BULLETIN A-17

MAY 1947

DELTA MILWAUKEE

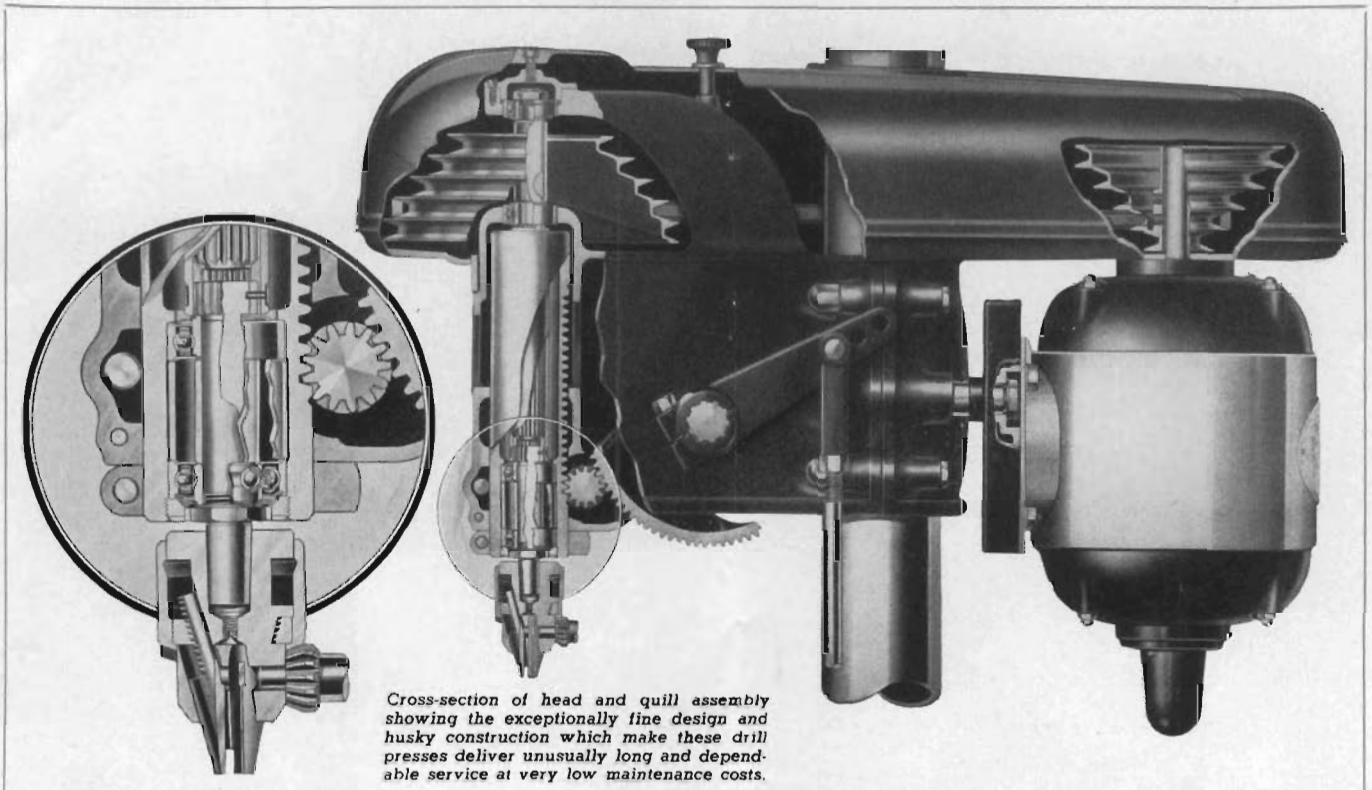
REG. U.S. PAT. OFF.

Machine Tools

17 INCH DRILL PRESSES

DELTA MANUFACTURING DIVISION
ROCKWELL MANUFACTURING COMPANY
MILWAUKEE 1, WISCONSIN
General Sales Office • 6 NORTH MICHIGAN AVENUE, CHICAGO 2, ILLINOIS

17-inch Drill Press Features Make It A Favorite Everywhere



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

Accurate Spindle

The lower end of the pulley spindle is machined to form a 16-tooth automobile type spline fitting into a husky sleeve of large diameter, internally splined to fit the spindle. 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 spindle 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 lubricated-for-life ball bearings which takes all belt pull so that none is transmitted to the spindle. The spindle is also carried in two 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 ½" 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 has 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 determine the exact amount of depth to drill or tap without resorting to arithmetic computations.

Head and Table Raising Mechanisms

The interchangeable raising mechanisms are equipped with ball bearings to assure ease of adjustment. 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.

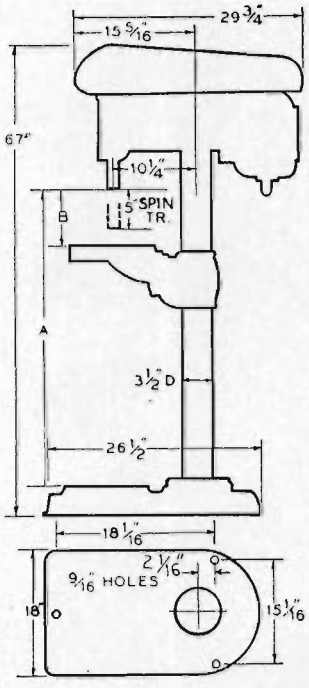
Husky Construction

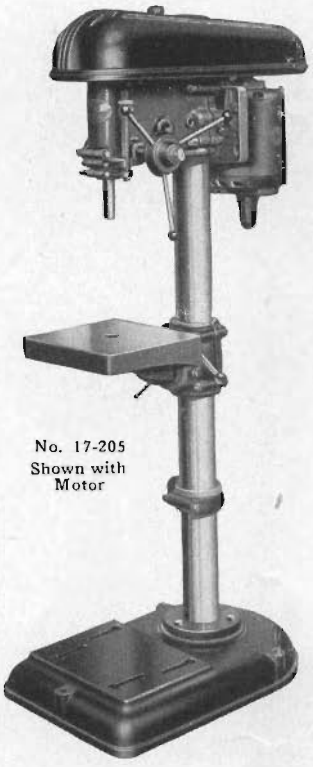
As shown in the photograph above, these drill presses are of heavy construction throughout weighing as high as 400 pounds. Advanced engineering and design have distributed this weight correctly so that it is properly proportioned.

DELTA MANUFACTURING DIVISION

ROCKWELL MANUFACTURING COMPANY — MILWAUKEE 1, WISCONSIN

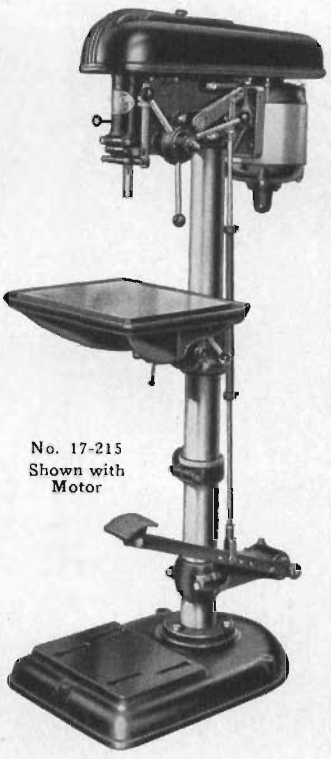
17-inch Floor Type, Single Spindle Drill Presses





No. 17-205
Shown with
Motor

No. 17-210
Shown with
Motor



No. 17-215
Shown with
Motor

Type	Standard Tilting Table		Production Table		Prod. Table and Foot Feed	
Model	Slo-Speed	High Speed	Slo-Speed	High Speed	Slo-Speed	High Speed
WITH NO. 2 MORSE TAPER SPINDLE						
Machine No.	17-205	17-206	17-210	17-211	17-215	17-216
Table Working Surface	11" x 12"	11" x 12"	12½" x 17"	12½" x 17"	12½" x 17"	12½" x 17"
Spindle to Table (B) Max.	33"	33"	31⅛"	31⅛"	27⅞"	27⅞"
Spindle to Base (A) Max.	43¾"	43¾"	43¾"	43¾"	43¾"	43¾"
Ship. Wt. Lbs.	360	360	357	357	391	391
Code Word	DRILA	DRIAA	DRILM	DRIAJ	DRILQ	DRIAK
Cat. No. of Coolant Piping	None	None	17-805	17-805	17-805	17-805
Type of Coolant Pump Required	None	None	See Page 11	See Page 11	See Page 11	See Page 11
WITH 1/2 INCH JACOBS CHUCK SPINDLE						
Machine No.	17-207	17-208	17-212	17-213	17-217	17-218
Table working Surface	11" x 12"	11" x 12"	12½" x 17"	12½" x 17"	12½" x 17"	12½" x 17"
Spindle to Table (B) Max.	33⅛"	33⅛"	31⅞"	31⅞"	28⅜"	28⅜"
Spindle to Base (A) Max.	44¼"	44¼"	44¼"	44¼"	44¼"	44¼"
Ship. Wt. Lbs.	360	360	357	357	391	391
Code Word	DRILG	DRIAG	DRILN	DRIAM	DRILR	DRIAN
Cat. No. of Coolant Piping	None	None	17-805	17-805	17-805	17-805
Type of Coolant Pump Required	None	None	See Page 11	See Page 11	See Page 11	See Page 11

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

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

Capacity: ¾" in cast iron.

