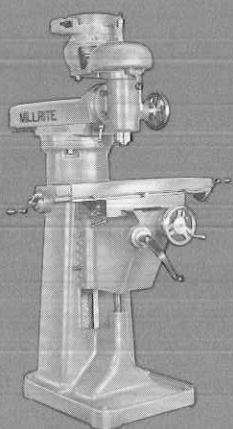


MAR. 16 1970

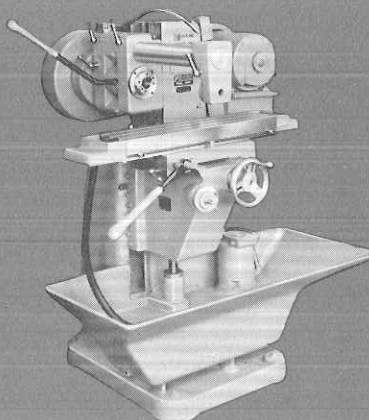
FOR OPTIMUM ECONOMY IN HIGH PRODUCTION OR TOOLROOM MILLING

U.S. BURKE

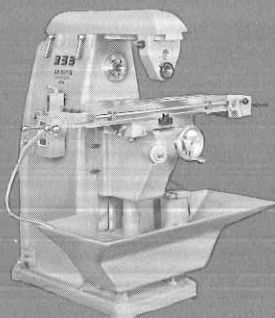
MILLING MACHINES



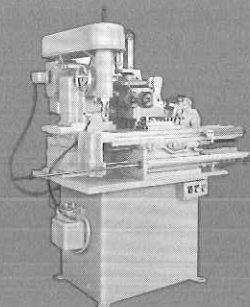
MILLRITE 1 H.P. vertical milling machine . . . rugged . . . accurate . . . versatile . . . extremely low cost



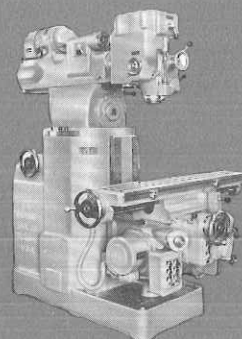
No. 2 U.S. 2 H.P. sliding head horizontal production miller



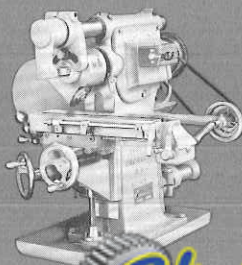
No. 333 MILLING MACHINE
Horizontal or combination horizontal and vertical models



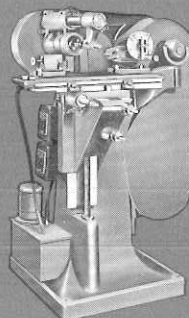
HALF/MILL Basic head to multi-spindle combinations . . . flexibility unlimited



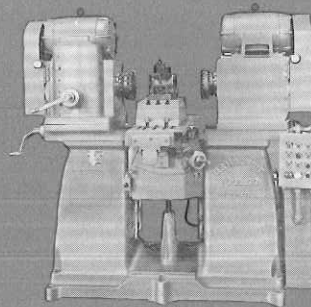
QUARTET Covers all four points of the milling compass



BURKE MILLING MACHINE
The right machine for small parts



No. 1 U.S. Miller frees big time



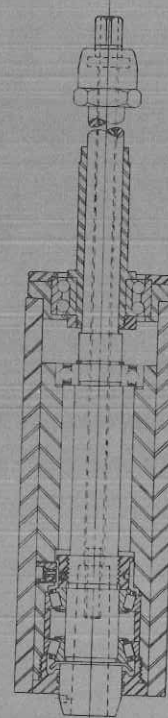
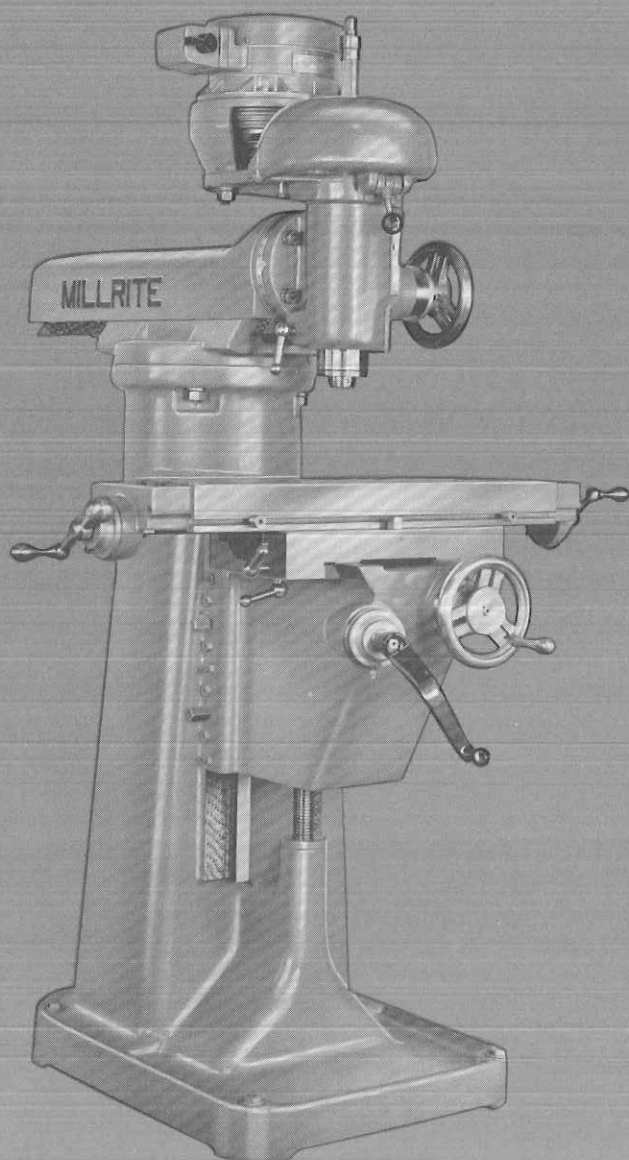
HY-FLEX Heavy duty hydraulic production machine

Sterling
MACHINERY EXCHANGE

www.SterlingMachinery.com

MILLRITE

The highest quality vertical mill at the lowest price



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.

Quality materials used throughout. Gray iron castings are normalized, close grained, semi-steel. Aluminum castings are made of a special, high 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, 3 1/4" diameter quill, 1 3/8" diameter vertical

feed screw, 7 1/2" diameter head to ram bolt circle. High capacity V-belt transmits maximum power over short center distances.

Built with many exclusive features.

Anti-friction bearing draw bar, supplied on self-holding taper spindle machines, 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.

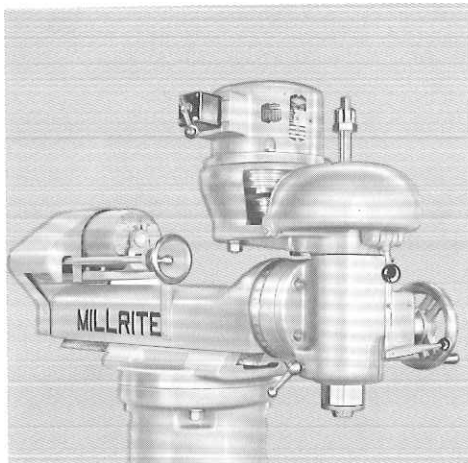
Designed for operator convenience.

Dials are large, satin chrome finished. Elevating crank fits draw bar and knee locks. Adjustable gibs with convenient locks on knee, saddle, and table. Pivoted guard and swivel motor mount facilitate belt changes. Conveniently positioned brake, spindle lock, and quill lock are standard equipment.

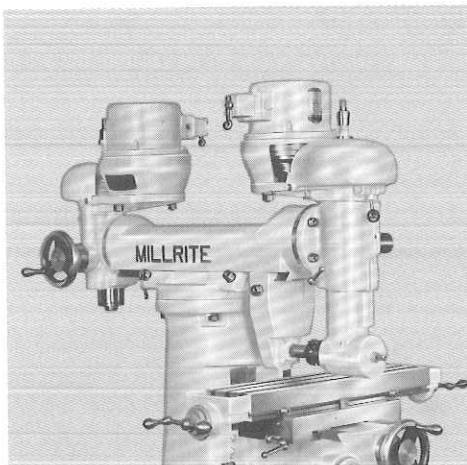
Sterling
MACHINERY EXCHANGE

www.SterlingMachinery.com

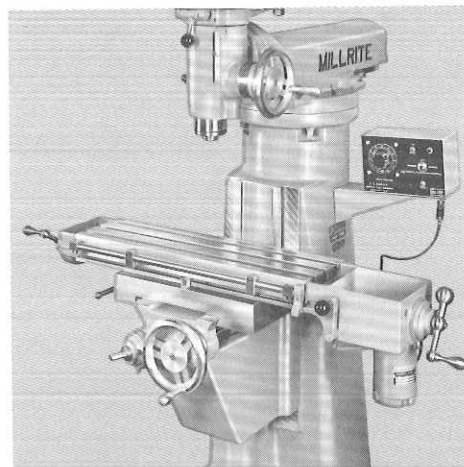
Full range of attachments and accessories available



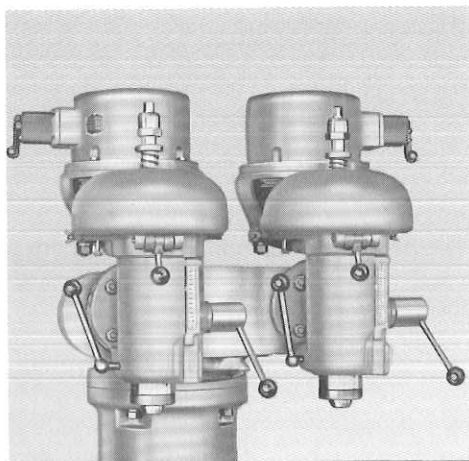
Infinitely variable speed power feed head is independently motor driven, permitting constant delivery of full power of the main 1 HP drive motor to the spindle.



