

Machine Tools

Sold by

2/18/54

LOSEY & COMPANY, INC. 122 124 SOUTH THIRD STREE EASTON, PENNA.

TEL 7264 CATALOG A B - 5 3

DELTA POWER TOOL DIVISION Rockwell Manufacturing Company 400 N. Lexington Ave., Pittsburgh 8, Pa.



With Special Insert

HOMECRAFT TOOLS

for Your Home Workshop

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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.
- Precision bored seats in which the bearings are held.
- 3. Bearings that are "pre-loaded" to give accuracy and rigidity.
- 5. 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.

Lubricated-for-life Ball Bearings Eliminate Lubrication Problems

Precision Bored Bearing Seats Assure Accuracy and Smooth Operation

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

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

these bearings are packed for life with the proper

machine tools.

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.

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

right. 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.

All Spindles, Arbors and Collars Are Precision Ground For Accuracy

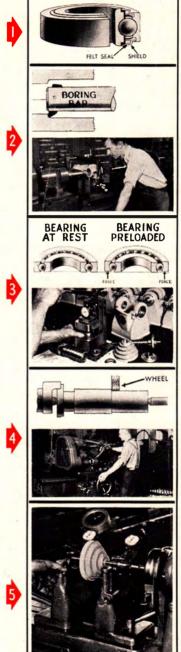
All of the quality features found in Delta machine tools are important and necessary for precision work. If you eliminate any one you would nullify the value of the others. To continue the accuracy you need, all shafts, spindles and collars are precision ground. This is done by rotating the part against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

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 right 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 give long, satisfactory and accurate service.

Delta machines are manufactured and sold under the following patents either owned by Delta or under which Delta is licensed; Other U. S. Delta machines are manufactured and sold under the following patents either owned by Delta or under which Delta is licensed; Other U. S. and foreign patents are pending: 1,697,669; 1,790,288; 1,830,813; 1,877,705; 1,894,010; 1,896,924; 1,902,270; 1,906,190; 1,910,651; 1,930,022; 1,938,548; 1,938,549; 1,947,885; 1,959,199; 1,993,688; 1,964,651; 1,964,652; 1,967,791; 1,999,827; 1,975,552; 1,984,500; 1,992,726; 2,004,678; 2,007,887; 2,009,304; 2,016,843; 2,020,219; 2,020,222; 2,025,834; 2,032,233; 2,038,810; 2,040,718; 2,041,578; 2,045,422; 2,067,652; 2,069,395; 2,073,430; 2,085,131; 2,085,235; 2,085,236; 2,099,321; 2,108,086; 2,122,966; 2,168,282; 2,193,946; 2,202,878; 2,210,135; 2,232,149; 2,240,466; 2,265,305; 2,265,406; 2,265,407; 2,265,408; 2,325,082; 2,225,083; 2,346,198; 2,347,232; 2,352,235; 2,353,202; 2,360,921; 2,372,699; 2,374,716; 2,384,512; 2,386,283; 2,396,733; 2,397,178; 2,413,016; 2,415,121; 2,428,049; 2,429,250; 2,430,448; 2,432,058; 2,452,089; Des. 85,847; Des. 19,468; Des. 94,788; Des. 98,280; Des. 96,614, Des. 102,402; Des. 105,429; Des. 105,429; Des. 106,729; Des. 105,429; Des. 106,729; Des. 105,729; Des. 152,295; 2,422,250; 2,430,448; 2,432,058; 2,452,059; Des. 55,84; Des. 89,818; Des. 94,788; Des. 98,280; Des. 99,614, Des. 102,402; Des. 105,621; Des. 105,621; Des. 105,621; Des. 107,805; Des. 109,628; Des. 117,461; Des. 114,152; Des. 148,827; Des. 152,225; Des. 152,226; Des. 152,227; Des. 152,227; Des. 152,227; Des. 152,227; Des. 152,227; Des. 152,228; Des. 152,227; Des. 152,228; Des. 152,226; Des. 152,228; Des. 1 125,600. Brazil: 34,178.



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

The right is reserved to make changes in design or equipment of any item, without incurring any obligation to install these on machines previously sold, and to discontinue models of machines, motors or accessories at any time without notice.

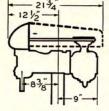


ELTA POWER TOOL DIVISION

Rockwell MANUFACTURING COMPANY

400 N. Lexington Ave., Pittsburgh 8, Pa.

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



SPECIFICATIONS

Height-

Floor Mod. 66½" Bench Mod. 36½" Col. Diam.....2¾" Quill Stroke4" Speeds-

High-Speed Model -680, 1250, 2400, 4600 r.p.m. Slo-Speed Model
—470, 780, 1300,
1950 r.p.m.
Cap...1/2" Cast Iron,
3/6" in Steel

Built-In Depth Gage Depth Scale on Quill Pulley Guard

Type



Bench Model No. 14-007

Shown with Motor



| T | |
|--|---|
| | - |
| Floor Model | |
| No. 14-212 | |
| Shown with Motor | |
| | |
| The state of the s | |

| Standard | Tilting Table |
|-----------|---------------|
| Slo-Speed | High Speed |

Production Table Slo-Speed High Speed

Standard Tilting Table Model Slo-Speed | High Speed

| Machine No Table Working Surface Spin. to Table Max Spin. to Base Max Ship. Wt. Lbs | 14-005 10"x 10" 11%" 175%" 110 | 14-006 10"x 10" 1176" 1758" 110 |
|---|--|---|
| Table Drain Hole Type of Cool. Pump Req | | |
| Type of Cool. Fullip Red | | |

WITH No. 1 MORSE TAPER SPINDLE

| | 14-205 10"x 10" 41 ³ / ₄ " 46 ³ / ₄ " 176 | 14-206 10''x 10'' 4134'' 4634'' 170 |
|-----|---|---|
| Г | | |
| - 1 | | |

| 14-210 | 14-211 |
|-------------|---------------|
| 11"x 16" | 11"x 16" |
| 36½" | 36½" |
| 46¾" | 46¾" |
| 237 | 211 |
| Two ¾" Pipe | e Tap at rear |
| See Pa | age 23 |

WITH 1/2 INCH JACOBS CHUCK SPINDLE

| Machine No. Table Working Surface Spin. to Table Max. Spin. to Base Max. Ship. Wt. Lbs. | 14-007 10"x 10" 11¾" 17½" 110 | 14-008 10"x 10" 113%" 171/8" 110 |
|---|---|--|
| Table Drain Hole Type of Cool. Pump Req. | | * :::::::: |

| 46 ¹ ⁄ ₄ '' 176 |
|--|
| 1/6 |

| 14-212 | 14-213 | | | |
|--|----------|--|--|--|
| 11''x 16" | 11"x 16" | | | |
| 36" | 36" | | | |
| 461/4" | 461/4" | | | |
| 220 | 220 | | | |
| Two 3/8" Pipe Tap at rear See Page 23 | | | | |

MOTORS, SWITCHES, COOLANT PUMP, TANK AND PIPING NOT INCLUDED WITH MACHINE. ORDER SEPARATELY.

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 1/2" 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 selfaligning drive and free-floating spindle, its sturdy quill design and construction, its ease of operation, its sealed, 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 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.

For individual parts for special setups and for accessories, see page 5.

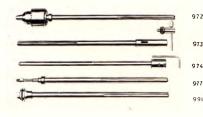
Motors Recommended: Heavy Duty: 62-610, 66-320; Medium Duty or Light Duty: 62-110.

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 60 for Motors and Switch Parts.

Interchangeable Spindles for 14" Drill Presses

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. This also means you can keep the work up close to the bearings for greater accuracy. All chucks are balanced for high speed work. Spindles have deep splines which insure proper balance and 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—Woodworking Spindle, has 1/2" hole for Router Bits, Machine Spur Bits, Shaper Cutter Adapter Spindle, etc.,

No. 977—Spindle, with $\frac{5}{16}$ diameter extension, for Shaper Cutters with $\frac{5}{16}$ " hole. 2 lbs.

No. 991—Spindle with flanges for Cup Grinding Wheels. 2 lbs. (For Prices See Attached Price List)

DELTA POWER TOOL DIVISION

ROCKWELL MANUFACTURING COMPANY

400 N. LEXINGTON AVE., PITTSBURGH 8, PA.

14" Bench and Floor Type 1, 2, 3 and 4-Spindle Drill Presses. One-Piece Tables.

| | | • | | | | | | |
|---|--------------------------------|--------------------------------|---|---|--|---|--|--|
| | 1 Spin. B | ench Type | 2 Spin. Floor Type 3 Spin. Floor Type | | 4 Spin. Floor Type | | | |
| Туре | F16 | 14" | -12 -28 | 14/2 | Ф ₁₅ "- | 15-41612 | φ ₁₁ ½ φ ₁ | 1½ \$\dagger\$ 11½ \$\dagger\$ 16½ 15% |
| Model | Slo-Speed | High Speed | Slo-Speed | High Speed | Slo-Speed | High Speed | Slo-Speed | High Speed |
| | | | WITH No. 1 MORSE TAPER SPINDLE | | | | | |
| Machine No. Table Working Surface. Spin. to Table Max. Spindle Spacing Ship. Wt. Lbs. | 14-305 14"x 16" 19½" | 14-306 14"x 16" 19½" | 14-405 14½"x 28" 26¼" 12" 528 | 14-406 14½"x 28" 26¼" 12" 528 | 14-410 16½''x 51'' 26¼'' 15" 900 | 14-411 - 16½''x 51'' 26¼'' 15'' 900 | 14-415 16½"x 51" 26¼" 11½" 898 | 14-416 16½"x 51" 26¼" 11½" 898 |
| Table Drain Hole Type of Cool. Pump Req. | Two ¾" Pip See P | e Tap at rear age 23 | One 3/4" Pipe Tap at rear One 1" Pipe Tap at rear See Page 23 See Page 23 | | e Tap at rear age 23 | One 1" Pipe Tap at rear See Page 23 | | |
| | | | WITH 1/2 | INCH JAC | OBS CHUCK | SPINDLE | | |
| Machine No. Table Working Surface. Spin. to Table Max Spindle Spacing Ship. Wt. Lbs. | 14-307 14"x 16" 19" | 14.308 14"x 16" 19" | 14-407 14½"x 28" 25¾" 12" 528 | 14-408 14½"× 28" 25¾" 12" 528 | 14.412 16½"x 51" 25¾" 15" 900 | 14-413 16½"x 51" 25¾" 15" 900 | 14-417 16½''x 51'' 25¾'' 11½'' 898 | 14-418 16½"x 51" 25¾" 11½" 898 |
| Table Drain Hole Type of Cool. Pump Req. | | e Tap at rear age 23 | One 3/4" Pipe Tap at rear See Page 23 | | One 1" Pipe Tap at rear See Page 23 | | One 1" Pipe Tap at rear See Page 23 | |

14-inch Floor Type 5, 6 and 8-Spindle Drill Presses. Sectional Tables.

| | | | | • | |
|--|---|---|--|--|--|
| Type | | 6 Spindle | 8 Spindle (| | |
| Model | Slo-Speed High Speed | Slo-Speed High Speed | Slo-Speed H | igh Speed | |
| | WITH No. 1 MOR | SE TAPER SPINDLE | | - | |
| Machine No. Table Working Surface Spin. to Table Max. Spindle Spacing Ship. Wt. Lbs. | 14-515 14-516 18"x 65" 18"x 65" 261/4" 261/4" 12" 12" 1450 1450 | 14-520 14-521 18"x 95" 18"x 95" 261/4" 261/4" 15" 15" 1875 1875 | 26 ¹ / ₄ " 11 ¹ / ₂ " 2000 | 14-526 18"x 95" 26 ¹ / ₄ " 11 ¹ / ₂ " 2000 | |
| Table Drain Hole Type of Coolant Pump Required | Two ¾" Pipe Tap at ends See Page 23 Two ¾" Pipe Tap at ends See Page 23 | | Two ¾" Pipe Tap at ends See Page 23 | | |
| | WITH 1/2 INCH JACO | DBS CHUCK SPINDLE | | | |
| Machine No. Table Working Surface Spin. to Table Max. Spindle Spacing Ship. Wt. Lbs. | 14-517 18" x 65" 25¾" 12" 1450 14-518 18" x 65" 25¾" 12" 12" 1450 | 14-522 14-523 18"x 95" 18"x 95" 25¾" 25¾" 15" 15" 1875 1875 | 14-527 18"x 95" 2534" 111/2" 2000 | 14-52 8 18"x 95" 25¾" 11½" 2000 | |
| Table Drain Hole Type of Coolant Pump Required | Two ¾" Pipe Tap at ends See Page 23 | Two ¾" Pipe Tap at ends See Page 23 | Two ¾" Pipe Tap a See Page 23 | it ends | |

The 1, 2, 3 and 4 spindle drill presses all have one piece tables. The 5, 6 and 8 spindle drill presses have sectional tables. Dimensional drawings show sizes of tables. Single spindle units shown on this page available in bench type only. Multiple spindle units in floor type. Tables on multiple spindle units have 1½" oil trough. Working surface 32" from floor. Counterbalance for raising and lowering heads.

Motors, Switches, Coolant Pump, Tank and Piping Not Included with

Sectional tables consist of center section to which end sections are bolted. This permits drill press to be made of any desired length with spindle spacing at minimum center distance of 11½" or any greater distance as desired. Sectional table units with three sections have three cast iron legs other units have two legs as illustrated.*

Capacity: 1/2" in cast iron, 3/8" in steel.

Machines include: Built-in depth gage. Depth scale on quill. Front pulley guard. Quill has 4-inch stroke or travel. Multiple spindle models include counterbalance for head.

Speeds: High-Speed Models—680, 1250, 2400 and

4600 r.p.m.

Slo-Speed Models—470, 780, 1300 and 1950 r.p.m.
High-Speed Models include No. 387 V-belt and

High-Speed Models include No. 387 V-belt and No. 985 motor pulley. (Specify bore.)
Slo-Speed Models include No. 430 V-belt and No. 985 motor pulley. (Specify bore.)
Order Jacobs spindle machines where straight shank drills only are to be used. This chuck will take drills from No. 60 to full ½".
Order No. 1 Morse taper spindle machines where taper shank drills only are to be used.
Spindles in these machines are easily changed.
See complete listing on page 3. For individual

See complete listing on page 3. For individual parts for special setups and for accessories, see page 5.

Recommended: Heavy Duty: 62-610, 66-320; Medium or Light Duty: 62-110.

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 60, for Motors and Switch Parts.



Bench Model No. 14-308 Shown with Motor



No. 14-417 Shown with Motor



No. 14-527

Shown with Motor

*For further information about center and end table sections, see page 5.

Special Setups Made Economically With Standard Delta Drill Press Parts

14" DRILL PRESS PARTS

†No. 14-220—(Old No. 970-B)—14" High-Speed Drill Press Head with 1/2" Jacobs Chuck, No. 387 Belt, and No. 985 Motor Pulley. 42 lbs.

Jacobs Chuck, No. 387 Belt, and No. 985 Motor Pulley. 42 lbs.

*No. 14-223—(Old No. 1289.A)—14" Sio-Speed Drill Press Head with 1/2"

Jacobs Chuck, No. 430 Belt, and No. 985 Motor Pulley. 48 lbs.

*No. 14-221—(Old No. 970-C)—14" High-Speed Drill Press Head with No.

1 Morse Taper Spindle, No. 387 Belt, and No. 985 Motor Pulley. 42 lbs.

*No. 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 changing Slo-Speed Drill Press to High-Speed, consisting of 387 Belt and DP-265-S Spindle Pulley Assembly. 13 lbs.

*No. 1290—Set of Parts for changing High-Speed Drill Press to Slo-Speed, consisting of No. 430 Belt and DP-283-S Spindle Pulley Assembly. 13 lbs.

*No. 387—V Belt for 14" High-Speed Drill Press. 1 lb.

*No. 430-V-Belt for 14" Slo-Speed Drill Press. 1 lb.

No. 969—Pilot Wheel. 4 lbs.
No. 992—3½"x1½" Cup Wheel, ½" hole. 2 lbs.

No. 972—972 X172 Cup Wheet, 72 Indie. 2 lbs.
No. 985—4Step Motor Pulley for 14" Drill Press. Specify bore. 2 lbs.
No. 1022—Complete Belt and Pulley Guard for 14" Drill Press. 21 lbs.

*No. 14-803—Belt Guard. Same as No. 1022, without Spindle Pulley Guard. Use only when machine has No. DP-257-S Spindle Pulley Guard. 9 lbs. No. 1010 - Head or table Support Collar for Column. 2 ibs.

No. 1019—Mounting Flange and Screws for 14" Drill Press Column. 10 lbs. No. 1020—Column for 14" Drill Press. 36¾" long. 13 lbs. No. 14-841—Column for 14" Drill Press, 60" long, 2¾" dia. 25 lbs.

No. 1006—Production Table for 14" Single Spindle Floor Type Drill Press, complete with Rack, Raising Mechanism, Collar and Bearing. 61 lbs.

No. 1516—Single Spindle One Piece Table, Working space of 14"x 16" for 14" Drill Press Head. (This table cannot be mounted on the No. 1399

Cast Iron Legs.) 110 lbs.

No. 1517—2-Spindle One Piece Table. Working surface of 185%"x 28" for 14" Drill Press Heads. 225 lbs.

No. 1519—4-Spindle One Piece Table. Working surface of 211/4"x 51" for 14" Drill Press Heads. 460 lbs.

No. 1399—Cast Iron Legs (one pair) for mounting One Piece Table Nos.

No. 1399—Cast Iron Legs (one pair) for mounting One Piece Table Nos. 1517 and 1519 and all other Multiple Spindle Drill Presses. 163 lbs.
No. 1030—Spring Counterbalance Assembly for 14" Drill Presses. Consisting of Spring, Chain, Column Top Casting with Ball Bearing Roller and Screws. 8 lbs.
No. 1007—Foot feed for floor type 14" Drill Press with 60" col. only. Consists of Foot Pedal, Rods and Mounting Brackets. 38 lbs.
No. 1009—Production Table for 14" Single Spindle Floor Type Drill Press.

Same as No. 1006, without Rack, Raising Mechanism, Collar and Bearing. 52 lbs.

No. 1008—Table Raising Mechanism with Rack, Collar and Bearing. For No. 1009 Table. 9 lbs.

**These parts cannot be used with Super-Hi Drill Press.

**Motor Pulley comes with ½" bore unless otherwise specified.

*New Delta Tapping Attachment for 14" Drill Press

Produces quality threads—increases production—can be operated in any position—easy to operate—saves taps—runs at speed suitable to material being tapped—housing made of heat treated magnesium. The internal expanding drum clutch itself expands and firmly grips the entire circumference of the shell from the inside. There is no top or bottom pressure. This means more uniformity in holes tapped, less chance of wear, and no loss through slippage.

Shippage. No. 14-843—Tapping Attach. for 14" Drill Press, 0-3/16" cap. Complete with spindle. 6 lbs. No. 14-844—Tapping Attach. for 14" Drill Press, 3/16".5/16" cap. Complete with spindle. 8 lbs.

3/16"-5/16" cap. Complete with spindle *Cannot be used with Super-Hi Drill Press.





Handy, **Quick-Set Vises**

Of tested quality and usefulness, these vises are for Drill Press, es are for Drill Fress, Grinder or Bench work. Quickly raised to any angle and just as quickly locked into place. Side of vise ac-curately graduated for

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

| No. | Jaw | Opening | Length | Ship. Wt. Lbs. |
|--------|----------|---------|--------|-------------------|
| * 1024 | 1½"x1" | 15/8" | 45/8" | 5 |
| 1025 | 11/2"x1" | 15/8" | 45/8" | 61/2 |
| 1026 | 2½"x1½" | 21/2" | 61/4" | 10 |

*No. 1024 same as No. 1025 but without raising feature.

MULTI-SPEED ATTACHMENT

For Standard 14" Drill Presses only, provides a wide range of speeds on both the Slo and High-Speed models. Consists of a heavy casting, 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 Standard 14" High-Speed Drill

Presses, including column casting, cone pulley and two belts. Twelve speeds from 270 RPM to 11,000 RPM. The 11,000 RPM speed should be only used for occasional work due to the excessive wear on the bearings which are designed for 5000 RPM.

No. 1029—Multi-Speed Attachment for Standard 14" Slo-Speed Drill Presses including Column Casting, Cone Pulley and two Belts. Twelve speeds from 185 RPM to 4825 RPM. 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.



Has a true surface, corner to corner out of flat tolerance + or -.0005, a properly ribbed casting, ledges at the edges of the plate for clamping purposes and edges that are machined square with each other and with the face. Plate may easily be made into a precision plate by simply scraping to a master plate or to each

No. 640-15"x18"x3". 63 lbs. No. 641-16"x22"x3", 71 lbs.

RIGID, SECTIONAL TABLES for DRILL PRESSES



The drill press can be put on a sectional table. Two types of table sections combine to give any desired length. Center sections give a 23%" by 30" working surface and end sections 23%" by $32\frac{1}{2}$ ". On these sections, any type of 17" or 14" head can be easily installed and

on centers which meet your individual needs. This means that the maximum amount of flexibility is assured—you can have all 17" or 14" heads on one machine or a combination of both—you can have them spaced at any distance you desire—either close together or far apart.

Minimum center to center distances for columns: Super-Hi-Speed 14"-9"; Standard 14"-111/2"; Standard 17"-15"; Power Feed 17"-18".

No. 1507—One end section. 420 lbs.....

No. 1505—One Center section. 365 lbs.....

IMPORTANT—Give these specifications with your order: (1) number of drill press heads needed, (2) if 14" or 17" heads, (3) spacing between heads, (4) if table is to be completely assembled, (5) if table should be drilled and tapped for the drill press mounting flange.

No. 1506-One only cast iron leg. 80 lbs..... No. 1399--Cast iron legs. 1 pair. 163 lbs.....

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.

Using this simple, easily installed attachment, the standard 14" drill press may be converted into an accurate mor-

tising machine. Consists of heavy fence bolted to the drillpress 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". Requires the use of No. 974 spindle.

No. 976-Mortising Attachment complete. Without spindle 7 lbs. (For Prices See Attached Price List)

14" Drill Press Accessories For Many Jobs

SHAPER 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. Also used on Shaper.

| R, | No. | Dia. | Width | Radius | Max. Depth of Cut |
|-----------|--------------------------------------|--|---|--------------------------------|--|
| T | | | Concave | | |
| D1 - D4 | D-1 D-2 D-3 D-4 | 61/64" 61/64" 61/64" | 11/64" 17/64" 23/64" 7/16" | 1/8" 3/16" 1/4" 5/16" | 3/16" 3/16" 3/16" 3/16" |
| 1 | | | | | |
| D10 - D13 | D-10 D-11 D-12 D-13 | 1-1/64" 1-1/16" 1-3/32" 1-1/8" | Convex 11/64" 17/64" 23/64" 7/16" | 1/8" 3/16" 1/4" 5/16" | 15/64" 1/4" 17/64" |
| - W - D | | C | orner Bea | d | |
| D20 - D21 | D-20 D-21 | 1" 1-1/32" | 7/32″ 7/16″ | 1/8" | 7/32" 15/64" |
| YNT | | Si | nindle Bea | ad | |
| D30 - D31 | D-30 D-31 | 1-3/16" 1-15/64" | 9/32″ 11/32″ | 1/8″ 5/32″ | 5/16" 11/32" |
| ANT | | Sı | ırface Bea | ad | |
| P | D-40 D-41 | 1-3/32" 1-5/32" | 19/64" 25/64" | 3/32" 1/8" | 17/64" 19/64" |
| D40 - D41 | | Ro | und Fluti | na | |
| | D-50 D-51 | 1-1/8" | 3/16" 17/64" | 3/32″ 1/8″ | 9/32" 5/16" |
| D50 - D51 | | St | raight Fa | ce | |
| D60 - D69 | D-60 D-61 D-62 D-63 D-69 | 61/64" 61/64" 61/64" 61/64" 1-1/4" | 1/8" 5/32" 3/16" 1/4" | | 3/16" 3/16" 3/16" 3/16" 11/32" |
| 45° | | | V-Fluting | | |
| D70 - D71 | D-70 D-71 | I- /8" -7/32" | 11/64" 9/32" | | 9/32" 21/64" |
| R | | Combinat | ion Quarte | er Round | |
| | D-80 | 1-1/4" | 7/16" | 1/8″- 3/16″ | 11/32" |
| D-80 | shap | | • | | stom |
| | Note shap | : We can | 7/16" nnot sur | 1/8″- 3/16″ oply cu | |

No. 978-Adapter for 5/16" hole cutter with 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 independent of each other. Adjustable end wise so opening may be made small as possible to fit the work— a good safety feature. Used with shaper table No. 11-806.

No. 982—Shaper Fence. 12 lbs.



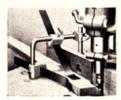


Large Wood Shaper Table made of plywood and drilled for easy fastening to top of regular Drill Press table. Provides large working surface, and

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 he work Hold-Downs against fence and table. Can be used on either end of the fence, and are provided with universal brackets and long flexible springs that work accommodate up to 31/2" thick.



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



Three Lip Cutters provide 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.

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 uneven expansion. In these drums, each rubber section is separated from its neighbor by bakelite washers, with non-corrosive metal bushings next to the arbor. The disks are expanded perfectly uniformly, run dead true and produce perfect work. No. 840 drum has ½" diameter stem to fit ½" hollow spindle or chuck. Others have ½" bore. Auxiliary shaft No. 11-834 needed to attach No. 830 and No. 835 Drums to No. 974 Spindle.

No. 830—3" dia x 3" Drum, with one sleeve. Fits ½" dia. shaft. 2 lbs.

No. 831—½ doz. 3"x3" Sleeves, No. ½-60 Grit medium garnet. ½ lb.

No. 832—½ doz. 3"x3" Sleeves, No. ½-60 Grit medium garnet. ½ lb.

medium garnet. $\frac{1}{2}$ lb. **o. 833**— $\frac{1}{2}$ doz. 3"x3" Sleeves, No. 1-50 Grit Al. Oxide (for metal). $\frac{1}{2}$ lb.

No. 835—13/4" dia. x 2" Drum, with one sleeve. Fits 1/2" dia. shaft. 13/4

Fits 1/2" dia. shaft. 13/4 lbs.

No. 836—1/2 doz. 13/4"x2" Sleeves, No. 11/2-40 Grit med. garnet. 1/4 lb.

No. 837—1/2 doz. 13/4"x2" Sleeves, No. 1/2-60 Grit fine garnet. 1/4 lb.

No. 838—1/2 doz. 13/4"x2" Sleeves, No. 1-50 Grit Al. Oxide (for metal). 1/4 lb.

No. 840—11/16" dia. x 21/2" Drum, with one sleeve. With 1/2" shank to fit hollow spindle or chuck. 8 oz.

No. 841—1/2 doz. 11/16"x21/2" Sleeves, No. 1 Grit medium garnet. 1/2 lb.

No. 842—1/2 doz. 11/16"x21/2" Sleeves, No. 1/0-80 Grit fine garnet. 1/2 lb.
No. 847—1/2 doz. 11/16"x21/2" Sleeves, No. 50 Grit Al. Oxide (for metal). 1/2 lb.
No. 11-834—Auxiliary Shaft 1/2"x21/2" with milled flat entire length. For use with No. 630 and No. 835 Sanding Drums when used with No. 974 Spindle.

NARROW SANDING DEUTE.

NARROW SANDING DRUMS AND SLEEVES

NARROW SANDING DRUMS AND SLEEVES
No. 679—1½"x1" Drum, with one sleeve, 5/16" shank. ½ lb.
No. 682—½ doz. 1½"x1" No. 40-grit Al. Oxide sleeves. ¼ lb.
No. 683—½ doz. 1½"x1" No. 80-grit Al Oxide sleeves. ½ lb.
No. 683—½ doz. 1½"x1" Drum, with one sleeve, 5/16" shank, ½ lb.
No. 684—½ doz. 2-3/16"x1" No. 40-grit Al. Oxide sleeves. ¼ lb.
No. 685—½ doz. 2-3/16"x1" No. 80-grit Al. Oxide sleeves. ½ lb.
No. 685—½ doz. 3"x1" No. 40-grit Al. Oxide sleeves. ½ lb.
No. 686—½ doz. 3"x1" No. 40-grit Al. Oxide sleeves. ½ lb.
No. 687—½ doz. 3"x1" No. 80-grit Al. Oxide sleeves. ½ lb.
No. 687—½ doz. 3"x1" No. 80-grit Al. Oxide sleeves. ½ lb.

CHISELS, BITS, BUSHINGS, PLUG CUTTERS, Etc.

HOLLOW CHISELS



Selected steel. Bit operates inside of chisel. Shank of chisel 58"x11/2". Weight per set 21/8 lbs.

| No | 504 | 505 | 506 | 508 |
|-------------------|---------|---------|---------|------------------|
| Size, Inches | 1/4×1/4 | (Xin | 3/8×3/8 | $1/2 \times 1/2$ |
| Depth of Mortise. | 17/8" | 17/8" | 23/4" | 31/4" |
| Order | proper | bushing | TS. | |

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.

| No | 514 | 515 | 516 | 518 |
|----------------|-------|-------|--------|--------|
| Size | 1/4" | 5/16" | 3/8" | 1/2" |
| Diameter Shank | 3/16" | 1/4" | 19/64" | 19/64" |

ROCKWELL MANUFACTURING COMPANY



BUSHINGS

1/2" Outside Diameter

| No | 524 | 525 | 526 |
|--|---------|-------|--------|
| Hole | 3/16" | 1/4" | 19/64" |
| No. 526 used with Nos. Chisel Bits. | 516 and | d 518 | Hollow |

ROUTER BITS



For routing, round-end mortises and grooving work. ½x1½ inch shank. Use No. 974 Spindle with these Router Bits.

| No474 | 475 | 476 | 477 | 478 |
|--------------------|------|--------|------|-------|
| Size | 18" | 3/8′′ | 18" | 1/2" |
| No 480 Complete se | of 5 | Pouter | Rite | 2 lba |

PLUG CUTTERS



Used for making wood plugs and dowels. 1/2x2 inch shank, barrel 21/4" long.

No.814 815 816 1/2" - 5/8" 3/4" Size3/8" 1"

No. 822—Complete set of 5 Plug Cutters. 21/2 lbs.

MACHINE SPUR BITS

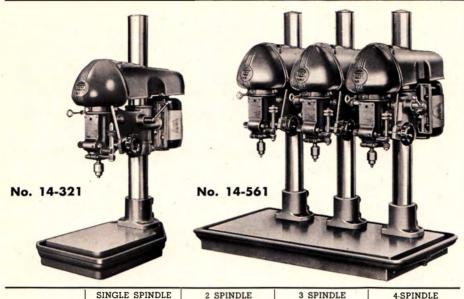


Selected steel. Have brad point and two cutting lips. Approximately 6" long overall, with a 12" shank. Weight per set 3 lbs.

No....804 805 806 807 808 809 810 812 7 1/2" Size ... 1/4" 1/6" 3/8" 15" 5/8" 3/4" No. 818—Complete set of 8 machine spur bits.

(For Prices See Attached Price List)

Single and Multiple 14-inch SUPER-HI DRILL PRESSES®



TYPE

With 1/3 H.P. Single Phase Motor 115/230 V. 60 Cy. 3450 R.P.M. SPINDLE SPEEDS: 12,000, 8,000 and 5,000 RPM. With Switch Rod

| Catalog No | . 10 ³ / ₄ x 9 | 14-551 | 14-561 | 14-571 |
|---------------|--------------------------------------|------------|-------------------------------------|------------|
| Table Surface | | 103/4 x 19 | 10 ³ / ₄ x 28 | 103/4 x 37 |
| Ship. Wt | | 670 | 900 | 1180 |

With 1/3 H.P. Single Phase Motor 115/230 V. 50 Cy. 2850 R.P.M. SPINDLE SPEEDS: 10,000, 6,600 and 4,100 RPM With Switch Rod.

| Catalog No | 14-322 | 14-552 | 14-562 | 14-572 |
|---------------|------------------------|-------------|-------------------------|------------|
| Table Surface | $10^{3}/_{4} \times 9$ | 103/4 ix 19 | $10^{3}/_{4} \times 28$ | 103/4 x 37 |
| Ship. Wt. | 175 | 670 | 900 | 1180 |

With 1/3 H.P. 3 Phase Motor 220/440 V. 50/60 Cy. 2850/3450 R.P.M.

SPINDLE SPEEDS: 50 Cy.: 10,000, 6,600 and 4,100 RPM.
60 Cy.: 12,000, 8,000 and 5,000 RPM.

Switch and Switch Rod not furnished.

| | No. 1320 Manua | il Starter and No. 1322 | Mounting Parts are | Recommended. |
|--------------------------|----------------|-------------------------|--------------------|-------------------------------------|
| Catalog No Table Surface | 14-323 | 14-553 | 14-563 | 14-573 |
| | 103/4 x 9 | 103/4 x 19 | 103/4 x 28 | 10 ³ / ₄ x 37 |
| | 175 | 670 | 900 | 1180 |

With 1/3 H.P. D.C. Motor 115 V. 3450 R.P.M.

| SPI | INDLE SPEEDS: 12 | ,000, 8,000 and 5,000 RPM | M. With Switch R | od. |
|-----------------------------------|------------------|-------------------------------------|---|------------|
| Catalog No Table Surface Ship.Wt. | 14-324 | 14-554 | 14-564 | 14-574 |
| | 103/4 x 9 | 10 ³ / ₄ x 19 | 10 ³ / ₄ x 2 8 | 103/4 x 37 |
| | 175 | 670 | 900 | 1180 |

With 1/3 H.P. D.C. Motor 230 V. 3450 R.P.M. SPINDLE SPEEDS: 12,000, 8,000 and 5,000 RPM. With Switch Rod.

NOTE: Take drills from No. 72 to 1/4". Single Spindle Units have One-piece Table. All 2, 3 and 4 Spindle Units have Sectional Tables. Coolant Pump and Tank can be used when production type table is used with Super-Hi Drill Press.

Table Drain Hole—Single spindle model has two 3/6" Pipe Tap at rear—two, three and four spindle models have two 1/2" Pipe Tap at rear.

See page 23 for Coolant Equipment, Accessories and Dimensions

Pulley and Belt Units for Additional Speeds

No. 14-829-Spindle Pulley and No. 14-833 39" flat belt, for 50 and 60 cycle motors. Speeds for 60 Cy. Motor: 10,000, 7,000 and 4,500 rpm.
—for 50 Cy. Motor: 8,250, 5,800 and 3,700. ½ lb. No. 14-833—Replacement Belt. Length 39". 1/4 lb.

No. 14-830—Spindle Pulley and No. 14-834 39½" flat belt, for 50 and 60 cycle motors. Speeds for 60 Cy. Motors: 9,000, 6,200 and 4,000 rpm.— 50 Cy. Motors: 7,400, 5,100 and 3,300 rpm. ½ lb. No. 14-834-Replacement Belt. 391/6". 1/4 lb.

Table Sections and Column Parts

So that you may assemble a drill press unit to meet your own requirements we make available the sectional table parts, the columns and the heads. Heads are listed above. Minimum center to center distance for column is 9". No. 14-836—Table section 9" x 155%" for Super-Hi—no ends 50 lbs. (Other sections on P. 5.)

No. 14-837—Two end sections, ½" x 15%", for Super-Hi sectional table. 25 lbs. (See P. 5 for other sections.)

No. 14-838—Column cover for Super-Hi. 2 lbs. No. 14-839—Column 23/4" dia. x 30" long for Super-Hi. 12 lbs.

No. 14-840 One Piece Table 9"x 1034". 50 lbs. No. 1019—Col. Mount. Flange and Screws. 10 lbs. No. 1010—Head-Support Collar for Column. 2 lbs.

No. 1320—3-Ph. Manual Starter for 1½ H.P. A.C. Motors. 6 lbs.
No. 1321—3 Ph. Across-the-line Magnetic Starter with overload and under voltage protection, rating 2 H.P., 440 V. 60 Cy. only. 6 lbs.
No. 1322—Mounting Parts. 2 lbs.
No. 1322—3 Ph. Across the line Magnetic Starter.

No. 1322—Mounting Parts. 2 lbs.
No. 1329—3 Ph. Across-the-line Magnetic Starter with overload and under voltage protection, rating 2 H.P., 220 V. 60 Cy. only. 6 lbs.

Super-Hi Drill Press Heads are available separately for special setups.

For your convenience the Super-Hi Drill Press head with special motor is available. This head will fit any Delta-Milwaukee 14" Drill Press Column so that you can replace



any standard 14" head with the new Super-Hi head, thus permitting you to make up your own floor type models or multiple spindle models

Complete as illustrated, including specially balanced motor, belt guard, belt and pulley set for the speed listed, special Jacobs chuck taking drills from No. 72 to 1/4". Cord, plug, switch and switch rod furnished on singlephase and D.C. motors only.

No. 14-821—Head only with 1/3 H.P. Single Ph. 3450 r.p.m., 115/230 V. 60 Cy. Motor and Switch Rod. Speeds: 12,000, 8,000 and 5,000 r.p.m. 115 lbs.

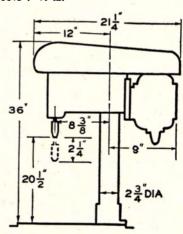
No. 14-822—Head only with 1/3 H.P. Single Ph. 2850 r.p.m., 115/230 V. 50 Cy. Motor and Switch Rod. Speeds: 10,000, 6,600, and 4,100 r.p.m. 115 lbs.

No. 14-823—Head only with 1/3 H.P. 3 Ph. 2850/3450 r.p.m., 220/440 V. 50/60 Cy. Motor. Switch and Switch Rod not furnished but No. 1320 switch and No. 1322 Switch Mounting Parts recommended. Speeds for 50 Cy.: 10,000, 6,600 and 4,100 r.p.m.—for 60 Cy.: 12,000, 8,000 and 5,000 r.p.m. 115

No. 14-824—Head only with 1/3 H.P. 3450 r.p.m., 115 V., D.C. Motor and Switch Rod. Speeds: 12,000, 8,000 and 5,000 r.p.m.

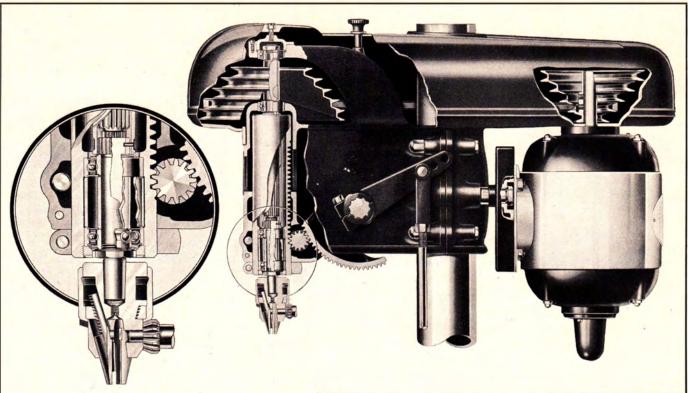
No. 14-825—Head only with 1/3 H.P., 3450 r.p.m., 230 V., D.C. Motor and Switch Rod. Speeds: 12,000, 8,000 and 5,000 r.p.m. 115 lbs.

No. 14-832—Replacement Belt. Length, 381/2". 1/4 lb.



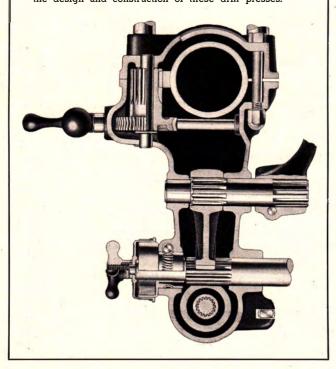
(For Prices See Attached Price List)

17" Delta Drill Press Engineering And Features Make It Tops In Quality



Above: Cross-section of head and quill assembly showing the exceptionally fine design and husky construction which makes these drill presses deliver unusually long and dependable service at very low maintenance costs.

Below: Section through head, showing the worm-andgear wind for the spindle return spring to prevent "flyback," the splined spindle and sleeve, splined shaft, gear segment and lever for foot feed, and the worm-and-gear head raising mechanism—all evidence of care used in the design and construction of these drill presses.



ACCURATE SPINDLI

The lower end of the pulley shaft is machined to form a 16-tooth automobile type spline, fitting into a husky sleeve of large diameter, internally splined to fit the shaft. The exceptionally long bearing between sleeve and spindle practically eliminates wear and retains the original accuracy of the fit. In addition, it insures very sensitive action of the spindle.

BELT AND PULLEY GUARD

The pulley shaft does not project through the pulley but is keyed to it as shown above. This design permits the enclosure of both belt and pulleys in a streamlined, pressed steel guard of two pieces that completely encloses the moving parts. To remove the upper half of the guard for speed adjustment, it is only necessary to turn the top guard knob counter-clockwise and lift the guard straight up. A spring catch allows ample lift.

LUBRICATED-FOR-LIFE BEARINGS

The spindle pulley runs on two sealed, lubricated for life ball bearings which take all belt pull so that none is transmitted to the spindle. The spindle is also carried in two sealed, lubricated for life ball bearings which are pre-loaded and set close together near the bottom of the quill to assure maximum stiffness and to eliminate spindle whip.

SPINDLE EASILY CHANGED

The quill has a long bearing in the head and is completely enclosed. The entire lower spindle assembly may be simply and easily removed by loosening the threaded lock ring. Either the No. 2 Morse taper spindle or a 1/2' geared chuck may be used.

UNIQUE SPRING HOUSING

The spindle return spring housing is provided with a worm and gear wind to eliminate danger of "fly-back" when adjusting spring tension. The spring housing also nas a depth gauge, another distinctive feature of these drill presses. With this gauge it is possible to set the scale at zero after the drill or tap has been brought down to the work thus enabling the operator to cetermine the exact amount of depth to drill or tap without resorting to arithmetic computations.

HEAD AND TABLE RAISING MECHANISM

The head and table raising mechanism rack rests on a ball thrust bearing to permit easy rotation of head or table. The compound gear assembly is made in two parts, fabricated tightly and permanently together. This design enables the use of the best metal for each part.

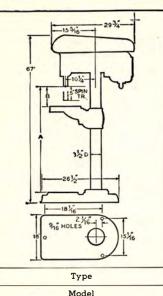
CLOSE-TOLERANCE TABLE SURFACES

All table surfaces are ground to very close tolerances, and both the face of the table bracket and the face of the table are milled accurately. When they are assembled together, the tables will not indicate a variance of more than .005" in a 12" diameter.

NEW STANDARD OF DRILL PRESS VALUE

The features shown on this page are only a few of the many that make this drill press the outstanding value in the field. No matter what you pay for a 17" Drill Press, you will not find another with all these construction features, it is years ahead of other drill presses in design and engineering.

17-inch Floor Type, Single Spindle Drill Presses



Standard Tilting Table Slo-Speed High Speed

No. 17-205

Shown with Motor



| Production Table | | | |
|------------------|------------|--|--|
| Slo-Speed | High Speed | | |
| | | | |

WITH No. 2 MORSE TAPER SPINDLE

| 17-205 | 17-206 |
|--------------------|---------------------|
| 11 18"x 12" 33" | 11 10 "x 12" 33" |
| 433/4" | 433/4" |
| 310 | 310 |
| None | None |
| None | None |

| 17-210 | 17-211 |
|------------|---------------|
| 12½"x 17" | 12½"x 17" |
| 31½" | 31½" |
| 43¾" | 43¾" |
| 370 | 370 |
| One ¾" Pip | e Tap at rear |
| See P | age 23 |

WITH 1/2 INCH JACOBS CHUCK and SPINDLE

| 17-207 | 17-208 |
|------------|-------------------------|
| | |
| 11½ "x 12" | 11 ₁₆ "x 12" |
| 331/2" | 331/2" |
| 441/4" | 441/4" |
| 310 | 310 |
| None | None |
| None | None |

| IIG SPINDLE | |
|-------------|-----------------------------|
| 17-212 | 17-213 |
| | 12½"x 17" 31%" |
| 441/4" | 441/4'' 370 |
| | |
| See Pa | age 23 |
| | 17-212 12½"x 17" 31%" |

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.

Capacity: 34" in cast iron.

Machine No.
Table Working Surface
Spindle to Table (B) Max.
Spindle to Base (A) Max.
Ship. Wt. Lbs.

Type of Coolant Pump Required.

