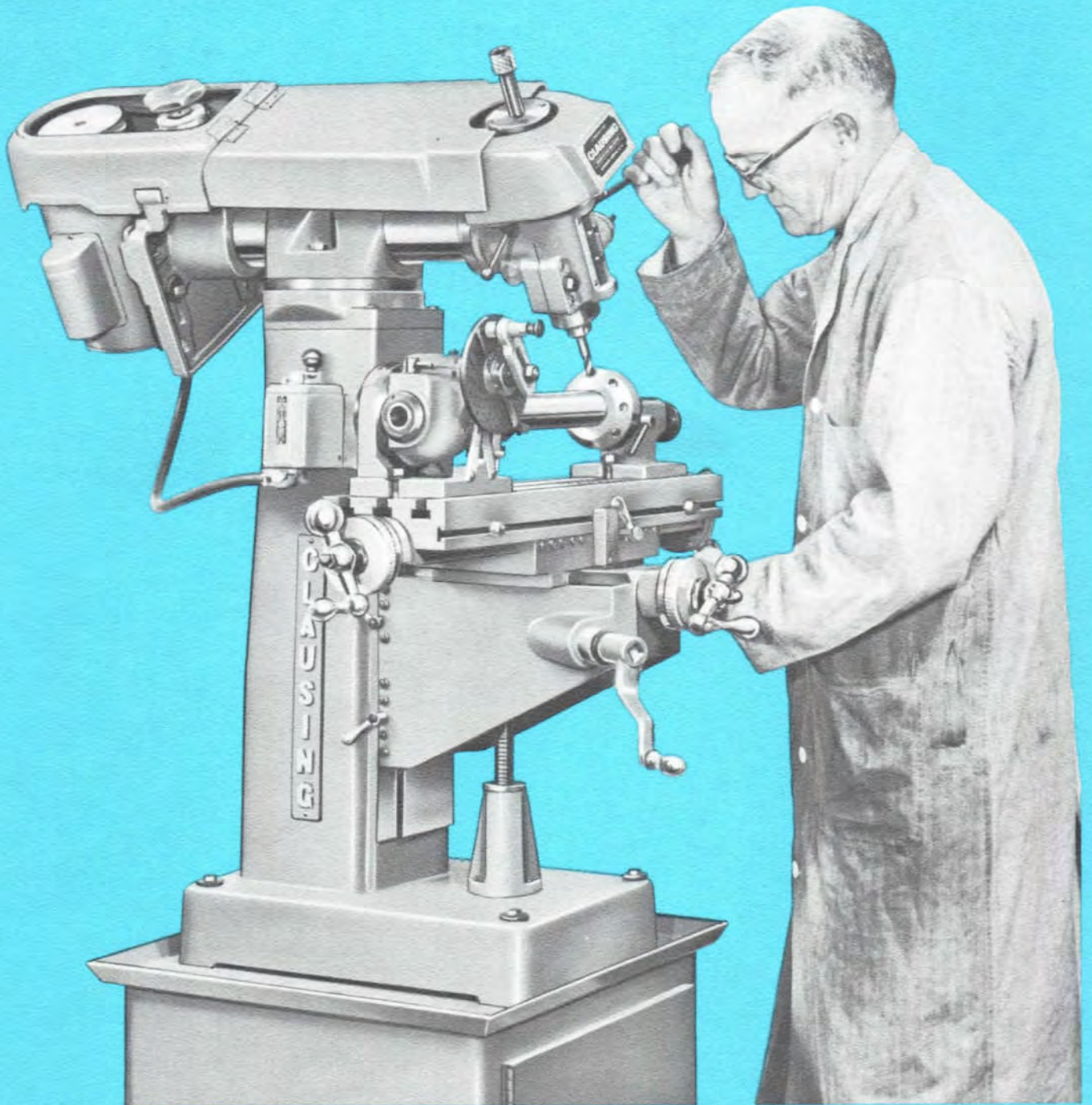


CLAUSING

vertical milling machine



**YOUR
CLAUSING
DEALER...**

Unequaled accuracy

The Clausing is a precision machine tool built to tolerances that are tightest in the industry.

