# DELTA

PRODUCTION MACHINE TOOLS

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# **DELTA POWER TOOL DIVISION**

ROCKWELL MANUFACTURING COMPANY

MILWAUKEE 1,



WISCONSIN



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# Look For These Quality Features Found in Delta-Milwaukee Machine Tools

The outstanding performance of Delta Tools and their production records in thousands of shops is based on hard, cold facts; these machine tools deliver more accuracy, have longer life, are lower in cost, have greater flexibility and adaptability than any similar line. There are five basic features you must have if you are to get the kind of operation you need in machines of this kind:

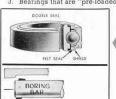
- 1. Lubricated-for-life, double-sealed ball bearings.
- 2. Precision bored seats in which the bearings are held.
- 3. Bearings that are "pre-loaded" to give accuracy and rigidity.

4. All spindles, shafts, etc., precision ground.

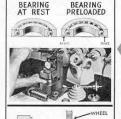
 All high-speed pulleys and rotating parts dynamically balanced.
 Most of these features are exclusive—can be found only in Delta-Milwaukee machines, and no line has all these features together with our exclusive patents.

REMEMBER—Other machines may look like Delta's on casual inspection, but the hidden value of Delta's design, as well as the more obvious advantages of the machine, make Delta machines, dollar

for dollar, the best machine tools you can purchase.











#### 1. Lubricated-for-life Ball Bearings Eliminate Lubrication Problems

The high speed bearings in Delta machines rotate on needle point contacts between the inner and outer races. It is obvious that any dust or abrasive particles would do serious harm. Delta uses a sealed bearing which keeps dust and grit out and prevents loss of lubricant. At the factory these bearings are packed for life with the proper lubricant. Thus these bearings need never be oiled for their entire life, reducing maintenance costs. No dirt can enter, no lubricant can leak out—the ideal bearing for the long life you need in your machine tools.

## 2. Precision Bored Bearing Seats Assure Accuracy and Smooth Operation

The advantages of using a good lubricated-for-life ball bearing is entirely lost unless the bearing is held firmly in a perfectly round, accurate and properly lined-up bearing seat in the machine casting. Usually the bearing seat is bored on a lathe with a tool that produces a rather large chip by taking a heavy cut at slow speed. The result is an uneven seat with the bearing riding on just the high points, often becoming loose after a few hours of operation. Precision or "Diamond" boring is used in Delta bearing seats. The seat is perfectly smooth. The bearing fits closely, is tightly held and cannot become loose. The seat is perfectly round, true to size, is in correct position and in PERFECT ALIGNMENT.

#### 3. Preloaded Bearings Provide Maximum Rigidity and Accuracy Under Load

The preloading of the bearings is one of the most important quality features in Delta machines. Most bearings have inherent "end play" or movement of a few thousandths of an inch and will not run true. The act of preloading removes this play. The inner race is held rigid and the outer race forced up or down as shown by the line sketch to the

left. This eliminates all play in the bearing, and by adding a slight additional preload the bearing runs true and accurate. Preloading the bearings improves the machines' original accuracy, maintains it longer, and increases the bearing life even when the nature of the work permits continued use until the bearings are completely worn out.

#### 4. All Spindles, Arbors and Collars Are Precision Ground For Accuracy

All of the quality features found in Delta machine tools are important and necessary for precision work. If you eliminate any one you would nullify the value of the others. To continue the accuracy you need, all shafts, spindles and collars are precision ground. This is done by rotating the part against an accurately controlled revolving grinding wheel. Thus exact sizes of parts are maining wheel. Thus exact sizes of parts are main-

tained and extremely close tolerances are held between the shaft and the inner bearing race. This quality feature provides almost a solid member from the seat, through the bearing and shaft to the other seat with no opportunity for "play." The smoothly ground and almost polished shaft provides full even contact between shaft and bearing at all times.

#### 5. Dynamic Balance of Rotating Parts Insures Smooth, True Performance

A pulley not in perfect balance causes vibration which places a tremendous strain on the bearings. This causes undue wear and an immediate loss of accuracy. To overcome this, all pulleys running at high speed in Delta machines are dynamically balanced. In dynamic or running balance each pulley is put upon a sensitive balancing machine

as shown to the left and is actually run. Dial indicators show exactly where any unbalanced weight is located, and this is eliminated by removing a small amount of metal. You will appreciate this because you can continue to do accurate work and your Delta machines will continue to qive long, satisfactory and accurate service,

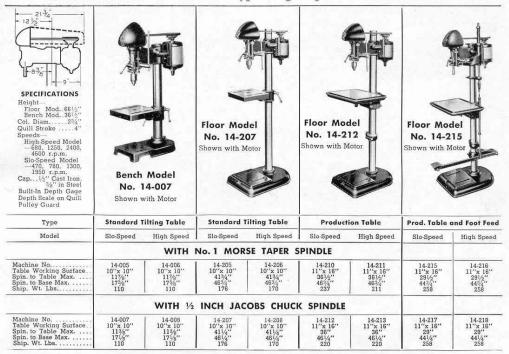
Delta machines are manufactured and sold under the following patents either owned by Delta or under which Delta is licensec and foreign patents are pending: 1,697,669: 1,799,288: 1,830,813: 1,877,705: 1,894,010: 1,896,924: 1,902,270: 1,906,190; 1,916,561: 1,930,022: 1,1936,348: 1,098,548: 1,1938,548: 1,1938,581: 1,951,091: 1,963,688: 1,094,651: 1,094,645: 1,1094,512: 1,097,791: 1,096,182: 1,973.562: 1,984,500: 1,992,726: 2,004,478: 2,007,887: 2,003,034: 2,016,843: 2,020,219: 2,020,222: 2,025,384: 2,032,333: 2,088,102: 2,046,718: 2,046,718: 2,085,232: 2,063,335: 2,033,302: 2,083,303: 2,083,303: 2,093,201: 2,204,496: 2,205,235: 2,235,408: 2,235,203: 2,235,203: 2,23

Foreign distribution, except territories of the U.S.A., Canada and the Philippine Islands, is through Tauce Export Corporation, 38 Pearl St., New York 4, New York.

All prices F. O. 8, factory, Milwoukee, Wit. or Leatonia, Ohio. Prices shown in the latest price sheet superseds all prices previously quoted. All prices subject to change without notice. The right is reserved to make changes in design or equipment of any time, without incurring any obligation to install these on machines previously sold, and to discontinue models of machines, motors or accessites at any time without notice. Any sains tox or other tax imposed will be added to the quoted prices.



# 14-inch Bench and Floor Type Single-Spindle Drill Presses



## Before You Buy A Drill Press Make Sure It Has Both A Self-Aligning Drive and A Free-Floating Spindle

The design of a high-speed telescoping drill press spindle drive requires more than precision machining—it requires a design that will stay in alignment.

The misalignment encountered in service may be small—perhaps not more than .002"—but even this is sufficient to cause trouble in high-speed spindles, and it is this trouble that the Delta-Milwaukee patented type of drive is designed to prevent.

## The Spindle Drive STAYS Aligned!

From the outside, the Delta spindle pulley looks like any other simple pulley. But, it is actually radically different. The pulley itself is balanced and is carried on a sealed-for-life ball bearing, of special design, with enormous reserve capacity above that required to take the belt pull. This bearing is mounted by means of a special extension of the inner race so that it cannot be sprung.

The actual drive of the pulley is transmitted to the spindle through a floating sleeve, with spur-gear teeth cut around its hub. These teeth mesh with an internal gear in the pulley so that the sleeve can "float" in all directions except the driving direction. This floating "sleeve drives the spindle through splines fully 31%" long. The under-side of the pulley is covered with a heavy pressed-steel plate, which secures the bearing, covers the pulley ribs, prevents power-wasting "fan action" and keeps out dirt when the drill head is operated upside-down.

Study the action of the floating sleeve and you will see that you not only get a true "free-floating" drive, but that you also get complete freedom from misalignment troubles due to wear or any other service conditions. This drive stays aligned!

## Low Cost - Low Maintenance - Portability

These Drill Presses have become extremely popular in shops where low cost, low maintenance and portability are of importance. Having a capacity of ½" in cast iron there are dozens of places where this drill press will quickly pay for itself. Not only does it combine all the best features of drill presses of this kind, but it has additional advantages which make it the favorite wherever used. Its self-aligning drive and free-floating spindle, its sturdy quill design and construction, its ease of operation, its lubricated-for-life ball bearings—these are but a few of the "plus" values you receive in these fine accurate drill presses.

High-speed models include No. 387 V-belt and No. 985 motor pulley. Slo-speed models include No. 430 V-belt and No. 985 motor pulley.

Order Jacobs Chuck spindle machines where straight shank drills only are to be used. This chuck will take drills from No. 60 to full  $\frac{1}{2}$ ".

Order No. 1 Morse taper spindle machines where taper shank drills only are to be used. Spindles in these machines are easily changed. Motors and switches not included with machines. Must be ordered separately.

Motors Recommended: Heavy Duty: 62-610, 66-320; Medium Duty: 62-110, 66-320; Light Duty: 60-310, 62-110, 66-110.

For 3 Ph. motors use No. 1320 3-Phase Manual Starter or Magnetic Starters No. 1329 or No. 1321 with No. 1322 Mounting Parts. Use No. 1331 Switch Rod for all Single-Phase Motors. See page 32 for Motors and Switch Parts.

(For Prices See Attached Price List)

# Drill Press Accessories and Attachments For Many Jobs



## Attachment Converts 14" Drill Press Into An Efficient Mortiser

Woodworkers of all kinds-cabinet makers, contractors, repair men, instructors, pupils in school shops-everyone who makes mortise and tenon joints will find the No. 976 Mortising Attachment a time and labor saver.

Consists of heavy fence bolted to the drill press table. Two hooked rods hold the work against the fence and an adjustable hold-down keeps the work from being raised when the chisel is withdrawn. Capacity under hold-down 43/4"; capacity from ends of hooked rods to fence 234". Must be used with No. 974 spindle.

No. 976—Mortising Attachment complete. Without spindle. 7 lbs.

Selected steel. Bit operates inside of chisel Shank of chisel 3/8"x 11/2". Weight per set 21/8 lbs. No. 504 Size, Inches  $\frac{1}{4}x\frac{1}{4}$ Depth of Mortise.  $\frac{17}{8}$ 17/6"

Order Proper Bushings.

HOLLOW CHISELS

#### HOLLOW CHISEL BITS



Selected steel. Bit operates inside of chisel. Order proper bushing for each bit to fit No. 974 spindle for 14" drill press. Weight

per set 2 lbs. 514 515 Size.... Diameter Shank.....

#### BUSHINGS

1/2" Outside Diameter

..... 524 No. 526 used with Nos. 516 and 518 Hollow Chisel Bits.

#### ROUTER BITS



No. 480 Complete set of 5 Router Bits. 2 lbs.

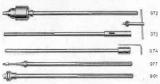


Used for making wood plugs 1/2 x 2 inch shank, barrel 21/4 815 816 No..... 814

No. 822 Complete set of 5 Plug Cutters. 21/2 lbs. MACHINE SPUR BITS

Selected steel. Have brad point and two cutting lips. Approximately 6 \(^4\) '' long overall, with a \(^4\)'' shank. Weight per set 3 lbs. No. ... 804 \(^8\) 805 \(^8\) 806 \(^8\) 807 \(^8\) 808 \(^8\) 809 \(^8\) 810 \(^8\) 812 \(^8\) \(^ No. 818—Complete set of eight machine spur bits.

#### INTERCHANGEABLE SPINDLES



One of the many outstanding advantages of the 14" drill press is the fact that the spindles are readily interchangeable. This enables you to select the right spindle for the job, increasing the application of your machine many times. All chucks are balanced for high-speed work. Spindles have deep splines, and perfect balance for long wear.

No. 972—Spindle with Jacobs Chuck and Key. No. 60—1/2, Cap., 31/2 lbs.
No. 973—Spindle with No. 1 Morse Taper Hole. 2 lbs.

No. 974-Spindle with 1/2" Hole for Router Bits.

2½ lbs. No. 977 Spindle with pin and collar for Shaper

Cutters with A" Hole. 2 lbs.

No. 991—Spindle with flanges for Cup Grinding Wheels. 2 lbs.

(For Prices See Attached Price List)

#### ACCESSORIES FOR YOUR 14" DRILL PRESS

With these shaper cutters you can shape hundreds of different mouldings on your drill press. Must be used with No. 977 Spindle or with No. 974 Spindle and No. 978 Adapter.

R		haper.			Max. Depth
MT	No.	Dia.	Width	Radius	of Cut
W - D			Concave		
B	D-1	61/64"	11/64"	1/8"	3/16"
	D-2	61/64"	17/64"	3/16"	3/16"
1 - D4	D-3 D-4	61/64"	7/16"	5/16"	3/16"
R	D-4	01/04	1/10	3/16	3/16
			Convex		
w - 1	D-10	1-1/64"	11/64"	1/8"	15/64"
0 - 013	D-11	1-1/16"	17/64"	3/16"	1/4"
2	D-12	1-3/32"	23/647	1/4"	17/64"
ST	D-13	1-1/8"	7/16"	5/16"	17/64"
D		-	orner Bea		
	D-20	1"	7/32"	1/8"	7/32"
21	D-21	1-1/32"	7/16"	1/4"	15/64"
			40.00	19630	10204
T		S	pindle Be	ad	
D	D-30	1-3/16"	9/32"	1/8"	5/16"
	D-31	1-15/64"	11/32"	5/32"	11/32
T			urface Be		
	D-40	1-3/32"	19/64"	3/32"	17/64
D	D-41	1-5/32"	25/64"	1/8"	19/64
		D.	und Flut	in.	
-	D-50		3/16"	3/32"	9/32
	D-51	1-1/8"	17 64"	1/8"	5/16
D	0.000.00	1.00		12.00	.07.10
		Si	raight F	100	
IT.	D-60	61/64"	1/8"		3/16
1	D-61	61/64"	5/32"	********	3/16
D	D-62	61/64"		2000000	3/16
,	D-63 D-69	61/64"	1/4"	*******	3/16
	D-63	1-1/4	1	*******	11/32
-			V-Flutin	σ.	
)	D-70	1-1/8"	11/64"		0.000
	D-71	1-7/32"	9/32"	*******	9/32*
1		1.4/04	97.04		21/04
7		Combina	tion Quar	ter Round	
1	D-80	1-1/4"	7/16"	1/8"-	11/32
D	0-00			3/16"	11/02
	Note:	We canno	t supply	cutter sh	anes or
		ther then	those He	ted above	
	SIZES	ener cuan	PHUSE IN	ten anove	

nut. Fits No. 974 spindle.

No. 979-Set of six depth collars. 5/16" hole.

No. 981—Box only for cutters.

No. 43-817 — Safety Ring Guard with mounting bracket, 8 lbs.

Fully adjustable Fence with both halves in-dependent of each other. Adjustable endwise so opening may be made small as pos-sible to fit the work— a good safety feature. Used with shaper ta-ble No. 11-806. No. 982—Shaper Fence, 12 lbs.



Large Wood Shaper Table made of plywood and drilled for easy fastening to top of regular Drill Press ta-Provides large working surface, and firm support for all shaping on Drill Press.

No. 11-806—Plywood Shaper Table 17-13/16"x 23-13/16", 34" thick with bracket for mounting ring guard. 15 lbs.

Spring Hold-Downs hold work against fence and table. Can be used on either end of the fence, and are provided with universal brackets and long flexible springs that accommodate work up to 31/6" thick.



No. 983-Set of Spring Hold-Downs with straight and bent posts, two springs, two spring brackets, and one post bracket, 2 lbs.



raising feature.

Three Lip Cutters pro-vide hundreds of moulding shapes. Made of special steel and hardened in oil. Cutters can be resharpened again and again by merely honing across the face of the cutting lips, Also for use with shaper.

No. 980-Set of 24 Shaper Cutters D-1 to D-80, listed at left, including D-69 blank cutter. With No. 978 Adapter and 6 collars in box. 2 lbs.

#### Handy, Quick-Set Angle Vises for Drill Press, Grinder & Bench Work



Of tested quality and usefulness, these vises quickly raise to different angles and just as quickly lock in place. Side of vise is accurately graduated for angle

Accurately machined with base, body and sliding jaw of semi-steel, clamping jaws of hardened steel. Clamping screw has fine pitched thread and long bearing in vise body.

No.	Jaw		O	pening		erall ngth	Sh	ip. Wt. Lbs.
*1024	11/2"x	1"		156"	- 2	15/g"		5
1025	11/2"x	1"		15/8"	- 1	15/6"		61/2
1026	21/2"x	170	00	21/2"	6	31/4"		10
* No. 1024	same	as :	No.	1025,	but	with	out	angle

POWER DIVISION DELTA TOOL

# Save On Special Set-Ups With Standard 14" Drill Press Accessories

#### 14" Drill Press Parts

14" Drill Press Parts

1No. 14-220 — (Old No. 970.B)—14" High-Speed
Drill Press Head with 16" Jacobs Chuck, No.
387 Belt, and No. 985 Motor Pulley. 42 lbs.

1No. 14-223—(Old No. 1289.3)—14" Slo-Speed
Drill Press Head with 16" Jacobs Chuck, No.
430 Belt, and No. 985 Motor Pulley. 48 lbs.

1No. 14-221—(Old No. 970.C)—14" High-Speed
Drill Press Head with No. 1 Morse Taper
Spindle, No. 397 Belt, and No. 385 Motor
Pulley. 42 lbs.

1No. 14-222—(Old No. 1286.A)—14" Slo-Speed
Drill Press Head with No. 1 Morse Taper
Spindle, No. 430 Belt, and No. 985 Motor
Pulley. 48 lbs.

No. 14-817—Set of parts for chanqing Slo-Speed
No. 14-817—Set of parts for chanqing Slo-Speed

Pulley. 48 lbs.

No. 14-817—Set of parts for changing Slo-Speed
Drill Press to High-Speed, 13 lbs.

\*No. 1290—Set of parts for changing High-Speed Drill Press to Slo-Speed, 13 lbs.

\*No. 387-V-Belt for High-Speed Drill Press, 1 lb. \*No. 430—V-Belt for Slo-Speed Drill Press, 1 lb.

No. 969—Pilot Wheel. 4 lbs.
No. 992—3½" x 1½" Cup Wheel, ½" hole. 2 lbs. No. 985 4-Step Motor Pulley. Specify bore,

Ihe \*No. 1022-Complete Belt and Pulley Guard,

A1 195.
No. 14-803—Belt Guard only. Used where machine already has spindle pulley guard, 9 lbs.
No. 1010—Head Support Collar for Column, 2 lbs.

No. 1007—Foot Feed for Floor Type 14" Drill Press, 38 lbs. No. 1009—Production Table only, for Single-Spindle Floor Type Drill Press, 52 lbs. No. 1008—Table Haising Mechanism for No. 1009, 9 lbs. No. 1029—Spindle Floor Counter Balance Assembly for 14" Drill Press, consisting of spring, chain, and screws. 8 lbs. "Cannot be used with Super-fil Drill Press. "Cannot be used with Super-fil Drill Press. "Motor Pulley comes with ½" bore unless other."

†Motor Pulley comes with 1/2" bore unless otherwise specified.

#### Production Table For Standard 14" Drill Press



This Production Table for Standard 14" Drill Presses, has a surface of 11"x 16" with a 11/4" drain trough, tapped for drain pipe. Rack fitted with safety hook, prevents acci-

dental dropping of table.

No. 1006-Production Table complete with Rack, Raising Mechanism, Collar and Bearing, 61 lbs.