Machine No.
Table Working Surface
Spindle Chuck to Table (B) Max.
Spindle Chuck to Base (A) Max.
Ship Wt. Lbs.

Type of Coolant Pump Required...

Table Drain Hole

Table Drain Hole

Capacity: 3/4" in cast iron.

Machines include: Table raising mechanism—Streamlined belt guard—
Built-in depth gage—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"-½" are to

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 11. For individual parts for special setups and for accessories, see page 11.

Notors 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 60 for Motors and Switch Parts.



DELTA TAFPING 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, 0-3/6" 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"-58" Capacity. Weight, 16 lbs.

Tapping Attachment includes Special No. 2 Morse Taper Drive

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.



| • | | v C1113 | CIS |
|------------|------------------------|---|--|
| No. | Size | Depth | Wt. lb. |
| 504 505 | 1/4 | 17/8 | 1/2 |
| 506 | 3/6 | 23/4 | 1/2 |
| 508 | 1/4 5 3/8 1/2 | 17/8 17/8 23/4 31/4 | 1/2 1/2 1/2 5/8 |
| _ | | | - |
| Mo | achine | • Spur | Bits |
| 61/4" | long | . 1/2" 5 | hanks |
| No. | S | ize | Wt. lb. |
| 804 | | 1/4 | 5/8 |
| 805 | |) e | 5/8 |
| 806 | | 3/8 | 5/8 |
| 807 808 | | 16 | 3/8 |
| 809 | | 1/2 | ₹% |
| 810 | | 1/4 56 3/8 76 1/2 1/2 5/8 | 5%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%% |
| 812 | | 3/4 | 5% |
| | | /4 | /8 |

Hollow Chisels

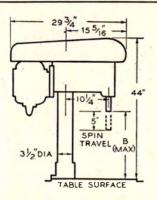
| $ \begin{array}{cccccccccccccccccccccccccccccccccccc$ | 3/8 1/2 1/2 1/2 |
|--|--------------------------|
| chine Spur Bits long, ½" shanks Plug Cutters Shank, ½" | |
| Size Wt. lb. No. Size Depth W | t. lb. |
| 1/4 5/8 814 3/8 2 1 0 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 | 3/8 |
| 3/8 5/8 815 1/2 2 1 " | 3/8 |
| 1/4 5/8 5/8 814 3/8 2 1/5" 3/8 5/8 815 1/2 2 1/5" 1/4 5/8 816 5/8 2 1/5" 1/4 5/8 816 5/8 2 1/5" 1/5 5/8 5/8 817 3/4 2 1/5" | 3/8 |
| 1/2 5/8 817 3/4 2 18" | 1/2 |
| 5/8 5/8 819 1 216" set of 8 bits 3 822 set of 5 cutters 2 | 1/2 |
| set of 8 bits 3 822 set of 5 cutters 2 | 1/2 |

Mort. Bits

Ι..

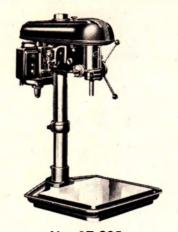
(For Prices See Attached Price List)

17-inch 1, 2 and 4-Spindle Drill Presses. One Piece Tables



Single Spindle Machines are Bench Type only. Two and Four-Spindle Floor

Two and Four-Spindle Floor Type only. Working surface is 32" from floor.



No. 17-305 Shown with Motor



| Туре | 1 Spin. Bench Type | 2 Spin. Floor Type \$\begin{pmatrix} \Phi_{-18}^{-2} \\ \phi_{-18}^{-2 | 4 Spin. Floor Type (| |
|--|--|---|---|------|
| Model | Slo-Speed High Speed | Slo-Speed High Speed | Slo-Speed High S | peed |
| | WITH No. 2 MORS | | | |
| Machine No. Table Working Surface Spin. to Table (B) Max. Spindle Spacing Ship. Wt. Lbs. | 26" 26" | 17-405 171/2"x 36" 26" 18" 18" 723 17-406 171/2"x 36" 26" 18" 18" 723 | 17-410 17-4 171/2"x 77" 171/2"x 26" 26" 26 18" 18" | 77" |
| Table Drain Hole Type of Coolant Pump Required | Two ¾'' Pipe Tap at rear See Page 23 | One ¾'' Pipe Tap at rear See Page 23 | Two ½" Pipe Tap at rea See Page 23 | ar |
| ** | WITH 1/2 INCH JACO | BS CHUCK SPINDLE | - 1 | |
| Machine No. Table Working Surface Spin. to Table (B) Max. Spindle Spacing Ship. Wt. Lbs. | 17-307 16"x 18" 26½" 340 17-308 16"x 18" 26½" 26½" 340 | 17-407 17-408 17½''×36'' 17½''×36'' 26½'' 26½'' 18'' 18'' 723 723 | 17-412 17-4 17½'x 77'' 17½''x 26½'' 26½'' 26½'' 18" 18" 1578 | 77" |
| Table Drain Hole Type of Coolant Pump Required | Two ¾''Pipe Tap at rear See Page 23 | One ¾'' Pipe Tap at rear See Page 23 | Two ½" Pipe Tap at rea Sėe Page 23 | ır |

MOTORS, SWITCHES, COOLANT PUMP, TANK AND PIPING NOT INCLUDED WITH MACHINE. ORDER SEPARATELY.

These 17-inch drill presses are all furnished with a one-piece table in sizes as shown by the dimensional drawing in the table above. The single spindle machines are available as bench types only—the two and four spindle machines are floor types and are furnished with a set of cast iron legs as illustrated. With these legs, the working surface of the two and four spindle machines is 32" from the floor. The heavy table has a 11/2" oil trough all around.

Capacity: ¾" in Cast Iron. Quill has 5-inch stroke or travel.

Machines Include: Head raising mechanisms. Streamlined belt guard.

Built-in depth gage. Depth scale on spindle return spring housing.

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

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 machines where straight shank drills 0" to $\frac{1}{2}$ " 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 models with No. 2 Morse taper spindle and use the No. 968 chuck listed on page 11. For individual parts for special setups and for accessories, see page 11.

Motors Recommended: Heavy Duty—84-910, 86-920, Medium Duty—82-910, 96-720. Light Duty—82-910, 96-720.

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, or Magnetic Starters No. 1329 or No. 1321, with No. 1322 mounting parts. Use No. 1332 switch rod for single phase motors.

See page 60 for Motors and Switches.



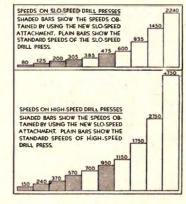
EFFICIENT OPERATING SLO-SPEED ATTACHMENT

To meet the requirement of extra slow operation of the 17" Drill Press for spot facing, reaming, counterboring, core drilling and drilling of hardened parts; the No. 17-860 Slo-Speed Attachment has been designed. Fits any Delta 17" Drill Press with No. 2 Morse Taper Spindle.

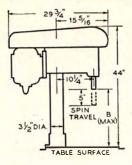
A train of accurately machined double-reduction gears is used. This eliminates all chatter, and slippage, and means positive, smooth operation. Provides '10 different speeds. Gears are heat treated. Anti-friction bearings used throughout. Has No. 2 Morse Taper Spindle Socket. Spindle travel with slo-speed 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)



17-inch Floor Type 3, 4, 5, 6 and 8-Spindle Drill Presses. Sectional Tables



SPECIFICATIONS

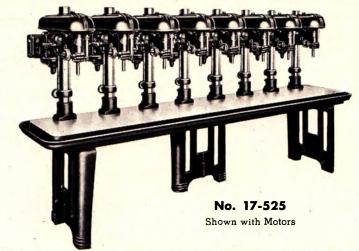
Capacity: 3/4" in cast iron. Quill has 5" stroke or travel. Minimum center to center distance 15". Tables have $1\frac{1}{2}$ " trough. Working surface 32" from floor. With head raising mechanism, belt guard, built-in depth gage and depth scale on spindle return spring housing.

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

Slo-Speed Model-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.



| Туре | | 7½ | 4 Spi | 7-1-1-1-1-1-1-1-1-1-1-1-1-1-1-1-1-1-1-1 | 5 Sp | indle | 6 Sp | 4 | 8 Spindle | 15-1125* 15-1125* 15-1125* |
|--|--|---|--|--|--|---|--|---|---|---|
| Model | Slo-Speed | High Speed | Slo-Speed | High Speed | Slo-Speed | High Speed | Slo-Speed | High Speed | Slo-Speed | High Speed |
| | | | WITH | No. 2 | MORSE 1 | APER SP | INDLE | M. T. | | 14 |
| Machine No. Table Working Surface Spin. to Table (B) Max. Spindle Spacing Ship. Wt. Lbs. | 17-505 17 ¹ / ₂ "x 65" 26" 18" 1570 | 17-506 17½''x 65'' 26'' 18'' 1570 | 17-510 17½"x 65" 26" 15" 1750 | 17-511 17½"x 65" 26" 15" 1750 | 17-515 17½"x 95" 26" 18" 2370 | 17-516 17 ¹ / ₂ "x 95" 26" 18" 2370 | 17-520 17½"x 95" 26" 15" 2540 | 17-521 17 ¹ / ₂ "x 95" 26" 15" 2540 | 17-525 17½"x 125" 26" 15" 3250 | 17-526 17½"x 125" 26" 15" 3250 |
| Table Drain Hole Type of Cool. Pump Req | | Taps at ends | | Tapsatends Page 23 | | Taps at ends age 23 | | Tapsatends age 23 | Two ¾"Pipe See P | Taps at ends |
| | | 7 | WITH | 1/2 INCH | JACOBS | CHUCK S | SPINDLE | | | |
| Machine No. Table Working Surface Spin. to Table (B) Max Spindle Spacing Ship. Wt. Lbs. | 17-507 17 ¹ / ₂ "x 65" 26 ¹ / ₂ " 18" 1570 | 17-508 17½"x 65" 26½" 18" 1570 | 17-512 17 ¹ / ₂ "x 65" 26 ¹ / ₂ " 15" 1750 | 17-513 17½"x 65" 26½" 15" 1750 | 17-517 17½"x 95" 26½" 18" 2370 | 17-518 17½"x 95" 26½" 18" 2370 | 17-522 17½"x 95" 26½" 15" 2540 | 17-523 17½"x 95" 26½" 15" 2540 | 17-527 17½"x 125" 26½" 15" 3250 | 17-528 17½"x 125" 26½" 15" 3250 |
| Table Drain Hole Type of Cool. Pump Req | Two ¾"Pipe See P | Taps at ends age 23 | Two ¾"Pipe See P | Taps at ends | Two ¾'' Pipe See P | Taps at ends age 23 | Two ¾" Pipe See P | Taps at ends age 23 | | Taps at ends |

MOTORS, SWITCHES, COOLANT PUMP, TANK AND PIPING NOT INCLUDED WITH MACHINE. ORDER SEPARATELY.

The 17-inch drill presses listed here are all furnished with sectional tables. Any combination of center sections (1505) and end sections (1507) can be furnished (See page 5). This arrangement allows for a wide variety of combinations—and although we show here the most popular production type of machines, many other units are available. The sectional table allows a drill press to be made—of any desired length with spindle spaced at any centers desired.

Tables of three or more sections have three cast iron legs, other machines

Order Jacobs spindle machines where straight shank drills 0"-1/2" 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 the No. 968 chuck listed below.

the No. 368 chuck listed below.

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, or Magnetic Starters No. 1329 or No. 1321, with No. 1322 mounting parts. Use No. 1332 switch rod for single phase motors.

See page 60 for Motors and Switches.

SPECIAL SETUPS AT LITTLE COST WITH STANDARD 17" DRILL PRESS PARTS

*No. 17-200—(old No. 1378) 17" Slo-Speed Drill Press Head with No. 2 Morse Taper Spindle, No. 520 Belt and No. 1311 Motor Pulley. 95 bs. *No. 17-201—(old No. 1378-H) 17" High Speed Drill Press Head with No. 2 Morse Taper Spindle, No. 501 Belt and No. 1312 Motor Pulley. 95 bs. *No. 17-202—(old No. 1379) 17" Slo-Speed Drill Press Head with ½" Jacobs Chuck Spindle, No. 520 Belt and No. 1312 Motor Pulley. 95 bs. *No. 17-203—(old No. 1379-H) 17" High Speed Drill Press Head with ½" Jacobs Chuck Spindle, No. 501 Belt and No. 1312 Motor Pulley. 95 bs. *No. 17-203—(old No. 1379-H) 17" High Speed Drill Press Head with ½" Jacobs Chuck Spindle, No. 501 Belt and No. 1312 Motor Pulley, 95 bs. 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. 10 lbs. No. 17-862—Set of Change-over Parts consisting of Slo-Speed Pulleys and No. 501 Dr. V-Belt for 17" High Speed Drill Press into Slo-Speed. 10 lbs. No. 520—V-Belt for 17" Slo-Speed Drill Press. ½ lb. No. 520—V-Belt for 17" Slo-Speed Drill Press. ½ 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. 1315—Column for Floor Type 17" Drill Press. 60" long and 3½" diameter. 34 lbs.

*Motor Pulley comes with 3/4" bore unless otherwise specified.

- No. 1368—Column for Bench Type 17" Drill Press. 381/2" long and 31/2"
- diameter. 22 lbs.

 No. 1372—Production Table to fit Standard Bracket on Floor Type 17"

 Drill Press. 66 lbs.
- No. 1513—2 Spindle One Piece Table. Working Surface of $17\frac{1}{2}$ "x 36" for 17" Drill Press Heads. 320 lbs.

 No. 1515—4 Spindle One Piece Table. Working Surface of $17\frac{1}{2}$ "x 77" for 17" Drill Press Heads. 970 lbs.
- No. 1514—Single Spindle One Piece Table. Working Surface of 16"x 18" for 17" Drill Press Head. (This table cannot be mounted on the No. 1399 Cast Iron Legs.) 120 lbs.

- Cast Iron Legs.) 120 lbs.

 No. 1399—Cast Iron Legs (one pair) for mounting One Piece Tables Nos. 1513 and 1515 and all other Multiple Spindle Drill Presses. 163 lbs.

 No. 1380—Raising Mechanism for head or table of 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 Single Spindle 17" Drill Press. 34 lbs.

 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. 2½ lbs.

(For Prices See Attached Price List)

17-inch 1-, 2-, and 4-Spindle Power Feed Drill Presses. One Piece Tables



No. 17-260 Shown with Motor



No. 17-355 Shown with Motor

Available Only as a Bench Type Machine



No. 17-460 Shown with Motors

| | Floor Type S | ingle Spindle | Bench Type S | ingle Spindle | Floor Type | Two Spindle | Floor Type I | our Spindle |
|--|-----------------------------------|---------------------------------------|------------------------------|------------------------------|------------------------------|-------------------------|--|--|
| Туре | | | -18 | | ф_1 — 36 | 8-07 17/2 | Φ ₁₈ Φ 17 ¹ / ₂ 77"— | 8 |
| Model | Slo-Speed | High Speed | Slo-Speed | High Speed | Slo-Speed | High Speed | Slo-Speed | High Speed |
| | | WITH | No. 2 MOR | SE TAPER S | PINDLE | | | |
| Machine No. Table Working Surface. Spin. to Base Max. Spin. to Table Max. | 32'' | 17-261 12½"x17" 44" 32" | 17-355 16"x 18" 23 15" | 17-356 16"x 18" 23 f " | 17-455 17½"x 36" 2315" | 17-456 17½"x 36" | 17-460 17½''x 77'' 23 ½'' | 17-461 17½''x 77'' 23½'' |
| Spindle Spacing | Table 418 | Table 418 | Head 390 | Head 390 | 18" Head 843 | 18" Head 843 | 18" Head 1750 | 18" Head 1750 |
| Table Drain Hole Type of Cool. Pump Reg. | One 3/4" Pipe See Pa | e Tap at rear ge 23 | | e Tap at rear age 23 | One 3/4" Pip | e Tap at rear | Two 1/2" Pip | e Tap at rear age 23 |
| | | WITH 1/2 | INCH JAC | OBS CHUCK | SPINDLE | | | |
| Machine No. Table Working Surface. Spin. to Base Max. Spin. to Table Max. | 17-262 12½"x17" 44½" 32" | 17-263 12½''x17'' 44½'' 32'' | 17-357 16"x 18" 23 8" | 17-358 16"x 18" 23 } " | 17-457 17½"x 36" | 17-458 17½"x 36" | 17-462 17½"x 77" | 17-463 17½"x 77" |
| Spindle Spacing Raising Mechanism Ship Wt. Lbs. | Table 418 | Table 418 | Head 440 | Head 440 | 18" Head 843 | 18" Head 843 | 23 13" 18" Head 1750 | 23 1 3 '' 18'' Head 1750 |
| Table Drain Hole Type of Cool. Pump Reg. | | e Tap at rear age 23 | Two 3/4" Pip See P | e Tap at rear age 23 | | e Tap at rear age 23 | | e Tap at rear age 23 |

MOTORS, SWITCHES, COOLANT PUMP, TANK AND PIPING NOT INCLUDED WITH MACHINE. ORDER SEPARATELY.

These power feed 17 inch drill presses are of advanced design, incorporating all good features of machines of this type. They can be both manual and power operated. The operator can bring the drill down to the work in one swift motion by hand, and with a flip of the power lever engage the power feed. Upon completion of the operation the drill automatically returns. There are eight rates of feed for each of the 5-spindle speeds—see page 13.

Furnished as single spindle floor type, single spindle bench type and two and four spindle floor types which have cast iron legs. Tables have $1\frac{1}{2}$ " oil trough all around, working surface 32" from floor. Capacity: $3\frac{1}{4}$ " in cast iron. Multiple spindle 17" drill press—min. distance between spindles—18". **Machines include:** Streamlined belt guard. Built-in depth gauge. Depth scale on spindle return spring housing. 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 pulley. Slo-speed models include No. 520 V-belt and No. 1311 motor pulley. Order Jacobs spindle machines where straight shank drills 0"-1/2" 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. 968 chuck listed on page 11. The single spindle floor type drill press has a table raising mechanism. All other machines are furnished with head raising mechanisms.

Motors Recommended: 84-910, 86-920.

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 60 for Motors and Switches.



POWER FEED ATTACHMENT FOR 17" DRILL PRESSES

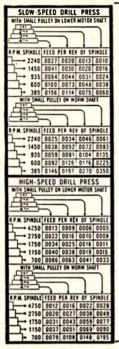
Any standard Delta-Milwaukee 17" drill press can be easily and readily changed into a Power Feed Drill Press by adding the Power Feed Unit listed here. No special machining, drilling or fitting need be done. The Unit is perfectly interchangeable. It can be operated in any position and is attached to 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, guill 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 17" drill presses only. 84 lbs.

(For Prices See Attached Price List)

17-inch Floor Type 3-, 4-, 5-, 6- and 8-Spindle Power Feed Drill Presses



Sectional Tables

FEED CHART

Shows rate of feed per revolution of spindle on both sloand high-speed models. There are eight rates of feed for each spindle speed, which means that the correct rate of feed for your drilling operation is always available. Two cast iron 4-step cone pulleys and a special belt tension release built into quard make rate of feed changes quick and safe.

Speeds outlined by heavy lines are not to be used for normal operation.



| Туре | 3 Spi | ndle | 4 Spin | solde | 5 Spin | ndle | 6 Spi | ndle | 8 Spindle | 0 T 18 18 18 18 18 18 18 18 18 18 18 18 18 |
|--|--|---|--|---|--|--|--|--|--|--|
| Model | Slo-Speed | High Speed | Slo-Speed | High Speed | Slo-Speed | High Speed | Slo-Speed | High Speed | Slo-Speed | High Speed |
| | | | | WITH No | . 2 MORS | SE TAPER | SPINDLE | - | | |
| Machine No. Table Working Surface Spin. to Table Max. Spindle Spacing Ship. Wt. Lbs. | 17-555 17½"x 65" 23¼" 18" 1720 | 17-556 17½''x 65'' 23¼" 18'' 1720 | 17-560 17½"x 95" 23½" 21" 1950 | 17-561 17½''x 95'' 23½'' 21'' 1950 | 17-565 17½''x 95'' 23½'' 18'' 2620 | 17-566 17 ¹ / ₂ ''x 95'' 23 [†] 6'' 18'' 2620 | 17-570 17½"x 125" 23 ½" 20" 2840 | 17-571 17½''x 125'' 23½'' 20'' 2840 | 17-575 17½"x 155" 23 %" 18" 3650 | 17-576 17½"x 155" 23 %" 18" 3650 |
| Table Drain Hole Type of Cool. Pump Req. | Two 3/4" Pipe Tap at ends See Page 23 | | Two ¾'' Pipe See Pa | Two ¾'' Pipe Tap at ends Two ¾'' Pipe Tap at ends Two See Page 23 | | | | e Tap at ends | Two ¾" Pipe See Pa | e Tap at ends |
| | | | WI | TH 1/2 IN | ICH JAC | DBS CHU | CK SPINI | OLE | 1 -0 | |
| Machine No. Table Working Surface Spin. to Table Max. Spindle Spacing Ship. Wt. Lbs. | 17-557 17½"x 65" 23¼" 18" 1720 | 17-558 17½"x 65" 23 ¼" 18" 1720 | 17-562 171/2''x 95'' 23 18'' 21'' 1950 | 17-563 17 ¹ / ₂ "x 95" 23 3" 21" 1950 | 17-567 17 ¹ / ₂ "x 95" 23 13 " 18" 2620 | 17-568 17 ¹ / ₂ ''x 95'' 23 §'' 18'' 2620 | 17-572 17½"x 125" 23⅓" 20" 2840 | 17-573 171/2''x 125'' 2313''' 20''' 2840 | 17-577 17½"x 155" 23 ½" 18" 3650 | 17-578 17½''x 155'' 23 ¾'' 18'' 3650 |
| Table Drain Hole Type of Cool. Pump Req. | Two ¾" Pipe See Pa | e Tap at ends ige 23 | Two ¾'' Pipe See Pa | Tap at ends ge 23 | Two ¾" Pipe See F | e Tap at ends Page 23 | Two ¾" Pipe See Pa | e Tap at ends age 23 | Two ¾" Pipe See Pa | e Tap at ends age 23 |

MOTORS, SWITCHES, COOLANT PUMP, TANK AND PIPING NOT INCLUDED WITH MACHINE. ORDER SEPARATELY.

The general specifications of these Power Feed Drill Presses are shown in the first paragraph on the preceding page. The machines listed here are all floor type machines and have sectional tables. These tables are are all floor type machines and have sectional tables. These tables are made up of center sections to which end sections are bolted. This arrangement allows for a wide variety of combinations—and although we show here the most popular production types of machines, many other units are available. The sections have a 1½" trough and the end sections are tapped for a drain. Tables of three or more sections have three cast iron legs, other machines have two legs. Working surface is 32" from floor. Capacity: ¾" in cast iron. Multiple spindle 17" drill press—minimum distance between spindles—18".

Machines include: Head raising mechanism. Streamlined belt guard. Built-in depth gage. Depth scale on spindle return spring housing. Quill has 4½ inch stroke or travel.

has 4½ 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. Slospeed models include No. 520 V-belt and No. 1311 motor pulley.

Order Jacobs spindle machines where straight shank drills 0".½" 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 the be used, order machines with No. 2 Morse taper spindle and use the No. 988 chuck listed on page 11.

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

For 3 phase motors use No.1320 3 phase 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 60 for Motors and Switches.

*No. 17-220—(old No. P-1378) 17" Slo-Speed Power Feed Drill Press Head with No. 2 Morse Taper Spindle, 520 Belt and 1311 Motor Pulley. 175 lbs.

*No. 17-221—(old No. P-1378-H) 17" High Speed Power Feed Drill Press Head with No. 2 Morse Taper Spindle, No. 501 Belt and No. 1312 Motor Pulley. 175 lbs.

*No. 17-222—(old No. P-1379) 17" Slo Speed Power Feed Drill Press Head with ½" Jacobs Chuck Spindle, 520 Belt and 1311 Motor Pulley. 175 lbs.

*No. 17-223—(old No. P-1379-H) 17" High Speed Power Feed Drill Press Head with ½" Jacobs Chuck Spindle, 520 Belt and 1311 Motor Pulley. 175 lbs.

*No. 17-223—(old No. P-1379-H) 17" High Speed Power Feed Drill Press Head with ½" Jacobs Chuck Spindle, No. 501 Belt and No. 1312 Motor Pulley. 175 lbs.

No. 17-857—Power Feed Unit. 84 lbs.

No. 17-857—Power Feed Unit. 84 lbs.

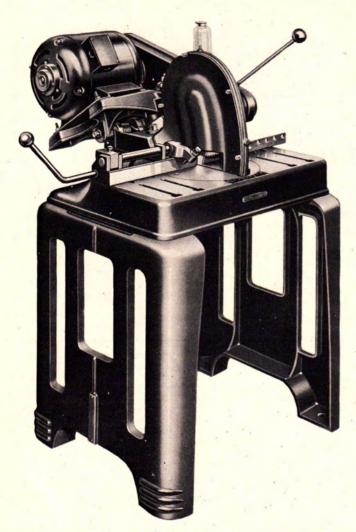
No. 49-100—V-Belt for Power Feed. Cir. In. 26%"; Out. 2814". For use with NEMA frame motors up to 16-13/16" over-all length. ½ lb.

No. 49-103—V-Belt for Power Feed. Cir. In. 26%"; Out. 28". For use with

Delta Motors. 1/2 lb. * Motor Pulley comes with 34" bore unless otherwise specified.

(For Prices See Attached Price List)

Non-Ferrous Cut-Off Machine Cuts Metals with "Polished Smoothness"



Catalog Listing of Non-Ferrous Cut-off Machine

No. 20-305 Non-Ferrous Cut-Off Machine as illustrated, complete with No. 1608 Wheel Guard, Belt Guard, Chip Guard, Collars and Fence with Stop, No. 1632 Drip Coolant attachment and Flange, No. 1399 Pair of Cast Iron Legs, No. 1610 Universal Clamp Fixture, Three No. 289 V-belts, and No. 1634 Motor Pulley. Without Saw Blade, Motor or Switch. 570 lbs.

No. 289-V-belt (3 required). 1/2 lb.

No. 1399—Cast Iron Legs (pair). 163 lbs.

No. 1600—Bench Type Cut-Off Machine with No. 1608 wheel guard, belt guard, chip guard, collars, and fence with stop. 235 lbs.

No. 1610-Universal Clamp Fixture. 18 lbs.

No. 1625-10" Metal Cutting blade, 5/64" thick, 5/8" hole, 190 teeth.

No. 1626-10" Metal Cutting blade, 3/32" thick, 5%" hole, 80 teeth. 21/8

No. 1632—Drip Coolant Attachment and Flange. 3 lbs.

No. 1633-3" Motor Pulley, 3/4" bore. 3 lbs.

No. 1634-3" Motor Pulley, 1" bore for 3 H.P. NEMA motor. 3 lbs.

No. 20-810-8" Metal Cutting blade, 1/16" thick, 5%" hole, 100 teeth. No. 20-811—8" Metal Cutting saw blade, .045" thick, 5%" hole, 144 teeth, for light walled tubing only on non-ferrous metals. 134 lbs.

No. 20-812-10" Metal Cutting saw blade, 16" thick, 58" hole, 132 teeth, for non-ferrous metal. 2 lbs.

lotors Recommended: No. 97-320, 97-420.

For complete listing of motors and switches see page 60.

| SPECIFICATIONS | Spindle speed | 2000 RPM | Wheel Surface Speed | 5250 FPM | Worki | Blade diameter, max | 10" | Worki | Arbor hole | 5%" | cool

For a Coolant Pan and an Efficient Pump and Tank for Wet Cutting Operations see Page 23.

As the name implies, the Non-Ferrous Cut-Off Machine has been specially developed for the cutting of aluminum, copper and brass which it does with 'polished smoothness." This eliminates expensive de-burring operations and the thin steel blades used conserve material. Excellent results are obtained with this outstanding Cut-Off Machine in hundreds of production shops.

Capacity

Here is a list of recommendations as to the type of material to be cut and the capacity of the machine on these materials:

SOLID SECTIONS: Soft Brass—up to 1½" diameter. • Half-Hard Brass—up to 1½" diameter. • Alum. Extruded Sections—up to equivalent of 2 sq. in. • Copper—up to 1½" diameter, or equivalent of 2 sq. in. • Magnesium (Dow Metal)—up to 1½" diameter. • Micarta and similar rods—up to 1½" diameter.

TUBULAR SECTIONS—Soft Brass, Hard Brass, Aluminum, Copper, Dow Metal, Micarta and similar Tubing—up to 2" diameter.

Very hard non-ferrous metals, such as Duralumin, Tobin Bronze, Navy Bronze, etc., should not be cut with the saw blade. For this work the abrasive cut-off machine using abrasive wheel is recommended.

Standard Blades Perform Variety of Work

The general tooth shape and clearance angles have been especially developed to cut aluminum without loading of the tooth gullets. At the same time they are extremely free cutting on the various brasses and on copper. The blades are similar in tooth shape, etc., and each makes a rapid, polished cut on any material for which it is recommended, as below. These blades handle a large variety of work most satisfactorily, but other blades for specialized types of production, are available from the standard blade manufacturers or their dealers.

Blade No. 1626 Blade No. 1626

Blade No. 1626

This is a 10" diameter blade, 3½" thick with 5½" bore and having 80 teeth. It is the most versatile of all blades, in fact it might be called a general purpose blade, The No. 1626 Blade should always be used where a wide variety of non-ferrous metals and plastics are to be cut on the same machine without changing blades. It is especially suitable for steady production on the following sizes of material: (1) Large solid bars and rods up to the maximum capacity listed. (2) Large diameter heavy walled tubing. (3) Extruded or irregular sections having heavy walls.

Blade No. 20-810

This is an 8" diameter blade, γ_6 " thick with γ_6 " bore and having 100 teeth. The No. 20-810 blade is especially suitable for: (1) Small solid bars and rods up to γ_6 " diameter. (2) Small heavy walled tubing up to 1" outside diameter κ / γ_6 " wall thickness. (3) Small extruded or irregular shaped sections having walls up to 1/8".

PROTECT HEALTH-PROTECT MACHINES WITH THE METAL DUST COLLECTOR FOR CUT-OFF MACHINE



No. 20-837 Attachment Package for use with **Cut-Off Machine**



The large amount of abrasive material and metal dust produced by the Cut-Off Machine is thrown into the air and must be collected to protect the operator and the machines. The Dust Collector is perfectly adapted for this use, catching the metal dust and abrasive material in the tray and filter of the unit.

The cabinet is of pressed steel, strong and husky. A large door on the back is removable for access to the filter, another at the top allows inspection of motor. The fan is a highly efficient unit of the squirrel cage type. It has lubricated-for-life ball bearings so that there are no lubrication problems. The filter is fireproof, has high filtering qualities, can easily be removed, cleaned and re-used thus reducing operating costs and at the same time maintaining the highest efficiency in dust collection.

SPECIFICATIONS

| ······································ |
|--|
| on4 inches |
| d 350 cu. ft. per min. |
| е |

CATALOG LISTING OF DUST COLLECTOR

No. 49-520—Dust Collector with ½ H.P., Single Phase, A.C., 3450 RPM, 115/230 V., 60 Cycle Motor. Without attachment fittings. 120 lbs.

No. 49-521—Dust Collector with ½ H.P., 3 Phase, A.C., 2850/3450 RPM, 220/440 V., 50/60 Cycle Motor. Without attachment fittings. 120 lbs.

No. 49-522—Dust Collector with ½ H.P., D.C., 3450 RPM, 115 V. Motor. Without attachment fittings. 120 lbs.

No. 49-523—Dust Collector with ½ H.P., D.C., 3450 RPM, 230 V. Motor. Without attachment fittings. 120 lbs.

No. 49-524—Dust Collector with ½ H.P., Single Phase. A.C., 2850 RPM. 115/230 V., 50 Cycle Motor. Without attachment fittings. 120 lbs.

No. 49-529—Extra Standard Filter to replace dirty filter while it is being cleaned. 8 lbs.

No. 49-529—EXTR Standard Filter to Explane and The Cleaned, 8 lbs.

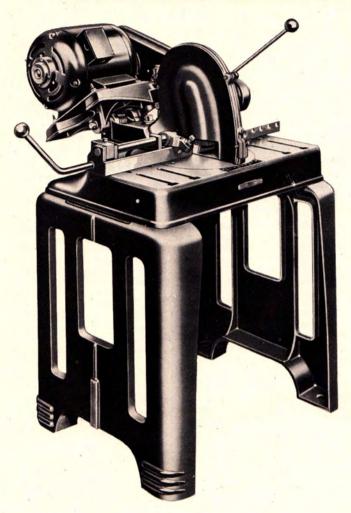
No. 49-531—Filter Pad Holder with two Expanded Fiber Pads. 7 lbs.

No. 49-532—24 Expanded Fiber Filter Pads per carton. 15 lbs.

ATTACHMENT PACKAGE

No. 20-837—Cut-Off Machine Attachment Package complete as illustrated. (For Prices See Attached Price List)

Abrasive Cut-Off Machine Offers Accuracy, Convenience and Long Life



Catalog Listing of Abrasive Cut-off Machine

No. 20-210 Abrasive Cut-Off Machine as illustrated for 60 cy. or D.C. service, complete with No. 1608 Wheel Guard, Belt Guard, Chip Guard, Flanges and Fence with Stop, No. 1399 Pair of Cast Iron Legs, No. 1610 Universal Clamp Fixture, three No. 294 V-belts and No. 1606 Motor Pulley. Without Abrasive Wheel, motor or switch. 570 lbs.

No. 20-211 Abrasive Cut-Off Machine for 50 or 25 cycle service complete with No. 1608 Wheel Guard, Belt Guard, Chip Guard, Flanges and Fence with Stop, No. 1399 Pair of Cast Iron Legs, No. 1610 Universal Clamp Fixture, three No. 501 V-belts and No. 1604 Motor Pulley. Without Abrasive Wheel, Motor or Switch.

No. 294—V-belt (3 required) for 6" motor pulley. ½ lb. No. 501—V-belt (3 required) for 7" motor pulley. ½ lb.

No. 1399—Cast from Legs (pair). 163 lbs.
No. 1600—Bench Type Cut-off Machine with No. 1608 wheel guard, belt guard, chip guard, flanges, and fence with stop. 235 lbs.
No. 1604—7" Motor Pulley, 1" bore for 25 and 50 cycle, 3 H.P. NEMA Motors. 9 lbs.

No. 1606-6" Motor Pulley, 1" bore for 60 cycle or D.C., 3 H.P. Motors.

No. 1606—6" Motor Pulley, 1" bore for 60 cycle of 2.0., 5 lbs.

No. 1610—Universal Clamp Fixture. 18 lbs.

No. 1615—Abrasive Wheel for Soft and Hard Steel and Hard Brass; best general purpose wheel, 3/32"x 10" with 5/8" hole. 1/2 lb.

No. 1616—Abrasive Wheel same as No. 1615 but only 1/16" thick, for use where less burr is permissible. 1/16"x 10" with 5/6" hole. 1/2 lb.

No. 1617—Abrasive Wheel for all Steels and Hard Bronze where maximum life of whoel is required, and burr is permissible. 3/32" x 10" with 5/6" hole. 1/2 lb.

No. 1619—Abrasive Wheel for thin Steel Tubing and Molding where little or no burr is permissible. 1/16"x 10" with 5/6" hole. 1/2 lb.

No. 20-815—10" diameter x 1/16" thick rubber wheel with 5/8" hole for wet cutting of steel solids. 2 lbs.

No. 20-816—10" diameter x 3/32" thick rubber wheel with 5/6" hole for wet cutting of steel solids. 2 lbs.

Motors Recommended: No. 97-320 and 97-420.

For complete listing of Motors and Switches see page 60.

For a Coolant Pan, and an Efficient Pump and Tank for Wet Cutting Operations see page 23.

The Abrasive Cut-Off Machine uses an abrasive wheel for cutting steel. An exceptionally smooth cut is obtained with little burr if proper cutting wheel is used. In many cases a second operation is unnecessary, thus reducing costs and speeding up the operation.

Practically every kind and type of shop can use this cut-off machine to cut costs and increase production. It can be used for hundreds of operations (cutting old drills, mouldings, pipe and conduit, tool steel. tubing, rods, wire rope, etc.), operations now being done on costlier machines or done by hand with the resultant high cost.

There is no end to the applications of this Abrasive Cut-Off Machine, new uses, new applications present themselves every day—it actually creates jobs for itself, saving time-saving labor in the plants where it is used. It is sturdy-cuts clean and accurately—is powerful—has rugged construction with heavy castings throughout-widely spaced Timken roller pivot bearings and double sealed arbor bearings which require no lubrication-balanced steel pulleys-powerful 3-belt, texrope drive-accurately machined—adjustable fence.

Exceptionally low cost and low maintenance costs -coupled with the best engineering design and construction make this an outstanding machine.

Capacity and Recommendations

HIGH SPEED STEEL: High speed steel bars and sections up to the equivalent of 34" solid round stock can be cut with an abrasive wheel.

COLD ROLLED STEEL: Cold rolled steel bars and sections up to the equivalent of 34" solid round stock can be accurately and quickly cut using an abrasive wheel.

STEEL TUBING: This material up to 11/4" in diameter and up to a wall thickness of approximately 32" can be cut fast and clean using an abrasive wheel.

Specifications

| Spindle Speed4,000 RI | PM |
|---|---------------|
| Surface Speed | PM |
| Wheel Diameterl | 0" |
| Arbor Hole5 | 8" |
| Wheel Collar Sizes | ia. |
| Table Angle or Adjustment Travel. 45° left, 45° ric | ght |
| Working Height of table3 | 32" |
| Working Height of table with coolant pan3 | 86" |
| Size of machine, approximately | |
| | Surface Speed |

Many Wood Working Applications

The Cut-Off Machine is ideally suited for cutting wood The Cut-Off Machine is ideally suited for cutting wood to exact lengths. The ease of operation, the convenience with which the material can be fed into the machine and the accurate method of adjusting for both angle and straight cross cutting makes the Cut-Off Machine a high production unit for the cutting of wood.

A wood cutting circular saw blade of 10" diameter is used and a swing guard is employed which moves with the blade yet covers it completely giving perfect protection. A 6" motor pulley is used which gives the proper speed. A 1 or 1½ H.P. motor will supply sufficient power for wood cutting. 2"x 6" capacity with 10" blade.

| No. 1609-Swing Gu | ard for W | lood Saw | Blades | . 13 lbs. |
|---------------------|-----------|-----------|--------|-----------|
| No. 1605-6" Motor | Pulley, 3 | 4" bore . | | . 5 lbs. |
| No. 294 — V-Belt (3 | required) | | | 1/2 lb. |

WOOD CUTTING BLADES

| No. 1015—10" Dia. Combination Saw Blade 2 lbs | |
|--|----|
| No. 1016—10" Dia. Hollow-Ground Saw Blade2 lbs | s. |

Motors Recommended for Wood Cutting Applications: Heavy Duty—87-120; Light and Medium Duty—84-910,

For complete motor and switch listing see page 60.

(For Prices See Attached Price List)

Cuts Many Shapes and Many Materials









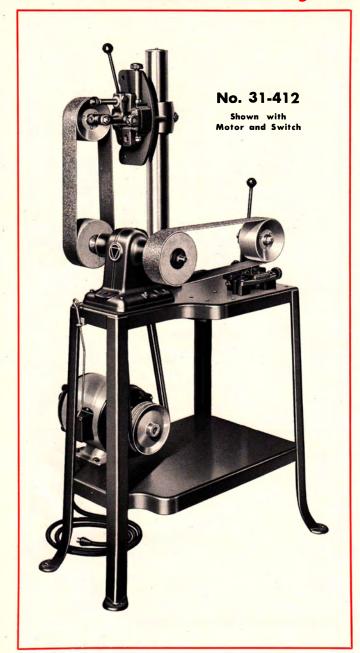








Low Cost Belt Grinding, Polishing and Deburring Machine



Grind, Polish, Buff and Remove Burrs with this New Low Cost Machine

ASTOUNDING! That's what you'll say when you figure the savings that result from using the new Delta-Milwaukee Belt Grinding, Polishing, and Deburring Machine. FIRST OFF, you have a low initial cost. Secondly, you have the Delta Quality features, making for long, trouble-free service . . . the lubricated-for-life, double-sealed, preloaded ball bearings . . . the precision bored seats . . . the precision ground shafts . . . the dynamically balanced arbor pulleys . . . and the all around rugged construction. Third, you have the newest, most efficient and inexpensive method of doing Grinding, Polishing, and Deburring.

ELIMINATE the bother of "Set-Up Wheels" and the necessary dressing of "Grinding Wheels." Abrasive belts are inexpensive, long wearing, quick and easy to replace. The New Delta Belt Grinding, Polishing and Deburring Machine is the answer to many of your present day flashing, cleaning and grinding problems.

It can be assembled into many combinations to meet your production requirements. It is a Production machine fully capable of doing a multitude of metal finishing operations formerly done on heavy. expensive machines. It is a completely condensed unit on a steel stand. And, it is a portable unit that occupies minimum floor space and will perform hundreds of costly operations at a big saving.

SPECIFICATIONS

| Overall length32½" |
|--|
| Overall length with dust collector57¾" |
| Overall width |
| Overall height in vertical position |
| Overall height in horizontal position40½" |
| Steel stand |
| Maximum abrasive belt length |
| Contact roll capacity%" to 27%" |
| Diameter of idler drum |
| Diameter of vertical support column |
| Belt speed 5400 f.p.m. with 6" contact roll using standard 1725 r.p.m. |



No. 31-411 Shown with Motor and Switch



No. 31-413 Shown with Motor and Switch



No. 31 414 Shown with Motor and Switch

CATALOG LISTING

No. 31-411—Belt Grinding, Polishing and Deburring Machine with No. 31-441 Steel Stand, No. 31-438 Arbor Head, No. 31-430 Idler Unit, No. 31-867 Contact Roll, No. 31-861 Aluminum Oxide Belt, two No. 560 V-Belts in position, and two No. 5600 Motor Pulleys 34" bore. Without motor, switch or switch rod. 195 lbs.

No. 31-412—Belt Grinding, Polishing and Deburring Machine with No. 31-441 Steel Stand, No. 31-438 Arbor Head, No. 31-437 Vertical Support Unit, No. 31-430 and No. 31-431 Idler Units, two No. 31-867 Contact Rolls, No. 31-Units, two No. 31-867 Contact Holls, No. 31-861 and No. 31-862 Aluminum Oxide Belts, two No. 560 V-Belts in position and two No. 5600 Motor Pulleys 34" bore. Without motor, switch or switch rod. 265 lbs.

No. 31-413—Belt Grinding, Polishing and Deburring Machine with No. 31-441 Steel Stand, No. 31-438 Arbor Head, No. 31-430 and No. 31-431 Idler Units, two No. 31-867 Contact Rolls, No. 31-861 and No. 31-862 Aluminum Oxide Belts, two No. 560 V-Belts in position, and two No. 5600 Motor Pulleys 34" bore. Without motor, switch or switch rod. 230 lbs.

No. 31-414—Belt Grinding, Polishing and Deburring Machine with No. 31-441 Steel Stand, No. 31-438 Arbor Head, No. 31-430 and No. 31-431 Idler Units, two No. 31-437 Vertical Support Units, two No. 31-867 Contact Rolls, No. 31-861 and No. 31-862 Aluminum Oxide Belts, two No. 560 V-Belts in position and two No. 5600 Motor Pulleys 34" bore. Without motor, switch or switch rod. 300 lbs. No. 560-V-Belt 58-5/16 O.C. (2 required.) ½ lb. No. 1320—3-phase manual starter for A.C. motors up to 2 H.P. and D.C. motors up to 1 H.P. 6 lbs. No. 1322—Mounting parts for manual starter on

No. 1322—Mounting parts for manual starter on 3-phase motors. 2 lbs.

No. 5600-6" Motor pulley 3/4" bore (2 required.)

1½ lbs.

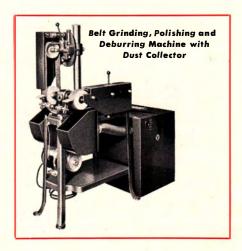
No. 31-442—Switch rod for single phase and

D.C. motors. 1½ lbs.

