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## GMF 8" SENIOR GRINDER

For rugged service conditions. Three phase only. Built-in triple-pole 10 amp. switch; Safety Eye-Shields (standard equipment); Spark Arrestors; Water Cups; dust sealed ball bearings. Motor 2,900 r.p.m., 1 H.P., Squirrel Cage Induction, develops in excess of 2½ H.P., 380/415V., A.C., 50 cycles. Optional: Side Toolrests; All-Steel Cabinet Pedestal.

### G.M.F. 8" HEAVY DUTY GRINDER — MARK 3

The development of the G.M.F. 8" Heavy Duty Grinder, Mark 3, brings to Australian industry a machine with more than sufficient capacity to handle heavy tool grinding, roughing and finishing, as well as buffing and polishing operations.

**Single Phase:** ½ h.p., 2,850 r.p.m., fitted with stop-start switch in grinder base. Standard voltage, 220/240 V., A.C. 50 cycles.

**End-Shields:** Cast iron, extra long, pear-shaped, specially designed for easy attachment of accessories.

**Bearings:** Ball bearings sealed to exclude dust.

**Toolrests:** Front Toolrests adjustable in two directions to allow for grinding wear.

**Side Toolrests** are optional extra equipment and are adjustable in two directions.

**Side Guards:** Steel, removable to facilitate polishing and buffing operations.

**Eye-Shields:** Standard equipment. Shatter-proof Triplex safety glass; fully adjustable.

**Spark Arrestors:** Adjustable for wheel wear.

**Wheels (Optional):** Takes 8" dia. x 1" x ⅝" Flat Wheels or 8" dia. by 1½" x ⅝" Cup Wheels. Takes 8" dia. Wire Brushes and Polishing Mops.

### G.M.F. RANGE OF GRINDERS

includes also the following:

#### G.M.F. TIPPED TOOL GRINDERS

A low cost compact grinder specially designed for rapid, economical and accurate grinding, lapping and conditioning of tungsten carbide turning, facing and boring tools.

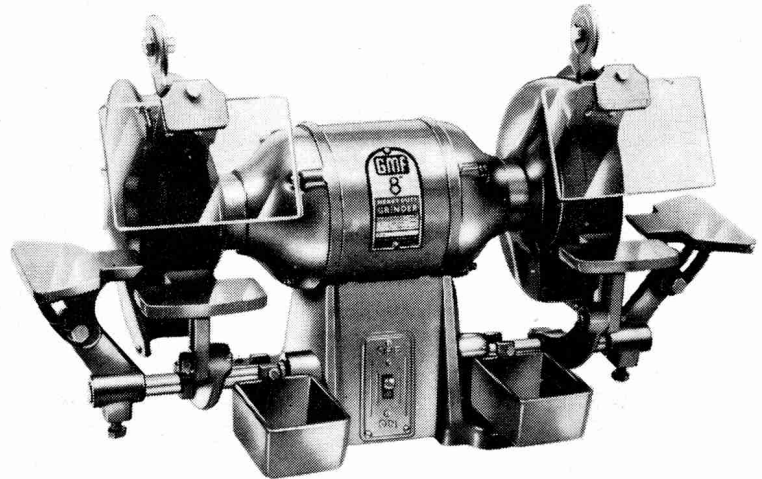
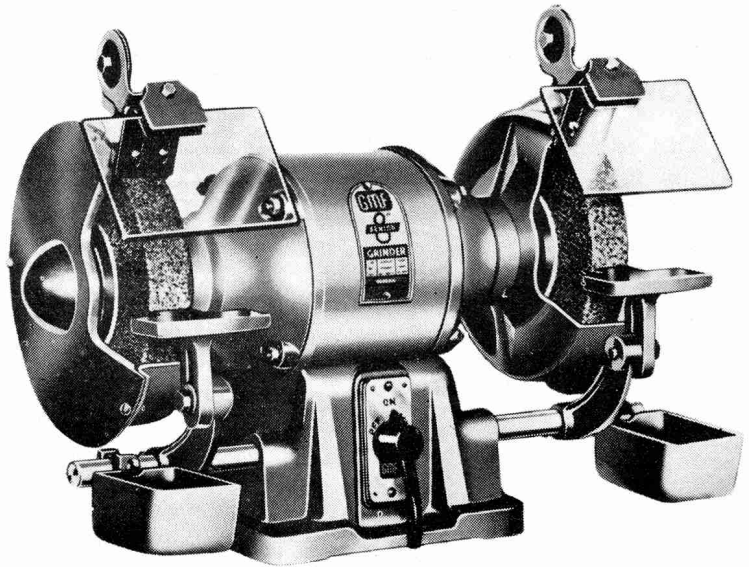
**Models:** Model 68, reversible single or three phase motor; 6" diamond wheel, or fine silicon carbide wheel for lapping; 8" coarse silicon carbide wheel for grinding; single inclinable table for accurate angular setting; protractor control for right and left-hand lapping. Also available with double inclinable table, two diamond wheels, two fine silicon carbide wheels.

#### G.M.F. A.C. BUFFING MACHINES

8" single or three phase; 6" single phase. Heavy cast base; rigid all-steel motor frame; cast iron end-shields; sealed motor. Switch incorporated in base of single phase models, optional extra on three phase.

#### G.M.F. 6" JUNIOR GRINDER

Designed for light industry and home workshop grinding, buffing, polishing and wire brushing, etc., as well as for flexible shaft operations, including drilling and sawing. Converts to complete woodworking shop with G.M.F. Multi-Shop, Woodturner Lathe and Multi-Saw Attachments.



