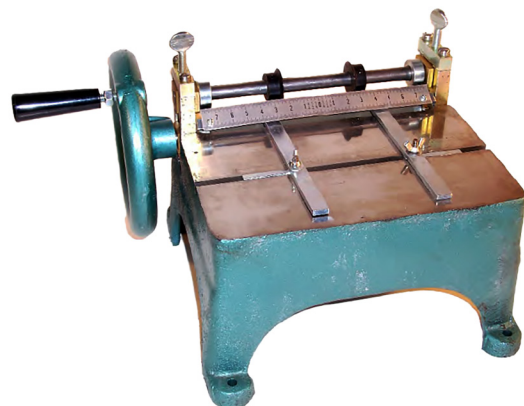
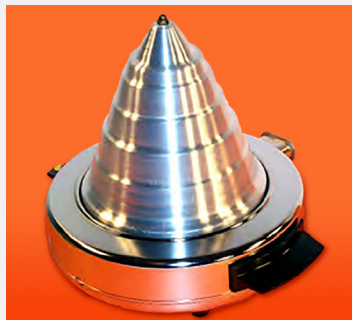




OTHER PRODUCTS



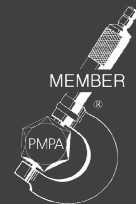


OVER 100 YEARS OF SERVICE.

Martindale Electric Co. started in the electric motor maintenance tool manufacturing business in 1913. From the start, we put emphasis on quality materials and workmanship — and on dedicated customer service.

Our approach worked. We prospered and grew. Gradually, we added new products to our line, including uniquely manufactured items such as Demagnetizers & Electric Etchers. We can also supply Blowers/Vacuums, Air Grinders, Coil Winding Equipment & much more, as described in the pages to follow.

Martindale is stocked and staffed to promptly meet your needs. Each and every employee adheres to the standards of product quality and customer service that has kept us the one stop shop for circular saw blades and electric motor repair tools for more than 100 years!



**Reliable Solutions
Today!**

OTHER PRODUCTS

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MARTINDALE ELECTRIC ETCHERS

Three Versatile Etchers for Tool Room, Machine Shop or Production Line.

Martindale Etchers write like a pencil on all articles made of iron and steel. Letters or numbers are burned into the metal making a clear, legible, and permanent record. Shapes can be more easily etched than stamped.

Electrical etching is quick and easy; merely plug the Etcher in, choose the "heat" best suited to the job, put the work on the ground plate, and begin to write. For etching large parts that can't conveniently be placed on the ground plate, a ground clamp is furnished. Depth of mark in the article being etched can be varied by the operator's speed of writing as well as by changing the amount of current drawn.

A Martindale Electric Etcher will quickly pay for itself. Besides the time it will save, mistakes and thefts will often be avoided if tools, dies, etc., are marked.

In the Tool Room or Machine Shop — For marking tools, dies, jigs, gauges, etc., with such information as type, company name, department symbol, operation symbol, date of purchase, etc., etc.

In Production — For marking inspection data on parts or sub assemblies, for marking hardness data on tools, specifications on nameplates, etc., etc.

Included With All Etchers:

With all three models of Martindale Etchers, (also see page 59) the following accessories are included:

- 1 — Writing lead assembly consisting of 5' heavily insulated wire, handle, brass electrode, and connector.
- 1 — Ground lead wire — 5' heavily insulated wire, with connectors.
- 1 — 6-1/2" x 4" steel writing plate with hold-down clip.
- 1 — Battery clip for use when marking large pieces.
- 2 — Writing points — 1 solid copper and 1 with tungsten tip.

UTILITY ETCHER



This popular low-priced Etcher, has been improved in several ways over previous models. It is suitable for all lighter etching applications on smooth iron or steel.

Features:

- Three Heats: 1. 250 Watts; 2. 450 Watts; 3. 600 Watts.
- Rotary Switch — 4 positions: Off, 1, 2, and 3.
- Case includes storage space for accessories.

Accessories supplied, see above.

Catalog Numbers, etc., see next page.

NO. 5-M STANDARD ETCHER



No. 5-M Standard Etcher replaces the former 3-M and 4-M models and is constructed to meet all requirements specified in government Spec. MIL-E-3118, Type 2 Heavy-Duty. With ten writing heats No. 5-M Standard Etcher is recommended for the widest variety of etching including heavy production work.

Features:

- Ten Heats: 65, 100, 200, 300, 400, 500, 700, 900, 1100, and 1300 Watts.
- Rotary Switch for quick and easy control of writing heats.
- Case includes storage space for accessories.

*Accessories supplied, see page 4.
For Catalog Numbers, etc., see below.*

MODEL C-M HEAVY-DUTY ETCHER



Model C-M has found wide acceptance as a production line etching tool and also in tool rooms where heavy parts are marked. Its wide range of heats makes it suitable for use on small parts or (on one of the two highest heats) for marking large pieces such as crowbars, shovels, castings, etc.

The case for Model C-M is similar to the No. 5-M Standard Etcher. Pilot light and "On" and "Off" switch are included.

Features:

- Six Heats: 180, 310, 425, 550, 800, and 1375 Watts.
- Heat taps are taken from the secondary winding — the full primary is always in the circuit. This permits leaving the etcher connected to the line without danger of overheating when not in use, providing writing point and ground lead are not left in contact.
- Case includes storage space for accessories.

*Accessories supplied, see page 4.
For Catalog Numbers, etc., see below.*

		Catalog Number		
		No. 5-M Standard Etcher	Utility Etcher	Model C-M Heavy-Duty Etcher
Etcher Complete, as specified (including one Solid Copper Point and one Tungsten-Tipped Point)	115 V., 60 Hz	ETCH5MA	ETCHUTA	ETCHCMA
	230 V., 60 Hz	ETCH5MB	ETCHUTB	—
Extra Writing Lead Assembly (5' heavily insulated wire, handpiece, and solid copper point only)		ETCH10WLC	ETCH10WLC	ETCH10WLC
Extra Writing Lead Assembly (as above, but with tungsten-tipped point only)		ETCH10WLT	ETCH10WLT	ETCH10WLT
Extra Solid Copper Writing Point only		ETCH10C	ETCH10C	ETCH10C
Extra Tungsten-Tipped Writing Point only		ETCH10T	ETCH10T	ETCH10T
Extra Ground Lead only with end connections (no ground plate)		ETCH10GL	ETCH10GL	ETCH10GL
Extra Electrode (Point Holder)		ETCH10I	ETCH10I	ETCH10I
Shipping Weight		26 lbs.	15 lbs.	27 lbs.

GENERAL TITLE

MARTINDALE ELECTRIC MARKER

This handy, low-cost industrial-quality marker quickly and easily engraves metal, glass, stone, ceramics, plastics, hard rubber, wood, etc. Cuts right into the surface to leave a permanent mark which can't be wiped off and won't wear away in normal use. Perfect for marking stock numbers, part numbers, sizes or names right on components, tools, and equipment.

Unique design reduces bouncing, puts power in the tip. Powerful coil provides 7,200 strokes-per-minute — won't stall under normal heavy operation. Stroke is adjustable to vary depth of mark. Equipped with a carbide tipped point for average marking. Diamond points are available for engraving extra hard materials (50 to 64 Rockwell, scale C).



- ▶ Slim Design. Like writing with a pencil.
- ▶ Dimensions: 7" x 1-3/4" x 1-3/8"
- ▶ Net Weight 13 ozs.