No. 31-869—Dust Collector Attachment package. 8 lbs. For complete listing of dust collectors, see page 29.

otors Recommended: 84-910, 86-920, 87-120. For complete listing of motors and switches

(For Prices See Attached Price List)



Select The Units You Need For Your Individual Machine

ARBOR HEAD HAS LUBRICATED FOR LIFE BALL BEARINGS



The Arbor Head is the hub of this machine around which is built the many different polishing, grinding and deburring units. It is, therefore, necessary to have an arbor head engineered for long life and accurate, precise work.

The above illustrated Arbor Head is a fine-grained grey iron casting, sturdy and strong, which can be mounted on either the machine stand or a bench top, as desired. The %" arbor runs in pre-loaded, double-sealed ball bearings, lubricated at the factory and requiring no further lubrication for the life of the bearings. The Arbor Shaft extends 3½" out from the inner flange on either side of the Arbor Head. Both ends of the Arbor Shaft have a 2½" ground acme thread to accommodate contact rolls and wheels from %" to 2%" in width.

No. 31-438—Arbor Head complete with dynamically balanced arbor pulley, two No. 560 drive belts, two $2^{11}/_{2}$ " diameter flanges with nuts to fit %" arbor. 31 lbs.

STEEL STAND IS STURDY AND RIGID



Every efficient shop or factory wants a compact, sturdy, portable machine. This steel stand makes available these features for the New Delta Belt Grinding, Polishing and Deburring Machine.

Drilled and slotted to fit all attachments and accessories for the machine, the stand is of steel, light but extremely sturdy. The motor mounts below on the shelf.

No. 31-441—Steel Stand 31%" high, 32½" deep and 22¼" wide. 84 lbs.

VERTICAL SUPPORT UNIT

The Vertical Support Unit is the idler support for the vertical abrasive belt. In many instances the vertical abrasive belt is more convenient for the operator, especially when deburring heavy, bulky or odd-shaped castings.

The unit shown is for the left side. When used for the right side the upper mounting bracket is turned over. Maximum belt length 60¾".

No. 31-437—Complete Vertical Support Unit consists of column, 234" diameter by 30" long, upper mounting flange with screws, column cap and base mounting flange with screws. 35 lbs.



IDLER UNIT OR BACK STAND

The Idler Unit, or back stand, as it is frequently referred to, is relatively new in the industrial field. The unit fastens to the rear of the machine stand and provides not only the idler pulley for the abrasive belt but also



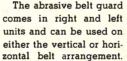
tension for the flexible belt at all times. The Idler is available in either right or left hand units for use on either side of your stand. All parts of each unit are fully interchangeable. Used for either vertical or horizontal belt operation.

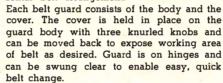
No. 31-430—Complete right Idler Unit. 20 lbs.

No. 31-431—Complete left Idler Unit. 20 lbs. Illustrated above.

COMPLETE SAFETY WITH GUARDS

Protection of the operator is essential and these abrasive belt guards provide protection from the lash of a broken belt and at the same time reduce the amount of grinding dust and flying chips.





No. 31-439—Complete (right) Belt Guard. 12 lbs.

No. 31-440—Complete (left) Belt Guard. 12 lbs.

PLATEN IS FULLY ADJUSTABLE



The Platen provides another working surface other than the contact roll. For either right or left side of horizontal unit. It can be adjusted to fit under any abrasive belt for varied operations. Platen can be inverted so that light or thin parts can be held in the hand and finished with underside of belt.

Platen is 2½" wide by 7" long and has enough "beef" to make it a solid and long-wearing unit. Can be used on horizontal arrangement only, does not fit vertical.

No. 31-434—Platen Complete. 10 lbs.

GENERAL PURPOSE CONTACT ROLL

The Contact Roll is a straight faced medium density, square stitched, glued roll, six inches in diameter and two and one-half inches wide. It is fitted with steel bushings of %" bore for



smooth, even, vibrationless running. It is sent from the factory, trued and ready to install.

The Contact Roll as used on the Belt Grinding, Polishing and Deburring Machine is a frictionless support where heavy cuts can be taken with no unnecessary heat generated. Provides Abrasive Belt speed of 5400 feet per minute wher used with 6" dia. Motor Pulley and 1725 r.p.m. motor. Higher velocities not recommended.

No. 31-867—Contact Roll Complete. 3 lbs.

ALUMINUM OXIDE COATED ABRASIVE BELTS



The coated abrasive belts offered here are general purpose aluminum oxide belts $2\frac{1}{2}$ " wide by 48" in circumference, for use on forgings, steel, brass, die cast, and plastic materials.

For hard materials of low tensile strength silicon carbide belts are recommended. For special cases always call in an abrasive belt expert for recommendations as to proper belt.

| | | | | | | | | Sh | ip. Wt. |
|---------------|--|--|------|--|--|------|--|------|---------|
| Number | | | | | | | | Grit | lbs. |
| 31-860—Coarse | | | | | | | | 36 | 1 |
| 31-861—Coarse | | | | | | | | 50 | 1 |
| 31-862—Fine . | | | | | | | | 100 | 1 |
| 31-863—Fine . | | | | | | | | 180 | 1 |

ADJUSTABLE TOOL REST FOR GRINDING

Very useful for finishing the edges of flat or thin work the Tool Rest forms a



rigid work support when using the contact roll as the working surface. Tool Rest Supports adjustable to operation—used on both right and left side—either or both sides can be removed when not needed.

No. 31-435-Tool Rest Complete. 8 lbs.

DUST AND CHIP CHUTE

This chute effectively catches grinding dust, metal sparks and chips on work being done on the contact roll. Fits on either side of machine. Chutes are large enough so that operator can finish large



parts without interference, long work can project down into chute. Shipped with a standard 3" fitting for Delta metal dust collector.

No. 31-436—Dust Chute Complete. 14 lbs.

(For Prices See Attached Price List)

Abrasive Belt Finishing Machine Has Many Industrial Uses



SPECIFICATIONS

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



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 guarded 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.

CATALOG LISTING

No. 31-505 Complete Abrasive Belt Machine with Machine Tilting Table; No. 50-406 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. 31-506

Complete Abrasive Belt Finishing Machine with Machine Table; No. 31-852 Cast Iron Stand with sub-base and belt guard; No. 595 V-belt and No. 5500 Motor Pulley (specify bore). Without Fence, Backstop, Motor or Switch. 205 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. 1½ 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,
Fine. 1 lb.

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

No. 31-852—Cast Iron Stand with sub-base and belt quard. 140 lbs.

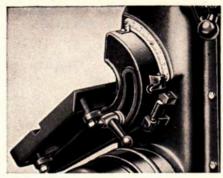
No. 31-856—Attachment Package for connecting Dust Collector to Abrasive Belt Finishing Machine. 7 lbs.

No. 50-406—Steel Stand. Top 8"x16". Height 291/4". 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 60.

(For Prices See Attached Price List)



Here's a close-up of the heavy trunnion that carries the tilting 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.

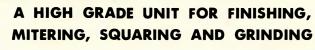


Table tilts easily and quickly 20° toward belt, 45° from belt. Standard No. 864 Miter Gage can be used. Handy locking handle locks table securely in position.



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.

The Abrasive Disk Finishing Machine For Wood or Metal





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 renewed 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. (½ doz.) 1¼ lbs.

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

No. 49-503—Disk Adhesive. 1 lb.

No. 50-432—Steel Stand. $31\frac{1}{2}$ " high with $12\frac{1}{2}$ " x $16\frac{1}{2}$ " 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 60 for Motors and Switches.

SPECIFICATIONS

| Dimensions (Floor model on steel stand): |
|--|
| Width |
| Height |
| Front to rear |
| Table |
| Miter gage groove dimensions 3/8 x 3/4" |
| Tilt of table to front |
| Tilt of table to back |
| Diameter of disk12" |

Tilt gage on right trunnion.

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

METAL DUST COLLECTOR ON ABRASIVE DISK FINISHING MACHINE

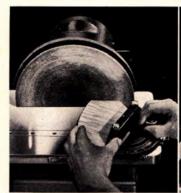
The Dust Collector is especially useful with the Disk Finisher. The powerful suction of the fan pulls the dust and heavy particles into the filter cabinet, keeping the shop clean. A special attachment pack-

the filter cabinet, age sho page lect protion No. sive Mar Pac illus Dus ishii lbs.

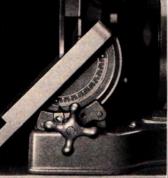
age is available as shown below. See page 29 for dust collector desired. (Not practical for collection of wood flour.)

No. 31803—Abrasive Disk Finishing Machine Attachment Package complete as illustrated to connect Dust Collector to Finishing Machine. 12

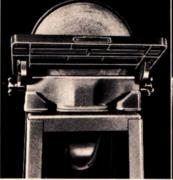




Plain and compound miters are easily handled with the aid of the No. 864 Miter Gage. Accuracy makes it ideal pattern shop tool.



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



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.

A Fully Automatic, Low Cost Spot Welder With Repeat, Non-beat Feature

Why The Delta-Milwaukee 5-KVA Welder Has Such A Wide Range Of Capacity When Compared To Other 5-KVA Welders

It is the only spot welder incorporating...1. the latest type, efficient Wound Transformer Core...2. A Moving Primary Coil providing an infinite variation of welding current, and...3. A One Piece Solid Secondary Coil that is also the Welding Horns, which means no loss of power generally due to inefficient connections in the secondary circuit.

This Welder has been rated in full compliance with RWMA standards and the basic Spot Welder has been fully approved by Underwriter's Laboratories, Incorporated. A complete line of accessories is available.

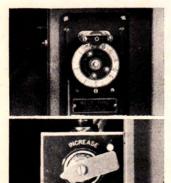
Check These Specifications

| Welder Transformer Rating5-KVA or 5000 Volt Amperes |
|--|
| Duty Cycle |
| Open Circuit Secondary Voltage |
| Standard Throat Depth |
| Electrode Size34" Diameter |
| Gap Setting5 Inches |
| Welding TipsNo. 1 Morse Taper RWMA Standard |
| Maximum Stable Short Circuit Secondary Current7000 Amperes |
| Transformer Primary Input230 Volts 1-Phase, A.C., 50/60 Cycles |
| Rated Primary Current |
| Control Circuit Voltage 8 Volts |
| Weld TimerNEMA Type lAX |
| Welder OperationAir; Line Pressure 50 to 80 PSI |

Catalog Listing

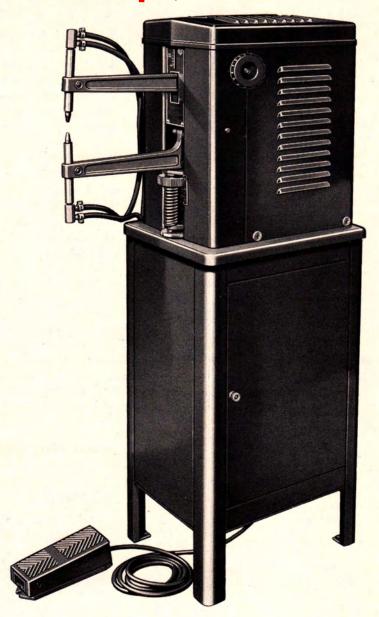
No. 26-120—Automatic Repeat, non-beat, Air Operated, Fully Controlled High Production 5-KVA Spot Welder. Unit includes 5-KVA Rocker Arm Type Spot Welder installed on a fully enclosed cabinet type stand, housing the control circuit, double action air cylinder, weld timer and pneumatic off time control. Complete with foot switch and water-cooled electrode holders, but less air lubricator and regulator.

Each resistance weld made requires controlled heat (Hand knob on side of Welder), controlled pressure (pressure control on front of welder just below welding horns) and controlled time (illustrated below).



A NEMA Type IAX timer provides for the so necessary weld time control. Range from 3 to 120 weld cycles. This normally expensive equipment is standard in the Delta Automatic Welder.

Automatic welding requires an off time control or dwell, before the horns reclose. This allows for proper weld spacing in stitch welding. Control is pneumatic and is simple to adjust.



CHECK THESE FEATURES

Production Capacity:

2 pieces of 14 gage mild steel down to 2 pieces of paper thin .002" thick steel shim stock.

Production Rate:

Automatic Repeat feature provides up to 6000 3 cycle welds per hour.

Production Quality Control:

Precision Controlling and non-beat feature means no product spoilage.

Weld Current: Infinitely variable between maximum and minimum.

Weld Pressure: Infinitely variable between maximum and minimum.

Weld Timing: Precision Controlled. Provides control from 3 to

120 cycles.

Welding Rate: Dwell or Off Time between welds fully adjustable.

Small Investment:

Low initial cost . . . Low operating cost . . . Low Maintenance Cost.

Contact Your Delta Dealer. Have Him Demonstrate What This Welder Will Do For You.

(For Prices See Attached Price List)

The "Dual Weld" a Combination 5KVA Spot Welder and 120 Ampere Arc Welder

Amazingly Low Initial Cost - Two Units in One Machine - Quick, Simple Change-Over - Low Maintenance and Operation Costs - Approved and Listed by Underwriters Laboratories

HERE is the welder for any shop doing a lot of light duty production spot welding and intermittent arc welding. Because of its unique design, its careful engineering and high production methods, you can get this welder at an exceptionally low price; considerably under that of two individual welders a 5KVA Spot Welder and 120 Ampere

Just a few of its outstanding features are ... wound transformer core ... moving primary coil ... solid cast, high conductivity, copper alloy secondary coil, which is also the welding horns...full spot weld pressure adjustment, giving an infinite amount of control from minimum to maximum pressure...double glass covered wire used in all transformer coils plus a wrapping of glass-mica-glass insulation and fibre glass tape to protect against burn out ... current scale ... infinite adjustment of current throughout the full range of both spot and arc units . . . etc.

It is especially suitable for small sheet metal contractors, maintenance and repair departments of factories, experimental departments, research laboratories, schools, garages, farms, light metal fabrication industries, radio, electric and electronic industries.

There is no other welder like it on the market today. Investigate its many uses...find out how it will do your welding jobs better, faster, more uniformly and with greater economy. Any shop can afford one, all shops need one.

With a Delta-Milwaukee "Dual Weld" Combination Welder You Can Do . . . Spot Welding . . . Arc Welding . . . Brazing . . . Soldering

CATALOG LISTING

No. 26-105—"Dual Weld" Combination Spot and Arc Welder consisting of 120 Ampere Arc Welder, and 5KVA Bench Type, Foot Operated Spot Welder for 230 V., 50/60 cy., single phase, A.C. Fully enclosed in ventilated steel cabinet, with foot lever, two 34" dia. solid electrodes with No. 1 Morse Taper hole for replaceable spot welding tips and sample pkg. of assorted welding electrodes for arc welder, power supply cord and receptacle. Without arc weld cables, ground clamp, electrode holder, helmet or steel stand. 170 lbs.

No. 26-106—(as illustrated) consisting of No. 26-105 combination spot and arc welder. No. 50-821 steel stand, No. 26-806 power cable, No. 26-810 arc weld cables, No. 26-812 ground clamp, No. 26-820 electrode holder and No. 26-805 arc welding helmet

SPECIFICATIONS

| Spot Welder—Rated in full compliance with RWMA Standards. |
|---|
| Weld Rating |
| Duty Cycle |
| Open Circuit Secondary Voltage |
| Standard Throat Depth |
| Maximum Stable Short Circuit Secondary Current7000 Amperes |
| Primary Input |
| Rated Primary Current |
| |
| Welding Capacity2 pcs. of clean 16 gage mild steel |
| at production rate |
| Electrode Size |
| Replaceable Tips Used |
| Arc Welder—Rated in full compliance with NEMA Standards. |
| Rated Amperes Output (Maximum obtainable at rated load voltage) |
| |
| Minimum Welding Current |
| Rated Load Voltage |
| Open Circuit Voltage |
| Duty-Cycle at Rated Load |
| Recommended Electrodes |
| Primary Input230 Volts, 50/60 Cycle, Single Phase, A.C. |
| Power Factor |
| Current Input at Rated Load |
| Current Input at No Load85 Amperes |
| Temperature Rise |
| • |
| Overall Dimensions265%" long, 14" wide, 1934" high, 51" high |
| on stand |



THE DELTA-MILWAUKEE 5KVA SPOT WELDER

Approved and Listed by Underwriters Laboratories

The only Spot Welder with Wound transformer core — moving primary coil — solid cast copper alloy secondary coil that is also the welding horns

SPECIFICATIONS

Rated in full compliance with R.W.M.A. standards Weld Rating... 5KVA or 5000 Volt Amperes

Overall Dimensions..14" wide, 26%" long,

51" high on stand Shipping Weight....



No. 26-109-5KVA bench type, foot operated Spot Welder, with 10" throat depth, for 230 V, 50/60 cy., single phase, A.C. Production capacity 2 pcs., 16 gage mild steel. Enclosed in ventilated steel cabinet, with foot lever, two straight 3/4" diameter solid electrodes with No. 1 M.T. hole, one end for replaceable tips, power supply cord and receptacle. Without steel stand.

No. 26-110 (as illustrated) consisting of No. 26-109 spot welder, No. 50-821 steel stand and No. 26-806 power cable. 223 lbs.

(For Prices See Attached Price List)



Spot . . . Accessories And Attachments . . . Arc

No. 26-806-Power Cable consisting of a heavy duty 3 conductor No. 10 wire, rubber covered, 10 foot cord with 50 ampere plug and wall mounted receptacle. Fitted with eyelets for connection to welder terminals.

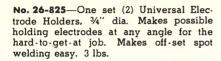


No. 26-806-Power Cable consisting of a heavy duty 3 conductor No. 10 wire, rubber covered, 10 foot cord with 50 ampere plug and wall mounted receptacle. Fitted with evelets for connection to welder terminals. 6 lbs.

No. 50-821-(Old No. 26-821)-Steel Stand for both Spot and Arc Welders. The correct height for ease in spot weldingstanding or sitting. All necessary holes provided for mounting welder and foot pedal parts. Includes bag of nuts, bolts and washers for attaching welder. 47 lbs.

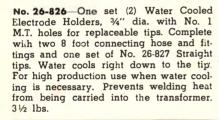


No. 26-805-Arc Welder Helmet. Light weight, good quality fiber shield giving full protection to face, eyes and throat. Provided with replaceable type No. 9 lens. Adjustable head band and chin rest. 2 lbs.





No. 26-810—One set (2) Arc Welding Cables consisting of two 10 foot, No. 6 wire, rubber covered arc weld cables, with male jack for quick connection to welder. Does not include ground clamp or electrode holder. 31/2 lbs.

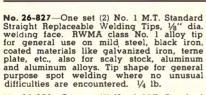




26-830

26-831

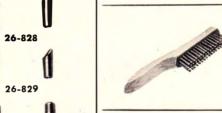
No. 26-812-Ground Clamp, fastens to end of one arc cable. For securing cable to ground side of arc welding. 1 lb.



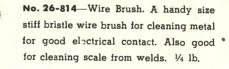


No. 26-813—Chip Hammer, an all steel hammer for chipping scale from weld for examination, prior to painting. 34 lb.

No. 26-828—One set (2) No. 1 M.T. Standard Flat Replaceable Tips, ½" dia. welding face. Same alloy as No. 26-827. Used where weld appearance is critical. Leaves no appreciable indentations in metal. Can be used in conjunction with standard straight or dome tip where only one face of weld must be smooth 1/4 lb.



No. 26-829—One set (2) No. 1 M.T. Standard Off-Set Replaceable Tips, 3/16" dia. welding face, 30° off-set. Same alloy as No. 26-827. Generally used for corner welds or places where straight tips will not fit. 1/4 lb.



No. 26-830-One set (2) No. 1 M.T. Standard Dome Point Replaceable Tips, $\frac{1}{8}$ dia. we ing face. Same alloy as No. 26-827. $\frac{1}{4}$ lb.



No. 26-831-One set (2) No. 1 M.T. Special No. 26-831—One set (2) No. 1 M.T. Special Forged Off-Set Replaceable Tips, approximately 3/6" off-set by 30°, 3/6" tip height. RWMA class No. 2 Alloy. A superior electrode material for high production work on clean steels, weldable non-ferrous metals, etc. Tip shape for special "hard-to-get-at" places. 1/2 lb.

No. 26-820 Electrode Holder. A light weight but rugged electrode or rod holder, fastens to end of one arc cable. For holding welding electrodes, 1/6" to 32" capacity. 1 lb.

No. 26-832—One set (2) No. 1 M.T. Special Forged Replaceable Off-Set Tips, approximately 34" off-set, ½" tip height. Same alloy as No. 26-831 for approximately the same use



26-839

No. 26-835—Arc Welding Electrode 1/16" dia. for welding mild steel. 2 lb. pkg. No. 26-836-Arc Welding Electrode 3/32"

No. 26-833—One set (2) No. 1 M.T. Special Forged Replaceable Off-Set Tips, approximately γ_8 off-set by 30°, γ_8 tip height. Same alloy as No. 26-831 for approximately the same use. 1/2 lb.

dia. for welding mild steel. 4 lb. pkg. No. 26-837—Arc Welding Electrode 1/8" dia.

No. 26-834 -One set (2) No. 1 M.T. Special Forged Off-set Replaceable Tips, approximately 1" off-set by 30°, 1" tip height. Same alloy as No. 26-831 for approximately the same use. No. 26-838—Arc Welding Electrode 1/8" dia. for welding cast iron (machinable). 2 lb. pkg.

No. 26-839—Special Arc Welding Electrode 3/32" dia. for welding stainless steel. 2 lb. pkg.

(For Prices See Attached Price List)

Cut Costs With Delta-Milwaukee Coolant Equipment



You Get More With The Delta-Milwaukee Coolant Pump and Tank

- 1. Exceptionally low cost-compare it with other makes of similar capacity.
- 2. Highly adaptable—flat machined flange permits use on most wet machine tools.
- Wide capacity—(see chart of coolant feeds).
- 4. Motor fully enclosed-not affected by moisture or caustic solutions.
- 5. Double-sealed, lubricated-for-life ball bearings, mean complete bearing protection and long life.
- 6. Adjustable-can be shut down to mere trickle without damage-coolant is applied where you want it at feed you need.

- 7. 1/4 H.P. Motor-provides adequate power for most needs.
- 8. Portable-can be installed in minimum time-easily moved from one machine to another.
- 9. Drilled and tapped for standard pipe fittings.
- 10. Six bladed impeller connected directly to motor shaft.
- 11. Large tank capacity-16 gallons-ample for most needs.
- Settling basin and wire mesh filter screen keeps coolant free of chips.
- 13. Single unit fits needs of single spindle drill press or multiple spindle unit up to 8 spindles.

CATALOG LISTING

- No. 49-610—Coolant Pump complete with single phase, ½4 H.P. 60 cy., 115 V., 1725 R.P.M. motor, 65 lbs.

 *No. 49-611—Coolant Pump complete with single phase, ½4 H.P. 60 cy., 230 V., 1725 R.P.M. motor, 65 lbs.

 *No. 49-612—Coolant Pump complete with single phase, ½4 H.P. 50 cy., 115 V., 1425 R.P.M. motor, 65 lbs.

 *No. 49-613—Coolant Pump complete with single phase, ½4 H.P. 50 cy., 115 V., 1425 R.P.M. motor, 65 lbs.

- motor, 65 lbs.

 *No. 49-613—Coolant Pump complete with single phase, ¼ H.P. 50 cy., 230 V., 1425 R.P.M. motor, 65 lbs.

 No. 49-614—Coolant Pump complete with 3-phase, ¼ H.P. 50/60 cy., 220/440 V., 1425/1725 R.P.M. motor, 65 lbs.

 *No. 49-615—Coolant Pump complete with D.C., ¼ H.P. 115 V., 1725 R.P.M. motor, 65 lbs.

 *No. 49-616—Coolant Pump complete with D.C., ¼ H.P. 230 V., 1725 R.P.M. motor, 65 lbs.

 No. 49-618—Tank, 16 gal. capacity, required with any of above pumps, 38 lbs.

 No. 49-312—3-Wire Cord with Toggle Switch, Clamp and Plug, 3¼ lb.

 No. 1320—3-Phase Manual Starter, 6 lbs.

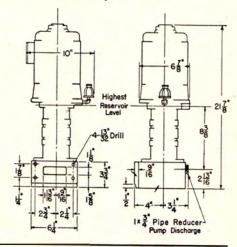
 *Not Carried in Stock, Delivery Information

Not Carried in Stock. Delivery Information

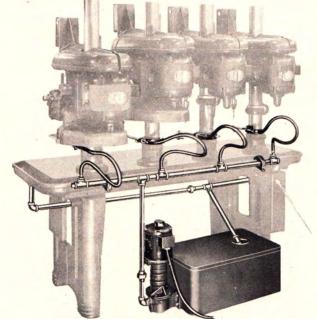
Coolant Flow in Gal. Per Min. with a 1725 R.P.M. Motor at 70° F. (1425 R.P.M. Motor About 1/6 Less)

| | d. | COOLANT | | | | | | | | |
|-----------------|----------|-----------------------------------|-------------|--------------------------|--|--|--|--|--|--|
| Head in Feet | Pipe Dia | Water and Sal-Soda Solution | Lard Oil | SAE 20 Machine Oil | | | | | | |
| | д | Flow in Gal. Per Min. | | | | | | | | |
| 0 | 3/4" | 20 | 12 | 10 | | | | | | |
| | 1" | 32 | 20 | 20 | | | | | | |
| 5 | 3/4" | 14 | 8 | 6 | | | | | | |
| 3 | 1" | 27 | 15 | 15 | | | | | | |
| 10 | 3/4'' | 7 | _ | | | | | | | |
| 10 | 1" | 17 | _ | _ | | | | | | |

14 ft. Maximum Lift with water. Discharge for water and Sal-Soda solution applies to all solutions of similar viscosity and density. Higher viscosity and density less flow.



14" and 17" Drill Presses **Coolant Equipment for**



The Delta-Milwaukee coolant equipment gives you many advantages. The pump is a centrifugal type pump and is mounted directly to the tank with a flat machined flange. It can be used on most wet machine tools in your plant. The tank has a 16 gal. capacity and is 25%"x 15%"

No. 17-802—One only, nozzle, valve, column mounting clamp and flexible hose assembly for providing coolant feed and connection to piping.

Note: Coolant piping and table connections not furnished, must be secured from your local dealer.



Coolant Pan, Pump and Tank for Cut-Off Machine

"Wet Cutting" is sometimes the proper method for doing an efficient job, and we therefore have made available attach-ments for the Cut-Off Machine which change it into a wet cutting unit.

A heavy cast-iron pan which fits between the machine and the cast-iron legs and the pump and tank assembly which rests on the floor below the machine.

With the combination of these units (which must be ordered separately) you can change any of your standard Delta Cut-Off Machines into wet units, easily and at low cost.

Coolant Pan for Cut-Off Machine

The coolant pan assembly can be used with

The coolant pan assembly can be used with either the Abrasive or Non-Ferrous Cut-Off Machines for wet-cutting.

No. 20-840—Coolant Pan Attachment complete with spray nozzle, splash control accessories, deflector plate and bracket. Piping, control valve and reducer from 3/4" to 1/2" must be purchased separately. 140 lbs. The No. 20-840 Coolant Pan Attachment is complete and ready to install on all Cut-Off Machines carrying the serial number 28-3700 or higher, which have the improved wheel guard Catalog No. 1608 to minimize the splash encountered in wet cutting, and the labyrinth type cartridge assembly COS-382-S to prevent coolant from washing out the bearing lubricant. Earlier models were designed for dry cutting only, and additional changes are necessary to adapt them for wet cutting, as follows:

Parts For Conversion of Cut-Off Machines with a serial number below

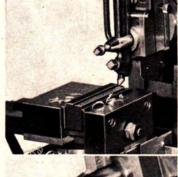
No. 1608—Guard Assembly for Wet or Dry Cutting.
No. COS-382-S—Cartridge Assembly. Includes COS-382-S Cartridge.

Serial Numbers 19-5484 to 28-3699 inclusive:
For these machines the cartridge COS-382-S and guard Catalog No. 1608 should be purchased and installed in place of the original ones.
Serial Numbers below 19-5484:

These machines can be changed over only by installing the guard Catalog No. 1608 and the complete motor bracket assembly COS-383-R which includes the cartridge COS-382-S. (For Prices See Attached Price List) (For Prices See Attached Price List)

You Can Do A Wide Variety Of Work On The Delta Shaper

Designed for: Shop production work... Tool Makers... Model Makers... Experimental Departments.. Machinists.. Schools.. Laboratories.. Mobile Machine & Automotive Shops



Straight cut on a flat piece of work.



Angular cut on the edge of a piece of work.



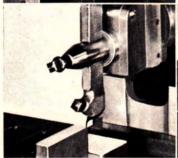
Set-up for a part placed in vise ready for machining.



Cutting internal keyway.

Check these outstanding construction features

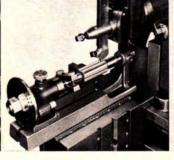
- "V" type ways on Ram, Tool Head and Front Face of main frame are carefully fitted together and ground and lapped to insure accuracy and longer life.
- Gibbed ways have adjusting screws to take up any wear which may develop.
- Adjustable table support bears on the accurately machined surface of main frame to give exceedingly rigid construction.
- The Cross Rail feed incorporates an important safety feature—
 the table will run off of the Cross Rail feed screw when it has
 traveled its maximum length in either direction. The machine
 operates through the end of its cross feed without attention and
 without possibility of jamming.
- Base of the shaper is deep, heavily ribbed and ruggedly constructed.
- The column, like the base, is ribbed and reinforced to produce maximum rigidity.
- Bearings are reamed and honed.
- Feed mechanism is reversible and adjustable.
- Scale on rocker arm affords accurate stroke adjustment.
- Hinge type Safety Belt Guard for quick and easy belt change.
- Adjustable countershaft has a 4 step "V" pulley with separate adjustment for drive belt and motor belt.
- Rugged Vise is graduated for any angle from 0° to 90° on either side of center.
- Adjustable Tool Head, graduated from 0° to 90° for angle work, can be loosened or tightened quickly and easily.
- Precision ground, high carbon steel drive shaft.
- Spiral cut teeth on bull gear and main drive pinion, for quiet, smooth operation.



Squaring up the end of a piece of work held in vise.



Machining end of round piece of work held in "V" groove on side of table.



The Delta index centers mounted on the table of machine.



Slotting operation on small casting mounted on rotary table.

7-inch Precision Metal Shaper — The Machine of A Thousand Uses

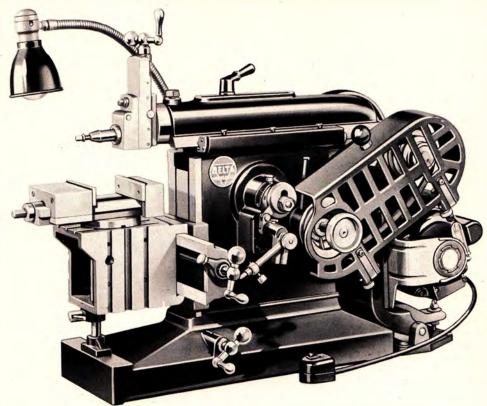
| SPECIFICATIONS |
|---|
| RAM — |
| Extreme length of stroke73/4" |
| Total length of ram163/4" |
| Length of bearing in main frame 103/8" |
| Width of bearing in main frame35%" |
| Speeds4 |
| Strokes per minute40, 70, 115, 180 |
| TABLE - |
| Horizontal travel |
| Vertical travel |
| Maximum distance from ram51/4" |
| Minimum distance from ram11/8" |
| Length of top6" |
| Width of top |
| Depth of table |
| Feeds6 |
| Cross feed range (reversible) |
| |
| |
| TOOL HEAD - |
| Vertical travel |
| *Size of tool holder |
| 3/8"x7/8" for 1/4" tool bit |
| |
| Diameter of tool head, 298 |
| VISE — |
| Width of jaws4" |
| Depth of jaws1" |
| Maximum opening |
| Height of vise over table25%" |
| POWER APPLICATION - |
| Adjustable countershaft having 4 step V - |
| pulley with separate adjustment for drive |
| belt and motor belt. |

OVERALL DIMENSIONS - BENCH MODEL -

| Shaper ar | nd countershaft |
|------------|---------------------------|
| Length | 32" |
| Width | 18" |
| Height | 24" |
| Shipping | Weight |
| Tool holde | er not supplied by Delta. |



When you mount the Shaper on Cabinet Base No. 27-860 it becomes a portable unit . . . you save space, time, and money.



All pulleys and belts are completely guarded.

CATALOG LISTING

No. 27-100 Bench Model, 7" Precision Metal Shaper complete with swivel vise and wrenches, including two 4 step V-pulleys, adjustable countershaft, two motor drive V-pulleys, two V-belts, adjustable lamp. Less belt guards, motor and switch, 225 lbs.

No. 27-120—Same as 27-100 except includes No. 27-850 Belt Guards and No. 27-860 Cabinet Base. 325 lbs.

No. 5200—V-Pulley, 2" diameter, for motor (specify bore). 1/2 lb.

No. 3600—V.Pulley, 6" diameter, for counter shaft. (Specify %" bore when ordering.) 1 lb.

No. 27-102—4-step, V-belt cone pulley, %8" diameter bore for either drive shaft or counter shaft. 11/2 lbs.

No. 27-850 Belt Guards to cover 4-Step Pulley and Motor Drive Pulley. Set (2 guards) complete with mounting parts. Weight 11 lbs.

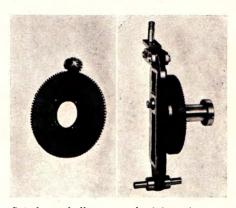
No. 27-860 Portable Cabinet Base for 7" Precision Shaper made of selected, seasoned hardwood, natural varnished finish. Casters and folding handle give convenient portability. Has large drawer and 2 cabinets for storage of tools and accessories. Length 36", width 22", height 32". 135 lbs.

No. 27-880 Index centers. 5" capacity between centers, three-inch swing. Two index plates provide almost any division between 2 and 48. Includes a dog for holding work. 6 lbs.

No. 27-885-Vise for use on No. 27-100 Shaper. 20 lbs.

No. 27-890 4" Rotary table, with work surface of 4" diameter. Has three "T" slots on the face for clamping and holding a variety of parts that require slotting, etc. 5 lbs.

No. 27-895 Angle Plate for holding irregularly shaped work which cannot be held in the vise. Angle plate can be clamped to the top or side of the table for use in either position.



Spiral cut bull gear and pinion give you smooth, quiet operation.

No. 27-900 Round Keyway Tool Holders, 7/16" diameter, for inside work, such as keyways and slotting. 1 lb.

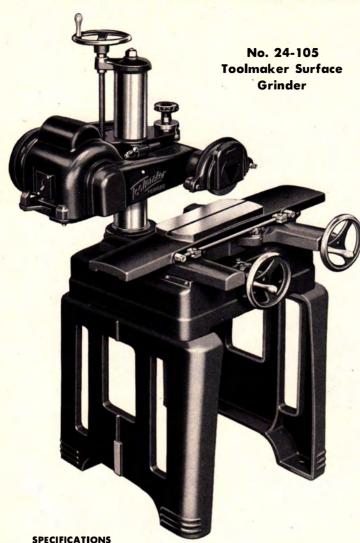
No. 27-901 Round Keyway Tool Holder, 5/6" diameter, for inside work, such as keyways and slotting. 1 lb.

No. 49-177—V-Belt, 27'' outside circumference. 1/4 lb.

No. 49-178—V-Belt, 26" outside circumference. 1/4 lb.

lotor recommended: No. 62-180 or 66-320. For complete listing of motors and switches see page 60.

Toolmaker® Surface Grinder Combines Accuracy with Unusually Low Cost



Maximum width can be ground.

Maximum space under 7" wheel to table.

†Maximum space under 7" wheel to Brown and Sharpe No. 510 with machine.
†No. 510 Brown & Sharpe Magnetic Chuck not sold by us. Obtain direct from manufacturer or his distributors.

The Toolmaker Surface Grinder is a big machine, standing over 6 feet high and weighing better than 800 lbs. It has the "beef" needed for a machine of this kind, where massiveness and solidity help to produce accurate work.

The spindle shaft is designed to preserve accuracy. The wheel is clamped into the two-piece adapter mounted on the spindle. Rapid vertical adjustments made by means of large handwheel at top of column . . . close adjustments made with micrometer screw. Wheel Adapter saves time on truing-up operations. Complete wheel and adapter can be removed as unit and put back on without further truing-up. Column is husky in construction, cast of high tensile steel. The table is smooth, has long ways for solidity and is provided with gibs to adjust for wear.

For every type of surface grinding, in the tool room or in the production shop, you cannot find a better machine in this price range. Its large capacity, ease of operation, its fine adjustment and micro-settings are a few of its better points.

CATALOG LISTING

No. 24-105 Toolmaker Surface Grinder (for 1425 and 1725 R.P.M. motors) with No. 1399 pair of cast iron legs, No. 24-816 wheel adapter, holder for wheel dresser, one No. 49-115 V-belt and No. 24-817 two-step motor pulley (for 50 or 60 cycle service) with 1/2" bore. Without Wheel, Motor or Switch. 850 lbs.

Accessories for all three types of Toolmaker Grinders.

No. 24-805—Diamond Wheel Dresser for Toolmaker Grinder. Shipping weight 1/2 lb.

No. 24-807—7" diameter x ½" face wheel for soft material. Bore 1½". Balanced to within 1/10 inch ounce. Shipping weight 2 lbs.

No. 24-808—7" diameter $x \frac{1}{2}$ " face wheel for hard material. Bore 1- $\frac{1}{4}$ ". Balanced to within $\frac{1}{10}$ inch ounce. Shipping weight 2 lbs.

No. 24-812—Velocite-E Spindle Oil. ½ Pt. Can.

No. 24-815—Light Attachment complete for attaching to separate 115 V. single phase line. Shipping weight 4 lbs.

No. 24-816—Extra Wheel Adapter for $1\frac{1}{4}$ " bore wheels. Arranged to fit on tapered spindle for holding up to $\frac{1}{2}$ " wide wheels and arranged with extra washers so a 31/2"x11/2" cup wheel may be used. Shipping weight 2 lbs.

No. 24-817—Two-Step Motor Pulley, 1/2" bore (5-15/32" and 5-1/16").

No. 49-115—Replacement V-belt. ½ lb.

MOTORS RECOMMENDED: No. 62-610, 66-320. (Requires special balance.) For complete Motor and Switch listing see Page 60.

IMPORTANT - All three types of Toolmaker Grinders require a specially balanced motor for most efficient operation. When ordering motors, order motor pulley and V-belt together, all balanced together with the motor. For complete listing of motors and switches see page 60.

(For Prices See Attached Price List)

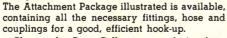
MAX. SIZE WHEEL IS 7" 65 2

39"

DUST COLLECTOR PROTECTS TOOLMAKER GRINDER — SAFEGUARDS HEALTH!

The Dust Collector described on page 29 works exceptionally well on the Toolmaker Grinders because it collects all abrasive metallic dust which otherwise would injure the grinder. It also protects the health of the operator.

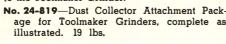
For your convenience an Attachment Package has been developed so that the Dust Collector can be easily and quickly attached to the Toolmaker Grinder.



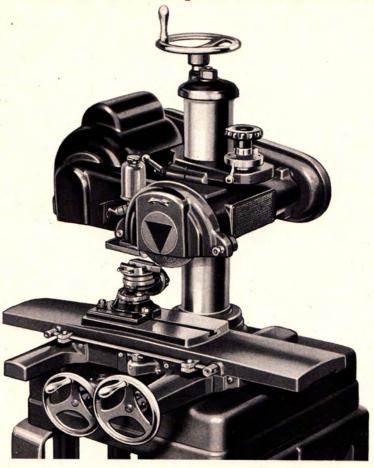
Choose the Dust Collector you desire from the listing on page 29 together with this Attachment Package to hook up the Dust Collector to the Toolmaker Grinder.

No. 24-819—Dust Collector Attachment Package for Toolmaker Grinders, complete as





Toolmaker® Chip-Breaker Grinder Sets New Standards of Performance



THE TOOLMAKER CHIP-BREAKER GRINDER

No. 24-205 Toolmaker Chip-Breaker Grinder (for 1425 and 1725 RPM Motors) with No. 1399 pair of Cast Iron Legs, No. 24-816 wheel adapter, holder for wheel dresser. No. 49-115 V-belt, No. 24-817 two-step motor pulley with ½" bore, No. 24-902 Univise and No. 24-906 Coolant Attachment. Without Wheel, Motor or Switch. 866 lbs.

Wheel, diamond wheel dresser or light attachment not furnished with machine. **Motors Recommended:** No. 62-610, 66-320. (Requires Special Balance.)

ALL of the best features of good grinder design are incorporated in this Chip-Breaker Grinder plus many exclusive, improved features not found in units costing many times as much.

To these have been added the features of the truly universal Univise—a unit of exceptional value. It is described in detail below. A coolant attachment provides just the proper amount of liquid to the wheel at the point of grinding.

The Chip-Breaker Grinder is a precision machine designed for the grinding of the Chip-Breaker groove in carbide tipped tools. It also is used for grinding form tools, thread chasers and other units which must be accurately ground. The Univise holds the tool AT ANY CONCEIVABLE ANGLE and through its unique construction it can be accurately reset at a moment's notice so that the tool or part may be re-ground at precisely the same angles as originally set. This saves time, wheel wear, eliminates bothersome and often inaccurate measurements. By simply removing the Univise and the coolant attachment, the grinder may be used as a regular surface grinder which thus increases the usefulness of this machine in both the large and small shop. This machine also is heavy and big. Its weight of better than 800 pounds gives it solidity which helps in producing accurate work.

Study the features of this remarkable Chip-Breaker Grinder—compare it with any similar machine, and you will be surprised at its performance and remarkably low price.

SPECIFICATIONS

| Maximum length can be ground |
|--|
| Maximum width can be ground 6" |
| Maximum space under 7" wheel to table |
| Maximum diameter cup wheel with standard guard in place 31/2" |
| Maximum diameter of wheel |
| Required diameter wheel hole |
| Table surface |
| Traverse feed, one graduation |
| Maximum vertical adjustment of wheel |
| by means of micrometer%" |
| Graduations, vertical adjustment |
| Spindle speed with 1725 r.p.m., 60 cy. motor 3200 or 4200 r.p.m. |
| |

THE UNIVISE $^{\circledR}$ — The First Truly Universal Vise for Grinding, Drilling and Milling

The Univise is a heavy, rigid, massive vise completely universal so that it can be set at ANY angle desired. It is composed of four separate parts, each of which can be rotated and independently set so that there are four separate distinct planes of adjustment. This means that ANY angle desired can be easily and readily obtained. It means, also, that for duplicate grinding that the vise can be returned EXACTLY to its original setting. There is no guess-work, no trial and error method of getting the proper angle or setting. You can be sure, even with green help, that the settings are going to be correct.

Each part has a circular scale of 360 degrees. Each station is marked so that by making a record of the setting of each scale it is impossible to make an error. Thus settings can be made direct from the blueprint without fuss or bother. Two of the parts rotate a full 360 degrees. It is 5-13/16" high, 6" wide and 71/4" long. Jaws take up to 11/2" tools. Fits any surface or tool grinder. Has detachable keys in base which can be removed to permit use on drill press or other machine without table slots, or on a magnetic chuck

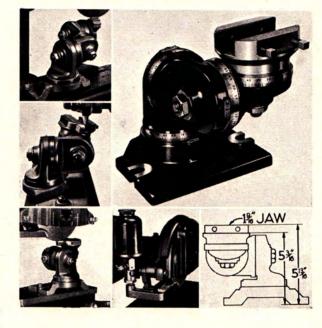
No. 24-902—Complete Univise as illustrated. 17 lbs.

Efficient Coolant Attachment

The Coolant Attachment is an added feature. Resinoid bonded diamond wheels used for chip-breaker grinding must be cool while grinding to prolong wheel life and efficiency. The coolant attachment provides just the proper amount of coolant for this purpose. The drop-feed is adjustable to regulate the amount of coolant which is brought to the wheel by means of a wick. This wick also helps keep the wheel clean. The attachment is easily adjusted to different size wheels and can be easily and quickly removed if necessary.

No. 24-906—Complete Coolant Attachment as center illustration to the right. 3 lbs.

(For Prices See Attached Price List)



Toolmaker® Tool and Cutter Grinder Has Many Features

It's Easy and Economical to Sharpen Milling Cutters, Reamers, Taps, End Mills and many other cutting tools on the Delta Toolmaker Tool & Cutter Grinder.

