

U.S.-BURKE

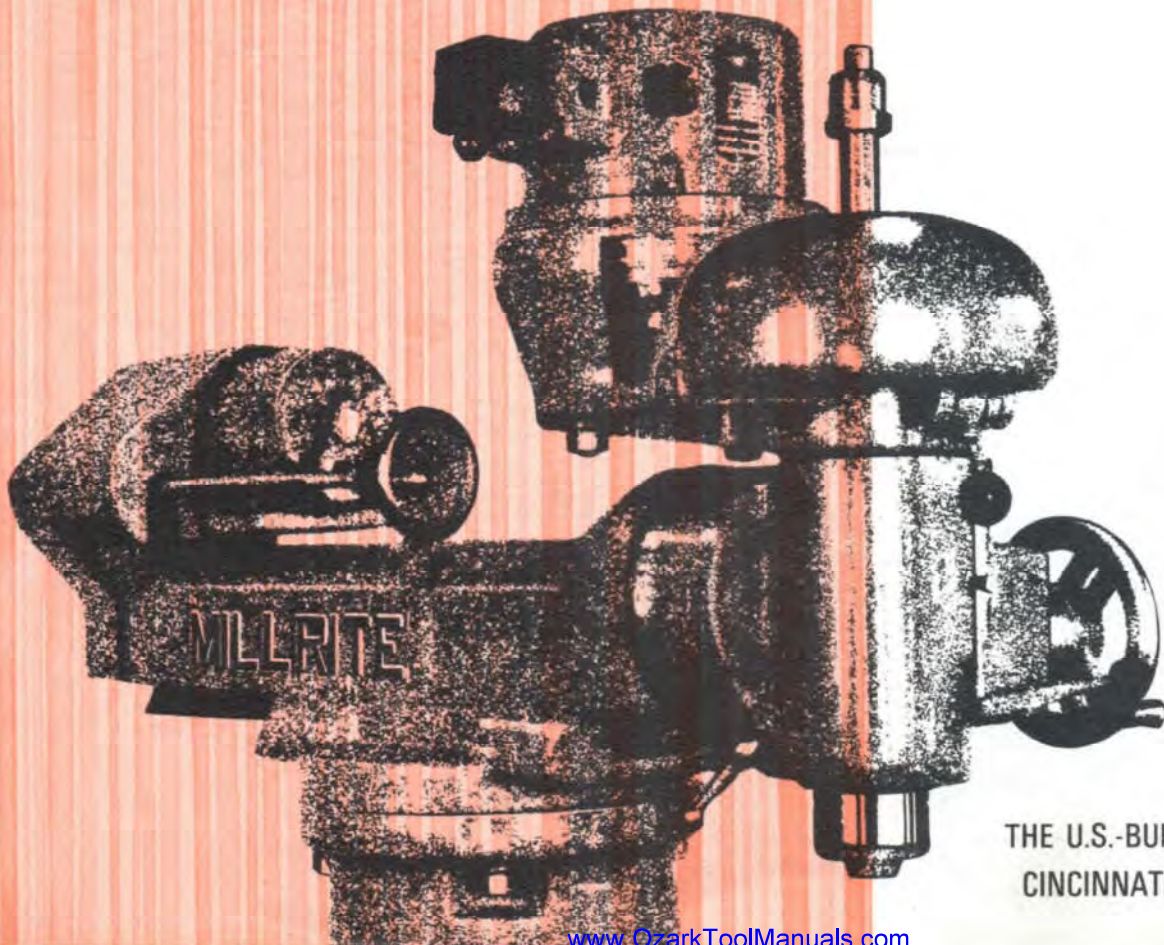
MILLRITE

FULL SIZE RAM AND TURRET VERTICAL MILLING MACHINE

McDONALD MACHINERY CO.

Central 1-9360

1535 N. BROADWAY
ST. LOUIS 6, MO.



THE U.S.-BURKE MACHINE TOOL CO.
CINCINNATI, OHIO, 45227, U.S.A.

U. S. MILLRITE . .

- **QUALITY MATERIALS USED THROUGHOUT**

Gray iron castings are normalized, close grained, semi steel. Aluminum castings are made of a special, highly ductile, shock resistant material. Steel components are machined from stress relieved alloy.

- **ENGINEERED FOR ADDED RIGIDITY**

Column has cast bands of internal ribbing; ram, continuous internal zig zag supports. Millrite has extra wide bearing surfaces, 3¼" diameter quill, ⅞" diameter lead screws, 7½" diameter head to ram bolt circle. High capacity V belt transmits maximum power over short center distances.

