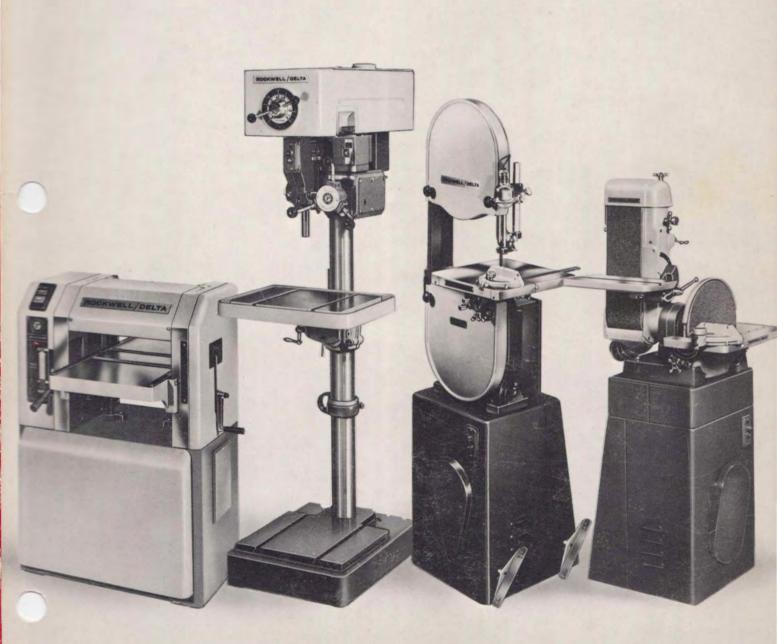
NOLAND CO. INC.

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Rockwell Delta Industrial Machines

Scan Part 1 - Sections A through D



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either owned by Delta or under which Delta is licensed. Other U. S. ar	nd foreign patents
are pending: D-185,061; D-185,922; D-195,735; D-184,835; D-180,929; D-195,735; 2,5	67,982; 2,585,025;
2,604,126; 2,630,845; 2,695,637; 2,754,898; 2,758,617; 2,773,395; 2,772,804,107; 2,827,085; 2,830,628; 2,842,171; 2,861,536; 2,866,348; 2,872,085; 2,872,0	73,524; 2,792,036; 73,776; 2,876,669
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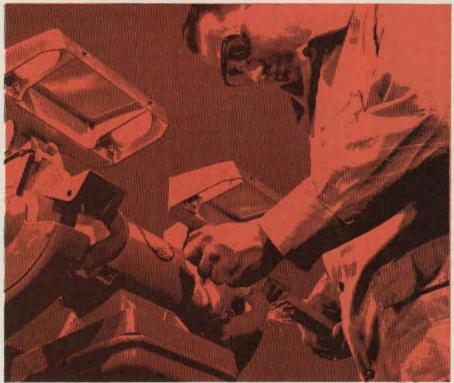
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Rockwell Delta Industrial Machines safety designed with you in mind



Play it safe!

Rockwell Delta Industrial Machines 4. Always wear safety glasses are built to the highest quality standards, and they are scientifically designed for maximum operator safety. Take advantage of their built-in protective features by observing the following safety rules:

- 1. Read the instruction manual thoroughly before operating the power tool.
- 2. If you are not familiar with the operation of the tool, obtain advice from your supervisor, instructor, or other qualified operator.
- 3. Remove tie, rings, watch and other jewelry and roll up sleeves. Do not wear loose clothing.

- or a face shield.
- 5. Keep safety guards in place and use them at all times.
- 6. Be sure the shop has adequate ventilation and lighting, especially in the area of the cutting tool on the machine.
- 7. Always make sure the power tool is properly grounded.
- 8. Always make sure the cutting tool is sharp and correctly positioned.
- Always keep the work area clean. Avoid cluttered areas.
- 10. Remove adjusting keys and wrenches before turning on the power. the user!

- 11. Always disconnect the tool from the power source when making repairs or adjustments.
- 12. Never start or run an electric tool when there is any danger of fire or explosion due to the presence of inflammable or explosive materials.

We strongly urge that you carefully read the Operating Suggestions and Safety Instructions furnished with each machine.

Additional instructional manuals are available on request to replace lost or misplaced manuals. Remember, safety begins with the manufacturer but ends with you,

ROCKWELL DELTA INDUSTRIAL MACHINES KNOWN FOR

PROOF BASED ON PERFORMANCE

THEIR FAMOUS

In factories—
in school workshops—
on the job with builders,
users report that
Rockwell-Built
Delta Industrial Machines
satisfy their most rigid
requirements for accuracy,
economy, versatility
and complete year-in and
year-out dependability.
Install them in your
operation and let
them establish performance
records for you.

NO OTHER INDUSTRIAL TOOLS OFFER SO MUCH

It's the famous
Rockwell Quality built into
each Delta Industrial
Machine that makes
the difference.
Hidden features, such as
lubricated-for-life
ball bearings, precision
bored bearing seats,
precision ground spindles,
and dynamically balanced
pulleys, guarantee that
when you buy Delta—
you buy the best!

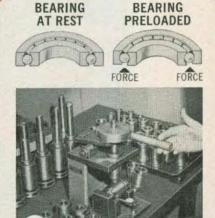
FIVE BIG REASONS FOR ROCKWELL DELTA INDUSTRIAL MACHINE SUPERIORITY



LUBRICATED-FOR-LIFE BALL BEAR-INGS. The bearings in Rockwell Delta Industrial Machines are lubricated-for-life and completely sealed to keep out harmful dust, dirt and grit. This greatly reduces maintenance costs and assures you of long, trouble-free service for your power tool.



PRECISION BORED BEARING SEATS. Rockwell Delta bearing seats are precision or "Diamond" bored. Result: the seat is absolutely smooth. The bearing fits closely, is tightly held and cannot loosen. With the seat perfectly round, true to size and in correct position, you get accurate, smooth and dependable bearing operation.

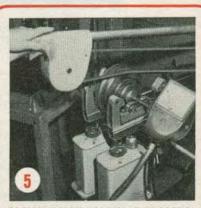


PRELOADED BEARINGS. The preloading of bearings in Rockwell Delta Industrial Machines (see sketch at top) removes inherent "end play." By so doing, the original accuracy of the machine is maintained over a longer period when your usage puts excessive strain on bearing surfaces.

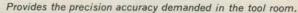


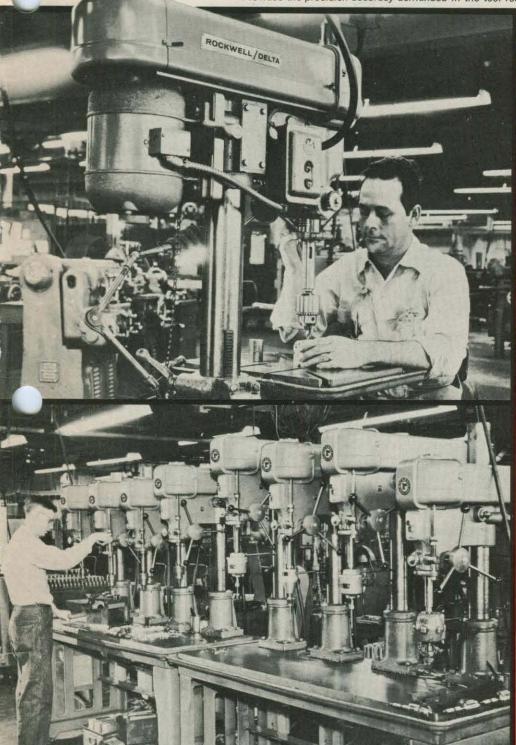


PRECISION GROUND SPINDLES, ARBORS and COLLARS. Rockwell precision grinds spindles, arbors and collars with an accurately controlled grinding wheel. Thus, exact sizes of parts are maintained and extremely close tolerances are held between the arbor and inner bearing race—your assurance of full, even contact between arbor and bearing at all times.



DYNAMICALLY BALANCED PULLEYS. A high-speed pulley not in perfect balance causes vibration which places a tremendous strain on the bearings. For this reason Rockwell Delta high-speed pulleys are dynamically balanced on a sensitive balancing machine. A small amount of metal is removed where any unbalanced weight is indicated. This helps insure smooth, accurate performance of your Rockwell Delta Industrial Machine.





ROCKWELL DELTA 20" DRILL PRESSES

With Geared Spindle Pulley for Extra Slow Speeds . . . Standard Belt Drive for Conventional Speeds

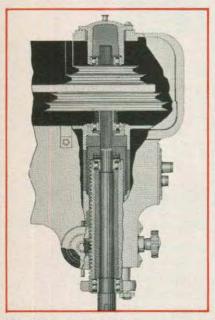
No matter where you look, in the big shop... small shop... on the production line... or in the tool room, Rockwell Delta 20" Drill Presses continually satisfy the needs of all users. Why? Because they offer the BIG CAPACITIES... the PRECISION PERFORMANCE... and the BUILT-IN QUALITY that these users demand. And only Rockwell Delta 20's offer this exclusive combination:

- EXTRA BIG 6" spindle travel.
- WIDEST SELECTION of speeds available—option of Standard Belt Drive or Geared Spindle Pulley using 1725 or 1140 RPM motors.
- CHOICE of feeds—Hand Feed or the modern, wide range Vari-Rate Power Feed that provides all the thrust needed for large drills, sensitivity for small drills, electric interlocking with automation devices, plus remote control.

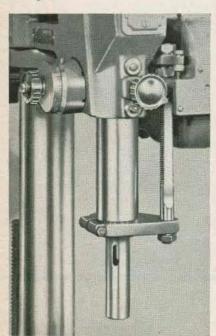
Offers the big capacities needed on the production line.

ROCKWELL DELTA 20" DRILL PRESSES

DELTA QUALITY FEATURES
THAT MAKE THE
20" DRILL PRESS
ESPECIALLY SUITED FOR
PRODUCTION TOOLING



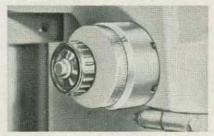
Heavy-Duty Spindle Construction. Tenspline, manganese steel spindle is ³½2″ in diameter. Four-bearing spindle construction, including a double-row, pre-loaded, heavy-duty ball bearing close to the work load, eliminates spindle play and guarantees continued accuracy.



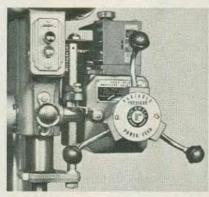
Big Spindle Travel. Spindle travel is a full 6"-ample capacity for such operations as drilling, counterboring and reaming of large work. Note exceptionally large 2%" diameter quill.



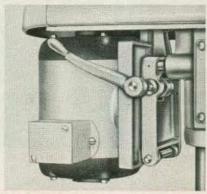
Specially Constructed V-Belt. Steel reinforced, notched V-belt, recommended for the toughest drives in industry, is standard equipment on all Delta 20" Drill Presses at no extra cost.