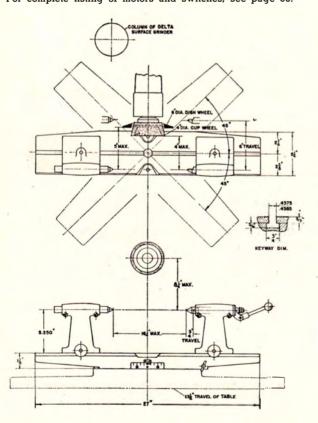
The grinding, that is, sharpening and re-sharpening of tools and cutters used in various metal cutting machines is of major importance for maximum production and accurate results. To make the sharpening operations easy, simple and extremely accurate, this Tool and Cutter Grinder has been developed.

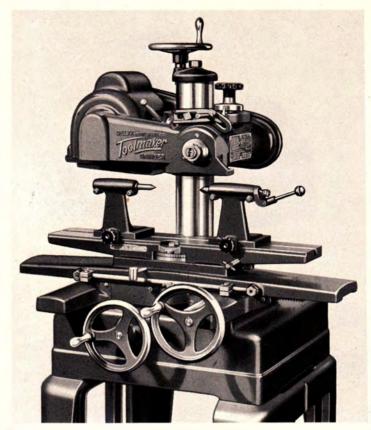
Almost every conceivable angle can be accurately and easily ground. Table swivels a full 90 degrees with a graduated scale and positive lock—the centers have a maximum spacing of 1614", distance from table to centers is 5.250" (see line sketch below for all dimensions).

By simply removing the Tool and Grinder Attachment, the grinder may be used as a regular surface grinder, which thus increases the usefulness of this machine in both the large and small shop.

Specifications

| Speeds (Spindle has two-step pulley) |
|--|
| With 60-cycle motor3200 or 4200 RPM |
| With 50-cycle motor |
| Surface Speed (1750 RPM motor with 7" wheel)5600 FPM |
| Table Surface |
| Required diameter wheel hole11/4" |
| Traverse feed, one graduation |
| Maximum vertical adjustment of wheel by means |
| of micrometer%" |
| Graduations, vertical adjustment |
| Spindle speed with 1725 r.p.m., 60 cy. motor \dots 3200 or 4200 r.p.m. |
| For complete listing of motors and switches, see page 60. |





CATALOG LISTING

No. 24-305 Toolmaker Tool and Cutter Grinder (for 1425 and 1725 RPM motors). With No. 1399 pair of cast iron legs, No. 24-816 wheel adapter, holder for wheel dresser, No. 49-115 V-belt, No. 24-817 two-step motor pulley, with ½" bore (for 50 and 60 cycle service). No. 24-970 tooth stop unit, 2 wheel guards and support bracket. Without wheels, motor or switch. Shipping weight 928 lbs.

Wheel, diamond wheel dresser and light attachment not furnished.

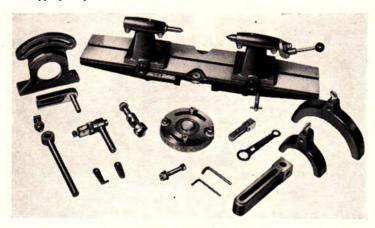
Motors Recommended: No. 62-610, 66-320. (Requires Special Balance.)

For complete listing of Motors and Switches see page 60.

ACCESSORIES

No. 24-973—Type 12 standard dish wheel, 6" diameter x $\frac{1}{2}$ " - $\frac{1}{10}$ " with $\frac{1}{4}$ " hole. Shipping weight 5 lbs.

No. 24-974 — Type II standard cup wheel 4" diameter x $1\frac{1}{2}$ " with $1\frac{1}{4}$ " hole. Shipping weight 5 lbs.



GRINDER ATTACHMENT

No. 24-952 Toolmaker Tool and Cutter Grinding Attachment consisting of swivel table with head and tail stocks, and tooth stop unit, 2 wheel guards and support bracket. Can be used on No. 24-105 and No. 24-205 Toolmaker-Grinder. Shipping weight 84 lbs.

(For Prices See Attached Price List)

Unihead® With Indexing Feature Is Universally Adjustable Work Head For Grinder

The Unihead is a universally adjustable work head, designed for use in connection with the Toolmaker Cutter Grinder, and other makes of machines, especially if the No. 24-970 Tooth Stop Unit is used in connection

This Unihead consists of a heat treated sleeve. arranged with a No. 9 Brown & Sharpe taper and accurately mounted in pre-loaded, sealed and lubricated-for-life ball bearings that need no further attention. The adjustable index stop collar and dog can be disengaged or be set in any position which is most convenient to the operator. It is equipped with a 12-tooth index collar with selector plate. which permits the dog to automatically engage either 2, 3, 4, 6, or 12 selected equal spaces. Other plain collars (without selector plate) are available as listed.

Has a push-out nut arranged at the back of the sleeve for pushing out tightly fitted adapters. Swivel bracket with 360 graduations. Base with removable keys that engage the table. Can also be used with tool and cutter grinding attachment No. 24-952.

Catalog Listing

Unihead arranged with No. 24-955 pre-loaded and sealedfor-life ball bearings, and sleeve for No. 9 B & S taper. With one 12-tooth collar with

selector plate to engage 2, 3, 4, 6, or 12 selected equal spaces. 28 lbs.

The No. 24-970 tooth stop unit not furnished. The indexing collars listed cover a varied range of combination spacing and should be ordered separately as required.

INDEXING COLLARS

No. 24-957—One 36-tooth plain collar for 2, 3, 4, 6, 9, 12, 18, and 36 equal spaces. 34 lb.

No. 24-958—One 34-tooth plain collar for 17 and 34 equal spaces. 34 lb.

No. 24-959-One 33-tooth plain collar for 3, 11, and 33 equal spaces, 3/4 lb.

No. 24-960—One 32-tooth plain collar for 2, 4, 8, 16, and 32 equal spaces. 34 lb.

No. 24-961—One 30-tooth plain collar for 3, 5, 6, 10, 15, and 30 equal spaces. 34 lb.

No. 24-962—One 28-tooth plain collar for 4, 7, 14, and 28 equal spaces. 3/4 lb.

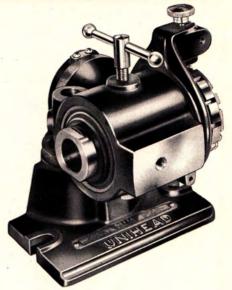
No. 24-963—One 26-tooth plain collar for 13 and 26 equal spaces. ¾ lb.

No. 24-964—One 24-tooth plain collar for 2, 3, 4, 6, 8, 12, and 24 equal spaces. 34 lb. No. 24-965—One blank collar. 34 lb.

ADAPTERS

No. 24-967—Adapter for Unihead with No. 9 Brown & Sharpe outside taper arranged with 1"-8 R.H. threaded end to receive 6" Face Plate (Cat. No. 937.) 11/4 lb.

No. 24-968—Adapter for Unihead with No. 9 Brown & Sharpe outside taper arranged with No. 33 Jacobs taper to receive 6A Jacobs Chuck-1/2" capacity. 11/4 lb.

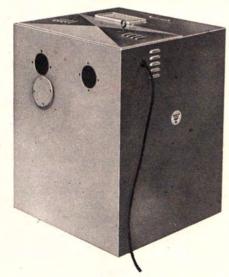


Tool Stop Unit The Unihead uses the same tooth stop unit regularly furnished with the Tool and Cutter Grinder Attachment. Cat. No. 24-952. If the Unihead is to be used on another make of machine, it may be advisable to obtain the No. 24-970 Tooth Stop Unit.



No. 24-970-Tooth Stop Unit consisting of 1 bracket, 2 bars, 1 clamp and tooth stop with 2 fingers. 5 lbs.

Metal Dust Collector Safeguards 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. 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, cleanable filter is readily removed for cleaning. Overall dimensions: Height 28", depth 21", width

Ideal for grinding, 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.

Note: This Dust Collector not suitable for collecting shavings and saw dust, etc.

Dust Collectors

49-520—1/3 H.P. 115/230 V. 60 cy. 1-Ph. 3450 rpm. 120 lbs. **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

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. 15 lbs.

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 De-burring Machine Attachment. 8 lbs.

AVAILABLE CONNECTION FITTINGS

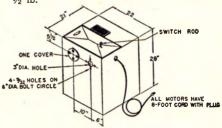
lo. 49-533—Flex. Rub. Hose, 2-5/16" I.D.x20" long. 2 lbs.

No. 49-534—Flex. Rub. Hose, 3" I.D.x22" long. 2 lbs. No. 49-535—Flex. Rub. Hose, 3" I.D.x48" long. 5 lbs.

No. 49-538—Cast Iron Flanges with Screw and Nozzle for 2-5/16" hose. 2½ lbs.

No. 49-539—Cast Iron Flanges with Screw and Nozzle for 3" hose. 23/4 lbs.

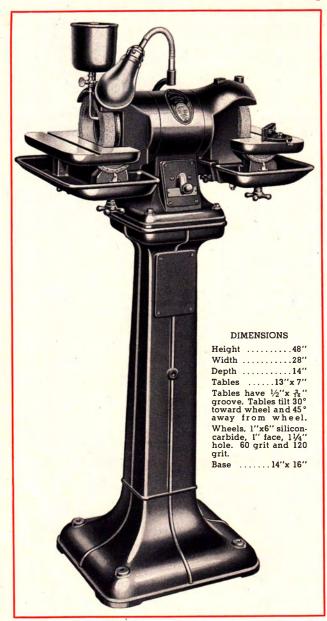
No. 49-541—Hose Clamps adjustable to hose. 1/2 lb.



(For Prices See Attached Price List)

DIVISION DELTA POWER TOOL

Carbide Tool Grinder Unequalled for Accuracy and Long Life



| Mach. No. | Motor Description | Speed R.P.M. | Wt. Lbs. |
|--------------|--|-----------------|-------------|
| | BENCH TYPE MACHINES MOTOR IS 1/2 HORSE POWER | | |
| 23-505 | 115 V. 60 Cy. Single Phase | 3450 | 140 |
| 23-506 | 115 V. 50 Cy. Single Phase. | 2850 | 140 |
| 23-507 | 230 V. 60 Cy. Single Phase | 3450 | 140 |
| 23-508 | 230 V. 50 Cy. Single Phase | 2850 | 140 |
| 23-510 | 220/440 V. 50/60 Cy. 3 Phase | 2850/3450 | 140 |
| 23-515 | 115 V. D. C. | 3450 | 140 |
| 23-516 | 230 V. D. C. | 3450 | 140 |

PEDESTAL TYPE MACHINES MOTOR IS 1/2 HORSE POWER

| 23-555 | 115 V. 60 Cy. Single Phase | 3450 | 211 |
|--------|------------------------------|-----------|-----|
| 23-556 | 115 V. 50 Cy. Single Phase | 2850 | 211 |
| 23-557 | 230 V. 60 Cy. Single Phase | 3450 | 211 |
| 23-558 | 230 V. 50 Cv. Single Phase | 2850 | 211 |
| 23-560 | 220/440 V. 50/60 Cy. 3 Phase | 2850/3450 | 211 |
| | 115 V. D. C. | | 211 |
| 23-566 | 230 V. D. C | 3450 | 211 |

All models have 1 lamp attachment, 1 water pot, 1 miter gauge and 2 wheels. When manual starter with overload protection is desired, use No. 1320 manual starter.

(For Prices See Attached Price List)

Because the use of tungsten-carbide tools is spreading so rapidly in machine shops, this carbide tool grinder has been developed. For accuracy, sturdiness, adaptability, general convenience and low cost, it cannot be duplicated by any other unit available.

It is another outstanding Delta achievement—incorporating the best principles of design which insure accuracy and long life. Manufactured by modern precision methods in a modern plant, its cost is so low that it can be used in any shop, large or small. This grinder makes a perfect set-up because on most carbide tools a coarse grit vitrified wheel is used for hogging down the shank steel of the tools which can be done on the regular grinder whereas the carbide grinder is used for sharpening the carbide tips of tools.

It is made in two styles—a bench and pedestal model with a wide range of motors as listed.

The motor with self-sealed ball bearings, which require no lubrication for their entire life, is contained in the head and is of the reversing type because the rotation of the wheels must be down against the cutting edge. The reversing switch is built into the base and is convenient. Manually operated brakes on each wheel permit the grinder to be slowed down and stopped immediately for reversing.

Two 1"x 6" steel backed silicon-carbide wheels with a 1" face, and a 1¼" hole, are furnished—one of 60 grit and one 120 grit. These are mounted directly onto the motor shaft. The speed is 3450 R.P.M. which gives an average surface speed of the wheel of 5200 feet per minute. The grinder will take standard diamond wheels which we suggest should be obtained from your regular wheel source.

A heavy cast iron water pot with stop cock and copper tube is furnished for bringing water to the grinding surface on diamond wheels.

The heavy, accurately ground tables are 13" wide and 7" deep and tilt 30 degrees toward the wheel and 45 degrees away from the wheel as illustrated—accurate indicators and scale plates show the angle of the tables. The tables have a $\frac{1}{2}$ "x $\frac{3}{6}$ " groove for fixtures and jigs. A sliding gage with a tilting head is furnished with grinder.

The grinding of the carbide tool and the use of water results in a large amount of rusty sludge which collects in the water tray in the sub-base. With other grinders this is difficult to remove. With this new grinder this is a simple procedure. By simply loosening two bolts the entire sub-base can be removed from the grinder and the sludge scraped out and washed clean—thus you have a clean machine for accurate grinding at all times.

The adjustable light is another feature built into this grinder for your convenience. It swings from one side to the other but has a definite stop so that the wires cannot become twisted in the conduit. It provides light when you need it, where you need it, independent of general shop lighting.

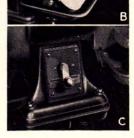
So well is this machine built—so accurate is the machining that it runs absolutely true and free from vibration so that accurate, delicate grinding can be done.

(A) This photo shows detail of table tilted 30 degrees towards the wheel. Note indicator and accurate scale plate below table which shows table angle. Note also convenient arrangement of water pot and copper tube so that water can be brought to the wheel just where it is needed.

(B) This shows detail of table tilted 45 degrees away from wheel. Note hand brake block protruding from top of wheel housing. Note also how light can be swung around to give perfect illumination for accurate grinding.

(C) This shows detail of reversing switch conveniently located at front of grinder. It is of the six pole type and completely wired into the unit. This switch opens both sides of line.





Accessories for Carbide Tool Grinder

| Cat. No. | Description | Ship. Wt. Lbs. |
|-------------|---|-------------------|
| 1661 | 1"x 6" Sil. Carb. Wh. 60 G., 1" Face, 11/4" Hole | 10 |
| 1662 | 1"x 6" Sil. Carb. Wh. 120 G., 1" Face, 11/4" Hole | 10 |
| 1663 | One Water Pot with Faucet | 5 |
| 1664 | Holder for Diamond Wheel Dresser | 1 |
| 3121 | Diamond Pointed Dressing Tool | 1 |
| 23-805 | Pedestal for Carbide Grinder | 80 |
| 31-804 | Miter Gauge | 4 |

IMPORTANT CHANGE NOTICE

Your attention is directed to Page 31 of Catalog AB-53.

The No. 23-625, 6" Bench Grinder is 1/3 H. P., not 1/2 H. P. as stated.

The No. 23-109 Grinder is 50 cycle, not 60 cycle as stated.

DELTA POWER TOOL DIVISION

Rockwell manufacturing company

SAFETY PLUS! 7" 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, %" hole. Absolutely true and vibrationless to permit accurate tool grinding.

TOOL RESTS: Fully machined—not rough castings. Permit vertical and angular adjustment. 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. Opening designed to allow grinding on both sides of wheel. Chute discharges dust to rear. Spark guard adjustable to wear 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 New Departure ball bearings. No oiling required for entire life of bearing. No trouble due to entrance of abrasive dust.

BENCH TYPE MOTOR DRIVEN GRINDERS

| Mach. No. | Motor Description | Speed R.P.M. | H.P. | Motor Switch | Ship. Wt. Lbs. |
|--------------|----------------------------|-----------------|---------|-----------------|----------------------|
| 23-104 | 115/230 V. 60 Cy. Sgl. Ph. | 1725 | 1/2 | Toggle | 95 |
| 23-105 | 115/230 V. 60 Cy. Sgl. Ph. | 3450 | 1/2 | Toggle | 95 |
| 23-109 | 115/230 V. 60 Cy. Sgl. Ph. | 2850 | 1/2 | 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 1/2 | Toggle | 95 |
| 23-121 | 230 V. D. C | 3450 | 1/2 | Toggle | 95 |

PEDESTAL TYPE MOTOR DRIVEN GRINDERS

| Mach. No. | Motor Description | Speed R.P.M. | н.р. | Motor Switch | Ship. Wt. Lbs. |
|------------------|--|-----------------|--|-----------------|----------------------|
| 23-404 | 115/230 V. 60 Cy. Sgl. Ph. | 1725 | 1/2 | Toggle | 161 |
| 23-405 | 115/230 V. 60-Cy. Sgl. Ph. | 3450 | 1/2 | Toggle | 166 |
| 23-407 | 115/230 V. 60 Cy. Sgl. Ph. | 3450 | 1/2 | Relay | 182 |
| 23-409 23-410 | 115/230 V. 50 Cy. Sgl. Ph. 115/230 V. 50 Cy. Sgl. Ph. | 2850 2850 | 1/2 1/2 1/2 1/2 1/2 1/2 | Toggle Relay | 166 182 |
| 23-415 | 220 V. 50/60 Cy. 3 Ph. | 2850/3450 | 1/2 | Relay | 181 |
| 23-418 | 440 V. 50/60 Cy. 3 Ph. | 2850/3450 | 1/2 | Relay* | 181 |
| 23-420 | 115 V. D. C | 3450 | 1/2 1/2 | Toggle | 166 |
| 23-421 | 230 V. D. C | 3450 | 1/2 | Toggle | 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, 115/230 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. 23-256—Bench Type, same as No. 23-255 except 1725 R.P.M. 60 lbs.

No. 23-475—Pedestal Type, 115/230 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.

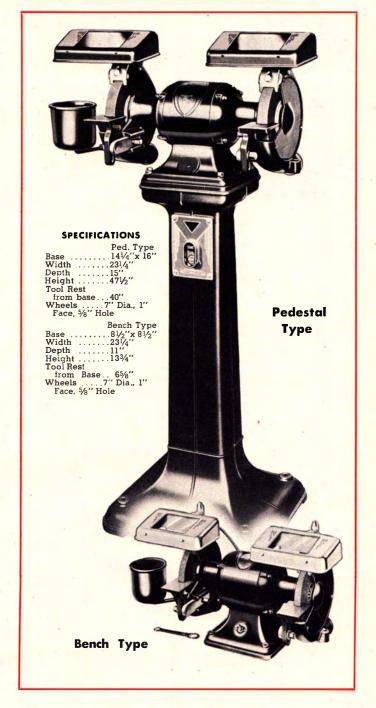
No. 23-476—Pedestal Type, same as No. 23-475 except 1725 R.P.M. 155 lbs.

SURFACE FEET PER MINUTE WITH 7" WHEEL

6322 SFPM at 3450 RPM 5223 SFPM at 2850 RPM 3161 SFPM at 1725 RPM

ACCESSORIES

| Cat. No. | Description | Wt. Lbs. |
|-------------|---|-------------|
| 1267 | 5%" x 7" Vit. Al. Oxide Wh., 46 Grit, Grade N. 5%" Hole. | |
| 1250 | Special friable wheel for drill and plane blade grinding Twin-Lite Shield (One Only) No Bulbs | 2 |
| 1236 | Fine-knotted Wire Brush, \[\frac{5}{8}'' \] Hole, \[6'' \] Dia | 1 |
| 1237 | Medium-knotted Wire Brush, 5/8" Hole, 6" Dia | î |
| 1238 | Coarse-knotted Wire Brush, 5/8" Hole, 6" Dia | ī |
| 1280 | Bayonet Type Lamp Bulb | ī |
| 1664 | Holder for Diamond Wheel Dresser | 1 |
| 23-805 | Pedestal for Standard Grinders | 80 |
| 23-815 | 1" x 7" Al. Oxide Wheel, 60 Grit, Grade N. 5%" Hole | 4 |
| 23-816 | 1" x 7" Al. Oxide Wheel, 46 Grit, Grade M. | |
| 3121 | 5%" Hole | 1 |



6" BENCH GRINDER

No. 23-625—6" Bench Grinder with ½ H.P., 60 cycle, 115 volt, 3450 R.P.M., AC motor. Supplied with wheel guards, spark deflector plates, tool rests, toggle switch, 8' three-wired cord with plug and ground wire terminal, one No. 23-826—6"x3\4"x1\2" hole, 36-grit abrasive wheel and one No. 23-827—6"x3\4"x1\2" hole, 60-grit abrasive wheel, but without No. 23-800 eye shields. Wt. 42 lbs.

No. 23-800-1 pr. of eye shields complete with mounting brackets and attachment screws. Wt. 3 lbs.

No. 23-826—6" x $\frac{3}{4}$ " 36-grit abrasive wheel with $\frac{1}{2}$ " hole. Wt. 3 lbs.

No. 23-827—6" x $\frac{3}{4}$ " 60-grit abrasive wheel with $\frac{1}{2}$ " hole. Wt. 3 lbs.

(For Prices See Attached Price List)



Attachments and Accessories That Increase The Use Of Your Grinder

Above—accurate scale. Above—No. 1296 Drill Grinding Attach. Left—No. 1664 Wheel bresser Holder and No. 3121 Dressing Tool. 3121 Dressing Tool.

DRILL GRINDING ATTACHMENT

Grinds with the face of the wheel—the natural way—is a precision built unit so accurately made—so easy and simple to operate that anyone can do a perfect drill sharpening job. Micrometer settings insure evenly ground lips. Amount of lip clearance on drill is just right, with enough of the heel

cut away to provide clearance without weakening the cutting edge. You can grind straight shank twist drills to fit your own job—with lip clearance and angles at any degree you need. Capacity 1/4" to 56" drills.

No. 1296—Drill Grinding Attachment with No. 1664 holder for wheel dresser. 9 lbs. Order diamond dresser No. 3121 separately.

Diamond Pointed Wheel Dresser

For dressing all types of general grinding wheels. The diamond is securely held—the tool is sturdy—91/4" long and has a comfortable handle.

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

No. 1664—Wheel Dressing Tool Holder, 1 lb. (Included with Catalog No. 1296.)

Motor Driven Dust Collector for Grinder

The Dust Collector 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 outside the building by this Dust Collector during cold weather, but instead is circulated after being thoroughly cleaned. A special Attachment Package is available (illustrated below) to hook up the Dust Collector to the Grinder.



No. 23-802—Tool Grinder Attachment Package complete as illustrated to hook up Dust Collector to Grinder. 8 lbs.



Plane Blade Grinding Attachment

Carriage table is clamped to adjustable arm on the grinder. Fully machined table tilts so that the desired angle is obtained. Plane blade is clamped onto carriage as shown—adjustable quadrant is located on left side which permits accurate grinding of angle knives as well as assuring an accurate right angle position for straight knives. Knurled nut below gives hair-line adjustment for the

amount of "Cut" when grinding. Entire carriage and clamp may be lifted off the table. Distance between clamp screws is $3\%_6$ ", ample space for wide knives and scrapers. Diamond pointed wheel dresser may also be clamped into holder for wheel dressing.

No. 1294-Plane Blade Grinding Attachment, 6 lbs.

Bench Center Ideal for Inspection Departments Offers Convenience, Accuracy



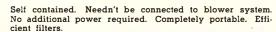
Specifications: Maximum distance between centers 19½"; maximum dia. of work over bed 10½"; maximum dia. of work over support bracket base 7½"; overall length of bed 32"; width of bed 5½"; size of ground bed 4½"x30"; travel of center in tailstock ¾".

Heavy cast bed, fully normalized. Head and tailstocks identical castings and completely interchangeable. Knurled knob at front of each, locates stock against side of the milled T-slot in base. Stocks clamped in place by large handles at rear. Both stocks have hardened and ground 60° angle centers.

Tailstock has a spring loaded sliding center operated by lever at right. Universal indicator support bracket can be locked in any position on bed. Indicator Holder adjustable to any position. All parts lock in position with positive hand clamps. No wrenches or pliers needed.

No. 49-505—Bench Center without indicator support bracket. 87 lbs.
No. 49-506—Indicator Support Bracket with clamp screw. 7 lbs.

Motorless, Gravity Type Dust Collector For Grinder



No. 1292—Dust Collector with filter brackets, screws, 28 lbs.

No. 1293—Replaceable Filter for above. 9 lbs.

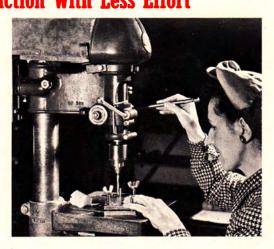


Delta Tools At Work — For Higher Production With Less Effort



The standard tool grinder and the disk finishing machine . . . a perfect team for grinding, deburring, polishing.

No effort required to turn out high production . . . the Delta drill press makes friends among operators and foremen alike.



36" Heavy Duty Metal Cutting Band Saw

CATALOG LISTING

No. 28-404—36" Metal Cutting Band Saw, 3 to 1 variable speed, 3 h.p., 2 or 3 phase, 50/60 cy., 220/440 volt, motor mounted at rear of machine. 3 to 1 variable speed pulley mounted on motor shaft driving lower wheel. With manual starter, available in 2 models:

- a—Wheel speed 150 to 450 r.p.m., blade speed 1404 to 4212 f.p.m.

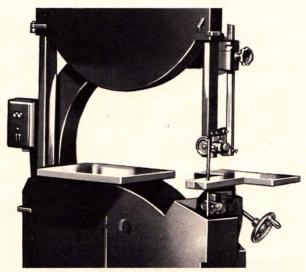
No. 28-405—36" Metal Cutting Band Saw, 12 to 1 speed ratio through variable speed pulley and gear box-mounted on bracket at rear of machine, and connected to lower wheel with multiple V-belts. Variable adjustment with indicator. Enclosed guards for V-belts. Available in 2 models. With 3 H.P., 1800 RPM Motor, delivers speeds of 52 to 640 RPM or 500 to 6000 FPM. With 3 H.P., 1200 RPM Motor, delivers speeds of 35 to 420 RPM. or 333 to 4000 FPM. The motors are single speed. Wt. 2600 lbs.

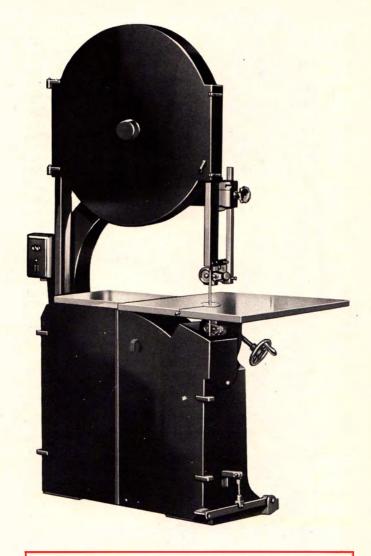
Delta 36" Sprue Cutting Band Saws Increase Foundry Profits

Fast and economical removal of sprues from non-ferrous metal castings is made possible with the Delta Sprue Saw. The saw makes a clean fast cut close up against the casting. This often eliminates a grinding operation, resulting in a substantial saving of time and material.

A specially designed rest which is standard equipment on all Delta Sprue Saws helps the operator hold irregularly shaped castings. This rest also acts as a safety shield by preventing pieces of castings or sprues from becoming engaged in the saw blade or lower wheel.

No. 28-403—36" Sprue Cutting Band Saw, with 3 h.p. ball bearing, 2 or 3 phase, 50/60 cy.,



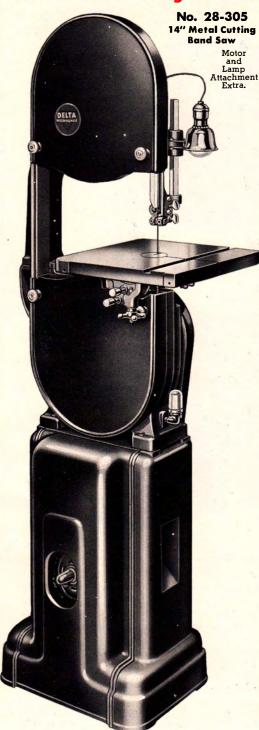


| Maximum height under top guide |
|---|
| Maximum height under top wheel frame16" |
| Maximum height under top guide (on application)2014" |
| Size of main table |
| Size of sub table |
| Table tilt to right45° |
| Table tilt to left5° |
| Vertical adjustment upper wheel4½" |
| Size of wheels |
| Speed of wheels |
| Speed of blade, Wood Cutting Saw |
| Speed of blade, Metal Cutting Saw: |
| To 1 Variable SPEED Wheel R.P.M. SawSpeedF.P.M. 150 to 4501404 to 4212 35 to 420333 to 4000 200 to 6001872 to 5616 52 to 640500 to 6000 Speed of blade, Sprue Cutting Saw240 R.P.M., 2246 F.P.M. Maximum width of blade 11/4" Blade length 18'6" Diameter dust chute connection 6" Power required 3 H.P. Height of table from floor 40" Height overall 96" 96" So" x 57" |
| |

DELTA POWER TOOL DIVISION

33

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



METAL CUTTING BAND SAW BLADES 93½ 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 |

The Delta-Milwaukee 14" Band Saw is used for cutting everything from carbon tool steel to asbestos and wood, with hundreds of other applications. It comes equipped with a wide range of five cutting speeds.

This machine contains all the fine wood-cutting features of the 14" Wood Cutting Band Saw. These features make it suitable for use in maintenance departments, pattern shops, etc.

BEARINGS: 10 sealed, lubricated-for-life ball bearings for upper and lower wheels, blade supports, and all shafts of Back Gear Unit insure trouble-free performance.

GEAR UNIT: Self-contained unit provides double reduction. Has spiral drive pinion and intermediate gear, final drive pinion and spur gear.

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", swings smoothly on double trunnions. Blade may be removed without disturbing rip-gage guide bars. Table tilts 45° to right, 10° 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. All lower guide controls at front for added safety. 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.

SPECIFICATION 5

| CAPACITY: Blade to frame | |
|--|------------------------|
| Under quide | |
| Under guide (with No. 894 Height Attachment) | 121/4" |
| SPEEDS: With 1725 RPM motor | 125, 175, 250, 340 FPM |
| With 1140 RPM motor | 80, 114, 160, 220 FPM |
| For woodworking (1725 RPM motor) | 2200 FPM |
| DIMENSIONS: Overall height (on stand) | |
| Width | 18½" |
| Front to back | |
| Table size | |
| Table height from floor | 42¾" |
| Table tilt to right | 45° |
| Table tilt to left | 10° |
| Blade length | 93½" |
| | |

CATALOG LISTING

No. 28-305

Complete 14" Metal Cutting Band Saw with No. 886 Cast Iron Stand, No. 720 4-step arbor pulley for metal, one No. 1062 metal cutting blade, No. 387 V-belt for metal drive, No. 49-141 V-belt for wood drive, No. 718 4-step motor pulley (specify bore). Without motor, switch or lamp attachment, 440 lbs.

No. 28-307

Complete 14" Metal Cutting Band Saw with No. 5800 Arbor Pulley (specify bore). Without motor, switch or lamp attachment, 440 lbs.

No. 883 Belt Guard, Wheel Guards, No. 5800 Arbor Pulley for wood, No. 720 4-step arbor pulley for metal, one No. 1062 metal cutting blade, No. 387 V-belt for metal drive, No. 49-141 V-belt for wood drive, No. 718 4-step motor pulley for wood, No. 720 4-step arbor pulley for metal cutting blade, No. 5800 Arbor Pulley for wood, No. 387 V-belt for metal drive, No. 49-141 V-belt for wood drive, No. 718 4-step motor pulley for wood, No. 387 V-belt for metal drive, No. 49-141 V-belt for wood drive, No. 1062 metal cutting blade, No. 387 V-belt for metal writing blade, No. 718 4-step motor pulley for wood, No. 720 4-step arbor pulley for metal cutting blade, No. 387 V-belt for metal or wood, No. 383 Belt Guard, Wheel Guards, No. 5800 Arbor Pulley for wood, No. 720 4-step arbor pulley for metal cutting blade, No. 387 V-belt for metal or wood, No. 720 4-step arbor pulley for wood drive, No. 1334—Switch Rod, for single phase and DC motors. Use with No. 28-307.

No. 28-810—Sanding Attachment consisting of flat and one No. 1062 metal cutting blade, No. 387 V-belt for wood, No. 720 4-step arbor pulley for wood, No. 720 4-step arbor pulley for metal cutting blade, No. 380 Arbor Pulley for wood, No. 380 Arbor Pulley for wood, No. 1334—Switch Rod, for single phase and DC motors. Use with No. 28-307.

No. 28-810—Sanding Attachment consisting of flat and one, No. 1062 metal cutting blade, No. 380 Arbor Pulley for wood, No. 720 4-step arbor pulley for woo

and one No. 1062 metal cutting blade. Without motor, switch or lamp attachment,

172 lbs.

No. 132—On & Off Toggle Switch with case and 3-ft. cord, for single phase and DC motors. Use with No. 28-305.

motors. Use with No. 28-305.

No. 387—V-Belt 39%" Out. Cir. (Metal Drive). 3/4 lb.
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 bulb. 11/2 lbs. Uses std. bulb.

No. 883—Belt Guard for use with stand. 12 lbs.

No. 886—Cast Iron Stand 24" high. 106 lbs. No. 894—Height Attachment. 14 lbs.

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. 80 Grit, Fine, ½" wide, 91" long, 1 lb.

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.

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

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—(Old No. 891)—Steel stand, top 8" x 16", height 24". 30 lbs.

Motors Recommended: 86-720, 82-710.
For complete listing of motors and switches see page 60.

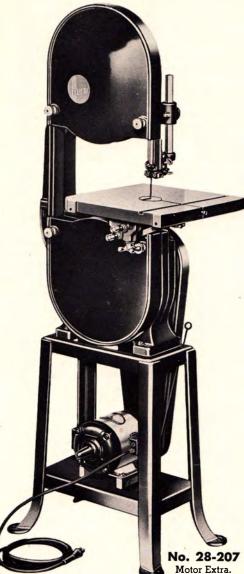
SCREW FEED ATTACHMENT FOR BAND SAW

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.



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



SPECIFICATIONS

| Capacity: Blade to Frame | 133/4" |
|---|-----------|
| Capacity: Under Guide | 61/4" |
| ·Capacity: Under Guide (with height attach. | .) 121/4" |
| Speed with 1725 r.p.m. motor220 | 00 FPM. |
| Overall height | 651/2" |
| Width | 161/4" |
| Front to back | 243/4" |
| Table size | 4''x 14'' |
| Table height from floor | 423/4" |
| Table tilt to right | 45° |
| Table tilt to left | 10° |
| Blade length | 931/2" |
| | |

STANDARD BAND SAW BLADES | SKIP TOOTH

| Teeth Per | | | | | |
|-----------|-----------|------|-----------|------------|--|
| Width | Cut. Rad. | Inch | 93½" long | 105" long* | |
| 1/8" | 1/4" | 7 | No. 1032 | No. 1045 | |
| 3/16" | 1/2" | 7 | No. 1033 | No. 1046 | |
| 1/4" | 3/4" | 7 | No. 1034 | No. 1047 | |
| 3/8" | 1'' | 6 | No. 1036 | No. 1048 | |
| 1/2" | 11/4" | 6 | No. 1038 | No. 1050 | |
| 3/4" | 13/4" | 4 | No. 1040 | No. 1052 | |

*Used with No. 894 Height Attachment.

Note: These blades can be used with Metal Cutting Band Saw also, listed on page 34.

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

TABLE: Massive 14"x 14" table with a %"x 34" 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 guide 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. 28-205 Complete 14" Wood Cutting Band Saw with No. 886 Cast Iron 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, 440 lbs.

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. 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.

| 1½ lbs. |
|--|
| No. 883—Belt Guard |
| No. 886—Cast Iron Stand 24" high106 lbs. |
| No. 894—Height Attachment with cast block, |
| dowels and bolt. Extension Front Blade Guard and Wood Back Blade Guard |
| No. 1334—Switch Rod for use with No. 28-207. |
| No. 5275—234" Motor Pulley. Specify bore |
| 1/ 1L |

Motors Recommended: Heavy Duty 62-610, 66-320. Medium and Light Duty, 62-110. For complete motor and switch listing see page 60.

SKIP TOOTH BAND SAW BLADES

Ideal for Plastics, Wood, Aluminum, Magnesium, etc.

| 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 |

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

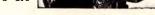
For added convenience and increased efficiency, upper wheel has blade tension adjustment. Quick index shows correct tension for various widths of blades.



Micrometer adjustments of blade guides insure proper blade support for accurate work yet allow blade to run free. Guides and blade supports adjust independently.

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

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



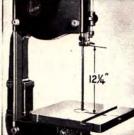












(For Prices See Attached Price List)

20" Band Saw Offers More Convenience . . . Greater Capacity . . . Added Safety



SPECIFICATIONS

| Blade to inside of column Maximum Height under top Guide | |
|---|------------------|
| Maximum Height under top Guide | |
| Saw Blade Speed with 31/2" O.D. Motor Pulley | |
| With 1725 r.p.m. Motors | 4500 f.p.m. |
| With 1425 r.p.m. Motors | 3800 f.p.m. |
| Table size overall | .20-3/16"x241/4" |
| Table Height from floor | |
| Table Tilt to Right | |
| Table Tilt to Left | |
| Distance table trunnions | 17" apart |
| Distance from front of table to center of saw | |
| Distance from center of saw to rear edge of table | |
| Miter Gage groove in table | |
| Rubber Faced Wheel Diameters | |
| Maximum Width of Blade | 1" |
| Blade Length | |
| Standard | |
| Maximum | |
| Minimum | |
| Dust Chute connection diameter | |
| Overall Height | |
| Overall Width, including table | |
| Overall Distance from front of table to back of frame | |
| Total approximate weight without motor | |

Capacity . . . The table is 20% wide and 24½ long. It is finish ground and has a % "x ¾" slot for the miter gage. Two heavy trunnions 17" apart on either side of the saw blade give table unusual support and rigidity. The table tilts 45 degrees to the right and 12 degrees to the left. It locks quickly in place at any angle, while a handy tilt scale shows the exact angle of cut. Adjustable "three point mountings" between working parts and welded steel frame are used throughout . . . You can always maintain exact alignment. Ball Bearing blade guides both above and below the table provide accuracy and reduce blade breakage. Upper guide can be brought down against work . . . lower guide comes within 1 inch of bottom of work. Guides are "fully adjustable." Adjustments to finest degree can be made quickly with micrometer adjustment screws. Guides and blade supports set independently . . . you can adjust one without affecting the other. All adjustments easy to get at, safe, accurate. You get complete safety . . . a single unit, welded steel cabinet completely encloses all working parts . . . upper and lower wheels, saw blade, motor, etc. Doors provide quick access to wheels and motor. Front saw blade guard is adjustable up and down. Only actual working surface of blade is exposed.

Balanced aluminum wheels are 20¼" in diameter, 1½" wide with 1½" wide tire. Wheels mounted in sealed-for-life ball bearings. Each wheel is equipped with a Carter Jiffy tire providing cushion seat for saw blade. Blade tension control on upper wheel maintains proper blade tension . . . handy tension scale enables adjustment to particular job. Motor is mounted in base on pivot bracket which automatically provides for correct amount of belt tension. Convenient foot brake on lower wheel. Dust Chute carries away dust and chips . . . can be attached to dust collector.

You will find this new Delta-Milwaukee 20" Band Saw highly flexible in use . . . ideal for the pattern shop, school, cabinet maker and practically all wood shop operations. In addition, its metal cutting uses are many. It will cut plastics and soft metal such as brass, aluminum, copper, etc. with ease.

Two different types available:

- 1. The V-Belt Drive
- 2. The Direct Drive with Motor Installed

See your dealer today—check for yourself the many features found only in this Big, Rugged Band Saw. And the price—the lowest possible for its careful engineering and fine construction.

Catalog Listing V-Belt Drive

No. 28-350—20" Wood-Cutting Band Saw with Welded Steel Cabinet, sealed-for-life ball bearings, foot brake, dust chute, fully adjustable upper and lower blade guides, saw tension indicator, tilt table, pivoted motor bracket, two No. 49-140 A-section V-belts, 7" O.D. Machine pulley, 3½" O.D. Motor pulley (specify bore) and one No. 28-877 %" wide saw blade. Without Miter gage, Motor or Switch. 670 lbs.

No. 49-140—Replacement A-section V-belt (2 required). 1 lb. No. 864—Auto-Set Miter Gage. 4 lbs.

No. 882—Lamp attachment complete with cord and plug for 115-volt connection without bulb. Uses standard bulb. 1½ lbs.

Motors Recommended: 84-910, 86-920, 87-120. For complete listing of motors and switches see page 60.

Note: Three phase switch mounting parts not required.

Catalog Listing Direct Drive with Motor Installed

No. 28-351—20" Wood-Cutting Band Saw with Welded Steel Cabinet, sealed-fo₁-life ball bearings, foot brake, dust chute, fully adjustable upper and lower blade guides, saw tension indicator, tilt table, and one No. 28-877 %" wide saw blade. Lower wheel directly connected to a 1 H.P. 220/440 or 550 volt, 2 or 3 phase 50 or 60 cycle, 720/990 r.p.m., Frame P-225 motor, with No. 1320 overload push button starter. Complete with motor and switch, but without miter gage. (Be sure to specify operating current used.) 780 lbs.

No. 28-352—20" Wood-Cutting Band Saw with Welded Steel Cabinet, sealed-for-life ball bearings, foot brake, dust chute, fully adjustable upper and lower blade guides, saw tension indicator, tilt table, and one No. 28-877 %" wide saw blade. Lower wheel directly connected to a ball bearing 1 H.P. single phase, 115/230 volt, 50 or 60 cycle, 720/900 r.p.m. motor with No. 1320 overload push button starter. Complete with motor and switch, but without miter gage. (Be sure to specify operating current used.) 780 lbs.

Note: For 115/230 volt, direct current or any single phase or polyphase 25 cycle motor, or for other speeds apply to the factory. (For Prices See Attached Price List)

The Most Economical Band Saw You Can Buy

SAW BLADES FOR 20" WOOD-CUTTING BAND SAW

141" long. Blades that can be file sharpened. 3 lbs.

| Cat. No. | Width | Birm. Ga. | Thick | Teeth Per Inch | Min. Radius |
|-------------|--------------|--------------|-------|-------------------|----------------|
| 28-875 | 3/6" 1/4" | 24 | .022 | 5 | 1/2" |
| 28-876 | 1/4" | 24 | .022 | 5 | 3/4" |
| 28-877 | 3/8" | 24 | .022 | 5 | 1" |
| 28-878 | 1/2" | 24 | .022 | 4 | 11/2" |
| 28-879 | 3/4" | 24 | .022 | 4 | 2" |
| 28-880 | 1" | 24 | .022 | 4 | 4" |
| 28-881 | 3/4" | 24 | .022 | 3 | For Resawing |
| 28-882 | 1" | 24 | .022 | 2 | For Resawing |

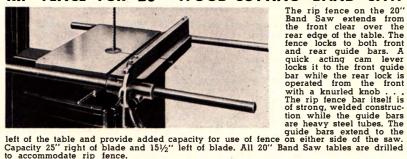
SKIP TOOTH SAW BLADES

141" Long - Economical to Use. 3 lbs.

Skip Tooth Hard-edge regular set band saw blades for materials such as plastics, wood, aluminum and magnesium or materials requiring extra gullet capacity for large chips. Also excellent for heavy cutting of wood. Teeth are hard, insuring extremely long life, cannot be filed but can be reground at a cost of about ½ the cost of a new blade. All blades are 141" long.

| Cat. No. | Width | Birm. Ga. | Thick | Teeth Per Inch | Min. Radius |
|-------------|-------|--------------|-------|-------------------|----------------|
| 28-890 | 1/4" | 23 | .025 | 4 | 3/4** |
| 28-892 | 1/2" | 23 | .025 | 4 | 11/2" |
| 28-894 | 3/4" | 21 | .032 | 3 | 2'' |
| 28-896 | 1" | 20 | .035 | 2 | For Resawing |

RIP FENCE FOR 20" WOOD-CUTTING BAND SAW



The rip fence on the 20"
Band Saw extends from
the front clear over the
rear edge of the table. The
fence locks to both front
and rear guide bars. A
quick acting cam lever
locks it to the front guide
bar while the rear lock is
operated from the front
with a knurled knob.
The rip fence bar itself is

accommodate rip fence.