#### Wide Range of Speeds with Multi-Speed Attachment

This attachment provides a wide range of speeds on both

the Slo and High-Speed models. It consists of a bear-

ing housing, bear-ing and shaft, which mounts on the drill press column together with a cone pulley and two belts. Belt slack is taken up by turning casting so proper tension is always assured.

No. 1028—Multi-Speed Attachment for Fligh Speed Drill Press, complete with column cast-ing, pulley and belts. Twelve speeds 270 to 11,000 r.p.m. 7 lbs.

No. 1029-Multi-Speed Attachment for Slo-Speed Drill Press, complete with column casting pul-ley and belts. Twelve speeds 185 to 4825 r.p.m. 7 lbs.

No. 271—Motor Pulley Belt for No. 1028 or No. 1029 Multi-Speed. 1/2 lb.

No. 272 Spindle Pulley Belt for No. 1028 Multi-Speed. 1/2 lb.

No. 273 Spindle Pulley Belt for No. 1029 Multi-Speed, 1/2 lb.

#### SURFACE PLATES THAT ARE 100% USEFUL AND CONVENIENT

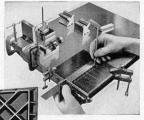
The four essentials of a 100% useful surface plate, for layout work, are the four essentials of the Delta Surface Plates

- 1. A true surface to start with.
- 2. A properly ribbed casting to insure that surface stavs true.
- 3. Adequate ledges at the edges of the plate for clamping purposes, and ...
- 4. Edges that are machined square with one another and with the surface.

Formerly these advantages could be obtained only in high-priced, hand scraped, precision plates, and the user either purchased a plate of this type or else bought a plate that was more or s makeshift.

Now, Delta brings you a handy Surface Plate at low cost. A surface plate that is 100% useful and convenient. These plates can easily and economically be made into precision plates by simply scraping to a master plate, or to each

The photo at the right shows how angle plates, vises, etc., can be clamped to the surface plate,



Note the heavy ribbing of this massive plate and the clamping ledge all around the squared sides.

and how convenient the squared edges are for laying out work clamped to the table.

No. 640-15" x 18" x 3"-63 lbs. No. 641-16" x 22" x 3"-71 lbs.

## DELTA-Milwaukee Tapping Attachment for 14" Drill Press



to the material to be tapped.

Faster Work - Better Quality Work - More Economical Work The ability to produce quality threads . . an increase in holes tapped per hour . . . ease of operation . . . and

the saving of taps . . . all are performance features of the new Delta-Milwaukee tapping attachment. Using an internal expanding drum type friction drive (see photo to the left, showing internal working parts

and friction drum drive) the drum itself expands and firmly grips the entire circumference of the shell from the inside. There is no top or bottom pressure. This means greater accuracy, more uniformity in holes tapped, less chance of wear and no loss through slippage. The housing is made of heat-treated magnesium and will withstand high temperatures without warping. It operates without pressure on the tap itself and may be run at any speed suitable

CATALOG LISTING

No. 14-843-Tapping Attachment for 14" Drill Press, 0-3/16" Capacity. Complete with spindle. 6 lbs.

No. 14-844 Tapping Attachment for 14" Drill Press, 3/16"-5/16" Capacity. Complete with spindle. 8 lbs.

(For Prices See Attached Price List)

#### -FEATURES-

- 1. 100 percent contact—uses all friction area.
   2. Uniform engagement—no uneven wear.
   3. Extra speed—greater

- accuracy.

  4. Friction runs dry—little chance of sticking.
- Body will not warp—made of heat-treated Magnesium.
- 6. Compact in design.
  7. Helical Gears.
  8. All parts interchangeable.
  9. Sealed-for-life ball bearings.
- Economical—saves taps, time and labor. 10. Economical-





#### SANDING DRUMS AND ABRASIVE SLEEVES FOR INSIDE AND CURVED SANDING WORK ON YOUR DRILL PRESS



Perfect work is easy with these sanding drums. No fasteners to bump—no un-even expansion. In these even expansion. In these drums, each rubber section is separated from its neigh-

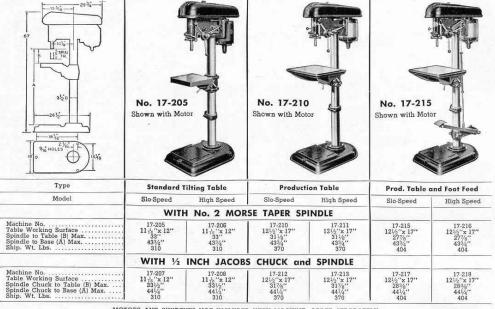
drums, each rubber section is reighteners. Separated from its neighteners with non-corrosive metal bushings next to the arbor. The disks are expanded perfectly unitarian and the second of the second

No. 836—½ doz. 134"x2" Sleeves, No. 1½-40 Grit med. garnet. ½ lb. No. 837—½ doz. 134"x2" Sleeves, No. 1½-40 Grit med. garnet. ½ lb. No. 838—½ doz. 134"x2" Sleeves, No. 1-50 Grit Al. Oxide for metal.) ½ lb. No. 840—11/16" dia. x 2½" Drum, with one sleeve. With ½" shank to fit hollow spindle or chuck. 8 oz. 11/16"x2½" Sleeves, No. 1 Grit medium garnet. ½ lb. No. 842—½ doz. 11/16"x2½" Sleeves, No. 10-80 Grit fine garnet. ½ lb. No. 847—½ doz. 11/16"x2½" Sleeves, No. 50 Grit Al. Oxide (for metal.) ½ lb. No. 847—½ doz. 11/16"x2½" with milled flat entire length. For use with No. 830 and No. 835 Sanding Drums when used with No. 874 Spindle.

## NARROW SANDING DRUMS AND SLEEVES

NARROW SANDING DRUMS AND SLEEVES
No. 679—14"x" D'rum, with one
sleeve, 5/18" shank, 1/2 lb.
No. 682—1/2 doz. 11/2" No. 40grit Al. Oxide sleeves. 1/4 lb.
No. 683—2/3 doz. 11/2" No. 80grit Al. Oxide sleeves. 1/4 lb.
No. 684—2/3 doz. 1/2" No. 80grit Al. Oxide sleeves. 1/4 lb.
No. 684—2/3 doz. 2-3/16"x1" No. 40-grit Al.
Oxide sleeves. 1/4 lb.
No. 685—1/2 doz. 2-3/16"x1" No. 80-grit Al.
Oxide sleeves. 1/4 lb.
No. 681—3"x1" Drum with one sleeve, 5/16"
shank. 9/4 doz. 3"x1" No. 40-grit Al. Oxide
No. 687—1/2 doz. 3"x1" No. 80-grit Al. Oxide
sleeves. 1/2 lb.

# 17-inch Floor Type, Single Spindle Drill Presses



MOTORS AND SWITCHES NOT INCLUDED WITH MACHINE, ORDER SEPARATELY

These 17-inch drill presses are supplied in twelve standard models as listed and illustrated above.

listed and illustrated above.

Capacity: ¾," in cast iron.

Machines include: Table raising mechanism—Streamlined belt guard—

Built-in depth agag—Depth scale on spindle return spring housing—

Quill has 5-inch stroke or travel.

Speeds: High-Speed Models—700, 1150, 1750, 2750, and 4250 RPM.

Slo-Speed Models—385, 600, 935, 1450, and 2240 RPM.

High-speed models include No. 501 V-belt and No. 1312 motor pulley.

Slo-speed models include No. 520 V-belt and No. 1311 motor pulley.

Order Jacobs spindle models where straight shank drills 0"-1/2" are to be used.

Order No. 2 Morse taper spindles where taper shank drills are to be used. Where both straight and taper shank drills are to be used, order models with No. 2 Morse taper spindle and use the No. 968 chuck listed on page 7. For individual parts for special setups and for accessories, see page 7.

Metors Recommended: Heavy Duty—84-910, 86-920. Medium Duty—82-910, 86-720. Light Duty—82-710, 86-520.

For 3 Ph. motors use No. 1320 Manual Starter or Magnetic Starters No. 1329, or No. 1321 with No. 1322 mounting parts. Use No. 1332 switch rod for single phase motors. See page 32 for Motors and Switch Parts.

# 17-inch Single Spindle Floor Type Power Feed Drill Presses



No. 17-260 Shown with Motor

	Floor Type S	ingle Spindle
Туре	<u> </u>	0
Model	Slo-Speed	High Speed

#### WITH No. 2 MORSE TAPER SPINDLE

Machine No	17-260	17-261
Table Working Surface	121/2"x 17"	121/2"x 17"
Spin. to Base Max	44"	44"
Spin. to Table Max	32"	32"
Ship, Wt. Lbs	418	418

#### WITH 1/2" JACOBS CHUCK and SPINDLE

Machine No	17-262	17-263
Table Working Surface	121/2"x 17"	121/2"x 17"
Spin. Chuck to Base Max.	441/2"	441/2"
Spin. Chuck to Table Max.	32"	32"
Ship. Wt. Lbs.	418	418

Motors and Switches not included with machines.

These power feed 17 inch drill presses are of advanced design, incorporating all good features of machines of this type. They can be either manual or power fed. The operator can bring the drill down to the work in one swift motion by hand, and with a flip of the lever engage the power feed. Upon completion of the operation the quill automatically returns. There are eight rates of feed for each of the 5-spindle speeds. Capacity 34" in cast iron.

Machines include: Streamlined belt guard. Built-in depth gauge Depth scale on spindle return spring housing, mechanism. Quill has  $4\frac{1}{2}$  inch stroke or travel.

Speeds: High Speed Models—700, 1150, 1750, 2750 and 4250 RPM. Slo-Speed Models—385, 600, 935, 1450 and 2240 RPM.

High speed models include No. 501 V-belt and No. 1312 motor

Slo-speed models include No. 520 V-belt and No. 1311 motor

Order Jacobs spindle machines where straight shank drills only are to be used. Order No. 2 Morse taper spindle machines where taper shank drills only are to be used. Where both straight and taper shank drills are to be used, order machines with No. 2 Morse taper spindle and use No. 986 chuck listed on page 7.

Metors Recommended: Heavy Duty-84-910, 86-920. Medium and Light Duty-82-910, 86-720.

For 3 phase motors use No. 1320 Manual Starter or Magnetic Starters No. 1329, or No. 1321 with No. 1322 mounting parts. Use No. 1332 switch rod for single phase motors.

See page 32 for Motors and Switches.

#### POWER TOOL DIVISION DELTA

## 17" Drill Press Accessories And Attachments

#### WOODWORKING ACCESSORIES

Mortising Attachment for 17" Drill Press. Complete with base, fence. hold-down, curved arm, chisel holder and bolts; without bit or chisel. Capacity under hold-down 61/2" thick, capacity from ends of hooked rods to fence 21/2" thick. Mortising bit is held in standard Jacobs chuck.

No. 1381-Mortising Attachment, 15 lbs.



Hollow Chisels			Mort. Bits			
No. 504 505 506 508	Size	Depth 17/8 17/8 23/4 31/4	Wt. lb. 1/2 1/2 1/2 1/2 5/8	No. 514 515 516 518	Size 1/4 1/6 3/8 1/2	Wt. lb. 3/8 1/2 1/2 1/2 1/2
		Spur I			ug Cutt	

61/4"	chine Sp long, ½ Size				Cutters ik, ½"	Wt.
No. 804	1/4	\$/g	No.	Size	Depth	lb.
805	10	5/8	814	3/8	218"	3/8
806 807	3/8	5/8	815	1/2	21."	3/8
808	1/6	5%	816	5/8	210"	3/8
809	16	5/8	817	3/4	21."	1/2
810 812	5/8	5/8	819	1	210"	1/2
818	set of 8 h	oits 3	822	set of	5 cutter	s 21/2

## **DELTA TAPPING ATTACHMENT**

for 17" Drill Presses

FASTER WORK - BETTER QUALITY WORK -MORE ECONOMICAL WORK!

Quality threads . . . an increase in tapped holes per hour ... ease of operation ... and the saving of taps...all are performance features of the new Delta tapping attachment.

Has an expanding drum type friction drive. The drum itself expands and firmly grips the entire circumference of the shell from the inside. There

is no top or bottom pressure. May be run at any speed suitable to the material to be tapped. This means greater accuracy, more uniformity of holes tapped, less chance for wear and no loss through slippage. The housing is made of heat treated magnesium and will withstand high temperatures without warping.

No. 17-875-Tapping Attachment for 17" Drill Press, 0-36" Capacity. Weight, 7 lbs.

No. 17-876—Tapping Attachment for 17" Drill Press, 36"-56" Capacity.

Weight, 9 lbs.

No. 17-877—Tapping Attachment for 17" Drill Press, 56"-56" Capacity. Weight, 16 lbs.

Note: Tapping Attachment includes Special No. 2 Morse Taper Drive Spindle.

#### LOW COST STANDARD 17" DRILL PRESS ACCESSORIES

No. 1391-Set of Change-over Parts consisting of High Speed Pulleys and No. 501 Belt for changing Slo-Speed Drill Press into High Speed, 7 lbs.

No. 17-862-Set of Change-over Parts consisting of Slo-Speed Pulleys and No. 520 Belt. For changing High Speed Drill Press into Slo-Speed. 10 lbs.

No. 501-V-Belt for 17" High Speed Drill Press, 1/2 lb.

No. 520-V-Belt for 17" Slo-Speed Drill Press. 1/2 lb.

No. 1311-5-Step Motor Pulley for Slo-Speed. Specify bore. 3 lbs.

No. 1312-5-Step Motor Pulley for High Speed. Specify bore. 3 lbs.

No. 1380-Raising Mechanism for 17" Drill Press with Worm Shaft, Worm Gear and Pinion, Ball Handle, Rack, Ball Thrust Bearing and Collar for Column. 15 lbs.

No. 1371-Foot Feed for Floor Type 17" Drill Press. 34 lb

No. 968-1/2" Geared Jacobs Chuck with a No. 2 Morse Taper Shank To be used where straight shank drills are used in a drill press that has a No. 2 Morse Taper Spindle. 21/2 lbs.

#### POWER FEED ATTACHMENT FOR 17" DRILL PRESSES



Any standard Delta-Milwaukee 17" drill press can be easily and readily changed into a Power Feed Drill Press by adding the Power Feed Unit listed here. No special machining, drilling or fitting need be done. The Unit is perfectly interchangeable. It can be operated in any position and may be attached to your present drill press with but little work. It is complete, consisting of gear box,

motor pulley, belt guard, gear drive, handle assembly, motor plate, quill pinion shaft, stop rod, V-belt and oiler as illustrated.

Convert your present 17" Drill Presses into Power Feed Units today. The low cost of the unit will soon pay for itself many times over in increased production.

No. 17-857-Power Feed Attachment complete to fit all 17" drill presses, 84 lbs.



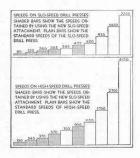
## EFFICIENT OPERATING SLO-SPEED ATTACHMENT

To meet the requirement of extra slow operation of the 17" Drill Press; the No. 17-860 Slo-Speed Attachment has been designed. Fits any Delta 17" Drill Press with No. 2 Morse Taper Spindle.

A train of accurately machined double-reduction gears is used. This eliminates all chatter, and slippage, and means positive, smooth operation. Provides 10 different speeds. Gears are heat treated, Anti-friction bearings used throughout. Has No. 2 Morse Taper Spindle Socket. Spindle travel with slo-speed attachment is 4". Ratio of Input to Output is 4.7 to 1 R.P.M.

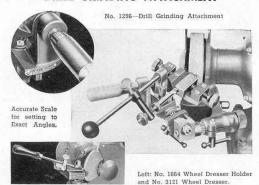
No. 17-860 Slo-Speed Attachment for 17" Drill Press with No. 2 Morse Taper Spindle, 11 lbs.

(For Prices See Attached Price List)



## Attachments And Accessories That Increase The Use Of Your Grinder

#### DRILL GRINDING ATTACHMENT



This improved drill grinding attachment uses the face of the wheel—the natural way. It is a precision built unit so accurately made—so easy and simple to operate that anyone can now do a perfect drill sharpening job. Micrometer settings insure evenly ground lips so that drills run true. The amount of lip clearance on the drill is just right with enough of the heel cut away to provide clearance without weakening the cutting edge.

An additional feature of this attachment is that you can grind a drill to fit your own job—with lip clearance and angles at any degree you need them. Capacity 1/6" to 5/6" drills.

No. 1296—Drill Grinding Attachment as illustrated with No. 1664 holder for wheel dresser. 9 lbs.

## BLADE GRINDING ATTACHMENT

Here is a blade grinding attachment that has all of the best features of existing designs, yet has additional advantages that increase its usefulness in the shop. The carriage table clamps to the adjustable arm on the grinder and tilts so that the desired angle is obtained. This table is fully machined and on it rides the blade holder and clamp. The



blade is clamped as shown—an adjustable quadrant is located on the left side which permits the accurate grinding of angle knives as well as assuring an accurate right angle position for straight knives. The knurled nut below gives hair-like adjustments for the amount of the "cut" when grinding. The entire carriage and clamp may be lifted off the table, thus providing a convenient and accurate table for other grinding without the necessity of replacing the regular tool rest.

Distance between clamp screws is 3-3/16", affording ample space for wide knives as well as scrapers. Diamond Pointed Wheel Dresser No. 3121 may be clamped into holder alongside the angle quadrant for wheel dressing.

No. 1294—Blade Grinding Attachment as illustrated, 6 lbs.

## DIAMOND POINTED WHEEL DRESSER



An efficient and inexpensive tool for dressing all types of general grinding wheels. The diamond is securely held—the tool is sturdy, 9 1/4" long and has a comfortable handle.

No. 3121—Diamond Pointed Wheel Dresser, 1 lb.
No. 1664—Wheel Dressing Tool Holder, 1 lb.

#### GENERAL ACCESSORIES Cat No. Description \*1245 34"x 7" Aluminum Oxide Wheel, 60 Grit, Grade N, 5/8" Hole ...... \*1247 -3/4"x 7" Aluminum Oxide Wheel, 46 Grit, Grade M, 5/a" Hole 5%"x 7" Vit. Al. Oxide Wh., 46 Grit, Grade N, 5%" Hole 1267 1250 Twin-Lite Shield (One Only). No Bulbs...... 1236 -Fine-Knotted Wire Brush, 5/8" Hole, 6" Dia...... Medium-knotted Wire Brush, 5/8" Hole, 6" Dia..... 1237 1238 Coarse-knotted Wire Brush, %" Hole, 6" Dia...... 1280 Bayonet Type Lamp Bulb..... 23-805 Pedestal for Standard Grinders...... \*23-815-1"x7" Al. Oxide Wheel, 60 Grit, Grade N, 5%" Hole 4

\*23-816—1"x7" Al. Oxide Wheel, 46 Grit, Grade M, %" Hole 4

\*Grinders prior to Serial No. 18-1403 take No. 1245 and No. 1247 grinding wheels. Subsequent grinders take No. 23-815 and No. 23-816. When ordering replacement wheels, be sure to specify correct catalog numbers.

#### MOTORLESS, GRAVITY TYPE DUST COLLECTOR FOR GRINDER

This practical and inexpensive dust collector is self-contained and need not be connected to the shop blower system. No electric power is required. Grinder is completely portable. Efficient filters trap practically all of the fine dust.

No. 1292—Dust Collector Unit for pedestal grinder with filter, brackets, screws, 28 lbs.

No. 1293—Replaceable Filter for above, 9



#### Motor Driven Dust Collector for Tool Grinder

The Dust Collector shown below is ideally suited to the Tool Grinder because it traps all abrasive dust which otherwise would be harmful to the operator and to expensive machinery. Warm shop air is not forced out of the building with this Dust Collector during cold weather, but instead is re-circulated after being thoroughly cleaned. A special attachment package is available, as illustrated below, to hook up the Dust Collector to the Grinder. See page 12 for Dust Collector desired.



for use with Tool Grinder.