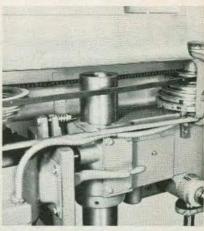
Easy-Read Depth Gage. Large depth gage, with magnified calibrations, facilitates correct setting and easy reading. Has zero start feature.



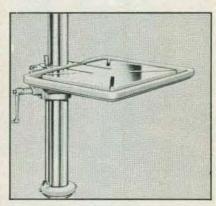
Up-Front Controls. Safety designed "onoff" switch (accessory), large quill lock knob, and easy-to-read depth stop and depth indicator gauges are all conveniently located "up-front" for easier, faster and safer operation.



Quick-Release Motor Mount. A cam-actuated motor mounting device permits easy belt changing with no possibility of damage to the belt. The cam-action also assures proper belt tension at all times for longer belt life.



Extra Slow Drilling Speeds. New planetary gear spindle pulley models provide extra-low range of gear drive speeds in addition to standard direct drive speeds for drilling stainless steels, bronzes and other hard-to-drill materials.



Big Production Table. Extra large table with 19¼" x 22" work surface has diagonal and parallel blind T-slots to facilitate clamping of jigs and fixtures.

DELTA QUALITY EXTRAS

- Massive, one-piece head and precision ground, seamless steel column, with ½" thick wall, insure rigidity and accuracy during continuous operation.
- Large, 2%" diameter quill is supported by three precision bored lands in the head. Two adjusting screws may be taken up to compensate for wear after long use.
- Elevating mechanism furnished as standard equipment on all models.
- Pulley and spindle bearings as well as all moving parts of the quill and feed mechanism are lubricated from a single oil hole conveniently located above the spindle.
- Long columns provide extra big capacity for large work-26" from spindle nose to table on bench model-36" on floor model. Spindle nose to base on floor model-45".

ROCKWELL DELTA 20" DRILL PRESSES



All models furnished with choice of two types of feed—Hand Feed, or the modern, wide range Vari-Rate Power Feed.

See Page 5 for ordering information.

Rockwell Delta 20" Drill Presses give you machine tool capacity and ruggedness combined with power tool adaptability and versatility. They're designed to fill the need for flexible production tooling that can supplement, or often replace, heavier fixed machines costing four and five times as much.

Furthermore, Rockwell Delta 20's, especially when equipped with the modern Vari-Rate Power Feed and the extra slow speed Geared Spindle Pulley, are more suitable than a machine tool in many instances. Why? Because they offer the user these important advantages: low original investment... low maintenance cost...flexibility—can easily be converted into a special-purpose machine...versatility—can do almost every type of operation performed by a special-purpose machine...portability—light in weight for quick placement in the production line to speed up production or relieve the load on heavier, more costly machines...immediate delivery—no lengthy lead time required for tooling.

MACHINE DATA

Overall Dimensions

Feed Pressure . . .

Column:

Motor Plate:

Overall Dimensions:	
Bench Type	
Height54"; Width23"; Front to rear40	27
Floor Type	
Height74"; Width22"; Front to rear37	"
Table Working Surface, Ground:	
Tilting	"
Production	
Overall19¼" x 22	"
Inside of Coolant Trough	"
T-Slots (Six)	
Base Working Surface:	,,
Bench Model18 x 24"; Floor Model13½ x 14¾	
Quill:	
Stroke (Manual Feed)0 to 6	"
Stroke (Power Feed)½ to 6	
Diameter	"
Capacities:	
Dia. Hole in Cast Iron1"; In Steel%	"
Spindle Speeds:	
With Std. Spindle Pulley-All Models	
W/1725 rpm motor500, 800, 1200, 1800, 2600 rp	m
W/1140 rpm motor330, 520, 800, 1200, 1700 rp.	m
With Geared Spindle Pulley—Hand Feed Models	-
W/1725 rpm motor	0.
865, 1200, 1800, 2600 rp	
W/1140 rpm motor	
575, 790, 1200, 1700 rp	
*With Geared Spindle Pulley-Power Feed Models	-
W/1725 rpm motor	0.
800, 1200, 1800 rp	
W/1140 rpm motor110, 175, 265, 330, 39	
530, 790, 1200 rp.	
Power Feed Models:	III.
rowel recu Models.	

Accommodates NEMA Frame Motors 182 and 184
*Eight additional speeds may be obtained by using longer

Infinitely variable from 0 to maximum required

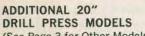
*Eight additional speeds may be obtained by using longer V-belt 49-109 (order separately). Range with 1725 rpm motor is 240 to 2100 rpm, and with 1140 rpm motor, 160 to 1390 rpm.

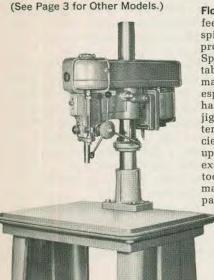
Variable Rate Typefrom .002 to .020 ipr

Wall thickness34"; Diameter34"



ROCKWELL DELTA 20" DRILL PRESSES



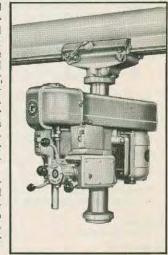


Floor Model-Hand feed with No. 2 M.T. spindle and extra large production table. Spacious 241/2 x 351/2" table working surface makes machine especially suited for handling large dies, jigs, fixtures and patterns. Increases efficiency while stepping up production. An excellent unit for the tool and die shop, machine shop and pattern shop.



Drill Heads for Overhead Models and for Special Setups. Using the basic Drill Head Models, the No. 20-661 Raising Mechanism and the No. 20-623 Column and Ball Bearing Carriage Assembly, you can readily build a versatile overhead set-up. Mounted on a jib crane or overhead track, the unit is especially practical for drilling large or heavy work or where 360° rotation is desired.

Because of their adaptability and big capacity, all drill heads can be used effectively in special set-ups to solve radial, angular, horizontal and other particular drilling problems.



All models furnished with choice of two types of feed—Hand Feed, or the modern, wide range Vari-Rate Power Feed.

See opposite page for ordering information.



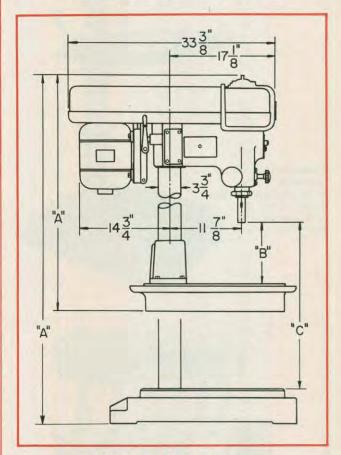
POWER FEED-FACTORY MOUNTED ON ROCKWELL DELTA 20" DRILL PRESSES

CATALOG NUMBER	TYPE OF POWER FEED	WT., LBS.
20-645	*†Variable Rate Type (.002 to .020 ipr)	54

*Feed pressure infinitely variable from 0 to maximum required.

†Above power feed supplied factory mounted only. Not supplied for field mounting. Minimum spacing of multiple spindle 20" power feed heads is 15".

NOTE: For Automation and Remote Control Kits for field mounting, and for complete description of Power Feeds, see accessory section.



DIMENSIONAL DATA

		O. 2 MOR PER MOD		NO. 3 MORSE TAPER MODELS			
20" DRILL PRESS	"A" Overall Height	"B" Spindle to Table (max.)	"C" Spindle to Base (max.)	"A" Overall Height	"B" Spindle to Table (max.)	"C" Spindle to Base (max.)	
Bench Type w/Production Table	55"	26½"	-	55"	26"	-	
Floor Type w/Production Table	74"	36¼″	45¼″	74"	35¾″	443/4"	
Floor Type w/Tilt Table	74"	351/8"	451/4"	74"	345%"	44¾"	

STANDARD EQUIPMENT ON ALL MODELS

No. 49-108 V-belt, No. 49-235 Motor Pulley (%" bore), No. 20-661 Raising Mechanism and Belt Guard.

ROCKWELL DELTA 20" DRILL PRESSES

CATALOG LISTING

SINGLE SPINDLE MODELS (Less Motor and Control-See Below)

	HAND FEED									
TYPE		NO. 2 MOI	RSE TAPER		NO. 3 MORSE TAPER					
	STANDARD SPINDLE PULLEY		GEARED SPINDLE PULLEY		STANDARD SPINDLE PULLEY			RED PULLEY		
Bench Model (with production table—24" x 18" work surface)	70-401	419 lbs.	70-441	428 lbs.	70-411	419 lbs.	70-451	428 lbs.		
Floor Model (with production table—19¼" x 22" work surface)	-70-407	470 lbs.	•76-447	485 lbs.	•70-417	470 lbs.	•70-457	485 lbs		
Floor Model (with tilting table—16" x 18" work surface; tilts 90° r. & l.)	•70-408	470 lbs.	•70-448	480 lbs.	•70-418	470 lbs.	•70-458	480 lbs		
Heads Only (less No. 20-661 raising mechanism)	70-400	174 lbs.	70-440	180 lbs.	70-410	174 lbs.	70-450	180 lbs		

Production tables have 11/8" coolant trough with two 3/4" pipe taps at rear. . Includes Safety Collar for head.

SINGLE AND MULTIPLE SPINDLE PRODUCTION TABLE FLOOR MODELS (Less Motors and Controls—See Below)

		HAND FEED						
NO. OF SPINDLES		NO. 2 MOI	RSE TAPER	NO. 3 MORSE TAPER				
		STANDARD SPINDLE PULLEY	GEARED SPINDLE PULLEY	STANDARD SPINDLE PULLEY	GEARED SPINDLE PULLEY			
1 Spindle — One-Piece Table One ½" Pipe Tap at each rear corner	+ 35½* + 17½* 19¼* • • • • • • • • • • • • • • • • • • •	70-425 833 lbs.	70-427 845 lbs.	70-426 833 lbs.	70-428 845 lbs.			
2 Spindle — One-Piece Table One ½" Pipe Tap at each rear corner	19/4" — 9 — 19/4" — 19	70–402 1100 lbs.	70–442 1115 lbs.	70-412 1100 lbs.	70–452 1115 lbs.			
3 Spindle — One-Piece Table One ½" Pipe Tap at each rear corner	9" × 1 - 20 + 1 - 20 + 1 - 20 + 1 - 20 + 1 - 20 + 1 - 20 + 1 - 20 + 1 - 20 + 1 - 20 + 1 - 20 + 1 - 20 + 20 + 20 + 20 + 20 + 20 + 20 + 20	70–403 1575 lbs.	70–443 1591 lbs.	70–413 1575 lbs.	70–453 1591 lbs.			
4 Spindle — One-Piece Table One ½" Pipe Tap at each of 4 corners	70%* 9" 3" 13" 13" 13" 1 19%*	70–404 1808 lbs.	70–444 1832 lbs.	70–414 1808 lbs.	70–454 1832 lbs.			
6 Spindle — Three-Piece Table — One 3/4" Pipe Tap in each section	19%** 19%* 19%* 19%** 19**	70–406 2672 lbs.	70–446 2720 lbs.	70–416 2672 lbs.	70–456 2720 lbs.			