Description	Catalog Number
Marker with carbide-tipped point, 115 V., 60 Hz	ELMK01A
Marker as above with 3-wire cord and plug	ELMK03A
Replacement point with carbide tip	ELMKPC
Replacement point with diamond tip	ELMKPD

MODEL D-3 DEMAGNETIZER "SURFACE" TYPE



Above: Object to be demagnetized is drawn slowly across surface.



Above: Model D-3 used in inverted position to demagnetize a surface plate.

Cutting tools such as milling cutters, drills, saws, taps, dies, etc., do not operate at full efficiency if, because of magnetism, their cutting edges have small metal chips clinging to them.

Demagnetizing Is Quick and Easy

To demagnetize a cutting tool (or a metal part that has acquired magnetism from a magnetic chuck) you merely draw it slowly back and forth across the poles of the Model D-3 and then slowly draw it away. As the tool passes repeatedly through the magnetic field, its magnetism becomes progressively weaker. After a few seconds it is entirely demagnetized and can be put back into efficient operation.

Demagnetizing Large Parts

In cases where it is not convenient to move the part. Model D-3 can be held upside down by its handles and passed over the part until its entire surface has been exposed. A foot switch leaves both hands free when the demagnetizer is in use and assures the current being turned off when not in use.

Model D-3 is powerful, it draws 12 amperes.

- ▶ Demagnetizers Keep Tools
- ▶ Free of Metal-Slivers and Chips
- ▶ Saves Production Time
- ▶ Reduces Cost of Tool Maintenance
- ▶ Dimensions:
11-1/2" x 5-3/4" x 3-5/8"
- ▶ Three pole pieces:
 - 1" apart
 - Two outer ones: 3/4" x 2"
 - Center one: 1-1/2" x 2"

Description	Catalog Number
Model D-3 Demagnetizer, 115 V., 60 Hz.	DEMGD3A

Net Weight 19 lbs., Shipping Weight 20 lbs.

GENERAL TITLE

MODEL P-2 DEMAGNETIZER "PASS-THROUGH" TYPE



- ▶ Coil I.D.: 5-3/4"
- ▶ Dimensions:
9" x 9" x 3-3/4"

Foot-switch leaves both hands free.

Model P-2 accomplishes the same result as Model D-3 (above) on any magnetized object that will go through the 5-3/4" inside diameter of the plastic-encapsulated coil.

In using Model P-2 both hands are left free to handle the work, as a foot switch is used for turning the power on and off.

While it is intended primarily for use at the bench, this demagnetizer can also be used as a portable tool for some limited applications.

Model P-2 draws 5.5 amperes. Magnetic field is approximately 280 gauss.

Description	Catalog Number
Model P-2 Demagnetizer, 115 V., 60 Hz.	DEMGP2A

Net Weight 14 lbs., Shipping Weight 16 lbs.

MARTINDALE PORTABLE BLOWERS AND CLEANERS

The portable blower-cleaners shown on this page are offered in 1-1/2 h.p., 1-4/10 h.p. and 2/3 h.p. models to make a full range of capacities to suit a wide variety of industrial needs. The first three models can be quickly converted from blowers to vacuum cleaners with the 1-1/2" diameter suction attachments shown at the bottom of this page.

Also included is a "Hot & Cold" blower which delivers 160° F. electrically heated air, or ambient temperature air, at the flip of a switch. The "Hot & Cold" model cannot be used as a vacuum cleaner.

All these blowers are engineered for year-in and yearout dependability. All are equipped with sealed precision ball bearings; no oiling required.

MODEL H DUAL-SPEED BLOWER

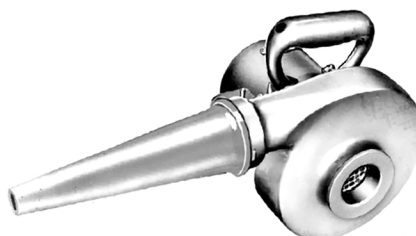


Model H is 1-1/2 h.p.; air speed 381 m.p.h.; air volume 196 cubic feet per minute; water lift 48". Equipped with 20 ft. 3-wire power cord and plug.

Description	Catalog Number
Model H Blower, 115 V., 60 Hz.	BLWRHA
Model H Blower, 230 V., 50/60 Hz.	BLWRHB

Net Weight 15 lbs. 8 ozs., Shipping Weight 17 lbs.

MODEL G GENERAL-DUTY BLOWER



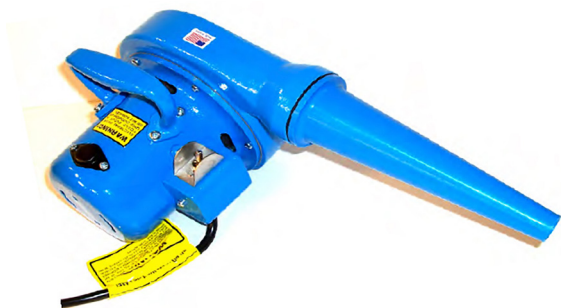
Model G is 1-4/10 h.p.; air speed 389 m.p.h.; air volume 155 cubic feet per minute; water lift 40". Equipped with 20 ft. 3-wire power cord and plug.

Description	Catalog Number
Model G Blower, 115 V., 60 Hz.	BLWRGA

Net Weight 12 lbs. 8 ozs., Shipping Weight 14 lbs.

MARTINDALE PORTABLE BLOWERS AND CLEANERS

MODEL F MEDIUM-DUTY BLOWER



Model F is 2/3 h.p.; air speed 307 m.p.h.; air volume 109 cubic feet per minute; water lift 25". Equipped with 20 ft. 3-wire power cord and plug.

Description	Catalog Number
Model F Blower, 115 V., 60 Hz.	BLWRFA
Model F Blower, 230 V., 50/60 Hz.	BLWRFB

Net Weight 9 lbs. 8 ozs., Shipping Weight 11 lbs.

SUCTION ATTACHMENT SET C FOR BLOWER MODELS H, G & F

The suction attachments pictured at the left convert models H, G, & F from blowers to handheld or shoulder carried portable vacuum cleaners. All attachments are 1-1/2" diameter; included are: 4' hose with swivel connector, 6" nozzle with clip-on brush, 11" flat fibre nozzle, dust bag, and shoulder belt. Replacement attachments can be bought separately.



Description	Catalog Number
Suction Attachment Set C	BLWRC

Net Weight 3 lbs., Shipping Weight 4 lbs.

HEAVY-DUTY & MILL TYPE BLOWERS



Universal Motors, plug into any convenient lighting outlet. Each blower is supplied with 11" semi-hard rubber blower nozzle and 50 feet of heavy-duty 3-wire cord.

More motor failures result from dust and dirt than from any other cause. Martindale Portable Blowers provide the means of preventing greasy, gritty accumulations on motors and machines, and thus lengthen the life of expensive equipment.

The high velocity air-stream from these blowers is clean and dry and entirely safe on delicate parts. The power of the air-stream is easily regulated by moving nearer to or farther from the object being cleaned.

The two blowers and various attachments and adaptations shown on this page and on page 11 are of the very highest quality designed for strenuous industrial use. Should accidental breakage or damage occur, replacement parts are available. We also offer full repair service.