No. 23-802-Tool Grinder Attachment Package

(For Prices See Attached Price List)

## SAFETY PLUS! Tool Grinders "That Cannot Forget Their Goggles"

## Finest — Most Accurate — Safest Grinders made — Regardless of Price

WHEELS: Balanced to 1/10 inch ounce 60N and 46M Aluminum Oxide Wheels, 1" face by 7" diameter, 56" hole. Absolutely true and vibrationless to permit accurate tool grinding.

TOOL RESTS: Fully machined—not rough castings. Are adjustable vertically and horizontally—designed so that full advantage can be taken of both sides of wheels. Easily detached.

WHEEL GUARDS: Heavy cast iron with steel side plates. Designed to meet the strict regulations of the Wisconsin Industrial Commission. Only actual grinding section of wheel is exposed. Chute discharges dust to rear. Spark guard adjustable to diameter of wheel.

SAFETY SHIELDS: Patented Twin-Lite standard on all models. Double thickness shatter-proof glass. Included with each shield are two lamps which flood both sides and face of wheels independent of shop lighting. No glare in operator's eyes.

BEARINGS: Precision double-seal ball bearings. No oiling required for entire life of bearing. No trouble due to entrance of abrasive dust.

# TWIN-LITE ® SAFETY SHIELDS

Photo at right shows clearly how the Twin-Lite Safety Shields "floods" the wheel and working surface with light from both sides for safer, more efficient work. This patented lighting system is standard on all models.



#### BENCH TYPE MOTOR DRIVEN GRINDERS

Mach. No.	Motor Description	Speed R.P.M.	H.P.	Motor Switch	Ship. Wt. Lbs.
23-104	115 V. 60 Cy. Sgl. Ph.	1725	1/2 1/2 1/2 1/2 1/2 1/2 1/2 1/2 1/2 1/2	Toggle	95
23-105	115 V. 60 Cy. Sgl. Ph.	3450		Toggle	95
23-109	115 V. 50 Cy. Sgl. Ph.	2850		Toggle	95
23-111	230 V. 60 Cy. Sgl. Ph.	3450		Toggle	95
23-112	230 V. 50 Cy. Sgl. Ph.	2850		Toggle	95
23-115	220 V. 50/60 Cy. 3 Ph.	2850/3450	1/2	None	95
23-118	440 V. 50/60 Cy. 3 Ph.	2850/3450	1/2	None*	95
23-120	115 V. D. C	3450	1/2	Toggle	95
23-121		3450	1/2	Toggle	95

## PEDESTAL TYPE MOTOR DRIVEN GRINDERS

Mach. No.	Motor Description	Speed R.P.M.	H.P.	Motor Switch	Ship. Wt. Lbs.
23-404 23-405 23-407 23-409 23-410 23-411 23-412	115 V. 60 Cy. Sgl. Ph. 115 V. 60 Cy. Sgl. Ph. 115 V. 60 Cy. Sgl. Ph. 115 V. 50 Cy. Sgl. Ph. 115 V. 50 Cy. Sgl. Ph. 1230 V. 60 Cy. Sgl. Ph. 230 V. 60 Cy. Sgl. Ph. 230 V. 50 Cy. Sgl. Ph.	1725 3450 3450 2850 2850 3450 2850	1/31/31/31/31/31/31/31/31/31/31/31/31/31	Toggle Toggle Relay Toggle Relay Toggle Toggle	166 166 182 166 182 166 166
23-415 23-418	220 V. 50/60 Cy. 3 Ph. 440 V. 50/60 Cy. 3 Ph.	2850/3450 2850/3450	1½ 1½ 1½	Relay Relay*	181 181
23-420 23-421	115 V. D. C	3450 3450	1/2 1/2	Toggle Toggle	166 166

1725 R.P.M. Grinders available on special order, supplied at same price as corresponding 3450 R.P.M. Models.

\* Separate Toggle Switch for Twin Lites is furnished.

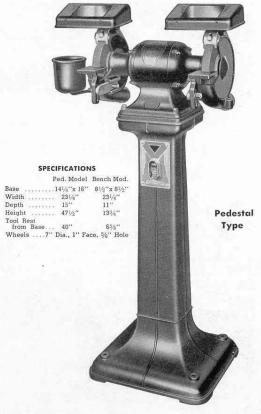
#### MOTOR DRIVEN BUFFING MACHINES

No. 23-255—Bench Type, 115 V., 60 Cy., Single Phase, 3450 R.P.M. with Toggle Switch, Without Safety Shields, Lamp Bulbs, Water Pot, Wheels, Wheel Guards or Tool Rests. 60 lbs.

No. 23-475—Pedestal Type, 115 V., 60 Cy., Single Phase, 3450 R.P.M. with Toggle Switch, Without Safety Shields, Lamp Bulbs, Water Pot, Wheels, Wheel Guards or Tool Rests. 155 lbs.

3450 R.P.M. = 6322 Feet per Minute Using 7" Wheel 2850 R.P.M. = 5223 Feet per Minute Using 7" Wheel

(For Prices See Attached Price List)





Bench Type

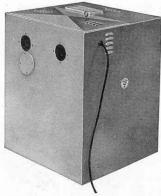
#### SAFETY PLUS!

To test the strength and guarding of these grinders, a number of wheels were deliberately smashed with a rifle bullet while running at speeds from 3400 to 8000 r.p.m. with guard on. Photo shows wheel that was smashed at the highest speed—and it can plainly be seen what happened to the guard—nothing! That's safety plus! Why take chances with inferior grinders?



------

# Motor Driven Dust Collector Safequards Health . . . Protects Machinery



Cabinet of pressed steel strong and husky ... a large door at back provides quick access to filter, door at top for inspection of motor. Fan is high efficiency squirrel-cage type, moves 350 cubic feet of air per minute, develops static suction of 4 inches water lift.

A 1/3 H.P. lubricated-for-life ball bearing motor is used. Motor is in separate dust-proof compartment away from harmful dust. Fireproof filter is readily removed for cleaning. Overall dimensions: Height 28"; depth 21", width 22".

Ideal for grinding, sanding, polishing, buffing, and other operations where dust must be efficiently collected to protect workers' health and keep harmful dust away from expensive machinery.

The Delta-Milwaukee Dust Collector is a self-contained, portable unit which has many applications in both large and small shops. Its cost is so low it will rapidly pay for itself. It protects workers' health and keeps harmful metal dust away from machinery. It collects both fine and coarse dust and particles. It is universal in application with openings so located that it can be attached to all types of abrasive units. In addition to its direct application to Delta machine tools it can also be used with many other units. Fittings are available for this.

A powerful fan sucks both fine and heavy dust and small particles through a perfected air filter. The larger particles fall into a pan at the bottom and are easily removed.

The standard filter, furnished with all models, is fireproof, has high filtering qualities for metal dust, and is easily removed for cleaning. It need not be thrown away; when properly cleaned and oiled it will last indefinitely, reducing operating costs.

#### **Dust Collectors**

49-520-1/3 H.P. 115/230 V. 60 cy. 1-Ph. 3450 rpm.

49-521-1/3 H.P. 220/440 V. 50/60 cy. 3-Ph. 2850/ 3450 rpm. 120 lbs.

49-522-1/3 H.P. 115 V., D.C. 3450 rpm. 120 lbs. 49-523-1/3 H.P. 230 V., D.C. 3450 rpm. 120 lbs.

49-524-1/3 H.P. 115/230 V., 50 cy. 2850 rpm. 120 lbs. 49-529—Extra Standard Filter. 8 lbs.

49-531 Filter Pad Holder with two expanded Fiber Pads. 7 lbs. 49-532-24 Expanded Fiber Filter Pads in carton.

ATTACHMENT PACKAGES

No. 20-837—Cut-Off Machine Attachment, 13 lbs. No. 23-802—Tool Grinder Attachment, 8 lbs.

No. 24-819-Toolmaker Grinder Attach. 19 lbs. No. 31-803 Disk Abrasive Finishing Machine Attachment, 12 lbs.

No. 31-856 Belt Abrasive Finishing Machine

Attachment, 7 lbs.

No. 31-869—Belt Grinding, Polishing and Deburring Machine Attachment, 8 lbs.

#### AVAILABLE CONNECTION FITTINGS

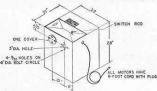
No. 49-533—Flexible Rubber Hose, 2 %" I.D.x20"

2 lbs No. 49-534—Flexible Rubber Hose, 3" I.D.x22" long, 2 lbs.

No. 49-535—Flexible Rubber Hose, 3" I.D.x48" long. 5 lbs.

No. 49-538—Cast Iron Flanges with Screw and Nozzle for  $2\frac{1}{4}$ , hose.  $2\frac{1}{2}$  bs. No. 49-539—Cast Iron Flanges with Screw and Nozzle for 3" hose.  $2\frac{3}{4}$  lbs.

No. 49-541 Hose Clamps adjust to hose, 1/2 lb.



(For Prices See Attached Price List)





PORTABLE ELECTRIC BUTT WELDER FOR WOOD AND METAL CUTTING BAND SAW



Here is an electric welding unit for butt welding either wood or metal cutting band saw blades.

Anyone with a few simple instructions can make a clean, perfect weld. The saw clamps are of an entirely new design. They grip the saw blade firmly and give positive and accurate alignment of the blade so that full electrical contact is obtained for a good weld. Only the flat portion of the blade is clamped. By turning the Tension Indicator handle to the "Weld" position and then turning on the electrical switch, the weld is automatically made. It then can be properly annealed—the heat being accurately controlled by means of a convenient trigger switch. The built-in bakelite grinding wheel allows the operator to remove all welding flash so that the blade makes a clean. smooth cut.

These operations are simple and direct. There is no "guess-work"— even the most inexperienced operator can do a perfect job.

Being entirely portable, the Butt Welder can be used for several machines; thus it will take care of an entire battery of band saws.

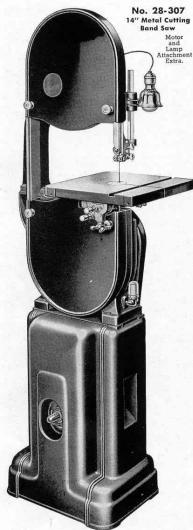
Dimensions-Unit is 12" high, 8" wide and 81/4" deep. On the steel stand it is 42" high. Available for 115 or 230 V., single-phase service only. Snap acting switch. Grinder built-in with ball-bearing motor. One Bakelite 46-grit grinding wheel furnished.

No. 28-908-Butt Welder as illustrated for 1/6" to 3/4" blades, with grinding wheel. For 230 V., 50 or 60 cycles, A.C., single-phase service. 131 lbs.

No. 28-910-Extra grinding wheel for Butt Welder; 46grit. 21/2"x 3/4" with 5/6" hole. 4 lbs.

(For Prices See Attached Price List)

# 14-inch Metal Cutting Band Saw Is Ideal for Cutting Wide Range of Materials



METAL CUTTING BAND SAW BLADES 931/2 Inches Long

Made of high grade electric furnace steel, accurately set, spaced and jointed. These blades will stand up under hard work. These are hard-edge blades for cutting all metals.

Cat. No.	Width	Teeth Per Inch	Ship. Wt., Lbs.
1060	1/2"	14	1
1062	1/2"	18	1
1064	1/2"	24	1

This Delta-Milwaukee 14" Band Saw is used for cutting everything from carbon tool steel to asbestos with hundreds of other applications. It has four metal cutting speeds and one wood-cutting speed which makes it ideal for the pattern shop.

BEARINGS: Upper and lower wheels are carried on sealed, lubricated-for-life ball bearings. The use of these bearings insures trouble-free performance for the entire life of the bearings.

GEAR UNIT: Gear unit self-contained. Spiral drive pinion and intermediate gear. final drive spur gear and pinion.

Back gear engaged or disengaged by half-turn of lever. A flip of a lever changes it from a slow-speed for metal sawing to high-speed for wood sawing. Separate belts must be used for metal and wood operation. Gear drive is simple, fool-proof and substantial, and with its helical drive gears and self-sealed ball bearings, is engineered for long, trouble-free service.

TABLE: Massive table, 14"x 14", swinging smoothly on double trunnions makes very rigid table mounting. Blade may be removed without disturbing rip-gage guide bars. Table tilts 45 degrees to right and 10 degrees to left with positive stop at horizontal position. 36" x 34" groove for miter gage.

GUIDES: Finest type of guide ever offered. Each adjustment independent of others and each made with micrometer accuracy. Guide pins can be set to blade teeth without disturbing the setting of the blade support, and blade support can be set without altering adjustment of guide pins. High-grade reversible double-seal ball bearing blade supports. Lower guide of same construction as upper one, with added safety feature that all controls are brought out to front of table. Guide comes within 3/4" of table top.

WHEELS: Aluminum wheels are carefully balanced and true-running. Are rimmed for proper mounting of tire.

Upper wheel completely enclosed, having rear guard as well as removable front guard complying with school and industrial safety requirements. Lower wheel completely guarded front and rear.

#### SPECIFICATIONS

CAPACITY:         Blade to frame         .1334"           Under guide         .614"           Under guide (with No. 894 Height Attachment)         .1234"
SPEEDS: With 1725 RPM motor         .125, 175, 250, 340 FPM           With 1140 RPM motor         .80, 114, 160, 220 FPM
For woodworking (1725 RPM motor)
DIMENSIONS: Overall height (on stand)         .65½"           Width         .18½"           Front to back         .24¾"
Table size
Table height from floor
Table tilt to right
Table tilt to left
Blade length93½"

#### CATALOG LISTING

No. 28-307 Complete 14" Metal Cutting Band Saw with No. 50-891 Steel Stand, No. 883 Belt Guard, Wheel Guards, No. 5800 Arbor Pulley for wood, No. 720 and drive, No. 49-141 V-belt for mod drive, No. 718 4-step motor pulley for wood drive, No. 718 4-step motor pulley (specify bore). Without motor, switch or lamp attachment, 250 lbs.

No. 880—14" Metal Cutting Band Saw with wheel guards, No. 5800 Arbor Pulley for wood, No. 720 4-step arbor pulley for metal and one No. 1062 metal cutting blade. Without motor, switch or lamp attachment, 172 lbs.

No. 387-V-Belt 397/8" Out. Cir. (Metal Drive).

No. 718-4-step Motor Pulley (specify bore).

No. 718—4-step Motor Pulley (specify Bore). 11/6 lbs.

No. 864—Auto-set Miter Gage. 4 lbs.
No. 882—Lamp Attachment with cord and plug. Less lamp bulb. 11/2 lbs.
No. 883—Belt Guard for use with stand.

12 lbs.

12 lbs.

13 lbs.

14 Switch Ped. for year with No.

No. 1334 Switch Rod for use with No. 28:307.

No. 28-810—Sanding Attachment consisting of flat and curved platens with guides and mounting bracket. 1 lb. No. 28-836—Five Garnet Sanding Belts, No. 28-837—Five Garnet Sanding Belts, No. 28-837—Five Garnet Sanding Belts, No. 40 Grit, Medium, ½" wide, 91" long, 1 lb. No. 28-843—Rip Gage with 18" Guide Bars. 8 lbs. 8 lbs. 18-18 flores of the sand support of the san

No. 28-845-Rip Gage with 32" Guide Bars.

14 lbs.

No. 49-141—V-belt. Out. Cir. 60". (Wood drive.) 1 lb.
No. 50-891—(Cld No. 891)—Steel stand, top 8" x 16", height 24", 30 lbs.
Motors Recommended: 88-520, 88-720, 82-710, 88-510. For complete listing of motors and switches see page 32.

SCREW FEED ATTACHMENT FOR BAND SAW An added convenience for the tool room is the Screw Feed Attachment. The toothed segment clamps to the guide bar. May be inverted for cutting long bars or removed for

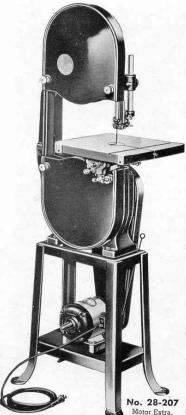
cutting rounds and ovals. Adjustable so that proper feed pressure can be applied at all times.

No. 28-852-Complete Screw Feed Attachment. 7 lbs.

-(For Prices See Attached Price List)



# Greater Rigidity, More Convenience, With This 14-inch Wood Cutting Band Saw



CHECKTICATIONS

STANDARD BAND SAW BLADES

Width Cut. Rad. Inch 931/2" long 105" long\*

No. 1032

No. 1033

No. 1034

No. 1036

No. 1038

No. 1040

Teeth Per

1/4"

3/4"

11/4"

13/4"

3/16

1/4"

3/4"

SKIP TOOTH BAND SAW BLADES

Width	Cut. Rad.	Teeth per Inch	93½" Long
1/4"	3/4"	6	No. 28-884
3/8"	1"	4	No. 28-885
1/2"	11/4"	4	No. 28-886
3/4"	13/4"	3	No. 28-887

6 \*Used with No. 894 Height Attachment.

Note: These blades can be used with Metal Cutting Band Saw Listed on page 11.

BEARINGS: Upper and Lower wheels and drive shaft are carried on sealed-for-life ball bearings which insure trouble-free perform-

TABLE: Massive 14"x 14" table with a 3%"x 3/4" miter gage groove—tilts 45° right and 10° left with a positive stop at level position. Double trunnions give table extra rigidity for large, heavy work.

GUIDES: Guides and ball bearing blade supports adjust independently with micrometer accuracy. Lower quide comes within 34" of table top. All lower guide controls at front for added safety.

WHEELS: Aluminum wheels are carefully balanced and true running-are rimmed for proper mounting of tire.

GUARDS: Upper and lower wheels completely guarded. Heavy wood guard covers saw blade at rear-sliding guard covers all but working surface of saw blade in front.

#### CATALOG LISTING

No. 28-207 Complete 14" Wood Cutting Band Saw with No. 50-891 Steel Stand, No. 883 Belt Guard, Wheel Guards, No. 5800 Arbor Pulley, one No. 1034 Wood Cutting blade, No. 49-141 V-belt, and No. 5275 motor pulley (specify bore). Without motor or switch, 250 lbs.

No. 864—Auto-set Miter Gage with individually adjustable stops 3%"x34" bar, 17" long, full 5/16" dia. stop rods, 2 clamps........... 4 lbs.

No. 890-14" Wood Cutting Band Saw with Wheel Guards, No. 5800 Arbor Pulley, and one No. 1034 Wood Cutting blade. Without motor or switch, 147 lbs.

No. 894 Height Attachment with cast block, 

No. 1334 Switch Rod for use with No. 28-207. No. 5275-234" Motor Pulley, Specify bore.

No. 28-810-Sanding Attachment consisting of flat and curved platens with guides 

No. 28-837—Five Garnet Sanding Belts No. 40 Grit, Medium, 1/2" wide, 91" long.......1 lb.

No. 28-843 - Rip Gage, 18" Guide Bars.... 8 lbs. No. 28-845-Rip Gage, 32" Guide Bars. 14 lbs.

No. 50-891-(Old No. 891)-Steel Stand, top 8"x

16", height 24"......30 lbs. Motors Recommended: Heavy Duty 62-610, 62-650, 66-320, Medium Duty 62-110, 66-110. Light Duty 60-310, 66-110. For complete motor and switch listing see page 32.

Notice the strong and accurate construction of the lower guide control and front tabl and front table trunnion. All guide control adjustments at front of table for safety.



For added conror added con-venience and increased effi-ciency, upper wheel has blade tension adjustment. Quick index shows correct shows correct tension for various widths of blades.



Two widely spaced trun nions 9 inches apart give maximum table rigidity, insures better clamping and greater accu-racy. Table tilts 45° right and 10° left.