The 2, 3 and 4 spindle drill presses have one-piece tables. The 6 spindle drill press has a three-piece table. Tables on multiple spindle units have 1%" coolant trough. Table working surface is 32%" from the floor. Six

spindle units have three legs—all other multiple spindle units have two legs. Maximum distance spindle nose to table with No. 3 M.T.—26", with No. 2 M.T.—26½".

MOTORS AND CONTROLS (Factory Mounted and Wired)

(On multiple spindle units, designate head (1st, 2nd, etc.) on which each motor and control group is to be factory mounted.)

MOTOR	MOTOR CONTROL	MOTOR ENCLOSURE	CYCLES AND MOTOR RPM	VOLTAGE	SHIPPING WT., LBS.	CATALOG NUMBER	CAT. NO. 208 V
	Push Button Switch Only	Guarded Drip Proof	60—1725	115/230	61	49-444	
	Push Button and Overload Switches	Guarded Drip Proof	60—1725	115/230	65	49-675	
Single Phase,	Push Button Switch and Magnetic Starter	Guarded Drip Proof	60-1725	115/230	67	52-037	
1 Horsepower	Push Button Switch Only	Guarded Drip Proof	60-1140	115/230	77	49-729	
	Push Button and Overload Switches	Guarded Drip Proof	60-1140	115/230	81	49-676	
	Push Button Switch and Magnetic Starter	Guarded Drip Proof	60-1140	115/230	82	52-038	
	Push Button Switch Only	Guarded Drip Proof	60—1725	230/460	52	49-744	52-003
	Push Button and Overload Switches	Guarded Drip Proof	60—1725	230/460	56	49-745	52-012
	Push Button Switch and Magnetic Starter	Guarded Drip Proof	60—1725	230/460	58	49-746	52-013
Three Phase,	Push Button Switch and Magnetic Starter w/115V, Transformer	Guarded Drip Proof	60—1725	230/460	63	†49-747	52-014
1½ Horsepower	Push Button Switch Only	Guarded Drip Proof	60-1140	230/460	66	49-748	52-015
	Push Button and Overload Switches	Guarded Drip Proof	60-1140	230/460	70	49-749	52-016
	Push Button Switch and Magnetic Starter	Guarded Drip Proof	60-1140	230/460	72	49-750	52-017
	Push Button Switch and Magnetic Starter w/115V, Transformer	Guarded Drip Proof	60—1140	230/460	77	†49-751	52-018

NOTE: Single phase dual-voltage electricals will be supplied wired for 115 V, unless 230 V is specified. Three phase dual-voltage electricals will be supplied wired for 230 V, unless 460 V is specified. Power Cord and Plug supplied for single phase only. Motors and Motor Controls for Rockwell Delta 20" Drill Presses may be ordered unmounted. For listing,

see Sections P and Q. †No. 49-000 "JIC" Type Control Kit. Specify this Catalog Number, in addition to Three Phase Cat. No. 49-747 or 49-751, in order to obtain 20" Drill Press with "JIC" type electricals, factory mounted and wired.

ROCKWELL DELTA 20" DRILL PRESSES

Components for Building Special-Purpose Machines

(Used with Rockwell Delta 20" Drill Press Heads)

No. 20-625 Column, steel, 3¾ x 33", with ½" wall, 47 lbs.

No. 20-626 Column, steel, 3¾ x 42", with ½" wall. 62 lbs.

No. 20-627 Column, steel, 3% x 66", with ½" wall. 97 lbs.

No. 20-628 Column, steel, 3\% x 78", with \(\frac{1}{2} \)" wall, 114 lbs.

No. 20-636 Booster Spindle Return Spring Kit. Includes clock spring with case, pinion shaft stub extension and instructions for field mounting on hand or power feed machines. Provides about 80 to 90 pounds of lift when used with the standard equipment spring. It is especially recommended when multiple spindle heads, tapping heads or other heavy tooling is mounted on quill or spindle of machine. 2 lbs.

No. 20-624 Flange, with screws, for mounting column on table (not for single spindle floor models). 44 lbs.

No. 20-623 Ball Bearing Carriage with 33" column for Overhead Drill Press. 126 lbs.

No. 20-661 Raising Mechanism for head or table of 20" Drill Press. Includes ball bearing thrust collar, rack, gear assembly and crank. 19 lbs.

No. 20-660 Tilting Table, ground work surface 16" front to back by 18" left to right, slotted, with column bracket and tilt angle scale. Tilts 90° left and right and has index pin for level position. Left side has 4 x 16" ground, vertical work clamping surface. Without 20-661 Raising Mechanism. For single spindle floor model drill presses. 97 lbs.

No. 20-650 Production Table, 15" x 18" ground work surface (including coolant trough, 19¼ x 22"), with 4 diagonal and 2 parallel blind T slots for ½" bolts. Without 20-661 Raising Mechanism. For single spindle floor model drill presses. 112 lbs.

No. 20-651 Production Table, ground work surface 24" front to back by 18 wide, for single spindle bench model. Does not fit 50-399 Legs. 136 lbs.

No. 20-655 Production Table, one piece, for single spindle set up. Drilled and tapped for one column mounting flange, centered. Ground work surface 24½ x 35½ ". Fits 50-399 legs. 388 lbs.

No. 20-652 Production Table, one-piece, for two spindle setup. Drilled and tapped for column mounting flanges on 17½" centers. Ground work surface 24½" x 35½". Fits 50-399 Legs. 388 lbs.

No. 20-653 Production Table, one-piece, for three spindle setup. Drilled and tapped for column mounting flanges on 26¹/₄" centers. Machined work surface 24¹/₂" x 70¹/₂". Fits 50-399 Legs. 650 lbs.

No. 20-654 Production Table, one-piece, for four spindle setup. Drilled and tapped for column mounting flanges on 17½" centers. Machined work surface 24½" x 70½". Fits 50-399 Legs. 650 lbs.

No. 20-657 Production Table, right end section, drilled and tapped for two columns on 17½ "centers, 25 x 35¾ "ground work surface. 392 lbs.

No. 20-658 Production Table, left end section, drilled and tapped for two columns on 17½ "centers, 25 x 35¼ "ground work surface. 392 lbs.

No. 20-659 Production Table, center section, drilled and tapped for two columns on 171/2" centers, 25 x 35" ground work surface. 382 lbs.

No. 50-399 Legs, steel, one pair 27½" high. For mounting production tables 20-652, 20-653, 20-654 and 20-656. 100 lbs.

No. 50-506 Leg, steel, $27\frac{1}{2}$ " high. For mounting production tables. Cannot be used with table 20-651. 50 lbs.

No. 50-400 Riser Blocks, cast iron, one pair, 2" high with studs, nuts and lock washers for mounting under Legs 50-399 and 50-506. One pair required for each single leg to raise machine 2". Two blocks can be stacked to raise machine 4". 8 lbs.



Refer to Page 6, Section A3 for important ordering data on tables and minimum center distance for columns. For Coolant Equipment, see Section D1.

Data sheets with dimensions are available to aid in special machine design.

UNIQUE ROCKWELL POWER FEED

(For Catalog Listing, See Page 4)

Only the Rockwell Power Feed offers "up-front" control combined with one-hand operation—never before available on a standard 20" drill press! And the Rockwell Variable-Rate Power Feed provides these important benefits:

Saves on Labor Costs — faster and easier to operate, it is especially valuable on set-ups where the operator can do other jobs during the power feed cycle.

Improves Quality—correctly engineered feeds and speeds are maintained to produce holes that are round, true to size and depth, with a high quality finish.

Increases Production-mechanical feed maintains established production rate, is not subject to slow-downs due to operator fatigue.

Equipped with the unique Rockwell Mechanical Power Feed, Delta 20's not only are ideal for conventional drill press operations, but also are perfectly suited for both small hole drilling and for drilling large holes up to the maximum capacity of the machine.



Rockwell Variable-Rate Mechanical Power Feed

Here's what the Rockwell Variable-Rate Mechanical Power Feed gives you:

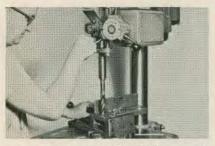
- Offers widest selection of drilling feeds-10 to 1 ratio.
- Permits infinite choice of feeds within the range—.002 to .020 ipr.
- Facilitates feed changes—operator selects desired feed rate while the machine is running.
- Provides "up-front" control combined with one-hand operation.
- Includes adjustable clutch with infinite or "job-tailored" drill point pressure.
- Incorporates provision for remote control or electronic interlocking with automation devices.

FEATURES THAT PROVE THE SUPERIORITY OF THE ROCKWELL POWER FEED

"Up-Front" Control—Rockwell's unique concept in power feeds provides up-front control combined with one-hand operation. Fitting the mechanical control movements to the natural, easy motion of the operator's hand brings "flick-of-the-wrist" control with freedom from fatigue.

Flexibility of Feeds—A simple one-hand movement gives the user all these choices: (1) Accelerated manual rapid approach, then power feed by a simple

ROCKWELL DELTA 20" DRILL PRESSES

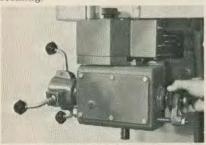


wrist movement (2) Skip drilling-rapid approach, feed, rapid approach, feed. (3) Straight power feed. (4) Straight manual feed.

All of the above choices are immediately available to the operator without any adjustment of the mechanism.



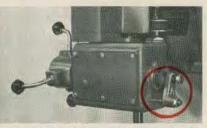
Unmatched Feed Range—Only the Rock well Variable-Rate Power Feed provides a feed range of 10 to 1 (.002 to .020 ipr), almost double that of any other model available. Within the range, any feed may be selected as opposed to a choice of only 3 to 5 selections on conventional feed drill presses. This permits you to dial the exact feed required while the chip is forming.





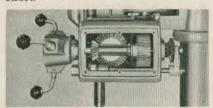
"Job-Tailored" Drill Point Pressure—With the Rockwell Vari-Rate Power Feed, the operator can turn a knurled hand wheel at the back and "tailor" the drill point maximum thrust to whatever the job requires (see top photo above). This means that he can power

feed on a production basis throughout a wide range of hole diameters. He can delicately handle small holes down in the $\frac{1}{16}$ " diameter range (proof—17 jewel Bulova watch crystal did not break in actual test shown above). Then, by a simple adjustment, he can deliver power and thrust for drilling holes upto the maximum capacity of the machine. Infinitely adjustable drill point pressure from 0 to maximum avoids drill breakage, protects all moving parts against overloading, yet, all the thrust ever needed is always available.



Built-In Automation and Remote Control Feature—Only Rockwell offers a mechanical power feed with provision for remote control or interlocking with automation devices such as rotary tables, clamps and work feeds.