WITHIN .0002"

Spindle taper (internal) run-out is within .0002" at spindle nose.

WITHIN .0005"

Top of table perpendicular to column ways within .0005" in 6" travel.

WITHIN .0005"

T-slots parallel to table dovetails within .0005" in 6" travel.

WITHIN .0005"

T-slots square with cross slide dovetails within .0005".

WITHIN .001"

Table parallel to turret within .001".

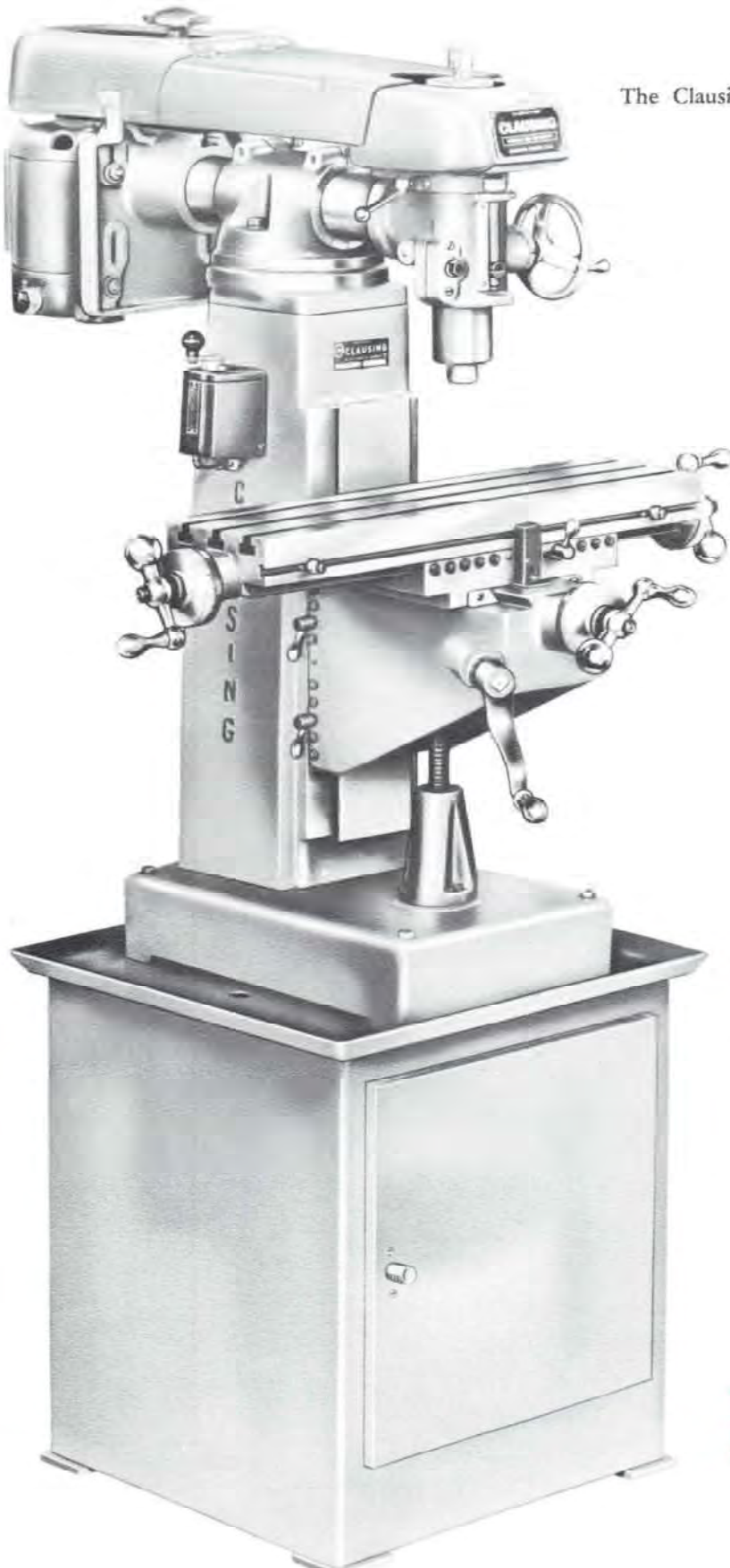
Spindle square with table, front to rear, within .001" TIR in 5" circle.