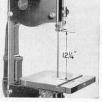
Micrometer ad-justments of blade guides insure proper blade support for accurate work yet al-low blade to run free. Guides and blade supports adjust independently.



Ripping on the 14" Band Saw 14" Band Saw is easily done with this Rip Gage. Fence has "Micro-Set" adjust-ment. Comes complete with screws for fastening.



This simple attachment increases the ca-pacity of your 14" Wood Cutting Band Saw from 61/4" un-der the guide to 121/4". Can be added at any time—105" blades are



(For Prices See Attached Price List)

No. 1045

No. 1046

No. 1047

No. 1048

No. 1050

No. 1052

# There's A Place In Every Shop For Delta Equipment



WOOD SPECIALTY CO.



MILLWORK COMPANY



SCHOOL SHOP



PUBLIC MUSEUM



WOODWORKING COMPANY



DATTERN WORKS



CABINET SHOP



DEPARTMENT STORE



ADVERTISING DISPLAYS



PLASTIC COMPANY



LUMBER COMPANY



FURNITURE MANUFACTURER

## The Abrasive Disk Finishing Machine For Wood or Metal



# A HIGH GRADE UNIT FOR FINISHING, MITERING, SQUARING AND GRINDING

Designed to meet every requirement for accurate finishing, this abrasive disk finishing machine is ideal for the cabinet shop, sign shop, furniture manufacturer, pattern maker, or any place where an accurate, fast job must be done. Being portable, it can be moved to any place in the shop or on the production line.

Used with any standard Delta-Milwaukee ball bearing motor in 8½" frame, the disk fits directly to the end of the motor shaft. Disk is specially machined to insure proper adhesion of abrasive disks, and by using disk adhesive for applying disks, there is no need for messy gluing, no removal of disk from machine, no waiting overnight for new abrasive disks to dry. Abrasive disks can be rencwed every few minutes if necessary.

#### CATALOG LISTING

No. 31-105 Complete Direct Motor Drive Abrasive Disk Finishing Machine with No. 50-432 Steel Stand, Tilting Table and one No. 1427 Garnet Disk. Without motor or switch 123 lbs.

No. 864 — Auto-set Miter Gage. 4 lbs.

No. 1426 — Direct Motor Drive Abrasive
Disk Finishing Machine with
tilt table. 53 lbs.

No. 1427 —12" Garnet Disk for wood No. 50 Grit Medium. (½ doz.) 1¼ lbs.

No. 1428 —12" Aluminum Oxide disk for metal. No. 60 Grit Medium.

No. 1430 —Disk Assembly with Flange and Set Screws. 10 lbs.

No. 49-503—Disk Adhesive. 1 lb. No. 50-432—(Old No. 1432)—Steel Stand. 311/2" high with 121/2" x 161/2"

Top. 49 lbs.

Motors Recommended: Heavy duty—84-

910, 86-920. Medium duty—82-910, 86-720. Light duty—82-710, 86-520.

For 3 phase motors use No. 1320 Manual starter, No. 1329—220 V. Magnetic starter or No. 1321—440 V. Magnetic starter and No. 1322 Mounting parts. See page 32 for Motors and Switches.

#### SPECIFICATIONS

Dimensions (Floor model on steel stand):
Width19"
Height45"
Front to rear
Table
Miter gage groove dimensions 36"x 34"
Tilt of table to front
Tilt of table to back
Diameter of disk12"
Will make an ainly describe

Tilt gage on right trunnion.

Table carried on rigid, well designed trunnions with large, convenient trunnion lock knobs.

#### DUST COLLECTOR ATTACHED TO ABRASIVE DISK FINISHING MACHINE

The Dust Copwerful sus the filter cab

The Dust Collector is especially useful with the Disk Finisher. The powerful suction of the fan pulls the dust and heavy particles into the filter cabinet keeping the shop clean. A special attachment package is available as shown

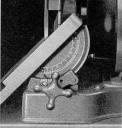
is available as shown below. See page 10 for dust collector desired.

No. 31-803—Abrasive Disk Finishing Machine Attachment Package complete as illustrated to connect Dust Collector to Finishing Machine. 12 lbs.

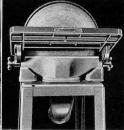




Plain and compound miters are easily handled with the aid of the No. 864 Miter Gage. Accuracy makes it ideal pattern shop tool.



Handy lock knob on either side of table locks it securely at any angle. Scale shows exact degree of tilt.

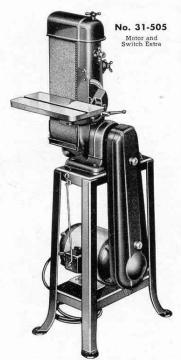


Scientifically ribbed table is mounted on two widely spaced trunnions. Dust chute carries off sawdust to the rear.



All kinds of sanding can be done quickly and easily—free hand curved sanding, sanding with jigs, angle sanding, miter sanding, etc.

# Abrasive Belt Finishing Machine Has Many Industrial Uses



HERE is a 6" belt-type abrasive finishing machine that is heavy and husky enough to do any of the dozens of sanding, polishing and finishing operations to be found around the average shop-and yet is portable enough to be used just where it is wanted. With sealed, lubricated-for-life ball bearings. Completely enclosed and quarded in accordance with safety requirements. Exceptionally heavy main drive shaft, carrying large diameter drum (51/2"). Large driving pulley to transmit power. No rubber covering required on drums. Adjustable deflector on drum hood catches practically all dust. Hood is provided with suction spout. Machine operates vertically as well as horizontally. Adjustable fence for edge sanding and adjustable back stop for flat sanding are available for use in horizontal position.

#### **SPECIFICATIONS**

OVERALL DIMENSIONS: 28" long, 18" wide, 36" high in horizontal position, 54" high in vertical position.



#### CATALOG LISTING

Fine, 1 lb.

No. 31-505

Complete Abrasive Belt Finishing Machine with No. 1414 Aluminum Oxide Belt; No. 1401 Tilting Table; No. 50-408 Steel Stand; No. 1411 Belt Guard; No. 560 V-belt and No. 5500 Motor Pulley (specify bore). Without Fence, Backstop, Motor or Switch. 124 lbs.

No. 1400—Abrasive Belt Finishing Machine only, with No. 1414 Aluminum Oxide Belt, without Fence, Backstop, Table, Stand, Motor, Belt or Motor Pulley, 86 lbs.

No. 560—V-Belt for No. 31-505. Out. Cir. 58-5/16". 1 lb.

No. 595—V-Belt for No. 31-506. Out. Cir. 61-13/16". 1 lb.

No. 864 Auto-set Miter Gage. 4 lbs.

No. 1334—Switch Rod for use with No. 31-505. 11/2 lbs.

No. 1401—Tilting Table. 15 lbs.

No. 1403—Backstop Complete with Bracket. 4 lbs.

No. 1410—Wood Fence (31/4"x171/2") with brackets. 5 lbs. No. 1411—Belt Guard with screws. 10 lbs.
No. 1412—6" Garnet Belt for Wood, 80 grit,

No. 1413—6" Garnet Belt for Wood, 40 grit, Coarse, 1 lb.

No. 1414-6" Al. Oxide Belt for Metal, 100 grit, Fine, 1 lb.

No. 1415—6" Al. Oxide Belt for Metal, 50 grit, Coarse. 1 lb.

No. 5500—5" Motor Pulley, specify bore. 11/2 lbs.

No. 31-856—Attachment Package for connecting Dust Collector to Abrasive Belt Finishing Machine. 7 lbs.

No. 50-406—(Old No. 1406)—Steel Stand, Top 8"x16", Height 2914". 30 lbs.

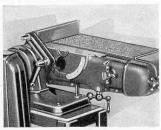
Motors Recommended. Heavy Duty—84-910, 86-920, 87-120; Medium Duty—82-910, 86-720; Light Duty—82-710, 86-520.

For complete listing of Motors and Switches see page 32.

(For Prices See Attached Price List)



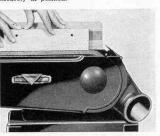
Here's a close-up of the heavy trunnion that carries the tilling table, showing the swinging stop link and adjustable stop screws. A tilting scale and adjustable pointer are also provided.



View showing No. 1403 adjustable back stop and its bracket. This is available for use in sanding flat work, to prevent the work from being carried along with the belt.



Table tilts easily and quickly 20° toward belt, 45° from belt. Standard No. 864 Miter Gage can be used. Handy locking handle locks table securely in position.



Convenient Wood Fence No. 1410 can be used to support large pieces. Adjustable deflector at end of hood catches dust and carries it off through dust spout. Can be attached to shop dust collecting system.

# You Get Accuracy—Long Life—Convenience With A Delta 10" Unisaw®



## Features That Are Yours With The UNISAW

These design and construction features make this 10 inch Tilting Arbor Circular Saw the best unit in its field today.

True-Running Arbor of forged alloy steel. Sealed, Lubricated-for-life Ball Bearings. Highly efficient 3-belt "Texrope" drive.

Massive swinging frunnions.

Perfect alignment.
Double-Face, Double-Lock Rip Fence.

Perfected Raising, Lowering and Tilting
Machania

Mechanism.

Mechanism. Big Capacity—cuts to center of 50" panel—rips 31\%" stock. Patented, precision Auto-Set Miter Gage. Big. Perfectly True Table Surface, 27"x35". "Point of use" Controls and Locks for Convenient, Safe operation. Sawdust Receptacle located in Base. Patented tubular ripping extension. Graduated Front Guide Ear. Accurate calibrations on all settings. Strong, Rigid cabinet type base.

Accurate calibrations on all settings. Strong, Rigid cabinet type base. No useless weigh—only 334 lbs. Perfect Safety—completely guarded—motor switch can be locked. Powerful, Fully Enclosed Motor, Ample space in front of blade—a full 12". Beautiful streamlined appearance.

SPECIFICATIONS
Diameter of arbor
Maximum depth of cut
Distance front of table to center of saw blade 1634"
Table size with wings
To right of blade
To left of blade
Tilt of Blade to right
Table Height 34"
Overall dimensions with Wings and Guide Bars
Rip Fence locks at both front and back.

#### CATALOG LISTING

No. 34-405 Complete 10" Tilting Arbor Unisaw for 60 cycle service with No. 1455 pair of side Extension Wings, Micro-Set Rip Fence, No. 1015 Combination Blade, No. 864 Miter Gage, Front Graduated Guide Bar, No. 1449 Motor Pulley, three No. 231 V-belts and No. 1449 Motor Pulley, three No. 231 World Services of Switch 334 lbs.

No. 34-407

Complete 10" Tilting Arbor Unisaw for 25 and 50 cycle service with No. 1455 'pair of side Extension Wings, Micro-Set Rip Fence, No. 1015 Combination Blade, No. 864 Miter Gage, Front Graduated Guide Bar, No. 1449 Motor Pulley, three No. 281 V-belts and No. 1471 Super-Sale Guard. Without Motor or Switch. 334 1bs.

No. 281 —V-Belt for 25 and 50 cycle motors (3 req.). 34 lb.

No. 291 —V-Belt for 60 cycle motors (3 req.).

34 lb.
No. 1448—10" Tilting Arbor Unisaw for 25 and 50 cycle service with Micro-Set Rip Fence, No. 1015 Combination Blade, No. 864 Miter Gage, Front Graduated Guide Bar, No. 1449 Motor Pulley, and three No. 281 V-belts. Without Guard, Splitter, Extension Wings, Motor or Switch. 304 lbs.

ownicn. 304 lbs.

No. 1450—10" Tilting Arbor Unisaw for 60 cycle service with Micro-Set Rin Fence, No. 1015 Combination Blade, No. 884 Miter Gage, Front Graduated Guide Bar, No. 1449 Motor Pulley and three No. 291 V-belts, Without Guard, Splitter, Extension Wings, Motor or Switch. 304 lbs.

No. 1451-Standard Table Insert. 13/4 lbs. No. 1454-Motor Cover, with screws. 25 lbs.

No. 1455—Side Extension Wings to make table 36"x27" per pair. 49 lbs.
No. 1471—Super-Safe Splitter mounted Guard. 11 lbs.

Motors Recommended: 85-010, 87-010, 87-210. For complete motor and switches see page 32. (For Prices See Attached Price List)

Rips Stock 31/8 Inch Thick

The Delta-Milwaukee 10" Tilting Arbor Circular Saw is completely sef-contained, motor and driving mechanism being enclosed in a strong steel cabinet type base. The saw table is 20 x 27 inches

(with wings 27 x 36 inches), it cuts to the center of a 50 inch panel and 31/8 inches thick.

Saw blade tilts 45 degrees to right, operated by a large convenient hand wheel. Blade is raised and lowered by another hand wheel at front of machine. Dado heads, moulding cutters and many other attachments may be used. Carriage swings on trunnions that are large, heavy and strong with working surfaces completely machined.

Rip-fence bar extends over the rear edge of the table-many inches past the rear of the saw blade. Fence locks both front and rear, the rear lock being operated from the front of the gage. Fence can be used on both sides of the blade. Guide bars allow the fence to be moved 25 inches to the right of the saw blade and 15 inches to the left of the saw blade. Front Guide Bar graduated for quick setting of Fence.

The saw-arbor bracket is a very heavy casting, with accurately machined teeth to fit the raising and lowering worm, and with accurate adjustable stop to limit up and down travel. The casting is mounted on a very heavy keyed shaft where it can be adjusted and locked to bring the table in exact alignment with the saw arbor flange.

The arbor is carried in two sealed, Lubricated-for-life ball bearings, mounted in diamond bored bearing seats.

#### SUPER-SAFE GUARD PROVIDES PROTECTION



The No. 1471 "Super-Safe" splitter-mounted guard is anchored directly to the arbor bracket so that when the saw is tilted the guard follows the saw-thus complete protection is always assured no matter at what angle the saw is set. Provides maximum protection because it combines basket, splitter and anti-kickback fingers in one unit. Easily removed for Dadoing and Moulding cutter work.

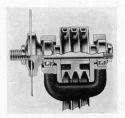
No. 1471—"Super-Safe" splitter mounted quard, 11 lbs.

#### MOTOR COVER

This cast iron cover completely encloses the opening in which the motor swings, and provides an additional safety factor for the machine. The cover is readily attached to the cabi-



No. 1454 - Motor cover with screws. 25 lbs.



Massive True-Running Arbor

The Unisaw arbor is an accurately ground shaft with a large flange. Even the arbor thread is specially designed being a modified Acme thread having a large flat surface so that it will accurately center the saw blade, culterheads, etc. Runs in sealed, lubricated-for-life ball bearings accurately pre-loaded.



Heavy Trunnions Insure Perfect Alignment

Mounted carefully on the heavy gusset plates of the cabinet, in such a way as to provide complete adjustment, the trunnions that carry the saw carriage are of exceptionally heavy construction, and are completely machined from fine grained cast iron.



Rigid, Double-Lock Rip Fence

Rip fence extends from the front clear over rear and rence extends from the front clear over read-edge of table, Quick-acting cam and lever lock at front locks fence both front and back. Rip fence bar of welded construction and equipped with micrometer adjustment. Used on both sides of blade.



Table is True and Flat

Large saw table and extensions are scientifically ribbed to prevent werping and springing. Clear-ance for saw mechanisms is provided without cutting away essential ribbing. This means you get a true, flat saw table on which to produce accurate work.



Controls are Convenient and Safe

Controls on this saw make operation fast, safe Controls on this saw make operation last, sate and easy. Big sturdy handwheels located at convenient height for easy access to operator. No interference between controls...no close quarters...no skinned knuckles. Large knobs in center of wheels lock mechanism securely.

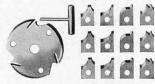
# Unisaw Features Give You You Can Make Many Different Mouldings On Your More For Your Money Circular Saw With These Twenty-Seven Sets of Knives

DOES MARVELOUS WORK - The Moulding Cutter Set is the only practical tool of its kind. It consists of a strong, well-designed steel head. A set of three interchangeable knives is locked into the head so that it is completely safe in operation. The head may be used on the 34-305, 34-307, 34-405, or 34-407 Circular Saws, and on most other saws provided with a double-face fence and %" arbor.

A perfect moulding may be produced with one pass over the knives, or, if the cut is a deep one, in two or more passes.

There is nothing to get out of order in this tool, and it is extremely safe in operation because only the actual cutting edges of the knives are exposed and even these are covered when the work is being run.

#### MOULDING CUTTER SETS AND PARTS



No. 34-813—Heavy duty moulding cutter set for all circular saws with a %" arbor. With heavy duty steel cutter head, 4 sets of high speed knives Nos. 35-102, 35-103, 35-221 and 35-222 and wrench. Order proper table insert as listed below. 8 lbs.

No. 265—Heavy duty solid steel moulding cutter-head only, to fit %" arbor. Without wrench or cutters. 3 lbs.

No. 1162—Moulding cutter table insert for 34-305, 34-307 saws.  $1\frac{1}{2}$  lbs.

No. 1453 Moulding cutter table insert for 34-405, 34-407 saws.  $1\frac{1}{2}$  lbs. No. 1521-Wrench. 1/8 lb.

Wood facings may be used on standard saw fence when moulding cutter is used.

#### EXTRA SETS OF CUTTER KNIVES

See Full Size Drawings to right.

Cutters come in sets of three matched knives. Made of high-speed steel they will cut thousands of feet of moulding before dulling. All of these knives may also be used with shaper cutter-head No. 1343. ¼ lb. each.

Description

35-100	0.00	1/2" Cove, 5/16" Quarter Hound	
35-101	254	5/16" Cove, 3%" Bead	
35-102	253	16" and 36" Quarter Round and	
		1/4" Bead	
35-103	250	1/4" and 1/2" Quarter Round	
35-104	259	Straight	
35-106	1.4.4.	90° Flute	
35-110	256	Drawer Joint	
35-131	257	Glue Joint	
35-190	177.6	3 Bead (3/16" Bead)	
35-191		3 Flute (3/16" Flute)	
35-192		3 Bead (1/4" Bead)	
35-193		3 Bead (1/4" Bead) 3 Flute (1/4" Flute)	
35-194		5 Flute (Va" Flute)	
35-195	***	5 Bead (1/8" Bead)	
35-196		Wedge Tongue	
35-197		Wedge Groove	
35-200	255	Clover Leaf Screen Moulding	
		(9/32"x 9/16")	
35-206	7.00	Page R. H.	
35-211	196	1" Flute	
35-221	251	Thumb Moulding	
35-222	252	1/2" Cove and 1/4" Flute	
35-223	258	Ogee	
35-224		5/8" Cove	
35-225	263	Flute Bead, Quarter Round and	
		Ogee Comb.	
35-226	264	Flute Bead, Quarter Round and	
		Ogee Comb.	
35-227	269	Flute Bead, Quarter Round and	
532571	110935	Ogee Comb.	
35-228	261	Flute Bead	

35-195 35-100 35-196 35-101 35-197 35-102 35-200 35-103 35-206 35-104 35-211 35-106 35-221 35-110 35-222 35-131 35-223 35-190 35-224 35-191 35-225 35-192 35-226 35-193 35-227

Note: We cannot supply cutter shapes or sizes other than those listed here.

35-228

35-194



#### CIRCULAR SAW BLADES

No. 1017—10" Rip Blade with %8" Arbor Hole. 2 lbs.
No. 1018—10" Cross Cut Blade with %8" Arbor Hole,



#### **Combination Blade**

The Combination Blade is a double-purpose blade, which rips and cross cuts equally well. This is the blade supplied with the Delta 10" Circular Saws. Teeth have proper set for free cutting. No. 1015-10" Combination Rip and Cross Cut Blade with 5%"

Arbor Hole, 2 lbs.