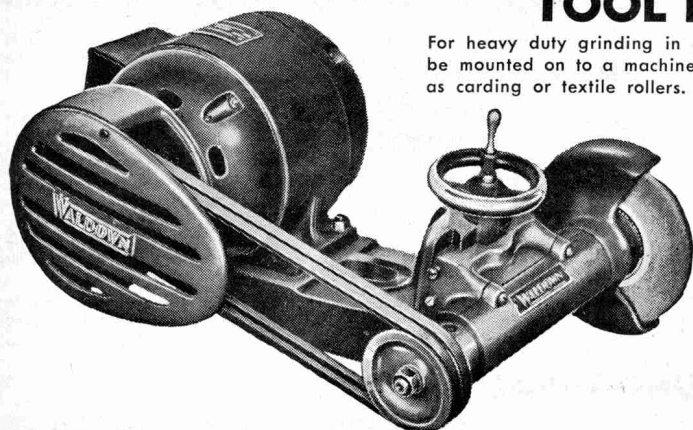
**FOR GRINDING  
WHEELS FOR  
THESE MACHINES  
PLEASE CONSULT  
ABRASIVE DEPT.**

**DRILL  
GRINDING  
ATTACHMENT**

This simple attachment, for easy, accurate grinding straight and spiral flute drills between ¼" and 2" diameter, is manufactured primarily for G.M.F. 8" Grinders but may also be fitted to other makes.

## TOOL POST GRINDER "C.2" 197

For heavy duty grinding in connection with lathe mounting, or as a separate unit which can be mounted on to a machine having hardened rollers which require periodical surfacing, such as carding or textile rollers.



Standard equipment includes a 6" x 1/2" x 1/2" best quality grinding wheel.

Grinding wheel is equipped with a 120° opening wheel guard, which can be swung around, allowing any portion of the wheel periphery to be used.

Provision for internal grinding is not supplied as standard equipment, but internal grinding quills can be supplied to suit customers' requirements.

## TOOL POST GRINDER "C.3"

(EXTRA HEAVY DUTY)

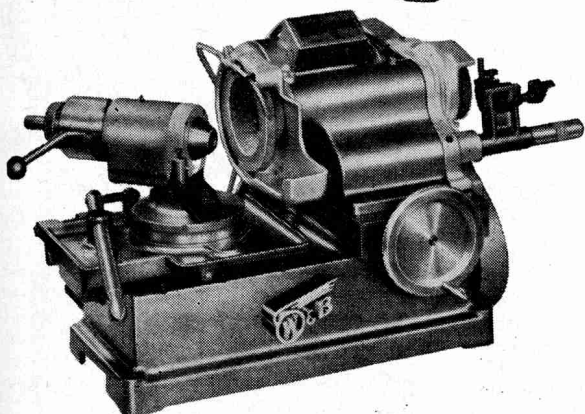
(Not illustrated)

2 h.p., 415 volt, 3 phase, 2,800 r.p.m. motor. 10" x 3/4" x 3/4" Grinding Wheel.

Spindle speeds —

2,000 r.p.m. for external grinding, 9,000 r.p.m. for internal grinding.

An internal spindle is not supplied with the grinder as standard equipment, but may be obtained together with driving pulleys.



## 2410, HEAVY DUTY VALVE REFAKER

**VALVES.** The machine is capable of precision grinding of valve and valve stem ends on all types of automotive and heavy duty valves up to 1 1/4" diameter stems, 6" diameter heads and with seat angles from 15° to 90°.

**TAPPETS.** Tappets up to 1 1/4" diameter can be refaced in the Valve End and Tappet Grinding fixture. This also grinds valve ends and micrometer thimble indicates the amount of metal being removed.

**ROCKER ARMS.** An attachment, quickly mounted in place of the tappet attachment, accurately refaces radii of worn rocker arms.

**MOTOR.** One solid, heavy duty motor drives both wheel and workhead. Small high speed work motors are thus eliminated. Being totally enclosed, the motor is not affected by dust and dirt and its resilient mountings and dynamically balanced rotor ensure freedom from vibration.

**BASE & SLIDE.** Both slides are of rigid cross section and maximum width. The slides are fully adjustable and control is sensitive and smooth.

**COOLANT SUPPLY.** The coolant pump is of centrifugal design and is mounted in a tank of one gallon capacity, easily detachable for cleaning. A tap gives control of coolant flow.

**COLLET SYSTEM.** The patented collet system holds the valve in perfect alignment. It is instantly opened by a simple lever movement and closed just as quickly to grip the valve firmly. Its range of 1/8" to 1 1/8" eliminates the need for collet changing.

When the slide is moved away from the wheel the workhead automatically stops rotating, so that the valve can be removed instantly.

**GRINDING WHEEL.** The 6" Grinding Wheel is larger than most encountered on valve refacing machines and, like the valve end and tappet wheel, is balanced for smooth running and superb finish.

**CONTROLS.** Grouping of controls and the silky "feel" of the grinding operation gives perfect results. Fine finishes are obtained without any special skill on the part of the operator.

**CAPACITY.** Valve stems from 1/4" to 1 1/8" (6 to 17.5 mm.) diameter using one universal collet. Valve Heads up to 6" diameter (152.4 mm.). Valve seat angles from 15° to 90°.

**DRIVE.** 1/2 h.p., 1,430 r.p.m., 230 volts, single phase electric motor drives the grinding wheel and workhead. Motors for other voltages and direct currents are available.