Model	H.P.	Water Lift	Air Speed M.P.H.	Air Volume Cu. Ft. Min.	Net Weight (less cord)	Catalog Number
Heavy-Duty Blower, 115 V., 60 Hz.	2-1/4	60"	325	230	16 lbs.	BLWRHDA
Mill-Type Blower, 115 V., 60 Hz.	1-1/2	49"	278	210	14 lbs.	BLWRMA

STANDARD SUCTION ATTACHMENTS “SET B”

Both models can be quickly converted into a convenient efficient vacuum cleaner by the use of Standard Suction Attachments shown at left: *(All 1-1/2" diam.)*

Description		Catalog Number
Standard Suction Attachments, Set B		BLWRB
If Suction Attachment Set parts are ordered separately:	Shoulder Strap	BLWRB01
	Hose Connector	BLWRB02
	5' Hose	BLWRC9114
	Dust Bag	BLWRB03
	Flat Fibre Nozzle	BLWRB04
	6" Plastic Nozzle with Brush	BLWRC01



SPECIAL ATTACHMENTS AND CLEANING TOOLS

(All with 1-1/2" diameter fittings, for use with above Martindale Blowers)

Using a Martindale Heavy-Duty Blower, 14" aluminum floor nozzle with fibre floor shoes, double curved aluminum handle, dust bag and hose to clean concrete flooring.

On smooth floors we recommend the 1/4" aluminum nozzle with nylon brush.

SWITCHBOARD CLEANING SET

This set can be used with either of the above Martindale Portable Blowers. The 3" round nozzle and brush are completely insulated for safety. The extension pieces are made of plastic, the adapter of fibre. Extremely light in weight and easy to use; popular for dusting venetian blinds, etc. in addition to cleaning around switchboards.



Description		Catalog Number
Switchboard Cleaning Set (Shown on the left)		BLWR03
Floor Cleaning Tools:	Double Curved Aluminum Handle (used with floor nozzles)	BLWRB08
	14" Floor Nozzle with Neoprene Squeegee Blades for wet pick-up (used only with Tank-Type Cleaners)	BLWRB09
	14" Floor Nozzle with Nylon Brush for smooth floors	BLWRB10
	14" Floor Nozzle with Fibre Shoes for rough surfaces	BLWRB11
	10' Neoprene Heavy-Duty Hose (wet or dry pick-up)	BLWRB12
	10' Canvas-Covered Heavy-Duty Rubber Hose (wet or dry pick-up)	BLWR02
	10' Spiral-Flex Vinyl Hose (medium-duty, wet or dry)	BLWRB13
	Nipple for connecting 2 pcs. of Hose	BLWRB14

GENERAL TITLE

BEARING SEPARATORS

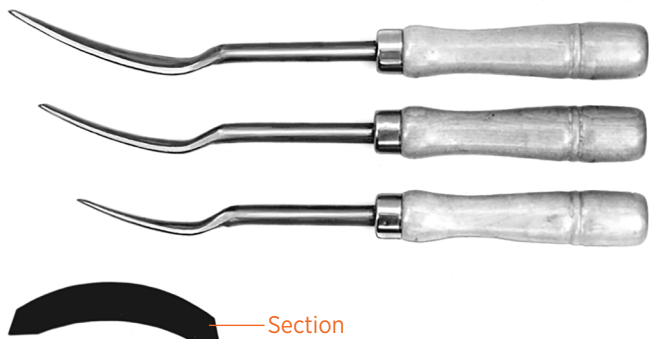
A must for easy removal of bearings, pulleys, cone shaped gears, and hard to get to parts. Bearing separators can be used in two different ways. Beveled edge acts as a wedge to move parts lacking space for the jaws of conventional puller, while the flat side can provide distortion free pulling. Available in various sizes, these tools perform a valuable cost savings by reducing damage to parts.

Capacity	Weight		Catalog Number
	Net	Shipping	
1/8" to 2" Dia.	1.61 lbs.	3 lbs.	WHPU72452
1/2" to 4-1/4" Dia.	5.64 lbs.	7 lbs.	WHPU72453
1/2" to 5-3/4" Dia.	12.56 lbs.	14 lbs.	WHPU72454
5/8" to 8" Dia.	19.82 lbs.	21 lbs.	WHPU72455
1/2" to 9" Dia.	12.71 lbs.	14 lbs.	WHPU72456



BEARING SCRAPERS

Set No. 1140 (Set of 3)



These three scrapers are specially made for use on small diameter bearings. Made from lightest grade tool steel. Also used on journals, valve seats, etc.

Non-chattering, each scraper is curved, deeply grooved, hollow-ground, and carefully tempered, for scraping bronze, babbitt, and other bearing materials. Blades are highly polished.

Set consists of 3 scrapers with blades of 3", 3-1/2", and 4"; overall length with handle is approximately 11-1/2".

Description	Catalog Number
Bearing Scrapers (Set of 3)	BGSC1140

Net Weight 1 lb., Shipping Weight 1-1/2 lbs.

BEARING HEATERS

"Super" Model:

Shown in use.
Thermostat atop
typical bearing,
monitors heat-up.
Pre-set at 250° F.



Two models to make your bearing installation jobs easier. Lightweight, portable, and easy to operate. No need to demagnetize your bearings after heating.

The "Super" Model is equipped with a 250° F pre-set thermostat to prevent overheating.

Furnished with a 250° F temperature indicator crayon.

Model	Bearing Sizes	Dimensions		Net Weight	Shipping Weight
		H.	W.		
C	3/4" to 5-3/4" ID	10"	10"	5 lbs.	6 lbs.
Super	3/4" to 8" ID	10"	15"	6 lbs.	7 lbs.

Description	Catalog Number
Model C Bearing Heater, 115 V. or 230 V	BGHR(C)(A) or (B)
Model "Super" Bearing Heater, 115 V. or 230 V	BGHR(S)(A) or (B)
Extra Crayon	BGHR01



Model C:
Handles light
to heavy-duty
bearings.

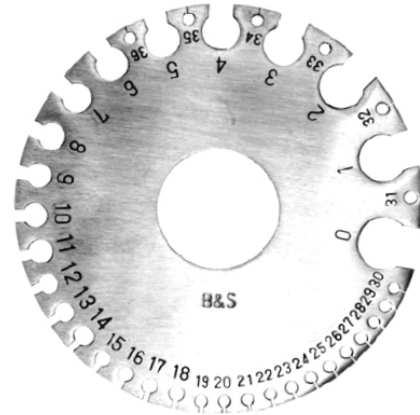
GENERAL TITLE

WIRE GAUGE

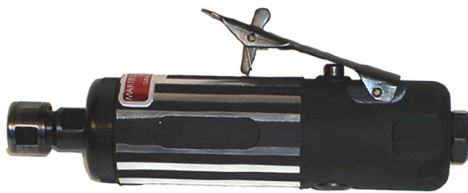
American standard for non-ferrous metals. Gauges, wire, sheets and plates of copper, brass and aluminum. Decimal equivalents stamped on back side. Range 0 to 36 gauge.

Description	Catalog Number
Wire Gauge	MARTWG

Net Weight 3 oz.



MARTINDALE PRODUCTION AIR GRINDER



- ▶ Length: 5-3/4"
- ▶ Weight: 1 lb. 6 oz.

Model M-12 is designed for hard usage such as encountered in foundries, etc. It will stand up to steady production work with rotary burs and with mounted grinding wheels or points up to 1-1/2" diameter. Turns 18,000 r.p.m., 1/2 h.p. at 90 PSI air pressure. Uses approximately 18-22 CFM.

Model M-12 has a built-in speed regulator, specially designed nose piece for firm easy grip, 1/4" female N.P.T.F. air inlet, 1/4" collet, and the necessary wrenches as standard equipment.

Air exhaust is at the front of the grinder around the spindle, where it effectively blows grinding dusts away from the work and operator.

OPTIONAL EQUIPMENT:

1/8" reducer can be substituted for 1/4" collet at no extra charge.