- **DESIGNED FOR OPERATOR CONVENIENCE**

Dials are large, satin chrome finished. Elevating crank fits draw bar and knee lock. All gibs may be adjusted externally. Pivoted guard and swivel motor mount facilitate belt changes. Conveniently positioned brake, spindle lock, and quill lock are standard equipment.

- **BUILT WITH MANY EXCLUSIVE FEATURES**

Anti-friction bearing draw bar facilitates collet ejection. "Feather feed" of quill provided by vertically mounted lead screw permits precision boring to exceptionally accurate depths. Cross-feed nut is split for backlash elimination.

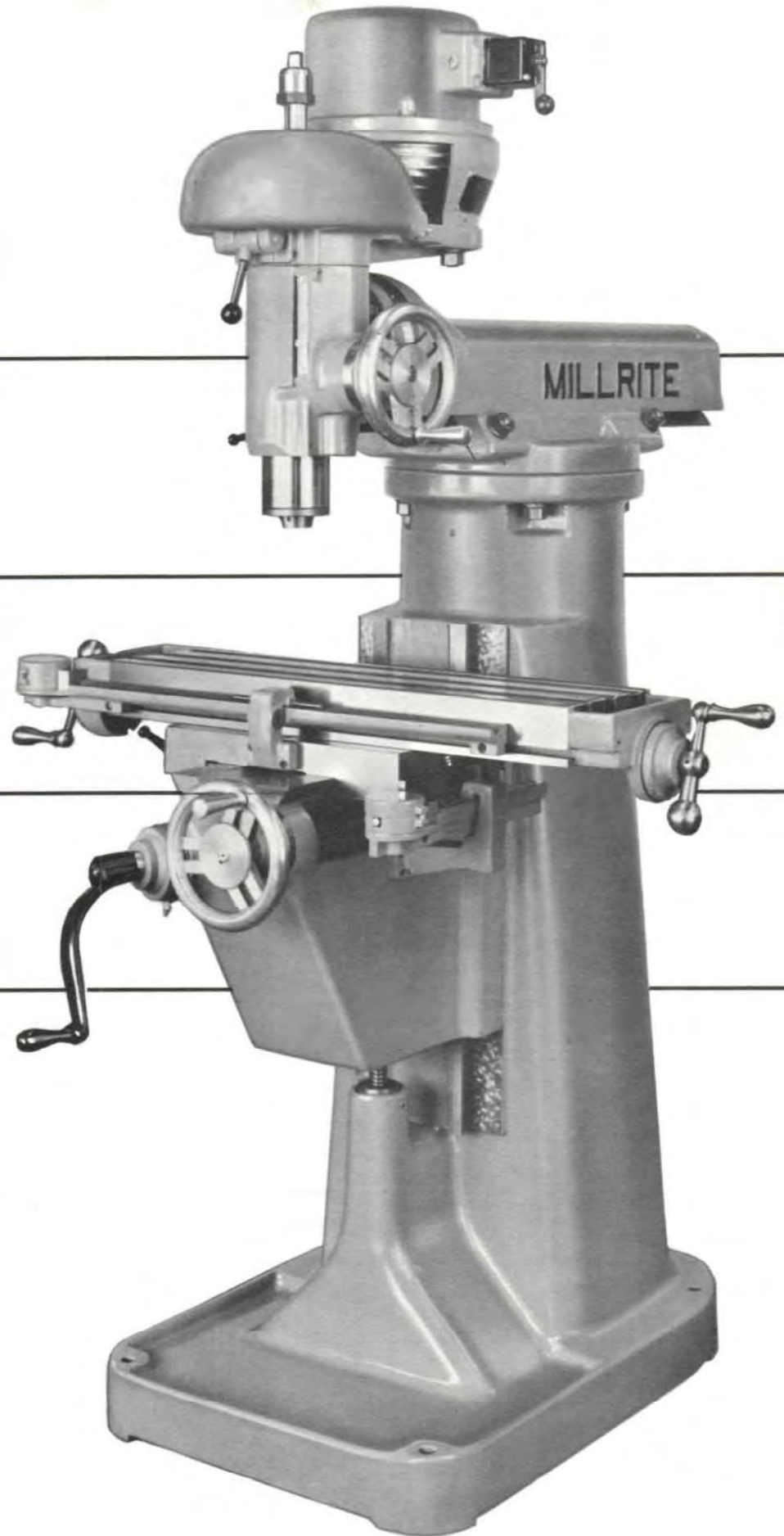
- **EQUIPPED WITH 5 BEARING SPINDLE**

Note how the unique spindle design incorporates the use of both ball and precision tapered roller bearings. All thrust is taken up by nose mounted roller bearings. Provision has been made to alter preload without disassembling head. High speed model furnished with precision preloaded ball bearings.