Photo shows actuating plunger (at rear) which can be connected with solenoids, electrical control switches, mechanical or hydraulic devices to interlock feed mechanism with automation accessories. The same plunger, an extension of the clutch shaft, permits remote control which completely frees the operator from any manual effort.



Rugged Power Feed Construction—Photo illustrates the rugged, yet simple construction of the unique Rockwell Power Feed.

The double reduction mechanism, with two extra large bevel gears, permits the hand wheel to be ideally proportioned for quick, effortless operation.

INCREASE PRODUCTION BY ADDING THE AUTOMATION AND REMOTE CONTROL KIT TO YOUR ROCKWELL DELTA 20" POWER FEED DRILL PRESSES

This kit, when added to your Rockwell Delta 20" Drill Press, will speed up production and provide added operator convenience. Instructions for easy field mounting are included.

Rockwell Delta Automation and Remote Control Kit Offers These User Benefits:

- It's ideal for interlocking with such automation devices as rotary tables, clamps and work feeds.
- Can be remotely actuated from any control station, enabling operator to perform other functions.
- Power Feed starts instantly when switch is closed.
- Unit can be operated at a frequency of up to ten operations per minute.
- Power Feed may be actuated or disengaged using hand control, if desired, without disconnecting remote control solenoid.
- Use of foot switch enables operator to walk up to drill press with hands loaded, then step on switch to place unit in operation.

No. 49-436 Automation and Remote Control Kit for Rockwell Delta 20" Power Feed Drill Presses. Includes 230 volt, 60 cycle, single phase solenoid; mounting bracket; lever arm with shaft and instructions for field mounting. 17 lbs.

No. 49-437 Automation and Remote Control Kit for Rockwell Delta 20" Power Feed Drill Presses, Same as 49-436, except 460 volt. 17 lbs.



Shown is the Automation and Remote Control Kit with foot switch mounted on a Delta 17" Variable Speed Power Feed Drill Press.



Photograph illustrates the simplicity of the Rockwell Delta Automation and Remote Control Kit which consists of a solenoid, mounting bracket and lever arm with shaft.

ROCKWELL DELTA 20" DRILL PRESSES

CONVERT YOUR PRESENT
ROCKWELL DELTA 20"
HAND OR POWER FEED
DRILL PRESSES FOR
EXTRA SLOW DRILLING
SPEEDS WITH THESE
NEW PLANETARY GEAR
SPINDLE PULLEYS



Hand Feed 20" Head Shown with Five-Step Geared Spindle Pulley

NOW! Rockwell Delta 20" Drill Presses are available with planetary gear spindle pulleys that provide a 3 to 1 reduction ratio. By reducing the spindle speed and multiplying the torque, the capacity of the Delta 20" Hand or Power Feed Drill Press is increased. You can drill and tap larger holes and handle operations like reaming, spotfacing and counterboring.

Hand feed models have ten spindle speeds—five in direct drive and five in gear drive. With a 1725 rpm motor, the spindle speed range is from 165 to 2600 rpm, and with an 1140 rpm motor, from 110 to 1700 rpm.

Power feed models are equipped with a 4-step geared spindle pulley and conventional 5-step motor pulley. With the 49-108 V-belt which is standard equipment, eight spindle speeds (four in direct and four in gear drive), ranging from 165 rpm to 1800 rpm with a 1725 rpm motor, are obtained. With an 1140 rpm motor, the eight speeds range from 110 rpm to 1200 rpm.

Additional speeds can be obtained on power feed models by using the longer V-belt 49-109 (order separately if desired) and different steps on the motor pulley. This provides eight additional speeds, up to 2100 rpm in direct drive when using a 1725 rpm motor.

No. 20-635 Five-step Planetary Gear Spindle Pulley for 20" Hand Feed Drill Presses. Used instead of the standard equipment spindle pulley, this accessory provides ten spindle speeds. 15 lbs.

No. 20-634 Four-step Planetary Gear Spindle Pulley for 20" Power Feed Drill Presses. Used instead of the standard equipment spindle pulley, this accessory provides eight spindle speeds with the original equipment V-belt, plus eight additional speeds with the longer

V-belt 49-109 (order separately if desired). 15 lbs.

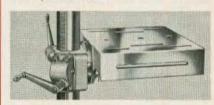
No. 49-109 Spindle V-belt for use with 20-634 Spindle Pulley. Longer in length than Standard Belt 49-108, it is used to obtain higher spindle speeds. Steel reinforced type, 64\%" OC. \% lb.

NOTE: For Catalog Listing of 20" Geared Pulley Drill Presses, see Page 5.

DELTA QUALITY ACCESSORIES THAT MAKE THE 20" DRILL PRESSES EVEN MORE VALUABLE

No. 46-968 (old 968) Drill Chuck-3-jaw type, 0 to ½" capacity, with No. 2 M.T. shank. Includes chuck key. 2½ lbs.

No. 17-820 Drill Chuck-3-jaw type, 0-1/2" capacity, with No. 3 M.T. shank. Includes chuck key. Use with straight shank drills in a drill press with No. 3 M.T. spindle, 3 lbs.



No. 20-660 Tilting Table—Table top and one side are finished to plane surfaces at right angles to one another. Tilts 90°, right and left. Ground work surface 16" front to back by 18" left to right, slotted, with tilt angle scale. Without 20-661 Raising Mechanism. For single spindle floor model drill press. 97 lbs.

No. 20-650 Production Table-15 x 18" ground work surface (including coolant trough, 19¹4 x 22"). With 4 diagonal and 2 parallel blind T-slots for ½" bolts. Without 20-661 Raising Mechanism. For single spindle floor model drill presses. 112 lbs.

No. 20-661 Raising Mechanism—For head or table of 20" Drill Press. Fits Tables 20-660 and 20-650. Includes ball bearing thrust collar, rack, gear assembly and crank. 19 lbs.

No. 20-636 Booster Spindle Return Spring Kit-Includes clock spring with case, pinion shaft stub extension and instructions for field mounting on hand or power feed machines. Provides about 80 pounds of lift when used with the standard equipment spring. It is especially recommended when multiple spindle heads, tapping heads or other heavy tooling is mounted on quill or spindle of machine. 2 lbs.

No. 20-420 Quill Assembly—Used to change any No. 3 M.T. spindle model to No. 2 M.T. spindle. Consists of quill with No. 2 M.T. spindle, assembled with collar, ball bearings and flinger collar. 6 lbs.

No. 20-430 Quill Assembly-Used to change any No. 2 M.T. spindle model

to No. 3 M.T. spindle. Consists of quill with No. 3 M.T. spindle, assembled with collar, ball bearings and flinger collar. 6 lbs.

No. 49-235 Motor Pulley—5-step. Specify 58, 34, 78 or 1" bore. 3 1/2 lbs.

No. 49-108 Belt-Standard (steel reinforced), 6213/32" OC. 3/4 lb.

NOTE: For additional accessories, see Section A9; for Coolant Equipment, see Section D1.



ROCKWELL DELTA INDUSTRIAL DISTRIBUTORS

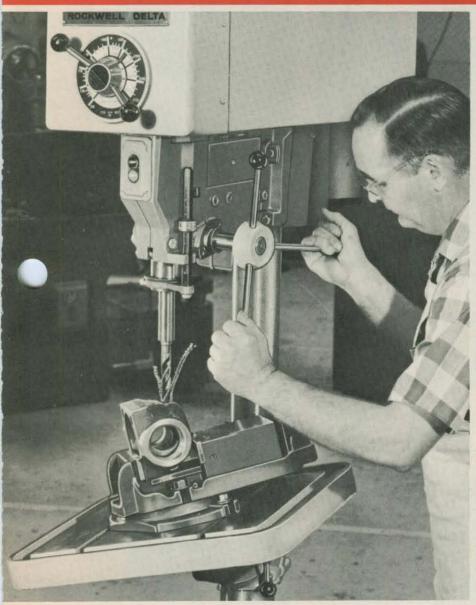
Your local Industrial Distributor, who makes Rockwell Delta Industrial Machines and Accessories conveniently available to you, also can assist you with expert application engineering. He is as close to you as your phone. He is always willing to help you by making prompt, emergency deliveries of hundreds of items which could prevent costly shutdowns and delays. Depend on him for all of your industrial requirements, just as Rockwell does at all of its plant locations.

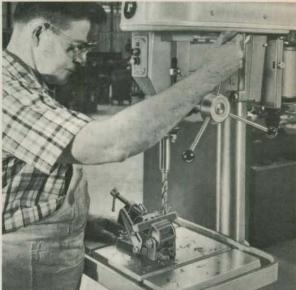
ROCKWELL DELTA 17" DRILL PRESS LINES

Offer a combination of features that guarantee long service life, consistent precision performance and maximum operating economy:

■ WIDEST Speed Range—230 to 4250 RPM—on Variable Speed Models. ■ UNIQUE Double Spindle on all models. ■ UNMATCHED Six Interchangeable Spindle Adapters on key chuck models. ■ SELF-LOCKING, Positive Depth Stop on all models.

And with the world's only "Triple Variable" Drill Press you get: Infinitely variable speed (12-to-1 ratio) ... variable feed rate (.002 to .020 ipr) ... and variable drill point pressure (0 to maximum required).



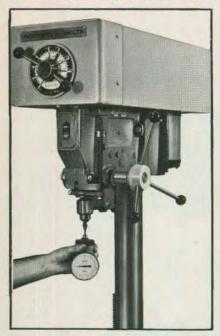




Let us "Performance-Prove" these profit builders for you today!

ROCKWELL DELTA 17" DRILL PRESSES

DELTA QUALITY FEATURES THAT PROVE THE SUPERIORITY OF DELTA 17" DRILL PRESSES



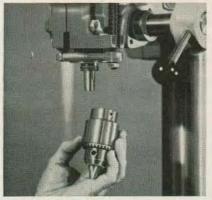
Widest, Test-Proven Speed Range . . . You can prove the tremendous 12-to-1 speed ratio of the Rockwell Delta 17" Variable Speed Drill Press by actual tachometer test.

Benefits: You get the exact speed you need for every kind of drillable material—350 to 4250 RPM with a 1725 RPM motor—230 to 2830 RPM with an 1140 RPM motor. Only Delta gives you a BONUS of extra speeds in both the high and low speed range.



New, Improved Variable Speed Drive ... With less than one complete turn of the large speed control pilot wheel, you can select any speed instantly while the machine is running. A self-locking cam, plus a "snubber" feature, holds speed settings constant under all load conditions. Proper belt tension is automatically maintained for full power transmission.

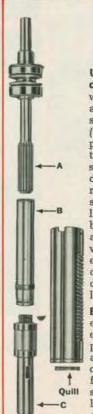
Benefits: Industry's widest speed range permits drilling all materials at the correct speed. Speed changes are made while the machine is running to save the operator's time. Control of speed is extra safe because there is no need to manipulate the belt or pulleys by hand.