Machines include:
- Table raising mechanism.
- Streamlined belt guard.
- Built-in depth gauge.
- 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 only are to be used.

Order No. 2 Morse taper spindles 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 6.

For individual parts for special set-ups and for accessories, see pages 6 and 10.

For coolant piping and pump see page 11.

Motors recommended:

LIGHT DUTY: 82-710—½ H.P., Cap. A.C. 115/230 V. 60 Cy.
86-520—½ H.P., 3 Ph. A.C. 220/440 V. 50/60 Cy.

MEDIUM DUTY: 82-910—¾ H.P., Cap. A.C. 115/230 V. 60 Cy.
86-720—¾ H.P., 3 Ph. A.C. 220/440 V. 50/60 Cy.

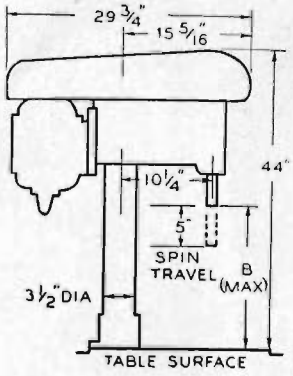
HEAVY DUTY: 84-910— 1 H.P., R.I. A.C. 115/230 V. 60 Cy.
86-920— 1 H.P., 3 Ph. A.C. 220/440 V. 50/60 Cy.

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 12 for Motors and Starters.

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 Type only. Working surface is 32" from floor.

No. 17-305
Shown with Motor

No. 17-410
Shown with Motors

Type	1 Spin. Bench Type		2 Spin. Floor Type		4 Spin. Floor Type	
Model	Slo Speed	High Speed	Slo Speed	High Speed	Slo Speed	High Speed
WITH NO. 2 MORSE TAPER SPINDLE						
Machine No.	17-305	17-306	17-405	17-406	17-410	17-411
Table Working Surface	16" x 18"	16" x 18"	17½" x 36"	17½" x 36"	17½" x 77"	17½" x 77"
Spin. to Table (B) Max.	26"	26"	26"	26"	26"	26"
Spindle Spacing	.....	.....	18"	18"	18"	18"
Ship. Wt. Lbs.	340	340	753	753	1638	1638
Code Word	DRILF	DRIAF	TWOSF	TWOSH	FOURI	FOURK
Cat. No. Coolant Piping	17-805	17-805	17-806	17-806	17-807	17-807
Type of Coolant Pump Required	See Page 11	See Page 11	See Page 11	See Page 11	See Page 11	See Page 11
WITH 1/2 INCH JACOBS CHUCK SPINDLE						
Machine No.	17-307	17-308	17-407	17-408	17-412	17-413
Table Working Surface	16" x 18"	16" x 18"	17½" x 36"	17½" x 36"	17½" x 77"	17½" x 77"
Spin. to Table (B) Max.	26½"	26½"	26½"	26½"	26½"	26½"
Spindle Spacing	.....	.....	18"	18"	18"	18"
Ship. Wt. Lbs.	390	390	753	753	1638	1638
Code Word	DRILH	DRIAH	TWOSG	TWOSI	FOURJ	FOURL
Cat. No. of Coolant Piping	17-805	17-805	17-806	17-806	17-807	17-807
Type of Coolant Pump Required	See Page 11	See Page 11	See Page 11	See Page 11	See Page 11	See Page 11

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 1¼" oil trough all around tapped at rear and fitted with ½" drain plug.

Capacity: ¾" in cast iron.

Machines include: Head raising mechanisms. Streamlined belt guard. Built-in depth gauge. 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 machines where straight shank drills only are to be used.

Order No. 2 Morse taper spindle machines where taper shank drills only are to be used.

Where both straight and taper shank drills are to be used, order models with No. 2 Morse taper spindle and use the No. 968 chuck listed on page 6.

For individual parts for special set-ups and for accessories, see pages 6 and 10.

For coolant piping and pump see page 11.

Motors recommended:

LIGHT DUTY: 82-710—½ H.P., Cap. A.C. 115/230 V. 60 Cy.
86-520—½ H.P., 3 Ph. 220/440 V. 50/60 Cy.

MEDIUM DUTY: 82-910—¾ H.P., Cap. A.C. 115/230 V. 60 Cy.
86-720—¾ H.P., 3 Ph. A.C. 220/440 V. 50/60 Cy.

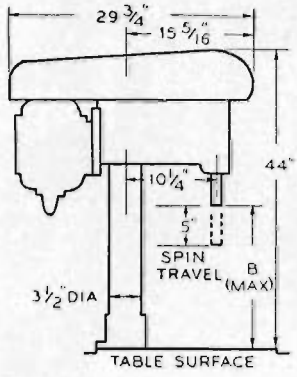
HEAVY DUTY: 84-910—1 H.P., R.I. A.C. 115/230 V. 60 Cy.
86-920—1 H.P., 3 Ph. A.C. 220/440 V. 50/60 Cy.

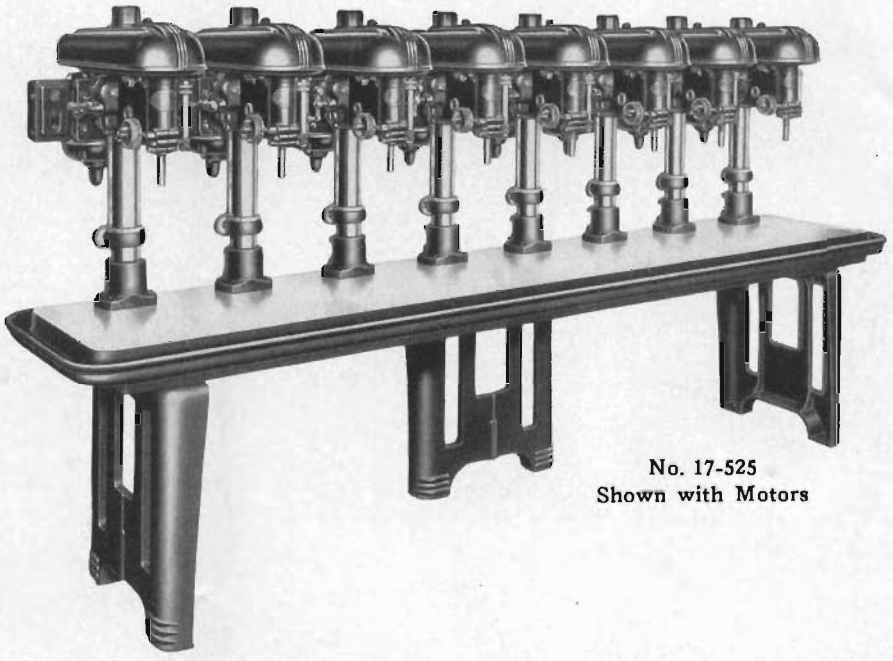
For 3 phase motors use No. 1320 Manual Starter, or Magnetic Starters No. 1329 or No. 1321, with No. 1322 mounting parts. Use No. 1332 switch rod for single phase motors.

See page 12 for Motors and Starters.

FOR PRICES SEE ATTACHED PRICE LIST.