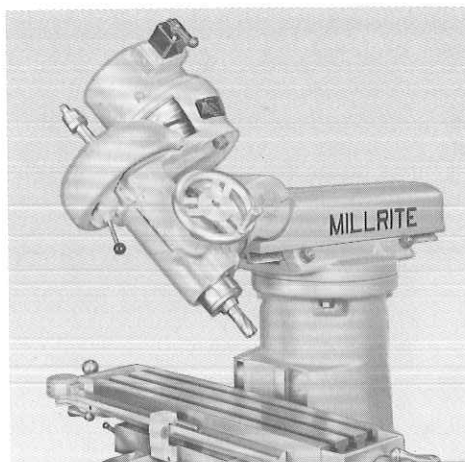
Horizontal and vertical milling on twin-headed Millrite provided by the pictured combination. Releasing four turret bolts permits locating desired head in milling position.



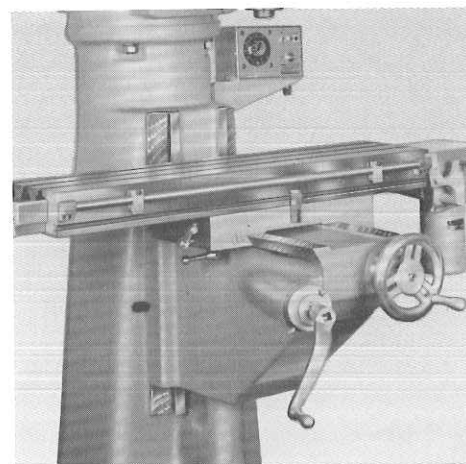
Power feed table with infinitely variable feed rate from 1 to 18 IPM in both longitudinal directions. Table handles and dials are retained, and no table travel is sacrificed.



"T Ram" permits mounting two Millrite heads on the same machine. This set-up is ideal for double fixture milling or production drilling.



Compound ram provides double angle settings for special production milling requirements. Note that this added flexibility produces unavoidable operational instability, so is only supplied when required.

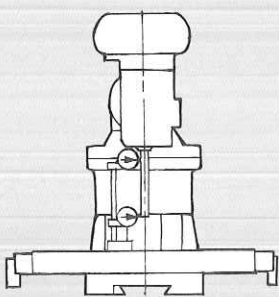
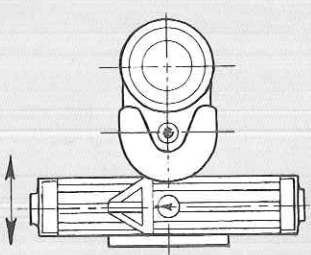
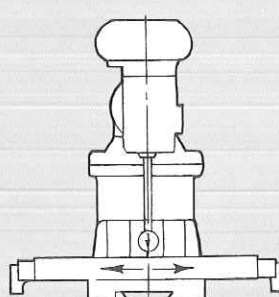
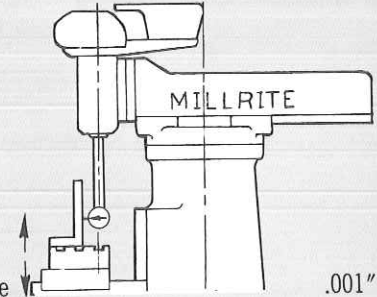
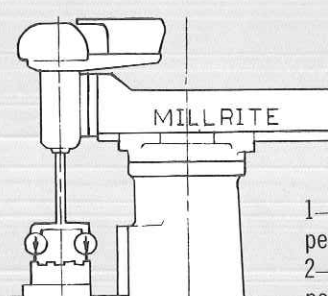
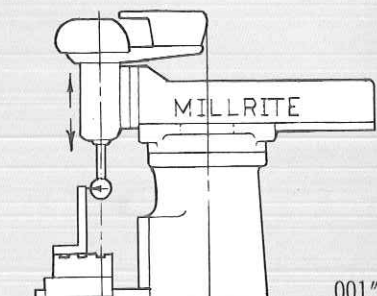
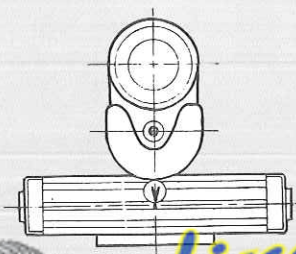
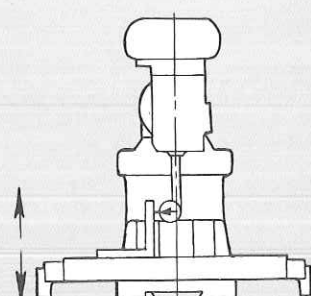


Special knee provides 13" of table cross travel; permits using Millrite on large or irregular shaped work pieces.



www.SterlingMachinery.com

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

The image contains three technical drawings of the Millrite vertical milling machine. At the top center is a top-down view showing a 62" working area in one set-up, with a 43" limit of table travel and a 15" vertical travel. Below this are two side views: the 'STANDARD SWIVEL MODEL' on the left and the 'COMPOUND SWIVEL MODEL' on the right. The standard model has a total height of 71" and a base width of 30". The compound model has a total height of 63" and a base width of 22". Both models have a 12" maximum overhang and a 30" maximum table travel. The drawings include various dimension lines and labels for specific components and travel limits.

STANDARD SWIVEL MODEL

COMPOUND SWIVEL MODEL

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.

Longitudinal table travel.....	16", or 21" or 25"
Cross table travel.....	8" or 13"
Vertical travel of knee.....	15"
Vertical travel of quill.....	4"
Spindle nose to top of table.....	17¾" max. { plus 5" with
With compound swivel.....	18" max. } riser block
Throat distance, spindle to	
Column face, plain overarm.....	16½" max. 4" min.
Compound swivel overarm.....	17" max. 6½" min.

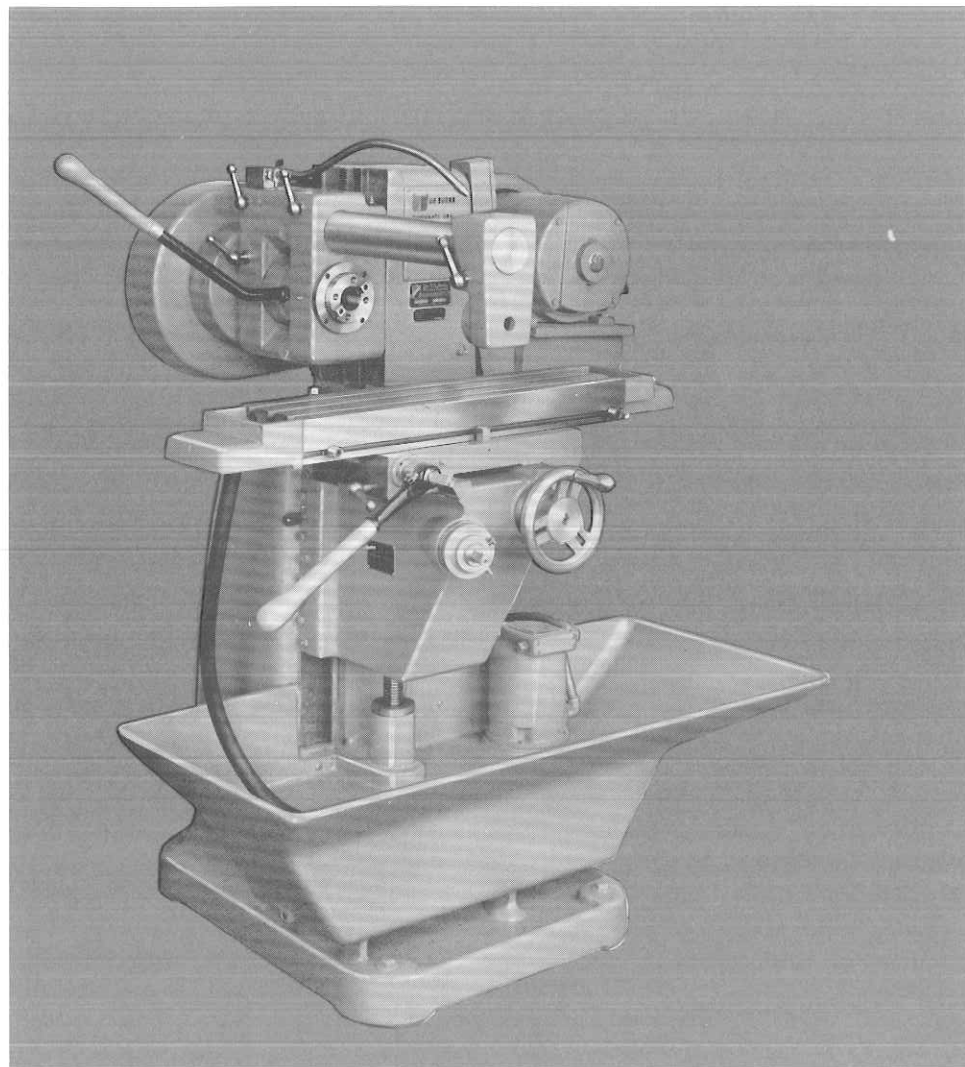
Working surface.....	7" x 27" or 8" x 32" or 8" x 36"
3 T-Slots.....	11/16" wide; 2 7/8" between slots
Dials.....	3 1/2" dia., graduated in .001"

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 RPM, both directions:
With 1 HP 1800 RPM motor, 335—575—970—2550—3305—4535
With 1 HP 1200 RPM motor, 250—430—725—1160—2075—3400
With 1 HP 900 RPM motor, 185—320—540—860—1700—2500

NET WEIGHT.....1100 lbs. (approx.)

STANDARD EQUIPMENT
Includes involute spline spindle and 1 3/8" diameter vertical lead screw, anti-friction bearing draw bar (on models with self-holding spindle tapers), crank handle, wrenches for turret, head and ram movements.