Thickness of cross slide bearing surfaces uniform to within .001".

WITHIN .0005"

Table T-slots parallel to table dovetail ways within .0005" in 8" longitudinal travel.

"We use our Clausing's for jig bore work—in fact, any job that has to be on the nose is machined on a Clausing."

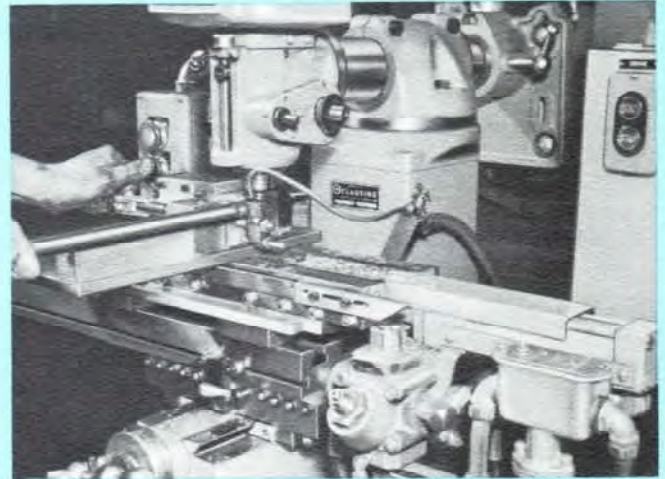


No. 8520 Mill illustrated with No. 8617 Guard

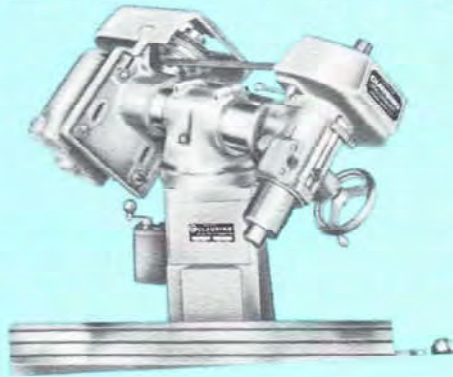
...for tool room



...for production



EXCEPTIONAL VERSATILITY

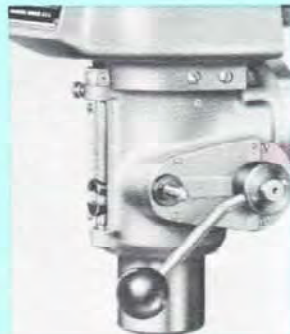


The Clausing drills, mills, bores, reams — at all angles — with one work setup. The spindle head swivels in a vertical plane, turret head rotates in a horizontal plane.

Countershaft drive with six speeds — 180 to 3250 rpm — efficiently handles a wide range of tools and materials. There are two spindle feed controls — a handwheel for fine feeds, a lever for fast feeds.