**GRINDING WHEELS.** Valve faces 6" to 3/4" face (152.4 mm. to 19 mm.). Valve stems and tappets, rocker arms, etc., 4" (101.6 mm.). Straight cup wheel.

**DIMENSIONS.** Uncrated — 26 1/2" x 18" wide x 18 1/2" high. Crated — 30" x 28" wide x 22" high.

**WEIGHT.** Uncrated — 250 lbs. Crated — 300 lbs. The machine is supplied complete with means for grinding valve ends and tappets. The micrometer adjustment is for use on motors where tappets are not adjustable.

**ROCKER ARMS.** An additional attachment can be provided as optional equipment for this operation.



## 1K91, SYNCRO-SEATING KIT

The 1K91 Syncro-Seating Kit is the finest investment garage men can make. Owning this kit places in their hands a never failing, simple six-step method of restoring all valves and seats to original high precision finish and performance.

### CONTENTS

#### 10 VALVE SEAT HONES — Part No. 1520

Flat — 1 1/4" and 1 1/2".  
30° — 1 3/16" and 1 3/8".  
45° — 1 1/4", 1 3/16", 1 3/8", 1 1/2", 1 3/4", 2".

#### 1501 DIAMOND DRESSER

Precise, speedy, efficient. Handles with ease all angles and diameters of hone dressing.

#### 1590A BALL DRIVE

Converts any 1/4" drill — of approx. 2,000 r.p.m. — into a drive unit for Syncro-Seating.

#### 2 — 1511 HONE CARRIERS

Incorporating an advanced clutch-drive, the Hone Carriers are simply and accurately set. Just screw the cap down for "roughing," up for "finishing."

#### PILOTS

(from left to right)

1260 — 3/32"; 1250 — 3/8"; 1250 — 5/16";  
1250 — 1/32"; 1252 — 7/32"; and Tommy Bar.

Below: 2900-D2, Syncro-Seating Arbor.

### QUOTE THESE NUMBERS WHEN ORDERING SPARES

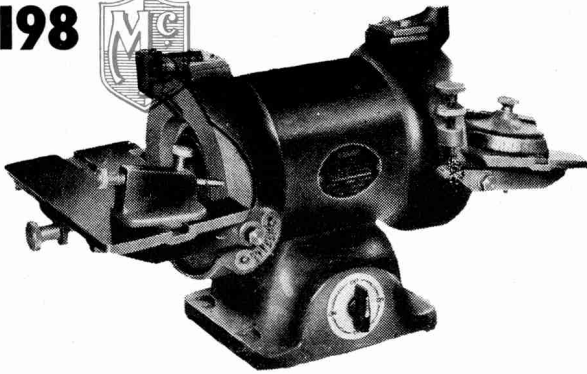
1501-18 — Diamond Dresser Spindle.  
1501-15X — Diamond and feed screw.  
1511-1 — Hone Carrier Body.

### Hones in a full range of sizes:

1520 — Standard Hones for all materials except STELLITE.

1522 — Hones for STELLITE seats.

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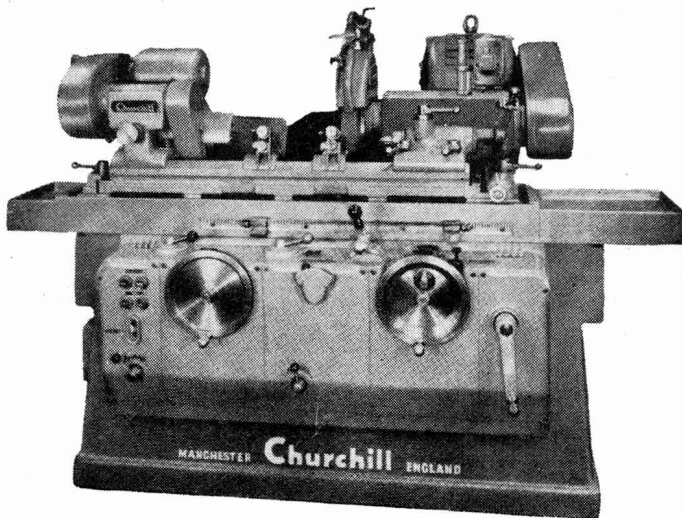


## "HERCUS" No. 9A 9" x 18" SEMI-UNIVERSAL GRINDING MACHINE

A sturdy, versatile and accurate machine designed to handle the wide range of production, maintenance and toolroom work encountered in the average engineering shop. It will handle internal or external work, both parallel and taper, and is suitable for both dead and live centre grinding.

### PRINCIPAL DIMENSIONS

Table working surface .....	38" x 5 1/2"
Max. swing over table .....	9"
Max. dia. ground with full size wheel .....	9"
Dia. of grinding wheel .....	10"
Width of grinding wheel .....	1"
Bore of grinding wheel .....	5"
Angular adjustment of workhead .....	360°
Angular adjustment of table .....	3 1/2" per ft. each way
Max. length between centres .....	18"
Centres .....	No. 3 Morse
Max. distance between faceplate and full sized wheel with workhead swivelled 90° and wheelhead set right back on cross slide .....	2 1/2"
Internal grinding spindle speed .....	10,000 r.p.m.
Internal grinding capacity .....	3/4" dia. x 2" or 1/8" dia. x 4"



## WALDOWN TIPPED TOOL GRINDERS

The WALDOWN precision built Tipped Tool Grinders have been designed to meet the need for a low-priced grinder capable of accurately grinding Carbide Tipped Tools, or any work where control of angle combination is essential.