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





No. 17-525
Shown with Motors

Type	3 Spindle		4 Spindle		5 Spindle		6 Spindle		8 Spindle	
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 TAPER SPINDLE										
Machine No.	17-505	17-506	17-510	17-511	17-515	17-516	17-520	17-521	17-525	17-526
Table Working Surface	17½" x 65"	17½" x 65"	17½" x 65"	17½" x 65"	17½" x 95"	17½" x 95"	17½" x 95"	17½" x 95"	17½"x 125"	17½"x 125"
Spin. to Table (B) Max.	26"	26"	26"	26"	26"	26"	26"	26"	26"	26"
Spindle Spacing	18"	18"	15"	15"	18"	18"	15"	15"	15"	15"
Ship. Wt. Lbs.	1570	1570	1750	1750	2370	2370	2540	2540	3250	3250
Code Word	TRISA	TRISB	FOURN	FOURO	PENTA	PENTB	SIXAA	SIXAB	OCTAA	OCTAB
Cat. No. Coolant Piping	17-808	17-808	17-809	17-809	17-811	17-811	17-812	17-812	17-814	17-814
Type of Cool. Pump Req.	See Page 11	See Page 11	See Page 11	See Page 11	See Page 11	See Page 11	See Page 11	See Page 11	See Page 11	See Page 11
WITH 1/2 INCH JACOBS CHUCK SPINDLE										
Machine No.	17-507	17-508	17-512	17-513	17-517	17-518	17-522	17-523	17-527	17-528
Table Working Surface	17½" x 65"	17½" x 65"	17½" x 65"	17½" x 65"	17½" x 95"	17½" x 95"	17½" x 95"	17½" x 95"	17½"x125"	17½"x125"
Spin. to Table (B) Max.	26½"	26½"	26½"	26½"	26½"	26½"	26½"	26½"	26½"	26½"
Spindle Spacing	18"	18"	15"	15"	18"	18"	15"	15"	15"	15"
Ship. Wt. Lbs.	1570	1570	1750	1750	2370	2370	2540	2540	3250	3250
Code Word	TRISC	TRISD	FOURP	FOURQ	PENTC	PENTD	SIXAC	SIXAD	OCTAC	OCTAD
Cat. No. Coolant Piping	17-808	17-808	17-809	17-809	17-811	17-811	17-812	17-812	17-814	17-814
Type of Cool. Pump Req.	See Page 11	See Page 11	See Page 11	See Page 11	See Page 11	See Page 11	See Page 11	See Page 11	See Page 11	See Page 11

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. These tables are made up of center sections to which end sections are bolted. This arrangement allows for a wide variety of combinations—and altho we show here the most popular production types 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. Minimum center to center distance is 15". The sections have a 1½" trough and the end sections are tapped and fitted with ½" drain plug. 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.

Machines include: Head raising mechanisms. Streamlined belt guard.

Built-in depth gauge. 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 machines where straight shank drills only are to be used. Order No. 2 Morse taper spindle machines where taper shank drills only are to be used. Where both straight and taper shank drills are to be used, order machines with No. 2 Morse taper spindle and use the No. 968 chuck listed on page 6.

For individual parts for special set-ups and for accessories, see pages 6 and 10.

For coolant piping and pump see page 11.

Motors recommended:

LIGHT DUTY: 82-710—½ H.P., Cap. A.C. 115/230 V. 60 Cy.
86-520—½ H.P., 3 Ph. A.C. 220/440 V. 50/60 Cy.

MEDIUM DUTY: 82-910—¾ H.P., Cap. A.C. 115/230 V. 60 Cy.
86-720—¾ H.P., 3 Ph. A.C. 220/440 V. 50/60 Cy.

HEAVY DUTY: 84-910—1 H.P., R.I. A.C. 115/230 V. 60 Cy.
86-920—1 H.P., 3 Ph. A.C. 220/440 V. 50/60 Cy.

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 12 for Motors and Starters.

(FOR PRICES SEE ATTACHED PRICE LIST)

17" Drill Press Parts and Slo-Speed Attachment for 17" Drill Press

17 INCH DRILL PRESS PARTS

No. 1378—17" Slo-Speed Drill Press Head with No. 2 Morse Taper Spindle, No. 520 Belt and No. 1311 Motor Pulley. 100 lbs.....Code DRILI

No. 1378-H—17" High-Speed Drill Press Head with No. 2 Morse Taper Spindle, No. 501 Belt and No. 1312 Motor Pulley. 100 lbs.....DRIHI

No. 1379—17" Slo-Speed Drill Press Head with ½" Jacobs Chuck Spindle, No. 520 Belt and No. 1311 Motor Pulley. 100 lbs.....Code DRILJ

No. 1379-H—17" High-Speed Drill Press Head with ½" Jacobs Chuck Spindle, No. 501 Belt and No. 1312 Motor Pulley. 100 lbs.....DRIHJ

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

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

No. 501 —V-Belt for 17" High-Speed Drill Press. ⅜ lb.....Code MORUV

No. 520 —V-Belt for 17" Slo-Speed Drill Press. ⅜ lb.....Code BELTC

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

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

No. 1366—Mounting Flange and Screws for 17" Drill Press Column. (Not for floor type.) 9 lbs.....Code DRILT

No. 1367—Column for Floor Type 17" Drill Press. 60" long and 3½" diameter. 37 lbs.....Code DRILV

No. 1368—Column for Bench Type 17" Drill Press. 38½" long and 3½" diameter. 25 lbs.....Code DRILZ

No. 1372—Production Table to fit Standard Bracket on Floor Type 17" Drill Press. 66 lbs.....Code DRILC

No. 1513—2 Spindle One Piece Table. Working Surface of 17½"x 36" for 17" Drill Press Heads. 320 lbs.....Code DRIAR

No. 1515—4 Spindle One Piece Table. Working Surface of 17½"x 77" for 17" Drill Press Heads. 970 lbs.....Code DRIAU

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.....Code DRIAS

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.....Code PRODK

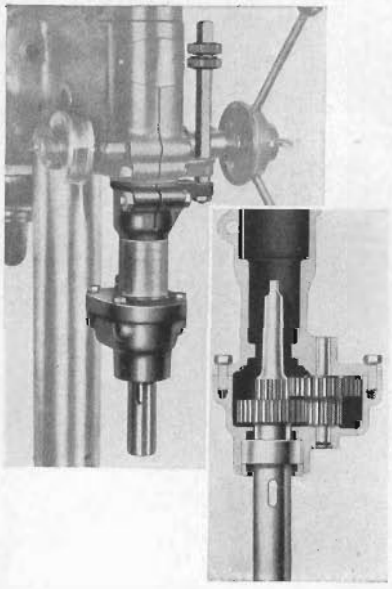
No. 1380—Raising Mechanism for 17" Drill Press with Worm Shaft. Worm Gear and Pinion, Ball Handle, Rack, Ball Thrust Bearing and Collar for Column. 9 lbs.....Code DRILK

No. 1371—Foot Feed for Floor Type 17" Drill Press. 38 lbs.....DRILB

No. 968 —½" 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. 2¼ lbs.....Code CHGEA

(See Page 10 for Sectional Tables, End Pieces and Legs.)

EFFICIENT-OPERATING SLO-SPEED ATTACHMENT USES TRAIN OF ACCURATELY MACHINED, DOUBLE-REDUCTION GEARS WHICH PROVIDE POSITIVE, CHATTER-FREE OPERATION OF SPINDLE



Shop practices often necessitate extra slow operation of the 17" drill press for spot facing, reaming, counterboring, core drilling and drilling of hardened parts.

To meet this requirement the No. 17-860 Slo-Speed Attachment has been designed. It fits any of our 17" drill presses having a No. 2 Morse taper spindle.

It has many special design and construction features. A train of accurately machined, double-reduction gears is used to reduce the normal speed of the spindle. The use of gears (in place of belts) eliminates all chatter, giving a positive, smooth rotation of spindle. In addition to the smooth rotation, the gears provide positive operation—there's no slippage such as encountered with belt-driven units.

It is extremely simple to install or remove which means that the same drill press can be used for its regular speeds or the slow speeds. Each machine thus has 10 different speeds which will meet the requirements in all shops. The ratio of input to output is: Input 4.7 R.P.M., Output 1 R.P.M.

The unit has a drive pinion which has a No. 2 Morse taper shank and which is first slipped into the spindle of the drill press. With the drive pinion in place, the entire attachment is slipped onto the drill press quill and firmly clamped in place with the clamp bolt. The housing butts against the quill so that no end thrust is put against the pinion or the gears. Anti-friction bearings used throughout.

The gears are heat-treated—accurately machined for long wear.