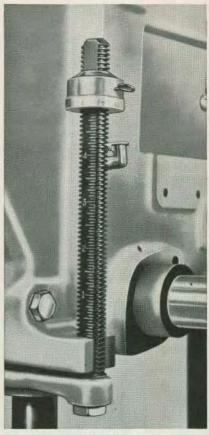
Unmatched Versatility . . . Six interchangeable spindle adapters make Rockwell Delta Key Chuck Models unsurpassed in their ability to do many different jobs.

Benefit: These spindle adapters adapt the 17" Drill Press in seconds for operations varying from drilling to wood planing or routing, including counterboring, reaming, spot facing, sanding and mortising, as well as buffing and many other operations.



Unique Double Spindle . . . Only Rock-well Delta 17's offer a dual spindle design. Upper spindle (A) takes all belt pull and transmits torque through 16splined free-floating drive sleeve (B) to rigid, short lower spindle (C). Four lubricated-for-life ball bearings (plus an extra bearing on variable speed models) are used-two on the upper spindle and two on the lower spindle.

Benefits: Short lower spindle design eliminates whipping and insures accuracy. You get chatter-free performance, even on special operations like reaming or countersinking.



"Self-Locking" Depth Stop . . . Unlike competitive depth stops, Delta's self-locking design guarantees that it will never change its setting.

Benefits: Positive setting eliminates ruined work pieces ... permits fast setups for absolute depth control. Sleeve is calibrated to show changes down to .002".

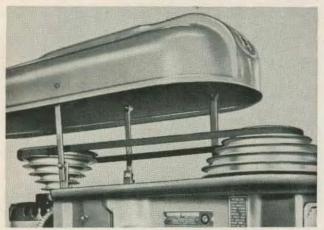


Quick Conversion Pulleys . . . The dynamically balanced pulleys on Rockwell Delta 17" Step Pulley Drill Presses may be changed quickly by simply loosening one set screw.

Benefit: You convert quickly from high to slow speed model or vice versa to keep production moving.



ROCKWELL DELTA 17" DRILL PRESSES

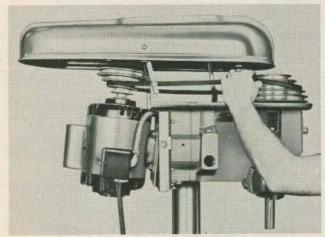


Interference-Free Guard . . . All steel guard swings up high and back, while three specially designed supports and a stop, hold guard in desired "up position."

Benefits: With all interference practically eliminated, operator makes belt and speed changes quickly. Built-in clips automatically lock guard in place when closed.

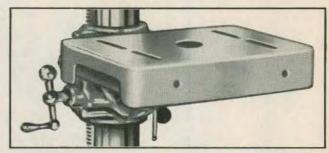


Heavy Duty Base . . . Extra large 17¾ x 25½" floor base has spacious 13¾ x 16¾6" work surface. Two full length T-slots permit quick insertion of T-bolts from either front or rear. Benefits: Massive, spacious base provides stability for machine, plus rigid mounting for column, guaranteeing greater accuracy at the spindle. Blind T-slots speed up clamping of jigs and fixtures.



Perfected Motor Mount... Specially designed, pivot type motor mount on Delta 17" Step Pulley Drill Presses assures longer belt life because belt tension is fully released before changing from one pulley speed to another.

Benefit: Proper running tension on belt is maintained at all times, preventing undue wear on bearings.



Modern Table Design ... Slots and side ledges make clamping of work easy. Machined front apron has mounting holes. Ground index pin accurately locates table at the level position, and at 90° left tilt or 90° right tilt positions.

Benefit: Quick, accurate clamping of work speeds up production and eliminates work spoilage.





The Only "Triple Variable" Drill Press... Only Rockwell Delta 17" Variable Speed Drill Presses with Vari-Rate Power Feed offer you this 3-in-1 combination: 1 Variable Speed—230 to 4250 RPM 2 Variable Feed—002 to .020 ipr 3 Variable Drill Point Pressure—0 to maximum.

Benefits: You can select the exact drilling speed you need for every material, hard or soft. You can dial the exact feed required, while the chip is forming. You can dial the exact drill point pressure you desire—extra thrust for large drills, delicate pressure for tiny drills.

PLUS THESE EXTRAS

- Quill is rigidly supported by 3 precision-bored lands in the head, providing extra smooth travel.
- Rubber cushion ring absorbs shock between head and quill collar, or mortising chisel holder, while garter spring holds these parts on quill with light clamping pressure. This avoids quill distortion and prolongs bearing life.
- Handy, self-closing oil cup permits single-point lubrication of quill surface and pinion shaft.
- All heads are machined, ready for mounting Rack and Pinion Type Raising Mechanism.

ROCKWELL DELTA 17" DRILL PRESSES



5-Step Pulley Floor Model with tilting table and key chuck spindle. Available with production table and No. 2 M.T. spindle.

Variable Speed Floor Model with production table. No. 2 M.T. spindle and Vari-Rate Power Feed. Available with tilting table and key chuck spindle.





5-Step Pulley Bench Model with production table, No. 2 M.T. spindle and Vari-Rate Power Feed. Available with key chuck spindle and Five-Rate Power Feed.



Variable Speed

Multiple Spindle Model-Available in 2, 3, 4, 5 or 6 spindles with 1/2" key chuck or No. 2 M.T. spindle, hand or power feed, on both Step Pulley and Variable Speed Models. Can be ordered as cataloged, or custom assembled (either at the factory or in your shop) using any combination of Step Pulley or Variable Speed Heads with any number of spindles from one to a drill press a block long if desired.

Floor Model-Hand feed with No. 2 M.T. spindle and extra large production table. Spacious 23 % " x 36" table working surface makes machine especially suited for handling large dies, jigs, fixtures and patterns. Increases efficiency while stepping up production. An excellent unit for the tool and die shop, machine shop and pattern

In the tool room, experimental department, machine or model shop, and in school or cabinet shops, Rockwell Delta 17" Drill Presses will meet your most demanding requirements.

They are the finest machines ever offered in their class. Here's why: Only the Rockwell Delta Variable Speed 17 provides a 12-to-one speed ratio, enabling you to do superior work with almost any material. Only Rockwell Delta 17's make available a Unique Double Spindle eliminating spindle whip and providing greater accuracy. Only Rockwell Delta makes six interchangeable spindle adapters available to make Delta 17's unsurpassed in their ability to do many different jobs. Only Rockwell Delta offers a "Self-Locking" Depth Stop that never changes its setting.

POWER FEED—FACTORY MOUNTED ON ROCKWELL DELTA 17" DRILL PRESSES

CATALOG NUMBER	TYPE OF POWER FEED	WT., LBS.
17-819	*†Variable Rate Type (.002 to .020 ipr)	56

*Feed pressure infinitely variable from 0 to maximum required.

NOTE: For Automation and Remote Control Kits for field mounting, and for complete description of Power Feed, see accessory section.

MACHINE DATA

Overall	Dimens	ions
---------	--------	------

Overall Dimensions:
Bench Type:
Height (Step Pulley)49%"; (VS)51%"
Width (Step Pulley)23½"; (VS)23%"
Front to Rear (Step Pulley) 3515/32"; (VS) 363/8"
Floor Type (with Production Table):
Height (Step Pully)
Width (Step Pulley)18¼"; (VS)20½"
Front to Rear (Step Pulley)3211/32"; (VS)32%"
Table Working Surface, Ground:
Standard11 x 14"
Production:
Overall16 x 201/2"
Inside of Coolant Trough
T-Slots (Two on 9" Centers)%6"
Base Working Surface:
Bench
Quill:
Stroke (Manual Feed) 0 to 5" (Power Feed) 1/2 to 5"
Diameter
Capacities:
Key Chuck 0 to ½"
Dia. Hole in Cast Iron 7/8" In Steel 11/16"
Spindle Speeds:
Step Pulley Models:
With 1725 RPM Motor:
High Speed Model 700, 1150, 1750, 2750 and 4250 RPM
Slo Speed Model385, 600, 935, 1450 and 2240 RPM
With 1140 RPM Motor:
High Speed Model460, 760, 1140, 1815 and 2800 RPM
Slo Speed Model255, 400, 615, 960 and 1475 RPM
Variable Speed Models:
With 1725 RPM Motor350 to 4250 RPM
With 1140 RPM Motor230 to 2830 RPM
Power Feed Models:

Column: Diameter 31/2"; Wall Thickness 11/64" Motor Plate: Accommodates NEMA 182 Frame Motors.

STANDARD EQUIPMENT

Table raising mechanism on single spindle floor models. Head raising mechanism on multiple spindle and bench models. Self-locking depth stop. Depth gage. Belt guard. All models include belt and motor pulley, ¾" bore. Key chuck models include spanner wrench for spindle adapters.

Variable Rate Typefrom .002 to .020 ipr

Feed Pressure Infinitely variable from 0 to max, required

[†]Above power feed supplied factory mounted only. Not supplied for field mounting. Minimum spacing of multiple spindle 17" power feed heads

ROCKWELL DELTA 17" DRILL PRESSES

NOTE: When Power Feed is Desired, Order Catalog Number of Power Feed From Opposite Page.

SINGLE SPINDLE MODELS (Less Motor and Control—See Below)

TYPE	NO. 2 MORSE TAPER SLO SPEED	NO. 2 MORSE TAPER HIGH SPEED	1/2" KEY CHUCK SLO SPEED	1/2" KEY CHUCK HIGH SPEED	NO. 2 MORSE TAPER VARIABLE SPEED	1/2" KEY CHUCK VARIABLE SPEED
Standard Tilting Table Floor Models	• 17-605 300 lbs.	• 17-606 300 lbs.	•17-607 300 lbs.	• 17-608 300 lbs.	• 17-227 330 lbs.	•17-228 330 lbs.
Production Table Floor Models	• 17-610 312 lbs.	•17-611 312 lbs.	•17-612 312 lbs.	• 17-613 312 lbs.	• 17-229 348 lbs.	•17-230 348 lbs.
Production Table Bench Models	17-630 335 lbs.	17-631 335 lbs.	17-632 335 lbs.	17-633 335 lbs.	17-231 366 lbs.	17-232 366 lbs.
Heads Only	17-600 99 lbs.	17-601 99 lbs.	17-602 99 lbs.	17-603 99 lbs.	17-225 127 lbs.	17-226 127 lbs.

•Includes Safety Collar for head. Table working surface—Standard $11 \times 14^*$, Production (floor model) $12\frac{1}{2} \times 17^*$ with one $\frac{3}{4}^*$ pipe tap at rear, Production (bench model) $16 \times 18^*$ with two $\frac{3}{4}^*$ pipe taps at rear. Std. table tilts 90° L and R. Production table for floor models tilts 17° L and R.