Description	Catalog Number
Model M-12 Air Grinder, complete with 1/4" collet and wrenches	AGRD1814
1/8" Reducer (Optional Equipment)	AGRDC18
Automatic Air Filter-Lubricator (See Description Below)	FILL01



AUTOMATIC AIR FILTER-LUBRICATOR

Highly recommended for use with any air powered tools. This Fog Type Filter-Lubricator is designed to remove dirt, pipe scale, and most liquid aerosols which cause wear and premature failure. It also will deliver the right amount of lubrication to extend the service life of your air tools.

Consists of 2 die cast bowls with transparent nylon sight gauges, a 40 micron filter element, and a connecting nipple.

Description	Catalog Number
Automatic Air Filter-Lubricator	FILL01
Air Hose, 10 ft. long; complete with quick connector	AIRH10

GENERAL TITLE

MARTINDALE HAND GRINDER *BUILT BY DUMORE*



Model 10 is ideal for full-shift duty in the tool room or in production bench grinding, de-burring, etc. It is forced-air cooled, and two precision bearings in steel seats assure positive rigidity. Model 10 uses high-speed steel or carbide burs up to 3/8" diam., or mounted wheels up to 1" diam. Has 1/4" collet and 1/8" reducing sleeve.

Model 10 is U/L approved and sold with our guarantee of satisfaction.

- ▶ Model 10
- ▶ 22,000 r.p.m.
- ▶ 1/10 h.p.
- ▶ 115 V. A.C.-D.C.
- ▶ Dimensions:
9-3/4" long x 2-3/4" diam.

Description	Catalog Number
Model 10 Grinder with 1/4" collet and 1/8" reducing sleeve	DUMG10

Net Weight 3-1/2 lbs., Shipping Weight 5 lbs.

BALANCING WAYS

These Balancing Ways are unequalled in the field of static balancing for their sensitivity and accuracy in any size work from a few ounces to 1000 lbs.

Sensitive to .009 ounce-inch. Accuracy is guaranteed by the use of special scale type bearings.

Work is carried on free turning, hardened and ground circular discs which are mounted on pivot-type bearings. The principle of rolling friction, combined with two sets of taper edge rollers to support the work (at four points instead of two) combined with precision type ball bearings, increases sensitivity and reduces friction and pressure. Solid cast upright supports give these balancing ways extreme rigidity and strength. These end standards support the revolving discs and are adjustable on two shafts (up to 20") to allow the unit to accommodate different length work within the units capacity.

The unit is easy to disassemble and assemble for taking to the jobsite.

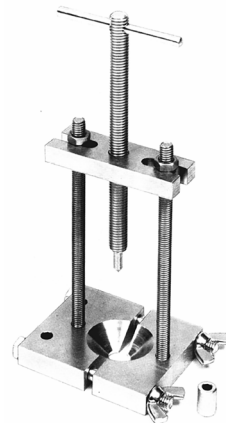


Description	Capacity, lbs.	Swing (diameter)	Maximum Spread	Overall Height	Catalog Number
Balancing Ways	1,000	20"	20"	11-1/2"	MART1102

Net Weight 38 lbs. Shipping Weight 42 lbs.

PORTABLE ARBOR PRESS

- ▶ Unique, portable tool for removing or installing "external" bushings, bearings, fan blades, commutators, seals, etc.
- ▶ Especially handy for those who repair electric motors, fans, sewing machines, vacuum cleaners and other fix-it jobs.
- ▶ Fully adjustable, "cast-iron" vise block has complete 360 degree surface contact with part being removed or installed.
- ▶ Positive-drive forcing screw delivers equal pressure distribution.
- ▶ Can be used "held-in-hand"; mounted in vise; bolted or clamped to workbench.
- ▶ All components are rust-proof plated.
- ▶ Maximum capacity 2-1/2" O.D.



Description	Catalog Number
Portable Arbor Press	WHPU01

Net Weight 3 lbs. 8 ozs., Shipping Weight 5 lbs.

POSI LOCK® GEAR AND BEARING PULLERS

The POSI LOCK® line of quality manual gear & bearing pullers set the standard for quickness, ease and convenience.

With POSI LOCK, it's strictly a one-man operation. The T-handle & Cage control jaws at all times. Opening, closing, locking & aligning of jaws are all done automatically by simply turning the T-handle. POSI LOCK pullers have been designed for effective removal of stubborn gears, bearings, pulleys, & other press fit items from different machines found in a diverse group of industries.



With POSI LOCK, it's strictly a one-man operation.

CHOOSING A MANUAL PULLER:

Center bolt diameter must be at least one-half (1/2) as large as diameter of shaft from which object will be removed.

Capacity	"A" Center Bolt Dia.	"B" Reach	"C" Spread	Max. Torque	Weight	"D" OAL	"E" Jam Width	"F" Hex Socket Size	Catalog Number
TWO JAW PULLERS:									
2 Tons (18kN)	.37" (9.4mm)	3" (76.2mm)	.25 to 4.5" (6.4 to 114.3mm)	----	1.12 Lbs (0.51Kg)	7" (177.8mm)	.31" (8mm)	----	WHPU203
2 Tons (18kN)	.5" (12.7mm)	4" (102mm)	.5 to 5" (13 to 127mm)	20 ft/lb (27N*m)	3.2 Lbs (1.5Kg)	10.05" (255.3mm)	.62" (15.8mm)	3/4" (19mm)	WHPU204
6 Tons (53kN)	.62" (15.8mm)	6" (152mm)	.5 to 7" (13 to 178mm)	75 ft/lb (101N*m)	7 Lbs (3.2Kg)	13.32" (338.3mm)	.75" (19mm)	3/4" (19mm)	WHPU206
12 Tons (107kN)	.75" (19mm)	8" (203mm)	.75 to 12" (19 to 305mm)	150 ft/lb (203N*m)	12 Lbs (5.4Kg)	16.25" (412.8mm)	.88" (22.2mm)	1" (25.4mm)	WHPU208
14 Tons (137kN)	.75" (19mm)	9.67" (246mm)	1 to 15" (25 to 381mm)	175 ft/lb (237N*m)	13 Lbs (5.9Kg)	20.41" (518.4mm)	1" (25.4mm)	1" (25.4mm)	WHPU210
THREE JAW PULLERS:									
2 Tons (18kN)	.37" (9.4mm)	3" (76.2mm)	.25 to 4.5" (6.4 to 114.3mm)	----	1.3 Lbs (0.59Kg)	7" (177.8mm)	.31" (8mm)	----	WHPU103
5 Tons (44kN)	.5" (12.7mm)	4" (102mm)	.5 to 5" (13 to 127mm)	20 ft/lb (27N*m)	4.1 Lbs (1.9Kg)	10.05" (255.3mm)	.62" (15.8mm)	3/4" (19mm)	WHPU104
10 Tons (89kN)	.62" (15.8mm)	6" (152mm)	.5 to 7" (13 to 178mm)	130 ft/lb (176N*m)	8 Lbs (3.6Kg)	13.32" (338.3mm)	.75" (19mm)	3/4" (19mm)	WHPU106
17 Tons (151kN)	.75" (19mm)	8" (203mm)	.75 to 12" (19 to 305mm)	220 ft/lb (297N*m)	14 Lbs (6.4Kg)	16.25" (412.8mm)	.88" (22.2mm)	1" (25.4mm)	WHPU108
20 Tons (178kN)	.75" (19mm)	9.67" (246mm)	1 to 15" (25 to 381mm)	275 ft/lb (372N*m)	16 Lbs (7.3Kg)	20.41" (518.4mm)	1" (25.4mm)	1" (25.4mm)	WHPU110

MARTINDALE MOTOR-FLEX AND HANDY-FLEX UNITS

Martindale Motor-flex and Handy-flex Units are all built in our own factory with utmost care and precision with materials of the finest quality. Ball-bearings are used in all handpieces, motor connections, and counter-shafts. Flexible cores are wound of the finest spring wire, and run in rubber-covered, non-shrinkable sheaths.