The use of the Slo-Speed Attachment on the 17" drill press reduces the spindle travel from 5 inches to 4 inches and reduces the distance from the end of the spindle to the table or base by 7 1/16 inches. The attachment has a No. 2 Morse taper spindle socket.

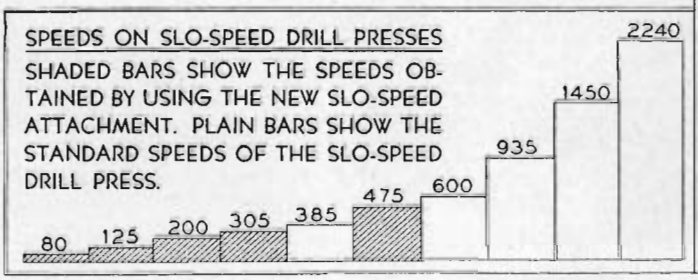
CATALOG LISTING

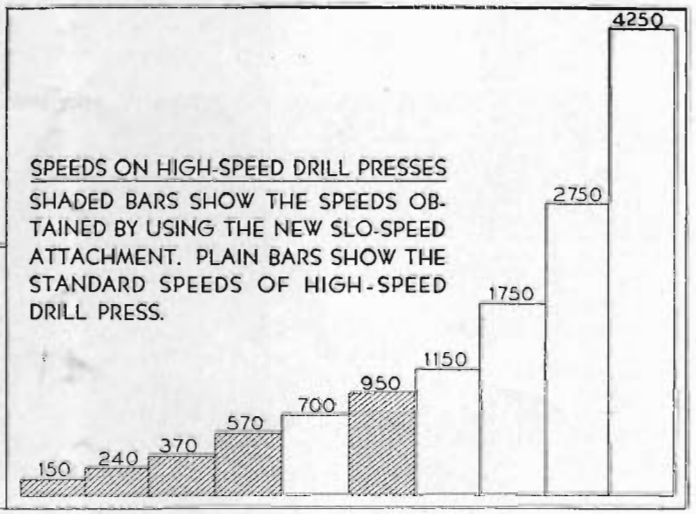
No. 17-860—Slo-Speed Attachment for 17" Drill Presses having a No. 2 Morse Taper Spindle. Ratio of 4.7 to 1. 16 lbs.....Code SLOSP

(FOR PRICES SEE ATTACHED PRICE LIST)

Wide Range of Speeds Available

The standard speed of the drill press is reduced 4.7 times by the Slo-Speed Attachment. The bar graphs below show the wide range of speeds obtained on both the High-Speed and Slo-Speed Drill Presses when the Slo-Speed Attachment is used. These speeds answer all requirements in the shop. Capacity of drill press is not increased.



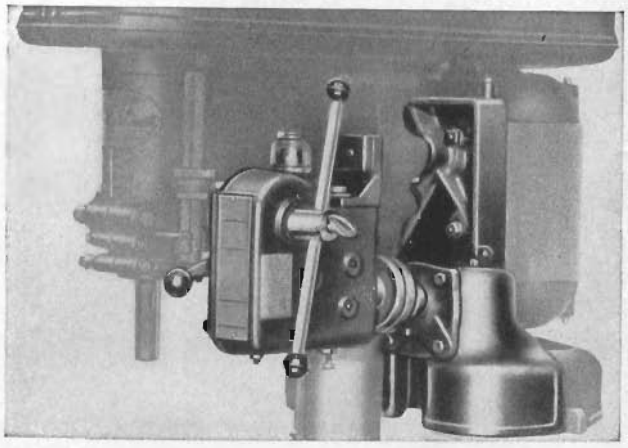


DELTA MANUFACTURING DIVISION

ROCKWELL MANUFACTURING COMPANY

MILWAUKEE 1, WISCONSIN

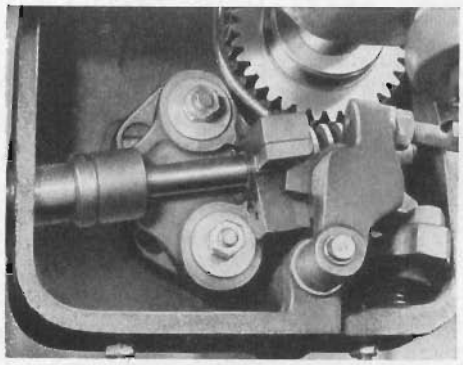
Power Feed for 17" Drill Press Speeds Output and Cuts Operating Costs



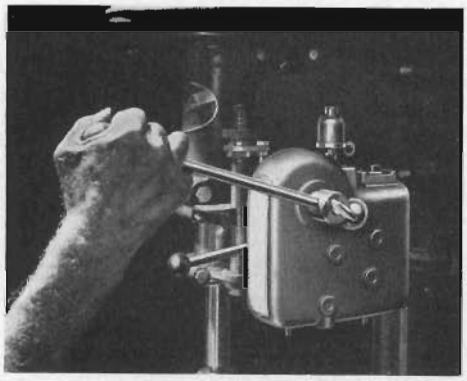
Save time and cut operating costs with efficient Power Feed Drill Presses . . . .

THESE Power Feed Drill Presses are an immediate favorite wherever used, because they free operator's time which can be utilized for other operations, thus automatically increasing production over hand operated units.

The Power Feed is a self-contained unit attached to the side of the drill press as illustrated and automatically brings the drill down into the work. The depth of the hole drilled can be accurately controlled. The rate of feed of the drill is also accurately controlled so that maximum efficiency of the drill is obtained. Study these outstanding features.



Husky Bronze Worm Wheel . . . and hardened and polished Worm Gear insure long life.



Manual Feed or Power Feed. No changed parts! Nothing to remove!

SPECIAL FEATURES OF OPERATION ASSURE HIGH PRODUCTION

Carefully engineered, these Power Feed Drill Presses employ a husky worm driven mechanical power feed, driven directly from the motor. Special hardening and polishing of the worm gear provides additional strength that insures long, satisfying service.

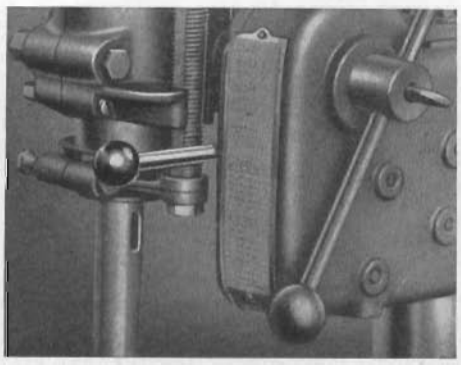
As a time saver in any production shop, these power feed drill presses "fill the bill." The operator can bring the drill down to the work in one swift motion, by hand, and with a flip of the power lever set the machine for the power feed. Then, while the drill press completes the drilling cycle, he can pass to another operation, loading another jig or working on another spindle. Upon completion of the drilling operation, the drill automatically returns to its original position. The automatic stop assures uniform depth of holes to close tolerances, and can be set to any depth (of hole) within the range of the 17" drill press.

There are eight rates of feed for each spindle speed, which means that the correct rate of feed for a particular drilling operation is always available. Two cast iron 4-step cone pulleys and a special belt tension release built into the guard makes rate of feed changes quick and safe. Sensitive hand drilling operations as well as the requirements of heavy power feed drilling are handled with equal ease and accuracy.

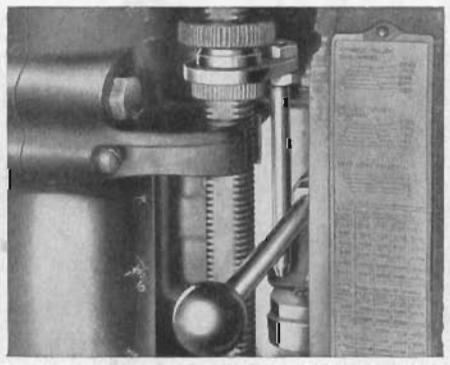
A safety lock prevents damage to the drill press when power feed is disengaged.

A simple flip of the power lever and the machine is set for the power feed; another flip of the lever and it is back on hand feed. The operation is speedy . . . it is simple . . . and it is safe. An additional safety feature is a shear pin which holds the forward half of the flexible coupling onto the worm shaft. This pin is provided as a safety precaution so that if there is a jam or excessive loading the pin will shear, thus protecting the mechanism. If the pin has sheared, it is a simple matter to back out the slotted head, line up the holes in the coupling and shaft and drive the broken portion out on the other side and replace with another pin.