No. 2 U.S. Sliding head, horizontal production milling machine

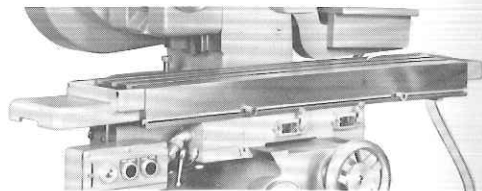


- Built to take heavy cuts and to machine difficult materials to exacting standards. Mills small parts much faster, large work more easily. Compare these features—then check its low price!
- Back-geared 2 HP spindle drive with a choice of 15 speeds from 50 to 2370 RPM.
- Heavy duty, #40 taper, alloy steel, Timken bearing supported spindle, 3" diameter overarm, double row ball bearing outboard support, 1 3/8" diameter vertical feed screw, counterbalanced head and motor, adjustable gibs on all four slides.

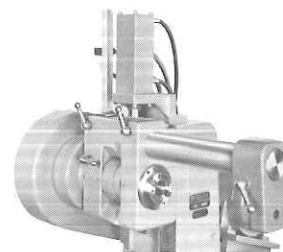
- Rugged design and construction provide exceptional ease of operation; all adjustments readily accessible, controls conveniently positioned.
- Highest quality materials used throughout including hardened and shaved gears, precision bearings, chrome plated dials, balanced machined pulleys.
- Exceptionally great range includes 5" vertical head feed, 15" vertical knee movement, 8" cross adjustment, and 14" longitudinal feed (19" or 23" longitudinal feed optional).



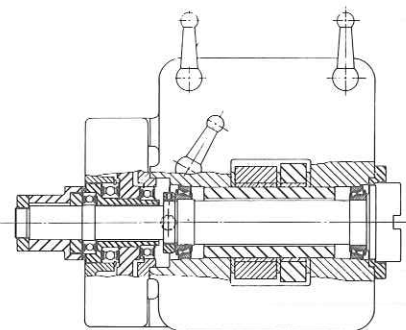
www.SterlingMachinery.com



20" stroke hydraulic longitudinal table feed has cylinder positioned beneath table, limit switches mounted in saddle. Can be furnished with provision for climb milling, box cycling, or skip feeding. Mechanical and air-hydraulic feeds also available.



Hydraulic or air-hydraulic vertical head feed available for Woodruff keyway cutting and other similar production applications. Maximum stroke is 5". Provides rapid traverse approach, controlled cutting speed and distance, plus automatic rapid return.

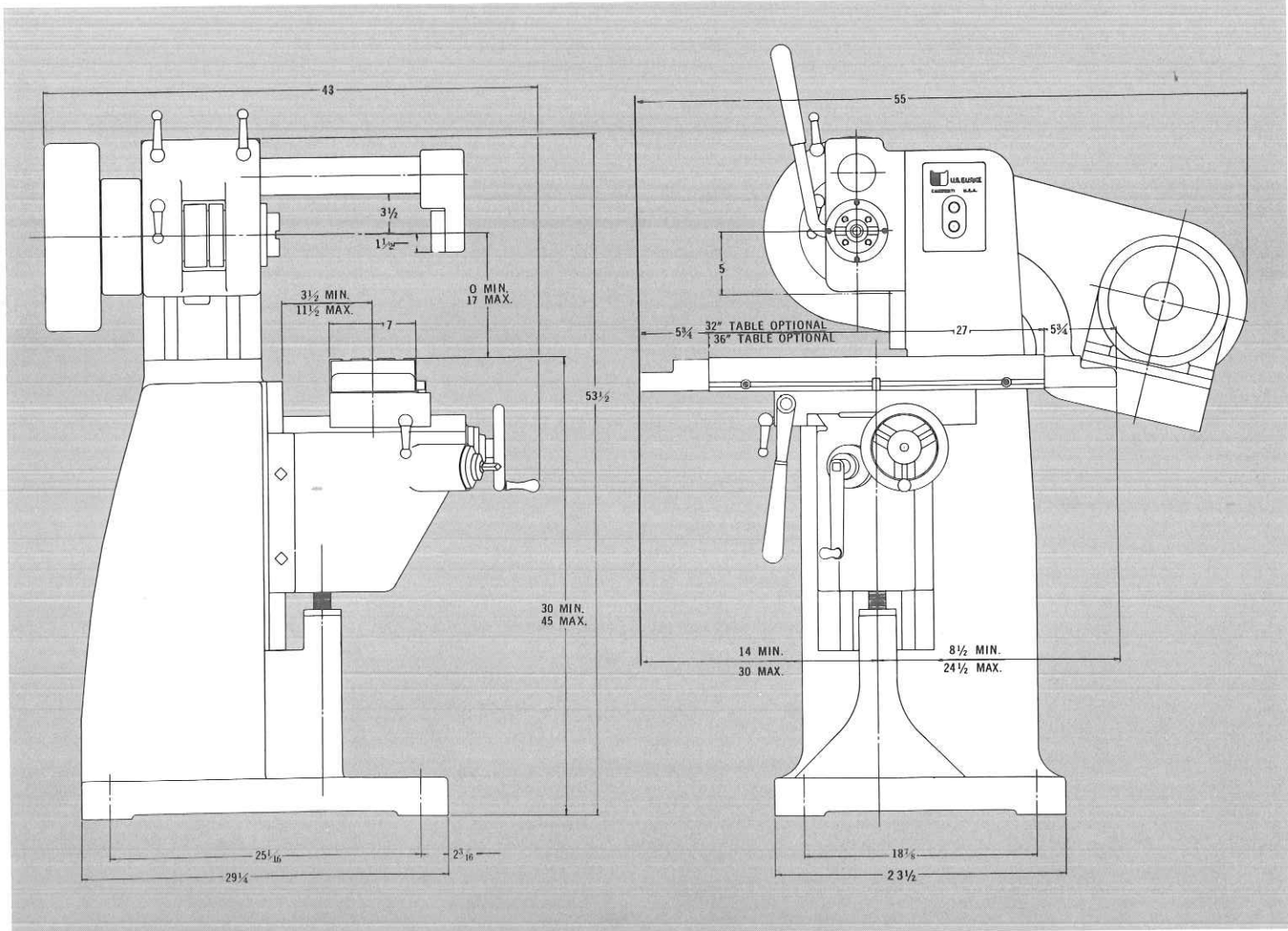


The spindle is mounted on a combination of ball and widely spaced, tapered roller bearings. Preload of the roller bearings, that carry all of the thrust, may be easily altered.

SPINDLE SPEED CHART			
SMALL PULLEY		LARGE PULLEY	CLUTCH
MOTOR	INTERMEDIATE	SPINDLE	R. P. M.
A 4	B 5	CLUTCH	50
A 3	B 6	CLUTCH	70
A 2	B 7	CLUTCH	90
A 1	B 8	CLUTCH	120
B 8	A 1	CLUTCH	180
B 7	A 2	CLUTCH	230
B 6	A 3	CLUTCH	300
B 5	A 4	CLUTCH	375
A 4	CLUTCH	B 5	430
A 3	CLUTCH	B 6	570
A 2	CLUTCH	B 7	735
A 1	CLUTCH	B 8	945
B 8	CLUTCH	A 1	1430
B 7	CLUTCH	A 2	1825
B 6	CLUTCH	A 3	2370
CAUTION: DO NOT EXCEED 1800 RPM WHEN SPINDLE IS EQUIPPED WITH BALL BEARINGS OR MIST LUBRICATION SYSTEM.			

Drive is either direct from motor to spindle, or to intermediate geared to spindle. Pulleys are interchangeable, and guard hinged for ease of access.

No. 2 U.S. mill dimensions and specifications



The range drawings above picture the machine with manual rack and pinion head and table feed. Manual screw feed, air hydraulic, or full hydraulic head and/or table feed models are available with slight dimensional changes.

RANGE

Longitudinal table travel:

Manual rack and pinion feed model	16", 21", or 25"
Manual screw feed model	16", 21", or 25"
Air hydraulic feed model	to 24" max.
Full hydraulic feed model	to 24" max.

Cross table travel	.8"
Vertical travel of head	.5"
Vertical travel of knee	15"
Max. distance spindle center to table top	17"

TABLE

Working surface	7" x 27", 8" x 32", or 8" x 36"
3 T-Slots	1 1/4" wide; 2 1/4" between slots
Dials	3/8" dia. graduated .001"

ELECTRICAL EQUIPMENT

2 HP, 1200 RPM, 220/440/3/60, standard frame motor with fused manual "on/off" pushbutton mounted in column.

Special phase, voltage, horsepower, and characteristic motors available.

Special electrical controls, J.I.C. wiring, etc. available at extra cost.

SPINDLE

Spindle nose: #40 National Standard taper.

Spindle speeds with 2 HP, 1200 RPM drive motor: 50, 70, 90, 120, 180, 230, 300, 375, 430, 570, 735, 945, 1430, 1825, and 2370 RPM (15 speeds in all).

Special high speed model available provides selected speeds to 5000 RPM max.

Overarm: 3" dia. solid steel bar; double row ball bearing equipped outboard support for use with "A" style arbors.

GENERAL

Floor space required	4' x 5'
Approx. weight crated	1500 lbs.

STANDARD EQUIPMENT

Draw bar tapped 5/8" x 11", R.H., feed handles for both head and table, crank handle, "A" style ball bearing outboard support, 2 V-belts, belt guard.