Tables can be tilted to desired angle, and can be moved in and out laterally. Protractors provided for ascertaining correct angle.

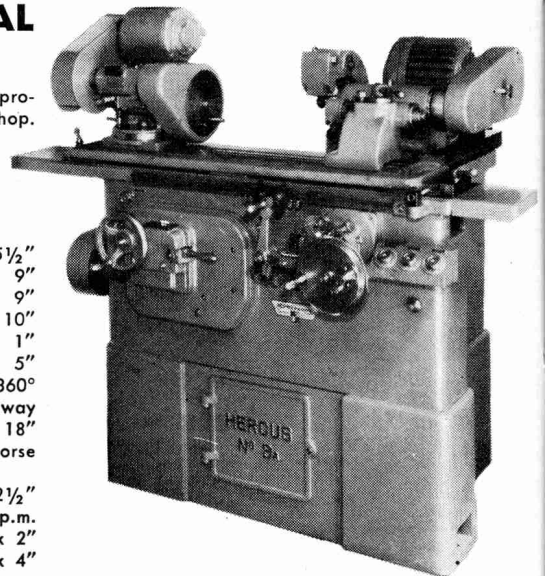
Equipped with silicon carbide wheels. Diamond lap may be fitted.

NT7 — 7" wheels, 1/2 h.p., single or three phase.

NT8 — 8" wheels, 1 h.p., three phase.

A variation in these models is the CNT7 and the CNT8, which have a table at one end for face grinding and an ordinary tool rest at other end for peripheral grinding.

Supplied with diamond wheel dresser which fits into machined groove enabling dresser to be passed across face of wheel, thus ensuring an accurately dressed wheel.



## CHURCHILL MODEL 'AW' 6" SWING HYDRAULIC PLAIN GRINDING MACHINES

The machines represent the most advanced design in small Plain Grinding Machines and will operate with equal efficiency on either traverse or plunge grinding. The arrangement of the controls overcomes, by its simplicity, any tendency for operators to use speeds that are unsuited to the work.

Model "AW" can be supplied with full hydraulic auto-sizing wheelhead including diminishing feed to size, or with the CHURCHILL "Fulcro-Sizer" fine feed, making the machines fully automatic in operation.

Nominal size of machine .. .. .	6" x 18"	6" x 34"	Grinding wheel speeds .. .. .	1,190 & 1,430	1,190 & 1,430
Maximum swing over table .. .. .	7 1/4"	7 1/4"		r.p.m.	r.p.m.
Maximum dia. ground with fullsize wheel .. .. .	6"	6"	Work speeds (electrically variable over two ranges) .. .. .	30 to 396	30 to 396
Length between centres .. .. .	18"	34"		r.p.m.	r.p.m.
Maximum taper ground, included angle	18°	18°	Table speeds (hydraulic) .. .. .	Up to 192	Up to 192
Inches per ft. on dia. .. .. .	3 3/4"	3 3/4"		in. per min	in. per min.
Number of steadies supplied .. .. .	2	3	Motor for grinding wheel drive .. .. .	5 h.p.	5 h.p.
Maximum capacity of steadies .. .. .	3"	3"	Motor for work drive .. .. .	1/2 h.p.	1/2 h.p.
Size of standard grinding wheel (dia. x width x hole) .. .. .	18" x 2" x 8"	18" x 2" x 8"	Motor for table drive .. .. .	2 h.p.	2 h.p.
			Overall length on full stroke of table	100"	141"
			Overall width .. .. .	60"	60"

# TOOL & CUTTER GRINDERS

## MACSON No. 2M TOOL AND CUTTER GRINDER IMPROVED DESIGN

Has two-speed control — Internal grinding attachments.  
Centralised pressure lubrication. Pneumatic table traverse.

### CAPACITY

Swing between centres .. 10½" dia.  
Length between tailstock centres .. 32" (Max.)  
Length between workhead and tailstock centres .. 25½" (Max.)

### RANGE

Table Movement .. 18" Longitudinal  
10" Cross, Swivels 180°.  
Grinding Wheelhead .. 12" Vertical  
Swivels 135° either way, 270° total.

### SPEEDS

Grinding Wheel Spindle Speeds  
3,500 and 7,000 R.P.M.

### GENERAL

Horizontal distance — centre of tailstock to centre of wheelhead, 12¾" (Max.), 2¾" (Min.).  
Vertical distance — centre of tailstock to centre of wheelhead .. 2½" Below  
9½" Above  
Working Surface of table .. 39¼" x 5¼".  
Workhead Spindle .. Table 3½" per ft. one end, No. 5 Morse Taper other end.  
Grinding Wheel (Max. size with standard motor pulley) .. 7" dia. x ½" wide.

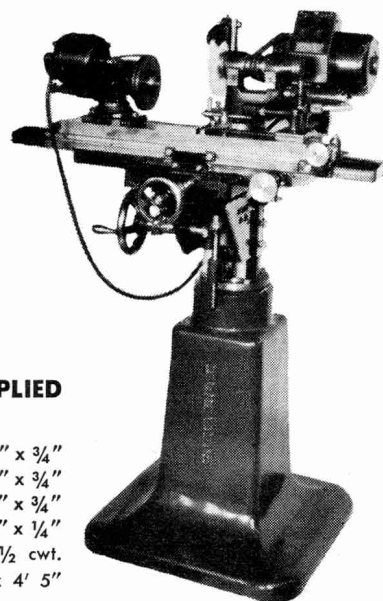


## "HERCUS" No. 3A UNIVERSAL TOOL AND CUTTER GRINDER

A fully universal machine designed to cover the ever increasing range of work found in the modern machine shop either large or small. Using the standard equipment supplied with the machine a full range of cutter sharpening work can be undertaken, including cylindrical cutters, saws, gear cutters, hobs, angle cutters, end mills, parallel and taper reamers with straight or spiral teeth, and, in addition to this work, cylindrical grinding between centres or in the chuck, internal and surface grinding can also be done.