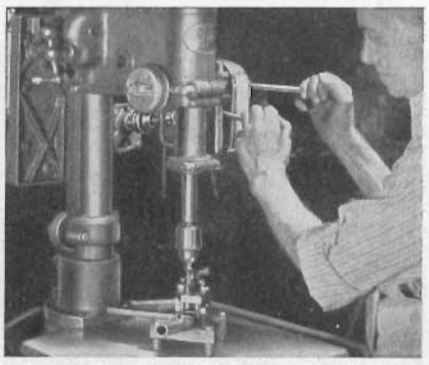
These Power Feed Drill Presses are available in either single or multiple spindle units and can be powered with either our standard or NEMA frame motors. The low cost and long life of these units coupled with their speed of operation and the savings they permit in manufacturing costs, make them ideal machines to increase production in YOUR shop. Power Feed attachment can be bought for easy installation on any of our 17" drill presses. Unit is perfectly interchangeable.



Operating Power Feed Handle is conveniently located.



Automatic Stop and Return. Adjustable to any job.

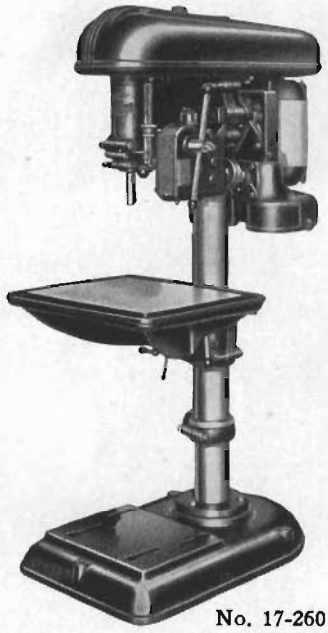


Rapid Travel of Handle. Drill can be quickly brought down from the normal position.

DELTA MANUFACTURING DIVISION

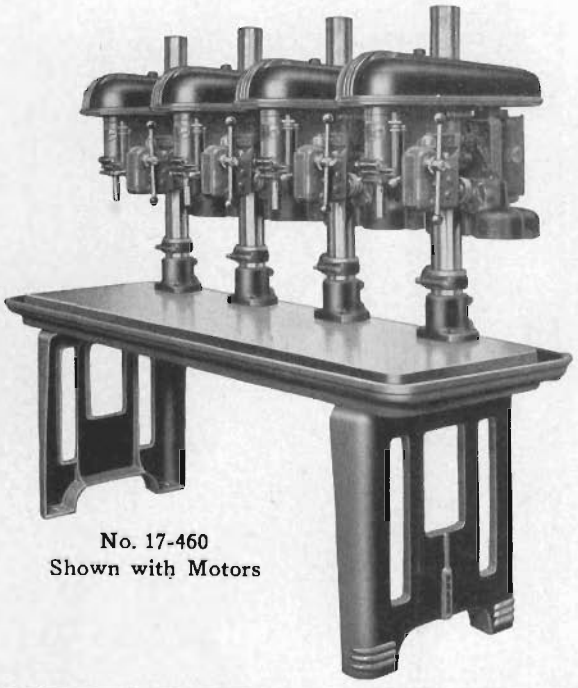
ROCKWELL MANUFACTURING COMPANY **MILWAUKEE 1, WISCONSIN**

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

Type	Floor Type Single Spindle		Bench Type Single Spindle		Floor Type Two Spindle		Floor Type Four Spindle	
Model	Slo-Speed	High Speed	Slo-Speed	High Speed	Slo-Speed	High Speed	Slo-Speed	High Speed
WITH NO. 2 MORSE TAPER SPINDLE								
Machine No.	17-260	17-261	17-355	17-356	17-455	17-456	17-460	17-461
Table Working Surface	12½" x 17"	12½" x 17"	16" x 18"	16" x 18"	17½" x 36"	17½" x 36"	17½" x 77"	17½" x 77"
Spin. to Base Max.	44"	44"	.....	.....	.....	.....	.....	.....
Spin. to Table Max.	32"	32"	23 5/16"	23 5/16"	23 5/16"	23 5/16"	23 5/16"	23 5/16"
Spindle Spacing	.....	.....	.....	.....	18"	18"	18"	18"
Raising Mechanism	Table	Table	Head	Head	Head	Head	Head	Head
Ship. Wt. Lbs.	418	418	390	390	903	903	1863	1863
Code Word	DRIQB	DRIQF	DRIQI	DRIQK	DRIQM	DRIQQ	DRIQO	DRIQS
Cat. No. Coolant Piping	17-805	17-805	17-805	17-805	17-806	17-806	17-807	17-807
Type of Cool. Pump Req.	See Page 11	See Page 11	See Page 11	See Page 11	See Page 11	See Page 11	See Page 11	See Page 11
WITH 1/2 INCH JACOBS CHUCK SPINDLE								
Machine No.	17-262	17-263	17-357	17-358	17-457	17-458	17-462	17-463
Table Working Surface	12½" 17"	12½" x 17"	16" x 18"	16" x 18"	17½" x 36"	17½" x 36"	17½" x 77"	17½" x 77"
Spin. to Base Max.	44½"	44½"	.....	.....	.....	.....	.....	.....
Spin. to Table Max.	32"	32"	23 13/16"	23 13/16"	23 13/16"	23 13/16"	23 13/16"	23 13/16"
Spindle Spacing	.....	.....	.....	.....	18"	18"	18"	18"
Raising Mechanism	Table	Table	Head	Head	Head	Head	Head	Head
Ship. Wt. Lbs.	418	418	440	440	903	903	1863	1863
Code Word	DRIQD	DRIQH	DRIQJ	DRIQL	DRIQN	DRIQR	DRIQP	DRIQT
Cat. No. Coolant Piping	17-805	17-805	17-805	17-805	17-806	17-806	17-807	17-807
Type of Cool. Pump Req.	See Page 11	See Page 11	See Page 11	See Page 11	See Page 11	See Page 11	See Page 11	See Page 11

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 manually 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 table opposite.

Furnished as single spindle floor type, single spindle bench type and two and four spindle floor types which have cast iron legs. Tables have 1½" oil trough all around and are tapped and fitted with ½" drain plug. Capacity: ¾" in cast iron.

Machines include: Streamlined belt guard. Built-in depth gauge. Depth scale on spindle return spring housing. Quill 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.
Slo-speed models include No. 520 V-belt and No. 1311 motor pulley.
Order Jacobs spindle machines where straight shank drills only are to be used. Order No. 2 Morse taper spindle machines where taper shank drills only are to be used. Where both straight and taper shank drills are to be used, order machines with No. 2 Morse taper spindle and use the No. 968 chuck listed on page 6.
The single spindle floor type drill press has a table raising mechanism. All other machines are furnished with head raising mechanisms.
For individual parts for special set-ups and for accessories, see pages 6 and 10. For coolant piping and pump see page 11.

Motors recommended:
LIGHT AND
MEDIUM DUTY: 82-910—¾ H.P., Cap. A.C. Ball Brg. 115/230 V. 60 Cy.
86-720—¾ H.P., 3 Ph. A.C. Ball Brg. 220/440 V. 50/60 Cy.
HEAVY DUTY: 84-910—1 H.P., R.I. A.C. Ball Brg. 115/230 V. 60 Cy.
86-920—1 H.P., 3 Ph. A.C. Ball Brg. 220/440 V. 50/60 Cy.

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 12 for Motors and Starters.

FOR PRICES SEE ATTACHED PRICE LIST.

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

Sectional Tables

No. 17-570
Shown with Motors

FEED CHART

Shows rate of feed per revolution of spindle on both slo- and 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 guard make rate of feed changes quick and safe.