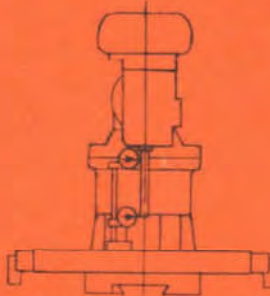
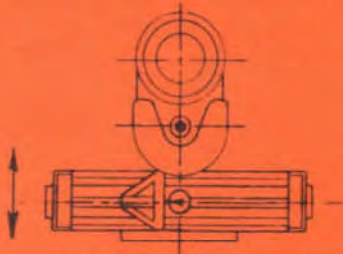
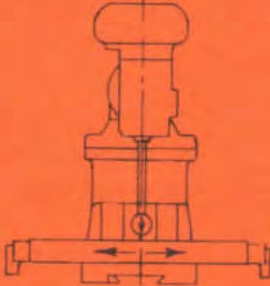
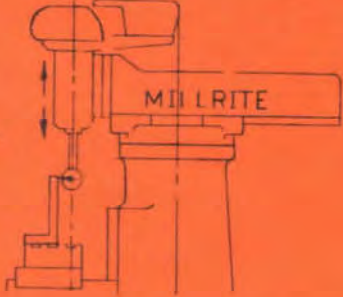
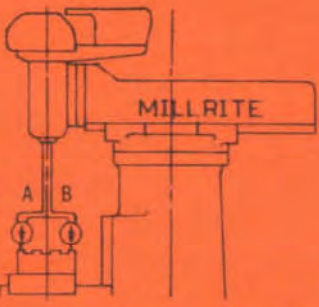
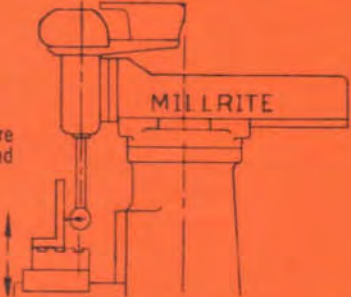
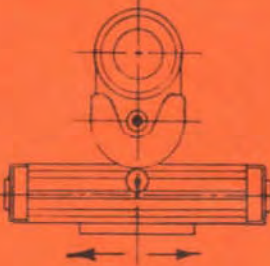
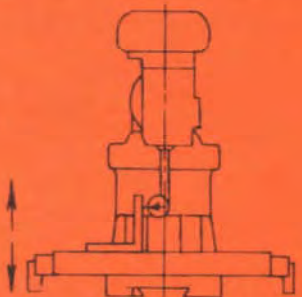
.. THE HIGHEST QUALITY AT THE LOWEST PRICE

**Manufactured and
Tested by
Cincinnati Craftsmen**



HIGH PRECISION ASSURED!

Before leaving the factory each MILLRITE must pass these eight rigid tests.

Tests By Number and Description	Maximum Allowable Error	Tests By Number and Description	Maximum Allowable Error
<p>Test No. 1 Cutter Spindle Runout</p> <p>Test bar in spindle opening 1—Nearset spindle nose 2—At a distance of 8"</p> 	<p>1—.0005" 2—.001"</p>	<p>Test No. 5 Center T-Slot square with traverse table movement</p> 	<p>.0015" in full 8" travel</p>
<p>Test No. 2 Work Table Runout (Moving)</p> <p>Indicator in Spindle 1—Longitudinal movement of table 2—Traverse movement of table</p> 	<p>1—.001" per foot 2—.001" per foot</p>	<p>Test No. 6 Quill travel of head square with work table</p> 	<p>.001" in 4"</p>
<p>Test No. 3 Work Table Runout (Stationary)</p> <p>Indicator in Spindle 1—Longitudinal relationship of table to spindle 2—Traverse relationship of table to spindle (A to B)</p> 	<p>1—.001" per foot 2—.001" per foot</p>	<p>Test No. 7 Column knee slide square with work table (raise and lower knee)</p> 	<p>.001" in 6"</p>
<p>Test No. 4 Center T-Slot parallel with longitudinal table movement</p> 	<p>.001" per foot</p>	<p>Test No. 8 Same as Test No. 7 in plane shown</p> 	<p>.001" in 6"</p>



Production Table

As an optional alternate at the standard price the Millrite may be purchased with a manual-feed, rack-and-pinion longitudinal table. This feature is particularly valuable for production jobs requiring a vertical spindle machine.