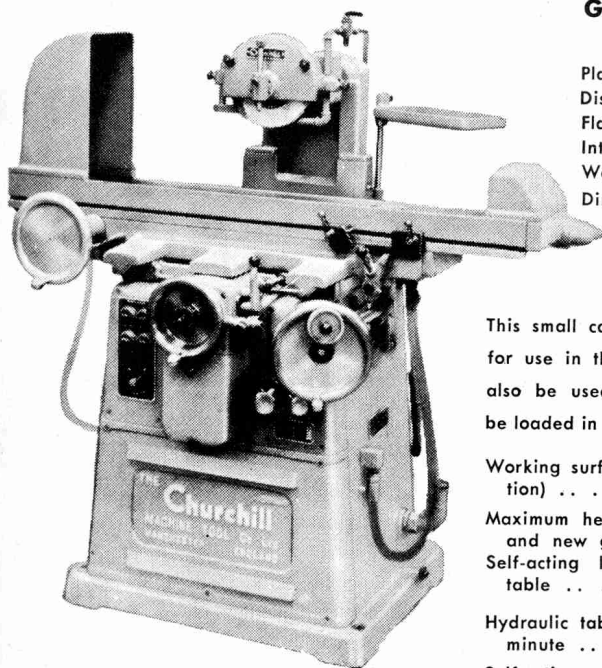
Height of centres .. 3½"  
Admits between centres .. 15"  
Table travel — Horizontal .. 12½"  
" " Cross .. 4½"  
" " Vertical .. 6"  
Work table .. 24" x 5¼"  
Greatest distance wheel centre to table .. 7¾"

Work head centres rise above centre of grinding wheel .. 1¾"  
Work head centres drop below centre of grinding wheel .. 4¼"  
Universal work head bored .. No. 3 Morse Centres .. No. 1 Morse  
Grinding wheel spindle extension length .. 3¾"



### GRINDING WHEELS SUPPLIED WITH MACHINE

Plain .. 6" x ¾" x ¾"  
Dish .. 6" x ½" x ¾"  
Flaring cup .. 3½" x 1½" x ¾"  
Internal work .. 5/8" x ¼"  
Weight of machine .. 8½ cwt.  
Dimensions .. 3' 2" x 2' 8" x 4' 5"



### CHURCHILL MODEL 'NB'

This small capacity Horizontal Spindle Surface Grinding Machine is eminently suitable for use in the tool room and for general purpose work in the grinding shop. It can also be used in the production line, especially in those cases where the work can be loaded in quantities on the table or on a magnetic chuck.

Working surface of table (ground in position) .. 18" x 6"  
Maximum height admitted between table and new grinding wheel .. 9"  
Self-acting longitudinal traverse of table .. 20"  
Hydraulic table traverse speed range per minute .. 60'  
Self-acting cross traverse of table .. 7"

Range of automatic cross feed per traverse stroke .. .008" to .06"  
Fine hand down feed to wheel .. 0.0001"  
Fine hand cross feed to table .. 0.001"  
Size of grinding wheel (dia. x width x hole) .. 8" x ¾" x 2"  
H.P. of wheelhead motor .. 1  
H.P. of hydraulic pump motor .. 1

# 200 Model 'OHW' Semi-Universal Grinding Machine

Of completely new design, the MODEL 'OHW' is the latest addition to the CHURCHILL range of precision grinding machines. Its PNEUMOSTATIC WHEELHEAD BEARING, in which the spindle literally floats on air, represents the latest development of machine tool design.

Advantages to be gained by the use of this type of bearing are as follows:—

**Higher Production.** No heat is generated within the bearing and as there is no thermal expansion, the wheelhead gives its optimum performance immediately upon starting.

As the bearing is frictionless a greater percentage of the wheelhead motor power is available at the grinding wheel. It has been found during testing that higher rates of stock removal are obtainable than with other types of bearing.

**Lower Maintenance Costs.** There is no metal to metal contact and, therefore, no wearing parts to replace.

**Greater Economy.** During testing it has been found that the grinding wheel requires less dressing with consequent increases in grinding wheel and diamond life.

**Flexibility.** The absence of thermal growth enables a wide range of spindle speeds to be used without the difficulties experienced with bearing clearance in other types of wheelheads.

**Ease of Balancing.** The absence of friction enables the grinding wheel to be statically balanced in position on the wheelhead spindle.

The spindle is floated on air before being rotated and interlocks are provided to ensure that rotation cannot commence unless air pressure exceeds a preset minimum. It is essential that a clean air supply at 70 lbs. per sq. inch is available.

**Fully Universal Model.** The Model 'OHW' can be converted to a FULLY UNIVERSAL GRINDING MACHINE by the fitting of a compound slide swivelling wheelhead.