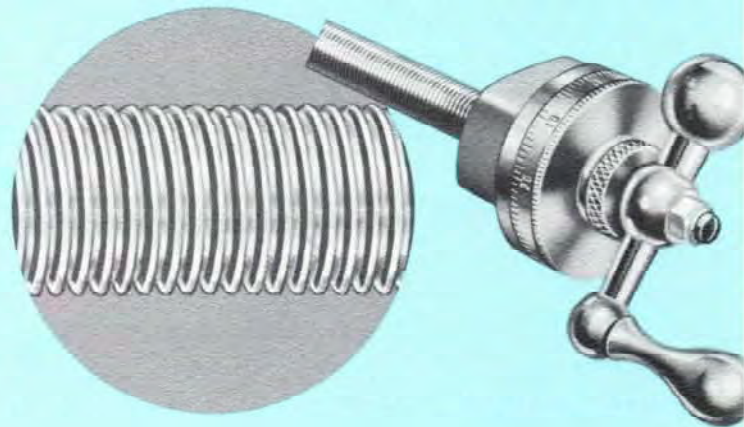
Positive stop with graduated dial provides accurate depth control. Lever brake stops spindle quickly — spindle draw bar has collet ejection mechanism.

And, for 'round-the-clock operation Clausing has — hardened chrome-nickel steel spindle, hard-chrome-plated quill with full-length bearing, wide dovetail ways with full-length gibs, solid cast overarm, fifteen ball bearings.



SUPER SENSITIVITY

"Clausing has the sensitivity you can't get in larger machines — and it is the easiest to set up, get around and operate of any mill."



Ground thread feed screws have gauge-tolerance lead accuracy — $\pm .0005$ " within any two threads in three inches.

Precision feed screws — with eight ball bearings — plus hand fitted ways provide the smooth action for *feel-control* of table, saddle and knee.

And, each quill is custom fitted — bearing surface is honed.

Clausing has the balance, sensitivity — whatever you call it when you feel the cutter working, and can transmit all your skill to the job.

SPECIFICATIONS

CE 19360

Table Size	6" x 24"
Longitudinal Table Travel	15"
Cross Table Travel	5"
Vertical Table Travel	11 ³ / ₈ "
Spindle Travel	3"
Maximum Distance Spindle to Table	15 ⁵ / ₈ "
Maximum Distance Spindle to Column	8 ¹ / ₂ "
T-Slot, Top of Table	9/16"
T-Slot, Front of Table	1/4"
Spindle Speeds	180, 350, 600, 1000, 1900, 3250 rpm
Spindle Nose	No. 2 MT or No. 7 Brown & Sharpe
Motor Recommended ...	3/4 hp, 1725 rpm, with 5/8" shaft
Motor Base Takes NEMA Frame Sizes ..	J56, 1186, 1216B
Overall Dimensions	36" x 40" x 70" high

See page 2 for tolerances, page 6 for dimension data.

No. 8520 V-MILL with No. 2 MT spindle, less motor, belt guard. 650 lb.

No. 8525 V-MILL with No. 7 B&S spindle, less motor, belt guard. 650 lb.

Standard equipment — reversing switch (for single or 3-phase motors), collet draw bar, satin chrome dials, floor cabinet with storage shelf and collet rack, pulleys, belts, wrenches.

MOTORS

No.	Phase	HP	Volt	Cycle	RPM	Wt. Lb.
2790	Single	3/4	115/230	60	1725	41
2840	Three	3/4	208/220/440	60*	1725*	38

*Operate on 50 cycle at 1425 rpm. Other voltages and cycles available — data on request.

OPTIONAL ELECTRICAL EQUIPMENT

(Note: Standard motor control furnished is across-the-line start, stop, reverse drum switch.)

*Optional controls listed below provide motor protection and must be ordered with mill.**

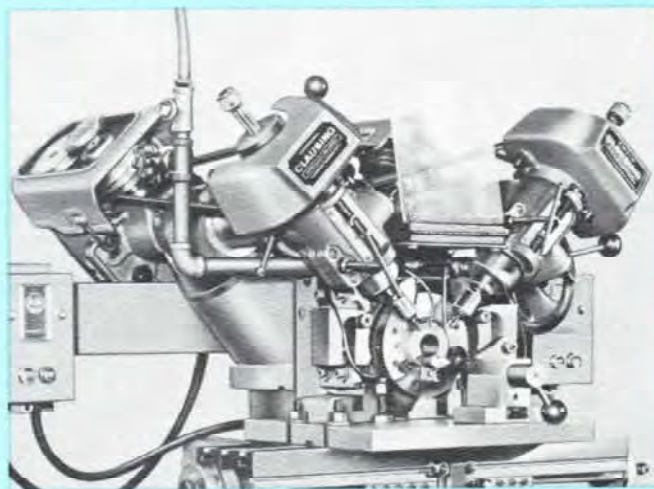
No. 8633 THERMAL OVERLOAD protects motor against overload and low voltage — used with reversing switch furnished with machine. Has reset button.