OPTIONAL ACCESSORIES

Complete line of accessories available including special spindle tapers (No. 30 National Standard, R-8, No. 10 B&S, No. 2 or 3 Morse), riser block for column, coolant, light, boring head, collets, end mill holders, vises, dividing heads, rotary tables, tapered sleeves, etc.

Twin Headed Machine

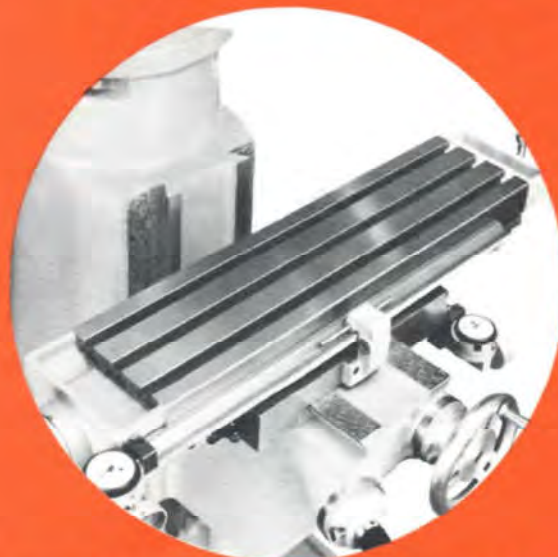
For special operations, the Millrite is available with a "T-ram", permitting the mounting of two standard heads (either manual type) on the same machine.



Compound swivel ram permits double angle setting.



Rapid hand quill feed for production drilling.



Troughs, stops and dial indicators for use with precision measuring rods.

POWER FEED HEAD

The MILLRITE can be furnished with a completely new type of low priced power feed head offering these advantages:

Independent Drive Motor—the feed is independently motor driven, thus permitting constant delivery of full power of the main drive motor to the spindle.

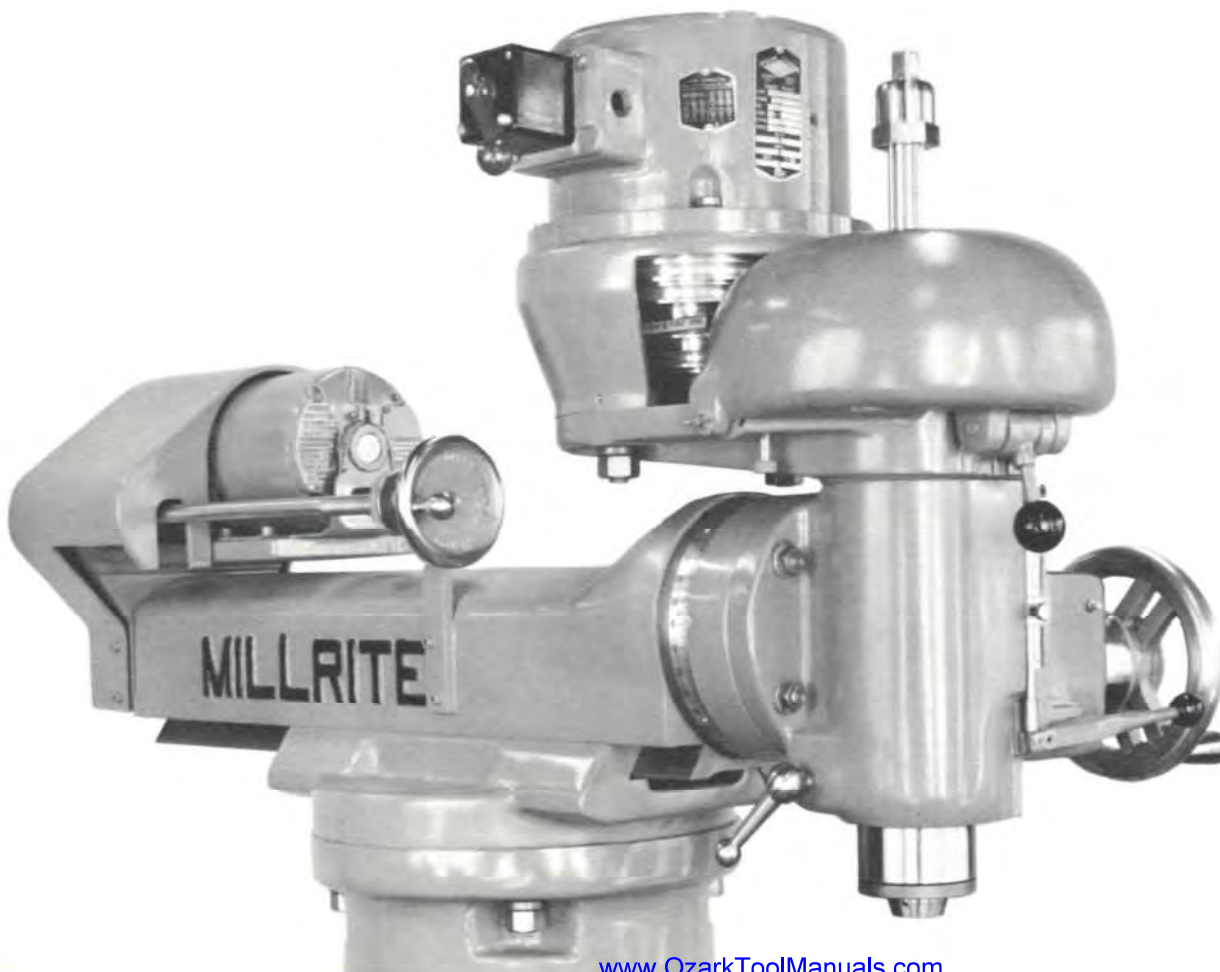
Feed Rate—the feed rate is infinitely variable from ½" to 2" per minute. Controls are located for maximum operator convenience, and feeding speeds may be changed while machine is in use.