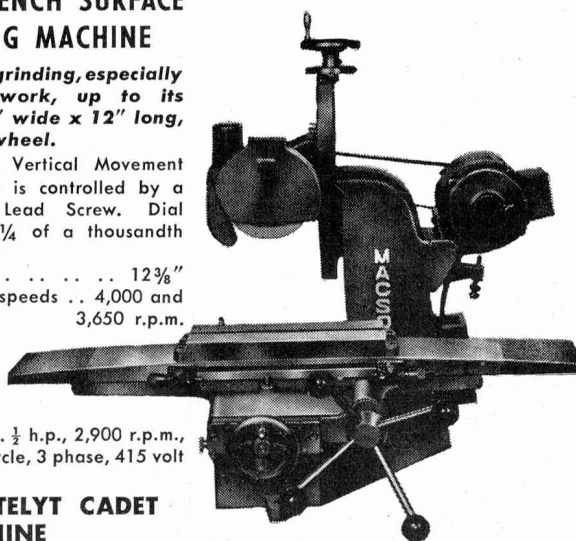
Maximum swing over table .....	8½"
Maximum diameter ground with 10" dia. grinding wheel .....	6"
Maximum capacity of steadies .....	2" dia.
Grinding length between centres .....	16"
External grinding wheel — diameter .....	10"
External grinding wheel — width .....	1"
External grinding wheel — hole .....	5"
Will grind taper (included angle) .....	16°
Angular adjustment of workhead .. 50° each way, 100° inc.	4½"
Total wheelhead cross feed .....	4½"
Table traverse speed hydraulically variable — up to ..	200" per min.
Work rotation speeds (4) .....	119, 192, 300, 479 r.p.m.
H.P. of wheelhead motor .....	1½ H.P.
H.P. of traverse motor .....	½ H.P.
H.P. of workhead motor .....	¼ H.P.



## MACSON BENCH SURFACE GRINDING MACHINE

For precision grinding, especially Tool Room work, up to its capacity of 6" wide x 12" long, using a 6" wheel.

**SPINDLE:** The Vertical Movement of the Spindle is controlled by a Fine Thread Lead Screw. Dial graduated to ¼ of a thousandth inch.  
Table Travel .. 12¾"  
Wheel spindle speeds .. 4,000 and 3,650 r.p.m.



Electric Motor .. ½ h.p., 2,900 r.p.m., 50 cycle, 3 phase, 415 volt

## THE SPARCATRON-CONTELYT CADET TOOL SERVICING MACHINE

This machine has been developed for off-hand work such as machining of cutting edges, chip clearing surfaces, radii, etc. It is one of the smaller models from our SPARCATRON-Contelyt range.

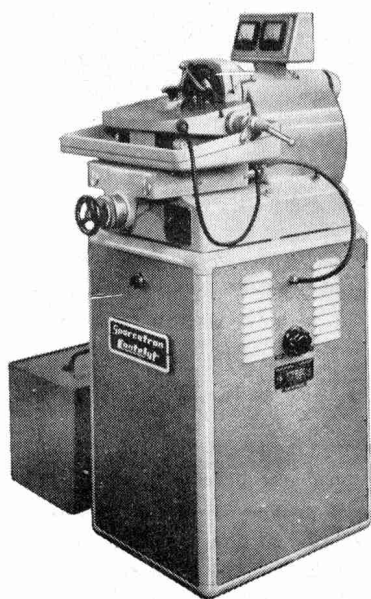
In the workshop, the machine replaces the conventional silicon carbide or diamond wheels carbide tool grinding machine. The saving on diamond grinding material alone is 80-90%, whilst the metal removal rate increases 8-fold in the same machining time.

### Why SPARCATRON-Contelyt Machining?

**Because:**

1. Wear of the grinding wheels is reduced to a minimum. When using diamond wheels this factor is of decisive importance.
2. From a workpiece with an area of ¾" x ¾" approximately 0.040" material will be removed in one minute, with a current density of 100 amps or less.
3. The machining process is entirely cold and no heat distortion is possible.
4. Surface finish is around 10 Micro-inch RMS, no burrs are formed.

In practice it has been found that the operator gets used to the new method very quickly, since the procedure is almost the same as for conventional grinding. His output, however, will be considerably increased with the SPARCATRON-Contelyt process.



# HEBCO MOTORISED GRINDERS

## HEAVY PEDESTAL GRINDERS

WHEEL SIZES 16" TO 24"

These machines are of very heavy construction and ideal for heavy foundry work.

Wheel flanges are of ample size, the inner flange being keyed to the shaft.

Speeds to suit either vitrified or resinoid wheels are provided by Vee belt drive from a motor in the base of the pedestal, controlled by a Contactor with overloads, conveniently mounted in the front of the pedestal.

Guards are of approved type and have provision for dust exhaust.

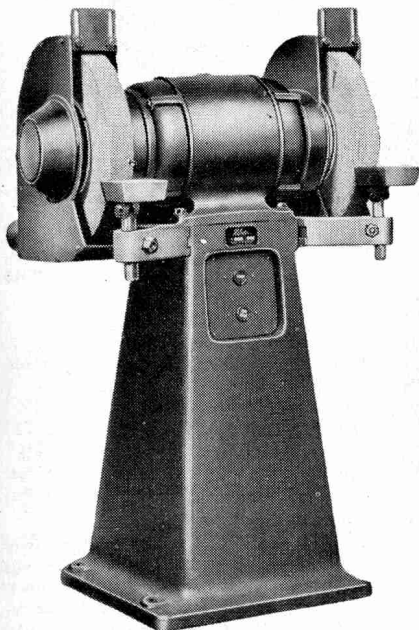
## HEBCO DISC GRINDERS

TYPE 30 — "A," "B" AND "C" 3 H.P. MOTOR.

