PROGRESS

MODEL No. 1 ½" CAPACITY

PRECISION BENCH DRILLING MACHINE

- ★ **Spindle mounted in 5 Ball-bearings, including Ball thrust race**
- ★ **Adjustable Spring Return to Feed Motion**
- ★ **T-Slotted Base Plate for Heavy Work**
- ★ **5 Spindle Speeds—50 cycle motor, 340-2580 rpm. —60 cycle motor, 400-3100 rpm.**
- ★ **Dual Purpose Spindle incorporates Internal No. 1 Morse Taper and External No. 6 Jacobs Taper (World patents applied for).**
- ★ **Larger Tilting Table, 13" x 13" — Adjustable through 180 degrees**
- ★ **Pulleys Dynamically Balanced**
- ★ **Precision Built to Limits and all Parts Interchangeable**

FOREWORD
As one of the foremost Drilling Machine manufacturers in the United Kingdom, we have given every consideration to the essential requirements for a ½" capacity Drilling Machine at an economic price. In the design of this machine, we have achieved a unit which is both accurate and robust, the two qualities which are of paramount importance in a Machine Tool of this type.

SPINDLE. Five bearings are fitted, a thrust race and two deep groove bearings carrying the spindle itself while two independent radial bearings carry the driving pulley, ensuring that belt pull is not transmitted to the drill spindle.
Another important feature is the dual tapered nose (World patents applied for). The external taper is Jacobs No. 6 and allows a standard ½" capacity chuck to be mounted directly on to the nose. A screwed extractor nut is supplied. The No. 1 Morse internal taper also allows tanged drills or chucks to be utilised on the same machine. The spindle is ground and suitable grease nipples are fitted in a convenient position for lubrication of the bearings.

QUILL. The Quill is a large diameter cast sleeve operated by a pinion controlled by a 3-spoked Star Wheel.
A quick return spring is provided, with ready adjustment to give any desired tension on the Quill return movement and a quick-acting lock enables the Quill to be locked in any position of its travel.

A DEPTH STOP is fitted, quickly adjustable to any desired depth within its capacity, and graduated with an easily readable scale in English and Metric calibrations.

THE HEAD is adjustable on the column to suit various size work. An instantaneous Cam Type Clamping Device is fitted for locking on the column. The motor plate is positioned at the back of the head and can be adjusted to provide the correct tensioning of the driving belts. The on-off switch is built into the head in a position convenient for easy and prompt operation. The pressed steel belt guard is fitted with a quick-release clamp and automatic arrangement for lifting.

THE COLUMN is 2¾" diameter and is precision ground, giving an unusually free and easy movement of the table swivel arm.

TABLE. The 13" x 13" table is provided with radial and square slots and can be canted 90° either right or left besides swivelling 360° round the column. The underside of the table is heavily ribbed for strength and rigidity. The slots are spaced to allow the use of a 3½" Victoria machine vice. A clamp is fitted for the tilting motion and an easily withdrawn pin is supplied for re-setting the table to zero.

BASE. The base is of sturdy design, giving adequate support to the column and is provided with tee slots for clamping large work.

SPEEDS. Five speeds from 340-2580 rpm. are obtained from a 1400 rpm. motor through five-step die-cast dynamically balanced vee pulleys.

TOOL TRAY. A swivelling tool tray is provided for the reception of small drills, chuck keys, etc. It can also be used as a stop when adjusting the movement of the head on the pillar.

CLAMP LOCKS. The Head, Table Support, Quill and Tool Tray are all provided with Clamp Locks of the instantaneous type, ensuring freedom from scoring or distortion of the Quill or Column, which often results from the split casting type of clamping arrangement.

ALL HANDLES are chromium plated and certain other exposed parts are chemically treated, thus obviating rust caused by manual handling.

SPECIFICATION

Drilling capacity	½"	12·7 mm.
Size of table	13" x 13"	330 x 330 mm.
Spindle travel	4"	100 mm.
Diameter of column	2¾"	70 mm.
Maximum distance chuck to table	6½"	165 mm.
Maximum distance chuck to base	15½"	394 mm.
Maximum distance column to centre of spindle	8⅝"	219 mm.
Power of motor	½ hp.	½ ch.
Five (5) spindle speeds—50 cycle, 1400 rpm. motor	340-2580 rpm.	340-2580 tr/min.
—60 cycle, 1700 rpm. motor	400-3100 rpm.	400-3100 tr/min.
Net weight	approx. 252 lb.	115 kg.
Gross weight	approx. 336 lb.	152 kg.
Case dimensions	34" x 20" x 31"	0·33 m³
Code word	NEMEL	NEMEL

STANDARD EQUIPMENT. Vee Belt, complete Electrical Equipment, Operator's Instruction Book.

EXTRA EQUIPMENT. ½" capacity Precision 3-jaw Drill Chuck, Chuck Guard, Mortising Attachment, Mortise Chisels and Bits, Grease Gun, 3½" Victoria Swivel or Plain Base Machine Vice.

All dimensions, weights, etc., are approximate only, and illustrations are not binding as to details as we are constantly improving designs.

Sole Proprietors and World Distributors

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Manufacturing Subsidiary **PROGRESS DRILLING MACHINE WORKS LTD**

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