SINGLE AND MULTIPLE SPINDLE PRODUCTION TABLE FLOOR MODELS (Less Motors and Controls—See Below)

ТҮРЕ		NO. 2 MORSE TAPER SLO SPEED	NO. 2 MORSE TAPER HIGH SPEED	KEY CHUCK SLO SPEED	KEY CHUCK HIGH SPEED	NO. 2 MORSE TAPER VARIABLE SPEED	KEY CHUCK VARIABLE SPEED
1 Spindle—	127/y*	17-614	17-615	17-616	17-617	17-243	17-244
¾" Pipe Tap at Rear		615 lbs.	615 lbs.	615 lbs.	615 lbs.	645 lbs.	645 lbs.
2 Spindle —	□ 17°(γ°	17-640	17-641	17-642	17-643	17-233	17-234
¾" Pipe Tap at Rear		780 lbs.	780 lbs.	780 lbs.	780 lbs.	836 lbs.	836 lbs.
3 Spindle —	(5° - 10° -	17-650	17-651	17-652	17-653	17-235	17-236
¾" Pipe Tap at Each End		1179 lbs.	1179 lbs.	1179 lbs.	1179 lbs.	1350 lbs.	1350 lbs.
4 Spindle —	+ # - # - # - # - 17/4°	17-660	17-661	17-662	17-663	17-237	17-238
Two ¼" Pipe Tap at Rear		1448 lbs.	1448 lbs.	1448 lbs.	1448 lbs.	1628 lbs.	1628 lbs.
5 Spindle —	0 0 0 0 17//2	17-680	17-681	17-682	17-683	17-239	17-240
¾" Pipe Tap at Each End	* \$55" 17//2"	1855 lbs.	1855 lbs.	1855 lbs.	1855 lbs.	2140 lbs.	2140 lbs.
6 Spindle — ¾" Pipe Tap at Each End	135. -22223- 150.	17-690 2378 lbs.	17-691 2378 lbs.	17-692 2378 lbs.	17-693 2378 lbs.	17-241 2691 lbs.	17-242 2691 lbs.

Coolant equipment not included with machines. Order separately (see Section D1). Tables with three or more sections have three steel legs, other machines have two legs. Multiple spindle tables have $1\frac{1}{2}$ " coolant

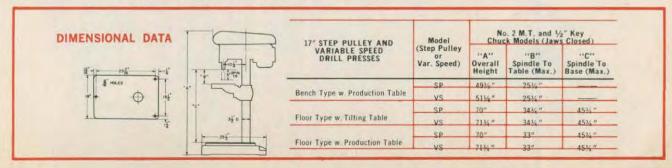
trough all around. Working surface is 32" from floor. Spindle to table maximum with No. 2 Morse Taper or Key Chuck (jaws closed)—25¾".

MOTORS/CONTROLS (Factory Mounted-Wired) (On multiple spindle units, designate head (1st, 2nd, etc.) on which each motor and control group is to be factory mounted.)

MOTOR	MOTOR CONTROL	MOTOR ENCLOSURE	CYCLES AND MOTOR RPM	VOLTAGE	SHIP. WT., LBS.	CATALOG NUMBER	CAT. NO. 208 V
	Push Button Switch Only	Guarded Drip Proof	60 - 1725	115/230	61	49-444	
	Push Button and Overload Switches	Guarded Drip Proof	60 - 1725	115/230	65	49-675	
Single Phase,	Push Button Switch and Magnetic Starter	Guarded Drip Proof	60 - 1725	115/230	67	49-728	
1 Horsepower	Push Button Switch Only	Guarded Drip Proof	60 - 1140	115/230	77	49-729	
	Push Button and Overload Switches	Guarded Drip Proof	60 - 1140	115/230	81	49-676	
	Push Button Switch and Magnetic Starter	Guarded Drip Proof	60 - 1140	115/230	82	49-730	
	Push Button Switch Only	Guarded Drip Proof	60 - 1725	233/460	61	49-445	49-995
	Push Button and Overload Switches	Guarded Drip Proof	60 - 1725	230/460	50	49-737	49-995
	Push Button Switch and Magnetic Starter	Guarded Drip Proof	60 - 1725	230/460	57	49-738	49-997
Three Phase,	P. B. Switch and Mag. Starter w/115V. Trans.	Guarded Drip Proof	60 - 1725	230/460	57	149-739	49-998
1 Horsepower	Push Button Switch Only	Guarded Drip Proof	60 - 1140	230/460	58	49-740	49-999
	Push Button and Overload Switches	Guarded Drip Proof	60 - 1140	230/460	63	49-741	52-373
	Push Button Switch and Magnetic Starter	Guarded Drip Proof	60 - 1140	230/460	65	49-742	52-001
	P. B. Switch and Mag. Starter w/115V. Trans.	Guarded Drip Proof	60 - 1140	230/460	70	149-743	52-002

NOTE: Single phase dual-voltage electricals will be supplied wired for 115 V, unless 230 V is specified. Three phase dual-voltage electricals will be supplied wired for 230 V, unless 460 V is specified. Power Cord and Plug supplied for single phase only. Motors and Motor Controls for Rockwell Delta 17" Drill Presses may be ordered unmounted. For listing,

see Sections P and Q. †No. 49-000 "JIC" Type Control Kit. Specify this Catalog Number, in addition to Three Phase Cat. No. 49-739 or 49-743, in order to obtain 17" Drill Press with "JIC" type electricals, factory mounted and wired.



ROCKWELL DELTA 17" DRILL PRESSES

COMPONENTS FOR BUILDING SPECIAL-PURPOSE MACHINES

(Used with Rockwell Delta Step Pulley and Variable Speed 17" Drill Press Heads.)

No. 17-366 (old 1366) Flange, for mounting column on table, with screws (not for floor type). 10 lbs.

No. 17-764 (old 1368) Column, 3½" diameter by 38½" long. 20 lbs.

No. 17-763 (old 1367) Column, 3½" diameter by 62" long. 32 lbs.

No. 17-818 Column, 3½" diameter by 84" long. 46 lbs.

No. 17-801 Raising Mechanism for head or table. Includes worm shaft, compound worm gear and pinion, crank handle, rack, thrust ball bearing and column collar. 10 lbs.

No. 17-827 Production Table, one piece, for single spindle set-up. Ground work surface of 23% x 36". Fits No. 50-399 Legs. 373 lbs.

No. 15-153 (old 1513) Production table, one piece for 2 spindle set up. Ground work surface of 23% x 36". Fits No. 50-399 legs. 366 lbs.

No. 15-415 (old 1514) Production table. 16 x 18" ground work surface for single spindle bench model 17" drill presses. Does not fit 50-399 legs. 147 lbs.



No. 15-555 (old 1515) Production table, one piece for 4 spindle set up. Ground work surface of 23% x 77". Fits 50-399 legs. 804 lbs.

No. 15-155 (old 1505) Production table, center section, 23%" front to rear x 30" left to right ground work surface with 1½" coolant trough, 365 lbs.

No. 15-751 (old 1507) Production table, end section, 23%" front to rear x 32\\'2" left to right ground surface with 1\\'2" coolant trough and \\'4" pipe tap at end. 352 lbs.

No. 50-399 Legs, steel, one pair, 27½" high for mounting tables 15-153 (old 1513) and 15-555 (old 1515), also table sections 15-155 (old 1505) and 15-751 (old 1507), 100 lbs.

No. 50-506 Leg, steel, 27½" high for mounting production tables and sections. 50 lbs.

No. 50-400 Riser Blocks, cast iron, one pair, 2" high with studs, nuts and lock washers for mounting under legs 50-399 and 50-506. One pair required for each single leg to raise machine 2". Two blocks can be stacked to raise machine 4", 8 lbs.

Refer to Page 6, Section A3 for important ordering data on tables and minimum center distance for columns. For Coolant Equipment, see Section D1.

UNIQUE ROCKWELL POWER FEED

(For Catalog Listing, See Page 4)

Only the Rockwell Power Feed offers "up-front" control combined with one-hand operation—never before available on a standard 20" drill press! And the Rockwell Variable-Rate Power Feed provides these important benefits:

Saves on Labor Costs — faster and easier to operate, it is especially valuable on set-ups where the operator can do other jobs during the power feed cycle.

Improves Quality—correctly engineered feeds and speeds are maintained to produce holes that are round, true to size and depth, with a high quality finish.

Increases Production-mechanical feed maintains established production rate, is not subject to slow-downs due to operator fatigue.

Equipped with the unique Rockwell Mechanical Power Feed, Delta 17's not only are ideal for conventional drill press operations, but also are perfectly suited for both small hole drilling and for drilling large holes up to the maximum capacity of the machine.



Rockwell Variable-Rate Mechanical Power Feed

Here's what the Rockwell Variable-Rate Mechanical Power Feed gives you:

- Offers widest selection of drilling feeds-10 to 1 ratio.
- Permits infinite choice of feeds within the range—.002 to .020 ipr.
- Facilitates feed changes—operator selects desired feed rate while the machine is running.
- Provides "up-front" control combined with one-hand operation.
- Includes adjustable clutch with infinite or "job-tailored" drill point pressure.
- Incorporates provision for remote control or electronic interlocking with automation devices.

THE SUPERIORITY OF THE ROCKWELL POWER FEED

"Up-Front Control—Rockwell's unique concept in power feeds provides up-front control combined with one-hand operation. Fitting the mechanical control movements to the natural, easy motion of the operator's hand brings "flick-of-the-wrist" control with freedom from fatigue.



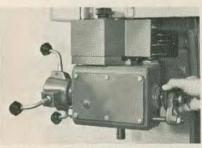
ROCKWELL DELTA 17" DRILL PRESSES

Flexibility of Feeds—A simple one-hand movement gives the user all these choices: (1) Accelerated manual rapid approach, then power feed by a simple wrist movement (2) Skip drilling—rapid approach, feed, rapid approach, feed, (3) Straight power feed. (4) Straight manual feed.

All of the above choices are immediately available to the operator without any adjustment of the mechanism.



Unmatched Feed Range—Only the Rockwell Variable-Rate Power Feed provides a feed range of 10 to 1 (.002 to .020 ipr), almost double that of any other model available. Within the range, any feed may be selected as opposed to a choice of only 3 to 5 selections on conventional feed drill-presses. This permits you to dial the exact feed required while the chip is forming.





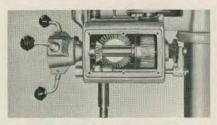
"Job-Tailored" Drill Point Pressure—With the Rockwell Vari-Rate Power Feed, the operator can turn a knurled hand wheel at the back and "tailor" the drill point maximum thrust to whatever the job requires (see top photo above). This means that he can power feed on a production basis throughout a wide range of hole diameters. He can delicately handle small holes down in the ½6" diameter range (proof—17 jewel Bulova watch crystal did not break

in actual test shown above). Then, by a simple adjustment, he can deliver power and thrust for drilling holes up to the maximum capacity of the machine. Infinitely adjustable drill point pressure from 0 to maximum avoids drill breakage, protects all moving parts against overloading, yet, all the thrust ever needed is always available.