TYPE 41 — "A," "B" AND "C" 5 H.P. MOTOR.

These machines have a totally enclosed motor mounted on a heavy cast iron pedestal which supports the work rests, and can be freely moved across the face of the wheel, or fixed if necessary.

*Three types of steel discs for mounting 14" or 16" abrasive wheels can be supplied, and it is necessary to quote the type required.*



TYPE 24 — 16" WHEELS.

FOR GRINDING WHEELS  
FOR THESE MACHINES  
PLEASE CONSULT INDEX.

## HEBCO PEDESTAL GRINDERS

TYPE 24 — 5 h.p. Takes 2 — 16" x 2½" x 1½" wheels, running at 1,450 r.p.m.

These machines have a totally enclosed motor mounted on a heavy cast-iron pedestal. Guards are mounted on the motor end castings and, in the case of the Type 24 machine, have provision for attaching a dust exhaust system.

**SPINDLES** are of ample dimensions running in ball bearings which are protected by oil seals.

**GUARDS** with dust exhaust outlet are standard on the Type 24 machine, and can be fitted on other machines at extra cost.

**RESTS** are mounted in rest arms which fit on machined ways on the pedestal, and are adjustable for height and for wheel wear.

TYPE 25 — 1.5 h.p. Takes 2 — 10" x 1½" x 1" wheels, with two speeds of 2,000/2,800 r.p.m.

TYPE 27 — 3 h.p. Takes 2 — 12" x 2" x 1¼" wheels, with two speeds of 1,900/2,200 r.p.m.

TYPE 29 — 3 h.p. Takes 2 — 14" x 2" x 1¼" wheels, with two speeds of 1,500/1,900 r.p.m.

**TOOL GRINDING RESTS** (as illustrated) for use with increased wheels can be supplied for Types 23, 25, 27 and 29. These rests are graduated for angular adjustment which can be made without use of spanner.

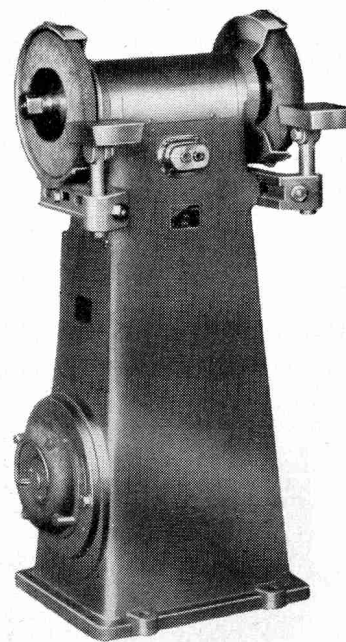
**MANY OTHER TYPES OF PEDESTAL GRINDERS  
MAY BE OFFERED ON REQUEST**



201



TYPE 47—20" WHEELS.  
AVAILABLE IN TWO PEDESTAL SIZES.

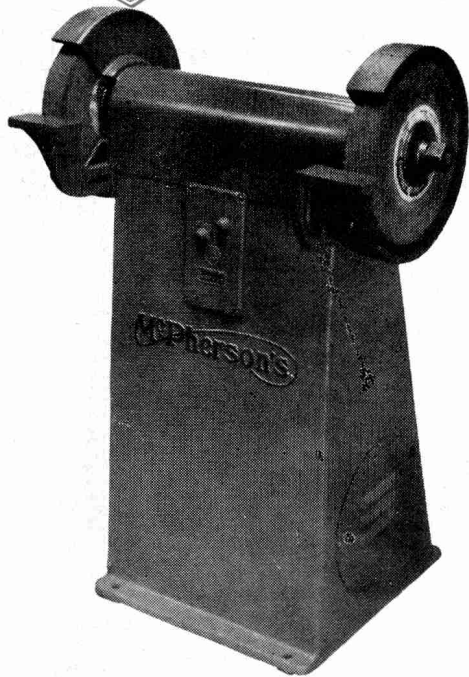


TYPE 25-27-29  
AVAILABLE TO TAKE  
10", 12" OR 14" WHEELS.

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**McPHERSON PEDESTAL GRINDER**



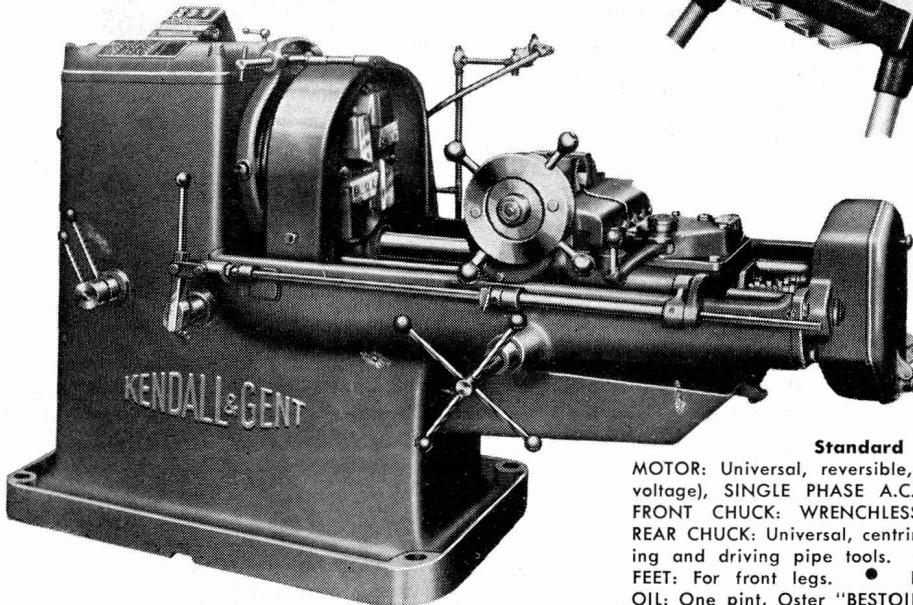
A dependable general purpose grinder for the machine shop or foundry, of rigid cast iron construction with smooth exterior lines, including flush mounted switch and motor mounted in base. With cartridge type bearing housings to facilitate belt replacement.