With the attachments and tools on pages 19, Diamond D Abrasives Catalog pages 19-22, and Rotary Burs Catalog pages 4-8, the units can be used to grind, de-bur, file, sand, chamfer, buff and polish.

These same machines are used to drive several types of mica undercutter heads shown on other pages of this catalog. A Martindale undercutter head with flex-drive extension and a disc holder will give a shop an undercutter, a slot cleaner, and a general deburring, grinding, buffing, and polishing machine.

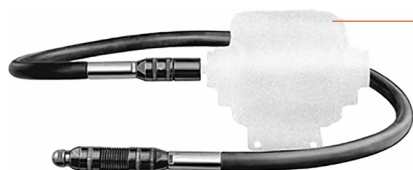
Motor-flex Units have 1/2 h.p. motors and are equipped with 3/8" diam. x 5' long (No. 16) Flexible Shaft and No. 15 Handpiece (see page 19). No. 17 Handpiece, described on page 19 and in the price table below, is recommended for larger grinding wheels and other heavier duty applications. The No. 17 Handpiece and/or Core and Sheath can be substituted on any of the motor-flex units, at additional cost.

Polish

Chamfer

Debur

Grind



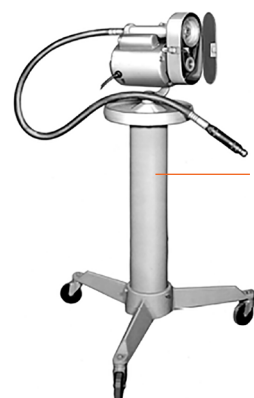
#1165
Handy-flex Unit for use with your own motor. (for 1/2 h.p.) (specify diam. of your motor shaft).



#356-2
With Motor Base for Bench or Overhead Suspension. 1/2 h.p., 2850/3450 r.p.m.



#456-2
With Double-Swivel Base. 1/2 h.p., 2850/3450 r.p.m.



#794
This pedestal base can be added to any swivel-base unit.



#556-2
Three-Speed, With Double-Swivel Base. 1/2 h.p., 1425/1725, 2850/3450, and 5700/6900 r.p.m.

When ordering, specify:

- **Catalog Number**
- **Collet Size desired**
- **115 60 Hz. -or- 230 V. 60 Hz.**

COMPLETE UNITS

Unit No.	Net Weight	Ship Weight	Catalog Number
1165	6	8	MFLX1165
356-2	26	29	MFLX3562
456-2	38	41	MFLX4562
556-2	44	47	MFLX5562
794	40	50	MFLX794

STANDARD PARTS

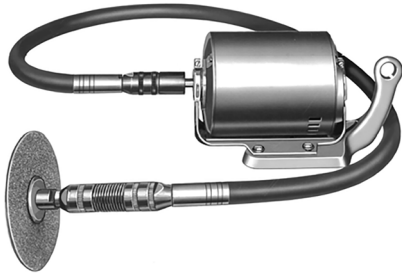
No.	Description	Catalog Number
16	Core, 3/8" diameter	MFLXD90
16	Sheath, 5'	MFLXD61
15	Handpiece, No. 15; with 1/4" Collet	MFLX81
D154	Collet, 1/4"; for No. 15 Handpiece	MFLXD154
900	Motor Connection; 1/2", 5/8", 10mm, or 14mm)	MFLX900

HEAVY-DUTY PARTS

No.	Description	Catalog Number
17	Core, 7/16" diameter	MFLXD95
17	Sheath, 5'	MFLXD63
17	Handpiece, No. 17; with 1/4" Collet	MFLX8314
17	Handpiece, No. 17; with 3/8" Collet	MFLX8338
D21014	Collet, 1/4"; for No. 17 Handpiece	MFLXD21014
D210138	Collet, 3/8"; for No. 17 Handpiece	MFLXD21038
900	Motor Connection; 1/2", 5/8", 10mm, or 14mm)	MFLX900

GENERAL TITLE

MARTINDALE SLOT CLEANING AND GENERAL GRINDING OUTFIT



Heavy-Duty Type for a Variety of Metal Grinding Jobs.

- 1/3 h.p. Motor, 2850/3450 r.p.m.
- The complete Heavy-Duty Outfit (see page 25) uses the No. 16 Sheath, No. 16 Core, and No. 15 Handpiece with Nosepiece and 1/4" Collet, and includes a Disc Holder, and a 10-foot dropcord and switch. See Grinding Discs below.

The Martindale Slot Cleaning Outfit is used before winding an armature to remove from the slots any burrs or sharp edges which might puncture the slot lining or scrape the wire insulation.

The grinding discs are aluminum-oxide resin-bond, on a backing of tough flexible vulcanized fibre. They are offered with abrasive coating either on one side only, or on both sides. It is recommended that the single-sided disc be backed up with a stiffener such as an old worn disc, whereas the two-sided disc requires no added stiffness and cuts on both sides. Grinding Discs not included in Grinding Outfit.

Description	Catalog Number	
Complete Heavy-Duty Outfit	115 V., 50/60 Hz.	MFLX7901SCA
	230 V., 50/60 Hz.	MFLX7901SCB
Complete Heavy-Duty Outfit with Ball-bearing Motor Connection for use with your motor	with 1/2" Motor Connection	MFLX7901S12
	with 5/8" Motor Connection	MFLX7901S58
	with 10 mm. Motor Connection	MFLX7901S10MM
	with 14 mm. Motor Connection	MFLX7901S14MM
No. 15 Handpiece with No. 15 Disc Holder, Nosepiece and 1/4" Collet	MFLX7901HP	

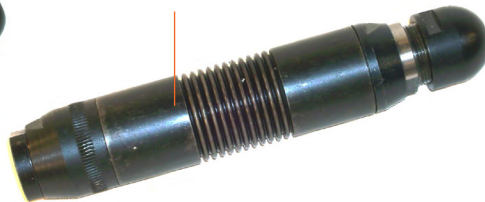
Complete Unit Net Weight 26 lbs. Shipping Weight 28 lbs.; With Motor Connection (for use with your motor) Net Weight 7 lbs. Shipping Weight 9 lbs.; Handpiece only Net Weight 1-1/4 lbs. Shipping Weight 1-1/2 lbs.

MARTINDALE HANDPIECES

No. 15 Handpiece
(1-1/4" x 6")



No. 17 Handpiece
(1-7/16" x 7-3/8")



These two handpieces are used on the Motor-flex and Handy-flex Units on page 24 & 25. Collet sizes are shown on page 25. Safe grinding wheel limits are 4" x 1/2" for No. 15, and 6" x 1/2" for No. 17.

Description	Catalog Number
No. 15 Handpiece with 1/4" collet	MFLX81
No. 17 Handpiece with 1/4" collet	MFLX8314
No. 17 Handpiece with 3/8" collet	MFLX8338

GRINDING WHEEL SPINDLES



These Spindles fit the Handpieces of the corresponding number.

They are for the use of Grinding Wheels, Wire Wheels and Buffing Wheels.

NO. 15 DISC HOLDER



This Disc Holder fits onto the No. 15 Handpiece in place of the regular Nosepiece.