#### **Hollow Ground Blade**

The teeth have no set, and the work comes from the saw ready to put together. Intended for fine work only: it is not suitable for rough cutting. It miters, cross cuts and rips.

Blade with %" Arbor Hole, 2 lbs.

No. 1016-10" Hollow Ground

#### DADO HEAD AND INSERTS



For cutting grooves varying in width from 1/8" to 13/16" and up to 11/4" deep, on tilting table saw (11/8" deep on tilting arbor saw) either with or across grain. Made of the finest steel, carefully hardened and tempered. Includes 1/16" inside cutter. Fits all circle saws with a %" arbor.

No. 333 -6" Dado Head, consisting of two outer blades, 1/8" thick, two inside cutters ½" thick, one inside cutter ¼" thick, and one inside cutter 1/16" thick. To cut grooves from ½" to 13/16". With ½" arbor hole. 3½ lbs.

No. 1161-Dado Head Table Insert for 10" Tilting Table Saw, 11/2 lbs. No. 1452—Dado Head Table Insert for 10" Tilting Arbor Saw, 134 lbs.

#### MITER GAGE FOR SAW AND OTHER MACHINES



An added conven-ence for saws and other machines. Swings full 60° both right and left—has individually adjust-able index stops— theored pivot intapered pivot in-sures accuracy — massive heavy body gives full support, will not spring — heavy 3/8x3/4 inch, miter gage bar 17" long—full 5/16" dia. stop rods with two clamps.

No. 864-Auto-Set Miter Gage. 4 lbs.

No. 865 Clamp Attachment for Miter Gage with Clamp Bar, two Sliding Clamp Screws and Front and Rear Posts. 21/4 lb.

No. 873-Extra Clamp Screw and Block for Clamp Attachment, 1 lb.

#### Tenoner Makes All Cuts Safe, Square, Parallel

Work is fed to the saw with one hand-far removed from the revolving blade. The tenoner will take stock up to 234" thick, any width within the capacity of the saw, and will cut tenons to full

capacity of saw. With the use of No. 1171 spacing collars and two saw blades, 1/4" or 3/8" tenons can be cut at one pass. No. 1172-Tenoner complete with



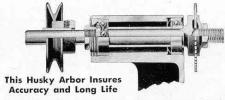
base plate. 31 lbs.

No. 1171-Spacing collar set (one 1/4" and 3%" collar). 1/2 lb.

No. 1170-Tenoner for use with No. 1186 Sliding Jig. Can also be used on shaper. 21 lbs.

(For Prices See Attached Price List)

## Accessories For Your Circular Saw | 10-inch Tilting Table Saw Assures Fast. Accurate Work



The arbor of the 10" Tilting Table Saw is accurately machined out of steel to extremely close tolerances. It is carried on widely spaced sealed-for-life ball bearings that require no lubrication. Bearing seats for arbor are "diamond-bored" to assure perfect accuracy. Arbor has Acme threads. Flanges grip blade firmly.

#### RAISING MECHANISM

RAISING MECHANISM
Table raising and lowering is done
by means of a helical gear on a shaft
operated by a comfortable, free-handle
ball crank. The gear meshes with
another running on the ball-bearing
raising screw, elevating or lowering
the table with ease and speed. The
pitch of the screw is chosen to provide a fast movement, while at the
same time it is fine enough for close
adjustment of depth.



#### MACHINED WAYS

There are cheaper ways of fitting the table to the base than that employed on this saw, but none of these was thought satisfactory enough for a good machine ... so the table is elevated and lowered on machined ways, the front one being gibbed for adjustment if this should ever be necessary.



#### WORM-GEAR TILTING

The table is positively tilted by means of a worm and sector, the worm operated by means of another comfortable ball crank. Accurate and convenient etched scales are provided for height and tilting adjustments, each provided with an adjustable pointer for accu-



## QUICK-ACTING INSERTS

Table inserts are fitted in machined openings in the table-not rough cast holes. They are instantly snapped in or out with a touch of the fingerno screws to loosen. And they are provided with adjusting screws so they may be made to lie exactly flush with the table.



#### REAR RIP-FENCE LOCK

The patented construction not only provides a rigid rip fence, locked to the quide bars at front and rear, but in this saw all the fence controls are at the front-no reaching over the saw blade to loosen or tighten the rear lock. More convenience and safety!



#### MASSIVE CONSTRUCTION

Notice the scientifically ribbed, heavy table, swinging on massive trunnions. This is a more expensive construction, but is the only one that permits the safety of a very narrow opening around the saw blade, since the table tilts at the point of opening in the table insert.



POWER TOOL DIVISION DELTA

# Large Capacity, Accuracy, Convenience in This 10" Tilting Table Circular Saw



## Here Is A Saw That Will Meet Your Most Exacting Requirements

This 10" Tilting Table Circular Saw was built with just one thought in mind—to produce a saw that would offer more accuracy, more capacity, more convenience, more built-in value than any similar saw on the market. Its uses and applications are extremely wide, and the thousands of users in production plants, both big and small, are enthusiastic in their praise of its accuracy, rigidness, power and ease of operation.

It's rigid, husky arbor is of special design to give complete accuracy. Extra large capacity—will rip through a 3½" plank and cross cuts to center of 50" panel. The table is 20"x 27" with a full 12" of saw table in front of the blade, at maximum cut 3½" thick, giving extra support where it is wanted for large heavy pieces. And there is ample surface—5"—in back of the blade also.

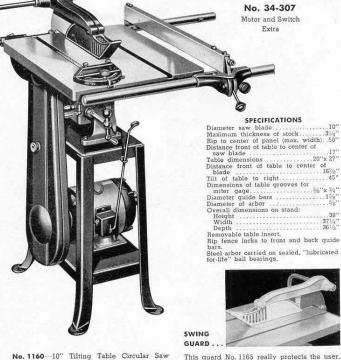
The micro-set rip fence extends from the front clear over the rear edge of the table. The fence locks both front and back.

with a handy knutled knob. An added con-Observe the convenient cam and lever lock, with its comfortable Bakelite knob. A flip of the finger and the fence is unlocked. A light pressure of the hand and it is reclamped —and SELF-ALIGNED.

The rear lock too is operated from the front with a handy knurled knob. An added convenience and safety factor.

#### CATALOG LISTING

No. 34-307—10" Tilting Table Circular Saw with No. 50-891 Steel Stand. No. 864 Miter Gage, No. 1015 Combination Blade, Micro-Set Rip Fence, Front Graduated Guide Bar, No. 1173 Belt Guard, No. 1165 Swing Guard, No. 1166 Splitter Attachment, No. 530 V-belt and No. 5500 Motor Pulley (specify bore). Without Motor or Switch. 290 lbs.



No. 1160—10" Tilting Table Circular Saw with No. 884 Miter Gage, No. 1015 Combination Blade, Micro-Set Rip Fence, and Front Graduated Guide Bar. Without Motor, Switch, Motor Pulley, V-Belt or Guard. 196

No. 530-V-Belt. Out. Cir. 55". 1/2 lb.

No. 871—Holddown with Clamp, Brackets and Springs. 4 lbs.

No. 1163—Standard Table Insert. 11/2 lbs.

No. 1330—Switch Rod for use with No. 34-307, port Arm, Pivot Bracket, Basket, Collars and Screws. Without Splitter. 19 lbs.

No. 1166—Splitter Attachment consisting of splitter, Anti-Kickback fingers and collars for Support Arm. 5 lbs.

No. 1173—Belt Guard. 11 lbs.

No. 1330—Switch Rod for use with No. 34-307.
No. 5500—5" Motor Pulley. Specify ½",

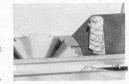
\$6" or \$4" bore, 114 lbs.

No. 50-891—(Old No. 891)—Steel Stand 24" high, top 8" x 16", 30 lbs.

Note: For heavy duty service 2 belts are recommended. Order extra: one No. 5300 arbor pulley %" bore, one No. 5500 motor pulley (specify bore), and one No. 530 V-belt.

Motors Recommended: Heavy Duty 84-910, 86-920; Medium Duty 82-910, 86-720; Light Duty 82-710, 86-520. For complete motor and switch listing see page 32.

This guard No. 1165 really protects the user. Basket pivots with work so that blade remains covered while view is unimpaired.



SPLITTER SUITS

KERF . . .

The No. 1166 is the only practical type Splitter. Used with or without the basket. Floats to accommodate itself to the kerf.





Prevents work from kirking back against operator. Invaluable when sawing poorly seasoned or warped wood. Kickback fingers take all work from thinnest strips to full capacity of blade.

(For Prices See Attached Price List)

## Saw Jointer Unit Ideal For Contractors and Cabinet Makers

Cuts 31/4" Stock-Rips to Center of 50" Panel - Joints 1/2" Deep x 6" Wide

No. 37-595 Combination Unit

Motor and Switch Rod

## Saw Jointer Combination Saves Space-Money and Time-Speeds up Production

THE ADVANTAGES of the Saw-Jointer Combination has made it a favorite of the contractor, furniture or novelly manufacturer and the cabinet maker where accurate work must be done at high speed and low cost. In tack in practically every type of woodworking shop this versatile machine will almost immediately pay for itself and will constantly show a profit.

NO INTERFERENCE... There is absolutely no interference between the Circular Saw and Jointer in the Delta combination units. Either machine may be used singly, or both may be used together, by one man or by two, with ease and facility.

SPACE SAVING... Both machines are driven from below by the same motor. This not only increases portability, but also saves shop space.

**IOW POWER COST...** Since both machines are driven from the same motor, not only is the cost of an additional motor saved, but the running cost is generally lower than with two separate motors.

PORTABILITY... in spite of their large capacity, the Delta combination units are so compact that they are used as portable units for many outside jobs, as well as being used anywhere in the shop where they will best suit the job. Many contractors load them on a truck and take them right to the job. Job. Many contractors load them on a truck and take them right to the Job. MAXIMUM EFFICIENCY. . The extreme handiness of being able to rip stock to width and then joint it without moving more that a step must be experienced to be appreciated. Users who own these combination units claim that they can perform 80% of all common woodworking optations of our combination units any type from 25% to 50% in time. Use one of our combination units any type wife of the combination why they are so popular! Hundreds of installations testify to their usability and value.

## CASTERS FOR PORTABLE UNITS

Here is an attachment that greatly increases the portability of your Delta machines. With this caster outfit you can instantly wheel your machine to any part of the shop you desire, yet it is solid and steady the moment



The attachment consists of two clamps, attached to the upper shelf of the Delta steel stand, two pads for the front legs, two casters for the rear legs and two lengths of cadmium-plated pipe with a coupling.



No. 50-351 Caster Attachment as shown right. 12 lbs.

#### SPECIFICATIONS Jointer: Saw: Capacity 5" width Rabbet 5" deep Fence tilts 45° right and left. Adjustable stops at 45, 90 and 135 degrees. Cutter head has 3 knives. .20"x 27" Table ..... Table tilts 45° to right. 5%" diameter Cutter head has 3 knives. Arbor 55 diameter Lubricated for life ball bearings. Lubricated for life ball bearings. Overall Dimensions. 371/2" deep x 60" wide x 38" high

#### CATALOG LISTING

10" Circular Saw-6" Jointer Combination Unit as shown, less motor and switch rod. Unit consists of No. 37-595

following parts:	15 0
No. 1160—10" Tilting Table Circular Saw	lbs.
No. 1166—Splitter Attachment for Saw	lbs
No. 5500—5" Motor Pulley for Saw, 3/4" bore 11/4	lbs.
No. 560 — V-belt for Saw. O.C. 58-5/16"	lb.
No. 654 —6" Ball Bearing Jointer 124	lha
No. 5700-7" Motor Pulley for Jointer, 34" bore 2	lbs
No. 510 — V-Belt for Jointer, O.C. 52%	lb.
No. 50-168—(Old No. 1168)—Steel Stand	lbs.
ACCESSORIES	
	following parts:         186           No. 1160 – 10" Tilting Table Circular Saw         18           No. 1165 – Swing Guard for Saw         19           No. 1566 – Spiliter Attachment for Saw         5           No. 5500 – 5" Motor Pulley for Saw         3/" bore         11/4           No. 550 – 5" Motor Pulley for Saw         10" bore         14           No. 564 – 6" Ball Bearing Jointer         12         18           No. 5700 – 7" Motor Pulley for Jointer         24         10" bore         2           No. 570 – 7" Motor Pulley for Jointer         24         5" bore         2           No. 570 – 3" Bott for Jointer         0.C. 5276         15" bore         2           No. 500 – 68 – (Old No. 1189) – Steel Stand         76         76

No. 662 — Rear knife guard for jointer 2 lbs.

No. 1334 — Switch rod for single phase motors 1½ lbs.

Note: For heavy duty service two belts recommended (for saw). Order extra: one No. 5300 Afbor Pulley, %" bore, one No. 5500 Motor Pulley %" bore; one No. 550 V-belt.

Motors Recommended: Heavy Duty 87-120; Medium Duty 84-910, 86-920; Light Duty 82-910, 86-720. (For complete listing of motor and switches see page 32.)

#### CLAMP ATTACHMENT FOR MITER GAGE

An added convenience. Holds work in position. Invaluable for cutting accurate narrow miters as well as wide ones,



and for all cutting off operations where accuracy is of first importance.

No. 865—Clamp Attachment for miter gage with clamp bar, two sliding clamp screws and front and rear posts. 21/4 lbs.

No. 873—Extra clamp screws and block for clamp attachment. 1 lb.

#### ARBOR



Accurately made, rugged and strong. For grinding wheels, buffing wheels, wire wheels, etc. Flanges machined true. Fits any 1/2" shaft. Right hand thread only.

No. 49-118-Arbor with 1/2" hole.

## GUM AND PITCH REMOVER

Delta gum and pitch remover keeps your tools clean, bright and new looking. It improves your cutting and makes your work cleaner and easier.



No. 4051-Gum and Pitch Remover. 2 lbs. (For Prices See Attached Price List)

# 6-Inch Jointers That Give You A Smooth, Even, Accurate Finish



Found In These 6-Inch Jointers

An exceptionally heavy, rigid unit, cast of close grained iron and accurately machined to close tolerances. Tables are finish ground after assembly on base. This not only assures a true flat surface but eliminates any chance of misalignment. Front and rear tables are individually controlled by readily accessible control handles and gibs are provided on the dovetailed ways to take up wear.

The fence, also ground, is rigid and a single dual-control handle, regulates tilting of the fence and movement across the table. Convenient scales on the table and fence permit accurate settings. Front knife guard provides protection. Stands have built-in dust chute.

Compare this 6" Jointer with others on the market and you will see why this machine has become the standard for shops of all kinds from novelty factories to the experimental departments of large furniture

(For Prices See Attached Price List)

Rabbett cuts a full 1/2" deep can be made. Guard is instantly removed for rabbetting and is quickly placed. Front and rear guards may be locked to pre vent unauthorized removal.





#### CATALOG LISTING

No. 37-207 6" Jointer with No. 50-55 Steel Stand, No. 659 set of 3 high-speed steel knives, 2-way tilling fence with "dual control," No. 5275 Arbor Pulley, front safety knite guard, No. 656 Belt Guard, No. 560 V-belt, and No. 5700 Motor Pulley (specify bore). Without metor or switch. 190 lbs.
No. 560 — V-belt, 58-5/16" out. cir. 1/2 lb.

-V-beit, 38-5/16 out, cir. ½ Ib.
6" Jointer with No. 559 set of 3 highspeed steel knives, 2-way tilting fence
with "dual control," No. 5275 arbor
pulley and front safety knife quard.
Without motor or switch. 124 lbs. No. 654

Set of 3 high-speed knives. 3/2 lb. Belt guard for use with steel stand. 9 lbs.

Rear knife guard. 2 lbs.

Cutterhead for 6" Jointer complete with Knives and Bearings. 10 lbs. No. 662 No. 663

Switch Rod for use with No. 37-207. 11/5 lbs.

1\(\frac{1}{2}\) lbs.

No. 1522 — Double end 5/16" open wrench for cutterhead knife lock bar screws. \(\frac{1}{4}\) lb.

No. 5700 — T'' motor pulley, specify \(\frac{1}{2}\) ", \(\frac{5}{4}\)" or \(\frac{3}{4}\)" ibror. \(2\) lbs.

No. 50-65 — Cold No. 656) — Steel stand, top 8" x \(15\) \(\frac{5}{4}\)" ibjd. \(33\) lbs.

Motors Recommended: Heavy Duty 62-610, 66-320; Medium Duty 62-110; 66-110; Light Duty 60-310, 66-110. For complete listing of motors and switches see page 32.

#### SPECIFICATIONS

Dimensions on steel stand:
Height391/4"
Width14"
Length37½"
Dimensions on cast iron stand:
Height35 1/2"
Width14"
Length371/2"
Capacity:
Maximum width of boards
machine will surface6"
Maximum depth rabbett cut1/2"
Fence is 4" high x 273/4" long.
Fence Tilts right and left45°
Front Table
Rear Table16" long
Overall Table length32"
Adjustable stops at45°, 90°
and 135°
Number of knives in cutter head3
Unit has sealed-for-life ball bearings

which require no lubrication.

Dual control handle slid out engages bracket lock nut allowing fence to be moved across table to any position. Does not disturb previous angle settings. When tight-ened it clamps tence firmly and accurately in place.



Touch of finger moves stop links in or out of position. Individually adjustable set screws permit fence to be ac-curately set at 45°, 90° or 135°. Large scale provides for accurate settings.

Stop screws are individually adjusta-ble for absolute accuracy. Once the stops are set, the fence may always be returned to its original setting.









# 50 The Smoothest Running Scroll Saw You Can Buy



Specifications
Capacity, arm to saw24"
Thickness of cut
Table size
Table tilts
Table from floor
Overall Height         55"           Width         15"           Length         36"
Speeds (Variable Speed Model)
Overarm can be removed for unlimited cutting capacity with saber

#### **Catalog Listing**

No. 40-205—Four Speed 24" Scroll Saw with No. 50-716 Steel Stand, No. 720 4-step Cone Pulley on Arbor, No. 718 4-step Motor Pulley (specify bore), No. 340 V-belt, No. 1203 Belt and Pulley Guard, I Sabor

(specify bore), No. 340 V-belt, No. 1203 Belt and Pulley Guard, I Sabel Blade and 3 Scroll Saw Blades. Without motor or switch. 194 lbs. No. 40-305 – Variable Speed 24" Scroll Saw with No. 50-716 Steel Stand, No. 1443 Arbor Pulley, No. 1446 Variable Speed Motor Pulley 16" bore, No. 1447 Motor Base and Bracket, No. 331 V-belt, No. 1442 Belt and Pulley Guard, I Saber Blade and 3 Scroll Saw Blades. Without motor or switch. 187 lbs.

No. 331-V-belt for Variable Speed scroll saw. 1/2 lb.

No. 340-V-belt for 4-Speed scroll saw. 1/2 lb.

No. 718-4-step cone pulley for motor, specify 1/2, 5/8 or 3/4 bore. 11/8 lbs.

No. 1203 Belt and pulley guard for 4-speed scroll saw. 15 lbs.

No. 1207—4-speed accessory group consisting of No. 718 motor pulley (specify bore), No. 720 spindle pulley and No. 340 V-belt. 13/4 lbs. No. 1440—24" Scroll Saw with 1 Saber Blade, 3 Scroll Saw Blades, without motor or switch. 106 lbs.

No. 1442-Belt and pulley guard for Variable-Speed Scroll Saw, 6 lbs. No. 1443—Special arbor pulley for Variable-Speed Scroll Saws 1/2" bore. 256 lbs

No. 1446-Variable-Speed motor pulley only 1/2" bore, 2 lbs.

No. 1447—Motor Base for Variable-Speed scroll saw with bracket, screw and handle. 6 lbs.