OPTIONAL EQUIPMENT

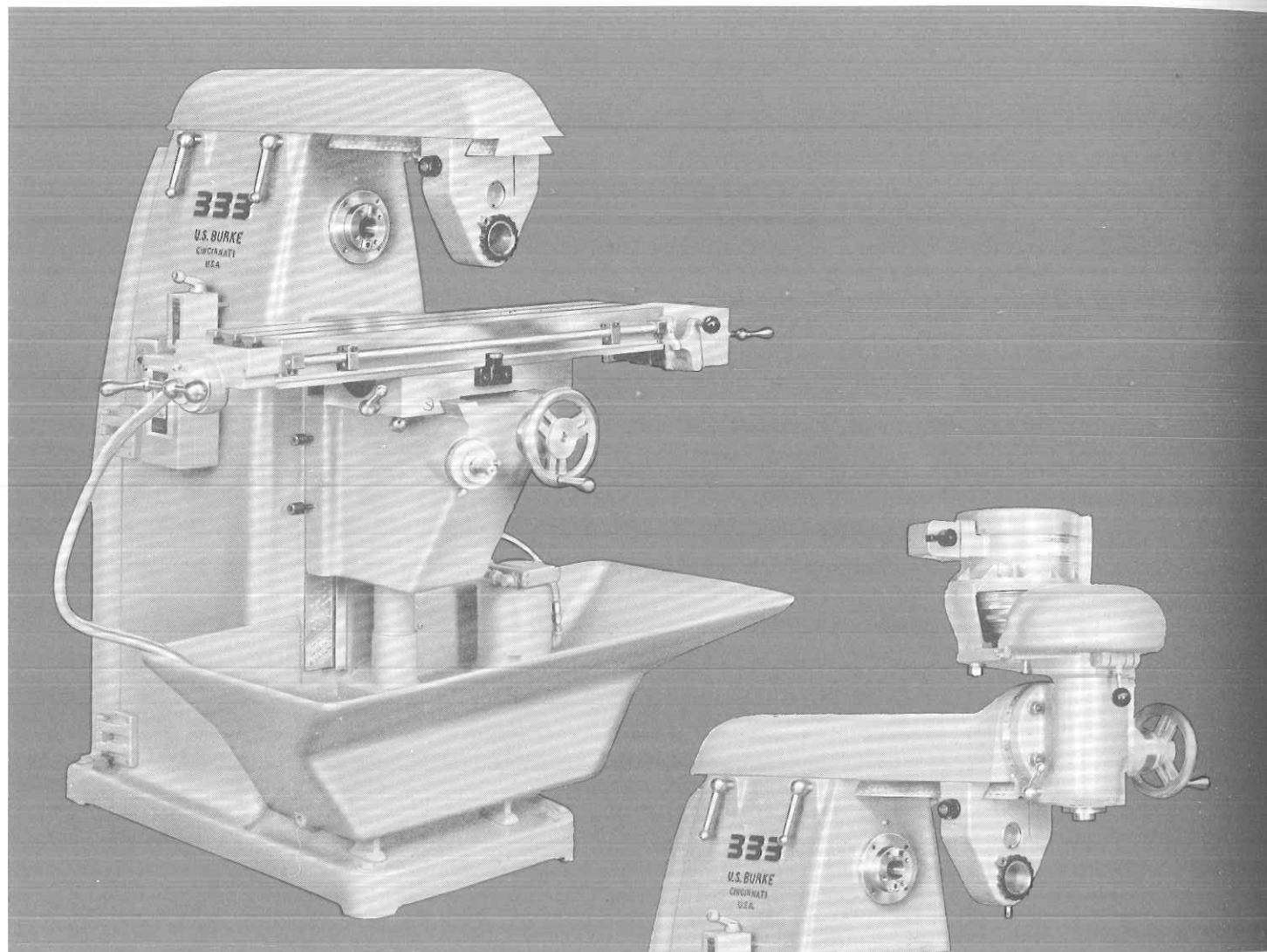
Arbors 3/8", 1", and 1 1/4" dia., coolant system with splash guard, light, dividing heads, rotary tables, vises, etc. (See price list.)

Sterling
MACHINERY EXCHANGE

www.SterlingMachinery.com

No. 333

**For toolroom, maintenance,
production, laboratory, and
every type of school shop.**



The No. 333 mill, above left, is a 3 H.P., knee type, horizontal milling machine. When furnished with hydraulic longitudinal table feed, self-contained coolant system, and dovetail ram with "B" style outboard support, it is an exceptionally rigid, inexpensive production machine.

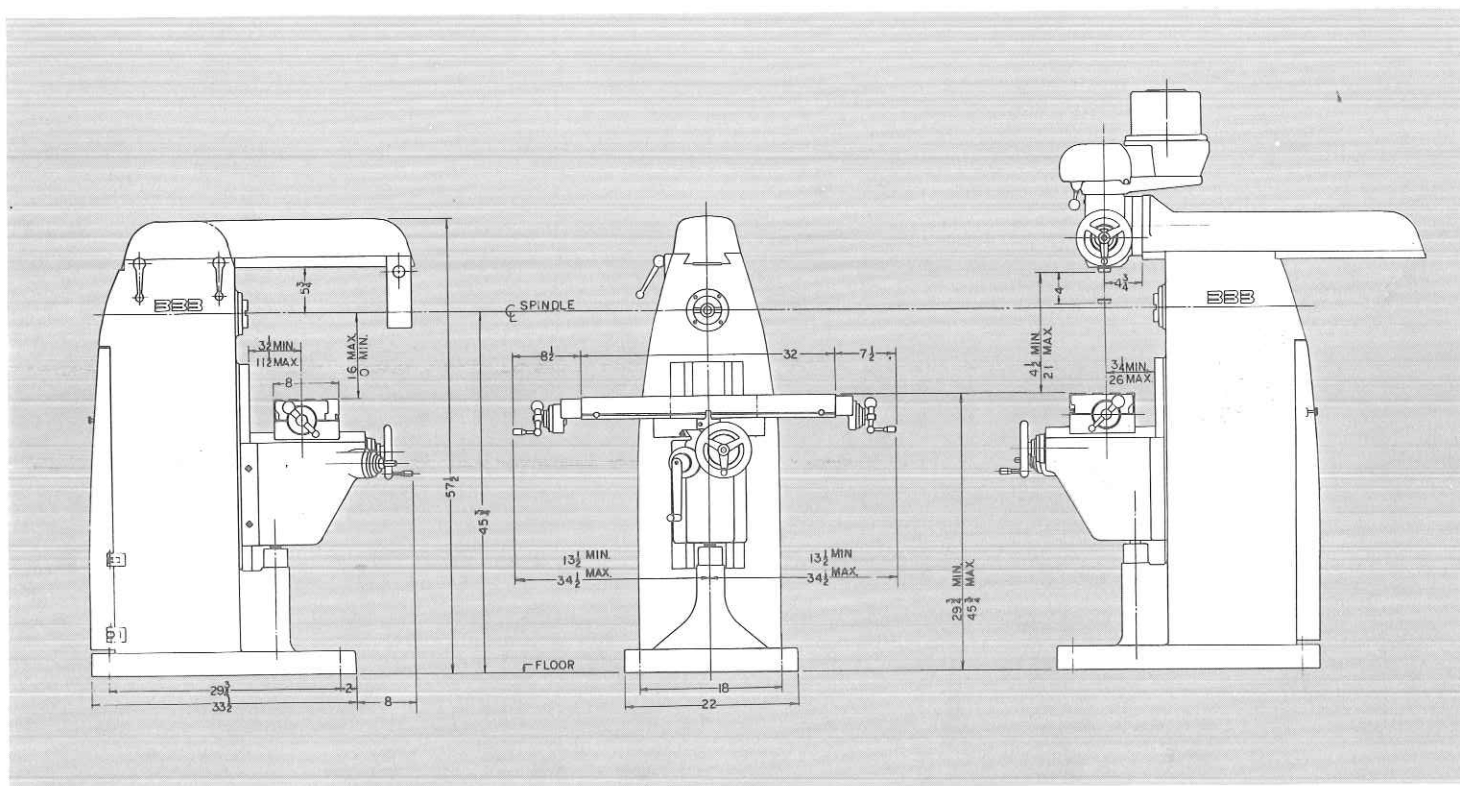
The No. 333, above right, may be furnished with a 1 HP motorized, quill feed vertical head, as pictured. When supplied with an infinitely variable speed 3 HP horizontal spindle drive with direct reading tachometer, and an infinitely variable speed mechanical, longitudinal table feed, it becomes an exceptionally versatile all purpose milling machine.

- The No. 333 has a #40 taper alloy steel spindle mounted on combination ball and widely spaced precision roller bearings.
- It is furnished with hand fitted, tapered gibs throughout, dovetail ram, heavy duty cast aluminum "B" style outboard support, Acme lead screws, and chrome plated easy-to-read micrometer dials.
- The No. 333 is built to accepted machine tool accuracies, completely tested and inspected prior to shipment.
- Note specification sheet for details, and consult price list for options available.

Sterling
MACHINERY EXCHANGE

www.SterlingMachinery.com

No. 333 dimensions and specifications



SPINDLE

Spindle nose: #40 National Standard taper.

Spindle bearings: combination ball and widely spaced tapered roller bearings. Provision made for takeup for wear.

Spindle speeds with 3 HP, 1200 RPM drive motor: 50, 70, 90, 120, 180, 230, 300, 375, 430, 570, 735, 945, 1430, 1825, and 2370 RPM (15 speeds in all).

Optional variable speed drive available. See price list.

Distance from center of spindle to bottom of ram: 5 3/4" (Permits use of any diameter cutter to 10").

Drive: 3 HP, 1200 RPM, 3 phase, foot mounted motor for standard machine, or 1800 RPM motor for high speed model.

VERTICAL HEAD (Optional)

1 HP drive, providing 6 alternative spindle speeds of: 250, 430, 725, 1160, 2300, 3400 RPM or 185, 320, 540, 860, 1700, 2500 RPM.

Lower or higher speed ranges available.

Spindle nose: #9 B & S taper (#30 National, R-8, #2 or #3 Morse tapers optional).

Collet capacity: 3/4".

Quill feed: Manual, 4" max.

Infinitely variable powered quill feed model available.

Head has hard chrome plated quill, with spindle mounted on combination ball and tapered roller bearings. Lead screw quill feed with micrometer dial and anti-friction bearing draw bar (furnished with self-holding taper spindle models) are exclusive features. Standard equipment includes spindle brake, spindle lock, quill lock, drum type reversing switch, graduated scale for angular settings, and wrench.

TABLE

Working surface: 24" x 32" (3" x 36" optional).

3 T-slots: 1/4" wide, on 2 1/2" centers.

Longitudinal Feed: 21" with standard table (25" with optional table). Table has 5 pitch, Acme lead screw, handles at both ends, with 3 1/2" diameter chrome plated dials graduated .001", .200" per revolution. Hand fitted tapered gib with lock provided.