Built-In Automation and Remote Control Feature—Only Rockwell offers a mechanical power feed with provision for remote control or interlocking with automation devices such as rotary tables, clamps and work feeds.

Photo shows actuating plunger (at rear) which can be connected with solenoids, electrical control switches, mechanical or hydraulic devices to interlock feed mechanism with automation accessories. The same plunger, an extension of the clutch shaft, permits remote control which completely frees the operator from any manual effort.



Rugged Power Feed Construction—Photo illustrates the rugged, yet simple construction of the unique Rockwell Power Feed.

The double reduction mechanism, with two extra large bevel gears, permits the hand wheel to be ideally proportioned for quick, effortless operation.

INCREASE PRODUCTION BY ADDING THE AUTOMATION AND REMOTE CONTROL KIT TO YOUR ROCKWELL DELTA 17" POWER FEED DRILL PRESSES

This kit, when added to your Rockwell Delta 17" Drill Press, will speed up production and provide added operator convenience. Instructions for easy field mounting are included.

Rockwell Delta Automation and Remote Control Kit Offers These User Benefits:

- It's ideal for interlocking with such automation devices as rotary tables, clamps and work feeds.
- Can be remotely actuated from any control station, enabling operator to perform other functions.
- Power Feed starts instantly when switch is closed.
- Unit can be operated at a frequency of up to ten operations per minute.
- Power Feed may be actuated or disengaged using hand control, if desired, without disconnecting remote control solenoid.
- Use of foot switch enables operator to walk up to drill press with hands loaded, then step on switch to place unit in operation.
- Kit is available for 230 or 460 volt,
 60 cycle, single phase operation.

No. 49-436 Automation and Remote Control Kit for Rockwell Delta 17" Power Feed Drill Presses. Includes 230 volt, 60 cycle, single phase solenoid; mounting bracket; lever arm with shaft and instructions for field mounting, 17 lbs.

No. 49-437 Automation and Remote Control Kit for Rockwell Delta 17" Power Feed Drill Presses. Same as 49-436 except 460 volt, 17 lbs.



Shown is the Automation and Remote Control Kit with foot switch mounted on a Delta Power Feed Drill Press.



Photograph illustrates the simplicity of the Rockwell Delta Automation and Remote Control Kit which consists of a solenoid, mounting bracket and lever arm with shaft.

ROCKWELL DELTA 17" DRILL PRESSES

DELTA QUALITY ACCESSORIES THAT MAKE DELTA 17" DRILL PRESSES **EVEN MORE** VERSATILE

No. 46-968 (old 968) Drill Chuck-3-jaw type, 0 to 1/2" capacity, with No. 2 M.T. shank. Includes chuck key. 21/2 lbs.

No. 17-825 Production Table, 121/2 x 17" ground work surface (including coolant trough, 16 x 201/2") with two parallel T-slots for 1/2" T-bolts. Slots are on 9" centers and run from front to back. Table has 11/2" coolant trough with one 34" pipe tap drain hole at left rear corner. Tilts 17° right and left and fits standard bracket on floor type, single spindle drill presses. 58 lbs.

No. 17-801 Raising Mechanism, for head or table. Includes worm shaft, compound worm gear and pinion, crank handle, rack, thrust ball bearing and column collar. 10 lbs.



No. 17-860 Slo-Speed Attachment. Provides 4.7 to 1 speed reduction for spot facing. reaming, counterboring, core drilling, etc. Fits No. 2 M.T. spindle models only. Speed range with the attachment on drill press, 75 to 475 rpm.

These slow speeds are in addition to the regular speeds obtained when the Slo-Speed Attachment is not on the drill press. Spindle travel with this attachment is 4". No. 17-836 Booster Spindle Return Spring Kit recommended for use with this Slo-Speed Attachment. 10 lbs.

SPINDLE AND ADAPTERS*



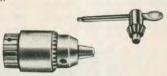
No. 17-880 Spindle, No. 3 M.T., with bearings. Includes instructions for installing on any model of Rockwell Delta 17" Drill Press. 3 lbs.



No. 15-833 Spindle Adapter, No. 2 M.T., with mounting collar tapped 11/16"-20. 1 lb.



No. 15-832 Spindle Adapter, No. 1 M.T., with mounting collar tapped 11/16"-20.



No. 15-830 Drill Chuck, 0-1/2" capacity, with mounting collar tapped 11/10"-20. Includes chuck key. 11/2 lbs.



No. 15-835 Spindle Adapter, 1/2" shaft and flange, with mounting collar tapped 11/16"-20. For cup, dish or straight grinding wheels. 1 lb.



No. 15-836 Spindle Adapter, 1/2" shaft and spacing collars, with mounting collar tapped 11/16"-20. For wood shaper cutters with 1/2" hole. 1 lb.



No. 15-837 Spindle Adapter, 1/2" hole, with mounting collar tapped 11/16"-20. For router bits, wood bits, etc. 1 lb.

No. 15-838 Spanner Wrench, 1 1/2" x 5 1/4" long with single lug for 7/32" hole. Fits mounting collars of Chuck 15-830 and Adapters 15-832, 15-833, 15-835, 15-836 and 15-837. 3 oz.

*Adapters cannot be used with old style Delta 17" Drill Presses. Fit only $\frac{1}{2}$ " Key Chuck Models with $\frac{1}{16}$ "-20 threaded spindle nose.



No. 17-381 (old 1381) Mortising Attachment, fits key chuck models only. Consists of a heavy fence bolted to the drill press table. Two hooked rods hold work against fence and an adjustable hold-down keeps the work from being raised when the chisel is withdrawn. Capacity under hold-down-61/2", from ends of hooked rods to fence-21/2". 19 lbs.

No. 17-836 Booster Spindle Return Spring Kit. For 17" Drill Presses Serial No. 137-5800 and higher. It provides about 80 pounds of lift when used with the standard spring. Especially recommended for use with the 17-860 Slo-Speed Attachment or when any heavy tooling like multiple spindle heads or tapping chucks are mounted on the quill or spindle of the machine. Includes clock spring, pinion shaft extension and instructions for field mounting. 2 lbs.



No. 40-882 (old 882) Lamp Attachment uses standard 15 or 25-watt bulb. Includes mounting bracket, shade, socket and 115 V 8-foot cord. 11/2 lbs.



No. 17-822 Belt Guard Top Cover Plate. For 17" Variable Speed (Spring Pulley Type) Drill Presses. Includes two oil hole plugs, cover plate for column hole and screws for mounting. 9 lbs.

SPEED CHANGING PARTS

No. 17-391 (old 1391) Parts for converting drill press from Slo-Speed to High Speed model. Consists of high speed pulleys and 49-051 (old 501) Belt. 7 lbs. No. 17-862 Parts for converting drill

press from High Speed to Slo-Speed model. Consists of slo-speed pulleys and 49-025 (old 520) Belt. 10 lbs.

MOTOR PULLEYS

3 lbs. ea.

5-Step for Slo-Speed

No. 41-812-1/2" bore. No. 41-813-%" bore.

No. 41-814-¾" bore. No. 41-815-¾" bore.

5-Step for High-Speed

No. 41-822-1/2" bore.

No. 41-823-%" bore.

No. 41-824 %" bore.

No. 41-825-1" bore.

MOTOR PULLEY ASSEMBLIES

No. 41-964 Variable Speed Type-%" bore. 8 lbs.

No. 41-965 Variable Speed Type-7/8" bore. 8 lbs.

BELTS

No. 49-051 (old 501) V-belt, 51%" OC. for High Speed model. 1/2 lb.

No. 49-025 (old 520) V-belt, 541/8" OC, for Slo-Speed model. 1/2 lb.

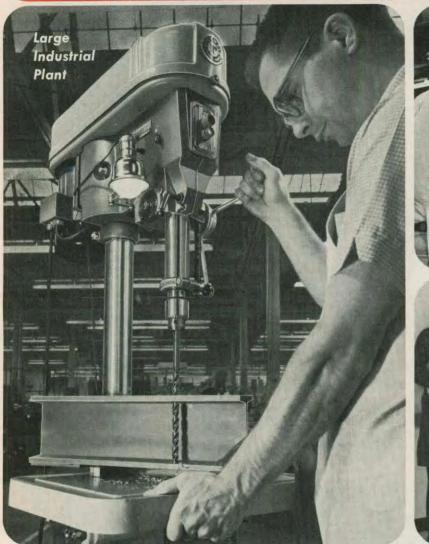
No. 49-159 Variable Speed Belt, 55" OC. 1 1/2 Ibs.

Note: For additional accessories, see Section A9; for Coolant Equipment, see Section D1.



Rockwell Delta 15" Drill Presses The "6 PLUS 6" & "VS 6"

Meet the Needs of Every User... Large or Small







The Rockwell Delta "6 PLUS 6" and "VS6" will outperform any other 15" step pulley or variable speed drill press on the market! Here's why: ■ An "industry first" 6 speeds—11.8 to 1 speed ratio on "6 PLUS 6"... an unmatched 10 to 1 speed ratio on "VS6" to handle all materials. ■ BIG 6" stroke for deep hole drilling and clearing jigs and fixtures. ■ Exclusive "Self-Locking" Depth Stop that always holds its setting... calibrated to show changes down to .002"

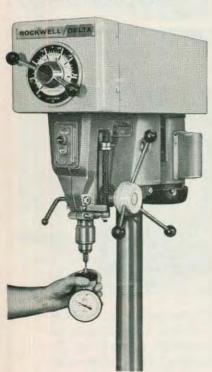
ROCKWELL DELTA 6" STROKE 15" DRILL PRESSES

DELTA QUALITY FEATURES THAT GUARANTEE BIG PERFORMANCE ON EVERY JOB!



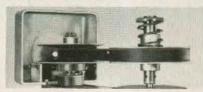
Six Speeds—An Industry First . . . Only Delta's "6 PLUS 6" offers this unbelievably wide range of speeds with a low-cost 1725 RPM motor—425, 600, 1100, 2050, 3900 and 5500 RPM—11.8 to 1 speed ratio.

Benefits: You can choose an extra slow speed for drilling very hard materials . . . an extra fast speed for working soft materials . . . or an optimum speed for any size bit and material. This one machine does the work of two former machines (low and high speed).



Widest, Test-Proven Speed Range . . . The Delta is the only 15" Variable Speed Drill Press which gives you a true 10-to-1 speed ratio, proven by actual test.

Benefits: You get the exact speed you need for every drilling job on any material—450 to 4700 RPM with a 1725 RPM motor—300 to 3100 with an 1140 RPM motor. Only Delta gives you a BONUS of extra speeds in both the high and low speed range.