No. 8631 MAGNETIC STARTER with Drum Reversing Control — protects motor against overload, low and no voltage. Drum control has momentary contactors — motor will not automatically restart when power is restored.

No. 8632 MAGNETIC REVERSING STARTER WITH 110 VOLT AT DRUM CONTROL — protects motor against overload, low and no voltage. Drum control has momentary contactors — motor will not automatically restart when power is restored.

*Optional controls for field installation — write for quotation.

HEADS FOR SPECIAL APPLICATIONS

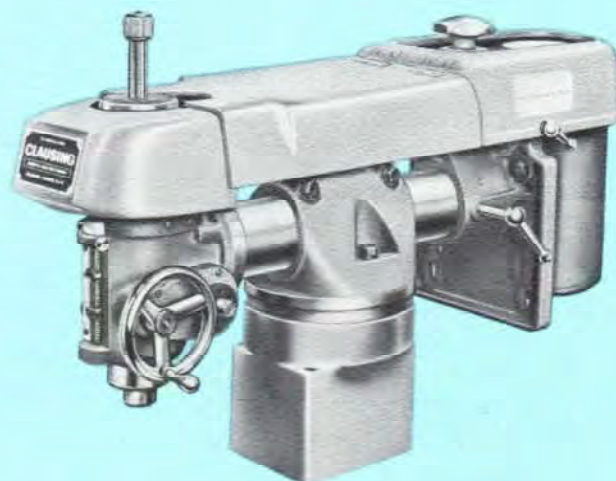


HEAD ASSEMBLY

No. 8628 HEAD with No. 2 MT spindle. 33 lb.

No. 8629 HEAD with No. 7 B&S spindle. 33 lb.

SPECIFICATIONS: 3" spindle travel; center of spindle to mounting surface 2⁷/₈"; mounting surface 4¹/₄" dia. tapped for three 5/16"-18 screws; pilot hole, 2.500" (+.0000/-0.0003) x 3/4" deep; overall, 14¹/₄" high, 11" wide, 7" deep.



HEAD, OVERARM and TURRET ASSEMBLY

No. 8638 ASSEMBLY with No. 2 MT spindle. Less motor, belt guard. 140 lb.

No. 8639 ASSEMBLY with No. 7 B&S spindle. Less motor, belt guard. 140 lb.

SPECIFICATIONS: Centerline of spindle to front of turret base, 3¹/₈" - 9¹/₂"; max. distance, spindle to bottom of base, 3⁷/₈"; base, 7¹/₂" wide, 6" deep, has four holes for 3/8"-16 screws — hole centers, 5/8"; overall, 21¹/₄" high, 11" wide, 31³/₄" long. (Head specifications same as above.)