SLOW SPEED DRILL PRESS

WITH SMALL PULLEY ON LOWER MOTOR SHAFT

R.P.M. SPINDLE	FEED PER REV OF SPINDLE			
2240	0027	0020	0013	0010
1450	0041	0030	0020	0016
935	0064	0044	0031	0024
600	0100	0073	0048	0038
385	0156	0114	0075	0060

WITH SMALL PULLEY ON WORM SHAFT

R.P.M. SPINDLE	FEED PER REV OF SPINDLE			
2240	0025	0034	0046	0061
1450	0038	0052	0072	0093
935	0059	0081	0104	0135
600	0092	0126	0176	0225
385	0146	0197	0270	0350

HIGH-SPEED DRILL PRESS

WITH SMALL PULLEY ON LOWER MOTOR SHAFT

R.P.M. SPINDLE	FEED PER REV OF SPINDLE			
4250	0013	0009	0006	0005
2750	0022	0016	0010	0008
1750	0034	0025	0016	0011
1150	0040	0038	0019	0015
700	0086	0063	0041	0033

WITH SMALL PULLEY ON WORM SHAFT

R.P.M. SPINDLE	FEED PER REV OF SPINDLE			
4250	0012	0016	0022	0028
2750	0020	0027	0038	0049
1750	0031	0043	0059	0077
1150	0037	0051	0069	0090
700	0079	0108	0148	0195

Type	3 Spindle		4 Spindle		5 Spindle		6 Spindle		8 Spindle	
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 TAPER SPINDLE										
Machine No.	17-555	17-556	17-560	17-561	17-565	17-566	17-570	17-571	17-575	17-576
Table Working Surface	17½" x 65"	17½" x 65"	17½" x 95"	17½" x 95"	17½" x 95"	17½" x 95"	17½"x125"	17½"x125"	17½"x155"	17½"x155"
Spin. to Table Max.	23 5/16"	23 5/16"	23 5/16"	23 5/16"	23 5/16"	23 5/16"	23 5/16"	23 5/16"	23 5/16"	23 5/16"
Spindle Spacing	18"	18"	21"	21"	18"	18"	20"	20"	18"	18"
Ship. Wt. Lbs.	1720	1720	1950	1950	2620	2620	2840	2840	3650	3650
Code Word	TRISE	TRISF	FOURR	FOURS	PENTE	PENTF	SIXAE	SIXAF	OCTAE	OCTAF
Cat. No. Coolant Piping	17-808	17-808	17-810	17-810	17-811	17-811	17-813	17-813	17-815	17-815
Type of Cool. Pump Req.	See Page 11	See Page 11	See Page 11	See Page 11	See Page 11	See Page 11	See Page 11	See Page 11	See Page 11	See Page 11
WITH 1/2 INCH JACOBS CHUCK SPINDLE										
Machine No.	17-557	17-558	17-562	17-563	17-567	17-568	17-572	17-573	17-577	17-578
Table Working Surface	17½" x 65"	17½" x 65"	17½" x 95"	17½" x 95"	17½" x 95"	17½" x 95"	17½"x125"	17½"x125"	17½"x155"	17½"x155"
Spin. to Table Max.	23 13/16"	23 13/16"	23 13/16"	23 13/16"	23 13/16"	23 13/16"	23 13/16"	23 13/16"	23 13/16"	23 13/16"
Spindle Spacing	18"	18"	21"	21"	18"	18"	20"	20"	18"	18"
Ship. Wt. Lbs.	1720	1720	1950	1950	2620	2620	2840	2840	3650	3650
Code Word	TRISG	TRISH	FOURU	FOURV	PENTG	PENTH	SIXAG	SIXAH	OCTAG	OCTAH
Cat. No. Coolant Piping	17-808	17-708	17-810	17-810	17-811	17-811	17-813	17-813	17-815	17-815
Type of Cool. Pump Req.	See Page 11	See Page 11	See Page 11	See Page 11	See Page 11	See Page 11	See Page 11	See Page 11	See Page 11	See Page 11

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 opposite page.

The machines listed here 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 altho 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.

Machines include: Head raising mechanisms. Streamlined belt guard. Built-in depth gauge. Depth scale on spindle return spring housing. Quill 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.
Slo-speed models include No. 520 V-belt and No. 1311 motor pulley.

Order Jacobs spindle machines where straight shank drills only are to be used. Order No. 2 Morse taper spindle machines where taper shank drills only are to be used. Where both straight and taper shank drills are to be used, order machines with No. 2 Morse taper spindle and use the No. 968 chuck listed on page 6.

For individual parts for special set-ups and for accessories, see pages 6 and 10. For coolant piping and pump see page 11.

Motors recommended:

LIGHT AND MEDIUM DUTY: 82-910—¾ H.P., Cap. A.C. Ball Brg. 115/230 V. 60 Cy.
86-720—¾ H.P., 3 Ph. A.C. Ball Brg. 220/440 V. 50/60 Cy.

HEAVY DUTY: 84-910—1 H.P., R.I. A.C. Ball Brg. 115/230 V. 60 Cy.
86-920—1 H.P., 3 Ph. A.C. Ball Brg. 220/440 V. 50/60 Cy.

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 12 for Motors and Starters.

FOR PRICES SEE ATTACHED PRICE LIST.

Standard Power Feed Drill Press Heads used for Special Applications

PRODUCTION shops have discovered that the Power Feed Drill Press can be easily adapted in the design and construction of special purpose machines which reduce costs and increase production. Placed in either the vertical or horizontal position, they are used for multiple operation—the operator loading the fixture with a new part while the Power Feed is drilling the other. In this way production is often doubled over hand operation methods. For your convenience the individual 17-inch Power Feed Drill Press heads are listed here. The Power Feed Unit may be purchased separately also as listed below.

No. P-1378—17" Slo-Speed Power Feed Drill Press Head with No. 2 Morse Taper Spindle, No. 520 Belt and No. 1311 Motor Pulley. 100 lbs. Code DRIQU

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. 180 lbs. Code DRIQV

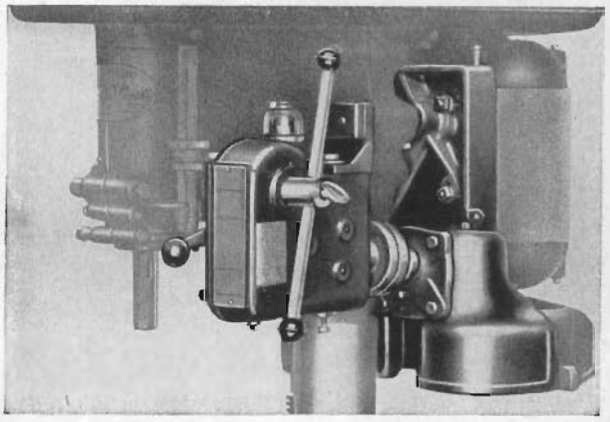
No. P-1379—17" Slo-Speed Power Feed Drill Press Head with ½" Jacobs Chuck Spindle, No. 520 Belt and No. 1311 Motor Pulley. 180 lbs. Code DRIQW

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. 180 lbs. Code DRIQX

No. 17-857—Power Feed Unit. 84 lbs. Code POWFD

No. 49-100—V-Belt for Power Feed. Cir. In. 26⅞"; Out. 28¼". For use with NEMA frame motors up to 16⅛" over-all length. ½ lb. Code BELTZ

No. 49-103—V-Belt for Power Feed. Cir. In. 26⅝"; Out. 28". For use with our motors. ½ lb. Code BELTI



Power Feed Attachment for 17" Drill Presses

ANY of our standard 17" drill presses can be easily and readily changed into Power Feed Drill Presses by the addition of the Power Feed Unit listed here. No special machining, drilling or fitting need be done. The Unit is perfectly interchangeable 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, quill pinion shaft, stop rod, V-belt and oiler as illustrated.

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

No. 17-857—Power Feed Attachment complete to fit all 17" drill Presses. 84 lbs. Code POWFD

WOODWORKING ACCESSORIES

MORTISING ATTACHMENT

Using this simple, easily installed attachment the 17" drill press may be converted into an accurate mortising machine. Chisel holder replaces the regular stop-rod clamp. Has heavy fence bolted to table. Hook bolts hold work against fence, hold-down keeps work down on table.

No. 1381—Mortising attachment, 15 lbs. DRILL

Capacity 6½" thick under hold-down, from hook bolts to fence 2½". Cannot be used with Morse Taper Spindle.

Hollow Chisels			Mort. Bits		Bushings	
No.	Size	Depth	No.	Size	No.	Hole Size
504	¼	1⅞	514	¼	524	3/16
505	5/16	1⅞	515	5/16	525	¼
506	⅜	2¾	516	⅜	526	17/64
508	½	3¼	518	½		

Order proper bushings

Nos. 526 used with Nos. 516 and 518.