SADDLE

Cross feed: 8".

Saddle has 5 pitch, Acme lead screw, with 3 1/2" diameter chrome plated micrometer dial, graduated .001", .200" per revolution. Hand fitted tapered gib with lock provided.

KNEE

Vertical feed: 16".

Knee has 1 1/2" diameter, 5 pitch, Acme lead screw, with 3 1/2" diameter chrome plated micrometer dial, graduated .001", .100" per revolution. Hand fitted tapered gib with lock provided.

STANDARD EQUIPMENT

"B" style outboard support equipped for use with 2 1/2" running band, draw bar threaded 5/8" x 11" R.H., manual controls with overload protection, manual lubrication, necessary wrenches.

OPTIONAL EQUIPMENT

Low voltage and/or magnetic electrical controls, one shot metered lubrication, coolant system, arbors (all styles and sizes), collets, dividing head, vises, mechanical or hydraulic table feed.

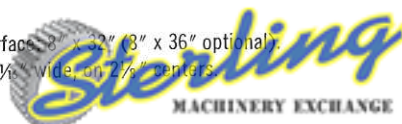
Mechanical table feed: choice of two models providing infinitely variable longitudinal table feed is available. Hydraulic table feed: stroke length to 20" maximum with provisions for climb milling powered by free standing 1 HP hydraulic pump assembly, provides rapid traverse approach, controlled cutting speed and distance, plus automatic rapid return.

WEIGHT

Net: One ton approximate.

Crated: 2100 lbs. approximate.

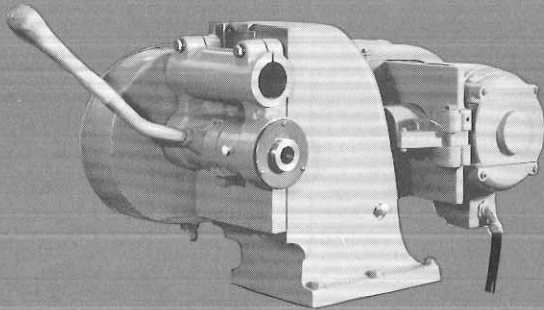
Export boxed: 2300 lbs. approximate.



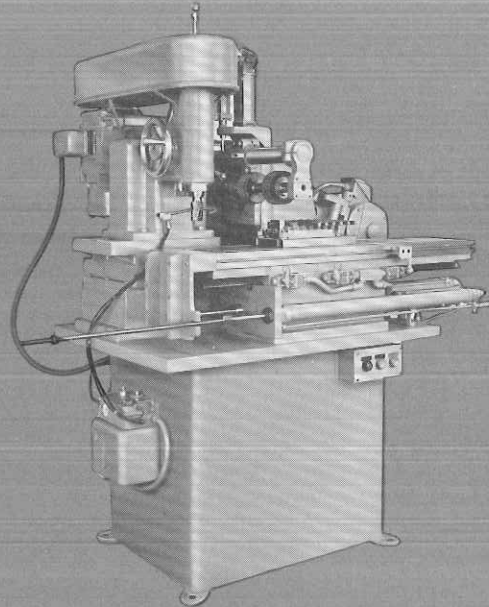
www.SterlingMachinery.com

HALF/MILL

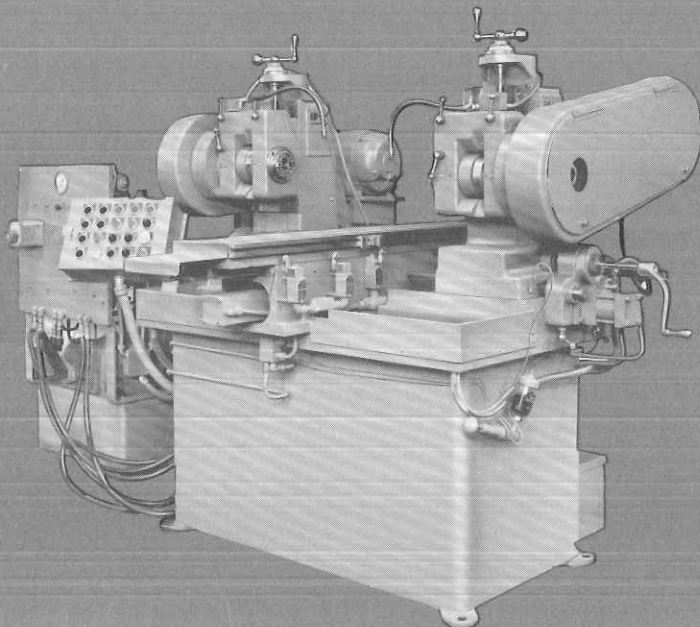
"Building Block" concept provides maximum flexibility. Components available by themselves or factory assembled into special milling machines.



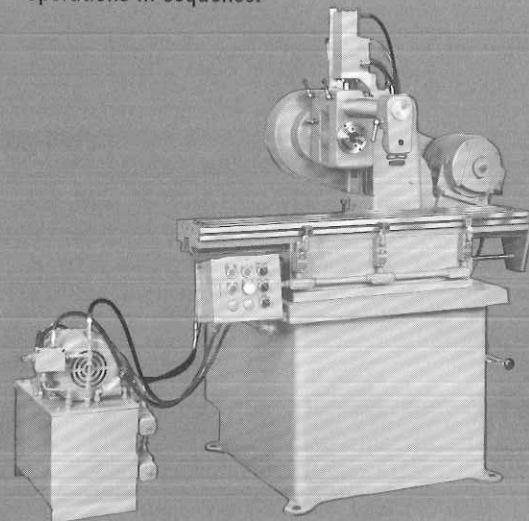
No. 1 Half/Mill. Basic No. 1 Half/Mill may be mounted on special production machines for specific milling operations.



No. 2 Half/Mill. Combination vertical and horizontal units, secured to common base, perform milling and wire brushing operations in sequence.



No. 2 Duplex. Duplex No. 2 Half/Mill with 10" x 54" table. Provides up to 30" of longitudinal hydraulic feed with automatic spindle retraction prior to rapid traverse table return.



Single Column No. 2 Half/Mill. 3 H.P. No. 2 Half/Mill with 10" x 48" table and hydraulic head and table feed. Slide feeds are coordinated to perform automatic "box cycling".

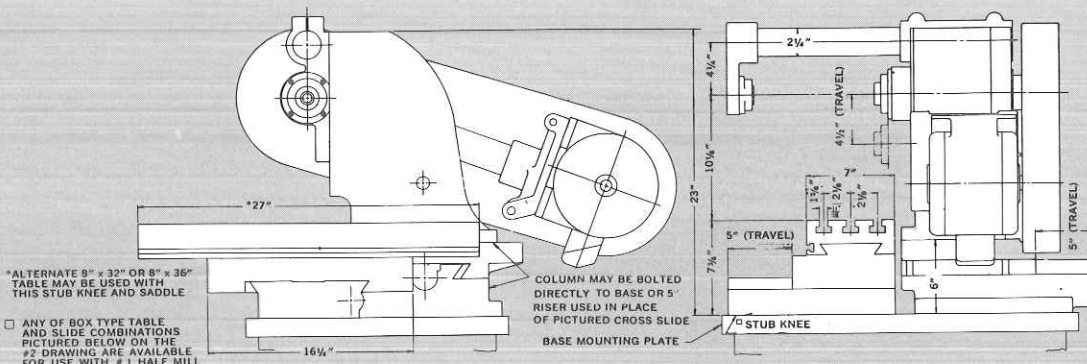
• The Half/Mill concept is the ultimate in flexible machine tool design, as special machines may be designed and built without the engineering charges usually associated with this type of equipment.

• Double Duplex Half/Mills, combinations of horizontal and vertical spindle units, varying length and positioned tables and slides are available according to specific requirements at surprisingly low cost.



www.SterlingMachinery.com

HALF/MILL dimensions and specifications



No. 1 HALF/MILL

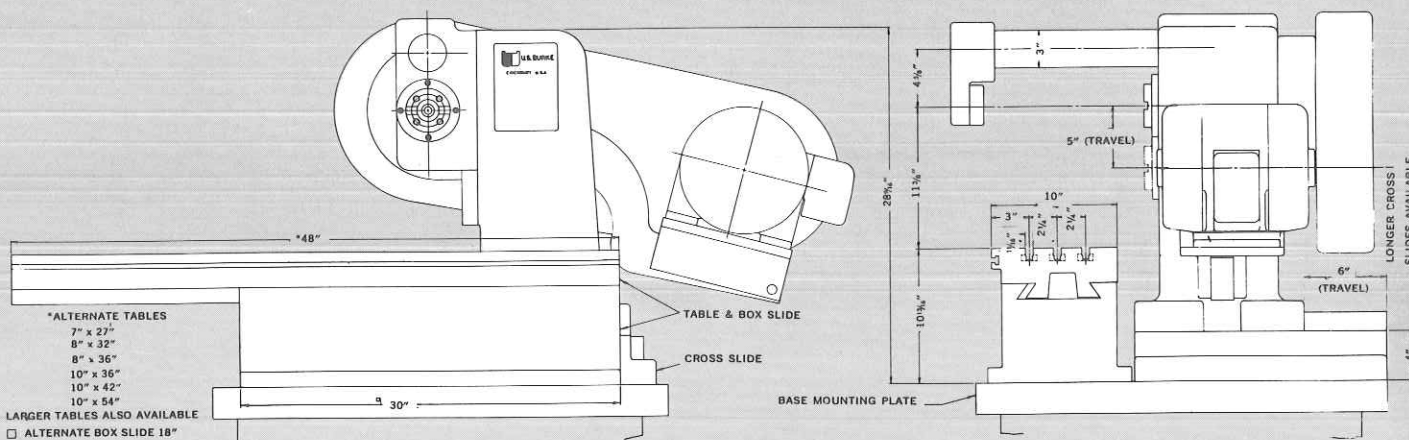
Spindle: Choice of #9 B & S, #10 B & S, R-8, #30, or

#40 National Standard taper, roller bearing equipped.
Motor Drive: Direct V-belt drive through reversible
3 step pulleys: uses 1, 1½ or 2 HP motor.