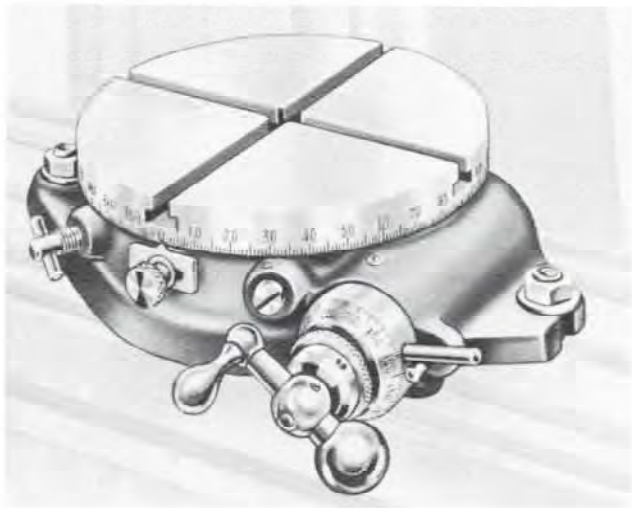


TABLE POWER FEED ATTACHMENT For Longitudinal or Cross Feeds

Provides infinitely variable power feeds from 2" to 6" per minute thru dial control. Mounts on table for longitudinal feeds, or on saddle for cross feeds. Switch has forward, neutral and reverse positions—lever control instantly engages mechanism, or disengages for hand feeds.

Continuous-duty integral motor, steel gears, cast aluminum housing. Slip clutch and fuse protect against overload. Motor, single-phase, 115 volt, 60 cycle.

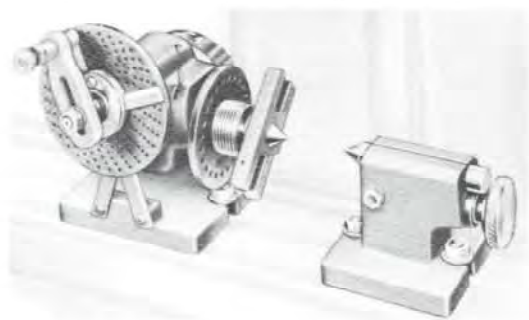
No. 8635 POWER FEED ATTACHMENT with 10' cord and plug. 115 volt, single-phase. 14 lb.



7" ROTARY TABLE

Precision built for accurate, angular indexing and spacing operations. Ground table is graduated 0° to 90° in each quadrant, has T-slots for 5/16" bolts, positive lock, crank with graduated friction-clutch dial and throw-out for free table movement. Table and dial graduations easily synchronized. Provision for take-up provided.

No. 8649 7" ROTARY TABLE. 25 lb.



6 1/2" UNIVERSAL DIVIDING HEAD

For dividing operations required in gear cutting, layout, splines, etc. Headstock swivels 110°—from 10° below horizontal axis to 10° above vertical axis—has 1 3/4"-8 threaded spindle, No. 9 B&S taper, 7/8" bore. Three indexing plates for dividing all numbers to 50 and even numbers to 100 (except 96). Crank indexing ratio: 40 to 1. Dog holder, keys, T-bolts and centers furnished. Max. length of work, 14"—swing, 6 1/2".

No. 8647 6 1/2" UNIVERSAL DIVIDING HEAD. 36 lb.

No. 8648 CLAMP DOG for square, rectangular, hexagonal or round work. Capacity, 1/4" to 1 1/2". 2 lb.

BURNERD GRIPTRU UNIVERSAL CHUCKS

Chuck concentric within .0002" total indicator reading at scroll chuck speed. Two sets of solid jaws furnished.

No.	Size	Jaws	Thread	Lb.
7038	6"	3	1 3/4"-8	21
7039	6"	6	1 3/4"-8	25

BURNERD 3-JAW UNIVERSAL CHUCKS

Nos. 7035 and 7060 furnished with two sets of solid jaws. No. 7061 has master jaws with reversible hard tops.

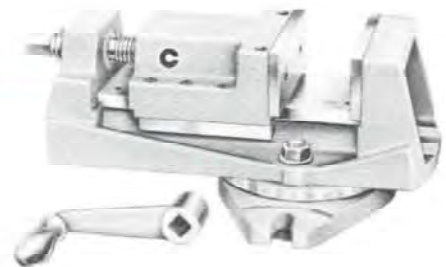
No.	Size	Jaws	Thread	Lb.
7035	5"	Solid	1 3/4"-8	16
7060	6"	Solid	1 3/4"-8	22
7061	6"	2-Piece	1 3/4"-8	21

BURNERD 4-JAW INDEPENDENT CHUCK

No.	Size	Thread	Lb.
7040	6"	1 3/4"-8	14

PRECISION VISE

Built to .001"
tolerance



Surfaces of hardened jaw and slide plates are ground flat and parallel to within .001" — top and bottom of bed and swivel base are ground flat and parallel to within .001". Jaw plates are 4" wide, 1 3/4" high, open 3". Swivel base graduated 0° to 90° both directions. Crank is forged steel.