Machine Spur Bits

6¼" long, ½" shanks

No.	Size
804	¼
805	5/16
806	⅜
807	7/16
808	½
809	9/16
810	⅝
812	¾
818	comp. set

Router Bits

Shank, ½"

No.	Size
474	¼
475	5/16
476	⅜
477	7/16
478	½
480	comp. set

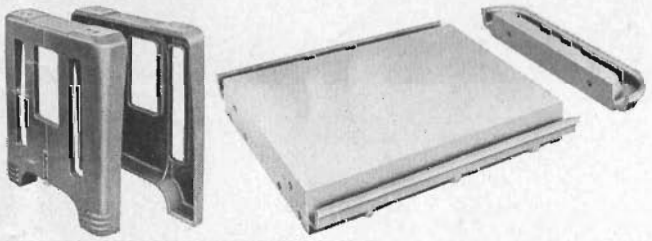
Plug Cutters

Shank, ½"

No.	Size
814	⅜
815	½
816	⅝
817	¾
819	1
822	comp. set

RIGID, SECTIONAL TABLES for DRILL PRESSES

A Single Spindle — or a Drill Press a Block Long



The drill press is built upon a section table—each table section being 23⅜" by 30" and with the addition of the end sections is increased to 35" long. 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"-11½"; Standard 17"-15"; Power Feed 17"-18".

CATALOG LISTING OF SECTIONS AND LEGS

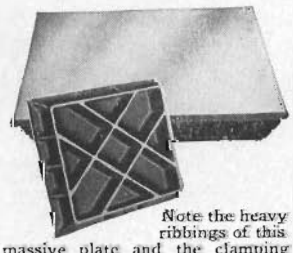
No. 1504—One End section. 55 lbs. Code DRIAD

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

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. 1505—One only cast iron leg. 80 lbs. Code DRIAQ

No. 1399—Cast iron legs. 1 pair. 163 lbs. Code PRODK



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

ACCURATE, LOW COST SURFACE PLATES

The four essentials of a 100% useful surface plate are the four essentials of the Delta Surface Plates.

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

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

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

No. 640—15"x 18"x 3". 72 lbs. Code: SURFA

No. 641—16"x 22"x 3". 82 lbs. Code: SURFB

(FOR PRICES SEE ATTACHED PRICE LIST)

DELTA MANUFACTURING DIVISION

ROCKWELL MANUFACTURING COMPANY

MILWAUKEE 1, WISCONSIN

Cut Costs With Delta Coolant Equipment for 17-inch Drill Presses

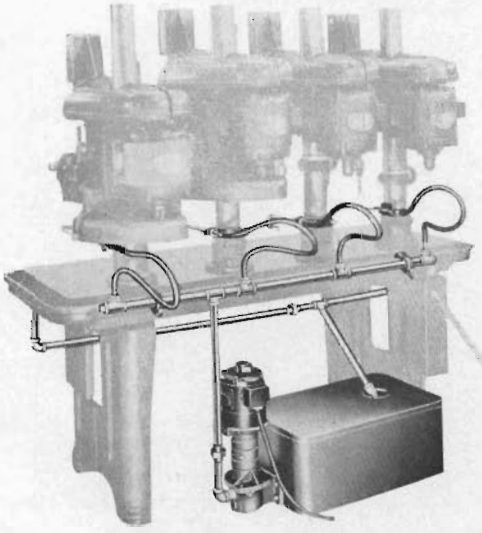


Illustration shows Pump and Tank assembled to Multiple-Spindle Drill Press. Nozzles regulating coolant flow are fully adjustable, can be moved up, down, forward or back and rotated as desired — easily removed, easily replaced.

Coolant Equipment for 17-in. Drill Presses

This new coolant equipment for 17" Drill Presses gives you many new advantages. Its use and application has been carefully studied under all kinds of shop conditions and the unit here offered was found to be the best for all purposes.

The Pump

The pump is a centrifugal type pump, and is mounted directly to the tank with a flat machined flange, which makes this an all-purpose unit for use on the other wet machine tools you have in your plant.

The Tank

The tank has a 16-gal. capacity—ample for most installations.

The Coolant Piping

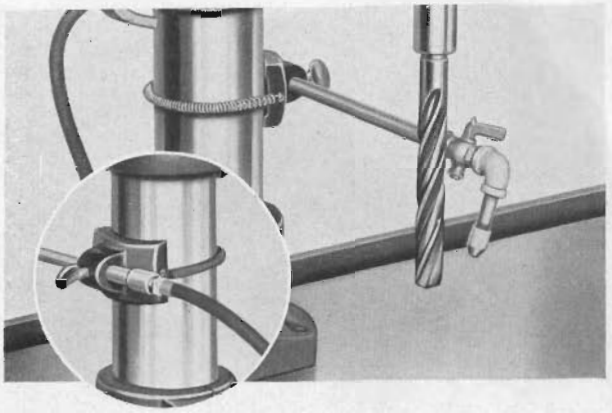
The coolant piping consists of a nozzle, valve, column mounting clamp and flexible hose assembly for each spindle; a complete drain pipe assembly and a complete header pipe assembly with brackets for attaching. Nozzle brackets attach to columns without removal of drill press heads, and pipe header brackets clamp to oil trough rim without necessity for drilling or tapping. Piping, tubing, etc., is ready for installation, but shipped knocked down, as it is not practical to ship it assembled on the machine.

The coolant is applied just where it is wanted and at just the proper flow. The nozzle is fully adjustable. The clamp holding the nozzle may be moved up or down on the drill press to bring the flow of the coolant to the point of the drill. By loosening a convenient spring the clamp and nozzle may be entirely removed without a moment's delay. It can be returned just as easily. The nozzle may be revolved so the flow of coolant hits the work at the proper angle. The pet cock permits just the proper flow and if desired may be closed entirely without affecting motor or pump.

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)

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



Above nozzle is fully adjustable, can be moved forward and back and rotated as desired. In circle, detail of column clamp easily removed and replaced.

CATALOG LISTING

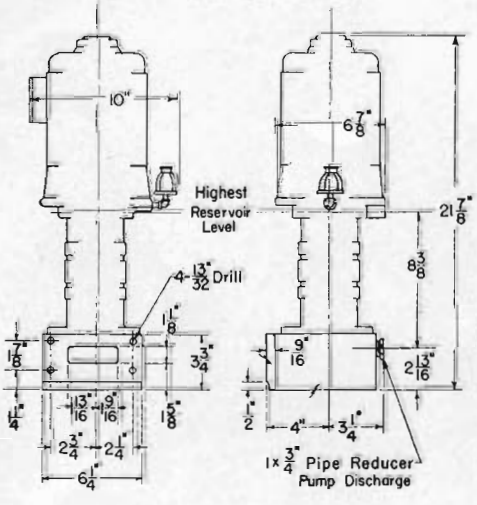
No. 49-610—Coolant Pump complete with single phase, ¼ H.P., 60 cy., 115 V., 1725 R.P.M. motor. 65 lbs. ..... Code PUMPM
No. 49-611—Coolant Pump complete with single phase, ¼ H.P., 60 cy., 230 V., 1725 R.P.M. motor. 65 lbs. ..... Code PUMPN
No. 49-612—Coolant Pump complete with single phase, ¼ H.P., 50 cy., 115 V., 1425 R.P.M. motor. 65 lbs. ..... Code PUMPO
No. 49-613—Coolant Pump complete with single phase, ¼ H.P., 50 cy., 230 V., 1425 R.P.M. motor. 65 lbs. ..... Code PUMPQ
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. ..... Code PUMPR
No. 49-615—Coolant Pump complete with D.C., ¼ H.P., 115 V., 1725 R.P.M. motor. 65 lbs. ..... Code PUMPS
No. 49-616—Coolant Pump complete with D.C., ¼ H.P., 230 V., 1725 R.P.M. motor. 65 lbs. ..... Code PUMPT
No. 49-618—Tank, 16 gal. capacity, required with any of above pumps. 30 lbs. ..... Code PUMPU
No. 49-312—3-Wire Cord with Toggle Switch, Clamp and Plug ..... Code SWITM
No. 1320 —3-Phase Manual Starter. 6 lbs. ..... Code SW1PH

COOLANT PIPING

Cat. No.	Description of Drill Press: Size of Drill Press	No. of Spindles	Spindle Spacing	Type of Table	Ship. Wt. Lbs.	Code Word
17-805	14" and 17"	All single Spindle		Production	13	COLAK
17-806	17"	2	18"	1 Piece	21	COLAL
17-807	17"	4	18"	1 Piece	36	COLAM
17-808	17"	3	18"	Sectional	33	COLAN
17-809	17"	4	15"	Sectional	38	COLAO
17-810	17"	4	21"	Sectional	45	COLAP
17-811	17"	5	18"	Sectional	47	COLAQ
17-812	14" and 17"	6	15"	Sectional	50	COLAR
17-813	17"	6	20"	Sectional	51	COLAS
17-814	17"	8	15"	Sectional	64	COLAT
17-815	17"	8	18"	Sectional	70	COLAU

NOTE: Coolant piping for more than 8 spindles will be quoted upon application.