No. 50-716-(Old No. 716)-Steel Stand 311/2" high; top 7"x 33". 55 lbs. Motors Recommended: Heavy Duty 62-110, 66-110; Medium and Light Duty 60-310. (For complete listing of motors and switches see page 32.)

(For Prices See Attached Price List)

#### Why These Modern High-Speed Scroll Saws Give You Better Performance... Longer Life . . . Faster Output!

Experienced scroll saw users know that there are several features essential in a good scroll saw. It must be capable of using all types of bladesit must operate with minimum blade breakage-a minimum of vibration at all speeds and must have a selection of speeds for various types of work.

The patented chucks in Delta scroll saws are completely universal, taking jeweler's blades, saber blades, sanding drums and round shank files up to 1/4" dia. shank-without any adapters. Operation is smooth and free-the blade is properly guided reducing blade breakage.

The heavy cast table not only tilts to the right and left but, by rotating the table bracket 90 degrees and the chucks so that the blade cuts sideways, the table tilts to front so stock of any length can be cut.

Timken-bearing crankshaft . . . shaft-driven blower pump which makes air available even for saber blades . . . universal tilting table, tilting for sidewise cutting as well as for straight cuts . . . the finest completely universal blade guide made . . . high-speed blade support . . . adjustable blade tension . . . splash-lubricated drive . . . tilting spring hold-down . . . these are only a few of the things that make the Delta-Milwaukee 24" scroll saws the finest tools of their type ever offered.

#### Available In Two Models

Made in the Variable-Speed model which gives you any speed, and in a Standard Four-Speed model.

Any Speed From 650 to 1700 Cutting Strokes per Minute With the Variable Speed Model.

A Thousand Speeds at the Touch of Your Finger -that's what you get with this perfected control of speed. Two or four speed saws have limited choice of speeds-too slow for some materialstoo fast for others. With the Variable-Speed Scroll Saw you can select ANY speed from 650 to 1700 C.S.M.\* controlling the speed within 1 or 2 C.S.M.\* if necessary. High speed for fast, fine work—slow speed for heavy work-and ANY speed in between. Speed controlled by conveniently located ball crank.

A Four-Speed Model with 610-910-1255 and 1725 Cutting Strokes Per Minute

Operating at four well-selected speeds, this scroll saw has the same features as the Variable-Speed unit described above. The heavy, rigid over-armthe heavy 14"x 14" finely finished cast iron table, the design of the chucks, blade support, guide and other features make this an excellent saw for all purposes. Speeds 610, 910, 1255 and 1725 C.S.M.\*

\*Cutting strokes per minute



Universal Chuck made of steellight but strong. Capable of holding blades, files and sanding attachment.



Spring hold-down functions even when table is tilted-giving added accuracy and ease of opera-



Efficient blade quide and roller support holds blades in true alignment - even when saber blades are used.



Big capacity for all jobs. Cuts up to 13/4" thick and the distance to the overarm is 24"

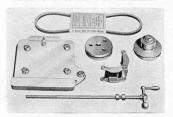


Tension spring over saw blade can be adjusted to suit the type of cut or the type of blade used.

#### POWER TOOL DIVISION

## Accessories That Increase The Usefulness of Your Scroll Saw

#### VARIABLE SPEED ATTACHMENT



Any Delta-Milwaukee four-speed 24" Scroll Saw may be easily converted into a Variable-Speed Model with the use of the No. 1444 Variable Speed Accessory Group shown in the photo above and the No. 1442 Belt and Pulley Guard.

It consists of the variable-speed motor pulley, motor base with bracket screws and handles, special V-belt, and special arbor pulley. With this accessory group any speed from 650 to 1700 cutting strokes per minute may be obtained using a 1725 r.p.m. motor.

No. 1444 Variable-Speed Accessory Group consisting of No. 1446, No. 1447, No. 331 and No. 1443. 11 lbs.

No. 1442-Belt and Pulley Guard for No. 1444. 6 lbs.

#### LOWER SABER BLADE GUIDE

Supports saber blade directly below table. Also enables you to do perfect straight-line work, when used in conjunction with the upper guide, as blade is supported above and below the table.

No. 1204 - Lower Guide for Scroll Saw, with post, nut and thumb screw. 5/8 lb.



#### SANDING ATTACHMENT



Built to sand concave, convex or flat surfaces, this convenient sanding attachment saves hours of hand labor. It does away with the annovance of makeshift devices. Knurled knob expands the body of sanding attachment and tightens garnet sleeve securely. 15/16" wide, 1/2" thick and 21/2" long. 1/4" diameter shank fits lower jaw of Scroll Saw.

No. 711-Sanding Attachment with one sleeve. 1/2 lb.

No. 841-Six No. 1 Grit Medium Garnet Sleeves, 3/8 lb.

No. 842-Six No. 1/0 Grit Fine Garnet Sleeves, 1/2 lb.

#### INDIVIDUAL BLADE GUIDES



These guides supplement the regular guide and holddown, and are used where close following of a line or pattern is important. Ideal for puzzle and mar-

quetry work. Set consists of six different hardened steel guides and a bracket. No. 1202-Set of six guides and bracket.

1 lb

#### SELF-CENTERING CHUCK

Fits lower plunger of Scroll Saw. A boon to craftsmen who specialize in puzzle and marquetry work. Fine blades are automatically guided to center of chuck and locked securely with thumb screw. saving much time especially on interior cuts.



No. 715 Self-centering lower jaw chuck. 3/8 lh

10000

#### LAMP ATTACHMENT

Brings light to work where needed in volume enough for accuracy in following layouts, yet it does not glare. Is independent of shop lighting system

can be swung out of way by a touch of the finger—uses 15 or 25 watt bulbs. Will add much to the accuracy and quality of your work. No. 882-Lamp attachment with shade, socket, cord, four flat links, bolts, spacer and attachment bracket. 11/2 lbs.

#### MACHINE FILES

Machine Files with 1/4" shank Overall Length 31/4"

No. 726—Square							
No. 727—Crochet							
No. 728—Half Round					٠.		
No. 729—Round						•	
No. 730—Triangle							
No. 731—Oblong							
No. 740—Set of above si	ix.	1/2	1	b.			

	Machine Files with ½" shank Overall Length 3¼"
	No. 751—Square
1	No. 752—Crochet
1	No. 753—Half Round
0	No. 754—Round
4	No. 755—Triangle
ı	No. 756—Oblong
0	No. 757—Lozenge
7	No. 758—Knife
	No. 760—Set of above eight. 1/2 lb
	(For Prices See Attached Price List)

#### GRAY MACHINE ENAMEL

Hundreds of users have purchased the attractive medium gray enamel, with which we paint our machines, in order to paint benches, other tools and accessories in their shops to



match. Excellent quality finish. Has a hard smooth surface; dries quickly. May be brushed on or sprayed

1000				or ob.	aj ca.
	S DE	Cat. No.	Size	Shade	Ship. Wt.
	355	49-333	1 qt.	Med.	5 lbs.
		49-334	1 gal.	Med.	14 lbs.

#### NEW, BETTER, RUST REMOVER

A non-inflammable liquid that removes rust and cuts grease and oil from iron and steel. Deltacraft Rust Remover also cleans copper. brass, aluminum, zinc die castings, galvanized iron, iron and steel.

Ready to use - apply with spray, brush, steel wool or cloth. Does not leave chalky surface, requires no extra wiping.



No. 49-319-1 qt. bottle.

No. 49-320-1/2 pt. bottle. 11/2 lbs.

No. 49-321-1/2 gal. bottle. 7 lbs.

No. 49-322-1 gal. bottle.

#### "STOP RUST" Prevents Rust Formation



When applied to any clean polished metal surface it prevents the formation of rust or oxidation. Is not sticky or oily. Apply Stop-Rust according to directions and it will give you a polished, safely-protected surface without a trace of smeariness

No. 109-1 pint can, 11/4 lbs. No. 110-Case of 12 pints. 16 lbs.

Note: Paint, Rust Remover and Stoprust are not mailable. Shipment must be express or freight.

#### SABER BLADES FOR WOOD



Made of best steel, accurately hardened and set. 5" long overall. 6 to a package. 3% lb. 703-1/2 doz. .025" Thick, .187" Wide, 9 teeth per inch.

704-1/2 doz. .035" Thick, .250" Wide, 7 teeth per inch.

# How To Select And Use The Right Scroll-Saw Blade

THICKNESS OF MATERIAL TO BE CUT

1/2

65

65

65

85

85

65

65

85

98

65

98

65

65

65

82

82

98

65

98

98

85

QR

82

1/8 to

1/4

60

91

60

60

60

86

81

91

81

91

65

65

91

98

81

86

91

91

91,703

704

When compared casually with one another many blades look so much alike that the average person mistakingly thinks them to be the same. Actually, there is a great difference in how they cut — in the number of teeth per inch, the set of the teeth, the thickness of the blade and its width.

On this page is a complete guide you can follow in selecting the proper scroll-saw blades.

The table below recommends — by blade number — the blade you should use to cut various materials. And it gives the speed at which you should run the scroll saw to do the best job.

The recommendations given are average recom-

Up to

1/16

58

95 96

58

95

58

58

84

84

95

95

95

84

84

84

96

84

84

58

1/16 to

1/8

59 59

96 59

64

59

64 59

64

83

83

96

65

96

59

96

82

83

98

82

83

SPEED

SLOW

SLOW

MEDIUM

SLOW

SLOW

MEDIUM

SLOW

SLOW

SLOW

SLOW

MEDIUM

SLOW

MEDIUM

SLOW

MEDIUM

SLOW

SLOW

FAST

FAST

FAST

FAST

MEDIUM

MATERIAL TO BE CUT

JEWELRY METALS

ALUMINUM,

BRASS

LEAD.

PEWTER

SHEET IRON.

MILD STEEL

ASBESTOS

CELLULOID

PLASTICS LAM'D PLASTICS

**FIBERTEX** 

MICARTA IVORY

BONE

PEARL

MICA

FELT

BRAKE LINING

HARD LEATHER

HARD RUBBER

PRESSED WOOD

INLAYS

VENEER

PLYWOOD

WALL BOARD

HARDWOOD

SOFTWOOD

PAPER

BAKELITE

COPPER

mendations. You will find that there are differences in material and for different thicknesses, or even for the variation in the material itself, different blades should be chosen to do the best cutting job. In almost all cases, however, the blades shown here and recommended are the blades that will give you the finest cuts possible when run at the proper speeds. It may be necessary if you do run across variations to do a little experimenting with the speed at which the saw is run and also in the blade itself.

We suggest that you keep this page, as a handy aid in selecting and using the right scroll-saw blade for your job.

1/s to

1/2

91

91

91

65

86

81

91

81

91

65

65

91

91

91

91,703

704

91 to 1"

91 to 2"

91

703

92,704

91 to 1"

92,704 91

1/8 to Cap. 1/4 to Cap

of Saw

88

92 to 1"

94 to 2"

88

91 to 2"

91

88

92, 703

94.704

94

94

91

of Saw

Below are full-sized profiles of Delta Scroll-Saw Blades. Blade number, dimensions, and number of teeth per inch are given for each. 6 to a package.

Pkg. No.	Thick- ness	Width	No. of teeth per inch
58	.020	.070	32
59	.020	0.70	20
60	.020	0.70	15
61	.020	.085	15
64	.020	.110	20
*****	*******	*****	·
65		.250	20
77	.010	.048	18
81	.010	.070	14
82	.010	.055	16
83	.010	.045	18
84	.008	.035	20
85	.019	.050	15
86	.019	.055	12
87	.020	.070	7
88	.020	.110	7
91	.020	.110	15
92	.020	.110	10
93	000	107	111
35	.028	.187	10
94	.028	.250	7
95	.016	.054	30
96	.016	.054	20
97	.020	.070	1.5
98	.020	.085	12

59 SPEEDS: SLOW, 650 to 900 R.P.M.-MEDIUM, 900 TO 1300 R.P.M.-FAST, 1300 TO 1750 R.P.M.

#### POWER TOOL DIVISION

# Delta Equipment Is Used Everywhere



ALUMINUM COMPANY

LUMBER COMPANY

HOME BUILDER



GLASS PRODUCTS COMPANY



HOBBY CLUB



PRECISION TOOL MFR.



WOODWORKING COMPANY



TRUCK BODY WORK



SCHOOL SHOP



WOOD SPECIALTY COMPANY



HOME WORKSHOP



PEN MANUFACTURER

# Large Capacity — Smooth Operation — Long Life in This Husky Shaper



#### Designed and Built to Handle Heavy, Fast Cuts . .

Ideal for the cabinet shop, furniture factory, specialty shop, sash and door company—as a matter of fact, any shop where accurate production shaping must be done at low cost. The table is big 27". 28" and can be increased to 27"x 36" by adding the extension table. Big and husky spinide is 34"x 34", under the nut with a full 3" travel. Carried on sealed, Lubricated-for-life ball bearings. Spinide is accurately ground—bearing seats diamond bored for absolute accuracy. Sinusdard 3's spinide east-spinide for 3 lip formed culters or with ½" stub spinide for 5 lip formed culters or with ½" stub spinide square with table.

Main bearing housing is massive and is supported by a 3 point suspension which keeps spindle square with table.

spindle square with table. Removable table inserts in three sizes provide capacity for solid cutting tools up to 6° in diameter and sectional and inserted cutters up to 4° in diameter. Safety and convenience are retained. Spindle height indicator covers plant 1° track. Knob in center of hand wheel locks position. Each half of fence is fully adjustable independent of other half, a good safety feature. Steel cabinet fully encloses motor and working mechanism. Doors provide easy access for repairs or stay put yet light enough to be moved to facilitate production.

#### CATALOG LISTING

No. 43-205—Shaper with No. 1354 Fence, 34".
Spindle, Table Inserts, Starting Pin, Wrenches,
Spindle Pulley, two No. 1349 Table Extensions,
No. 287 Vberl and No. 5710 Motor Fulley
(specify bore). Without Motor, Reversing
(specify Laborated Pin Starting Pin Starting Pin
No. 140—Shaper with No. 1354 Fence, 34".
Spindle, Table Inserts, Starting Pin, Wrenches,
Spindle Pulley, one No. 1349 Table Extension,

No. 287 V-belt and No. 5710 Motor Pulley (specify bore). Without Motor, Reversing Switch or Cutters. 297 lbs.
No. 287 – V-Belt, Out. Cir. 30". ½ lb.

No. 864—Auto-set miter gage, 4 lbs.
No. 865—Clamp attachment for miter gage, with clamp bar, two sliding clamp screws, and front and rear posts. 2½ lbs.

No. 873—Extra clamp screw and block for Clamp Attachment. 1 lb.

No. 1345—½" stub spindle for cope cutters with ½" hole. 1 lb.

hole. 1 lb.
No. 1349—Extension table, 8"x 27". 23 lbs.
No. 5710—7½" motor pulley for 3450 r.p.m. motors. Specify Bore. 2 lbs.
No. 43-826—Solid Shaper Spindle Cartridge Assembly with 34x10 R.H. Thread for use on No. 1340 or No. 43-265 Shaper when only counter-clockwise rotation of spindle is desired. This spindle cannot be reversed for clockwise rotation.

tation.

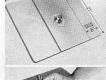
No. 43-827—Solid Shaper Spindle Cartridge Assembly with %x10 L.H. Thread for use on No. 1340 or No. 43-205 Shaper where only clockwise rotation of spindle is desired. This spindle cannot be reversed for counterclock-

spindle cannot be reversed for counterclock-wise rotation. Important: Order proper "On-and-Off" switch and mounting parts. For single phase and D.C. motors No. 132 switch, for 3 phase motors No. 1320 switch and No. 1327 mounting parts. Reversing mechanism bull into single phase motors, for 3 phase and D.C. motors order No. 1235 reversing switch. For complete listing of motors and switches see page 32.

For Prices See Attached Price List)

Table Height
Table Size
Table Size with extensions27"x 36"
Table Opening Diameters634", 31/2", 3'
and 1%*
Spindle Diameter Furnished
Other Spindles Available1/2" and 5/16"
Capacity, 34" Spindle (under nut)314"
1/2" Spindle (under nut)21/2"
5/16" Spindle (under nut)11/2"
Spindle Travel3'
Spindle Speed (r.p.m.)
Largest table opening
Fence Size (each side)334"x 123%"x 15/16"
Spindles are interchangeable.

Table is big 27"x 28" with a 3/8" x 3/4" groove for miter gage or jigs. May be increased to 27"x 36" by adding exten-sion table.



Exceptionally long 3/4" diam-eter spindle. Spindles readily inter-changeable for use of wide variety of cut-ters. Note removable table inserts in 3 opening sizes.



Spindle assem-bly showing rugged design, short, stiff drive spindle, well spaced bearings . . . produces chatterless work. work.



Entire mecha-nism is one unit assembled and bolted to bottom of ta-ble, nothing to get out of alignment, in-sures true run-ning.



All controls in one group. Hand wheel Hand wheel for spindle ad-justment . . . lock knob . . . scale showing spindle height . . . and start-ing switch.



Fully adjusta-ble fence — both halves adjust indeadjust inde-pendently adjustable end-wise so open-ing may be made small as required.

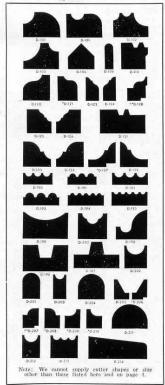


## Accessories That Add To The Usefulness Of Your Shaper

#### 3 - LIP CUTTERS AND COLLARS



These three lip cutters offer un-limited possibilities in making hundreds of moulding shapes. They have involute relief and honing the face does not change the shape. The collars for use with the cutters are ground to size. Cutters below illustrated



#### SLIDING SHAPER JIG



Shaping of short and narrow pieces is now a safe, accu-rate operation with the sliding shaper jig. The hands never come close to the cutters, and the work cannot slip. No. 1186 - Sliding

Shaper Jig. 19 lbs.

No. 1170 — Tenoner
for use with No.
1186 Sliding Jig.

21 lbs.

#### SPRING HOLD DOWNS



Holds work firmly against fence and table . used on either end of fence. Accommodate work up to 31/2" thick.

No. 983-Set of Spring Hold Downs. 2 lbs.

#### STANDARD CUTTER SETS

No. 1182—Standard Cutter Set includes D-100 to D-109 inclusive and collars D-142 to D-149 inclusive. Packed in wood box. 3½ ibs 100 to D-149 inclusive. Packed in wood box. 3½ ibs includes D-128, D-135 to D-139 Cutters inclusive: D-132 and D-134 Collars. Packed with No. 1345 Stub Spindle Assembly and SP-10 Wrench. 2 lbs.

Spindle Assembly and SP-10 Wrench. 2 Lis.
No. 1214—Sash and Cabinet Cutter Sct includes
D-108, D-120, D-121, D-123 to D-128 inclusive
and D-130 Cutters. D-140, D-141, D-150 and
D-151 Collars. Facked with No. 1345 Stub
D-205.5—Pages Door Assembly Set Tech. D-205.
D-205.6—Insale cutters, and D-217 collar.

D-206-5 — Pigee Door Assembly Set includes D-205, D-206 female cutters, D-108 straight cut-ter and D-133 collar,

D-208-S—Cove Cutter Assembly, includes D-207, D-208 cutters, D-133 and D-215 collars.

D-210-5 Bead Sash Cutter Assembly, includes D-209, D-210 and D-108 cutters.

SPECIAL NOTE: If you do not have 1/2" Spindle for your Shaper, order, in addition, one No. 1347 1/2" Spindle.