Made for use with Sanding Discs but will handle Grinding, Buffing, and Wire Wheels with 7/8" holes up to 3/4" thick.

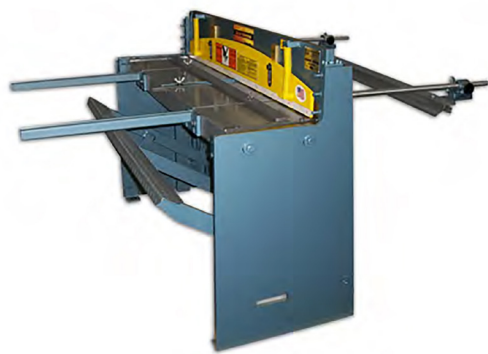
Description	Catalog Number
No. 15 Grinding Spindle for No. 15 Handpiece & wheels with 1/4" holes	MFLX811514
No. 15 Grinding Spindle for No. 15 Handpiece & wheels with 3/8" holes	MFLX811538
No. 15 Grinding Spindle for No. 15 Handpiece & wheels with 1/2" holes	MFLX811512
No. 17 Grinding Spindle for No. 17 Handpiece & wheels with 3/8" holes	MFLX811738

Description	Catalog Number
No. 15 Disc Holder for No. 15 Handpiece	MFLX8115078

GENERAL TITLE

52" WEDGE AND INSULATION SHEAR

BY ROPER WHITNEY — PEXTO



- ▶ Triple-action shearing
- ▶ Built to machine tool standards

Martindale Wedge and Insulation Shear will enable you to quickly and accurately cut insulation paper, fibre, new resin-impregnated laminates and other light materials equivalent to No. 16 gauge soft steel. Cuts "Glastic"® up to 3/16" thick.

Quality High Speed Steel Blades have relief on both edges to eliminate blade friction and prevent sheet movement.

Shear is equipped with back gauge for up to 25" settings and front gauge for up to 30" settings. As the Shear is lowered a hold-down attachment first makes contact with the material to prevent bucking or slipping. The holddown attachment also serves as a finger guard. The operator's hands are free for handling the material, as the machine is operated by foot pedal.

Model	Cutting Length	O.A.	O.A. Height	O.A. Depth*	Shipping Weight	Catalog Number
152	52"	60"	42"	76"	1000 lbs.	SHRS152

**Includes front & rear gauges in position.*

Replacement Blades	Catalog Number
For Model 152 (2 required)	SHRS350700193

F.O.B. - TN. - 37110

MODEL D WEDGE BEVELER



Model D Wedge Beveler accurately cuts and bevels wedges of any size and of special shapes, quickly saving its cost by preventing delays.

For beveling, a fixture is provided that acts as both hold-down and guide. It clamps the wedge (up to 10" long) tightly in position throughout its length. The entire fixture then slides past the cutter. A dust collector hood is provided.

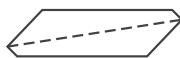
Beveling Cutters are used singly or in pairs. Each cutter is ground to 30°, 45°, or 60° to provide included angles of 60°, 90°, or 120°.



Regular Symmetrical 45°



Unsymmetrical 45°



Irregular Edges



Single Bevel

The cutters are carbide-tipped and will bevel any of the laminated plastics being used in wedges today, as well as wood and other mild wedge materials. Adjustments are simple. Any of the bevels shown below can be made with the 90° cutters. Similar bevels can be made with the 60° and 120°, as well as many variations when cutters of different angles are used together.

For sawing wood wedge material to width, a special 3" circular saw is used. Thickness of cut is determined by vertical adjustment of the saw spindle.

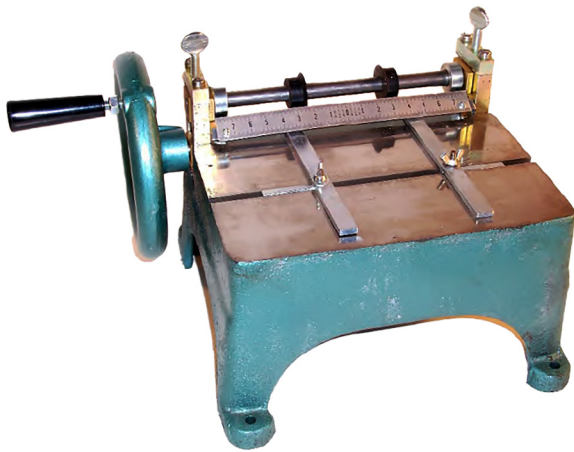
Description	Catalog Number
Model D (complete with hold-down fixture; Catalog Number but without saw or cutters), 115 V., 60 Hz.	WGBV53A
Model D (complete with hold-down fixture; but without saw or cutters), 230 V., 60 Hz.	WGBV53B

Net Weight 163 lbs., Shipping Weight 270 lbs.

Description		Catalog Number
Cutters, Carbide-Tipped, per pair:	60° Included Angle	WGBV538060
	90° Included Angle	WGBV538090
	120° Included Angle	WGBV538120
3" Circular Saw; (High-Speed Steel), each		WGBV538S

GENERAL TITLE

MODEL RC ARMATURE-SLOT INSULATION FOLDER



Model RC will handle insulation material up to 8" wide between its guides. Creasing rollers are adjustable sideways to make troughs up to 6" wide. A fixed ruler-guide makes it easy to accurately set these widths.

Vertical adjustments of the roller shaft allow for different thicknesses of insulation material and for varying pressures between creasing rollers and rubber roller.

- Folds linings up to 8" wide, any length.

Description	Catalog Number
Model RC Insulation Folder <i>Net Weight 22 lbs., Shipping Weight 24 lbs.</i>	INFLRC
Replacement Rubber Roller	INFLK324
Replacement Creasing Roller (two required)	INFL1176

MODEL NO. 40 ARMATURE WINDER

Model 40 Armature Winder is a convenient, manually operated unit that winds straight or skewed armatures. Typical applications include fans, grinders, fractional H.P. motors, automotive starters and generator armatures. Handles up to 6" diameter and 8" core length armatures.



Description	Catalog Number
Model 40 Armature Winder	CWDE40

Net Weight 9 lbs., Shipping Weight 13 lbs.

COIL WINDING EQUIPMENT

THREE SYSTEMS: LIGHT DUTY, MEDIUM DUTY, AND HEAVY DUTY

LIGHT DUTY COIL WINDING



No. 41 Wire Rack

No. 41 Wire Rack offers a convenient means of storing wire, plus an efficient system for feeding wire up to size 14. Prevents tangled or broken wire and damaged insulation caused by rotating inertia of reels; No. 41 capacity is 24 buckets or reels.

The 24" frame extension on the front of the rack can be used for mounting a tension device. See tension device below.

- ▶ Capacity: 24 Reels 2,500 lbs.
- ▶ Wire & Tension Device not included.

Model	Shipping Weight	Catalog Number
41	350 lbs.	CWDE41

Model 75 & 76 Variable Speed Coil Winders

Automatic stop with infinitely variable speed range. Constant torque with soft start and controlled acceleration by the foot pedal. A permanent magnet DC motor drives a helical gear reducer. 8" Dia. face plate with 4 slots to fasten your fixtures. Winding Speeds: 0 to 390 r.p.m.



Model	H.P.	Torque	Voltage	Shipping Weight	Catalog Number
75	1	13 lb. Ft.	120 V.	300 lbs.	CWDE75
76	2	26 lb. Ft.	240 V.	350 lbs.	CWDE76

MEDIUM DUTY COIL WINDING



No. 42 Wire Rack

No. 42 Wire Rack offers a convenient means of storing wire, plus an efficient system for feeding wire up to size 14. Prevents tangled or broken wire and damaged insulation caused by rotating inertia of reels; No. 42 capacity is 40 buckets or reels.