Spindle Speeds: Choice of six: 86 to 360 RPM, 570 to 2370 RPM, or 865 to 3600 RPM. Special high or low speed ranges available. **NOTE:** For operations in excess of 2370 RPM, spindle is equipped with precision ball bearings.

Mounting Plate: Cast Iron: 29½" x 22½" x 4¼" high, weight 260 lbs. Steel: same approximate size for single column machines; varies according to size and position of slides, number and location of heads. Power Feeds: Either air hydraulic or full hydraulic for table, heads, and/or cross slides. Provides rapid traverse approach, controlled cutting speed and distance, plus automatic rapid traverse return. Independent, coordinated, or sequential feeds may be

specified. Automatic cutter retraction (prior to table return) is optional extra, as is compound cross slide. One shot or automatic lubrication, coolant or spray mist, and full range of accessories available.



No. 2 HALF/MILL

Spindle: #40 National Standard taper, roller bearing equipped.

Spindle Speeds: With 2 or 3 HP 1200 RPM drive motor: 50, 70, 90, 120, 180, 230, 350, 375, 430, 570, 735, 945, 1430, 1825, 2370 RPM (15 speeds).
With 2 or 3 HP 1800 RPM drive motor: 645, 855, 1100, 1420, 2145, 2735, 3555, 4650 RPM (8 speeds).

With 2 or 3 HP 3600 RPM drive motor: selective speeds to 5000 RPM.

NOTE: For operations in excess of 2370 RPM, spindle is equipped with precision ball bearings.

Mounting Base: Overall dimensions vary with size and position of slides, number and location of heads.

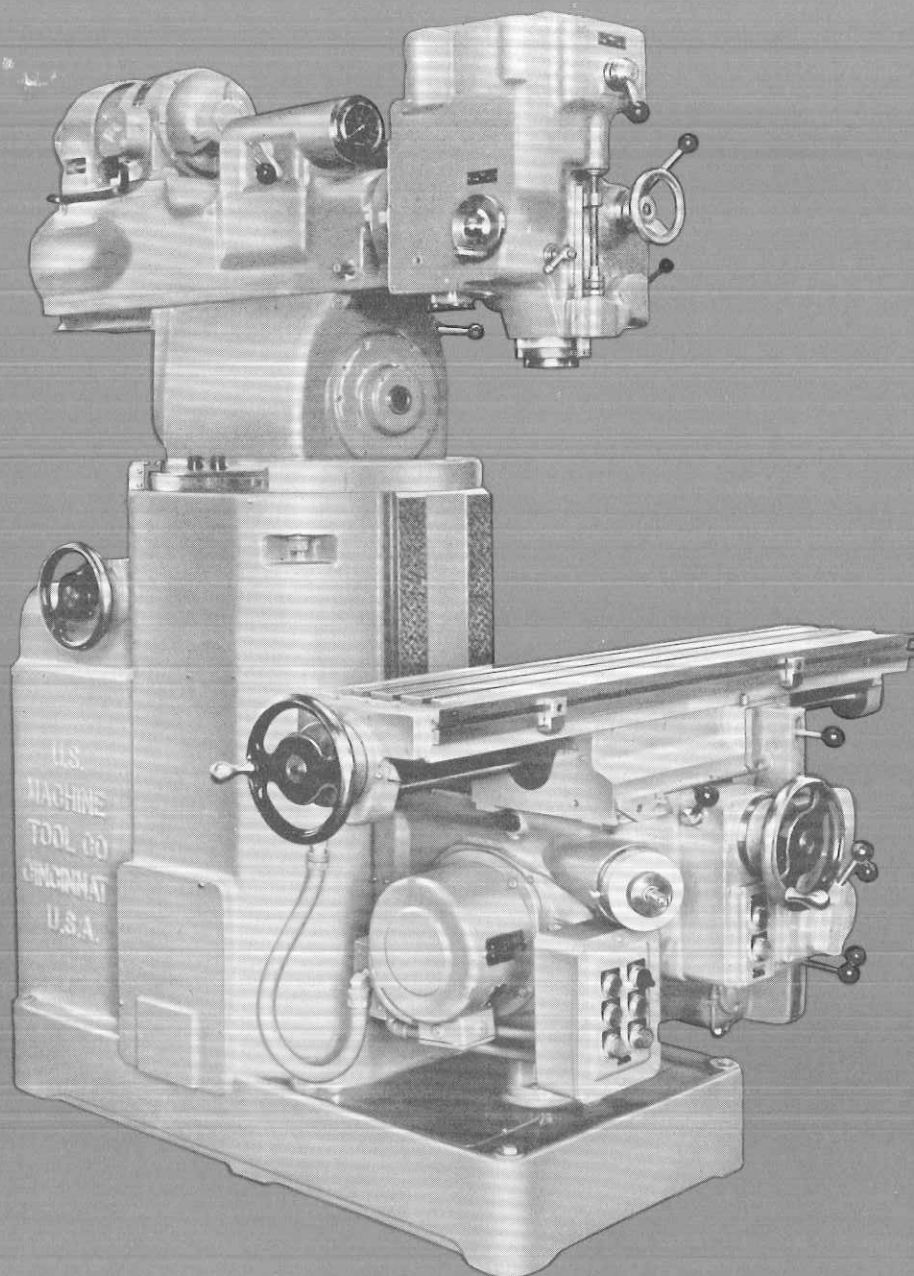
Riser Blocks: Standard is 6" high, mounted under cross slides. Other heights according to requirements.

Power Feeds: Either air hydraulic or hydraulic for table, heads, and/or cross slides. Provides rapid traverse approach, controlled cutting speed and

distance, plus automatic rapid traverse return. Independent, coordinated, or sequential feeds may be specified. Automatic cutter retraction (prior to table return) is optional extra, as is compound cross slide. One shot or automatic lubrication, coolant or spray mist, and full range of accessories available.

Quartet

**For vertical, horizontal, angular,
and universal milling.**



The pictured vertical milling machine has a 5 HP horizontal spindle with infinitely variable spindle speeds, from 29 to 1450 RPM, and a 3 HP independently motorized vertical spindle with infinitely variable quill feed and spindle speeds to a maximum of 4200 RPM.

• In one set-up, without the use of fixtures . . . milling, drilling and boring operations may be performed to extremely close tolerances.

• A new concept in milling machine versatility . . . the NEW Turret Type Milling Machine, the QUARTET, offers dependable, accurate horizontal, vertical, angular and

universal milling operations . . . in one machine!

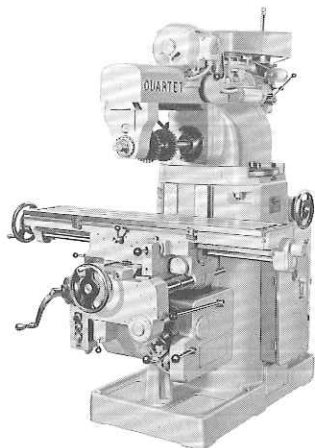
• The QUARTET may be changed from a normal horizontal milling machine to a universal miller by swiveling the turret in which the horizontal spindle is carried.

• An independently driven, heavy-duty vertical power feed milling head, mounted on

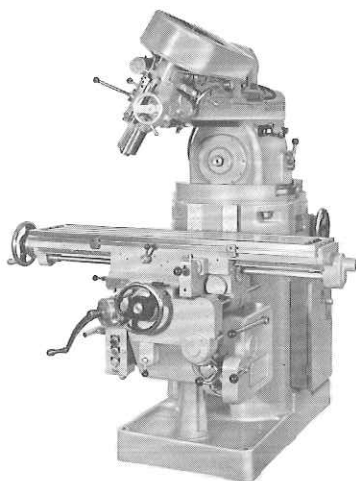
the rear of the box-type overarm, may be indexed into position over the table for vertical or angular milling operations. The graduated turret is indexed by a worm wheel, and the overarm is positioned by rack and pinion.

Sterling
MACHINERY EXCHANGE
www.SterlingMachinery.com

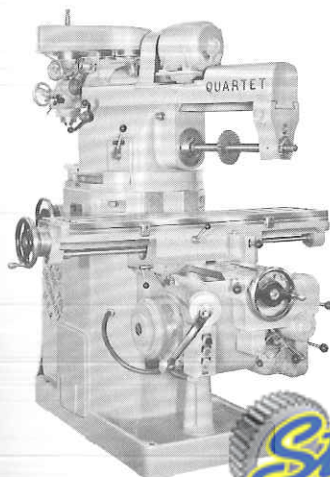
Quartet specifications



Horizontal Milling



Angular Milling



Universal Milling

Column—Massive, gray iron casting. Coolant reservoir, access doors and rigging apertures provided.

Turret—One-piece, casting 22" in diameter. Scale, graduated in degrees, provides for angular setting. Turret is swiveled by means of worm and worm wheel. Overarm is positioned by rack and pinion.

Table—Working Surface: 42" x 10"
3 T-Slots: $\frac{5}{8}$ " wide, $2\frac{1}{4}$ " between centers
Longitudinal Feed: 30"
Cross Feed: 11"
Dovetail: $1\frac{1}{4}$ " deep
Longitudinal Screw: $1\frac{3}{8}$ " diameter
Maximum distance top of table to centerline of horizontal spindle: 16"
Minimum distance top of table to centerline of horizontal spindle: 0"
Maximum distance top of table to Vertical Spindle Nose: 21"
Minimum distance top of table to Vertical Spindle Nose: $4\frac{3}{4}$ "
Table has generous coolant collecting area, balanced handwheels, $4\frac{1}{2}$ " dia. micrometer dials, graduated .001", .200" per revolution, adjustable gib and lock.

Saddle—Dovetail: $1\frac{1}{4}$ " deep
Crossfeed Screw: $1\frac{3}{8}$ " diameter
Maximum distance from center of table to face of column: 16"
Minimum distance from center of table to face of column: 5"
Saddle has $4\frac{1}{2}$ " dia. micrometer dial, graduated .001", .200" per revolution, shear wipers, adjustable gib and lock.