No. 28-862—Rip Fence attachment with front and rear guide bars, micro-set fence, and screws for attaching guide bars. 29 lbs.

Auto-Set Miter Gage



An added convenience for saws and other machines. Has individual adjustable index stops — swings 60° both right and left-tapered pivot insures ac-

curacy—massive body gives full support, will not spring—heavy %"x ¾", miter gage bar 17" long—full %6" diameter stop rods with two clamps.

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

DELTA Ball bearing Motors Available for V-Belt Drive Machine 3/4" Shaft with 3/16"x3/32" Key-way. Double Shaft

| Cat. No. | Type | H.P. | Cur. | Voltage | Cycles | R.P.M. |
|----------|-------|-------|------|---------|--------|-----------|
| 84-910 | R.I. | 1 | A.C. | 115/230 | 60 | 1725 |
| 86-920 | 3 Ph. | 1 | A.C. | 220/440 | 50/60 | 1425/1725 |
| 87-120 | 3 Ph. | 1 1/2 | A.C. | 220/440 | 50/60 | 1425/1725 |

Switch Parts

No. 1320—3-Phase manual starter for A.C. motors up to 2 H.P. and D.C. motors up to 1 H.P. 6 lbs.

No. 1321—3-Phase across-the-line magnetic starter, rating 2 H.P., 440 V., 60 cycle only. 6-lbs.

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

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 1 Ph. and D.C. Motors. 3 lbs.

No. 49-315—3-wire Armoured Cable connection 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.) 1 lb. For complete listing of motors and switches see page 60.

(For Prices 500 Attached Price List)

Notice the rugged construction of the table. The two massive trunnions, 17" apart on either side of the saw blade, give firm, solid support to large, heavy pieces. A handy tilt scale pro-vides fast tilting to accurate angles.



The handy to get at blade guides and blade supports are individually adjustable. You can set one without affecting without affecting the other. Notice also the adjust-able table stop that enables you to return the table to exact level after tilt-ing.



New, outstanding feature — Carter Jiffy Tire. Confeature — Carter Jiffy Tire. Con-sists of a pre-faced rubber tire fused to a demountable steel rim. Tire can't stretch and come loose. Use of this tire elimi-nates the job of nates the job cementing the then facing it. Tire easily can be replaced by ma-chine operator.



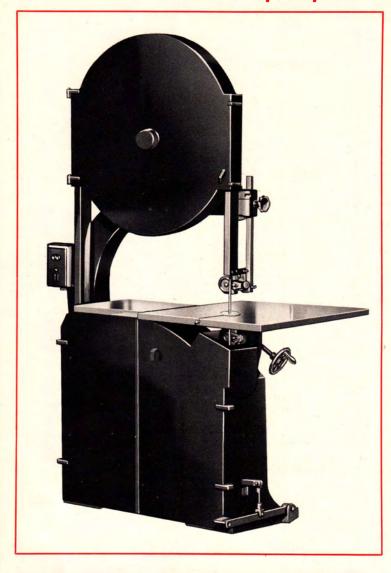
V-belt drive with motor mounted in base on pivot bracket which automatically provides correct amount of belt tension. Notice how large dcor in lower cabinet provides full access to motor for replacement or repair.



Neat in appearance, yet handy and accurate. The belt tension and blade trackand blade tracking adjustments on the frame of the upper wheel guard are handy to get at and simple to operate. They offer complete adjustments of wheel and blade.



36" Heavy Duty Wood Cutting Band Saw



Speed Production With Delta's 36" Band Saws

The Delta 36-inch Band Saw is recognized by industry as the finest Band Saw available. Years of experience and the constant development of modern engineering principles enables Delta to offer this high grade machine noted for its ruggedness, speed, accuracy and low maintenance costs. These features make this machine a profitable addition to your plant.

Safety is insured by the welded steel cabinet which completely encloses all moving parts except the working surface of the blade. Controls are mounted where they are easy to reach. Hinged doors provide easy access to wheels.

You will find the Delta 36-inch Band Saw the answer to many of your production problems.

THERE'S A DELTA 36" BAND SAW TAILORED TO FIT YOUR SPECIFIC WOOD OR METAL CUTTING NEEDS

CATALOG LISTING

No. 28-400—36" direct motor drive Band Saw with cast iron lower wheel, spoked type, upper wheel aluminum, mounted in single row deep groove ball bearings, complete with metal guards enclosing both wheels, ball bearing saw guides above and below the cast iron table. Lower wheel mounted direct on motorshaft. Motor 3 h.p.,* 600 r.p.m., 2 or 3 phase, 50/60 cy., 220/440/550 Volt. (Specify motor characteristics.) *5 H.P. on application.

No. 28-401—36" Band Saw, V-belt drive, with 3 h.p., 3 phase, 60 cycle, 220/440 volts, 1800 r.p.m. ball bearing motor mounted on bracket at rear of machine and connected to lower wheel shaft with multiple V-belts, guard enclosing belts and sheaves included. Speed of wheel 600 r.p.m. 2025 lbs.

No. 28-402—36" Belt Drive Band Saw furnished with pulley only on lower shaft. (V-pulley or tight and loose pulley). Without motor

ACCESSORIES

No. 28-406—Re-saw Attachment hand feed.
No. 28-411—Motor bracket for mounting on belt-driven machine.

No. 28-412—Guard for belt driven machines.

No. 28-413—Ripping fence.
No. 28-414—Cut-off fence.

OPTIONAL EQUIPMENT

(Can be specified instead of standard equipment)

No. 28-407—Demountable rim wheel—Carter. Use to order l pair of Carter wheels in lieu of standard wheels when

ordering new band saw.

No. 28-408—Magnetic starter.

No. 28-409—Foot operated brake on lower wheel with limit switch. (Magnetic starter required.)

No. 28-410—Foot operated brake without limit switch.

Use the following when ordering for replacement:

No. 28-424—Blade for 36" Band Saw \(^1/4\)" wide x 18' 6" long.

No. 28-425—Blade for 36" Band Saw \(^1/2\)" wide x 18' 6" long.

No. 28-426—Blade for 36" Band Saw \(^1/2\)" wide x 18' 6" long.

No. 28-427—Blade for 36" Band Saw \(^5/8\)" wide x 18' 6" long.

No. 28-428—Blade for 36" Band Saw \(^3/4\)" wide x 18' 6" long.

No. 28-429—Blade for 36" Band Saw \(^1\)" wide x 18' 6" long.

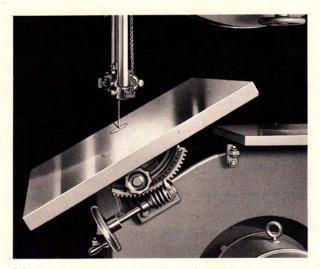
No. 28-430—Blade for 36" Band Saw \(^1/4\)" wide x 18' 6" long.

No. 28-431—Blade for 36" Band Saw \(^1/4\)" wide x 18' 6" long.

No. 28-431—Blade for 36" Band Saw \(^1/4\)" wide x 18' 6" long.

No. 28-432—36" Carter Upper Band Saw Wheel only.

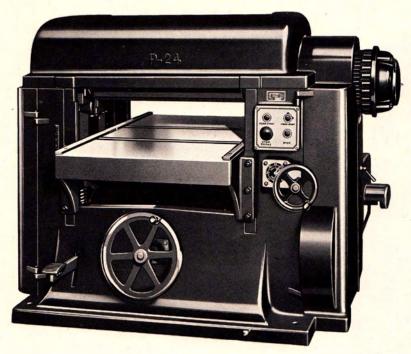
No. 28-433—36" Carter Lower Band Saw Wheel only.



Massive trunnions on a heavily ribbed cast iron table—Your assurance of years of trouble free service.

A Modern, Efficient, Heavy Duty Planer . . .

Compare its efficiency and safety with other conventional types



No. 22-250—24" x 8" single surface Planer with 4-knife round safety cutter-head mounted with over-sized precision ball bearings, direct motor drive, 7 1/2 h.p., 2 or 3 phase, 220/440/550 v, 50/60 cy. (Specify motor character-istics when ordering), 4 solid feed rolls all gear driven by 1 h.p. ball bearing motor through variable speed drive providing 20 to 60 f.p.m., solid chip-breaker, both cutterhead and feed motors provided with magnetic starters with separate push button. Standard equipment includes 1 set of 4-knives mounted in cutterhead, knife setting jig, grease gun and set of wrenches.

| No. | 22-251—P-24 | Planer, | same as | 22-250 | except | with 5 | h.p. | | |
|-----|--------------|---------|---------|--------|--------|--------|------|------|------|
| | 2 or 3 phase | motor | | | | | | 3700 | lbs. |

| No. | 22-252—P-24 Planer | , same as 22-250 | but with | coupling | | |
|-----|-----------------------|------------------|----------|----------|------|------|
| | drive on 5 h.p., sing | le phase motor. | | | 3700 | lbs. |

| No. 22-253—P-24 | Planer, same | as 22-250 but with | coupling |
|-----------------|-----------------|--------------------|-----------|
| drive on 7½ | h.p., single pl | nase motor | 3700 lbs. |

| No. 22-254—P-24 | Planer, | same as | 22-250, | but | with | 10 | h.p. | |
|-----------------|---------|---------|---------|-----|------|----|------|----------|
| motor instead | of 7½ | h.p | | | | | 3 | 700 lbs. |

| No. | 22-255—P-24 | Planer, | same | as | 22-250, | but | with | V-belt | |
|-----|---------------|----------|------|----|---------|-----|------|--------|-----------|
| | drive on 10 h | .p. moto | r | | | | | | 3700 lbs. |

| No. | 22-256P-24 | Planer, belt | driven, v | ariable spe | eed drive, | |
|-----|---------------|---------------|-------------|--------------|------------|---------|
| | less motors a | nd control (v | without cou | untershaft). | 350 | 00 lbs. |

No. 22-272—Motor driven knife grinding and jointing attachment.

No. 22-273—Shaving hood with 6 inch blowpipe connection.

No. 22-275---Set of 4 hi-speed knives.

No. 22-276—Ball bearing countershaft for use on 22-256.

OPTIONAL EQUIPMENT

(Can be specified instead of standard equipment)

No. 22-270—Sectional top infeed rolls.

No. 22-271---Sectional chipbreaker.

No. 22-274-Hand brake on cutterhead with limit switch interlocked.

SPECIFICATIONS

CAPACITY:

| Maximum v | vidth of stock24" |
|------------|----------------------|
| Maximum tl | hickness of stock8" |
| Minimum th | nickness of stock |
| Maximum d | epth of cut5/16" |
| Minimum le | ength (butted)3½" |
| Minimum le | ength (unbutted)14½" |

RATE OF FEED:

| Linear feet per minute |
|---|
| Number of inches of stock cut per minute720-240 |
| Number of cuts per inch of feed20-60 |
| Number of cuts per minute |

CUTTERHEAD

| Diameter of cutting circle41/ | 2" |
|-------------------------------|-----|
| Speed of head | VI. |
| Length of knives241/2 | 2" |

CUTTER HEAD DRIVE:

Direct Motor Drive, with motor mounted directly on cutter head.

Coupled Motor Drive, with motor mounted on a bracket and connected to cutter head by a flexible coupling.

Belted Motor Drive, with motor mounted on base and connected to cutter head by matched multiple V-belts.

Belt Drive, with the cutter head and feed driven from a countershaft.

FEED ROLLERS:

| Upper infeed rollers, solid, serrated4" | dia. |
|--|------|
| Upper outfeed rollers, solid, smooth4" | dia. |
| Lower feed rolls (2) solid, smooth | dia. |
| Sectional type upper infeed rolls (optional)4" | dia. |

FEED ROLL DRIVE:

Separate motor mounted on hinged bracket at rear of machine and connected to all four feed rollers through variable speed mechanism and precision cut gears. The feeding speed is variable from 20 to 60 feet per minute, controlled by handwheel conveniently located at front of machine and provided with dial and pointer to indicate exact feed speed.

POWER:

| Head drive | 5, 7½, or 10 H. | p. |
|------------|-----------------|----|
| Feed drive | 1 H. | p. |

TABLE DIMENSIONS:

| Working | surface | length | |
|---------|---------|--------|-----|
| Working | surface | width | 24" |

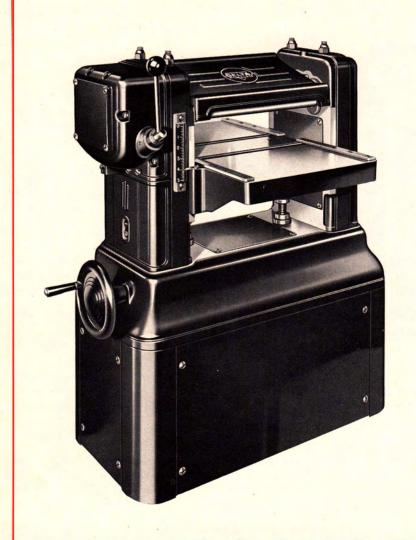
OVERALL DIMENSIONS:

| Height | 451/2" |
|-------------|--------|
| Floor space | x 59" |

WEIGHT

| Net weight | | <mark> </mark> | |
|------------|-------|----------------|------|
| Shipping w | night | | 3500 |

The Safest Planer Ever Built



SPECIFICATIONS

CAPACITY:

Maximum Width of Stock—13"
Maximum Thickness of Stock—5"
Minimum Thickness of Stock—1/16"
Maximum Depth of Cut—1/6"
Minimum Length (Without follower, unbutted)—6"

RATE OF FEED:

Linear Feet Per Minute—14 Number of inches of stock cut per minute—168 Number of Cut Per Inch of Feed—75 Number of Cuts Per Minute—12,600

CUTTERHEAD:

Diameter of 3-knife, solid stress-proof steel cutter head—2-23/64" Diameter of Cutting Circle—2-9/16 Speed—4200 RPM

Knife Blades, Hi-Speed Steel-131/8" Long

CUTTERHEAD DRIVE:

V-Belt (Set of 3 matched V-Belts)

FEED DRIVE MECHANISM:

Fully enclosed within gear box.

The positive, powerful drive consists of a continuous anti-friction roller chain, linking the solid steel sprockets of the out-feed and in-feed rolls. The drive chain is driven by a double worm gear reduction drive, which in turn is driven by the cutterhead.

FEED ROLLERS:

In-feed rollers (serrated), solid stress-proof steel—134" Dia.
Out-feed rollers (smooth), solid stress-proof steel—134" Dia.

Speed of feed rollers-approximately 35 RPM.

TABLE ROLLERS (IDLERS):

Two steel rollers, centered $5\frac{1}{2}$ " apart, $1\frac{1}{2}$ " O.D., $\frac{1}{8}$ " I.D.

TABLE RAISING AND LOWERING MECHANISM:

One complete turn of hand wheel moves the table 1/16".

THICKNESS SCALE:

Accurately graduated from 0" to 5". Visible from any operating position.

TABLE DIMENSIONS

13" working width by 26".

FLOOR SPACE:

30" Wide x 16".

OVERALL DIMENSIONS:

35" Wide x 26", 393/4" High

APPROXIMATE SHIPPING WEIGHT: 595 lbs.



CATALOG LISTING

Delta 13"x5" Thickness Planer (single surfacing), floor model, complete with No. 23-103 ball bearing, 3-knife cutterhead, No. 22-104 set of 3 knives; bearings and bearing housings; No. 49-175 set of 3 matched V-belts; and No. 1604 motor pulley.

No. 22-120 Delta 13"x5" Thickness Planer for 50 cycle current. Supplied with No. 49-176 V-belts and No. 22-105 pulley . . . otherwise same as No. 22-101. 595 lbs.

No. 22-103—Ball bearing, 3 knife cutterhead; No. 22-104 set of 3 knives; bearings and bearing housings.

No. 22-104—Extra Set of 3 High Speed Steel Knives, 131/8" long. / 8 lbs.

No. 22-106—Knife Grinding and Jointing Attachment. Motor—115V; AC-DC; complete with chuck and key; cord, plug and switch; mounting and guide rail parts; locking and positive index device; jointing stone adapter; jointing stone; one fine and one medium wheel; wheel dressing stone; gauge and wrenches. Weight 45 lbs.

No. 22-107—Knife Jointing Attachment (Not needed if ordering 22-106). Base and handles; diagonal bar; adjusting block and screw; 1", fine jointing stone. Wt. 10 lbs.

No. 22-113—1 gallon can of lubricating oil for gear drive. 6 lbs., 7 oz.

No. 22-114—3 groove 3.4%4'' diameter V-belt pulley to be used on 3450 r.p.m. motors. 8 lbs.

No. 22-115—Shaving hood with 6" diameter connection, to be used with suction system. 5 lbs.

No. 22-116-Box of 8 medium grit (#60) Grinding Wheels. Wt. 14 lb.

No. 22-117—Box of 8 medium grit (#100) Grinding Wheels. Wt. 1/4 lb.

No. 22-118—Jointing Stone. Wt. 1/4 lb.

No. 49-175—Set of 3 Matched V-Belts, 68" long, 11/4 lbs.

No. 49-176—Set of 3 matched V-Belts, 71" long. 11/2 lbs.

MOTORS and SWITCHES RECOMMENDED:

No. 84-977—3 HP Motor, single phase, ball bearing, 115/230 volts, 50/60 cycle, 1425/1725 RPM, NEMA Frame 225, 133 lbs.

No. 97-320—3 HP Motor, 3 phase, ball bearing, 220/440 volt, 50/60 cycle, 1425/1725 RPM, NEMA Frame 225. 133 lbs.

No. 49-386—Magnetic starter for 5 H.P. 220 volt, 3 phase 60 cycle motor or 115/230 volt, single phase motor. 12 lbs. For Planer use only.

No. 49-387—Magnetic starter for 5 H.P. 440 volt, 3 phase 60 cycle motor. 12 lbs. For Planer use only.

DELTA POWER TOOL DIVISION

ROCKWELL MANUFACTURING COMPANY

400 N. LEXINGTON AVE., PITTSBURGH 8, PA.

Big Planer Performance At Small Planer Cost

FEATURES OF THIS PLANER

LARGE CAPACITY . . .

13" x 5" stock is planed quickly and easily.

STEADY, POWERFUL FEED . . .

Cuts smoothly and evenly any stock from 1/16" up to 5" thick.

MAXIMUM EFFICIENCY...

Dependable performance eliminates waste. Smooth accurate cuts reduce the need for sanding operations. Sturdy construction insures longer operating life.

SMOOTH OPERATION...

Fine grey iron castings throughout give maximum rigidity between all working parts and reduce vibration to a minimum. Cutterhead knives are machined and balanced for accurate cuts.

CONVENIENT CONTROLS...

Save time and effort with controls located within your easy reach. You operate at a safe distance from the moving stock. Table control is self-locking in any position.

SAFETY CLUTCH MECHANISM...

You can stop and start feed mechanism instantly without touching motor switch.

EXCLUSIVE DELTA ADJUSTMENTS...

Easily operated collar adjusting screws for making quick, accurate knife adjustment without removing from cutterhead.

PERFECT ALIGNMENT . . .

Steel gibs with adjusting screws and adjusting raising screws keeps table surface parallel to knife blades.

COMPLETE SAFETY...

All moving parts are fully enclosed or quarded.

SAFE POSITIVE TABLE STOPS . . .

Blades can never strike the table—an important safety feature.

SAFETY TYPE CHIP BREAKER . . .

ROCKWELL MANUFACTURING COMPANY

Keeps your fingers away from knives . . . throws chips away from operating side of planer.

SHIELDED, SEALED, LUBRICATED-FOR-LIFE BALL BEARINGS . . .

They give smooth cutterhead operation . . . trouble-free service . . . longer machine life.

Compare the versatility of this machine. Stock up to 13"x5" is easy to handle on the Delta Planer.

A short piece of stock, only 6" long, can be handled unbutted in the new Delta Planer. Another feature which adds to the versatility of this machine.

A Delta Exclusive! Finger-tip clutch control allows you to stop and start feed mechanism without touching motor switch. You can read this depth scale from any position.

Another Delta Exclusive! Individual blade adjustment and simplified measuring device for quick, accurate adjustment of knives.

Save Valuable Time with this unique construction feature. Pull the dull cutterhead out—slip the new one in. It's that simple!

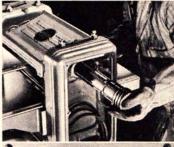
The Double-Worm-gear reduction drive is automatically lubricated as it runs. A Delta feature which prolongs the life of your machine.









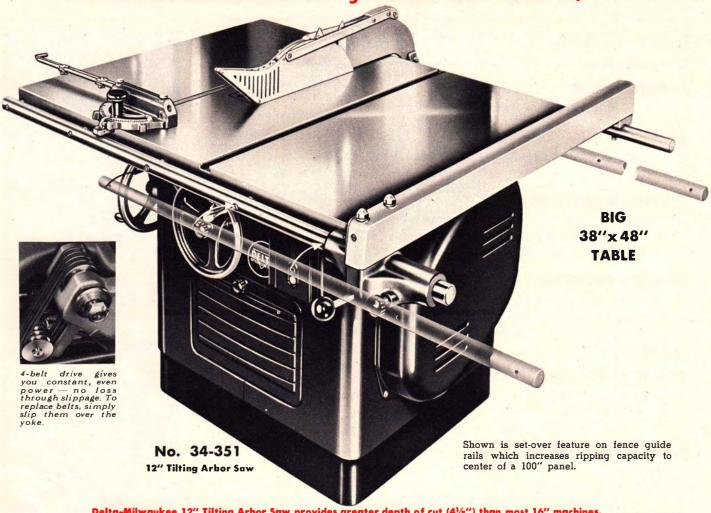




DELTA POWER TOOL DIVISION

41

Delta-Milwaukee Production Tilting Arbor Saw Cuts Stock 41/8" Thick



Delta-Milwaukee 12" Tilting Arbor Saw provides greater depth of cut (41/4") than most 16" machines.

CATALOG LISTING

| Cat. No. | Operating Conditions | H.P. | Motor Description |
|-------------------------------------|----------------------|-------|---------------------------|
| 34-350-Unit complete, but without m | otor or magnetic sta | rter. | |
| 34-351—With motor & mag. starter | For 220 V. operation | 5 | 220/440 V., 60 cy., 3 ph. |
| 34-352—With motor & mag. starter | For 440 V. operation | 5 | 220/440 V., 60 cy., 3 ph. |
| 34-363—With motor & mag. starter | For 220 V. operation | 5 | 220/440 V., 50 cy., 3 ph. |
| 34-364—With motor & mag. starter | For 440 V. operation | 5 | 220/440 V., 50 cy., 3 ph. |
| 34-370—With motor & mag. starter | For 115 V. operation | 3 | 115/230 V., 60 cy., 1 ph. |
| 34-371—With motor & mag. starter | For 230 V. operation | 3 | 115/230 V., 60 cy., 1 ph. |

Above 12" Tilting Arbor Saws consist of Welded Steel Cabinet, 38"x48" Table (including two table extensions), Motor Mounting Plate, Motor Cover, No. 34-925 Miter Gage, Rip Fence, Guide Rails, Blade Guard, Splitter with Anti-kickback Fingers, No. 34-930 Combination Blade, No. 49-150 set of 4 matched V-belts, Motor Pulley 1" bore, Magnetic Starter and Motor installed and wired complete. 975 lbs.

ACCESSORIES

ACCESSORIES

1521—Allen Key wrench for use with No. 34-941 Moulding Cutter Head.
34-925—Auto-Set Miter Gage complete with stop rods. 15 lbs.
34-930—12" Comb. Blade, 14 gage, 44 teeth, 1½" arbor hole. 4 lbs.
34-931—12" Rip Saw Blade, 14 gage, 36 teeth, 1½" arbor hole. 3 lbs.
34-932—12" Cross Cut Blade, 14 gage, 100 teeth, 1½" arbor hole. 3 lbs.
34-933—12" Hollow Ground Blade, 12-14-12 gage, 1½" arbor hole with 3½" collar. 3 lbs.
34-940—8" Dado Head, 1½" hole, cap. ½" to 1-1/16" cut. 8 lbs.
34-941—6" Dia. Moulding Cutter Head only, 1½" bore, less wrench.
34-942—Arbor Extension 1½" dia. for use with Dado Head 1-1/16" wide and Moulding Cutter Head.
2 lbs.

2 lbs.
34-943—Arbor Extensions 1½" dia. to accommodate 2" wide Dado or Moulding Cutter Head. 2 lbs.
34-945—Table Insert for Dado and Moulding Cutter Head. Made of hardwood or plywood. Shaped and fitted, with screws for fastening to table. 2 lbs.
34-947—Arbor Extension 1" dia., with collar, to accommodate saws with 1" arbor hole. 3 lbs.
34-948—Arbor Extension 1½" dia., with collar, to accommodate saws with 1½" arbor hole. 3 lbs.
34-949—Arbor Extension 1" dia. to accommodate 2" wide Dado Head 1" bore. 4 lbs.
34-950—Arbor Extension 1½" dia. to accommodate 2" wide Dado Head 1½" bore. 4 lbs.
49-150—Set of 4 matched V-belts, 28½" out. Cir. (per set). 2 lbs.
49-324—Magnetic Starter for 5 H.P. 220/440 volt 3 Ph. 60 Cycle 12" Tilting Arbor Saw Motor. 12 lbs.
49-325—Magnetic Starter for 3 H.P. 115/230 volt 1 Ph. 60 Cycle 12" Tilting Arbor Saw Motor. 12 lbs.

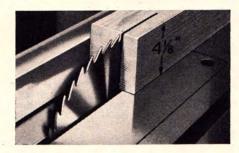
otors Recommended: For No. 34-350—No. 98-111 or No. 98-321. For complete listing of motors and switches see page 60.

SPECIFICATIONS

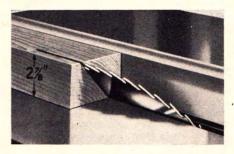
| JI Edition 10113 |
|---|
| Diameter of Arbor |
| Diameter of Saw |
| Maximum Thickness of Cut41/8" |
| Maximum Thickness of Cut at 45° tilt27%" |
| Maximum Width of Dado Cut2" |
| Maximum Width of Cut-off (l" stock)19" |
| Maximum Rip to left of blade15" |
| Maximum Rip to right of blade30" |
| Distance, front of table to center of blade.22" |
| Table, front of blade at maximum cut16" |
| Table Height34" |
| Table Size (38"x48" including two table extensions) |
| Cabinet Size |
| Miter Gage T-Slot on either side of Saw Blade. |
| Rip Fence locks front and back simultaneously with single operating handle at front of machine. |
| Removable Table Inserts. |
| Speed with 12" blade and 3450 r.p.m. motor, 3750 r.p.m. |
| Shipping Weight975 lbs. |

(For Prices See Attached Price List)

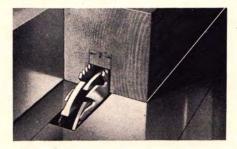
No Other Saw Gives You So Much At Such A Reasonable Price



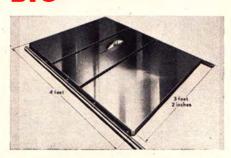
B G 41/8" Thick Rip and Cross Cut



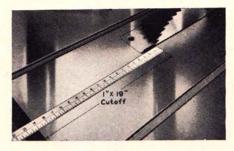
B G 2%" Thick Cut at a 45° Tilt



B C 2" Wide Dado Cut



B G 3 feet 2 inch x 4 feet Table Top



BIG 19" Table Support on 1" Thick

Features You Get With The Delta-Milwaukee 12" Tilting Arbor Saw

Big Capacity . . . will cut to the center of a 100" panel, with fence at set-over position.

Cuts 41/8" thick with 12" Dia. Saw. Highly efficient 4-belt drive.

Massive swinging trunnions widely spaced, very rigid.

Welded steel cabinet, enclosing all work mechanisms.

Cast iron table 3'2"x 4' (38"x 48") with accurately ground surface.

11/8" diameter saw arbor.

Sealed, Lubricated-for-life Ball Bearings.

Removable arbor extension with longer optional extension for moulding cutter and dado head.

Pressed steel sawdust deflector; removable clean-out panel in base with 4" spout for connection to dust collecting system.

Cast iron "Auto-set" Miter Gage.

Massive aluminum rip fence with Micro Set Pinion, simultaneous front and rear clamp.

Scale for easy, quick accurate setting of fence.

Both faces of rip fence milled for ripping.

"Super-Safe" blade guard with splitter, anti-kickback fingers . . . dust deflecting feature permits view of blade at all times.

Splitter and blade guard tilt with the blade.

Motor plate to take Standard Delta or No. 225 NEMA frame motors.

Cast Aluminum motor cover.

Perfect Alignment.

Ample space in front of blade... full 16" at max. cutting capacity.

Beautiful modern appearance.

Large, easily operated handwheels for tilting, raising and lowering of blade. Positive lock knob in center of each hand wheel.

No useless weight.

Convenient controls for safe, accurate operation.

Totally enclosed fan cooled motor—keeps cool, maintains its efficiency.

T-Slot on either side of saw blade . . holds miter gage securely, even beyond front of saw table . . . gives accurate support to work. Miter gage will not twist or fall out.

Scale . . . provides for easy, quick, accurate setting of rip fence.

Single clamp handle at front locks fence to both front and rear guide rails — Quick, Accurate, Safe.

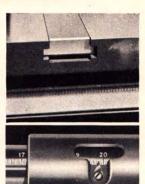
Interchangeable Arbor Extensions provide for wide range of accessories. Note how taper mounting of Arbor Extension assures accuracy.

Motor mounting ... takes either Standard Delta or NEMA frame motors; motor swingssmoothly and easily. Makes replacing of belt simple—just slip it over the yoke.

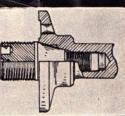
Large saw table and wingsscientifically ribbed to prevent warping. You always have a true, flat surface for accurate work.

Auto-Set Miter Gage—has individually adjustable index stops—T-bar holds securely in T-slots of table — Tapered pivot increase accuracy. Massive heavy body gives full support, will not spring.

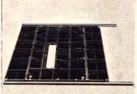
Super-Safe Guard and Splitter—really protects the user. Basket pivots with work so that blade remains covered while view is unimpaired. Tilts with blade.















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



Features That Are Yours With The UNISAW $^{\circledR}$

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

Dest unit in its field today.

Precision ground, stress-proof arbor, flange-faced after assembly.

Sealed, Lubricated-for-life Ball Bearings.

Highly efficient 3-belt "Texrope" drive.

Massive swinging trunnions.

Perfect alignment.

Double-Face, Double-Lock Rip Fence.

Perfected Raising, Lowering and Tilting

Mechanism.

Mechanism.

Big Capacity—cuts to center of 50" panel—rips 31/8" stock.

rips 3/6" stock.

Patented, precision Auto-Set Miter Gage.

Big, Perfectly True Table Surface, 27"x36".

"Point of use" Controls and Locks for Convenient, Safe operation.

Sawdust Receptacle located in Base.

Patented tubular ripping extension.

Graduated Front Guide Bar.

Accurate calibrations on all settings.

Strong, Rigid cabinet type base.

No useless weight—only 334 lbs.

Perfect Safety—completely guarded—motor switch can be locked.

Powerful, Fully Enclosed Motor.

Powerful, Fully Enclosed Motor. Beautiful streamlined appearance.

| SPECIFICATIONS | |
|---|-----|
| Diameter of arbor5/8 | ., |
| Diameter of saw blade | •• |
| Maximum depth of cut | ,, |
| Cuts to center of panel (max. width)50' | • |
| Table in front of blade on capacity cut 12' | |
| Table size | |
| Table size with wings36"x 27" | •• |
| Fence moves: | |
| To right of blade | •• |
| To left of blade | •• |
| Tilt of Blade to right45 | ° |
| Miter Gage groove in table36"x 3/4 | " |
| Table Height34 | • • |
| Overall dimensions with Wings | |
| and Guide Bars301/4"x 453/8 | • |
| Rin 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. 291 V-belts and No. 1471 Super-Safe Guard, Without Motor or 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-Safe Guard. Without Motor or Switch. 334 lbs.

No. 281 — V-Belt for 25 and 50 cycle motors (3 req.). 3/4 lb.

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

No. 291 —V-Belt for 60 cycle motors (3 req.). 3/4 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.

No. 1450—10" Tilting Arbor Unisaw for 60 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. 291 V-belts. Without Guard, Splitter, Extension Wings, Motor or Switch. 304 lbs.

304 lbs.

No. 1451—Standard Table Insert. 13/4 lbs.

No. 1451—Standard Table Insert. 194 Ibs.

No. 1455—Motor Cover, with screws. 25 lbs.

No. 1455—Side Extension Wings to make table 36"x 27" per pair. 49 lbs.

No. 1471—Super-Safe Splitter mounted Guard.

No. 1459—Mounting parts for mounting No. 1320 starter on No. 34-405 and No. 34-407.

Notors and Switches Recommended: 85-010, 87-010, 87-210; 1320, 1321.

For complete motor and switches see page 60.

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

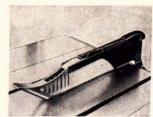
Saw blade tilts 45 degrees to right, operated by a large convenient hand wheel. Blade is raised and lowered by another hand wheel at front of machine. Dado heads, moulding cutters and many other attachments may be used. Carriage swings on trunnions that are large, heavy and strong with working surfaces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

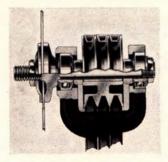
No. 1471—"Super-Safe" splitter mounted guard. 11 lbs.

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

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 ac-curately center the saw blade, cutterheads, etc. Runs in sealed, lubricated-for-life ball bearings accurately pre-loaded.



Trunnions Insure Perfect **Alignment**

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



Rigid, Double-Lock **Rip Fence**

Rip fence extends from the front clear over rear 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

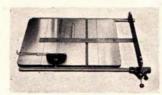


Table is True and Flat

Large saw table and extensions are scientifically ribbed to prevent warping 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 and Safe

Controls on this saw make operation fast, safe Controls on this saw make operation last, sale 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.

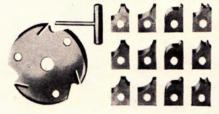
Unisaw Features Give You You Can Make Many Different Mouldings On Your More For Your Money Circular Saw With These Twenty-Seven Sets of Knives

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 5/8" 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



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 5/6" arbor. Without wrench or cutters. 3 lbs.

No. 1162—Moulding cutter table insert for 34-305, 34-307 saws. 1½ 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 cutterhead No. 1343. 1/4 lb. each.

| New No. | No. | Description |
|------------------|------------|---|
| 35-100 | | 1/2" Cove, 5/16" Quarter Round |
| 35-101 | 254 | 5/16" Cove, 3/8" Bead |
| 35-102 | 253 | 1/8" and 3/4" Quarter Round and |
| | | 1/4" Bead |
| 35-103 | 250 | 1/4" 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 (3/16" Bead) |
| 35-191 | | 3 Flute (3/16" Flute) |
| 35-192 | | 3 Bead (1/4" Bead) |
| 35-193 | | 3 Flute (1/4" Flute) |
| 35-194 | | 5 Flute (1/8" 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 | | Pgee R. H. |
| 35-211 | | l' Flute |
| 35-221 | 251 | Thumb Moulding |
| 35-222 | 252 | 1/2" Cove and 1/4" Flute |
| 35-223 35-224 | 258 | Ogee |
| 35-224 | 247 263 | 5/8" Cove |
| 33-223 | 263 | Flute Bead, Quarter Round and |
| 35-226 | 264 | Ogee Comb. Flute Bead, Quarter Round and |
| 33-220 | 204 | Ogee Comb. |
| 35-227 | 269 | Flute Bead, Quarter Round and |
| 33-221 | 203 | Ogee Comb. |
| 35-228 | 261 | Flute Bead |
| 33-110 | 201 | Trute Dead |
| | | |

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 35-194 35-228

Note: We cannot supply custom shapes.



SAW BLADES

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



Combination Blade

No. 1015—10" Combination Rip and Cross Cut Blade with \(\frac{5}{6}\)" Arbor Hole, 2 lbs.

Hollow Ground 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.

rips.

No. 1016—10" Hollow Ground Blade with 5%" Arbor Hole, 2 lbs.

PTI Blade

No. 34-802-10" diameter P.T.I. Saw Blade 5/8" diameter hole. Weight

Novelty Tooth Blade

No. 34-804—10" diameter flat ground Novelty Tooth Saw Blade with 4 cutting teeth to each raker tooth, 5%" diameter hole, 16 gauge. Weight 2 lbs.

CARBIDE TIPPED SAW BLADES

No. 34-815-8" diameter, 5%" bore, 8 teeth, 14 gage. .115 kerf, 11/2 lbs.

No. 34-816-9" diameter, 5%" bore, 8 teeth, 14 gage, .115 kerf, 2 lbs.

No. 34-817-10" diameter, 5%" bore, 8 teeth, 13 gage, .125 kerf, 2½ lbs.



No. 34-818-12" diameter, 1" bore, 8 teeth, 13 gage, .125 kerf, 31/2 lbs.

No. 34-819-12" diameter, 11/8" bore, 8 teeth, 13 gage, .125 kerf,

DADO HEAD AND INSERTS



For cutting grooves varying in width from 1/8" to 13/16" and up to either with or across grain. Made of the finest steel, carefully hardened and tempered. Includes 1/16'' inside cutter. Fits all circular saws with a 5%'' arbor.

No. 34-333—6" Dado Head, consisting of two outer blades 1/8" thick, two inside cutters 1/8" thick, one inside cutter 1/16" thick, and one inside cutter 1/16" thick. To cut grooves from 1/8" to 13/16". With 5/8" arbor hole. 31/2 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.

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.

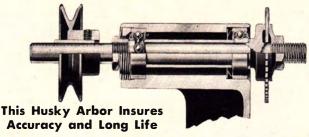
No. 1172—Tenoner complete with base plate. 31 lbs.

No. 1171—Spacing collar set (one 14" and 36" collar). ½ 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 58" Acme threads. Flanges grip blade firmly.

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 accuracy.



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 finger-no 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 guide 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.



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



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.

and ease of operation.

It's rigid, husky arbor is of special design to give complete accuracy. Extra large capacity—will rip through a 3¼" 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 3¼" 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.

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. 34-305—10" Tilting Table Circular Saw with No. 886 Cast Iron 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. 350 lbs. 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. 864 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 lbs

No. 530-V-Belt. Out. Cir. 55". ½ lb.

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

No. 886—Cast Iron Stand 24" high. 106 lbs.
No. 1163—Standard Table Insert. 1½ lbs.
No. 1165—Swing Guard with Bracket Support 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 1/2", 1/4" or 3/4" bore. 11/4 lbs.

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

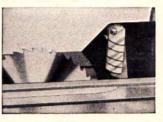
Note: For heavy duty service 2 belts are recommended. Order extra: one No. 5300 arbor pulley 5%" bore, one No. 5500 motor pulley (specify bore), and one No. 530 V-belt.

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 60.

SWING GUARD.

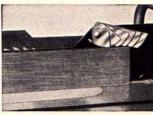
This guard No. 1165 really protects the user. Basket pivots with work so that blade remains covered while view is unimpaired.

SPLITTER
SUITS
SAW
KERF...



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

"ANTI-KICKBACK" FINGERS ADJUST TO WORK



Prevents work from kicking 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 Extra

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 novelty manufacturer and the cabinet maker where accurate work must be done at high speed and low cost. In fact, 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.

LOW 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.

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 oprations on their machines, and at savings of from 25% to 50% in time. Use one of our combination units and you will understand 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



it is set down. cadmium-plated pipe with a coupling.

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

CLAMP ATTACHMENT FOR MITER

Holds work in position to cut nar-row and wide miters accurately. For all cutting off operations where accuracy is important

see page 60.

Jointer:

Adjustable stops at 45, 90 and 135 degrees.
Cutter head has 3 knives.

No. 37-595

following parts:



SPECIFICATIONS

CATALOG LISTING

following parts:

No. 1160—10" Tilting Table Circular Saw. 196 lbs.

No. 1165—Swing Guard for Saw. 19 lbs.

No. 1166—Splitter Attachment for Saw. 5 lbs.

No. 5500—5" Motor Pulley for Saw, ¾" bore. 11¼ lbs.

No. 560 — V-belt for Saw. O.C. 58-5/16" 1 lb.

No. 560 — V-belt for Saw. O.C. 58-5/16" 124 lbs.

No. 5700—7" Motor Pulley for Jointer, ¾" bore 2 lbs.

No. 510 — V-Belt for Jointer. O.C. 52½" ½ lb.

No. 50-168—Steel Stand 76 lbs.

ACCESSORIES

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

10" Circular Saw—6" Jointer Combination Unit as shown, less motor and switch rod. Unit consists of

Blade ... 10" diameter
Rips stock ... 31/4" thick
Cuts to center of 50" panel.
Table ... 20"x 27"

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

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

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

NEW, BETTER, RUST REMOVER

A non-inflammable liquid that removes rust, cuts grease and oil from iron and steel. Also cleans copper, brass, aluminum, zinc die castings and galvaniz-ed iron.

No. 49-319 - 1 quart bottle. 5 lbs. No. 49-320 — $\frac{1}{2}$ pint bottle. $\frac{1}{2}$ lbs. No. 49-321 $-\frac{1}{2}$ gallon bottle. 7 lbs. No. 49-322 — 1 gallon bottle. 15 lbs.

Applied to any clean polished metal surface, it prevents the formation of rust or oxidation. Leaves surface polished and safely protected.

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

GRAY MACHINE ENAMEL

"Gives a Hard, Smooth Finish"

Paint your benches, tools, and shop accessories with the same attractive gray enamel used on Delta Power Tools and Accessories. Used by thousands of shop owners, this excellent quality enamel dries quickly, leaves a smooth, hard finish. It makes the cleaning of oil, grease and dust from your machine a simple operation. May be applied with either brush or spray.

| No. | Size | Shade | Ship. Wt. | |
|--------|--------|-------|-----------|--|
| 49-333 | l qt. | Med. | 5 lbs. | |
| 49-334 | l gal. | Med. | 14 lbs. | |

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

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



Many Convenient Features 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 quard 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 manufacturers.

(For Prices See Attached Price List)

No. 37-207 6" Jointer with No. 50-656 Steel Stand, No. 659 set of 3 high-speed steel knives, 2-way tilting fence with "dual control," No. 5275 Arbor Pulley, front safety knife guard, No. 661 Belt Guard, No. 560 V-belt, and No. 5700 Motor Pulley (specify bore). Without motor or switch rod. 190 lbs.

No. 37-205 6" Jointer with No. 667 Cast Iron Stand, No. 659 set of 3 high-speed steel knives, 2-way tilting fence with "dual control," No. 5275 Arbor Pulley, Iront safety knife guard, No. 560 V-belt, and No. 5700 Motor Pulley (specify bore). Without motor or switch. 238 lbs. Requires 132 Switch for single phase or DC motor.

No. 560 -V-belt, 58-5/16" out. cir. 1/2 lb.

No. 654 — 6" Jointer with No. 659 set of 3 high-speed steel knives, 2-way tilting fence with "dual control," No. 5275 arbor pulley and front safety knife guard. Without motor or switch. 124 lbs.

No. 659 — Set of 3 high-speed knives. % lb.

No. 37-808—Cutterhead Assembly complete with bearings, housings, and No. 659 set of 3 high-speed steel knives. 10 lbs.

Belt quard for use with steel stand. 9 lbs. No. 661 -

Rear knife guard. 2 lbs.

Cast iron stand, 26" high, with motor plate and belt guard. 123 lbs. No. 667 -No. 1333-

Switch Rod for use with No. 37-207. 11/2 lbs. No. 1522 - Double end 5/16" Double end 5/16" open wrench for cutterhead knife lock bar screws. 1/4 lb.

No. 5700—7" motor pulley, specify $\frac{1}{2}$ ", $\frac{1}{3}$ " or $\frac{3}{4}$ " bore. 2 lbs. No. 50-656—Steel stand, top 8"x15%"; 291/8"

high. 33 lbs.

Motors Recommended: Heavy Duty 62-610, 66-320. Medium and Light Duty, 62-110.