Drive Motor Location—mounting the motor in an isolated location improves balance, minimizes vibration, and helps to assure operator safety.

Automatic Kickout—readily repositioned, is mounted in front of the head to trip the engaging lever, permitting immediate use of the manual control.

Exceptional Power—is generated by multiple speed reductions. The feed may be engaged or disengaged at any time with the quill in any position.

Versatility—operation of the quill feed independently of the spindle adds to the versatility of the Millrite. For example, internal keyways may be broached by securing a single point tool in the spindle, and actuating the feed with the spindle lock engaged.





POWER FEED TABLE

Available on any MILLRITE with screw feed table. Must be factory installed.

Infinitely variable table feed from 1 to 18 IPM in **both** longitudinal directions.

Automatic disengagement in both directions.

Feed speed may be changed while milling.

Easy to read and operate conveniently located directional and speed controls.

No sacrifice of longitudinal table travel.

No accuracy destroying deflection from overhanging weight.

Both table feed handles and dials retained to permit convenient manual operation.

No noisy gears or hard-to-change belts.

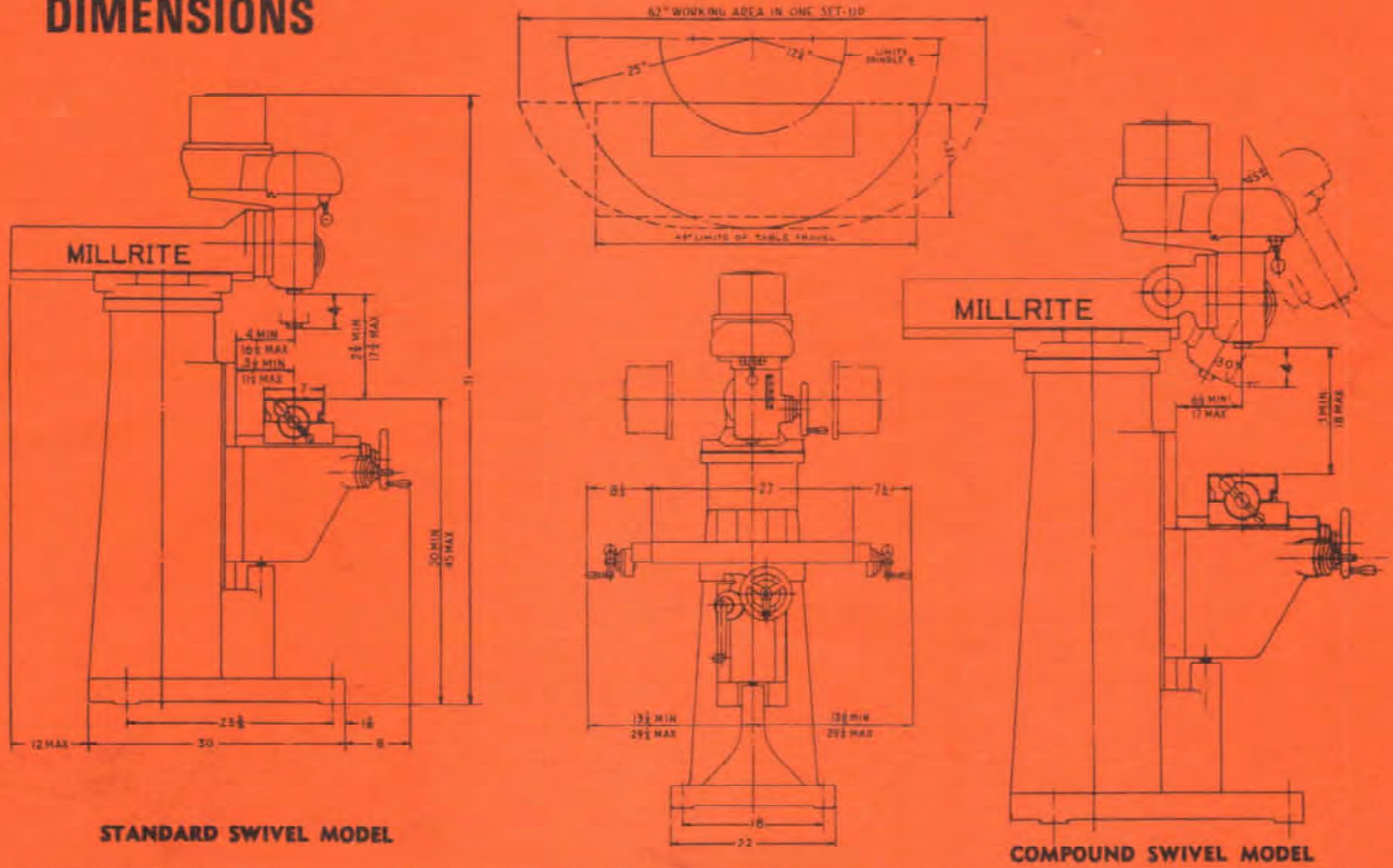
Engaging lever is beneath table top—will not interfere with large workpieces.

Electrically reversible, independent gear motor powers feed.