Knee—Vertical Feed: $16\frac{1}{4}$ "
Vertical Feed Screw: $1\frac{3}{8}$ " diameter
Dovetail: $1\frac{1}{2}$ " deep
Knee has $4\frac{1}{2}$ " dia. micrometer dial, graduated .001", .100" per revolution, telescoping chip guard, "safety" chip guard above knee gearing, adjustable gib and lock.

Horizontal Spindle—Fine-grained alloy steel, hardened and precision ground, with either #40 or #50 Standard taper (optional). Spindle is mounted on one double row and one single row of precision Timken bearings. Takeup for wear provided.

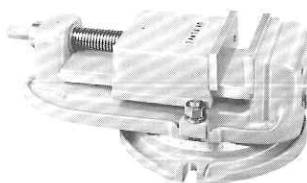
Horizontal Spindle Drive—3 HP or 5 HP motor, mounted in base of column, through variable pitch intermediate pulley. High speed range bypasses gear train with direct timing belt power transmission. Low speed range utilizes hardened, oil lubricated gear train. 12" diameter hardened steel gear, mounted directly behind front bearings, acts as a flywheel for smooth cutting action. Spindle speeds are infinitely variable from 29 RPM to 200 RPM, and from 200 RPM to 1450 RPM. Speed indicator provided.

Vertical Spindle Drive—Choice of 2 vertical spindle heads, both with infinitely variable powered quill feed. The smaller head is powered by a $1\frac{1}{2}$ HP drive motor, with a choice of nine spindle speeds of 63, 103, 160, 229, 353, 530, 825, 1350 and 2100 RPM. The 3 HP heavy duty vertical head provides an infinitely variable spindle speed range from 29 to 1450 RPM. A direct reading tachometer is supplied as standard equipment.

Miscellaneous—Weight, net: 5200 lbs. (approx.)
Size of foot of base: 48" x 24"
Overall Height: 71 $\frac{1}{2}$ "
Floor space required: 88" x 70"
Weight Crated (Domestic): 5400 lbs. (approx.)
Weight Crated (Export): 5600 lbs. (approx.)
Cubic Measurement Crated: 200 cu. ft. (approx.)

Standard U.S.-Burke Accessories

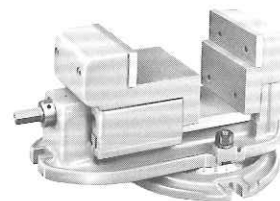
For use on all U.S.-Burke floor type milling machines.



SWIVEL BASE VISE

Base made of close grained, semi-steel casting, with massive, one piece, precision ground steel insert. Vise is $1\frac{3}{8}$ " diameter.

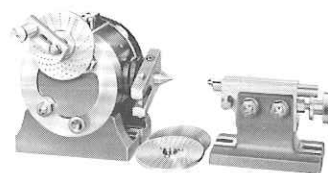
Swivel base made from one piece, semi-steel casting. Base is "T" slotted and hand graduated. Height to top of jaw is 6 $\frac{1}{2}$ ".
Net weight.....118 lbs. (approx.)
Shipping weight.....140 lbs. (approx.)



EXTENSION SLIDE VISE

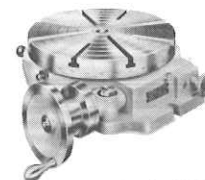
This two piece optional accessory, increases the vise opening to 9" maximum.

It weighs 50 lbs., increases the overall height by only 3 $\frac{3}{4}$ ", and converts the standard 5" opening vise into a 9" opening vise.



UNIVERSAL DIVIDING HEADS

The Models USB-6", USB-10" and USB-12" are standard universal dividing heads, 40:1 gear ratio. They are built in right and left hand models.



ROTARY TABLES

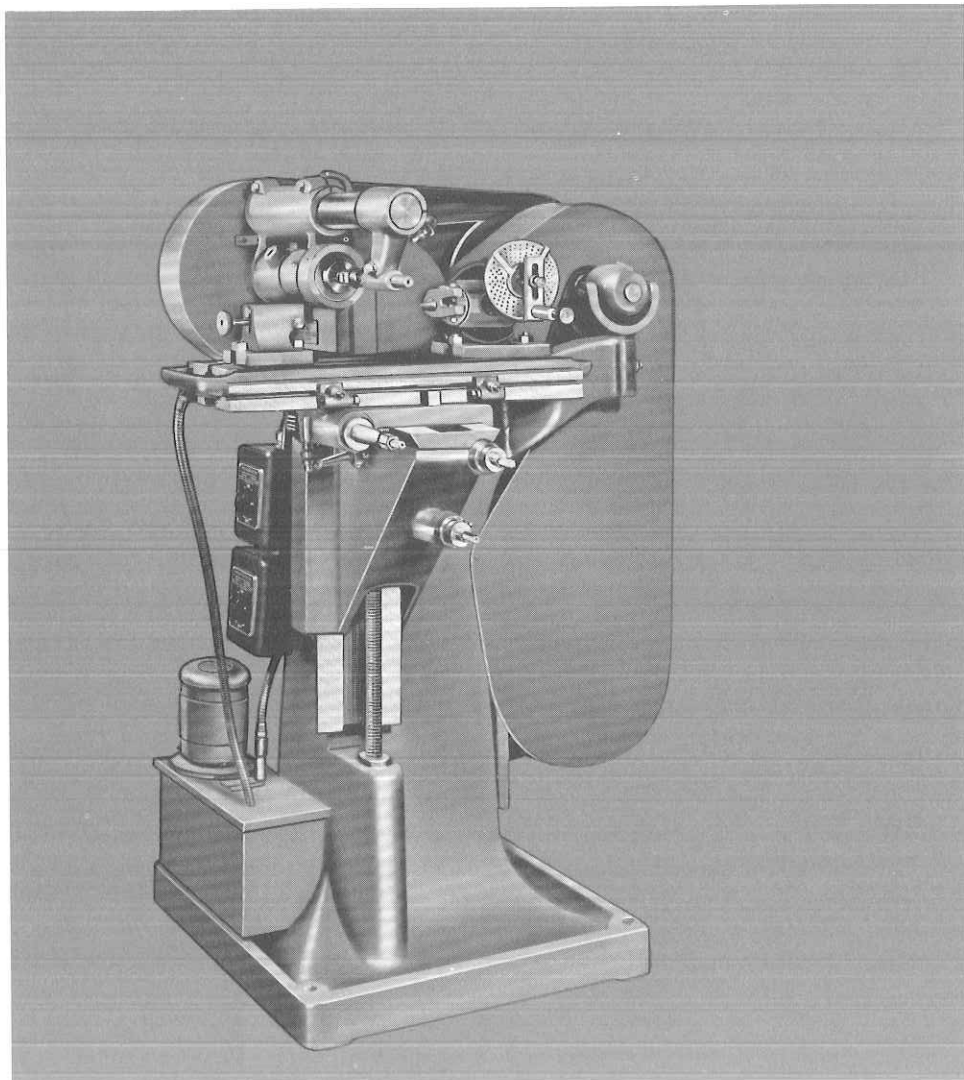
Guaranteed within 60 seconds total cumulative error.

Sterling
MACHINERY

www.SterlingMachinery.com

No. 1 U.S. Handmill

Proved! Versatile! Reliable!



- The favorite in shops across the land. Why? Because of its rugged construction, its simplicity, its versatility, and its low price. Compare before you buy.
- Built to do precision production work day in and day out. Alloy steel spindle is mounted on adjustable Timken roller bearings; engineered with wide bearing surfaces and massive castings.
- Low initial cost combined with negligible maintenance requirements make the No. 1 U.S. the most economical handmill buy.
- Overarm fits directly into spindle head. Adjustable, handscraped gibs on all four bearing slides, furnished with quick-acting locks. Countershaft has self-aligning ball bearings.
- No complicated gears to maintain. Direct drive from motor to countershaft and from countershaft to spindle. Choice of six spindle speeds. Simple lever feed for table and head. Air hydraulic feeds to head and/or table optional.
- For cutting Woodruff keyways and quantity production of all types of small parts. High peripheral speeds available for use with small diameter cutters or for machining non-ferrous materials. Regularly used for simple profiling, sawing, slotting, squaring, light slab milling, cut-off, short run splining, etc.

Specifications and dimensions

Table

Working surface of table: 7" x 27"

Optional large table: 8" x 32"

Table travel: traverse: 5"

longitudinal with hand lever: 6" per setting
with crank: 16" (or 21")

3 T-slots, standard: 1/4"

Head

Head is accurately balanced by counterweight inside the column and has vertical lever feed.

Vertical lever feed of sliding head: 4 1/2"

Spindle

Spindle runs in precision tapered Timken roller bearings.

#9 B & S Taper standard. #3 Morse, #10 B & S, R-8, #30, or #40 National Standard optional.

Maximum distance from spindle to table: 15 3/4"

Standard spindle speeds are 150, 240, 350, 720, 1130 and 1540 RPM.

Special high spindle speeds available, selectively to 5000 RPM max.

Knee

Vertical feed of knee: 15 1/4"

Table can be brought up to center of spindle.

Knee equipped with a micrometer dial on screw.

Saddle

Saddle cross feed: 5"

Saddle cross feed screw equipped with micrometer dial.

Drive

By 1 HP 1200 RPM ball bearing motor. Machine can also be furnished with a single phase motor for home work shops, garages, and other light manufacturing duties.

Backshaft and motor are equipped with three-groove sheaves. This, combined with the interchangeable single-grooved pulleys on back-shaft and spindle enable operator to obtain choice of six spindle speeds.

Miscellaneous

Weight: net 1000 lbs., crated 1150 lbs., boxed for export 1350 lbs.

Cubic measurement: crated 45 cubic feet.