For complete listing of Motors and Switches see page 60.

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 fence firmly and accurately in place.

Slid in, the dual control handle loosens tilting lock nut. Fence can be tilted to any angle desired. Tightening the nut locks fence securely. When not engaged handle swings free out of way.

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

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









Rahhet cuts a full 1/2" deep can be made. Guardisinstantly removed for rabbeting and quickly placed. Front and rear guards may be locked to pre vent unauthorized removal.

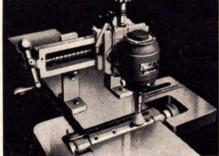


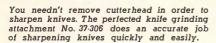
Convenient ballcrank handles provide quick, easy raising and lowering of tables. Plenty of room means no skinned knuckles. Scale at the side shows depth of cut up to 1/2".

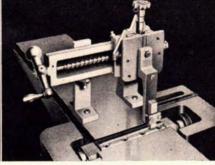


NEW 8" Jointer With Smoother, Faster, Safer Cut









Replacing the grinder with the jointing stone takes but a few seconds. You can finish the knives with the precision necessary for high quality jointing, keep knives sharp and smooth.

MOTORS AND SWITCHES

No. 1320—3-Phase Manual Starter for A.C. motors up to 2 H.P. and D.C. motors up to 1 H.P.

No. 1321—3-Phase Across the Line Magnetic Starter, rating up to 2 HP., 440 V., 60 cy. only.

No. 1329 — 3-Phase Across the Line Magnetic Starter, rating up to 2 HP., 220 V., 60 cy. only.

No. 49-314—On-and-off Toggle Switch for single phase motors. With box, 3-wire ground and power cord, plug and 2-wire motor lead wires.

No. 84-910—1 H.P., 115/230 V., repulsion-induction, A.C., 60 cy., 1725 rpm. motor.

No. 86-920—1 H.P., 220/440 V., 3-phase, A.C., 50/60 cy., 1425/1725 rpm. motor.

No. 87-120—1½ H.P., 220/440 V., 3-phase, A.C., 50/60 cy., 1425/1725 rpm. motor.

Note: Three phase switch mounting parts not required.

For complete listing of motors and switches see page 60.

(For Prices See Attached Price List)

60" Long Table — 4 Knife Cutterhead — Two Way Tilting Fence ... and Many More Outstanding Features

4-knife cutterhead mounted in sealed, lubricated-for-life ball bearings.

Cutter head rotates at a speed of 4100 r.p.m., you get 16,400 cuts per minute.

Practical cutterhead guard gives you maximum coverage of Cutter Knives at all times.

Big cast iron fence 4" high by 34" long—very rigid, helps to make accurate jointing easy.

Working surface of fence is finish ground.

Fence tilts 45° both right and left. Can be moved to any position across the table.

Rigid cast iron stand, totally encloses motor, belt and pulleys.

Chip chute facilitates controlled collection of chips—easily attached to shop dust collecting system.

Tables are big... with overall length of 60" and width of 934".

Tables are mounted on adequately long inclined ways . . . positively located and held true with a "V" way.

Tables are finish ground after assembly on base, to insure accurate alignment and work.

Rabbets up to 1/2" deep and 9" wide.

Large, heavy rabbeting arm 4" wide x 1114" long provides support for all rabbet cuts.

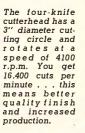
Motor mounted in base on plate with 1" range of adjustment for belt tension.

Motor mounting plate slotted to take NEMA frame or Delta 8½" frame motors.

Rear panel of stand removable for easy access to motor and other working parts.

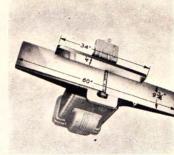
Front and rear tables each 30" long x 3¾" wide. Plenty of table in front of cutter h e a d . . . plenty of table behind cutterhead. You have table support even for the

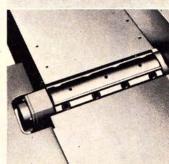
largest pieces.

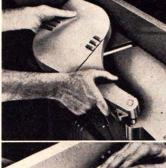




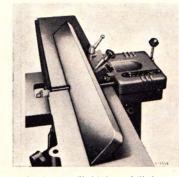
Rabbet cuts up to ½" deep and 8" wide can be made quickly and accurately. Large, heavy rabbeting arm 4" wide x 11¼" long gives ample support for all types of rabbet cuts. Handy scale shows exact depth of rabbet











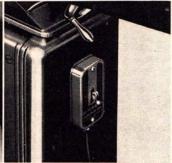
Big fence, 4" high x 34" long, tilts 45° both right and left for accurate bevel jointing. Working surface finish ground. Fence mounting base acts as rear knife quard, gives added safety.



Improved fence mounted with worm gear tilt adjustment and positive lock. Fence locks in position anywhere across the table. Rigid construction prevents twisting or warping.



Tables raise and lower independently up to $\frac{1}{2}$. Hand wheel provides easy adjustment of table. Easy to read scale at front of machine shows exact depth of cut.



You get added protection with this safety type switch No. 49-314 that can be locked with an ordinary padlock. Reduces shop accidents. Especially good for schools.

The Smoothest Running Scroll Saw You Can Buy



Specifications

| opecinications |
|--|
| Capacity, arm to saw24" |
| Thickness of cut |
| Table size |
| Table tilts45° right, 15° left, 45° front |
| Table from floor421/4" |
| Overall Height55" |
| Width15" |
| Length |
| Speeds (Variable Speed Model)650 to 1700 C.S.M.* |
| (4-Speed Model) |
| Overarm can be removed for unlimited cutting capacity with saber |
| blade. *Cutting strokes per minute |

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, 1 Saber 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 ½" bore, No. 1447 Motor Base and Bracket, No. 331 V-belt, No. 1442 Belt and Pulley Guard, 1 Saber Blade and 3 Scroll Saw Blades. Without motor or switch. 197 lbs.

No. 331—V-belt for Variable Speed scroll saw. ½ 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. 1 1/8 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. 134 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 Saw. 6 lbs. 2% lbs.

No. 1446—Variable-Speed motor pulley, only ½" bore. 2 lbs.

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

No. 50-716—Steel Stand 31 1/2" high; top 7"x 33". 55 lbs.

otors Recommended: Heavy Duty 62-110, 66-320; Medium and Light Duty 60-040. (For complete listing of motors and switches see page 60.

(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 operation.



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



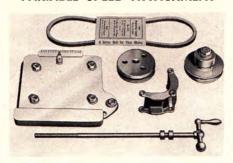
Big capacity for all iobs. Cuts up to 134" thick and the distance to the overarm is 24".



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

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 GUIDES

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 — Two Lower Guides for Scroll Saw, with post, nut and thumb screw. Blade slots .030" and .040". 1/8 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 annoyance of makeshift devices. Knurled knob expands the body of sanding attachment and tightens garnet sleeve securely. 15/16" wide, ½" thick and 2½" long. ¼" 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. ½ lb.

INDIVIDUAL BLADE GUIDES



These guides supplement the regular guide and hold-down, 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.

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 including special jaw for use with upper chuck. % lb.

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. Uses standard bulb.

MACHINE FILES

Machine Files with ¼" shank
Overall Length 3¼"

| No. 726—Square |
|--------------------|
| No. 727—Crochet |
| No. 728—Half Round |
| No. 729—Round |

No. 740—Set of above six. ½ lb......

Machine Files with 1/8" shank

| | Overall Length 31/4" |
|----------|----------------------------------|
| ₩, | No. 751—Square |
| Supe | No. 752 —Crochet |
| | No. 753—Half Round |
| • | No. 754—Round |
| 4 | No. 755—Triangle |
| 2 | No. 756—Oblong |
| (| No. 757 —Lozenge |
| V | No. 758 —Knife |
| | No. 760—Set of above eight. ½ lb |

SCROLL SAW BLADES

The proper blade for each job. Finest obtainable, 5" long with accurately spaced teeth. Properly heat treated for long life. Have \%" blank ends for fastening into chuck. 6 to a package. 1/8 lb.

| ior lastening into chuck. U to a package. 78 E. | | | | | |
|---|--|--------------|--------------|----------------------|---|
| Cat. No. | Material Cut | Thick In. | Wdth In. | Teeth Per Inch | Blade Full Size |
| 58 59 | Steel • Iron Lead • Copper Aluminum Pewter • Asbestos Paper • Felt | . 020 | .070 .070 | 32 20 | |
| 60 61 | Steel • Iron • Lead Copper • Brass Aluminum | .020 | .070 | 15 15 | ****** |
| 64 | Pewter • Asbestos Wood | .020 | .110 | 20 | |
| 65 | Asbestos • Brake Lining • Mica Steel • Iron • Lead Copper • Brass Aluminum Pewter | .028 | . 250 | 20 | |
| 77 | Wood Panels and Veneers | .010 | .048 | 18 | |
| 81 | Plastics • Celluloid Hard Rubber | .010 | . 070 | 14 | |
| 82 83 | Bakelite • Ivory Wood | .010 | .055 | 16 18 | |
| 84 | Wood Veneer Plus Plastics • Celluloid Hard Rubber Bakelite • Ivory Extremely Thin Materials | .008 | . 035 | 20 | |
| 85 | | .019 | .050 | 15 | |
| 86 | Plastics • Celluloid Hard Rubber | .019 | . 055 | 12 | ···· |
| 87 | Bakelite • Ivory Wood | .020 | . 070 | 7 | |
| 88 | | .020 | . 110 | 7 | |
| 91 | Wall Board Pressed Wood Wood • Lead Bone • Felt • Paper Copper • Ivory Aluminum | . 020 | .110 | 15 | |
| 92 | | . 020 | .110 | 10 | - |
| 93 | Hard and Soft Wood | . 028 | .187 | 10 | |
| 94 | | .028 | . 250 | 7 | |
| 95 | Pearl • Pewter | . 016 | . 054 | 30 | *************************************** |
| 96 | Mica Pressed Wood Sea Shells | .016 | . 054 | 20 | ******* |
| 97 | Jewelry • Metals Hard Leather | .020 | . 070 | 15 | ****** |
| 98 | | .020 | .085 | 12 | **** |

SABER BLADES FOR WOOD



Made of best steel, accurately hardened and set. 5" long overall. 6 to a package. % 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.

DELTA POWER TOOL DIVISION

(For Prices See Attached Price List)

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



Designed and Built to Handle Heavy, Fast Cuts..

r the cabinet shop, furniture factory, shop, sash and door company—as a of fact, any shop where accurate pro-Ideal for the cabinet shop, furniture factory,

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"x 28" and can be increased to 27"x 36" by adding the extension table. Big and husky spindle is ¾"x 3¼" under the nut with a full 3" travel. Carried on sealed, Lubricated-for-life ball bearings. Spindle is accurately ground—bearing seats diamond bored for absolute accuracy. Standard ¾" spindle easily and quickly interchanged with ½" or 5/16" spindle for 3 lip formed cutters or with ½" stub spindle for cope cutters.

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

Removable table inserts in three sizes provide

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.

Controls are conveniently grouped at front. Spindle height indicator covers full 3" travel. 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 replacement. Easily cleaned. Heavy enough to stay put yet light enough to be moved to facilitate production.

CATALOG LISTING

No. 43-205—Shaper with No. 1354 Fence, 3/4"
Spindle, and No. 1347 1/2" Spindle, Table Inserts, Starting Pin, Wrenches, Spindle Pulley, two No. 1349 Table Extensions, No. 287 V-belt and No. 5710 Motor Pulley (specify bore). Without Motor, Reversing Switch or Cutters. 340 1bs 340 lbs.

No. 1340—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

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. 983—Set of Spring Hold Downs. 2 lbs.

No. 1345— $\frac{1}{2}$ " stub spindle for cope cutters with $\frac{1}{2}$ " hole. 1 lb.

√2" hole. 1 lb.

No. 1346—5/16" spindle for 3 lip cutters with 5/16" hole. 1 lb.

No. 1348—Safety Ring Guard. 8 lbs. No. 1347—1/2" spindle for 3 lip cutters with 1/2" hole. 1 lb. No. 1349—Extension table, 8"x 27". 23 lbs.

No. 1349—Extension table, 6 x 27. 23 ibs.

No. 5710—71/2" motor pulley for 3450 r.p.m. motors. Specify Bore. 2 lbs.

No. 43-826—Long Shaper Spindle Cartridge Assembly with 3/4 x 10 R.H. thread for use on No. 1340 or No. 43-205 Shaper when only counterclockwise rotation of spindle is desired. Designed to accommodate wide cutters and make fluting and

reeding possible. Capacity under nut is 4%".

No. 43-827—Long Shaper Spindle Cartridge Assembly with 3/4 x 10 R.H. thread for use on No. 1340 or No. 43-205 Shaper where only clockwise rotation of spindle is desired. Designed to accommodate wide cutters and make fluting and reeding possible. Capacity under nut is 43%"

heters recommended: 85-080, 86-921, 87-121. 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 built into single phase motors, for 3 phase and D.C. motors order No. 1325 reversing switch. For complete listing of motors and switches see page 60.

| SPECIFICATIONS |
|---|
| Table Height34" |
| Table Size27"x 28" |
| Table Size with extensions27"x 36" |
| Table Opening Diameters634", 31/2", 3" |
| and 1%" |
| Spindle Diameter Furnished34" |
| Other Spindles Available 1/2" and 5/16" |
| Capacity, 34" Spindle (under nut)314" |
| 1/2" Spindle (under nut)21/2" |
| 5/16" Spindle (under nut)1½" |
| Spindle Travel3" |
| Spindle Speed (r.p.m.) |
| Largest table opening |
| Fence Size (each side)3¾"x 12¾"x 15/16" |
| Spindles are interchangeable. |
| |

Table is big $27'' \times 28''$ with a $\frac{3}{8}'' \times \frac{3}{4}''$ groove for miter gage or jigs. May be increased to 27" x 36" by adding extension table.

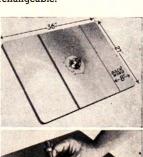
Exceptionally long 3/4" diam-eter spindle. Spindles readspindles read-ily inter-changeable for use of wide variety of cut-ters. Note re-movable table inserts in 3 opening sizes.

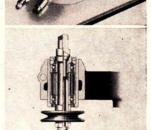


Entire mecha-nism is one unit assembled and bolted to bottom of ta-ble, nothing to get out of alignment, in-sures true running.

All controls in one group. Hand wheel for spindle adjustment . . . lock knob . . . scale showing spindle height . . . and starting switch.

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











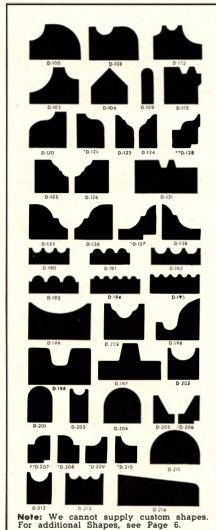
DIVISION DELTA POWER TOOL ROCKWELL MANUFACTURING COMPANY

Accessories That Add To The Usefulness Of Your Shaper

3 - LIP CUTTERS AND COLLARS



These three lip cutters offer unlimited 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 lbs.

No. 1213—Cove and Bead Cutter Set includes D-129, 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.

No. 1214—Sash and Cabinet Cutter Set 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. Packed with No. 1345 Stub Spindle Assembly and SP-10 Wrench. 3 lbs. D-205-5—Pgee Door Assembly Set with D-205,

D-206, female cutters, and D-217 Collar.

D-206-5 — Pgee Door Assembly Set includes D-205, D-206 female cutters, D-108 straight cutter 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.

SHAPER COLLAR SETS

No. 1210—Set of 7 collars from 34" to 11/8" diameter, D-142, D-143, D-144, D-145, D-171, D-172 and D-173. 34 lb.

No. 1211—Set of 6 collars from 1-3/16" to 1½" 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 1% diameter, D-149, D-176, D-177, D-178, D-179 and D-180. $1\frac{1}{2}$ 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-253 236" dia. and SR-254 136' dia. 1/3 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 of these cutters see page 6.)

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 Cutter Head. 11/2 lbs.

EXTRA SETS OF CUTTER BLADES

Description

Come in sets of three matched blades.

| 35-100 | ****** | ½" Cove, ¾" Quarter Round ¾" Cove, ¾" Bead |
|--------|----------|---|
| 35-101 | 254 | ia" Cove, %" Bead |
| 35-102 | 253 | 1/8" and 3/8" Quarter Round and 1/4" Bead |
| 35-103 | 250 | 1/4" 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 (R" Bead) |
| 35-191 | | 3 Flute (%" Flute) |
| 35-192 | ***** | 3 Bead (14" Bead) |
| 35-193 | ****** | 3 Flute (¼" Flute) |
| 35-194 | ****** | 5 Flute (1/2" Flute) |
| 35-195 | ***** | 5 Bead (%" Bead) |
| 35-196 | ***** | Wedge Tongue |
| 35-197 | | Wedge Groove |
| 35-200 | 255 | Clover Leaf Screen Moulding (9/32"x 26") |
| 35-206 | edulars. | Pgee R. H. |
| 35-211 | | 1" Flute |
| 35-221 | 251 | Thumb Moulding |
| 35-222 | 252 | ½" Cove and ¼" Flute |
| 35-223 | 258 | Ogee |
| 35-224 | 247 | %" Cove |
| 35-225 | 263 | Flute Bead, Quarter Round and Ogee Comb. |
| 35-226 | 264 | Flute Bead, Quarter Round and Ogee Comb. |
| 35-227 | | Flute Bead, Quarter Round and Ogee Comb. |
| 35-228 | 261 | Flute Bead |
| C | | E for potential size and shape of suttons |
| Dee po | 1ge 4 | 5 for actual size and shape of cutters. |

SAFETY RING GUARD



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

Ring Guard. 8 lbs.

SHAPED CUTTERS - 1/2" HOLE 14" Spindle No. 1347 needed with these cutters

| D 100 | 14" Core . v. " Quarter Dound |
|----------|---|
| D 100 | 2 Cove, 18 Quarter Mount |
| D 102 | 12" Cove, 3" Quarter Round "5" Cove, 3" Bead "4" and 3" Quarter Round, 4" Bead "4" and 4" Quarter Round |
| D - 1 U2 | and % Quarter Round, %" Bead |
| D-103 | and ½" Quarter Round |
| D-100 | 90° Flute |
| D-109 | "¼" Flute |
| | Drawer Joint |
| | Ogee |
| D. 121* | Female Sash |
| D 122 | Cal), R. H. Male |
| D-123 | O-1. T. IT Male |
| D-124 | Cal), L. H. Male |
| D-125 | Cab. R. H. Female |
| D-126 | Cab, L. H. Female |
| D-128†* | Male Sash |
| D-131 | Glue Joint |
| D-135 | Cove and Bead Moulding L. H. |
| D-136 | Cove and Bead Moulding R. H. |
| | Cove and Bead Cope R. H. |
| D 138 | Cove and Bead Cope I. H. |
| D-130 | |
| D · 190 | 3-Bead (10 Bead) |
| D-191 | 3-Flute (18" Flute) |
| D-192 | 3-Bead (¼" Bead)3-Flute (¼" Flute)3-Bead (¼" Bead) |
| D - 193 | 3-Flute (% Flute) |
| D-194 | 5-Flute (1/8" Flute) |
| D-195 | 5-Bead (%" Read) |
| D-196 | Wedge Tongue |
| D- 197 | Wedge Groove |
| D- 198 | Wedge Groove |
| D 100 | 1" Convey Edge |
| D 200 | Clover Leaf Screen Mldg. (9/32"x 13") |
| D-200 | Clover Leaf Screen Ming. (9/32 x 18) |
| D-201 | Flute |
| D - 202 | |
| D - 203 | |
| D-204 | ¾" Flute |
| D-205 | Pgee R. H. |
| D-206† | Pgee L. H. |
| D-207†* | Cove Sash L. H. |
| D-208* | Core Coch D II |
| D 200* | Cove Sash R. H. Bead Sash L. H. |
| D 210# | Dead Sasi L. H. |
| D-210 | Bead Sash R. H. |
| D-211 | 1" Flute |
| D-212 | " Bead |
| D-213 | Beaded Screen Moulding |
| D-214 | Panel Raising |
| STDAL | GUT CUTTERS 1/4" HOLE |
| | |

| SIKKIOIII GOIIEKS | _ /4 | ••• | OLL |
|-------------------|------------|--------|----------|
| D-104 | 1"x | 1%" | Diameter |
| D-105 | . 11/2"x | 1 % " | Diameter |
| D-105 | ½"x | 1 %" | Diameter |
| D-108 | 1/4″≖ | 1 45" | Diameter |
| D-127 | 3% "▼ | 145" | Diameter |
| D-129 | 8"x 2-7 | /32" | Diameter |
| D-130* | ¾"x | 1 1/8" | Diameter |
| D-139 | 1/4 "x 2-7 | /32" | Diameter |
| *For Sash work, | | | |
| | | | |

†Counterbored to fit stub spindle No. 1345. Spacina Collars for Shaper Cutters

| - P | 9 | p | |
|----------------|-------|-----------|--------|
| No. | Thick | Out. Dia. | liole |
| D-132 | 3%" | 1-5/32" | 16" |
| D-133 | 1/8" | 13/16" | 1/2" |
| D-134 | | 1-5/32" | 1/2" |
| D-140 | 1/4 " | 1 %" | 1/0" |
| D-141 | | 136" | 1/2" |
| D-142 | 36" | 34 " | 3/6** |
| D-143 | 36" | 7/A " | 1/2 " |
| D-144 | 3/2" | 1" | 1/0 # |
| D-145 D-146 | 3/8" | 136" | 1/2# |
| D-146 | 3/8" | 1 1/4 " | 1/5" |
| D-147 | 3/4 " | 1 3/8" | 1/4" |
| D-148 | 3/8 " | 11/2" | 15" |
| D-149 | 3/8" | 1 34 " | 1/2 # |
| D-150 | 3 " | 1 3/6" | 1/2 ** |
| | | 1 1/8" | 36" |
| D-155 | 1/4." | 3/4 " | 1/2" |
| D-171 | 3/8" | 13 # | 1/2 ** |
| | | 15" | 1/2" |
| D-173 | %a″ | 1 76" | 1/2" |
| D-174 | 3/8" | 1₹6″ | 1/2" |
| D-175 | 3/2 # | 1 7 " | 1/2" |
| D-176 | 3/8" | 1 %" | 1/6" |
| D-177 D-178 | 3/8" | 1%" | 1/2" |
| D-178 | 3/2 " | 1 禄" | 16" |
| D-179 | 3/8" | 1 18 " | 16" |
| D-180 | 3/8" | 1 7/8" | 1/2" |
| D-215 | 1/4 " | 1-15/32" | 1/2 " |
| D-217 | 1/4 " | 1-3/32" | 1/2" |

SAFETY CUTTER HEAD with





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 1/8" thick with a 30° clamp angle. Cutter head furnished without knives

thick with a 30° clamp angle. Cutter nead rurnished without knives.

No. 1342—Cutter head, 23¾4" high, for ¾4" spindle, with tightening block. 1½ lbs.

No. 1192—Cutter head, 23¾4" high, for ½" spindle, with tightening block. 1½ lbs.

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

3/8 lb.

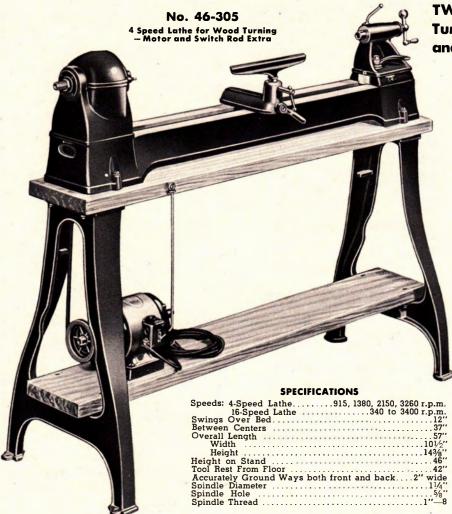
No. 1194—Two 3/4" wide x 21/2" long knives.

 $\frac{3}{8}$ lb. No. 1195—Two 1" wide x $2\frac{1}{2}$ " long knives.

 $\frac{3}{8}$ lb. No. 1196—Two $1\frac{1}{2}$ " wide x $2\frac{1}{2}$ " long knives. 3/8 lb. (For Prices See Attached Price List)

POWER TOOL DIVISION DELTA

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. 53½" long, 8½" wide, 4¾" high. Finely ground and machined ways 2" wide front and back.

MEADSTOCK: Rigid substantial cast iron body, designed to take V-belt drive from either bottom or rear. Fitted with belt guard 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 lbs.

No. 46-310

16-speed 12" Lathe with No. 1461 Tool Support Base, No. 690 4" Tool Support, No. 692 12" Tool Support, No. 932 Drive Center, No. 934 Cup Center, No. 933 3" Face Plate, No. 644 V-belt, No. 932 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". 1/2 lb.

No. 644 — V-belt, for Lathe. Out. Cir. 661/4".
3/4 lb.

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

No. 949 $-1\frac{1}{4}$ " Open End Wrench. $\frac{1}{2}$ lb.

No. 1334—Switch Rod for use with No. 46-305.

No. 1460—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 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
nuts. 20 lbs.

Motors Recommended: Heavy Duty 82-910, 86-720; Medium Duty 82-710, 86-520; Light Duty 62-610; 66-320. For complete listing of motors and switches see page 60.

(For Prices See Attached Price List)



Handy Lathe Accessories Add to Use of 12-inch Lathe

MANY FEATURES . . .



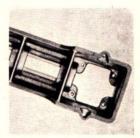
Famous Indexing Mechanism — two rows of holes in headstock pulley, 8 holes and 60 b holes and bu holes, can be engaged at will by the unique indexing pin. You can now obtain the maximum number of index divisions.



Substantial, finegrained cast iron tailstock, with sub-base and provi-sion for set-over of tailstock for center alignment and taper turning. Tailstock locks to bed with wrench conveniently located at front.



Universal Tool Support is excep-tionally handy and fast in action. Heavy and sub-stantial, it locks to bed at any posi-tion or angle with convenient lever at the front where it does not inter-fere with work.



Massive Lathe Bed m a d e of fine grained cast iron, heavily ribbed to provide the greatest rigidity and accuracy. 53½' wide, 4½" high. Finely machined ways 2' wide front and back. Massive Lathe Bed

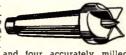


Graduated Tailstock Sleeve operated with large erated with large bail crank handle and locked in place with con-venient ball end lever. Sleeve ma-chined for No. 2 Morse Taper cen-ters. Centers self-ejecting.



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 Center for 12" Lathe. Fits any lathe headstock with No. 2 Morse Taper



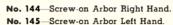
Hole. Has replace-able center pin and four accurately milled teeth. 3/8 lb.

No. 939-60-degree plain center for metal turning on 12" lathe. Fits

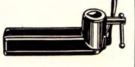


any lathe headstock with No. 2 Morse Taper hole. Hardened and ground. 3/8 lb.

Screw-on arbor with 1/2" shaft for grinding wheels, buffing wheels, wire brushes, etc. Flanges trued for accuracy. For 1" dia. 8 thread shaft. 1 lb.

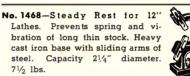


No. 1461—Tool support Base for 12" Lathe. Has V-shaped hole for 1/2" to 1" diam eter shanks, with universal locking mechanism. 5 lbs.



No. 692-Standard Tool Support. 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, 13/4 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 V_2 " diameter, $1V_8$ " long. Enables use of all attachments with V_2 " bore

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.



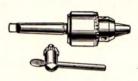
No. 934--Cup Center for 12" Lathe. Fits any tailstock with No. 2 Morse Taper hole. Has replaceable center pin. Hardened and polished. 3/8 lb.



No. 940 — Screw Center for 12"



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 support. 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 face plate work. 3 lbs-

No. 694-24" Tool



Support for ex-tra long turn-ings. Has two 1" diameter shanks. This rest requires an extra tool support base No. 1461 for lathe on which it is used. 7 lbs.

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.



No. 937—6" Face Plate for large face plate work on the 12" Lathe. Has special thread to fit both right and lefthand threaded spindles. Used either end of spindle. For spindle with 1"-8 thread. 3 lbs.



No. 4005—Buffing wheel, for polishing plated parts and cleaning and buffing metal parts of all kinds. 6" diameter, 1/2" wide with 1/2" hole to fit arbor. 1 lb.



6" diameter, high-quality, fast cutting grinding wheel. $\frac{1}{2}$ " wide with $\frac{1}{2}$ " hole to fit No. 144 and 145 arbor. Handy to have in any shop. 1% lbs.

No. 3101—Grinding wheel, grit.



No. 3102—Grinding wheel. 60 grit.

(For Prices See Attached Price List)



ROCKWELL MANUFACTURING COMPANY

Lathe Accessories and Attachments Increase Usefulness of Lathe

COLLET CHUCK FOR LATHE — Safe — Accurate!



Ideal for the School and Pattern shop where Safety 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... quick and easy to use... 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. 46-956-Collet Chuck for Lathe, made of chrome plated, rust-proof alloy, 2" capacity, 1"-8 thread, with three double end collets $\frac{1}{2}$ " and $\frac{5}{8}$ ", $\frac{3}{4}$ ", and $\frac{1}{1}$, $\frac{1}{4}$ " and $\frac{1}{2}$ ". 4 lbs.

No. 46-957—Steel Collet Chuck 2" capacity, 1''.8 thread, with three double-end collets 1/2'' and 5/8'', 3/4'' and 1'', 1/4'' and 11/2'' and Jacobs Chuck key. 4 lbs.

No. 46-958—Steel Collet Chuck 2" capacity, $1\frac{1}{2}$ ".8 thread, with three double-end collets $\frac{1}{2}$ " and $\frac{5}{6}$ ", $\frac{3}{4}$ " and $\frac{1}{1}$, $\frac{1}{4}$ " and $\frac{1}{2}$ ", and Jacobs Chuck key. 4 lbs.

No. 1490 BALL BEARING CENTER



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

No. 1490—Ball Bearing Center with three replaceable centers and wrench. 1½ lbs.

CAST IRON BENCH **LEGS FOR LATHE**

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

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



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. 121l" Skew Chisel |
|-------------------------------------|
| No. 122 |
| No. 123 |
| No. 124 |
| No. 125 1/8" Parting Tool |
| No. 126 |
| No. 127 ½" Spear Point |
| No. 128 1/2" Round Nose |
| No. 130Set of above 8 tools. 6 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

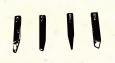
The holder for boring bars and tool bits is an extremely handy tool and many uses can be found for it. Holds both boring bars and square 1/4" bits. Two holes in holder facilitate holding of the tool. Made of tool steel, case hardened.



No. 46-963—Holder for Boring Bar and Tool Bits. 1½ 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"x1½", roughing, finishing, right corner and left corner. 1 lb.

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. Conie 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 woodturning 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. 46-801½" | Square Nose. | 1 1/2 | lbs. |
|-----------------|--------------|-------|------|
| No. 46-802 ½" | Round Nose. | 1 1/2 | lbs. |
| No. 46-803 1/4" | Square Nose. | 11/2 | lbs. |
| No. 46-804 | Round Nose. | 11/2 | lbs. |

BUFFING COMPOUND KIT



This efficient kit allows you to polish all types of material on your 23-603 basic head unit. Consists of four different buffing compounds and full 1/2" buffing wheel made for home use.

No. 4003—Buffing Kit of Compounds and Wheel. No. 4004—Box containing four Buffing Compounds only without Wheel.

MITER GAGE for SANDING TABLE



Miter Gage provides accu-



SANDING DISK

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, 81/2" dia. (1 doz.) 2 lbs.

No. 46-817-Fine No. 80 Grit Garnet paper disk, 81/2" 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—1¾"x 2" Sanding Drum with No. 2
Morse Taper Shank.
1¾ lbs.



See page 6 for sanding sleeves No. 831, 832, 833, 836, 837, and 838.

SANDING TABLE FOR LATHE



For finishing, sanding plain or compound miters, boring and routing work. Supported both front and back, table raises and lowers to suit needs. Has graduations to show angle of tilt. A 3/16" x ½" slot takes the No. 34-903 Miter Gage.

No. 49-948-—Sanding Table, complete with adjustable Bracket and Clamps, for 11" and 12" Lathe. 15 lbs.

Accessories and Attachments For All Shops



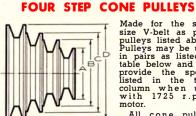
Designed to make perfect contact with the side of the V-groove, these A section V-belts will transmit maximum horsepower with minimum slip. Cords are saturated with pure liquid rubber, imbedded in special rubber stock which resists fatique and carries off heat.

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. | Out. | Тор |
|---------|---|----------------|
| No. | Cir. | Width Thick |
| 271 | 25" | Y6" \$2" |
| 272 | 28" | 18 32 |
| *281 | 28" | 16 32 |
| 49-103 | 28'' | 13" 32" |
| ×49-150 | 281/4" | 32 32 |
| *291 | 29" | 9 11 9 11 |
| 30-102 | 29" | 13. 2 |
| 49-105 | 30" | 32 32 |
| 284 | 3076" | 17" "2" |
| 287 | 3015 | 16 32 |
| 273 | 3113" | 16" 32" |
| 49-106 | 30 (著" 31 { } 3" 32" | 9 9 |
| 49-153 | 34" | 16 32 |
| 331 | 351/8" | |
| 49-152 | 36" | 18 32 |
| 340 | 36" 36½" | 16 32 |
| 355 | 381/2" | 16 32 |
| 49-115 | 381/2" 391/2" 397/8" | 9 32 |
| 387 | 207/2" | 16 32 |
| 49-154 | 40" | 16 32 16 32 |
| 410 | 42" | 16 32 |
| 430 | 44" | 32 32 32 |
| *289 | 46" | 32 32 11 |
| 453 | 47 18" | 16 32 |
| *294 | 51" | 16 32 |
| 49-142 | 51 5 " | 16 33 |
| 501 | 51 18 " 515/8" | 32 32 |
| 510 | 527/8" | 16, 32 |
| 520 | 5416" | 32 32 |
| 530 | 54½" 55" 56¾" | 16 32 |
| 49-144 | 563/." | 16 32 |
| 49-173 | 57" | 32 32 |
| 30-136 | 575/8" | 19 35 |
| 560 | 500" | 16 32 |
| ±49-140 | 58 %" 593/8" 593/8" | 16 33 |
| 49-172 | 503/4" | 16 32 |
| 49-1/2 | 60" | 9 4 32 |
| 49-174 | 60'' | 16 53 |
| 583 | | 19 19 |
| 588 | 61 12" | 16 52 |
| 595 | | 1d 32 |
| 521 | 61 \\\\\\\\\\\\\\\\\\\\\\\\\\\\\\\\\\\\ | 16 32 |
| 341 | 029/4 | 16 32 |

Available in matched pairs. *Available in matched sets of three. Available in matched sets

750



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". 5%" and 3¼" bores. 5%" and 3¼" bores have a 3/16 keyway. ½" bore furnished unless otherwise keyway. ordered.

No. 718— $1\frac{1}{4}$ lbs. No. 932-2 lbs. No. 720-13/4 lbs. No. 985-2 lbs.

| Pulley No. | Pulley (outside) Dimensions — Inches | | | |
|------------|--------------------------------------|-------|-------|-------|
| Pulley No. | A | В | С | D |
| 718 | 1.750 | 2.230 | 2.700 | 3.150 |
| 720 | 3.150 | 3.620 | 4.060 | 4.500 |
| 932 | 2.500 | 3.156 | 3.875 | 4.500 |
| 985 | 2.156 | 3.109 | 4.250 | 5.250 |

| 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 | | | | | | |

(For Prices See Attached Price List)

V-BELT PULLEYS



For A section V-belts, Safety disc type—no spokes. Have 5/16" hollow head set screw, $\frac{5}{8}$ " and $\frac{3}{4}$ " bores have a $\frac{3}{16}$ " keyway. All sizes can be furnished in $\frac{1}{2}$ ", $\frac{5}{8}$ " and $\frac{3}{4}$ " bores. $\frac{1}{2}$ " bore furnished unless otherwise specified.

Maximum bore available on Nos. 5200 to 5300 is 3/4".

| No. | Diameter | | | | | | | | | |
|------------------|----------|--|--|--|--|--|--|--|--|--|
| 110. | | | | | | | | | | |
| 5200 | 2" | | | | | | | | | |
| 5225 | 21/4" | | | | | | | | | |
| 5250 | 21/2" | | | | | | | | | |
| 5275 | 23/4" | | | | | | | | | |
| 5300 | 3'' | | | | | | | | | |
| 5350 | 31/2" | | | | | | | | | |
| 5400 | 4" | | | | | | | | | |
| 5450 | 41/2" | | | | | | | | | |
| 5500 | 5" | | | | | | | | | |
| 5550 | 51/2" | | | | | | | | | |
| 5600 | 6" | | | | | | | | | |
| | | | | | | | | | | |
| 5650 | 61/2" | | | | | | | | | |
| 5700 | 7" | | | | | | | | | |
| *5710 | 71/2" | | | | | | | | | |
| 5800 | 8'' | | | | | | | | | |
| 6100 | 10" | | | | | | | | | |
| 6200 | 12" | | | | | | | | | |
| *3/4" bore only. | | | | | | | | | | |

MANY USES FOR LAMP ATTACHMENT

For use on the drill press, band saw, scroll saw, or other 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 standard 15 or 25 watt bulb.

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' lengths.

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-aligning 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 lubri-cated. Made for 3/4" shaft-



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

34" SHAFT COLLARS



These shaft collars are of steel, with ¾" bore to fit line shafting. Equipped with special 15" x 15" hollow head set screws. Used to keep shaft in proper position lengthwise, and at side of loose pulleys.

34" 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", 5/8" or 3/4". Specify bore when ordering.



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

Catalog



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 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 glue dries. Ideal for any shop where much sanding is done.

No. 4017—Delta Sanding Kit containing 1 can of adhesive, one can of fine abrasive, 1 can of coarse abrasive and instructions. 4 lbs.

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 clean-er and easier.



No. 4051-Gum and Pitch Remover. 8 oz.

STEEL STANDS

| No. | For Use With | Top | Height |
|--|-------------------------------|--|---|
| 50-168 50-406 50-432 31-441 50-656 50-716 50-821 50-891 | Deburring Machine. 6" Jointer | 16"x30" 8"x16" 12½"x16½" 16½"x26¼" 8"x16" 7"x33" 12½"x16½" 8"x16" | 263/8" 29" 311/2" 311/2" 29" 311/4" 24" |

RUBBER FEET FOR STEEL STANDS

Rubber feet provide smoother, quieter operation of ma-

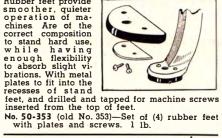
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WRENCHES AND **ALLEN KEYS**



| lo. | Description |
|-----|--|
| 92. | Allen Key, $W = 5/32''$ with $4\frac{3}{4}''$ metal handle |
| 94 | Allen Key, W = 5/32" |
| 42 | 34" C. I. Box Wrench |
| 49 | 114" Forged Open End |
| 20 | 5/8" Hex. closed, 1-1/16" Stamped Open End, |
| | 3/8" and 1/2" Shaper Spindle Holes |
| 21 | Allen Key for Moulding Cutter Heads |
| | W = 3/16'' |
| 22 | Double end 5/16" Forged open end |
| 23 | 5/8" and 11/16" double end box wrench |
| 24 | 9/16" and 3%" Stamped double end box |
| 25 | 5/8" closed, 7/8" Stamped open end |
| 26 | 7/16" and 9/16" Stamped double end box. |
| 27 | 3/8" C. I. box wrench |
| 29 | 1/2" Hex. Socket Wrench |
| 30 | Allen Kerr W = 1/4" |
| 31 | Allen Kev $W = \%$ ". |
| 32 | Allen Key, W = 1/4" |
| 33 | Allen Key, W = 7/32" |
| 34 | Allen Key W = 1/8" |
| 35 | Allen Key, W = 3/16" |
| 36 | Allen Key, W = 5/16" |
| 38 | 5/8" and 3/4" Stamped double end box |
| | |

POWER TOOL DIVISION DELTA



You Get Correct Driving Power With Delta-Milwaukee Motors

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 double 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.

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-an-off toggle switch with box, motor lead wire and connectors. For use on No. 28-205, 28-305, 31-506, 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 switch 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.

No. 49-331—Single pole toggle switch, single hole mounting, for 1/2 H.P. 115-230 volts, A.C. motor.

No. 49-354 - Toggle switch, replacement, for No. 62-650 motor.

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



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.



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.

1320 3-phase across-the-line magnetic starter, rating 2 H.P., 440

No. 1321—3-phase across-the-line magnetic starter, rating 2 H.P., 550 V., 60-cycle only.
No. 1323—3-phase across-the-line magnetic starter, rating 2 H.P., 550 V., 60-cycle only.
No. 1329—3-phase across-the-line magnetic starter, rating 2 H.P., 220 V., 60-cycle only.





1327

0 o d

1459



Mounting Parts

No. 1322—Mounting brackets and screws to mount manual starters 1320 and 1328 and magnetic starters 1321, 1323 and 1329. Used on all steel stands and

drill presses.

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.

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.

1 H.P. single phase and D.C. large frame motors. No. 49-307—No. 16 gage 2-wire cord for 1/3 H.P. single phase and D.C. small frame motors.

No. 49-309—No. 14 gage 3-wire cord with ground wire for single phase large frame motors.

No. 49-310—No. 16 gage 3-wire cord with ground wire for single phase small frame motors.

Armoured Cable

1119

No. 49-315—3-wire Armoured Cable connection 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

| a . | | 6" Fra | me Mo | tors, ½" Sh | aft | 0 0 | |
|---|--|---|---------------------------------|--|---|---|---|
| Cat. No. 62-110 \$462-180 \$462-210 62-610 66-320 *66-321 *68-110 *68-120 *68-320 | Type Cap. Cap. Cap. 3 Ph. Co. Co. Co. Co. Co. | H.P. | Cur. AC AC AC AC AC AC DC DC DC | Voltage 115/230 115/230 115 115 115/230 220/440 115 230 115 230 | Cycles 60 60 60 60 50/60 50/60 | | Sh. W Lbs. 35 30 39 39 31 33 30 30 38 |
| | | 6" Fro | me Mo | tors, ¾" Sh | aft | | |
| ▲62-250 ▲62-650 | Cap. | 1/2 | AC AC | 115/230 115/230 | 60 60 | 3450 1725 | 38 38 |
| | | 8½" F | rame M | otors, 3/4" S | haft | | |
| 82-710 82-910 84-910 86-520 86-720 86-921 86-922 87-120 *88-510 *88-511 *88-521 *88-710 *88-720 | Cap. Cap. R. I. 3 Ph. 3 Ph. 3 Ph. 3 Ph. 3 Ph. C. D. C. D. C. D. C. | 1 | AC AC AC AC AC DC DC DC DC | 115/230 115/230 115/230 220/440 220/440 220/440 220/440 220/440 115 230 115 230 | 60 60 50/60 50/60 50/60 50/60 50/60 | 1725 1725 1725 1425/1725 1425/1725 1425/1725 2850/3450 960/1140 1425/1725 1725 1725 1140 1140 1725 | 66 76 84 58 59 68 74 680 70 70 70 82 82 |
| | No. | 225 NE | MA Frai | me Motors, | 1" Shaft | | |
| ▲97-320 *†97-420 | 3 Ph. 3 Ph. | 3 3 | AC AC | 220/440 220/440 | 50/60 50/60 | 1425/1725 1425/1725 | 133 133 |
| | 81/2" | Frame, | for Wo | od Shaper, | 3/4" Sha | ft | |
| 85-080 86-921 87-121 | R. I. 3 Ph. 3 Ph. | 1 1 1 ½ | AC AC | 115/230 220/440 220/440 | 60 50/60 50/60 | 3450 2850/3450 2850/3450 | 85 85 85 |
| No. | 225 NEMA | Frame | , for 12 | " Tilting A | rbor Sav | v, 1" Shaft | |
| 498-111 498-321 | 1 Ph. 3 Ph. | 3 5 | A C AC | 115/230 220/440 | 60 60 | 3450 3450 | 145 145 |
| | 8½" Fran | e, for | 10" Tilt | ing Arbor S | 5aw, ¾" | Shaft | |
| †°85-010 †87-010 87-210 | R. I. 3 Ph. 3 Ph. | 1 1 1½ | AC AC AC | 115/230 220/440 220/440 | 50/60 50/60 | 1725 1425/1725 1425/1725 | 85 7 0 80 |
| * Motors no | t carried in | tock. | ∆ Single | shaft motors | B. | | |
| | osed motor. | | from n and 8- | notor to swit ft. power co | ch, on-and rd and pl | - | |
| °Special Do | uble Pole, Or | and Of | Switch | furnished wit | h motor. | ■ Without sv | vitch. |

Double Pole, On and Off Switch furnished with motor. 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 to cancellation

SWITCH RODS PROVIDE FINGER-TIP CONTROL



For Use On 1330 ... 34-307 1331 ... 14" Drill Presses 1332 ... 17" Drill Presses 1333....37-207

No. For Use On

. 28-207; 28-307; 31-505; 37-595; 1334... 46-305; and wood top benches

31-442. Deburring machines.