Alternative to the open guards shown above the grinder is also available with enclosed guards and dust chutes.

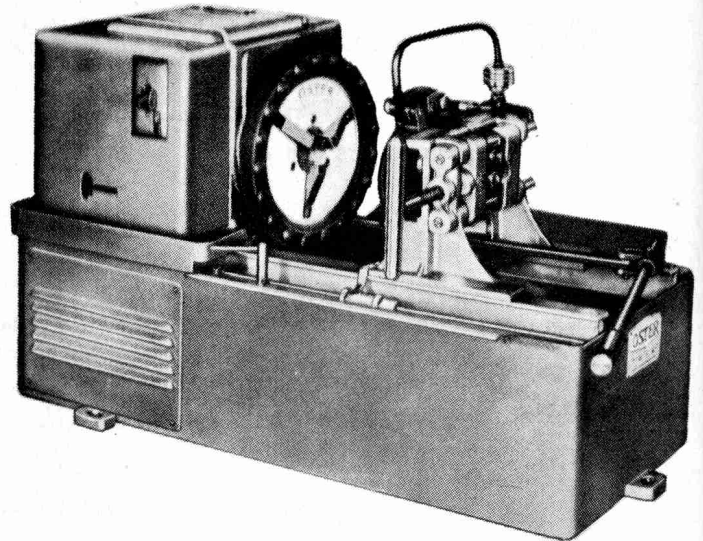
Wheel size	12" x 2"	10" x 1 1/2"
Spindle diameter	1 1/4"	1"
Spindle R.P.M.	2,000 & 2,500	2,500 & 3,000
H.P. of Motor	2.9	2
Wheel C's	24"	23"
Floor to Centreline	36"	36"
Base Dimensions	19" x 20"	19" x 20"
Overall Dimensions	33" x 32" x 25"	33" x 31" x 25"

**KENCO SCREWING MACHINE, No. 4-3**

For screwing tubes up to 4" inside diameter and bolts up to 3" Whitworth.



**OSTER No. 582 PORTABLE PIPE MACHINE with Stationary, Quick-Change Die-Heads**



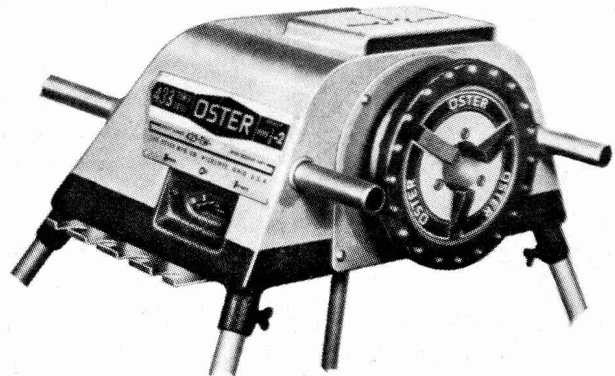
The No. 582 has many features found only in large, heavy-duty models. Equipped with a BALL BEARING mounted spindle and worm shaft, it is capable of production speeds, suitable for almost every requirement.

Range: 1/8" to 2" Pipe. Range: 1/4" to 2" Bolt.

Range with Drive Shaft and Geared Tools: 2 1/2" to 8" Pipe.

Type of Die-Head . . . . . Stationary, Quick-change  
 Number of Die-Heads furnished as Standard Equipment (additional heads supplied to order with No. 582) . . . . . 1  
 Type of Work Holder furnished . . . . . Wrenchless Chuck  
 Type of Cut-off furnished as Regular Equipment . . . . . Roller Motor, Nominal Rating . . . . . 1/2 H.P.  
 Spindle Speeds (Variable with load) . . . . . 58 R.P.M.

**OSTER "433" POWER VICE STAND**



Here's a HEAVY-DUTY Power Drive that converts your regular hand die-stocks, cutters and reamers to POWER TOOLS — right on the job.

Pipe Range: 1/8" to 2".

Bolt Range: 1/4" to 2".

Range with Drive Shaft and Geared Die-Stock: 2 1/2" to 8" Pipe.

Height overall (less legs) . . . . . 13 3/4"

Width overall (less legs) . . . . . 23"

Length overall (less legs) . . . . . 21 3/4"

Net Weight . . . . . 138 lbs.

Shipping Weight . . . . . 155 lbs.

**Standard Equipment Furnished**

MOTOR: Universal, reversible, variable sped, 115 or 230 Volt (specify voltage), SINGLE PHASE A.C. only, or D.C. • SWITCH: Reversing.  
 FRONT CHUCK: WRENCHLESS type with self-energising insert jaws.  
 REAR CHUCK: Universal, centring, revolving type. • ARMS: 2 for carrying and driving pipe tools. • TOOL RACK: Keeps pipe tools handy.  
 FEET: For front legs. • PLATE: Universal for mounting pipe vice.  
 OIL: One pint, Oster "BESTOIL."