Size of foot of base: 22" x 25"

Floor space required: 30" x 37"

Equipment

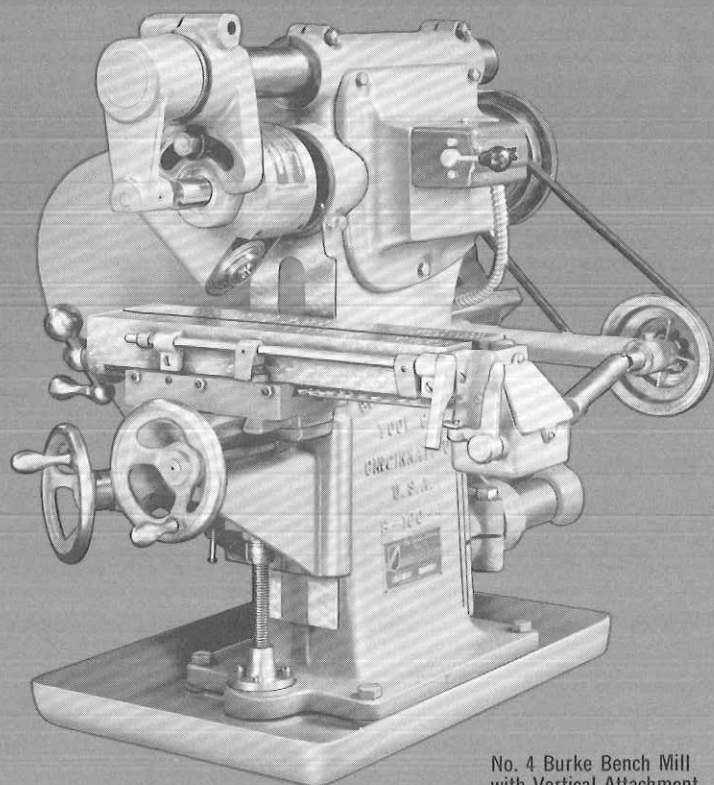
Machine may be equipped with center or "A" style arbors, table feed, dividing head, coolant pump as extra equipment. Air hydraulic feeds to head and/or table available.

Sterling
MACHINERY EXCHANGE

www.SterlingMachinery.com

2 power-feed horizontal models 2 hand-feed horizontal models

Burke Bench Millers



No. 4 Burke Bench Mill
with Vertical Attachment

Two power-feed models for toolroom, educational, or maintenance use; two hand-feed models for production, second operations, etc. Rugged columns, hand scraped bearing surfaces. Selective range of speeds handles any material. Dependable performance and ease of set-up lower operational costs.

Specifications

No. 1 & No. 3

TABLE

Working surface: $3\frac{1}{2}$ " x 12" or $3\frac{3}{4}$ " x 16"

RANGE

Longitudinal feed: 8" or 12"; cross feed: $3\frac{3}{8}$ "; vertical feed: $4\frac{1}{2}$ " or $7\frac{1}{2}$ "

SPINDLE

#9 B & S, #3 Morse or #30 National Standard taper; speeds: selective from 66-5000 RPM

DRIVE

$\frac{1}{2}$, $\frac{3}{4}$ or 1 HP motor

NET WEIGHT

No. 1—300 lbs., No. 3—350 lbs. (approx.)

No. 4 and No. 4 Universal

TABLE

Working surface: $3\frac{3}{4}$ " x 16" or $3\frac{3}{4}$ " x 20"

RANGE

Longitudinal feed: to 12"; cross feed: $3\frac{3}{8}$ "; vertical feed: 7" or 8"

SPINDLE

#9 B & S taper; speeds: selective from 66 to 5500 RPM's

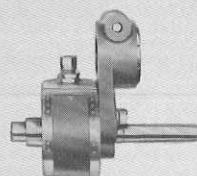
DRIVE

$\frac{1}{2}$, $\frac{3}{4}$ or 1 HP motor

NET WEIGHT

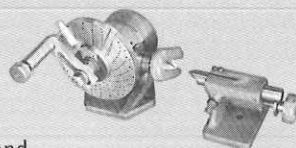
No. 4—450 lbs., No. 4 Universal—500 lbs. (approx.)

Accessories



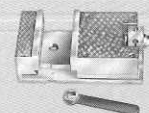
Vertical Milling Attachment

For use on No. 3 and No. 4 Bench Mills.



6" Dividing Head

Economical dividing head for use on all Burke models and other machine tools.



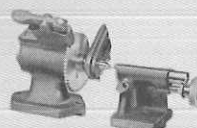
Plain Vise

Jaws $3\frac{1}{2}$ " x $1\frac{1}{8}$ ". Opens to 2" wide. Acme thread screw. 11 lbs.



Quick Opening Vise

Jaws $3\frac{1}{2}$ " x $1\frac{1}{8}$ ". Opens to 2" wide. Adjustable slide. 11 lbs.



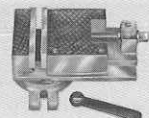
Stationary Head Indexing Center

For rapid production and indexing of any light work.



Standard Burke Pedestal

Cabinet column is 28" high, fits any Burke Bench Mill. Weighs 200 lbs. (approx.)



Graduated Swivel Vise

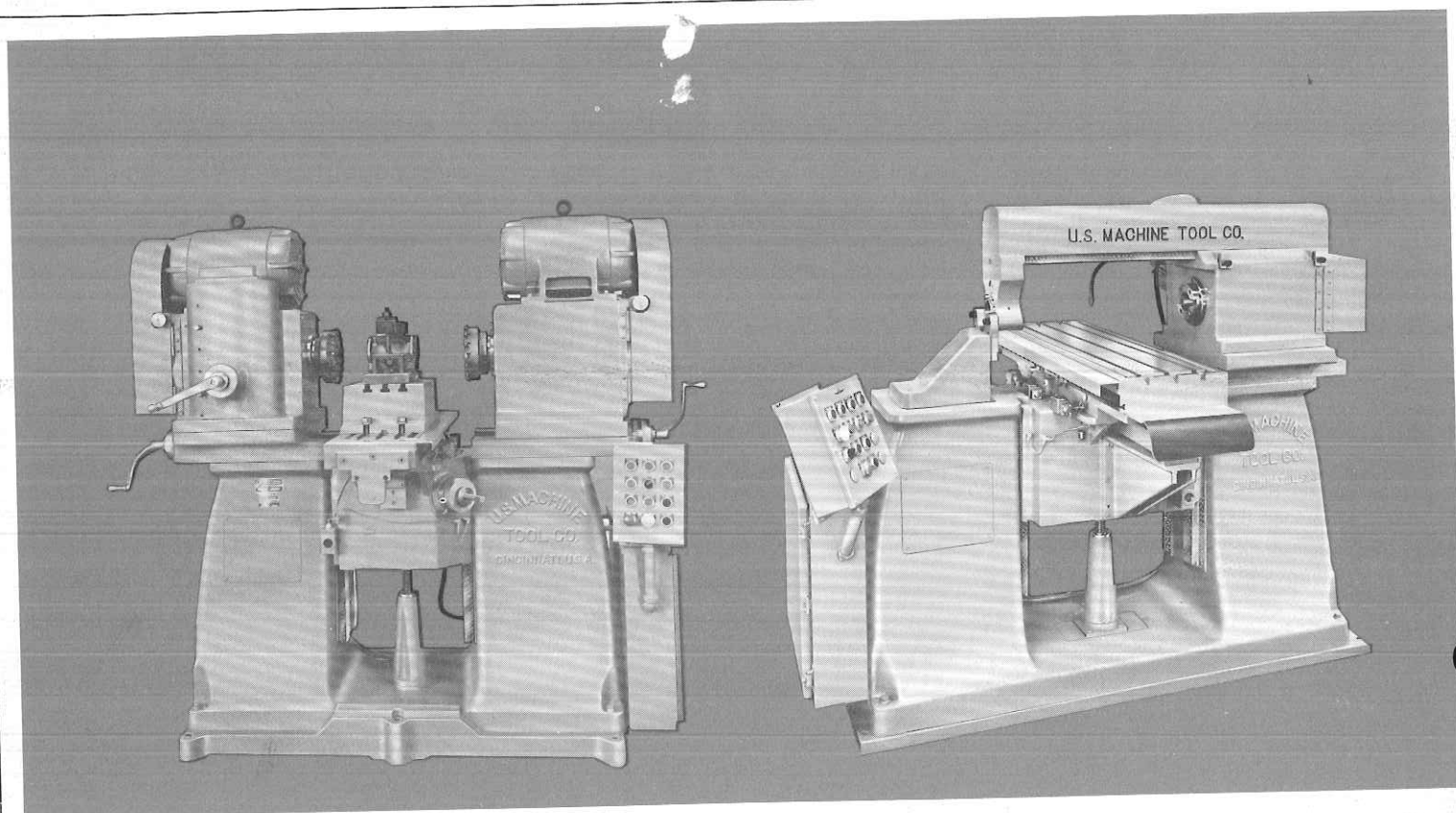
Jaws $3\frac{1}{2}$ " x $1\frac{1}{8}$ ". Opens to 2" wide. Acme thread screw. 16 lbs.

Sterling
MACHINERY EXCHANGE

www.SterlingMachinery.com

Hy-Flex

Single spindle or duplex hydraulic production milling machine.



Available with up to 7½ HP per head. Unique unit construction permits positioning heads where required for milling, sawing, or grinding. May be operated with heads leading or opposed, in line with, tilted above or below horizontal plane. The Hy-Flex is furnished with #40 or #50 taper spindles, in both single and double column models. Tables to 12" x 60", hydraulic longitudinal feed to 36".

Specifications

(Typical duplex base unit)

Common base measurement: 30" x 58"; top of base: 12½" x 12½" (each)

Distance between column faces: 16"

Table working surface: 10" x 42" to 12" x 60"

Longitudinal feed: 30" to 36". Hydraulic—rapid traverse and infinitely adjustable feed. Vertical feed: 15"

Spindles: milling or grinding spindles, to 7½ HP, as required

Base unit weight: 3700 lbs. (approx.)

Single column: according to requirements

THE U.S.-BURKE

division of

BROTHERTON ROAD
CINCINNATI, OHIO 45227



Sterling
MACHINERY EXCHANGE

Sterling Machinery Exchange
9310 Garvey Ave S. El Monte, CA 91733
626-444-0311

www.sterlingmachinery.com

www.SterlingMachinery.com