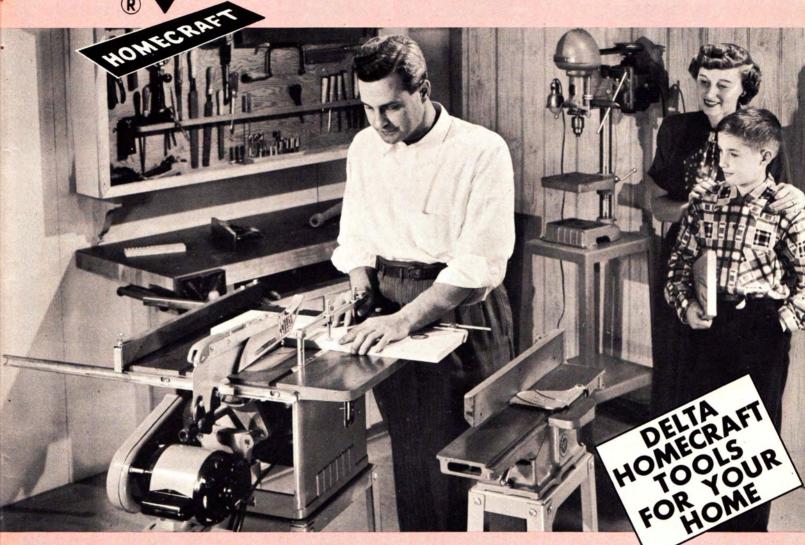


DELTA POWER TOOL DIVISION

Rockwell manufacturing company

400 N. Lexington Ave., Pittsburgh 8, Pa.





There are fine Delta tools for your home workshop, too...DELTA HOMECRAFT TOOLS.

For a restful, relaxing evening, few things can top working with your hands. Besides giving your creative instincts a little work out, there is something about wood shavings and the fresh smell of sawdust that gets down in there and unwinds the tension you've built up during a long, rough day.

"Doing-it-yourself" is a big boost to your budget. Delta Homecraft tools will produce as fine a piece of repair or home improvement work as you care to turn out. The accuracy is built into the power tools themselves, and it's there to stay. Quality control is exactly the same for both Delta Industrial Tools and Delta Homecraft Tools.

If you have space in your basement or utility room—there are the fine individual Delta Homecraft tools of your choice. If you are crowded—the revolutionary new Deltashop can be your compact, basic one-motor shop.

Your own shop of Delta Homecraft tools will be a low-cost, solid investment. Take a minute and look through these pages.

8" TILTING ARBOR **CIRCULAR SAW**

Big Capacity . . . Rugged Construction . . . a Real Leader



This is the finest circular saw made for the home workshop market. It is the basic tool for every shop. It has accurate calibrations on machine settings — cuts to centers of 48" panels — stock 2-1/4" thick. Another big feature is the large 1-9/16" capacity on bevel cuts. Large bearing surface. A top value for the man who insists on quality.

Specifications:

Diameter of Arbor 5/8"... Diameter of Saw 8"... Maximum Thickness of Cut 2-1/4"... Maximum Thickness of Cut 2-1/4"... Maximum Thickness of Cut at 45° Tilt 1-9/16"... Maximum Width of Dado Cut 13/16"... Blade Tilt 45°... Table in Front of Blade on Capacity Cut 11-5/8"... Maximum Rip to Right of Blade 24"... Table Working Height on Steel Stand 34-1/2"... Table Size 22" deep by 15" wide... Table Size with Extensions 22" deep by 25" wide... Fence 24-7/8" long by 2" high ... Speed 3850 r.p.m. with Standard 1725 r.p.m. Motor... Overall Dimensions 17-1/2" high by 37-1/2" wide by 32" deep ... Sealed, Lubricated for Life Ball Bearings.

Catalog Listing

BASIC MACHINE - includes 8" tilting arbor saw with rip fence, rip fence guide bars, No. 864 "auto-set" miter gage, No. 325 8" combination blade, No. 34-961 standard table insert, arbor pulley and motor cord. 103 lb. (Note: miter gage, blade, and insert can be ordered separately for replacements; use catalog numbers.

Catalog No. 34-500

Required Accessories for 34-500 Saw

Heavy duty 3/4 HP, 115 v., 60 cycle, 3450 r.p.m. motor. Cat. No. 62-253

2-1/2" motor pulley for 3450 r.p.m. motor; specify 5/8" bore. Wt. 1/2 lb. Cat. No. 5250

V Belt for 3450 r.p.m. motor; 36" O.C.; 1/2 lb. Cat. No. 49-152

Medium duty 1/2 HP, 115 v., 60 cycle, 1725 r.p.m. motor Cat. No. 62-653

5" motor pulley, for 1725 r.p.m. motor; specify 5/8" bore. Wt. 1-1/4 lb. Cat. No. 5500

V Belt for 1725 r.p.m. motor, 40" O.C., 1/2 lb. Cat. No. 49-154

Other Accessories for 34-500 Saw

Handy steel stand gives front support, brings circular saw to convenient working height. Top dimensions 15" x 15"; height 21-1/2". Wt. 50 lb. Cat. No. 50-810

Set of 4 rubber feet for steel stands, with plates and screws for mounting. Wt. 1 lb. Cat. No. 50-353

Set of 2 table extensions, each 22" x 5". Wt. 22 lb.

Cat. No. 34-964

Safety belt guard. Wt. 8 lb. Cat. No. 34-965

Splitter mounted guard with anti-kickback fingers. Wt. 10 lb. Cat. No. 34-966

"Super Safe" Blade guard and splitter with anti-kickback fingers. Wt. 12 lb. Cat. No. 34-967

Special table insert for use with moulding cutterhead; Wt. 2 lb. Cat. No. 34-962

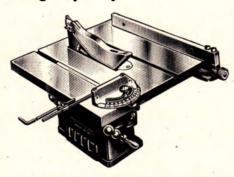
Special table insert for use with dado head. Wt. 2 lb.

Cat. No. 34-963

Clamp attachment for miter gage. Allows you to clamp work tightly and securely. Screws onto miter gage quickly and easily. Wt. 2-1/4 lb. Cat. No. 865

8" TILTING TABLE CIRCULAR SAW

Big Capacity at Low Cost



Here is a saw that gives you big saw results at small saw cost. Pin point accuracy on all saw cuts. Ideal for use in home workshops home repairs.

Specifications:

Diameter of Saw Blade 8"... Maximum thickness of Stock Cut 2-1/4"... Rips to center of 30" panel ... Table in Front of Saw Blade 6-1/4"... Table Size 15" x 18"... Tilt of Table to Right 45°... Diameter of arbor 5/8"... Overall dimensions 21" long by 15" wide by 16-1/4" high. Miter Gage Swivels Right and Left 60°

Catalog Listing

BASIC MACHINE — 8" tilting table circular saw complete with rip fence, No. 34-903 miter gage, 2-1/2" arbor pulley, saw guard, splitter, anti-kickback fingers and No. 325 8" combination blade. Wt. 75 lb. (Note: miter gage and blade can be ordered separately; use catalog

Catalog No. 34-110

Required Accessories for 34-110 Saw

Medium duty 1/2 HP, 115 v., 60 cycle 1725 r.p.m. motor

Cat. No. 62-653

5" motor pulley for 1725 r.p.m. motor (specify 5/8" bore). Wt. 1-1/2 lb. Cat. No. 5500

V Belt, 61-13/16", O.C. for use with 1725 r.p.m. motor.

Cat. No. 595

Other Accessories for 34-110 Saw

Steel stand, 12-1/2" x 7"; 29" high. Wt. 29 lb. Cat. No. 50-329

Switch rod for use with stand, Wt. 1-1/2 lb. Cat. No. 1330

Special table insert for use with moulding cutter head. Wt. 1 lb.

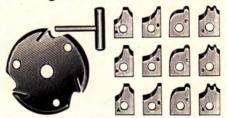
Cat. No. 34-906

Special table insert for use with dado head. Cat. No. 34-905

GENERAL ACCESSORIES FOR CIRCULAR SAWS

With proper accessories the Saw Becomes a Many-Purpose Tool

Moulding Cutterhead and Knives Set-



This popular accessory enables the saw owner to make any shape moulding, picture frames, screens, door trim, etc. A set of accurately ground knives is locked into the head. Used on all Delta Homecraft Circular Saws.

Moulding cutter set with heavy-duty steel head, 4 sets of 3 knives ground to a keen edge, special wrench. Wt. 5 lbs.

Cat. No. 34-813

(For individual knives, see page 45)

Accurately Ground Saw Blades

Made of the finest alloy steel with properly sharpened teeth, properly tempered — real production blades that will give you a lot of service. All are 8" diameter, have 5/8" arbor hole.

Cat. No. 334 — Rip Blade Cat. No. 335 — Cross-Cut Blade Cat. No. 325 — Combination Blade Cat. No. 326 — Hollow Ground Blade

Cat. No. 34-803—Novelty tooth type combination blade. Flat ground; 4 cutting teeth to each raker tooth

Dado Head set—to cut grooves accurately and easily

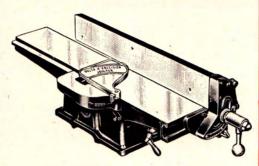
This Dado Head cuts grooves fast and accurately with a variance in width from 1/8" to 13/16" and up to 1-1/4" deep. It is made of the finest steel, carefully heat treated and tempered. 5/8" arbor hole. Set consists of outside blades and 5 center rakers. Wt. 3-1/2 lbs.

Cat. No. 34-334



DELUXE 4" PRECISION JOINTER

Planes Any Piece Of Wood Up To 4" Wide — Smoother And Faster Than By Hand



This sturdy 4" Jointer eliminates the bother of hand planing. The tables are finished through a method that assures perfect line-up—tables are individually adjustable—a super-safe guard protects knives completely—fence can be tilted left and right 45°. This is the finest Jointer made for the home workshop.

Specifications:

Capacity — 4" wide . . . Rabbet — 1/4" deep . . . Fence tilts right and left 45° . . . Adjustable stops 45° , 90° , 135° . . . Overall fence dimensions $21 \cdot 1/2$ " x $3 \cdot 1/4$ " . . Number of knives in cutter head 3 . . . Table length overall $27 \cdot 1/4$ " . . . Overall dimensions $9 \cdot 1/2$ " high x 32" long x 12" wide . . . Sealed-for-life ball bearing.

Catalog Listing

BASIC MACHINE — includes 4" Lubricatedfor-Life ball-bearing Jointer, super-safe guard, accurately ground fence with the famous Dual-Control Handle and No. 37-806 Jointer head with set of 3 high speed knives. Wt. 75 lbs.

Catalog No. 37-290

Required Accessories for 37-290 Jointer

Heavy duty 1/3 HP, 115 v., 60 cycle, 1725 r.p.m. ball bearing motor.

Cat. No. 62-413

Medium duty 1/3 HP, 115 v., 60 cycle, 1725 r.p.m. bronze bearing motor.

Cat. No. 60-013

V-belt, for 60-013 and 62-413 motors, 58-5/16"

Cat. No. 560

6-1/2" motor pulley, 1/2" bore for 1725 r.p.m. motors.

Cat. No. 5650

Other Accessories for 37-290 and 37-110 Jointers

Steel Stand with dust chute, 29" high, table 12-1/2" x 7", 31 lbs.

Cat. No. 50-304

Set of (4) rubber feet for steel stand, with plates and screws for mounting. Wt. 1 lb.

Cat. No. 50-353

Jointer cutter head complete with high-speed knives and lubricated-for-life ball bearings, 8 lbs. (included with machine).

Cat. No. 37-806

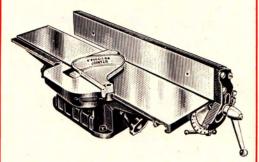
Extra set of three high speed steel knives for No. 37-290 and 37-110 jointers, 1/2 lb.

Cat. No. 37-802

Switch rod for use with stand, 1-1/2 lbs. Cat. No. 1333

4" PRECISION JOINTER

Does Finished Work Economically



Here's a 4" Jointer economically priced. It rabbets up to 1/4" deep — will plane any board up to 4" wide. The fence is accurately ground — ribbed for rigidity. This jointer is built expressly for the home workshop... big enough to perform your home repair jobs — yet small enough for easy handling.

Specifications:

Capacity — 4" wide . . Rabbet — 1/4" deep . . . Fence tilts right and left 45° . . . Overall fence dimensions 20" x 3" . . Adjustable stop at 90° . . 3 Knives in cutter head . . Table length 24-3/8" . . . Overall dimensions — 8-1/8" high x 28-1/8" long x 9-3/4" wide . . Sealed, lubricated for life ball bearings.

Catalog Listing

BASIC MACHINE — includes 4" lubricated-forlife ball bearing Jointer, accurately ground fence; No. 37:806 Jointer head with set of three high speed steel knives, spring back safety guard. Wt. 68 lbs.

Catalog No. 37-110

Required Accessories for 37-110 Jointer

Medium duty 1/3 HP, 115 v., 60 cycle, 1725 r.p.m. bronze bearing motor with 1/2" shaft. Cat. No. 60-013

Heavy duty 1/3 HP, 115 v., 60 cycle, 1725 r.p.m. ball bearing motor.

Cat. No. 62-413

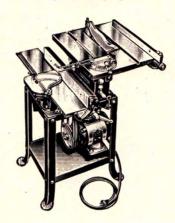
V-belt for 1725 r.p.m. motors, 66-1/4" O.C. l lb.

Cat. No. 644

6-1/2" Motor pulley with set screw for motor shaft (specify 1/2" or 5/8" bore). 1-1/2 lbs. Cat. No. 5650

CIRCULAR SAW AND JOINTER COMBINATION

Two Tools On One Stand One Motor



Nothing like it—the most useful time and space saving combination you've ever seen! This double-duty helper both saws and planes. With this combination you do the two most basic work shop jobs—no time wasted in change over. You saw lumber to size and plane the piece without moving to another machine.

There isn't any way to get more for your money. Two machines—one bench—one motor.

Catalog Listing

BASIC MACHINE — includes No. 34-110, 8" tilting table circular saw, No. 37-110, 4" Jointer; No. 50-307 steel stand with Jointer chute, No. 5500, 5" motor pulley with 5/8" bore, No. 5650, 6-1/2" motor pulley with 5/8" bore; No. 49-142, V-belt for Jointer; No. 49-144, V belt for saw. (Note: individual machines and parts can be ordered separately. Use catalog numbers.) Wt. 200 lbs.

Catalog No. 37-510

Required Accessories for 37-510 Combination

Medium duty 1/2 HP, 115 v., 60 cycle, 1725 r.p.m. ball bearing motor with 5/8" shaft.

Cat. No. 62-653

Other Accessories for 37-510 Combination

Set of 4 rubber feet for steel stands, with plates and screws for mounting. Wt. 1 lb.

Cat. No. 50-353

Switch rod for use with stand. Wt. 1-1/2 lbs. Cat. No. 49-380

11" DRILL PRESS

Drill, Mortise, Rout, Carve, Shape, Grind with this Many Purpose Tool



There's nothing quite like this drill press for job flexibility. It will do so many jobs for the beginner that it's a "must" for every work shop.

Specifications:

Table $8'' \times 8'' \dots$ Base table $6'' \times 7-3/4'' \dots$ Column diameter $1-7/8'' \dots$ Spindle to table $11'' \dots$ Spindle to base $14-3/8'' \dots$ Spindle travel $3-5/8'' \dots$ Capacity in iron $1/2'' \dots$ Overall dimensions 33-3/4'' high \times 11-3/4'' wide \times 19-1/4'' deep \dots Speeds 700, 1250, 2400, 4700 r.p.m.

Catalog Listing

BASIC MACHINE — includes 11" Drill Press, No. 972 1/2" capacity Jacobs Chuck Spindle, No. 340 V-belt and No. 985 Motor pulley 1/2" bore. Wt. 82 lbs. (Note: Jacobs Chuck, Spindle, V-belt and Motor Pulley can be ordered separately, see price list.)

Catalog No. 11-120

Required Accessories for 11-120 Drill Press

Heavy duty 1/3 HP, 115 v., 60 cycle, 1725 r.p.m. ball bearing motor.

Cat. No. 62-413

Medium duty 1/3 HP, 115 v., 60 cycle, 1725 r.p.m., bronze bearing motor.

Cat. No. 60-013

Other Drill Press Accessories

Handy steel stand, 16-1/2" x 12-1/2" table, 31-1/4" high, 52 lbs.

Cat. No. 50-821

Lamp attachment, with shade, socket and cord, flat links, bolts and attachment bracket, 1-1/2 lbs.

Cat. No. 882

Deluxe set of machine spur bits made of selected tool steel. Have brad point and two cutting lips. Approximately 6-1/4'' long overall with 1/2'' shank.

Complete set of eight machine spur bits, 1/4", 5/16", 3/8", 7/16", 1/2", 9/16", 5/8", 3/4". Wt. 3 lbs.

Cat. No. 818



Standard set of auger bits. The wide variety of sizes will help you do a good job on your workshop projects.

Complete set includes: 1/4", 5/16", 3/8", 7/16", 1/2", 5/8", 3/4". Wt. 4-1/2 lbs.

Cat. No. 11-821



Plug Cutters are used for making plugs and dowels. $1/2'' \times 3''$ shank, barrel $2 \cdot 1/4''$ long.

Complete set of plug cutters 3/8", 1/2", 5/8", 3/4", 1". Wt. 2-1/2 lbs.

Cat. No. 822



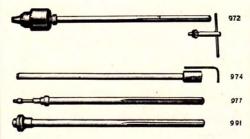
Router bits are used for making round-end mortises and grooving work, $1/2'' \times 1-1/2''$ shank. Use with No. 974 spindles.

Complete set including 1/4", 5/16", 3/8", 7/16", 1/2". Wt. 2 lbs.

Cat. No. 480

(See Page 6 for Individual Listings.)

Interchangeable Spindles Increase Use of Drill Press



These spindles enable you to select the right spindle for the job and keep the work up close to the bearings for greater accuracy.

Spindle with Jacobs chuck and key, No. 60, 1/2" capacity, 3-1/2 lbs. (Included with machine.)

Cat. No. 972

Spindle with 1/2'' hole for Router bits, Sanding Drums, $2 \cdot 1/2$ lbs.

Cat. No. 974

Spindle for Shaper cutters with 5/16" stem, 2 lbs.

Cat. No. 977

Spindle for Cup Grinding Wheel, 2 lbs.

Cat. No. 991

For Grinding Operations



Cup Grinding Wheel. For use with No. 991 Spindle. Furnished 3-1/2" diameter, 1-1/2" wide with 1/2" arbor hole. Number 60 grit. 1 lb.

Cat. No. 992

For Shaping Work On The Drill Press



To turn your Delta Drill Press into a handy Shaper, order Shaper Fence, Shaper Table and set of Three-Lip cutters. Spring Hold Downs are optional. Use with No. 977 Spindle. (For Individual Cutters See Page 6.)

The three lip cutters provide hundreds of moulding shapes. Made of special steel and hardened in oil, these cutters can be resharpened again and again by merely grinding across the face of the cutting lip.

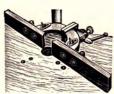
Set of 24 shaper cutters with No. 978 Adapter (used in No. 974 Spindle) and 6 collars in a box, 2 lbs.

Cat. No. 980



Shaper Table — Plywood Shaper table 17-13/16" x 23-13/16", 3/4" thick. Wt. 15 lbs.

Cat. No. 11-806



Shaper Fence — Fully adjustable Fence with both halves independent of each other. Adaptable endwise so opening may be made small as possible to fit the work — a good safe feature. Wt. 12 lbs.

Cat. No. 982

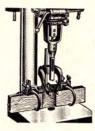




Spring Hold Downs for Shaping — These hold work against fence and table. Use on either end of Fence...has universal brackets... accommodates work 3-1/2" thick. Complete with straight and bent parts, two springs, two spring brackets and one post bracket. Wt. 2 lbs.

Cat. No. 983

For Mortising on the Drill Press



Convert the Drill Press into an efficient mortising machine with the addition of the mortising attachment. (Be sure to order the No. 974 Spindle.) Mortises in a fraction of the time necessary by hand methods. This attachment has a capacity under hold down of 4-3/4" thick. Capacity from ends of hooked rods to fence, 2-3/4" thick. Mortising Attachment complete with heavy Fence, Hold Down Brackets, Hold Down and Rod, Chisel Holder, Curved Arms and Bolts, 7 lbs.

Cat. No. 976



Mortising Chisels — are made of Selected steel $5/8'' \times 1/2''$. (When mortising, the bit fits inside the chisel.) Wt. 2-1/2 lbs.

Cat. No. 634 — 1/4" Mortising Chisel

Cat. No. 636 — 3/8" Mortising Chisel

Cat. No. 638 — 1/2" Mortising Chisel



Mortising Bits — These are the finest bits made for mortising. They stay sharp longer. Bits operate inside of chisel. Wt. 1/2 lb.

Cat. No. 514 — 1/4" Mortising
Bit

Cat. No. 516 — 3/8" Mortising
Bit

Cat. No. 518 — 1/2" Mortising
Bit



Bushings — Accurately ground for use with hollow chisel bits, 1/4 lb.

Cat. No. 524 — 3/16" Bushing for 1/4" bit

Cat. No. 526 — 19/64" Bushing for 3/8" and 1/2" bits

For Drum Sanding On Drill Press





Used with No. 974 Spindle. Perfect work is easy with these sanding drums. No fasteners to bump — no uneven expansion. In these drums, each rubber section is separated from its neighbor by bakelite washers, with non-corrosive metal bushings next to the arbor. The disks are expanded uniformly, run dead true and produce perfect work. No. 840 drum has 1/2" diameter stem to fit 1/2" hollow spindle or chuck. Others have 1/2" bore. Auxiliary shaft No. 11-834 needed to attach No. 830 and No. 835 Drums to No. 974 Spindle.

3" dia. x 3" Drum, with one sleeve. Fits 1/2" dia. shaft. Wt. 2 lbs.

Cat. No. 830

1/2 doz. 3" x 3" Sleeves, No. 1-1/2 Grit coarse garnet. Wt. 1/2 lb.

Cat. No. 831

 $1/2~\mbox{doz}.$ 3" x 3" Sleeves No. 1/2-60 Grit, medium garnet. Wt. 1/2 lb.

Cat. No. 832

1/2 doz. 3" x 3" Sleeves, No. 1-50 Grit Al. Oxide (for metal) Wt. 1/2 lb.

Cat. No. 833

1-3/4" dia. x 2" Drum, with one sleeve. Fits 1/2" dia. shaft. Wt. 1-3/4 lbs.

Cat. No. 835

 $1/2~\rm doz.~1\text{-}3/4''$ x 2" Sleeves, No. 1-1/2-40 Grit medium garnet. Wt. $1/4~\rm lb.$

Cat. No. 836

1/2 doz. 1-3/4" x 2" Sleeves, No. 1/2-60 Grit fine garnet. Wt. 1/4 lb.

Cat. No. 837

1/2 doz. 1-3/4" x 2" Sleeves, No. 1-50 Grit Al. Oxide (for metal). Wt. 1/4 lb.

Cat. No. 838

11/16" dia. x 2-1/2" Drum, with one sleeve. 1/2" shank to fit hollow spindle or chuck. Wt. 8 oz.

Cat. No. 840

1/2 doz. 11/16'' x $2 \cdot 1/2''$ Sleeves, No. 1 Grit medium garnet. Wt. 1/2 lb.

Cat. No. 841

1/2 doz. 11/16" x 2-1/2" Sleeves, No. 1/0-80 Grit fine garnet. Wt. 1/2 lb.

Cat. No. 842

 $1/2~\rm doz.~11/16''$ x 2-1/2" Sleeves, No. 50 Grit Al. Oxide (for metal). Wt. 1/2 lb.

Cat. No. 847

Auxiliary Shaft 1/2" x 2-1/2" milled flat entire length. For use with No. 830 and No. 835 Sanding Drums when used with No. 974 Spindle.

Cat. No. 11-834



Narrow sanding drums and sleeves for use with No. 972 spindle.

 $1-1/2'' \times 1''$ Drum, with one sleeve 5/16'' shank. Wt. 1/2 lb.

Cat. No. 679

1/2 doz. 1-1/2" x 1" No. 40 Grit Al. Oxide Sleeves. Wt. 1/4 lb.

Cat. No. 682

1/2 doz. 1-1/2" x 1" No. 80 Grit Al. Oxide Sleeves. Wt. 1/4 lb.

Cat. No. 683

2-3/16" x 1" Drum, with one sleeve, 5/16" shank. Wt. 1/2 lb.

Cat. No. 680

1/2 doz. 2-3/16" x 1" No. 40 Grit Al. Oxide Sleeves. Wt. 1/4 lb.

Cat. No. 684

1/2 doz. $2-3/16'' \times 1''$ No. 80 Grit Al. Oxide Sleeves. Wt. 1/4 lb.

Cat. No. 685

 $3'' \times 1''$ Drum with one sleeve, 5/16'' shank. Wt. 3/4 lb.

Cat. No. 681

1/2 doz. 3" x 1" No. 40 Grit Al. Oxide Sleeves. Wt. 1/2 lb.

Cat. No. 686

1/2 doz. 3" x 1" No. 80 Grit Al. Oxide Sleeves. Wt. 1/2 lb.

Cat. No. 687

MANY PURPOSE 8½" DISK SANDER

Sands — Drills — Grinds — Buffs



Nothing like it — the most versatile tool in its price range. This machine will finish wood, plastics, ivory, non-ferrous metals. Table tilts 45° away and 30° towards disk. This machine will sand with the accuracy of the large Delta industrial tools. Puts a finish on straight, curved, or angular surfaces. 19 lbs.

Specifications:

8-1/2'' disk diameter . . . 11-1/2'' overall length . . . 10'' overall width . . . 9'' overall height . . . 9-3/4'' x 4'' table . . . table tilts 35° toward disk, 45° away from disk.

Catalog Listing:

BASIC MACHINE — 8-1/2" Disk Sander as illustrated less Miter Gage.

Catalog No. 31-200

Required Accessories for 31-200 Sander

Heavy duty 1/3 HP, 115 v., 60 cycle, 1725 r.p.m. motor ball bearings.

Cat. No. 62-413

Medium duty 1/3 HP, 115 v., 60 cycle, 1725 r.p.m. motor bronze bearings.

Cat. No. 60-013

2-1/2" Motor pulley 1/2" bore for use with No. 31-200 Sander.

Cat. No. 5250

V-belt 47-3/16" O.D. for use with No. 31-200 sander.

Cat. No. 453

Precision built miter gage for use with sander. Cat. No. 31-804

OTHER SANDER ACCESSORIES For Disk Sanding:

Garnet Paper Sanding Disks. 1 Doz. coarse, No. 1-1/2 grade.

Cat. No. 46-815

Garnet Paper Sanding Disks. 1 Doz. fine, No. 0 grade.

Cat. No. 46-817

Disk Adhesive, 1 lb. Bar. Cat. No. 49-503

For Drum Sanding:

3" x 3" Sanding Drum, Wt. 2 lbs.

Cat. No. 830

1-3/4" dia. x 2" Drum. Wt. 1-3/4 lbs. Cat. No. 835

Sleeves:

(In packages of 6)

3" x 3" Coarse Garnet,

Cat. No. 831

3" x 3" Medium Garnet.

Cat. No. 832

3" x 3" Aluminum Oxide (for metal).

Cat. No. 833

1-3/4" x 2" Medium Garnet.

Cat. No. 836

1-3/4" x 2" Fine Garnet.

Cat. No. 837

1-3/4" x 2" Aluminum Oxide (for metal).

Cat. No. 838

For Drilling:

Keyless Chuck. 1/2" capacity. Fits any 1/2" shaft.

Cat. No. 120

Machine Auger Bits

(5'' long, 1/4'' shank)

1/4" — Cat. No. 11-811

5/16" — Cat. No. 11-812

3/8" — Cat. No. 11-813

7/16" — Cat. No. 11-814 1/2" — Cat. No. 11-815

(6" long, 1/2" shank)

5/8" — Cat. No. 11-817

3/4" — Cat. No. 11-818

Set of a bove 7 Machine Auger Bits.

Cat. No. 11-821

For Grinding, Buffing, Brushing:

Arbor — mounts on pulley end of sander with set screw. Provides 1/2" right hand threaded arbor for mounting grinding wheels, buffing wheels, wire wheels, etc.

Cat. No. 49-118



Wire Wheel. Coarse. 6" dia. Cat. No. 3113

Wire Wheel. Fine. 6" dia. Cat. No. 3114



Tampico Fiber Wheel. 6" dia. Cat. No. 3115

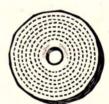


Grinding Wheel. 46 grit. 6" dia., 1/2" wide, 1/2" hole.

Cat. No. 3101

Grinding Wheel. 60 grit. 6" dia., 1/2" wide, 1/2" hole.

Cat. No. 3102



Buffing Wheel. 6" dia., 1/2" hole. Cat. No. 4005

Buffing Compounds. 4 different types in a box. Cat. No. 4004

Buffing Compounds and Wheel. 4 different types compounds plus full 1/2" buffing wheel. Cat. No. 4003



Giant Polishing Bars:

If you have a lot of polishing to do, get big 1 lb. bars, which will last you a long time.

Red, for Gold, Silver, Sterling and all precious metals. Cat. No. 4007

White, for Nickel, Chromium, Iron, Stainless Steel, Cast Brass and Aluminum. Cat. No. 4008

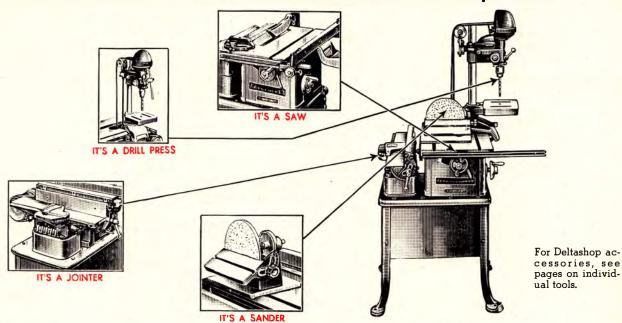
Black, for removing rust, scale and tarnish. Has sharp cutting action. Cat. No. 4009

Brown, for Aluminum, Brass, Copper, Pewter, Wood, Plastic, Painted Surfaces, Horn and Hard Rubber. Cat. No. 4010



The DELTASHOP

The Only Right Combination Of Basic Power Tools
The Perfect Unit For "Do It Yourself" Home Maintenance And Improvement



The Deltashop is designed to do 95% of all home workshop jobs ... stores in an area only 3' square ... ideal for basement, garage, utility room or apartment ... built around the Circular Saw, the workhorse tool of any workshop ... includes the standard Delta Homecraft Jointer, Drill Press and Sander ... not a collection of attachments but a combination of basic Delta Quality Power Tools ... mounted on one stand ... operated by one motor.

The Complete Deltashop

CATALOG LISTING: Deltashop, consisting of No. 34-500, 8" Tilting Arbor Saw, No. 37-110 4" Jointer, No. 37-113 Jointer Raising Block, No. 11-130 Il" Drill Press (complete with No. 49-179 Belt), No. 49-189 Saw Arbor Pulley, No. 31-200 Disk Sander, No. 31-201 Sander Base (with No. 281 Belt), and No. 50-308 Steel Stand.

Catalog No. 34-530

Also order the motor belt and pulley group for use with the No. 62-253 3/4 HP Motor. Includes No. 5225 Saw Pulley, No. 49-152 Saw Belt, No. 49-182 Jointer Pulley and No. 410 Jointer Belt.

Catalog No. 49-188

Order To Suit Your Budget

Order the complete Deltashop now and begin enjoying its full benefits right away, or order on the revolutionary new Deltashop TOOL AT A TIME PLAN. This special plan enables you to start with the basic saw and stand and order the remaining tools as your budget permits. For best results, in all cases, order by the assigned catalog numbers, as listed below.

The Deltashop Tool At A Time Plan

| Package No. 1 | . The Deltashop Saw and Stand |
|---------------|--|
| | Catalog No. 34-532* |
| Package No. 2 | Catalog No. 37-114* |
| Package No. 3 | The Deltashop Drill Press |
| D 1 1 1 | Catalog No. 11-130 |
| Package No. 4 | The Deltashop Sander Catalog No. 31-202 |
| | |

*The necessary belt and pulley groups are included in the packages as well as all parts required for assembly.

The Deltashop Motor

The proper motor for your Deltashop should be ordered with the complete Deltashop or with Package No. 1 on the Tool At A Time Plan. Order the Heavy Duty, 3/4 HP, 115 Volt, 60 Cycle, 3450 r.p.m. motor with sealed for life ball bearings. The belt and pulley groups are designed for this motor.

Catalog No. 62-253

To Mount Your Deltashop Drill Press Separately

As your workshop grows, you may find it desirable to mount your drill press as a separate tool with its own motor. For this purpose, two conversion kits are available.

KIT NO. 1 Includes Motor Mounting Bracket, 4 Speed Pulley and Belt. Enables you to mount the Drill Press on the edge of a bench where it is always available under its own power.

Catalog No. 49-190

KIT NO. 2 Includes the Bench Type Base for permanent mounting. Base provides 6" x 7-3/4" of ground table surface and parallel slots for attaching jigs and fixtures. Enables

you to permanently mount the Drill Press on a stand or table. Catalog No. 49-191 Note: For the Drill Press stand, recommended motors, etc., see page 64.

Saw-Jointer Combination

An ideal Saw-Jointer combination consisting of the 8" Tilting Arbor Saw, 4" Economy Jointer and Steel Stand can be formed by ordering Packages No. 1 and No. 2 on the Tool At A Time plan as follows:

Package No. 1 — Catalog No. 34-532

Package No. 2 — Catalog No. 37-114

Note: Proper motor belts and pulleys are included. Order the No. 62-253 Motor as described above.





BIG 10" BAND SAW

For Curved and Straight Line Cutting



Lamp Attachment Extra

This saw is the finest saw made for the home shop. It has an unusually rugged frame — table is finish ground and is heavily ribbed for extra support. A leveling stop screw is provided so that table can be quickly and accurately returned to level position — cuts 6" in hardwood smoothly and accurately. There is not a finer saw made in this price range.

Specifications:

Capacity — blade to frame 9.5/8"... Under guide 6-1/2"... Blade Speed with 1725 r.p.m. motor 2400 f.p.m... Overall height 32-1/4", width 11-3/8"... Front to back 18"... Table size 10" x 10"... Table tilts 45°... Blade length 71-3/4".

Catalog Listings

BASIC MACHINE — includes 10" Band Saw with wheel guard, No. 28-803 1/4" blade, and 5" arbor pulley. 80 lbs.

Catalog No. 28-110

Required Accessories for 28-110 Band Saw

Heavy duty 1/3 HP, 115 v., 60 cycle, 1725 r.p.m. ball bearing Motor.

Cat. No. 62-413

Medium duty, 1/3 HP, 115 v., 60 cycle, 1725 r.p.m. bronze bearing Motor.

Cat. No. 60-013

V-belt, 58-5/16" O.C. for use with stand. Cat. No. 560

2-3/4" Motor Pulley, specify 1/2", 5/8" bore. Cat. No. 5275

Other Band Saw Accessories

Handy Steel Stand, 12-1/2" x 7", 29" high, 29 lbs.

Cat. No. 50-329

Switch rod for use with stand.

Cat. No. 1334

Lamp attachment for 10" band saw.

Cat. No. 882

1/8" Blade, 71-3/4" long (7 teeth per in.). Cat. No. 28-801

3/16" Blade, 71-3/4" long (7 teeth per in.). Cat. No. 28-802

1/4" Blade, 71-3/4" long (7 teeth per in.). Cat. No. 28-803

3/8" Blade, 71-3/4" long (6 teeth per in.). Cat. No. 28-804

Do Sanding On The Band Saw

Sanding attachment for No. 28-110 band saw, consisting of flat and curved platens with guides and mounting brackets.

Cat. No. 28-810

5 Garnet sanding belts, fine, No. 80 grit, 1/2'' wide x 70" long.

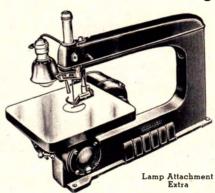
Cat. No. 28-811

5 Garnet sanding belts, medium, No. 40 grit, 1/2" wide x 70" long.

Cat. No. 28-812

16" SCROLL SAW

For Intricate Curve Cutting



Designed for easy, smooth, accurate sawing. This sturdy saw offers more than any comparable saw . . . speed of 1725 cutting strokes per minute for long, fast, trouble-free performance. A real leader in the low price tool line.

Specifications:

Cuts to center of 32" panel . . . Thickness of cut 2" in wood . . . Cutting strokes per minute — With 3" Motor Pulley (for wood, plastics, etc.) 1275 . . . With 2" Motor Pulley (for light meials) 800 . . . Table size 11" x 11" . . . Table tilts 45° right and 15° left . . . Overall length 26-3/4", width 12-1/2", height 20-1/4" . . . Upper and lower chucks turn 90 degrees for unlimited length of cut.

Catalog Listings

BASIC MACHINE — includes 16" Scroll Saw with No. 5400 5/8" bore arbor pulley, three saw blades and pulley guard. Wt. 72 lbs.

Catalog No. 40-110

Required Accessories for 40-110 Scroll Saw

Medium duty 1/3 HP, 115 v., 60 cycle, 1725 r.p.m. Motor with Bronze bearings.

Cat. No. 60-013

Heavy duty 1/3 HP, 115 v., 60 cycle, 1725 r.p.m. Motor with sealed ball bearings.

Cat. No. 62-413

V-belt, for use when bench mounted, 39-7/8" O.C.

Cat. No. 387

3" Motor pulley, specify 1/2" or 5/8" bore. Cat. No. 5300

2" Motor pulley, for cutting metal. Specify 1/2" or 5/8" bore.
Cat. No. 5200

Other Scroll Saw Accessories

Handy Steel Stand, 33" x 7" table, $31 \cdot 1/2$ " high, 55 lbs.

Cat. No. 50-716

Switch Rod, for use when motor mounted on stand shelf.

Cat. No. 1330

V-belt, 54-1/8" O.C. for use with steel stand. (Motor mounted below on shelf.)

Cat. No. 520

Four step cone pulley (specify bore) and arbor pulley, 5/8" bore, used to convert to 4-speed scroll saw.

Cat. No. 718 Cat. No. 720

Lamp attachment with shade, socket, cord, four flat links, bolts, spacer and attachment brackets.

Cat. No. 882

These Scroll Saw blades are made of finest alloy steel—especially hardened and tempered, precision-filed to razor sharpness and set—gives faster, easier more accurate cutting. Choose the right blade to do the job. For complete list including blade number, dimensions, number of teeth per inch, see page 53, each package contains 6 blades.

For Sanding On Your Scroll Saw



This attachment saves hours of labor. It does away with annoyance of makeshift devices. Knurled knob expands the body of attachment and tightens garnet sleeve securely. 15/16" wide, 1/2" thick and 2-1/2" long. 1/4" diameter shank fits lower jaw of scroll saw.

Cat. No. 711

Six No. 1 medium garnet sleeves. Cat. No. 841

Six No. 1/0 Grit fine garnet sleeves. Cat. No. 842

Do Filing Jobs On Your Scroll Saw

Machine files specifically designed for fast, accurate filing of cutting teeth on saw blades, metal shapes, etc. (See page 53 for individual listings.)

Set No. 1.

Overall length 3-1/4" with 1/4" shank.

Complete set includes:

Square, crochet, half round, round, triangle, oblong. Wt. 1/2 lb.

Cat. No. 740 (set of 6)

Set No. 2

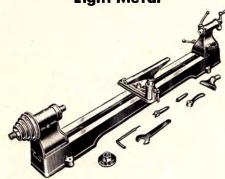
Complete set of eight files with 1/8" shank. Square, crochet, half round, round, triangle, oblong, lozenge, knife. Wt. 1/2 lb.

Cat. No. 760 (set of 8)



11" WOOD LATHE

For Turning Wood, Plastics, Light Metal



By far the finest lathe for the home workshop. Ideal for wood, plastic, light metals. Head has built-in indexing device...tailstock locks to bed in one quick movement...tool support acts quickly and smoothly...outside spindle threaded for out board turning of unlimited capacity.

Specifications:

Speed with 1725 r.p.m. Motor — 930 — 1400 — 2140 — 3200 . . . Swing over bed 11". . . between centers 37". . Overall length 56-1/2" . . . Overall width 10-1/2" . . Overall height 12" . . . Accurate ground ways both front and back 1-5/16" wide . . . Spindle 1" . . . Spindle bloe 5/8" . . . Spindle thread 1" dia. 8 acme threads per inch.

Catalog Listing

BASIC MACHINE — includes Timken bearing lathe No. 2 morse taper spindle, No. 933 drive center, No. 934 cup center, No. 936 3" face plate, No. 690 4" tool support, No. 692 12" tool support, tool support base, tool support wrench, Allen wrench, and spindle wrench. 82 lbs. Catalog No. 46-230

Required Accessories for 46-230 lathe

Heavy duty 1/2 HP, 115 V., 60 Cycle, 1725 r.p.m. ball bearing motor.

Cat. No. 62-653

Medium duty 1/3 HP, 115 V., 60 Cycle, 1725 r.p.m.ball bearing motor.

Cat. No. 62-413

Motor pulley, 1/2" bore, 2 lbs.

Cat. No. 932

V-belt 61-11/16" for use with lathe, 1/2 lb.

Cat. No. 588

Other Lathe Accessories

Handy lathe stand brings lathe to most convenient height for working. Drilled for easy mounting of lathe. Top and shelf carefully selected 2" pine scientifically slotted to prevent warping. Legs of heavy, rigid cast iron. 95 lbs.

Cat. No. 46-845

Cast Iron Bench Legs. (Included with bench—buy only when you make your own bench.) No bench twist—strong, solid, with all holes 3/8". Bracket for shelf at bottom. Can also be used for other benches and tables.

Cat. No. 945 — One pair



Wood Turning Chisels — Made of special, high grade alloy steel. Fitted with extra long hardwood handles. (For listing of individual chisels see page 58.)

Cat. No. 130 Set of eight chisels.

Screw Center — for turning small work. Fits any headstock with No. 2 Morse Taper.

Cat. No. 940

6" Face Plate for large outboard turnings. Cat. No. 937

Jacobs Chuck — geared with key, 1/2" capacity. Invaluable for drilling on the lathe.

Cat. No. 968

24" Tool Support — for extra long turnings. Requires an extra 941-A Tool Rest Base. Cat. No. 694



Right Angle Tool Support — l'' diameter shank. For face plate work.

Cat. No. 695

Heavy Rigid Floor Stand — for face plate work. Tripod legs, pipe support, V hole for 1/2" to 1" shank. Knocked down.

Cat. No. 697

For Working Plastics, Light Metals and Woods

Ball Bearing Center — Takes exceptionally heavy radial and thrust load. For full description see page 58.

Cat. No. 1490

Compound Slide Rest with tool post rocker, washer and wrench. (See page 58.)

Cat. No. 46-965

Counter Shaft Unit (See page 56.)

Cat. No. 1464

Holder, Boring Bars and Tool Bits.

Cat. No. 46-963 Holder.

Cat. No. 46-966 Set of 3 boring bars.

Cat. No. 46-954 Set of 4 tool bits

Left Hand Screw-on Arbor

Cat. No. 145

Right Hand Screw-on Arbor

Cat. No. 144

Collet Chuck — for turning plastics or light metals.

Cat. No. 46-956

Collet Chuck — Heavy Duty.

Cat. No. 46-957

(For full information see page 58.)