Automatic kick outs independently positioned by fingertip controls.

AND: All this at a cost of just about **HALF** of what you would expect to pay.

DIMENSIONS



MILLRITE IS FULL-SIZED

The Millrite is a full sized ram and turret vertical milling machine that will handle work of the same size, class, and to the same quality standards as machines costing several times as much. Check its dimensions.

SPECIFICATIONS

RANGE

Longitudinal Table Travel:	16", or 21" or 25"
Cross Table Travel:	8"
Vertical Travel of Knee:	15"
Vertical Travel of Quill:	4"
Spindle Nose to Top of Table:	17 3/4" Max. } Plus 5" with
With Compound Swivel:	18" Max. } riser block
Throat Distance, Spindle to Column Face, Plain Overarm:	16 1/2" Max. 4" Min.
Compound Swivel Overarm:	17" Max. 6 1/2" Min.

TABLE

Working Surface:	7" x 27" or 8" x 32" or 8" x 36"
3 T-Slots:	1 1/8" Wide; 2 1/8" between slots
Dials:	3 1/2" Dia., Graduated in .001"

SPINDLE

Spindle nose: #9 B & S Taper standard, other tapers optional including #10 B & S, #30 National standard, R-8, #2 or #3 Morse

Spindle Speeds in R.P.M., both directions.

With 3/4 H.P. 1800 R.P.M. Motor:
335—575—970—2550—3075—4535

With 3/4 H.P. 1200 R.P.M. Motor:
250—430—725—1160—2300—3400

With 3/4 H.P. 900 R.P.M. Motor:
185—320—540—860—1700—2500

FLOOR SPACE

60" x 50"

NET WEIGHT

1100 Lbs. (Approx.)

STANDARD EQUIPMENT

Anti-friction Bearing Draw Bar, Crank Handle, Wrenches for Turret, Head & Ram Movements.

THE U.S.-Burke MACHINE TOOL CO.

CINCINNATI, OHIO, 45227, U.S.A.