#### SHAPER COLLAR SETS

No. 1210—Set of 7 collars from 3/4" to 11/6" diameter, D-142, D-143, D-144, D-145, D-171, D-172 and D-173, 3/4 lb. No. 1211—Set of 6 collars from 1-3/16" to 11/2"

diameter, D-141, D-146, D-147, D-148, D-174 and D-175. 1 lb.

No. 1212—Set of 6 collars from 1-9/16" to 17/6" diameter, D-149, D-176, D-177, D-178, D-179 and D-180. 11/2 lbs.

No. 1191—Set of 4 collars for sash cutters, D-140, D-141, D-150 and D-151. 1/2 lb.

No. 1198 Set of Table Inserts with Guide Shoulders SR-253 23%" dia. and SR-254 15%" dia. ½ lb.

#### 3 - Lip Cutters with 5/16" Hole

No. 980—Set of 24 Edge Cutters D-1 to D-80 with No. 978 Adapter and 6 Collars in wood box. 2 lbs. For use on the No. 1346 spindle, (For complete Listing on these cutters see page 4.)

#### 3 - KNIFE SAFETY CUTTER HEAD



Made of alloy steel. Bushing furnished so that cutterhead fits either ½" or ¾" spindles. Uses moulding cutter knives listed below. Furnished without knives.

No. 1343-3 Knife Cut-ter Head. 11/2 lbs.

#### **IXTRA SETS OF CUTTER BLADES** Come in sets of three matched blades.

35-100	2000	16" Cove, 5" Quarter Round
35-101	254	" Cove, "s" Bead
35-102	253	36" and 36" Quarter Round and 36" Bear
35-103	250	14" and 1/2" Quarter Round
35-104	259	Straight
35-106		90° Flute
35-110	256	Drawer Joint
35-131	257	Glue Joint
35-190		3 Bead (%" Bead)
35-191		3 Flute ( "Flute)
35-192		3 Bead (14" Bead)
35-193		3 Flute (% "Flute)
35-194		5 Flute (%" Flute)
35-195		5 Bead (%" Bead)
35-196	-	Wedge Tongue
35-197	******	Wedge Groove
35-200	255	Clover Leaf Screen Moulding (9/32"x 2")
35-206		Pree R. H.
35-211		1" Flute
35-221	251	Thumb Moulding
35-222	252	1/4" Cove and 1/4" Flute

See page 21 for actual size and shape of cutters.

% Cove Flute Bead, Quarter Round and Ogee Cor Flute Bead, Quarter Round and Ogee Cor Flute Bead, Quarter Round and Ogee Cor

#### SAFETY RING GUARD



Fully adjustable and easily removed ring guard . . . protects operator . . . acts as efficient hold down. No. 1348 - Safety

Ring Guard, 8 lbs.

SHAPED CUTTERS - 1/2" HOLE 3/2" Spindle No. 1347 needed with these cutters D-100 35" Cove. 3" Oparter Round

D-100	2" Cove, 48" Quarter Round
D-101	fa" Cove, %" Bead
D-102	14" and 34" Quarter Round, 14" Bead
D-103	h" Cove, %" Bead h" and %" Quarter Round, \4" Bead \4" and \5" Quarter Round
D-106	90° Flute
D-109	16" Flute
D-110	Drawer Joint
D-120	Ogee
D-121*	Female Sash
D-123	Cab. R. H. Male
D-124	Cab, L. H. Male
D-125	Cab R H Female
D-126	Cab. L. H. Female
D-1281*	Male Sash
D-131	
D-135	Cove and Read Moulding L. H.
D-136	Cove and Bead Moulding R. H. Cove and Bead Cope R. H.
D-137†	Cove and Bead Cope R. H.
D-138	Cove and Bead Cope L. H.
D-190	3-Bead (A." Bead)
D-191	3-Flute (点" Flute) 3-Bead (¼" Bead)
D-192	3-Bead (¼" Bead)
D-193	3-Flute (¼" Flute)
D-194	3-Flute (¼" Flute) 5-Flute (¼" Flute)
D-195	5-Bead (%" Bead)
D-196	Wedge Tongue
D-197	
D-198	Ogee and Bead Table Edge
D-199	1" Convex Edge Leaf Screen Midg, (9/32"x "3")
D-200	Clover Leaf Screen Midg, (9/32"x &")
D-201	½" Flute
D-202	
D-203	52 Fute 15 Bend 4 Bend 3 Flute Dans 1 H
D-204	"%" Flute
D-206†	Pgee L. H.
D-2071*	Cove Sash L. H.
D-208"	Cove Sash R. H.
D-209*	Bead Sash L. H.
D-210*	Bead Sash R. H.
D-211	1" Flute
D-212	
D-213	Beaded Screen Moulding
	Panel Raising

STRAIGHT CUTTERS - 1/4" HOLE

-104	1"x 1%" Diameter	
-105	1 1/6 "x 1 % " Diameter	
-107	"x 1%" Diameter	
-108	4"x 132" Diameter	
-127	%"x 110" Diameter	
-129		
-130*	%"x 1%" Diameter	
-139	4"x 2-7/32" Diameter	
For Sash work.		
	the react materials who takes would	

counterbored to fit stub spindle No. 1345 and so. 1190.

#### **Spacing Collars for Shaper Cutters** Our Die

1952	Line	CHILL DAME	11016
D-132	3, "	1-5/32"	1,, "
D-133	1/4"	13/16"	1,6,7
		1-5/32"	300
D-140	14"	1.0.*	3/0"
D-141		176	12.0
D-142	38"	· 有量性	16,00
D-143	3,"	76"	37.00
D-144		1"	3/4"
D-145	3/2"	156	1/2"
D-146		154"	3/2"
D-147	36"	1%	1/2"
D-148		159"	1/4"
D-149	34,**	1%"	34,"
D-150	A =	156"	36"
		1 %"	36"
D-155		25.00	70.
D-171	% <u>"</u>	10"	3/2"
D-172		10"	3/2"
D-173		Lab =	397
D-174		1.6/	100
D-175	36"	1 70"	1/6"
		1 10	367
D-177		1.98	20
D-178		110	36"
D-179		1 18 "	36.5
D-180		1%"	1/9
D-215		1-15/32"	- 52
D-217		1-3/32"	3/9"

#### SAFETY CUTTER HEAD with Blank Knives





For special mouldings that cannot be made with standard shaper cutters, special cope cuts, etc. Knives are self-hardening and sand-blasted so that cutter design may be drawn directly on them and ground to shape. All knives are 1/6" thick with a 30° clamp angle. Cutter head furn-ished without knives.

ished without knives.

No. 1342—Cutter head, 25%,1" high, for 34" spindle, with tightening block. 1½ lbs.

No. 1192—Cutter head, 25%,1" high, for ½" spindle, with tightening block. 1½ lbs.

No. 1193—Two ½" wide x 2½" long knives.

3/8 lb. No. 1194—Two 3/4" wide x 21/2" long knives.

3/8 lb. No. 1195—Two 1" wide x 2½" long knives. No. 1196-Two 11/2" wide x 21/2" long knives.

(For Prices See Attached Price List)

POWER TOOL DIVISION DELTA

% lb.

# 12" Ball Bearing Lathe That is Rigid, Accurate, Safe, Dependable



## These Features of Design and Construction Provide Greater Accuracy and Longer Life

The features of this remarkable lathe have made it a favorite in thousands of shops throughout the country—Furniture Factories, Cabinet Shops, Specialty Shops, Millwork Shops, Sporting Goods Manufacturers, Pattern Shops, Schools, etc.

BED: Heavy, substantial, fine-grained cast iron, properly ribbed to provide the utmost in rigidity and accuracy. 53 1/2" long, 8 1/2" wide, 4 7/4 high. Finely ground and machined ways 2" wide front and back.

HEADSTOCK: Rigid substantial cast iron body, designed to take V-belt drive from either bottom or rear. Fitted with belt quard completely covering top and front of headstock pulley and belt; guard instantly removable to facilitate changing belt on pulley cones. With built-in indexing mechanism having two rows of holes -8 holes and 60 holes-in cone pulley, to provide maximum number of index divisions. Index pin mounted to engage either row of holes

SPINDLE: 11/4" diameter spindle, with 5/8" hole through center to facilitate the handling of long rod stock or of repetition work. Nose machined for No. 2 Morse Taper centers. Nose threaded 1" diameter 8 threads per inch for chucks and faceplates. Rear end of spindle has 1"-8 left-hand thread for outboard work. Spindle carried on two heavy-duty double-seal

New Departure lubricated-for-life ball bearings, pre-loaded to insure maximum rigidity and accuracy. Spindle quickly removable to facilitate belt removal or installation. 4-speed model has speeds of 915, 1380, 2150, and 3260 r.p.m. 16-speed model has speeds from 340 to 3400 r.p.m.

TAILSTOCK: Substantial, fine-grained cast iron body, with sub-base and provision for set-over of tailstock for center alignment and taper turning. Tailstock locked to bed with wrench conveniently located at front. Tailstock sleeve operated with large ball-end crank handle, and locked with ball-end lever actuating lock cams. Sleeve machined for No. 2 Morse Taper centers. Centers self-ejecting.

TOOL REST: Lathe equipped with quick-acting universal tool-rest base, locked to bed by convenient handle at front of base. Tool rests. adjustable in tool-rest base by means of lock screw with ball-end T-handle.

EFFICIENT DRIVE: A simple, dependable, V-belt drive-over 90 percent efficient transmits plenty of power for all your work.

## TWO MODELS-4-speed for Wood Turning and 16-speed for Wood and Light Metal Work.

THIS is the perfect lathe for general wood working applications. With the use of Tungsten Alloy tipped turning chisels, light metals can be turned at wood turning speeds. By adding the counter shaft unit the 4-speed lathe can be converted into an efficient and accurate 16-speed lathe for light metal working. With the addition of the compound slide rest practically everything except screw cutting can be done. The slower speeds are ideal for large face plate wood turning.

#### CATALOG LISTING

No. 46-305

4-speed 12" Lathe with No. 1461 Tool Support Base, No. 690 4" Tool Support, No. 692 12" Tool Support, No. 933 Drive Center, No. 934 Cup Center, No. 936 3" Face Plate, No. 644 V-belt, No. 932 Motor Pulley (specify bore), No. 1463 Lathe Bench, and wrenches. Without motor or switch rod. 254 1bs.

No. 46-310 Is-speed 12" Lathe with No. 148 Is-speed 12" Lathe with No. 689 4" Tool Support Base, No. 689 12" Tool Support, No. 933 Drive Center, No. 934 Cup Center, No. 935 "Face Plate, No. 644 V-belt, No. 832 Motor Pulley (specify bore), No. 1464 Countershaft Assembly, No. 1463 Lathe Bench, and wrenches. Without motor or switch rod. 272 lbs.

No. 192 -Allen Extension Wrench. 1/2 lb.

No. 284 —V-belt, for Countershaft arrangement. Out. Cir. 30-7/16". ½ lb. -V-belt, for Lathe. Out. Cir. 661/4".

No. 932 -4-Step Motor Pulley (specify bore).

No. 949 --11/4" Open End Wrench. 1/2 lb.

No. 1334-Switch Rod for use with No. 46-305. No. 1440—12" Lathe with No. 1461 Tool Support No. 1500 Tool Support No. 1610 Tool Support No. 162 12" Tool Support No. 930 Drive Center, No. 334 Cup Center, No. 936 S' Face Plate, No. 644 V-beit and wrenches. Without motor pulley, motor, switch rod or bench. 160 lbs.

No. 1463—Lathe Bench complete with top, shelf, cast iron legs and bolts. 97 lbs.

No. 1464 Countershaft Unit, consisting of (2) No. 49-370 hangers, No. 378 shaft, No. 718 pulley (specify bore for motor), No. 720 pulley (34" bore for shaft), No. 932 pulley (34" bore), No. 284 Vbelt, (2) No. 49-374 collars, bolts and nuis, 20 lbs.

86-720; Medium Duty 82-710, 86-520; Light Duty 82-810, 62-810; 66-820. For complete listing of motors and switches see page 32. Motors

(For Prices See Attached Price List)



## Handy Lathe Accessories Add to Use of 12-inch Lathe

## MANY FEATURES . . .



Famous Indexing Mechanism—two rows of holes in headstock pulley, 8 holes and 60 holes, can be engaged at will by the unique indexing him You can ing pin. You can now obtain the maximum number of index divisions.



Substantial, fine-grained cast iron tailstock, with subbase and provi-sion for set-over of tailstock for center alignment and taper turning. Tailstock locks to bed with wrench conveniently lo-cated at front.



Universal Tool Support is excep-tionally handy and fast in action. and fast in action.
Heavy and substantial, it locks to
bed at any position or angle with
convenient lever
at the front where
it does not interfere with work.



Massive Lathe Bed made of fine grained cast iron, heavily ribbed to provide the greatest rigidity and accuracy, 53½" long, 8½" wide, 4½" high. Finely machined ways 2" wide front and



Graduated Tail-Graduated Tail-stock Sleeve op-erated with large ball crank handle and locked in place with con-venient ball end lever. Sleeve ma-chined for No. 2 Morse Taper cen-ters: Centers self-eiscting. ejecting.



Safety Headstock completely en-closes pulley and belt from front and top of lathe. Belt drive can be taken from either the bottom or the rear — an added convenience.

No. 933-Drive Cen ter for 12" Lathe. Fits any lathe headstock with No. 2 Morse Taper

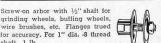


Hole Has replace-able center pin and four accurately milled teeth. 3/2 lb.



any lathe headstock with No. 2 Morse Taper hole. Hardened and ground. 3/8 lb.





No. 934 Cup Center for 12" Lathe.

ished, 3/a lb.

Center for 12"
Lathe. Fits any lathe headstock with No. 2
Morse Taper hole. Excellent work. With 1 ½ dia. face. ½ lb.

No. 968 — Geared chuck with key. Fits any lathe headstock with No. 2 Morse Taper hole, Invaluable for drilling on the lathe. Capacity No. 60 —1/2". 21/2 lbs.

No. 697-Heavy, rigid Floor Stand

for face plate work on the left of the spindle. Tripod legs, pipe sup-

port. V-hole for 1/2" to 1" shank.

Knocked down. 43 lbs.

No. 695—Right angle Tool Support for 12" Lathe. Has 1" diameter shank. Strong and

heavy. Extremely useful for

No. 938-5" Hand Wheel for 12"

Lathe. Fits left-hand end of lathe

spindle with 1"-8 thread, Useful

for quick stopping of lathe, for

positioning of work, etc. 3 lbs.

Support 101 cartra long turnings. Has two
I' diameter shanks. This rest requires an
extra tool support base No, 1461 for lathe on
which it is used. 7 lbs.

face plate work. 3 lbs.

No. 694-24" Tool

Support for

Fits any tailstock with No. 2 Morse

Taper hole. Has replaceable center pin, Hardened and pol-

for turning small, delicat long replaceable screw, 11/2

delicate

for accuracy. For 1" dia. -8 thread shaft, 1 lb. No. 144 Screw-on Arbor Right Hand. No. 145 Screw-on Arbor Left Hand.

Screw-on arbor with 1/2" shaft for grinding wheels, buffing wheels,



port Base for 12" Lathe. Has V-shaped hole for 1/2" to 1" diameter shanks, with universal locking mechanism, 5 lbs.



No. 692—Standard Tool Sup-port. Is 12" wide with 1" diameter shank. Heavy and strong. Designed for minimum interference with tools and hands. 3 lbs.



No. 690-4" Tool Support. Has a 1" diameter shank. Very strong and well made. Made for use where doing small, fine work. 1% lbs.



No. 1468-Steady Rest for 12" Lathes. Prevents spring and vibration of long thin stock. Heavy cast iron base with sliding arms of steel. Capacity 21/4" diameter. 71/2 lbs.



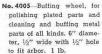


No. 936—3" Face Plate for small and medium face plate work on the 12" lathe. Faced true and provided with three holes for screws. R.H. thread only. For shaft with 1"-8 thread. 1½ lbs.



No. 935 — Adapter for 12" Lathes. Has No. 2 Morse Taper Shank on one end, other end 1/2" diameter, 11/8" long. Enables use of all attachments with  $\frac{1}{2}$ " bore to be used.  $\frac{3}{8}$  lb.





No. 937—6" Face Plate for large face plate work on the 12" Lathe. Has special thread to fit both right and left-hand threaded spindles. Used either end of spindle. For spindle with 1".3 thread. 3 lbs.



Wire wheels for scrubbing rust from metals, removing burrs, etc. Two sections. 6" diameter 1/2" hole. 1 lb.

No. 3113-Wire, coarse. No. 3114-Wire, fine.

No. 3115-Tampico Fibers.



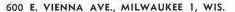
6" diameter, high-quality, fast cutting grinding wheel. ½" wide with ½" hole to fit No. 144 and 145 arbor. Handy to have in any shop. 13/4 lbs. No. 3101-Grinding wheel.

grit. No. 3102—Grinding wheel, 60 grit.



-(For Prices See Attached Price List) -







## Lathe Accessories and Attachments Increase Usefulness of Lathe

#### COLLET CHUCK FOR LATHE - Safe - Accurate!



Ideal for the School and Pattern shop where asilety and accuracy are of prime importance. You can do close, fine work right up against the chuck and from any angle.

Capacity ½" to 2" in seven convenient sizes ... extra safe, there are no projections.

Will not mar work . . . fully balanced for high speed work . No longitudinal play . . small overhang insures smooth accurate work. The most economical and safest chuck you can buy.

No. 46-958—Steel Collet Chuck 2" capacity, 1½".8 thread, with three double-end collets ½" and 5%, 34" and 1", 114" and 1½", and Jacobs Chuck key. 41bs.

#### No. 1490 BALL BEARING CENTER



A center free of chatter, accurate, chatter, accurate, husky and true running. With double row sealed, Lubricated-for-life hall bearings. Takes exceptionally heavy radial and thrust load. Shank has No. 2 Morse Taper.

No. 1490—Ball Bearing Center with three re placeable centers and wrench. 11/2 lbs.

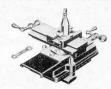
#### CAST IRON BENCH LEGS FOR LATHE

No bench twist - strong, solid. Heavy cast iron with all holes 36". Bracket for shelf at bottom. Can also be used for other benches and tables

No. 945-One pair Cast Iron Bench Legs. 65 lbs.



#### COMPOUND SLIDE REST



This Compound Slide Rest is accurately built with dovetail slides and graduated compound base rotating 360 degrees. Feed screws are covered to protect them from dirt and chips, and are fitted with micrometer sleeves, accurately graduated.

No. 46-961 Compound Slide Rest for 12" Lathe with tool post rocker, washer and wrench, 33 lbs.

#### HOLDER, BORING BARS AND TOOL BITS

for use with the Slide Rest

The holder for boring bars and tool bits is an extremely handy tool and many uses can be found for it. Holds both boring bars and square 1/4" bits. Two holes in holder facilitate holding of the tool. Made of tool steel, case hardened.



No. 46-963 Holder for Boring Bar and Tool Bits, 11/2 lbs.



No. 46-966 Set of three Boring Bars, 1/8", 3/16", and 1/4", 1/2 lb.



No. 46-954 Set of four high-speed steel tool bits ¼" x¼"x1%", roughing, finishing, right corner and left corner. 1 lb.

#### SANDING TABLE FOR LATHE



This sanding table is used for finish-ing, sanding plain or compound miters, boring and routing work. The table is supported both front and back and offers and back and offers perfect support for the work. Raises and lowers to suit the work—is graduated to show the angle of tilt—and has a 3/16"x ½" slot for the No. 34-903 Miter Gage.

No. 46-948—Sanding Table, complete with adjustable Bracket and Clamps, for 10" 11" and 12" Lathe. 15 lbs.