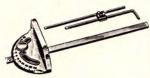
Tungsten Alloy Tipped Turning Chisels. Cut metal, plastic and wood. (For full description and catalog nos. see page 58.)

For Sanding On Your Lathe



This table is supported both front 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 1/2" slot for the No. 34-903 Miter Gage. Wt. 15 lbs.

Cat. No. 46-948



Miter Gage for Sanding Table provides accurate angles... pivots 60° both right and left. Used for sanding plain and compound miters. Runs in accurately milled slot in sanding table. Wt 4 lbs

Cat. No. 34-903



Sanding disk for lathe is 8-1/2" dia. and thread ed to fit headstock spindle. With one garnet disk, R.H. threaded only, Wt. 2-1/4 lbs.

Cat. No. 46-934

Coarse Garnet Paper Disk. No. 40 grit, 8-3/8" dia. Package of 12.

.Cat. No. 46-815

Fine Garnet Paper Disk. No. 80 grit. 8-3/8" dia. Package of 12.

Cat. No. 46-817

Disk Adhesive, Wt. 1 lb.

Cat. No. 49-503

3" x 3" Sanding Drum.

Cat. No. 163

1-3/4" x 2" Sanding Drum.

Cat. No. 164

For Buffing, Grinding, Polishing

The following accessories are used with No. 144 or 145 screw-on arbors.

Buffing Wheel—A firm evenly sewed 1/2" wheel which produces the best polished surface when used with compounds. Put several together for polishing wide surfaces. Wt. 1-3/4 lbs.

Cat. No. 4005

Wire Brushes remove rust and scale of all kinds in just a few seconds. Comes in two sections — 6'' dia. — 1/2'' hole. Wt. 1 lb. each.

Cat. No. 3113—Coarse

Cat. No. 3114 — Fine

Fiber Brushes are ideal for general cleaning — not as harsh as wire brush. Comes in two sections each 6'' dia. — 1/2'' hole. Wt. 1 lb.

Cat. No. 3115

HIGH SPEED WOOD SHAPER

If It's a Shaped Edging You Can Make It



Designed for high-speed, light duty production work. Cuts smoothly and rapidly at all possible angles to the grain of wood. Four features exclusive in this price range (1) both sides of fence adjustable through a single control (2) Interchangeable spindles permit use of wide variety of cutters (3) spindle height adjustment under front of table makes accurate height adjustment easy. Locks quickly in place. (4) Closely spaced bearings eliminate chatter.

Specifications

Overall Height 7-1/2"... Overall Width 25-1/4"...
Overall Depth 24"... Table Size 15-1/2" x 18"...
FenceLength (each side) 11-1/2"... Speed 9000 r.p.m.
Spindle Travel 7/8"... Spindle carried in Doublesealed Ball Bearings... Spindle Height Lock...
Tapered Starting Pin... Legs drilled for mounting
reversing switch.

Catalog Listings

BASIC MACHINE — includes ball bearing reversible Shaper with No. 982 Shaper fence, 5/16" and 1/2" spindles, table insert, starting pin, belt and pulley guards, motor bracket, spindle pulley and wrenches. 88 lbs.

Catalog No. 43-110

Required Accessories for 43-110 Shaper

Heavy duty 1/2 HP, 115 V., 60 Cycle, 3450 r.p.m. ball bearing motor.

Cat. No. 62-213

5-3/8" Motor pulley with set screws, 1/2" bore. Cat. No. 43-803

V-belt, 30" O.C. for use with 62-213 Motor. 1/2 lb.

Cat. No. 49-105

Other Shaper Accessories

Handy steel stand 12-7/16" x 16-7/16" top x 26-1/2" high, 51 lbs.

Cat. No. 50-305

Reversing and On-and-Off switch for 62-213 motor, with connected 4-wire cord for any standard, split-phase or capacitor motor.

Cat. No. 49-316

Stub spindle with screw and Allen wrench for counterbored 3 lip cutters.

Cat. No. 1190

Set of Table Inserts with Guide Shoulders SR-253, 2-3/8" dia. and SR-254, 1-5/8" dia. Wt. 1/3 lb.

Cat. No. 1198

Auto-set miter gage for use with shaper. 4 lbs.



3-Lip Cutters and Collars

These groups of three lip cutters offer unlimited 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 illustrated are 1/2 size. (Note: for complete list of shaper cutters, standard collars and spindles, see page 55.)

Standard 3-Lip Cutter Sets

(These sets are made up of groups of individual 3 lip cutters.)

Standard Cutter Set. Consists of cutters D-100 to D-109 inclusive and collars D-142 to D-149 inclusive. Packed in wood box. Wt. 3-1/2 lbs.

Cat. No. 1182

Cove and Bead Cutter Set. Consists of D-129, D-135 to D-139 cutters inclusive; D-132 and D-134 collars. Packed with No. 1190 Stub Spindle Assembly and Wrench in wood box. Wt. 2 lbs.

Cat. No. 1178

Sash and Cabinet Cutter Set. Consists of 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. Packed with No. 1190 Stub Spindle Assembly and Wrench in wood box. Wt. 3 lbs.

Cat. No. 1184

Pgee Door Assembly Set. Includes D-205, D-206 male cutters and D-217 collar.

Cat. No. D-205-S

Pgee Door Assembly Set. Includes D-205, D-206 female cutters, D-108 and D-133 collars.

Cat. No. D-206-S

Cove Cutter Assembly. Includes D-207, D-208 cutters, D-133 and D-215 collars.

Cat. No. D-208-S

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

Cat. No. D-210-S

Collar Sets For 3-Lip Cutters

Set of 7 cutters from 3/4" to 1-1/8" diameter, D-142, D-143, D-144, D-145, D-171, D-172, D-173. Wt. 3/4 lb.

Cat. No. 1210

Set of 6 collars from 1-3/16" to 1-1/2" diameter, D-141, D-146, D-147, D-148, D-174 and D-175. Wt. 1 lb.

Cat. No. 1211

Set of 6 collars from 1-9/16" to 1-7/8" diameter, D-149, D-176, D-177, D-178, D-179, and D-180. Wt. 1-1/2 lbs.

Cat. No. 1212

Set of 4 collars for sash cutters, D-140, D-141, D-150 and D-151. Wt. 1/2 lb.

Cat. No. 1191



3-Knife Safety Cutter Head. Alloy steel. Fits 1/2" spindle. Weight without knives 1-1/2 lbs.

Cat. No. 1343

Note: If you already have a set of moulding cutter head knives, you can use them on your shaper with the 3-Knife Safety Cutter Head shown above. For individual listings of Moulding Cutterhead Knives with illustrations, see page 45.



Sliding Shaping Jig — Shaping of short and narrow pieces is now a safe, accurate operation with this sliding shaper jig. Hands never come close to cutter and work cannot slip. Wt. 19 lbs.

Cat. No. 1186



Spring Hold Downs — Holds work firmly against fence and table — used on either end of fence. Accommodates work up to 3-1/2" thick. Wt. 2 lbs.

Cat. No. 983



Safety Ring Guard protects user on curved and circular work. Fully adjustable and easily removed ring guard . . . protects operator. Acts as an efficient hold down. Wt. 8 lbs.

Cat. No. 43-817



HEAVY DUTY GRINDING HEAD

For Grinding, Polishing, Cleaning and Sharpening



This is the finest grinding head in its price range. Handy and portable, it can be driven from its own motor or another machine. On the basic head unit you can mount wheels for several operations: right-hand or left-hand grinding, buffing, cleaning or combinations — you select the one you need. It's a versatile time and work-saver.

Specifications:

Close-grained, grey iron casting with long-wearing bronze bearings . . . 1/2" dia. shaft extends 2-1/8" on left, 3-3/8" on right . . . shafts threaded and fitted with large flange nuts.

Catalog Listing

BASIC MACHINE — includes basic head unit, and belt. 9 lbs.

Catalog No. 23-603

Required Accessories for 23-603 Grinding Head

1/3 HP, 115 V., 60 cycle, 1725 r.p.m. bronze bearing motor.

Cat. No. 60-013

3" Dia. Pulley, specify 1/2" bore. Cat. No. 5300

Other Grinder Accessories



Right Hand Grinding Unit — Use this grinding attachment with your basic head. Consists of the right hand guard and tool rest with mounting screws and two large flanges and nuts for clamping the wheel to the arbor. Wt. 4 lbs.

Cat. No. 23-607



Left Hand Grinding Unit — Unit consists of left hand wheel guard and two large flanges and nuts for clamping grinding wheel on arbor. Wt. 4 lbs.

Cat. No. 23-606



Coarse and Fine Grinding Wheels — for top performance in grinding. 6'' in diameter, 1/2'' wide with a 1/2'' hole. Wt. 1-3/4 lbs. each.

Cat. No. 3101 — 46 Grit Coarse Cat. No. 3102 — 60 Grit Fine



Buffing Wheel — A firm evenly sewed 1/2" wheel which produces the best polished surface when used with compounds. Put several together for polishing wide surfaces. Wt. 1-3/4 lbs.

Cat. No. 4005



Wire Brushes — remove rust and scale of all kinds in just a few seconds. Comes in two sections — 6'' dia. — 1/2'' hole. Wt. 1 lb.

Cat. No. 3113 — Coarse Cat. No. 3114 — Fine



Fiber Brushes — are ideal for general cleaning — not as harsh as wire brush. Comes in two sections each 6" dia. — 1/2" hole. Wt. 1 lb. Cat. No. 3115

HANDY GENERAL PURPOSE BENCH GRINDER

This Is a "Must" For Every Shop



Rugged, powerful, fast and smooth running, this Delta Bench Grinder is sensational, not only in appearance, but in its capacity, power, convenience, features, performance and price. Its unique tool rests are not only fully adjustable to compensate for wheel wear but have built in side guides of pre-set angles that simplify grinding of tools. Here's one of the finest bench grinders for shop and garage.

Specifications:

Two 6" grinding wheels 5/8" wide, 1/2" bore (60 grit and 46 grit)... on-off toggle switch... 8'—three conductor rubber covered cord and attached plug.

Catalog Listing:

BASIC MACHINE — illustrated, with 1/4 HP, 115 V, single phase, 60 cycle, 3450 r.p.m. motor, wheel guards and adjustable tool rest.

Catalog No. 23-600

Accessory Kit

With this handy accessory kit you can polish all silverware, faucets, metal lamp bases, electrical outlets, golf clubs, fishing rods — in fact any home maintenance job that requires cleaning or polishing can be done expertly and with ease.

Accessory Kit:

No. 3113 — Wire wheel, coarse, 6" diameter, 1/2" wide x 1/2" hole.

No. 3114 — Wire wheel, fine, 6" diameter, 1/2" wide x 1/2" hole.

No. 3115 — Tampico fibre wheel, 6" diameter, 1/2" wide x 1/2" hole.

No. 4003 — Buffing kit of compounds and wheel.

Cat. No. 23-601

DELTA POWER TOOLS

ROCKWELL BUILT





NUMERICAL PRICE LIST

for

DELTA POWER TOOL CATALOG No. AB-53

April 16, 1953

(With Corrections to August 15, 1953)
SUPERSEDES ALL PREVIOUSLY DATED PRICE LISTS

PRICES SUBJECT TO CHANGE WITHOUT NOTICE. All prices F.O.B. dealers store or warehouse except as marked (•), see footnotes. Prices shown on this price sheet supersede all prices previously quoted. The right is reserved to make changes in design or equipment at any time without incurring any obligation to install these on machines previously sold, and to discontinue models of machines, motors or accessories at any time without notice. Any sales tax or other tax imposed subsequent to the publication of this price list will be added to the listed price. All prices to be determined at time of shipment according to price list then in effect.

Delta-Milwaukee machines and accessories are sold through authorized Delta dealers only. If you do not know your Delta dealer, write us or consult the classified section of your local telephone directory

under TOOLS or MACHINERY.

Industrial Power Tools - Pages 2, 3
Homecraft Power Tools - Page 4





INDUSTRIAL POWER TOOLS

| NEE | 111000 | KIALI | OVIER | IOOES | |
|---|---|--|--|--|---|
| Catalog Selling Number Price | Catalog Selling Number Price | Catalog Selling Number Price | Catalog Selling Number Price | Catalog Selling Number Price | Catalog Selling Number Price |
| 58 ½ Dz. per pkg. \$.40 59 ½ Dz. per pkg40 60 ½ Dz. per pkg40 | 670 \$1.85 673 2.10 679 1.50 | 968 \$10.75 969 3.00 972 13.75 | 1328 \$18.35 1329 29.40 1330 .85 | 1633 \$7.00 1634 7.00 1661 9.00 1662 9.00 | 14-803 \$10.75 14-817 9.00 14-821 155.00 14-822 165.00 |
| 61 ½ Dz. per pkg40 64 ½ Dz. per pkg40 65 ½ Dz. per pkg55 | 680 1.65 681 1.85 682 ½ Dz. per pkg85 | 973 5.75 974 3.40 976 7.95 | 133185 133285 133385 | 1662 9.00 1663 3.25 1664 5.00 | 14-822 165.00 14-823 165.00 14-824 182.00 |
| 77 ½ Dz. per pkg30 81 ½ Dz. per pkg30 | 682 ½ Dz. per pkg85 683 ½ Dz. per pkg85 684 ½ Dz. per pkg85 685 ½ Dz. per pkg85 686 ½ Dz. per pkg85 | 977 3.40 978 1.50 979 1.50 | 133485 1340 225.00 1342 7.25 | 3101 2.00 3102 2.00 3113 2.00 | 14-825 182.00 14-829 7.00 14-830 7.00 |
| 83 ½ Dz. per pkg30 84 ½ Dz. per pkg30 | 687 ½ Dz. per pkg. 1.00 | 980 34.50 981 1.60 | 1343 6.75 1345 3.75 | 3114 2.85 3115 2.50 | 14-832 2.50 14-833 2.50 |
| 85 ½ Dz. per pkg30 86 ½ Dz. per pkg30 87 ½ Dz. per pkg30 | 690 1.15 692 1.85 694 4.00 | 982 12.95 983 4.50 985 2.30 | 1347 3,75 1348 8.40 | 3121 11.50 4005 1.15 4017 1.50 | 14-834 2.50 14-836 21.00 14-837 14.00 |
| 87 ½ Dz. per pkg30 88 ½ Dz. per pkg30 91 ½ Dz. per pkg40 | 695 17.25 | 991 3.40 992 3.85 1006 46.00 | 1349 11.25 1366 13.60 1367 19.80 | 4051 1.60 5200 5225 | 14-838 60 14-839 9.00 14-840 24.00 |
| 92 ½ Dz. per pkg30 93 ½ Dz. per pkg40 94 ½ Dz. per pkg50 | 703 ½ Dz. per pkg45 704 ½ Dz. per pkg50 711 2.00 | 1007 29.00 1008 16.50 | 1368 15.40 1371 32.85 | 525070 527575 | 14-841 13.50 14-843 89.50 14-844 105.00 |
| 95 ½ Dz. per pkg40 96 ½ Dz. per pkg40 97 ½ Dz. per pkg30 | 715 1.50 718 1.45 720 1.85 | 1009 29.25 1010 1.75 1015 3.65 | 1372 32.85 1380 21.00 1381 15.25 | 5350 80 5400 90 | 17-200 137.00 17-201 137.00 |
| 98 ½ Dz. per pkg40 10985 110 8.75 | 726 1.15 727 1.15 728 1.15 | 1016 7.95 1017 3.65 1018 3.65 | 1391 11.00 1399 66.00 1400 110.00 | 5450 1.00 5500 1.15 5550 1.25 | 17-202 146.00 17-203 146.00 17-205 225.00 |
| 121 2.25 122 2.25 | 729 1.15 730 1.15 | 1019 7.50 1020 11.00 | 1401 12.50 1403 3.45 | 5600 1.45 5650 1.60 | 17-206 225.00 17-207 234.00 |
| 123 1.85 124 1.50 125 1.60 | 731 1.15 732 1.45 733 1.45 | 1022 16.75 1024 5.60 1025 7.35 | 1410 6.25 1411 9.25 1412 1.65 | 5700 1.95 5710 4.25 5800 2.25 | 17-208 234.00 17-210 245.00 17-211 245.00 |
| 126 1.85 127 1.50 128 1.60 | 734 1.45 736 1.45 740 6.60 | 1026 11.50 1028 17.00 1029 17.00 | 1413 1.80 1414 1.60 1415 1.80 | 6100 2.80 6200 3.35 11-806 11.50 | 17-212 253.00 17-213 253.00 17-220 261.00 |
| 130 14.40 132 4.25 | 740 6.60 750 2.00 751 1.15 | 1029 17.00 1030 14.75 1032 1.75 | 1415 1.80 1426 49.50 1427 ½ Dz. per pkg. 2.00 | 11-83470 14-005 92.00 | 17-221 261.00 17-222 270.00 |
| 144 3.00 145 3.00 163 5.75 | 752 1.15 753 1.15 754 1.15 | 1033 1.75 1034 1.75 1036 1.75 | 1428 ½ Dz. per pkg. 2.60 1430 11.50 1440 79.50 | 14-006 88.50 14-007 99.00 14-008 95.00 | 17-223 270.00 17-260 369.00 17-261 369.00 |
| 164 3.50 192 35 | 755 1.15 756 1.15 | 1038 1.75 1040 1.85 | 1442 7.50 1443 2.75 | 14-205 107.00 14-206 104.00 | 17-262 377.00 17-263 377.00 17-305 285.00 |
| 19420 265 5.95 27190 | 757 1.15 758 1.15 760 8.75 | 1045 2.00 1046 2.00 1047 2.00 | 1444 17.80 1446 4.65 1447 9.25 | 14-207 | 17-306 285.00 17-307 294.00 |
| 272 1.00 273 1.00 281 1.00 | 770 1.45 771 1.45 772 1.45 | 1048 2.00 1050 2.00 1052 2.15 | 1448 235.00 1450 235.00 1451 3.00 | 14-211 142.00 14-212 153.00 14-213 149.50 | 17-355 294.00 17-355 409.00 |
| 284 1.00 287 1.00 289 1.35 | 773 1.45 774 1.85 781 1.85 | 1060 3.25 1062 3.25 1064 3.25 | 1452 3.00 1453 3.00 1454 13.25 | 14-220 77.00 14-221 70.00 14-222 73.00 | 17-357 418.00 17-358 418.00 •17-405 635.00 |
| 291 1.00 294 1.50 | 804 1.70 805 1.70 | 1115 1.40 1119 2.50 | 1455 20.00 1459 2.25 | 14-223 80.00 14-305 146.50 | •17-406 635.00 •17-407 653.00 |
| 331 1.15 340 1.15 355 1.25 | 806 1.90 807 2.20 808 2.45 | 1160 127.50 1161 2.25 1162 2.25 | 1460 | 14-306 143.50 14-307 153.50 14-308 150.50 | •17-408 653.00 •17-410 1254.00 •17-411 1254.00 |
| 381 1.50 387 1.25 410 1.30 | 809 2.75 810 3.20 812 4.00 | 1163 2.25 1165 18.75 1166 6.00 | 1464 18.00 1468 7.25 1471 17.50 | 14-321 195.00 14-322 205.00 14-323 205.00 | •17-412 1290.00 •17-413 1290.00 •17-455 883.00 |
| 430 1.35 453 1.45 | 814 4.75 815 4.75 | 1170 16.95 1171 2.25 | 1471 17.50 1490 12.00 1505 170.00 1506 33.00 | 14-324 224.00 14-325 224.00 •14-405 383.50 | •17-456 883.00 •17-457 901.00 •17-458 901.00 |
| 475 1.70 476 1.70 | 817 6.10 | 1172 25.00 1173 12.00 1182 26.75 | 1507 203.00 1513 195.00 | •14-406 377.50 •14-407 397.50 | •17-460 1750.00 •17-461 1750.00 |
| 477 1.70 478 1.70 480 8.25 | 819 7.50 822 27.50 830 4.75 | 1186 19.25 1191 2.10 1192 7.45 | 1514 98.00 1515 440.00 1516 55.00 | •14-408 391.50 •14-410 609.25 •14-411 600.75 | •17-462 1786.00 •17-463 1786.00 •17-505 1028.00 |
| 501 1.45 504 5.70 | 831 ½ Dz. per pkg. 1.25 832 ½ Dz. per pkg. 1.25 | 1193 6.25 1194 6.25 | 1517 105.00 1519 225.00 1520 45 | •14-412 630.75 •14-413 621.75 •14-415 716.00 | •17-506 1028.00 •17-507 1055.00 •17-508 1055.00 |
| 505 | 833 ½ Dz. per pkg. 1.85 835 3.10 836 ½ Dz. per pkg. 1.00 | 1195 6.25 1196 6.75 1198 1.10 | 1520 | •14-416 704.00 •14-417 744.00 | •17-510 1215.00 •17-511 1215.00 |
| 510 1.50 514 2.10 515 2.10 | 837 ½ Dz. per pkg. 1.00 838 ½ Dz. per pkg. 1.15 840 1.65 | 1202 2.50 1203 8.75 1204 1.00 | 1523 .70 1524 .35 1525 .40 | •14-418 732,00 •14-515 998.25 •14-516 983.25 | •17-512 |
| 516 2.10 518 2.10 | 841 ½ Dz. per pkg. 1.00 842 ½ Dz. per pkg. 1.00 | 1207 4.45 1210 3.20 | 152630 152755 | •14-517 1033.25 •14-518 1018.25 •14-520 1307.50 | •17-516 1605.00 •17-517 1650.00 |
| 520 1.50 521 1.60 524 60 | 847 ½ Dz. per pkg. 1.15 864 6.50 865 3.45 | 1211 3.10 1212 3.60 1213 17.25 | 1529 70 1530 2.25 1531 45 | •14-521 1289.50 •14-522 1349.50 | •17-518 1650.00 •17-520 1792.00 •17-521 1792.00 •17-522 1846.00 |
| 52560 52660 530 1.60 | 871 5.00 87365 880 195.00 | 1214 | 153235 153335 153425 | •14-523 1331.50 •14-525 1520.00 •14-526 1496.00 | •17-522 |
| 532 1.50 533 1.65 534 1.65 | 882 3.40 883 13.00 886 52.50 | 1238 3.25 1250 8.00 1267 4.25 | 1535 25 1536 35 1538 35 | •14-527 1576.00 •14-528 1552.00 •14-551 400.20 | •17-526 2336.00 •17-527 2408.00 •17-528 2408.00 |
| 536 1.65 560 1.60 | 890 127.50 894 9.45 | 1280 '50 1290 15.00 | 1600 210,00 1604 9.75 | •14-552 420.20 •14-553 420.20 | •17-555 1400.00 •17-556 1400.00 |
| 583 1.65 588 1.65 595 1.65 | 932 2.25 933 3.15 934 2.00 | 1292 42.50 1293 6.75 1294 8.75 | 1605 8.00 1606 8.00 1608 12.50 | •14-554 454.20 •14-555 454.20 •14-561 607.30 | •17-557 1427.00 •17-558 1427.00 •17-560 1914.00 |
| 618 1.65 640 28.50 | 935 1.45 936 1.60 937 3.40 | 1296 37.50 1311 4.95 1312 4.95 | 1609 15.00 1610 24.00 1615 2.75 | •14-562 637.30 •14-563 637.30 •14-564 688.30 | •17-561 1914.00 •17-562 1950.00 •17-563 1950.00 |
| 644 1.85 654 109.50 | 938 2.50 939 2.25 | 1320 14.70 1321 29.40 | 1616 2.75 1617 2.75 | •14-565 688.30 •14-571 800.40 •14-572 840.40 | •17-565 |
| 659 4.95 661 9.25 662 4.00 | 940 2.85 942 85 945 22,50 | 1322 1.25 1323 29.40 1325 11.00 | 1625 23.50 1626 23.50 | •14-573 840.40 •14-574 908.40 | •17-568 2270.00 •17-570 2706,00 |
| 667 52.50 | 949 1.00 | 1327 1.75 | 1632 11,00 | •14-575 908.40 | •17-571 2706.00 |

INDUSTRIAL POWER TOOLS



| | - 11. | | | 0.11 | | | | | | | 1 | | | 1- | | MILK |
|--|---|---|--------|--|---|--------|--|---|--------|--|--|--------|--|---|--------|--|
| Catalog Number | Selling Price | Number | | Selling Price | Catalog Number | | Selling Price | Number | | Selling Price | Catalog Number | | Selling Price | Catalog Number | | Selling Price |
| •17-573 •17-575 •17-576 | \$2760.00 2760.00 3498.00 3498.00 3570.00 | 24-305 24-805 24-807 24-808 24-812 | | 633.25 8.50 4.50 4.50 .50 | 28-430 28-431 •28-432 •28-433 28-810 | | \$5.75 7.00 130.00 130.00 3.45 | 35-101 35-102 35-103 35-104 35-106 | | \$3.95 3.95 3.95 3.95 3.95 3.95 | 49-354 49-370 49-372 49-374 49-379 | | \$1.40 4.75 .85 .55 2.50 | D-51 D-60 D-61 D-62 D-63 | | \$1.45 1.45 1.45 1.45 1.45 |
| •17-578 17-802 17-857 17-860 17-862 | 3570.00 8.50 124.00 59.50 13.75 | 24-815 24-816 24-817 24-819 24-902 | | 8.00 6.50 7.00 16.00 33.00 | 28-836 28-837 28-843 28-845 28-852 | | 2.50 2.50 10.00 11.00 10.50 | 35-110 35-131 35-190 35-191 35-192 | | 3.95 3.95 3.95 3.95 3.95 | 49-386 49-387 49-503 49-505 49-506 | :::::; | 30.80 30.80 .85 62.50 11.50 | D-69 D-70 D-71 D-80 D-100 | | 2.00 1.15 1.15 1.45 2.35 |
| 17-875 17-876 17-877 20-210 20-211 | 89.50 105.00 132.50 312.50 314.25 | 24-906 24-952 24-955 24-957 24-958 | | 12.00 69.50 65.00 3.75 3.75 | •28-862 28-875 28-876 28-877 28-878 | | 27.50 3.10 3.10 3.25 3.25 | 35-193 35-194 35-195 35-196 35-197 | ****** | 3.95 3.95 3.95 3.95 3.95 | 49-520 49-521 49-522 49-523 49-524 | | 179.50 179.50 216.50 228.50 184.50 | D-101 D-102 D-103 D-104 D-105 | | 2. 35 2 35 2. 35 2. 35 2. 75 |
| 20-305 20-810 20-811 20-812 20-815 | 322.05 15.50 15.50 22.00 3.00 | 24-959 24-960 24-961 24-962 24-963 | | 3. 75 3. 75 3. 75 3. 75 3. 75 | 28-879 28-880 28-881 28-882 28-884 | | 3.75 4.25 3.75 4.25 2.70 | 35-200 35-206 35-211 35-221 35-222 | | 3. 95 3. 95 3. 95 3. 95 3. 95 | 49-529 49-531 49-532 49-533 49-534 | | 15.00 6.75 15.00 4.00 4.00 | D-106 D-107 D-108 D-109 D-110 | | 2.35 1.50 1.50 1.50 2.35 |
| 20-816 20-837 20-840 •22-101 22-103 | 3.00 10.00 90.00 545.00 162.50 | 24-964 24-965 24-967 24-968 24-970 | | 3.75 3.25 6.00 6.00 13.75 | 28-885 28-886 28-887 28-890 28-892 | | 2.85 3. 10 3. 85 4.75 4.95 | 35-223 35-224 35-225 35-226 35-227 | | 3. 95 3. 95 3. 95 3. 95 3. 95 | 49-535 49-538 49-539 49-541 49-610 | | 8.00 1.15 1.40 .30 69.00 | D-120 D-121 D-123 D-124 D-125 | | 2.00 2.00 2.00 2.00 2.00 |
| 22-104 •22-106 •22-107 22-113 22-114 | 14.50 99.50 17.00 3.00 6.00 | 24-973 24-974 26-105 26-106 26-109 | | 4.00 3.50 295.00 335.85 245.00 | 28-894 28-896 30-102 30-136 31-105 | | 7.00 8.00 1.10 1.50 71.25 | 35-228 37-205 37-207 •37-300 •37-301 | | 395.00 | 49-611 49-612 49-613 49-614 49-615 | | 69.00 69.00 69.00 83.50 93.50 | D-126 D-127 D-128 D-129 D-130 | | 2.00 2.00 2.00 2.00 2.00 |
| •22-115 22-116 22-117 22-118 •22-120 | 24.50 2.95 2.95 3.25 575.00 | 26-110 26-120 26-805 26-806 26-810 | | 266.75 550.00 5.00 16.50 5.50 | 31-411 31-412 31-413 31-414 31-430 | | 120.15 180.40 163.90 196.90 25.50 | *37-302 37-305 *37-306 *37-307 37-595 | | | 49-616 49-618 50-168 50-351 50-353 | | 93.50 13.50 34.00 9.25 1.00 | D-131 D-132 D-133 D-134 D-135 | | 2.75 .45 .45 .45 2.00 |
| •22-254 | 3085.00 | 26-812 26-813 26-814 26-820 26-825 | | 3.60 2.50 1.00 5.00 11.00 | 31-431 31-434 31-435 31-436 31-437 | | 25.50 5.50 6.75 8.25 16.50 | 37-808 40-205 40-305 43-205 43-817 | | 124.30 236.25 6.85 | 50-406 50-432 50-656 50-716 50-821 | | 19.00 21.75 21.75 19.50 21.75 | D-136 D-137 D-138 D-139 D-140 | | 2.00 2.00 2.00 2.00 2.00 |
| •22-272 | 2480.00 125.00 79.00 215.00 | 26-826 26-827 26-828 26-829 26-830 | | 12.50 1.25 1.25 1.25 1.25 | 31-438 31-439 31-440 31-441 31-442 | | 34.50 7.50 7.50 35.75 .85 | 43-826 43-827 46-305 46-310 46-801 | | 22.50 22.50 161.75 177.50 5.25 | 50-891 62-110 62-180 62-210 62-250 | :::::: | 18.50 34.95 34.65 44.95 54.45 | D-141 D-142 D-143 D-144 D-145 | | .45 .45 .45 .45 |
| •22-273 •22-274 •22-275 •22-276 23-104 | 35.00 55.00 48.00 120.00 | 26-831 26-832 26-833 26-834 26-835 | | 2.75 3.75 4.00 4.25 1.50 | 31-505 31-506 31-803 31-804 31-852 | | 153.50 187.05 11.00 2.95 52.50 | 46-802 46-803 46-804 46-815 46-817 | | 5. 25 5.25 5.25 2.30 1.70 | 62-610 62-650 66-320 *66-321 *68-110 | | 50.00 43.75 45.95 56.00 | D-146 D-147 D-148 D-149 D-150 | | .45 .55 .55 .70 .50 |
| 23-105 23-109 23-115 23-118 23-120 | 114.50 114.50 114.50 114.50 | 26-836 26-837 26-838 26-839 27-100 | :::::: | 1.75 1.75 6.00 5.50 550.00 | 31-856 31-860 31-861 31-862 31-863 | | 11.00 7.25 .80 .75 .75 | 46-934 46-948 46-954 46-956 46-957 | | 3.75 14.75 2.00 15.75 21.75 | *68-120 *68-310 *68-320 82-710 82-910 | | 61.75 73.00 | D-151 D-155 D-171 D-172 D-173 | | .70 .40 .45 .45 .45 |
| 23-121 23-255 23-256 23-404 23-405 | 140.00 75.00 75.00 139.50 139.50 | 27-102 27-120 27-850 27-860 27-880 | | 3.50 685.00 23.00 112.00 62.00 | 31-867 31-869 34-305 34-307 34-333 | | 17.50 7.25 219.50 185.50 27.50 | 46-958 46-961 46-963 46-966 49-100 | | 21.75 43.50 3.75 2.30 1.15 | 84-910 84-977 85-010 85-080 86-520 | | 93.50 217.80 96.25 85.00 58.00 | D-174 D-175 D-176 D-177 D-178 | | .50 .50 .50 .55 |
| 23-407 23-409 23-410 23-415 23-418 | 155.00 139.50 155.00 162.50 162.50 | 27-885 27-890 27-895 27-900 27-901 | | 65.00 49.50 7.25 11.00 11.00 | *34-350 *34-351 *34-352 *34-363 *34-364 | | | 49-103 49-105 49-106 49-115 49-140 | | 1.00 1.15 1.15 1.25 1.70 | 86-720 86-920 86-921 86-922 87-010 | | 65.50 83.00 78.65 98.00 88.50 | D-179 D-180 D-190 D-191 D-192 | | .55 .70 2.00 2.00 2.35 |
| 23-420 23-421 23-475 23-476 23-505 | 165.00 165.00 100.00 100.00 179.00 | 28-205 28-207 28-305 28-307 •28-350 | | 264.70 230.70 495.00 | *34-370 *34-371 34-405 34-407 34-802 | | 1026.00 1026.00 272.50 272.50 7.50 | 49-141 49-142 49-144 49-150 49-152 | | 1.50 1.45 1.50 12.00 1.15 | 87-120 *87-121 87-210 *88-510 *88-511 | | 92.40 95.70 96.25 † | D-193 D-194 D-195 D-196 D-197 | | 2.35 2.35 2.35 2.75 2.75 |
| 23-506 23-507 23-508 23-510 23-515 | 179.00 179.00 179.00 184.00 | •28-351 •28-352 •28-400 •28-401 •28-402 | | 720.00 1295.00 1295.00 1050.00 | 34-804 34-813 34-815 34-816 34-817 | | 3.15 21.20 11.95 14.95 17.95 | 49-153 49-154 49-172 49-175 49-176 | | 1.15 1.25 1.50 5.25 6.50 | *88-520 *88-521 *88-710 *88-720 97-320 | | 114.95 | D-198 D-199 D-200 D-201 D-202 | | 2.75 2.75 2.00 2.00 2.00 |
| 23-516 23-555 23-556 23-557 23-558 | | •28-403 •28-404 •28-405 •28-406 •28-407 | :::::: | 1645.00 1925.00 82.50 159.25 | 34-818 34-819 34-903 •34-925 34-930 | | 21.95 21.95 2.00 19.00 4.85 | 49-177 49-178 49-307 49-309 49-310 | | 1.00 1.00 1.50 2.75 1.50 | 97-420 98-111 98-321 D-1 D-2 | | 159.50 264.00 172.70 1.45 1.45 | D-203 D-204 D-205 D-205-S D-206 | | 2.00 2.00 2.00 4.45 2.00 |
| 23-560 23-565 23-566 23-625 23-800 | 209.00 219.00 219.00 49.50 3.75 | •28-408 •28-409 •28-410 •28-411 •28-412 | :::::: | 27.00 59.00 40.50 40.50 18.75 | 34-931 34-932 34-933 34-940 34-941 | :::::: | 4.85 4.85 10.45 33.44 15.00 | 49-312 49-314 49-315 49-316 49-319 | | 3.30 8.25 2.50 11.50 2.00 | D-3 D-4 D-10 D-11 D-12 | | 1.45 1.45 1.45 1.45 1.45 | D-209 | :::::: | 5.50 2.00 2.00 4.45 2.00 |
| 23-802 23-805 23-815 23-816 23-826 | 8.00 25.00 4.50 4.50 2.75 | •28-413 •28-414 28-424 28-425 28-426 | | 32.00 37.50 3.00 3.10 3.45 | 34-942 34-943 34-945 34-947 34-948 | | 8.00 12.00 3.50 8.00 8.00 | 49-320 49-321 49-322 49-324 49-325 | | .65 3.15 4.85 33.00 37.40 | D-13 D-20 D-21 D-30 D-31 | :::::: | 1.45 1.45 1.45 1.45 1.45 | D-210 D-210-S D-211 D-212 D-213 | | 2.00 5.50 2.35 2.00 2.00 |
| 23-827 24-105 24-205 | 2.75 550.00 595.00 | 28-427 28-428 28-429 | | 3.75 3.85 4.75 | 34-949 34-950 35-100 | | 12.00 12.00 3.95 | 49-331 49-333 49-334 | | 1.50 2.15 6.75 | D-40 D-41 D-50 | | 1.45 1.45 1.45 | D-214 D-215 D-217 | | 2.75 .45 .45 |

^{*} Motors Not Carried in Stock. Delivery Information Upon Application.

[•] F.O.B. Factory.

[†] Prices on Application.



HOMECRAFT POWER TOOLS

| Catalog Number | | Selling Price | Catalog Number | Selling Price | Catalog Number | | Selling Price | Catalog Number | | Selling Price | Catalog Number | | Selling Price | Catalog Number | Selling Price |
|---------------------------------|--------|---------------------------------------|---------------------------------|---|--|--------|---|--|--------|--|--|--------|---|---|--|
| 58 59 60 61 64 | | \$.40 .40 .40 .40 | 683 684 685 686 687 | \$.85 .85 .85 1.00 1.00 | 974 976 977 978 979 | | \$3.40 7.95 3.40 1.50 1.50 | 28-804 28-810 28-811 28-812 31-200 | | \$1.40 3.45 2.25 2.25 14.95 | 46-845 46-934 46-948 46-954 46-956 | | \$45.00 3.75 14.75 2.00 15.75 | D-135 D-136 D-137 D-138 D-139 | \$2.00 2.00 2.00 2.00 2.00 |
| 65 77 81 82 83 | | .55 .30 .30 .30 | 690 692 694 695 697 | 1.15 1.85 4.00 2.25 17.25 | 980 981 982 983 985 | | 34.50 1.60 12.95 4.50 2.30 | 31-201 31-202 31-804 34-110 34-334 | | 2.60 17.55 2.95 44.50 17.50 | 46-957 46-963 46-965 46-966 49-105 | | 21.75 3.75 43.50 2.30 1.15 | D-140 D-141 D-142 D-143 D-144 | .45 .45 .45 .45 |
| 84 85 86 87 88 | | .30 .30 .30 .30 | 703 704 711 718 720 | .45 .50 2.00 1.45 1.85 | 991 992 1178 1182 1184 | | 3.40 3.85 16.75 26.75 26.50 | 34-500 34-530 34-532 34-803 34-813 | | 89.50 229.50 109.80 2.50 21.20 | 49-118 49-121 49-123 49-142 49-144 | | 1.70 1.50 5.50 1.45 1.50 | D-145 D-146 D-147 D-148 D-149 | .45 .45 .55 .55 |
| 91 92 93 94 95 | | .40 .30 .40 .50 | 726 727 728 729 730 | 1.15 1.15 1.15 1.15 1.15 | 1186 1190 1191 1198 1210 | | 19.25 3.40 2.10 1.10 3.20 | 34-903 34-905 34-906 34-961 34-962 | | 2.00 .55 .55 1.50 1.50 | 49-152 49-154 49-179 49-182 49-188 | | 1.15 1.25 3.15 1.30 4.50 | D-150 D-151 D-155 D-171 D-172 | .50 .70 .40 .45 .45 |
| 96 97 98 120 121 | | .40 .30 .40 3.75 2.25 | 731 740 751 752 753 | 1.15 6.60 1.15 1.15 1.15 | 1211 1212 1330 1333 1334 | | 3.10 3.60 .85 .85 | 34-963 34-964 34-965 34-966 34-967 | | 1.50 15.95 5.70 6.25 12.75 | 49-189 49-190 49-191 49-316 49-380 | | .85 2.85 7.25 11.50 .85 | D-173 D-174 D-175 D-176 D-177 | .45 .50 .50 .50 |
| 122 123 124 125 126 | | 2.25 1.85 1.50 1.60 1.85 | 754 755 756 757 758 | 1.15 1.15 1.15 1.15 1.15 | 1343 1464 1490 1521 3101 | | 6.75 18.00 12.00 .30 2.00 | 35-100 35-101 35-102 35-103 35-104 | | 3.95 3.95 3.95 3.95 3.95 | 49-503 50-304 50-305 50-307 50-308 | | .85 15.25 21.00 21.75 18.45 | D-178 D-179 D-180 D-190 D-191 | 70 .55 .70 2.00 2.00 |
| 127 128 130 144 145 | | 1.50 1.60 14.40 3.00 3.00 | 760 804 805 806 807 | 8.75 1.70 1.70 1.90 2.20 | 3102 3113 3114 3115 4003 | | 2.00 2.00 2.85 2.50 2.00 | 35-106 35-110 35-131 35-190 35-191 | | 3.95 3.95 3.95 3.95 3.95 | 50-329 50-353 50-716 50-810 50-821 | | 13.75 1.00 19.50 21.00 21.75 | D-192 D-193 D-194 D-195 D-196 | 2.35 2.35 2.35 2.35 2.75 |
| 163 164 265 281 325 | | 5.75 3.50 5.95 1.00 3.15 | 808 809 810 812 814 | 2.45 2.75 3.20 4.00 4.75 | 4004 4005 4007 4008 4009 | | 1.00 1.15 1.00 1.00 1.00 | 35-192 35-193 35-194 35-195 35-196 | | 3.95 3.95 3.95 3.95 3.95 | 60-013 62-213 62-253 62-413 62-653 | | 15.95 39.95 44.95 29.95 36.95 | D-197 D-198 D-199 D-200 D-201 | 2.75 2.75 2.75 2.00 2.00 |
| 326 334 335 340 387 | | 5.25 3.15 3.15 1.15 1.25 | 815 816 817 818 819 | 4.75 5.50 6.10 19.25 7.50 | 4010 5200 5225 5250 5275 | | 1.00 .70 .70 .70 .75 | 35-197 35-200 35-206 35-211 35-221 | | 3.95 3.95 3.95 3.95 3.95 | D-1 to D- D-69 D-70 D-71 D-80 | 63 | 1.45 2.00 1.15 1.15 1.45 | D-202 D-203 D-204 D-205 D-205-S | 2.00 2.00 2.00 2.00 4.45 |
| 410 453 474 475 476 | | 1.30 1.45 1.70 1.70 | 822 830 831 832 833 | 27.50 4.75 1.25 1.25 1.85 | 5300 5400 5500 5650 11-120 | | .80 .90 1.15 1.60 54.50 | 35-222 35-223 35-224 35-225 35-226 | | 3.95 3.95 3.95 3.95 3.95 | D-100 D-101 D-102 D-103 D-104 | | 2.35 2.35 2.35 2.35 2.35 | D-206 D-206-S D-207 D-208 D-208-S | 2.00 5.50 2.00 2.00 4.45 |
| 477 478 480 514 516 | | 1.70 1.70 8.25 2.10 2.10 | 835 836 837 838 840 | 3.10 1.00 1.00 1.15 1.65 | 11-130 11-806 11-811 11-812 11-813 | | 57.50 11.50 .65 1.00 1.25 | 35-227 35-228 37-110 37-113 37-114 | :::::: | 3.95 3.95 43.50 3.00 49.15 | D-105 D-106 D-107 D-108 D-109 | | 2.75 2.35 1.50 1.50 1.50 | D-209 D-210 D-210-S D-211 D-212 | 2.00 2.00 5.50 2.35 2.00 |
| 518 520 524 526 560 | ****** | 2.10 1.50 .60 .60 1.60 | 841 842 847 864 865 | 1.00 1.00 1.15 6.50 3.45 | 11-814 11-815 11-817 11-818 11-821 | :::::: | 1.60 1.95 2.40 3.10 11.50 | 37-290 37-510 37-802 37-806 40-110 | | 59.50 115.45 3.90 17.75 43.50 | D-110 D-120 D-121 D-123 D-124 | | 2.35 2.00 2.00 2.00 2.00 | D-213 D-214 D-215 D-217 | 2.00 2.75 .45 .45 |
| 588 595 634 636 638 | | 1.65 1.65 4.00 4.25 4.50 | 882 932 933 934 936 | 3.40 2.25 3.15 2.00 1.60 | 11-834 23-600 23-601 23-603 23-606 | | .70 39.95 8.25 8.45 2.25 | 43-110 43-803 43-817 46-230 46-801 | | 69.50 2.70 6.85 64.50 5.25 | D-125 D-126 D-127 D-128 D-129 | :::::: | 2.00 2.00 2.00 2.00 2.00 | | |
| 644 679 680 681 682 | | 1.85 1.50 1.65 1.85 .85 | 937 940 945 968 972 | 3.40 2.85 22.50 10.75 13.75 | 23-607 28-110 28-801 28-802 28-803 | | 2.25 54.50 1.40 1.40 1.40 | 46-802 46-803 46-804 46-815 46-817 | :::::: | 5.25 5.25 5.25 2.30 1.70 | D-130 D-131 D-132 D-133 D-134 | | 2.00 2.75 .45 .45 .45 | | |