FOR PRICES SEE ATTACHED PRICE LIST

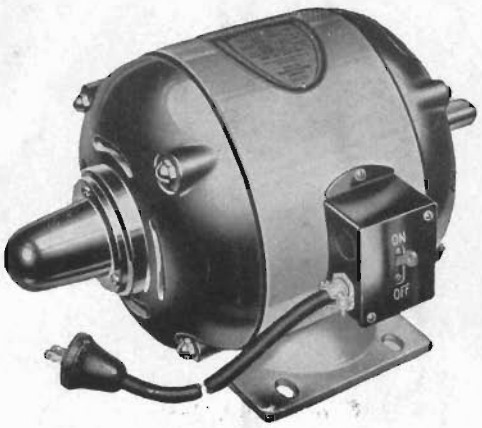


Flat Machined Flange provides high adaptability and makes the Delta-Milwaukee Coolant Pump an All-Purpose Unit, for use on most of the Wet Machines you have in your plant. Illustration shows dimensions of unit and flange mounting.

DELTA MANUFACTURING DIVISION

ROCKWELL MANUFACTURING COMPANY — **MILWAUKEE 1, WISCONSIN**

These Powerful Motors Guarantee Dependable Service



EQUIPMENT FURNISHED:

Capacitor and Repulsion Induction Motors

Equipped with heavy duty rubber covered cord and plug together with double pole switch. Made for use on either 115 or 230 volt lines, they are normally supplied connected for 115 volts. Ball bearing. Double shafts. One shaft guard.

Direct Current Motors

Equipped with heavy duty rubber covered cord and plug together with double pole switch. Ball bearing. Double shafts. One shaft guard.

Three Phase Motors

Do not have switch, cord or plug as motor must be connected in conduit by an electrician. Ball bearing. Double shafts. One shaft guard.

USE THE PROPER MOTOR

Although the listing below shows all of our 8½" frame motors, we suggest that for best operation those motors be used as listed below each of the 17-inch Drill Presses described on the preceding pages. Do not choose a motor which is too small, rather use a larger motor and have ample power.

SPECIFICATIONS OF 8½ INCH FRAME MOTORS

82-710	Capacitor	½	AC	115/230	60	1725	¾	66
82-910	Capacitor	¾	AC	115/230	60	1725	¾	76
83-110	Capacitor	1	AC	115/230	60	1725	¾	84
82-720	Capacitor	½	AC	115/230	50	1425	¾	68
82-740	Capacitor	½	AC	115/230	25	1425	¾	68
82-920	Capacitor	¾	AC	115/230	50	1425	¾	80
82-912	Capacitor	¾	AC	115/230	60	1140	¾	80
84-910	Rep. Ind.	1	AC	115/230	60	1725	¾	84
*84-920	Rep. Ind.	1	AC	115/230	50	1425	¾	67
*84-940	Rep. Ind.	1	AC	115/230	25	1425	¾	82
86-520	3 Phase	½	AC	220/440	50/60	1425/1725	¾	58
*86-562	3 Phase	½	AC	220/440	25	1425	¾	60
*86-522	3 Phase	½	AC	220/440	50/60	960/1140	¾	60
86-720	3 Phase	¾	AC	220/440	50/60	1425/1725	¾	59
*86-762	3 Phase	¾	AC	220/440	25	1425	¾	60
86-920	3 Phase	1	AC	220/440	50/60	1425/1725	¾	68
*86-960	3 Phase	1	AC	220/440	25	1425	¾	85
86-921	3 Phase	1	AC	220/440	50/60	2850/3450	¾	74
86-922	3 Phase	1	AC	220/440	50/60	960/1140	¾	66
87-120	3 Phase	1½	AC	220/440	50/60	1425/1725	¾	80
*88-510	Dir. Cur.	½	DC	115	.....	1725	¾	70
*88-520	Dir. Cur.	½	DC	230	.....	1725	¾	70
*88-511	Dir. Cur.	½	DC	115	.....	1140	¾	70
*88-521	Dir. Cur	½	DC	230	.....	1140	¾	70
*88-710	Dir. Cur.	¾	DC	115	.....	1725	¾	82
*88-720	Dir. Cur.	¾	DC	230	.....	1725	¾	82
*88-910	Dir. Cur.	1	DC	115	.....	1725	¾	90
*88-920	Dir. Cur.	1	DC	230	.....	1725	¾	90
*88-912	Dir. Cur.	1	DC	115	.....	1140	¾	90
*88-922	Dir. Cur.	1	DC	230	.....	1140	¾	90

*Motors not carried in stock. We reserve the right to substitute Capacitor motors for Rep-Ind motors, or vice-versa on orders for these motors.

3-PHASE MANUAL STARTER

These 3 phase manual starters are made by a well known switch manufacturer and are fully Underwriters approved. Are compact, simple, rugged. Provide accurate overload protection. Have silver alloy contacts—double break. White interior with ample wiring space.

No. 1320—3 Phase Manual Starter. Capacity 2 H.P. A.C., 1 H.P. D.C. motors. 6 lbs ..... Code SWIPH

MOUNTING PARTS FOR STARTERS

No. 1322 mounting brackets together with screws are used to mount the starters on all drill presses and all the steel stands.

No. 1322—Mounting Parts. 2 lbs..... Code SWIDR

3-PHASE MAGNETIC STARTERS

This magnetic starter is of the approved type. It has the start and stop button in the cover as well as the reset button.

No. 1329—3 Phase Across-the-Line Magnetic Starter with overload and under voltage protection, rating 2 H.P. 220 V. 60 Cy. only..... SWITD

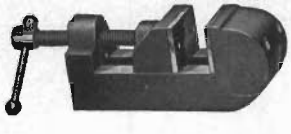
No. 1321—Same as No. 1329 but for 440 V. 60 Cy. only..... Code SWITF

NOTE: On above starters, specify H.P. of motor, voltage, frequency of line.

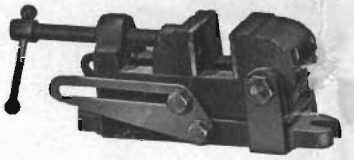
SWITCH ROD

No. 1332—Switch Rod for all 17-inch drill presses. 1½ lbs. Code RODNC

HUSKY VISES FOR PRODUCTION WORK



No. 1024



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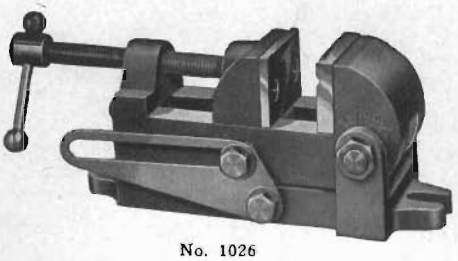

No. 1026

Of tested quality and usefulness, these vises are for Drill Press, Milling Machine, Grinder and Bench Work. They can be used in the tool room—in the shop for bench and production work. Merely raise the vise to the position desired and lock by tightening the clamp screws. Side of the vise is accurately graduated for angle work. Vises are accurately machined. Base, body and sliding jaws are of semi-steel; clamping jaws of hardened steel. Clamping screw has a fine pitch thread and a long bearing in the vise body.

No.	Jaw Size	Opening	Lgth. Body	Ship. Wt. Lbs.	Code Word
*1024	1½"x1"	1⅜"	4⅝"	5	VISEA
1025	1½"x1"	1⅜"	4⅝"	6½	VISEB
1026	2½"x1⅛"	2½"	6¼"	10	VISEC

*Does not have raising feature.

(FOR PRICES SEE ATTACHED PRICE LIST)

Other A-BULLETINS — *ask for them*

A-14—14" Drill Press.
A-14-3—Super-Hi-Speed 14" Drill Press.
A-20—Cut-Off Machine.
A-23—Delta-Milwaukee Grinder.
A-28—Metal Cutting Band Saws.
A-31—Abrasive Finishing Machine.
A-49—Coolant Pump and Tank.

DELTA MANUFACTURING DIVISION

ROCKWELL MANUFACTURING COMPANY

MILWAUKEE 1, WISCONSIN

Form AD-389 Printed in U.S.of A.