No. 8636 VISE with graduated swivel base. 11 1/4" x 7 1/16" x 4 9/16". 30 lb.

No. 8637 VISE, less swivel base. 11 1/4" x 7 1/16" x 3 1/2". 25 lb.



BELT GUARD

No. 8617 BELT GUARD. Cast aluminum, hinged for easy access to belts. Installed when ordered with machine from factory. 4 lb.

SPLIT HOLDING COLLETS

Threaded for $\frac{3}{8}$ "-16 draw bar.

For No. 2 MT Spindle



No. 8627 Set of 7 collets listed below. 2 lb.

No. 8601 $\frac{1}{8}$ " Collet 4 oz.	No. 8605 $\frac{3}{8}$ " Collet 4 oz.
No. 8602 $\frac{3}{16}$ " Collet 4 oz.	No. 8606 $\frac{7}{16}$ " Collet 4 oz.
No. 8603 $\frac{1}{4}$ " Collet 4 oz.	No. 8607 $\frac{1}{2}$ " Collet 4 oz.
No. 8604 $\frac{5}{16}$ " Collet 4 oz.	

For No. 7 Brown & Sharpe Spindle

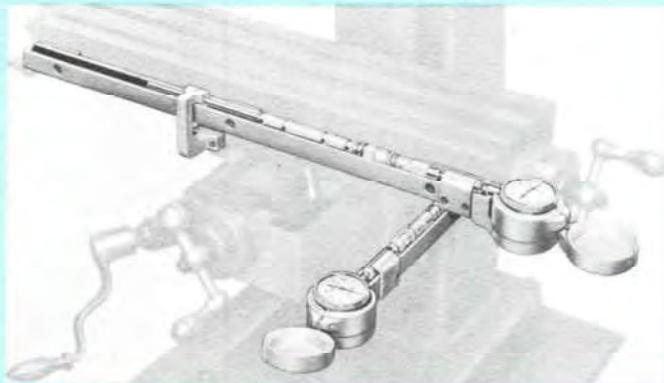
No. 8624 Set of 7 collets listed below. 2 lb.

No. 8608 $\frac{1}{8}$ " Collet 4 oz.	No. 8612 $\frac{3}{8}$ " Collet 4 oz.
No. 8609 $\frac{3}{16}$ " Collet 4 oz.	No. 8613 $\frac{7}{16}$ " Collet 4 oz.
No. 8610 $\frac{1}{4}$ " Collet 4 oz.	No. 8614 $\frac{1}{2}$ " Collet 4 oz.
No. 8611 $\frac{5}{16}$ " Collet 4 oz.	