The 24" frame extension on the front of the rack can be used for mounting a tension device. See tension device below.

- Capacity: 40 Reels 4,160 lbs.
- Wire & Tension Device not included.

Model	Shipping Weight	Catalog Number
42	500 lbs.	CWDE42



ACE Model 46 Tension Device

ACE Model 46 Tension Device is designed particularly for handling group multiple round, square, rectangular, or flat wires used in group, loop, or transformer winding operations. Controlled pressure is applied to the wire as it passes between pressure plates. These plates will not tear or damage the insulation on the wires.

Model	Shipping Weight	Catalog Number
46	60 lbs.	CWDE46

Model 3 Series Coil Winders

Model 3 Series Coil Winders are automatic stop, constant torque, medium duty machines designed to wind small, medium and large coils. These machines utilize a Flux Vector Drive which provides soft, smooth starting and stopping. Controlled acceleration from zero to full speed prevents shock loads and helps reduce wire breakage. This machine represents the latest technology in coil winding and offers infinite speed and torque ranges. This machine is very versatile and is ideal for many types of winding.

Model	Type	RPM Speed	Lbs. Ft. Torque	RPM Speed	Lbs. Ft. Torque	H.P.	Voltage	Catalog Number
3-VAS	I	0 - 408	44	0 - 43	420	3	230/460/3/60*	CWDE3VAS1
3-VPAS	I	0 - 408	44	0 - 43	420	3	230/460/3/60*	CWDE3VPAS1
3-VAS	II	0 - 296	62	0 - 31	587	3	230/460/3/60*	CWDE3VAS2
3-VPAS	II	0 - 296	62	0 - 31	587	3	230/460/3/60*	CWDE3VPAS2
3-VAS	III	0 - 259	78	0 - 27	741	3	230/460/3/60*	CWDE3VAS3
3-VPAS	III	0 - 259	78	0 - 27	741	3	230/460/3/60*	CWDE3VPAS3
3-HVAS	I	0 - 710	43	0 - 75	408	5	230/460/3/60*	CWDE3HVAS1
3-HVPAS	I	0 - 710	43	0 - 75	408	5	230/460/3/60*	CWDE3HVPAS1
3-HVAS	II	0 - 512	60	0 - 54	570	5	230/460/3/60*	CWDE3HVAS2
3-HVPAS	II	0 - 512	60	0 - 54	570	5	230/460/3/60*	CWDE3HVPAS2
3-HVAS	III	0 - 431	71	0 - 45	675	5	230/460/3/60*	CWDE3HVAS3
3-HVPAS	III	0 - 431	71	0 - 45	675	5	230/460/3/60*	CWDE3HVPAS3

Shipping Weight 475 lbs.

* 50 Hz. available at additional cost.

"P" in Model No. designates 16 level programmable stop. Other units are single level programmable stop only.



COIL WINDING EQUIPMENT

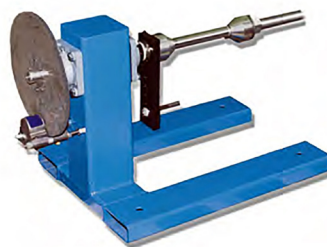
THREE SYSTEMS: LIGHT DUTY, MEDIUM DUTY, AND HEAVY DUTY

HEAVY DUTY COIL WINDING

Model 431 & 432 De-Reeling and Tension Stands

Model 431 & 432 De-Reeling and Tension Stands are air operated by means of regulated air pressure and gauge. Designed to handle spools and reels of round and shaped wire. Tension can be varied via an adjustable air pressure regulator which actuates a caliper brake gripping a 12" (standard) diameter disk. Supplied with either one or two shafts and one brake per shaft. Additional brakes per shaft are available.

Model	Shipping Weight	Catalog Number
431	350 lbs.	CWDE431
432	500 lbs.	CWDE432



Model 431



Model 432

Model HD

Model HD is a constant torque winding machine with an AC Flux Vector Drive. Engineered for those who require a versatile coil winder with extra high pulling power, and an infinitely variable speed range.



Model	Face Plate Load	Speed RPM	Lbs. Ft. Torque	H.P.	Voltage	Catalog Number
HD-03-1	5,300	0 - 39 / 77	363 / 184	3	460/230/60*	CWDEHD031
HD-03-2	5,300	0 - 53 / 105	267 / 135	3	460/230/60*	CWDEHD032
HD-03-3	5,300	0 - 97 / 192	146 / 74	3	460/230/60*	CWDEHD033
HD-05-1	5,300	0 - 28 / 55	844 / 430	5	460/230/60*	CWDEHD051
HD-05-2	5,300	0 - 39 / 77	606 / 307	5	460/230/60*	CWDEHD052
HD-05-3	5,300	0 - 53 / 105	446 / 225	5	460/230/60*	CWDEHD053
HD-05-4	5,300	0 - 97 / 192	244 / 123	5	460/230/60*	CWDEHD054
HD-10-1	8,000	0 - 28	1688	10	460/230/60*	CWDEHD101
HD-10-2	8,000	0 - 39	1212	10	460/230/60*	CWDEHD102
HD-10-3	8,000	0 - 53	891	10	460/230/60*	CWDEHD103
HD-10-4	8,000	0 - 73	648	10	460/230/60*	CWDEHD104

Shipping Weight 1,300 lbs.

* 50 Hz. available at additional cost.

GENERAL TITLE

SINGLE AND THREE PHASE WINDING HEADS

Model No. 15-L

Model No. 15-L is a Single Phase Winding Head and will wind practically any single phase motor, 3600 to 1800 r.p.m. Eleven sets of forms — adjustment needed for length only.



Model	Shipping Weight	Catalog Number
15-L	35 lbs.	CWDE15L

Model No. 15-T

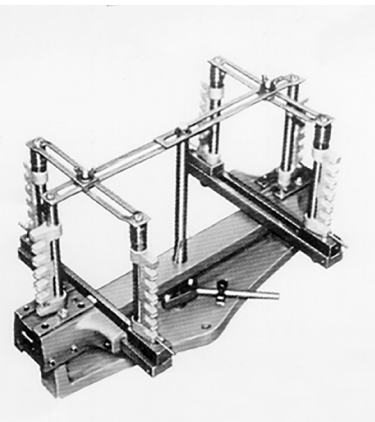
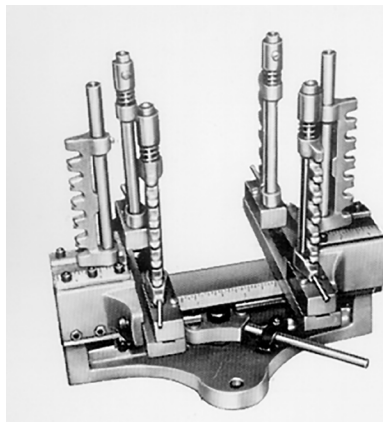
Model No. 15-T Three Phase Winding Head only requires one setting. Measure the length of the insulation in the slot. When the span is exactly the width of the form, this is all the measurement required.



