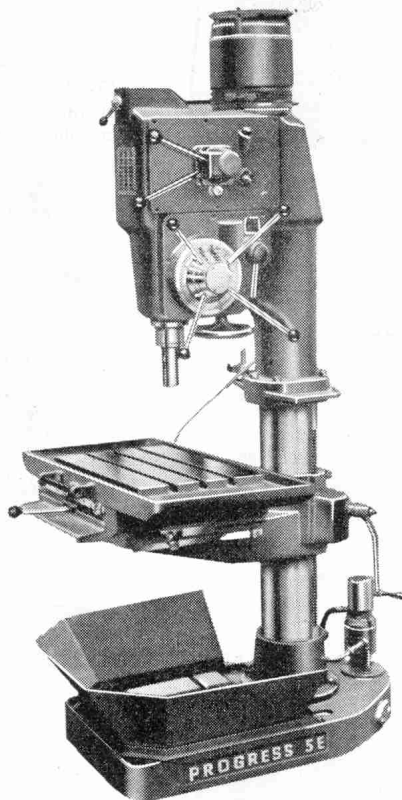
42 INCH RADIUS HIGH SPEED SENSITIVE RADIAL DRILLING, TAPPING AND STUDDING MACHINE

(cont.)

SADDLE is of box form, accurately bedded to arm on ample bearing surfaces. Easy traverse on ball bearings is operated by hand wheel through steel rack and pinion, with efficient lock. All mechanism is totally enclosed and *all spindle controls are placed conveniently on the saddle.*

TABLE is adjusted vertically by star handle through worm gearing, rack and pinion. Top and front are planed, with Tee slots for bolting down work, and a machined Vee groove in front face. It can be swung clear to allow baseplate to accommodate large workpieces and can be locked firmly.

CAPACITY: Drilling, 1 1/4" from the solid in steel and 1 1/2" in cast iron. Tapping, 3/4" Whitworth in steel and cast iron.



V98

"PROGRESS" COMPOUND TABLE DRILLING MACHINE

V98—"PROGRESS" 2 in. HIGH SPEED DRILLING MACHINE

SPECIFICATION

Drilling capacity in steel	2"
Taper in spindle	No. 4 Morse
Distance between centre of spindle and column	13"
Travel of spindle, hand and automatic	7 1/2"
Distance between spindle and table, max. (compound table)	21"
Distance between spindle and base, max.	41"
Speeds	9

The table moves in all directions in the Horizontal Plane. Silk smooth movement is obtained by twin roller tracks. Instantaneous braking or locking by single lever movement.

Trip-over stops fitted to longitudinal and transverse stop bars enable many combinations of centre distances to be accurately repeated without the use of expensive features.

Complete table unit may be raised or lowered very simply by means of an enclosed worm and rack.

Complete table unit swivels through 360° to enable work to be clamped directly to machined base.

Both vertical and swivelling movement controlled and locked by a single lever movement conveniently placed. Coolant equipment is built into a special hollow base and piped to an adjustable nozzle on tool tray.

Working Surface	24 1/2" x 14 1/2"
Longitudinal Movement	15"
Transverse Movement	8 1/2"
Max. distance between Table and Spindle	
Nose	21"
T. Slots 3	3/16"