## MITER GAGE for SANDING TABLE Miter Gage provides accu-





Sanding Disk for lathe, 81/2" diameter and threaded to fit headstock spindle with 1".8 thread, With one garnet disk, R.H. thread

No. 46-934—81/2" Sanding Disk for 11 and 12 inch lathes. 5 lbs.



Abrasive Paper Disks Garnet paper disks for use with No. 46-934 metal sanding disk. Comes in two grades, fine and coarse.

No. 46-815—Coarse No. 40 Grit Garnet paper disk, 89%" dia. (1 doz.) 2 lbs. No. 46-817—Fine No. 80 Grit Garnet paper disk, 89%" dia. (1 doz.) 2 lbs.



Disk Adhesive With disk adhesive you have no messy glueing, no removal of metal disks

from machine, no waiting over night for the new abrasive disk to dry. You can change from one abrasive disk to another every few minutes.

No. 49-503 Disk Adhesive. 2 lbs.

No. 163-3"x 3" Sanding Drum with No. 2 Morse Taper Shank. 2½ lbs. No. 164—134"x 2" Sand-ing Drum with No. 2 Morse Taper Shank. 134 lbs.

See page 5 for sanding sleeves No. 831, 832, 833, 836, 837, and 838.

#### WOOD TURNING TOOLS



Made of special, high-grade alloy steel. Fitted with extra long hard wood handles, 11/4"x 101/2". Overall length 15". 11/4 lbs.

No. 121 Skew Chisel
No. 122
No. 123
No. 124 ½" Skew Chisel
No. 125 1/8" Parting Tool
No. 126
No. 127 ½" Spear Point
No. 128
No. 130 Set of above 8 tools. 6 lbs.

## ALL-PURPOSE TUNGSTEN ALLOY TIPPED TURNING CHISELS Cuts Metal Free-Hand as Easily as Wood and Plastic



Diamond lapped ready for use. Two of these tools will do the work of a regular set of turning tools. Come in two styles, square nose and round nose, two sizes—1/8" for fine work and 1/4" for larger, heavy work.

With these new tools you can cut free-hand on all materials such as plexiglas, lucite, bakelite, fiber, wood, brass, bronze, aluminum, magnesium, copper, silver, steel, etc. all on your woodfurning lathe at wood turning speeds.

You can turn metals and plastics free-hand as easily as wood. You need no heavy compound tool rests or bulky, expensive equipment. Then, too, these New Turning Chisels have an extremely long cutting life ... require little or no sharpening.

No. 46-801 . . . . . . ½" Square Nose. 1½ lbs. No. 46-802..... 1/8" Round Nose, 11/2 lbs. No. 46-803 . . . . . 1/4" Square Nose, 11/2 lbs. No. 46-804 ...... 1/4" Round Nose, 11/2 lbs. (For Prices See Attached Price List)

## Accessories and Attachments For All Shops



Designed to make perfect contact with the side of the V-groove, these A section V-belts will transmit maximum horsepower with minimum slip. Cords are saturated with nure liquid rubber imbedded in special rubber stock which resists fatigue and carries off heat.

Note: When ordering belts for which number is not known, measure around outside diameters of pulleys, then select belt of nearest outside circumference in the table.

Cat. No.	Out. Cir.	Top Width	Thick
271	25"	16"	22
272	28"	16	32
*281	28"	16	32
49-103	28"	13.	32
×49-150		16	32
30-100	28 %"	13.	5.2
*291	29"	36	32
30-102		43	12
49-105		16	32
284	30 %	44	0.3
287	30 8"	16	33
273	31 3"	16	3.5
49-106		16	3.2
49-153		16	30
331	35 /8"	16	32
49-152		1.6	12
340	361/2"	18	3.2
355	381/2"	16	3.2
49-115		10	n a
387	397/8"	16	5.2
49-154		16	3.3
410	42"	4.4	3.2
430	44"	0.2	33
*289	46"	10	3.2
453	47 %	16	3.1
*294	16	16	32
49-142		34	32
501	515/8"	15	32
510	527/g"	11.2	20
520	541/8"	16	8.2
530	55"	16	80
49-144		12	32
49-173		16	32
30-136		16	32
560	58 1	10.	11.2
\$49-140 49-172		1.6	32
49-1/2		16	33
49-141		16	02
583	6013"	15.11	28
588	61 11	9 11	33
595	61 13"	0 11	72
521	623/4"	16,,	32.
618	6419"	3 11	32 ,,
644	6614"	2	2
670	691/2"	16	32
673	743/4"	16.	32
750	745/4	12	32
	11/2	16	1/2
‡Availabl		ched pai	
"Availabl	e in mat	ched set	В

## FOUR STEP CONE PULLEYS



Made for the same size V-belt as plain pulleys listed above. Pulleys may be used in pairs as listed in table below and will provide the speeds listed in the third column when used

with 1725 r.p.m. motor. All cone pulleys available in ½", %" and ¾" bores. ¾" and ¾" bores have a 3/16" keyway. ½" bore furnished unless otherwise ordered.

No. 718-11/4 lbs. No. 720-13/4 lbs.

No. 932-2 lbs. No. 985-2 lbs.

Driver	Driven	Speeds					
718	718	905	1410	2100	3340		
720	720	1180	1520	2000	2530		
718	720	610	910	1255	1725		
720	718	1725	2370	3290	4900		
932	932	915	1380	2150	3260		
985	985	656	1240	2400	4500		

#### BAND SAW BLADES FOR **OBSOLETE MACHINES**

Width	Min.	For	For	For
	Cutting	12" Saw	No. 785	No. 768
	Rad.	78" long	66" long	74" long
1/8 3/16 1/4 3/8	1/4 1/2 3/4 1 3/4	532 533 534 536 *381	732 733 734 736 *781	770 771 772 773 *774

\*For cutting soft metals.

(For Prices See Attached Price List)



For A section V-belts. Safety disc type-no spokes. Have 5/16" hollow head set screw, %" and 34" bores have a 3/16" keyway. All sizes can be furnished in  $\frac{1}{2}$ ".  $\frac{5}{6}$ " and  $\frac{3}{4}$ " bores.  $\frac{1}{2}$ " bore furnished unless otherwise specified. Maximum bore available on Nos. 5200 to 5300 is 3/4".

5200						,	2"
5225	9			3			21/4"
5250					8	Ġ.	21/2"
5275				÷			23/4"
5300	1			,	Ŷ		3"
5350					¥		31/2"
5400						*	4"
5450							41/2"
5500						8	5"
5550			×	្	÷		51/2"
5600	÷		ď			R	6"
5650	ř						61/2"
5700		Ţ,					7"
*5710							71/2"
5800	Ġ						8"
6100		ì				į.	10"
6200	2						12"

#### MANY USES FOR LAMP ATTACHMENT

For use on the drill press, band saw, scroll saw, or other machine it brings



machine it brings light to your work just where it is needed, in volume enough for accuracy in following layouts. Does not glare. Can be swung back at touch of the fingers. It furnishes every machine with its own individual illumination, independent of the shop lighting system. Uses 15 or 25 wat bulbs.

No. 882-Lamp Attachment. 11/2 lbs.

#### 34" LINE SHAFTING

Carefully ground to precision limits, this accurate shafting must not be confused with the cheap cold-rolled shafting sometimes offered. Carried in stock in 1', 2', 3', 4', 5', 6', 8', and 10'

No. 49-372—3/4" dia. Ground Shafting (Specify Length) per foot. 2 lbs.

#### SELF-ALIGNING HANGERS

This sturdy, practical Line Shaft Hanger is self-align-ing in every direction and ing in every direction and is adjustable up and down from 4" to 5" in height. Once properly adjusted it will give years of quiet, trouble -free service. Oil wells hold a large supply of lubricant—keep bronze bearings properly lubricated. Made for 34" shafting only. ing only.



No. 49-370 Line Shaft Hanger as shown, 6 lbs.

## 34" SHAFT COLLARS



These shaft collars are of steel, with 34" bore to fit line shafting. Equipped with special \(\hat{h}\_i\)"x \(\hat{h}\_i\)" hollow head set screws. Used to keep shaft in proper position lengthwise, and at side of loose pulleys.

No. 49-374-3/4" Shaft collar. 1/4 lb.

#### FLEXIBLE COUPLINGS

Necessary where motors are connected directly to the end of line shafts or to the shafts of machines. One side bored 3/4" to suit line shafts. Other, bored to 1/2", 5%" or 3/4". Specify bore when ordering.



No. 49-379-Flexible Coupling as shown, 1 lb.

#### V-BELT PULLEYS



Outside

# MAKE YOUR OWN SANDING SHAPES

When you are working with irregular shapes where flat sandpaper will not do the job, use this new Sanding Kit. You can make disks or drums of any shape for your lathe—or drums shaped for your needs on the drill press and scroll saw. You can make your own blocks shaped the way you need them for irregular work. Easily applied. Ready for use as soon as quick setting qiue dries, Ideal for any shop No. 4017—Delta Sanding Kit containing I can of adhesive, one can of time abrasive, I can of coarse abrasive and instructions. 4 lbs.

#### PRESSED STEEL LEGS

Handy pressed steel bench legs for setting up your own benches or machine stands. Light in weight, strong and rigid.

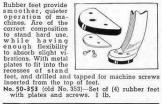
No. 49-344—Pressed Steel Bench Leg. 23 lbs. each. No. 49-345—Pair of Pressed Steel Bench Legs. 45 lbs.

#### STEEL STANDS

No.	For Use With	Top	Height
50-168 50-406 50-432 31-441 50-656 50-716 50-821	Saw-Jointer Combi- nation. Belt Sander. 12" Disk Sander Deburring Machine. 6" Jointer 24" Scroll Saw Welders	16"x30" 8"x16" 12½"x16½" 16½"x26¼" 8"x16" 7"x33" 12½"x16½"	26 3/4" 29" 31 1/2" 31 1/2" 29" 31 1/4"
50-891	14" Band Saw 10" Circular Saw	8"x16"	24"

#### RUBBER FEET FOR STEEL STANDS

Rubber feet provide



#### WRENCHES AND ALLEN KEYS



No.	Description
192	Allen Key, W = 5/32" with 434" metal handle
194	Allen Key, W = 5/32"
942	
949	11/4" Forged Open End
1520	%" Hex. closed, 1-1/16" Stamped Open End %" and ½" Shaper Spindle Holes
1521	Allen Key for Moulding Cutter Heads
1522	W=3/16" Double end 5/16" Forged open end
1523	5/8" and 11/16" double end box wrench
524	9/16" and %" Stamped double end box
525	5/8" closed, 3/8" Stamped open end
526	7/16" and 9/16" Stamped double end box
527	%" C. I. box wrench
1529	1/4" Hex. Socket Wrench
1530	
1531	Allen Key, W = 3%"
1532	Allen Key, W = 1/4"
1533	Allen Key, W = \( \frac{8}{6}'' \) Allen Key, W = \( \frac{1}{4}'' \) Allen Key, W = \( 7/32'' \)
1534	Allen Key, W = 1/8" Allen Key, W = 3/16".
1535	Allen Key W =3/16"
1536	Allen Key, W = 5/16"
1538	38" and 34" Stamped double end box



## You Get Correct Driving Power With Delta-Milwaukee Motors

Type

X

Designed and built in accordance with the best practice in motor construction. Frames are of heavy welded steel, accurately balanced rotor insures smooth operation.

EQUIPMENT FURNISHED:

With Two Shafts. One Shaft Guard. Sealed, Lubricated-for-life Ball Bearings.

Split Phase Motors—Equipped with heavy duty rubber covered cord and soft rubber plug together with dou-ble pole switch.

Capacitor and Repulsion Induction Motors-Equipped with heavy duty rubber covered cord and soft rubber plug together with double pole switch. Made for use on either 115 or 230 volt lines, they are normally supplied connected for 115 volts.

Direct Current Motors—Equipped with heavy duty rub-ber covered cord and soft rubber plug together with double pole switch.

Three Phase Motors-Do not have switch, cord or plug. Motor must be connected in conduit by an electrician.

Cycles

RPM

Voltage

#### SWITCHES

#### ALL SWITCHES FULLY UNDERWRITER APPROVED

Toggle Switch for Single Phase and D.C. Motors up to 1 H.P.

These two-pole toggle switches break both sides of line... are mounted in a heavy case complete with mounting screws, less cover... can be locked with padlock.

No. 132—On-and-off toggle switch with box, power cord, plug, motor lead wires and connectors. For use on No. 28-205, 28-305, 13-506, 34-260, 34-265, 34-305, 34-405, 34-407, 37-205 and 43-205.

No. 49-314 On-and-off toggle switch with box, 3-wire ground and power cord with plug and 2-wire motor lead wires, for use on No. 28-350.

These two-pole toggle switches break both sides of line ... have flush mounting. No. 1115-On-and-off toggle switch only for use with

rods. No. 49-312—On-and-off toggle switch (same as No. 1115) with No. 16 gage 3-wire rubber covered cord 8 ft. long, clamp and plug. For use with coolant pump.

This two-pole toggle switch breaks both sides of line . . . has single hole mounting . . . bat-type lever.

No. 49-330 On-and-off toggle switch only for use with No. 34-260 and

No. 34-265.

Reversing Switches

These reversing switches are chiefly used on the shaper where the spindle must rotate in both directions.



49-316

No. 1325 - Reversing drum switch (rated 2 H.P. 440 V. max.) for 3-phase or D.C. motors. No. 49-316 - Reversing switch with connected 4-wire cord for any standard split-phase or capacitor motor.

#### 3-Phase Manual Starters

These 3-phase manual starters provide accurate overload protection. Have silver alloy contacts—double break. With start, stop and reset buttons buttons.

No. 1320—3-phase manual starter for A.C, motors up to 2 H.P. and D.C. motors up to 1 H.P. (specify voltage), No. 1328—3-phase manual starter for 3 HP. A.C. motors. Used on cut-off machines (specify voltage).

#### **3-Phase Magnetic Starters**

These magnetic starters are of the approved type. With Overload and Under-voltage protection. Stop, start and reset button in cover.

No. 1321 V., 60-cy 3-phase across-the-line magnetic starter, rating 2 H.P., 440 v., ou-cycle only.

No. 1323—3-phase across-the-line magnetic starter, rating 2 H.P., 550
V. 60.evela only.

No. 1323—3-phase across-the-line magnetic starter, rating 2 H.P., 350 V., 60-cycle only.
No. 1329—3-phase across-the-line magnetic starter, rating 2 H.P., 220 V., 60-cycle only.



1327

n e

**Mounting Parts** 

Mounting Parts
No. 1322—Mounting brackets together with screws,
used to mount No. 1320 manual starter on all steel
stands and all drill presses except No. 620.
No. 1327—Mounting parts together with screws, used
to mount No. 1320 starter on the No. 43-205 shaper
or the No. 1320 starter with the No. 1325 reversing
switch on the No. 43-205 shaper.
No. 1459—Mounting parts together with screws to
mounting No. 1320 starter on No. 34-403 and No. 34-407.



Motor Cords
These motor cords are heavy and well insulated with flexible rubber and fully approved. Are 8 feet long and supplied with plug.

No. 1119—No. 14 gage 2-wire cord for ½, ¾ and 1 H.P. single phase and D.C. large frame motors. No. 49-307—No. 16 gage 2-wire cord for ½ H.P. single phase and D.C. small frame motors. No. 49-309—No. 14 gage 3-wire cord with ground No. 49-310—No. 15 gage with ground with gro



# **Armoured Cable**

1119

No. 49-315—3-wire Armoured Cable connec-tion from "Motor to Switch" of 3-phase motors. Complete with necessary clamp fittings. (Can also be used for single-phase and D.C. power and ground connectors.)

MOTORS 6" Frame Motors, 1/2" Shaft

H.P. Cur.

140.	a y pc	****	cui.	Voicage	Cycles	IC. I'. IVI.	LDS.
<b>^</b> 60-040	Sp. Ph.	1/8	AC	115	60	1725	26
62-110	Cap.	1/3 1/2 1/2	AC	115/230	60	1725	35
462-210	Cap.	1/2	AC	115	60	3450	39
62-610	Cap.	12	AC AC	115/230	60	1725	39
66-320 *66-321	3 Ph. 3 Ph.	12	AC	220/440	50/60	1425/1725	31
*68-110	D. C.	72	- DC	115	50/60	2850/3450	33
*68-120	D. C.	15	DC	230	**	1725 1725	30
*68-310	D. C.	1/2	DC	115	100	3450	38
*68-320	D. C.	1/2	DC	230	32.2	3450	38
00-020	0.0.	-22	20		35.5	3430	20
		6" Fre	me Mo	tors, 5/8" St	aft		
<b>▲</b> 62-250	Cap.	3/4	AC	115/230	60	3450	38
462-650	Cap.	3.5	AC	115/230	60	1725	38
		81/2" F	rame M	otors, 3/4" 5	haft		
82-710	Cap.	1/2	AC	115/230	60		-
82-910	Cap.	3/4	AC	115/230	60	1725 1725	66 76
84-910	R. I.	1	AC	115/230	60	1725	84
86-520	3 Ph.	16	AC	220/440	50/60	1425/1725	58
86-720	3 Ph.	3/4	AC	220/440	50/60	1425/1725	59
86-920	3 Ph.	-1	AC	220/440	50/60	1425/1725	68
86-921	3 Ph.	1	AC	220/440	50/60	2850/3450	74
86-922	3 Ph.	1	AC	220/440	50/60	960/1140	66
87-120	3 Ph	1 1/2	AC	220/440	50/60	1425/1725	80
*88-510	D.C.	1/2 1/2	DC	115	100	1.725	70
*88-520	D.C.	- 2	DC	230	2.0	1725	70
*88-511 *88-521	D. C. D. C.	12	DC	115		1140	70
*88-710	D.C.	32	DC	230 115		1140	70
*88-720	D. C.	34	DC	230		1725 1725	82
00-720	D. C.	74	20	230		1/25	02
	6" F	rame, f	or Mete	al Shaper,	2" Shaft		
A60-510	Cap.	1/3	AC	115	60	1725	35
		(Inc	ludes ov	erload switch	)		
	71/2" Fra	me, for	8" Tilti	ng Arbor S	aw, 3/4"	Shaft	
82-750	Cap.	1/2	AC	115/230	60	1725	55
82-950	Cap.	34	AC	115/230	60	1725	78

81/2" Frame, for Wood Shaper, 3/4" Shaft

485-080 AC 115/230 220/440 60 3450 50/60 86-921 3 Ph. 3 Ph. 2850/3450 87-121 116 AC 220/440 50/60 2850/3450 81/2" Frame, for 10" Tilting Arbor Saw, 3/4" Shaft R. I. 3 Ph. 3 Ph. 1°85-010 115/230 220/440 1725 85 87-010 87-210 50/60 11/2 AC 220/440

No. 225 NEMA Frame, for 12" Tilting Arbor Saw, 1" Shaft 98-111 AC 115/230 220/440 3450 198-321 3450 145 No. 225 NEMA Frame Motors, 1" Shaft

220/440 220/440

\*Motors not carried in stock. Single shaft motors. Fully enclosed motor. Special Double Pole, On and Off Switch furnished with motor. x Without switch. Note: We reserve the right to substitute capacitor motors for Rep. Ind. motors, or vice-versa on orders for these motors.

Motors not regularly carried in stock will be ordered special and are not subject

#### SWITCH RODS PROVIDE FINGER-TIP CONTROL



No. 1330 For Use On 34-307 11" and 14" Drill Presses 17" Drill Presses 37-207

No For Use On 1334....28-207; 28-307; 31-505; 37-595; 46-305; and wood top benches 31-442. Deburring machines.

50/60



Rockwell manufacturing company

MILWAUKEE 1, WISCONSIN

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197-420

1425/1725 133 1425/1725 133