Model	Shipping Weight	Catalog Number
15-T	23 lbs.	CWDE15T

THREE PHASE GROUP WINDING HEADS

No. 5 Group Winding Head



No. 10 and 11 Group Winding Head with braces in position

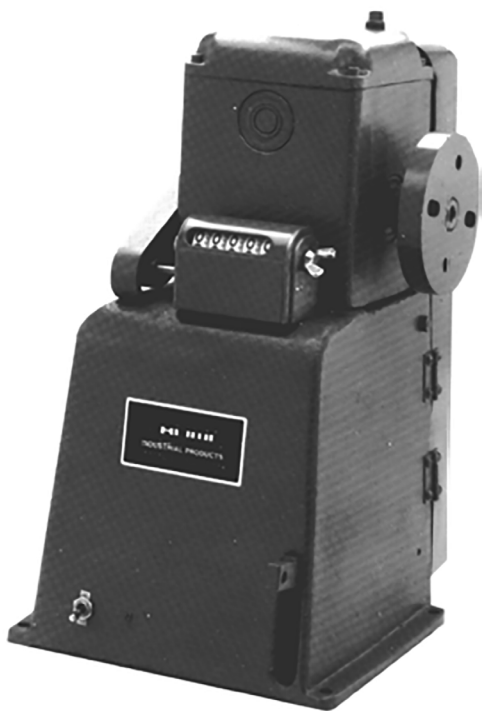
Four Group Winding Heads are available; No's. 5, 10 and 11 are illustrated. Specifications for all four are given in the table below. No. 10 and No. 11 has one set of medium range jaws; No. 5 has a smaller set; No. 12 has the largest set.

These group heads make three phase random mush coils in diamond, square, or rectangular shapes, from 1/4 h.p. to 125 h.p. capacity and can be bolted to any winding head face plate. The head is graduated to scale, making it easy to record specific job set-ups for repetition later.

Winding is done at high speed. Six coils can be released and the next six set up in the machine in 10 seconds by means of a single action cam collapse mechanism.

Model	Range of Coil Sizes			Wt. Lbs.		Catalog Number
	Length	Width	Slot Length	Net	Ship.	
No. 5	5" - 11-1/2"	2" - 6-1/2"	2-1/4" - 6"	29	46	CWDE5
No. 10	5-3/4" - 20"	3" - 10"	3-1/2" - 13"	50	80	CWDE10
No. 11	5-3/4" - 24"	3" - 14"	3-1/2" - 18"	55	90	CWDE11
No. 12	5-3/4" - 36"	3" - 24"	3-1/2" - 29"	150	200	CWDE12

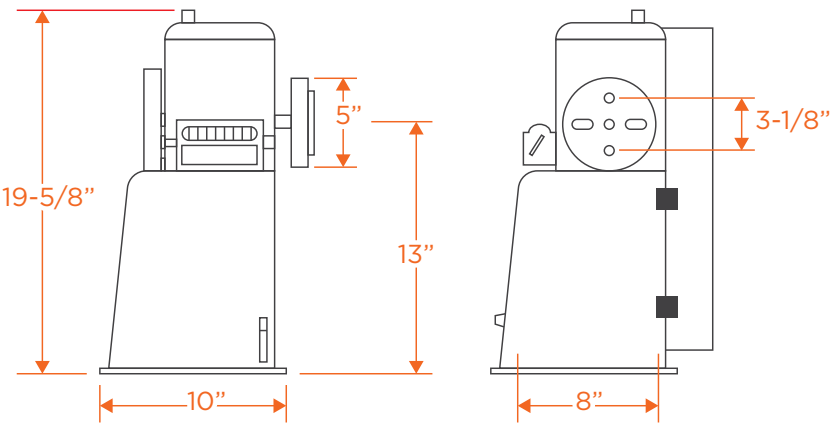
BENCH TYPE COIL WINDER



This compact, reasonably priced, coil winder is designed for smaller shops where winding may not be done every day and also for larger shops as a secondary utility winder.

Used primarily with one of the winding heads shown below, this winder can produce field, mush, armature, solenoid, electromagnet, and other small coils. It is equipped with sealed bearings on all shafts and is engineered for smooth operation with constant torque and positive stopping for precise control over every job. The clutch and brake can be controlled either by hand or with the foot pedal with chain. There are three speed adjustments which can be made by simply changing the belts on the pulleys (Low — 108 rpm — 28 ft./lbs. torque) (Medium — 220 rpm — 15 ft./lbs. torque) (High — 440 rpm — 7 ft./lbs. torque). All three versions of this machine come equipped with a heavy duty counter.

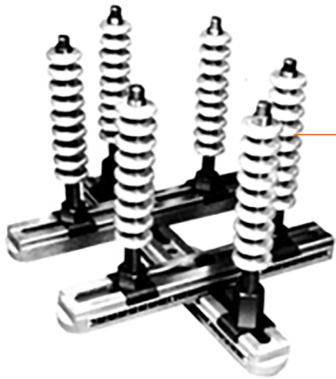
See Coil Winding Heads on the following page.



Model No.	Motor	Shipping Weight	Catalog Number
2057	1/3 H.P., 115 V., 60 Hz.	57 lbs.	CWDE2057
2069	1/3 H.P., 230 V., 60 Hz.	57 lbs.	CWDE2069
2067	1/3 H.P., 230 / 460 V., 60 Hz.	57 lbs.	CWDE2067

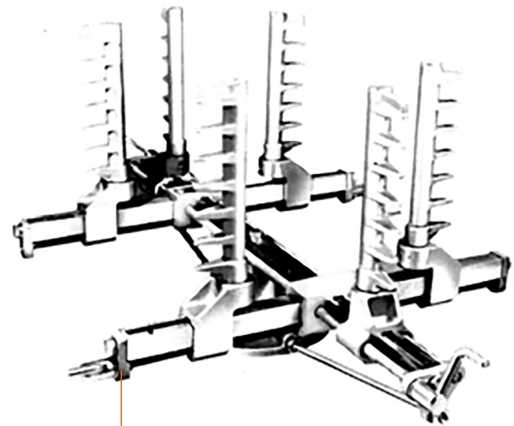
COIL WINDING HEADS

FOR THE WINDERS ON PAGE 42



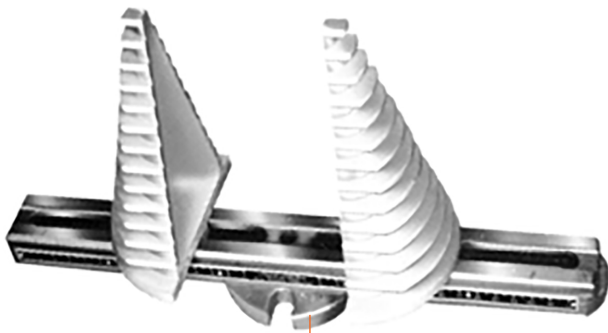
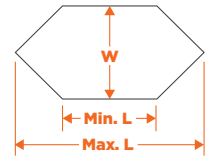
Model 2101

Model 2101 for winding relatively small armature, solenoid, and field coils. Comes with 6 adjustable coils spools.



Models 2103 & 2106

Models 2103 & 2106 for winding 3 Phase Coils from fractional HP to 300 HP. Four permanently mounted cranks adjust winding arms simultaneously. Built-in easy to read scale assures accuracy and ease of set-up.



Model 2104

Model 2104 Single Phase Head is fully adjustable for single phase coils. Features 13 slots and easy to read scale for fast set-up.



Model No.	Range of Coil Sizes		Weight - lbs.		Catalog Number
	Length	Width	Net	Shipping	
2101	6" to 16"	3" to 13"	30	33	CWDE2101
2103	5" to 19"	2" to 11"	25	27	CWDE2103
2106	8" to 28"	4" to 16"	27	36	CWDE2106
2104	3" to 13"	.724" to 4.322"	12	16	CWDE2104



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