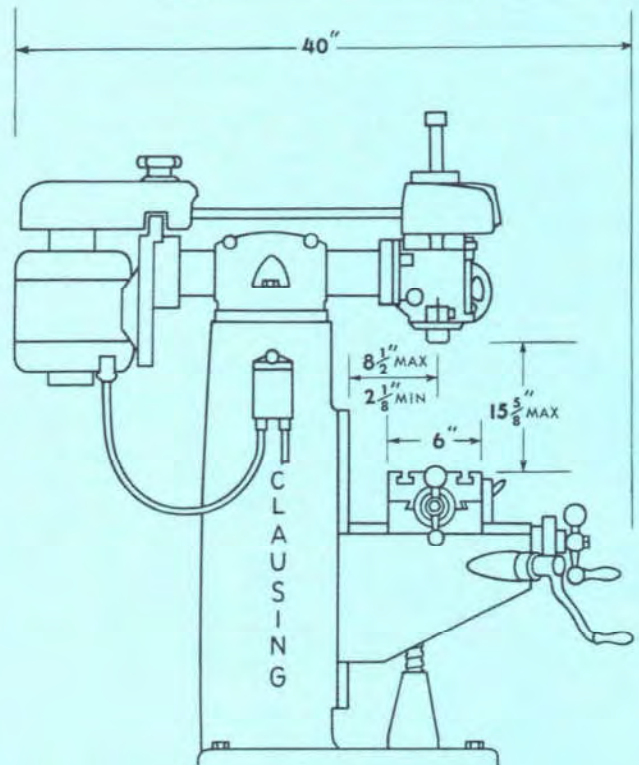
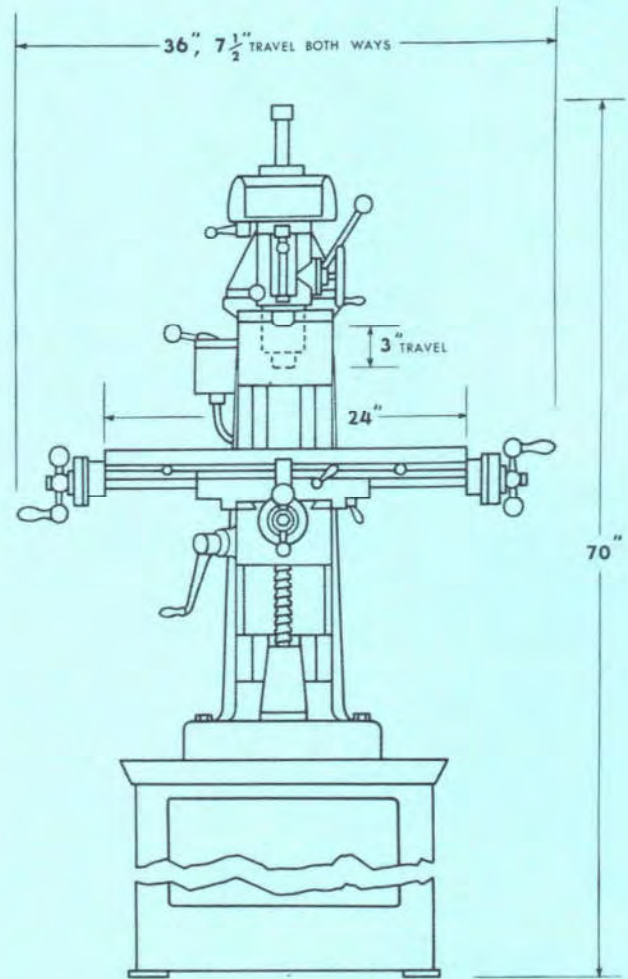
BALL BEARING CHUCK

No. 8615 BALL BEARING CHUCK, capacity No. 70 drill to $\frac{1}{2}$ ". Key-type wrench and $\frac{1}{2}$ " straight shank arbor furnished. 3 lb.



MEASURING ATTACHMENT

No. 8630 MEASURING ATTACHMENT. Complete with two 4"-5" inside micrometers, two dial indicators, table and saddle troughs with indicator holders, two stop brackets, two 1" rods, two 2" rods, two 3" rods, one 5" rod, one 8" rod, storage case. Rods are accurate to $+.0001$ ", micrometers and dials read to $.0001$ ", rods are hardened. Installed when ordered with machine from factory. 20 lb.



CLAUSING

DIVISION OF ATLAS PRESS COMPANY

SINCE 1911, MANUFACTURERS OF PRECISION MACHINE TOOLS
1915-2023 N. PITCHER ST., KALAMAZOO, MICH., U. S. A.

PRINTED IN U. S. A.

Ph. Area Code: 616 345-7155