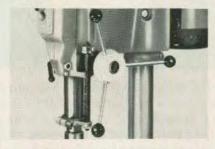
New, Improved Variable Speed Drive . . . Less than one complete turn of the large speed control pilot wheel lets you select any spindle speed instantly while machine is running. A self-locking cam, plus a "snubber" feature, holds speed settings constant under all load conditions. Proper belt tension is automatically maintained for full power transmission.

Benefits: Industry's widest speed range permits drilling all materials at the correct speed. Speed changes are made while the machine is running to save operator's time. Control of speed is extra safe because there is no need to manipulate the belt or pulleys by hand.



Massive Base . . . Heavy $15\frac{1}{2} \times 22\frac{1}{2}$ " floor base has spacious $11\frac{1}{4} \times 14$ " work surface. Two full length T-slots permit quick insertion of T-bolts from either front or rear.

Benefits: Husky, extra large base provides stability for machine and rigid mounting for column, guaranteeing greater accuracy at the spindle. Blind T-slots speed up clamping of jigs and fixtures



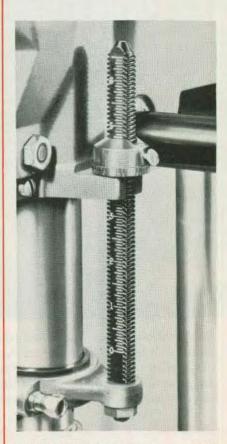
Convenient Pilot Wheel... Three spoke hand wheel provides a suitable feed position for both short and tall operators. Its three levers also make it ideal for "walk-down" feeding.

Benefits: Triple lever feed lets operator select most comfortable feed position to reduce fatigue. Three spoke feed, unlike single lever feeds, makes it especially suitable for "walk-down" feeding of extra hard materials. One or two levers can be removed as may be needed to clear fixtures, etc.



Extra Long Quill Travel . . . The "6 + 6" and "VS6" provide a full "6" stroke.

Benefits: You can drill 35% deeper than with standard 15" machines. You get the extra depth you need for deep hole jobs like skip and gang drilling . . . PLUS, the extra stroke required for clearing jigs and fixtures.

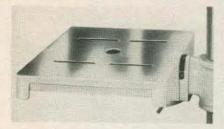


"Self-Locking" Depth Stop . . . Unlike competitive depth stops, Delta's self-locking design guarantees that it will never change its setting.

Benefits: Positive setting eliminates ruined work pieces . . . permits fast setups for absolute depth control. Stop is calibrated to show changes down to .002".

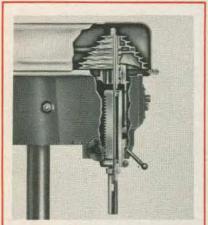


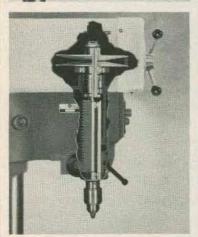
ROCKWELL DELTA 6" STROKE 15" DRILL PRESSES



Large 11 x 14" Tilting Table . . . Slots and side ledges make clamping of work easy. Tilt scale gives accurate readings to 90° right and left, and tapered, expanding bushing provides maximum gripping power for rigid positioning of table at any angle.

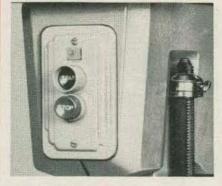
Benefit: Quick, accurate clamping of work speeds up production. Tilting feature facilitates drilling at any angle.





Extra Large Spindle Bearings . . . "6 PLUS 6" and "VS6" spindle and spindle pulley are supported by four over-sized, preloaded, lubricated-for-life ball bearings. Pulley bearings are extra heavy duty and more than 2" in diameter. Massive quill is a full 2" in diameter. "VS6" has the same excellent construction, PLUS an extra bearing below the spindle pulley.

Benefits: This fine combination of features assures freedom from chatter; long, maintenance-free life and maximum pressure at the drill point.



Safe Push Button Switch ... Mounts in front of head, conveniently accessible to right or left hand of operator.

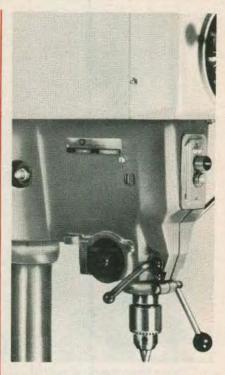
Benefit: Has a shrouded start button to prevent accidental starts and a protruding stop button for quick, emergency stops.





Quick-Release, Adjustable Motor Mount
... Belt tension release is provided by
the pivoting motor mounting plate
which has a reverse, self-locking taper
on the spring-loaded, rubber-tipped
plunger that quickly restores correct
belt tension.

Benefit: Permits changing of belt position in seconds to save valuable production time—no tools are required. Convenient speed chart aids machine operator in selecting correct speed for working all types of materials.



Rugged Head Construction . . . The head of the "6 PLUS 6" and "VS6" is a massive, one-piece casting.

Benefit: This superior construction assures maximum rigidity, guaranteeing holes that are ROUND, TRUE TO SIZE and PERFECTLY STRAIGHT.

PLUS THESE EXTRAS

- Multiple-spline drive that provides positive torque transmission and exact spindle alignment, assuring less vibration, smooth operation and more power at the spindle.
- Precision ground spindle and dynamically balanced motor and spindle pulleys.
- Worm screw adjustment feature that makes it easy to set the correct tension on the spindle return spring.
- Extra long columns for added capacity and operator comfort. Columns have %2" wall thickness.
- Rubber cushion ring that absorbs shock between head and stop rod collar and between head and mortising chisel holder while lock feature firmly holds these parts on quill to guarantee proper adjustment.

A3

ROCKWELL DELTA 6" STROKE 15" DRILL PRESSES

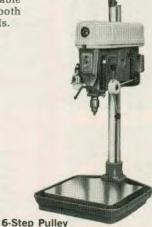


6" Stroke Floor Model with production table and key chuck spindle. Available with tilting table and No. 2 M.T. spindle on both "6 PLUS 6" and "VS6" Models.



Variable Speed 6" Stroke Bench Model with tilting table and key chuck spindle. Available with No. 2 M.T. spindle on both "6 PLUS 6" and "VS6" Models.

Variable Speed
6" Stroke Multiple Spindle
Model . . . available in 2,
3, 4, 5, 6, or 8 spindles
with ½" key chuck or No.
2 M.T. spindle on both "6
PLUS 6" and "VS6" Models. Can be ordered as
cataloged, or custom assembled using any combination of "VS6" and "6
PLUS 6" Heads with any
number of spindles from
one to a drill press a
block long if desired.



6" Stroke Bench Model with production table and key chuck spindle. Available with No. 2 M.T. spindle on both "6 PLUS 6" and "VS6" Models.



Choose from 44 models and get the machine best suited for your job!

Now! you can overcome the squeeze on your profits due to higher material, labor and marketing costs. How? By cutting costs at the only remaining level—the production line.

Rockwell Delta's modern 15" Drill Presses—the "6 PLUS 6" and "VS6"—make such production savings possible through their exceptional capacity and versatility. They provide the extra wide range of speeds needed for drilling everything from hardened tool steel to aluminum, plastic and wood. They offer the extra drilling depth required for deep-hole applications like skip and gang drilling . . . also the extra stroke necessary for clearing jigs and fixtures.

Let us PERFORMANCE-PROVE these "champions" for you today . . . show you how they can help your profit picture!

MACHINE DATA

Overall Dimensions:
Bench Model (With Tilting Table):
Height ("6 PLUS 6")40"; (VS6")42½"
Width
Front to Rear ("6 PLUS 6") 25 1/8"; ("VS6") 27 1/8"
Floor Model:
Height ("6 PLUS 6")
Width (Production Table)
Front to Rear ("6 PLUS 6")26"; ("VS6")27%"
Table Working Surface, Ground:
Tilting
Production (Overall)
Production (Inside of Coolant Trough)
Base Working Surface:
Bench Type, Ground,
(%16" T-Slots on 8" Centers)
Bench Type, Ground, (With Coolant Trough)14 x 16"
Floor Type, (%6" T-Slots on 8" Centers)1114 x 14"
Quill:
Stroke6"
Diameter2"
Capacities:
Key Chuck 0 to ½"
Dia. Hole in Cast Iron %"
Dia. Hole in Steel½"
Spindle Speeds ("6 PLUS 6"):
With 1725 RPM Motor: 425, 600, 1100, 2050, 3900 and 5500 RPM
With 1140 RPM Motor: 280, 395, 725, 1355, 2575
and 3635 RPM
Spindle Speeds ("VS6"):
With 1725 RPM Motor
With 1140 RPM Motor300 to 3100 RPM
Column:
Wall Thickness
Diameter
Motor: Accommodates NEMA 56 Frame Motors
Accommodates NEWA 56 Frame Motors

STANDARD EQUIPMENT

All models include spanner wrench for spindle adapters, belt and pulley guard, belt and motor pulley. (Motor pulley supplied with 5%" bore unless ½" bore is specified.)

ROCKWELL DELTA 6" STROKE 15" DRILL PRESSES

SINGLE SPINDLE 6-STEP PULLEY MODELS (Less Motor and Control—See Below)

STANDARD TILTING TABLE—BENCH MODEL	STANDARD TILTING TABLE-FLOOR MODEL	PRODUCTION TABLE— FLOOR MODEL	PRODUCTION TABLE— BENCH MODEL— 14 x 16" TABLE	HEAD ONLY
15-490	15-494	15-496	15-492	15-488
•No. 2 M.T. Spindle 167 lbs.	•No. 2 M.T. Spindle 190 lbs.	•*†No. 2 M.T. Spindle 248 lbs.	**‡No. 2 M.T. Spindle 245 lbs.	No. 2 M.T. Spindle 72 lbs.
15-491	15-495	15-497	15-493	15-489
•½" Key Chuck 167 lbs.	•½" Key Chuck 190 lbs.	•*†½″ Key Chuck 248 lbs.	**1½" Key Chuck 245 lbs.	½" Key Chuck 72 lbs.

SINGLE SPINDLE VARIABLE SPEED MODELS (Less Motor and Control-See Below)

15-470	15-466	15-468	15-472	15-474
•No. 2 M.T. Spindle 185 lbs.	•No. 2 M.T. Spindle 210 lbs.	•*†No. 2 M.T. Spindle 265 lbs.	**‡No. 2 M.T. Spindle 230 lbs.	No. 2 M.T. Spindle 94 lbs.
15-471	15-467	15-469	15-473	15-475
•½" Key Chuck 185 lbs.	•½" Key Chuck 210 lbs.	•*†3½" Key Chuck 265 lbs.	**1½" Key Chuck 230 lbs.	½" Key Chuck 94 lbs.

•Includes 15-010 (Old 1010) Safety Collar. †Includes 15-008 (Old 1008) Table Raising Mechanism. ‡Counterbalance for raising and lowering head is included. *1½" coolant trough with ¾" pipe on each side. **1½" coolant trough with two ¾" pipe tap at rear. All models include belt and motor pulley.

MULTIPLE SPINDLE MODELS (Less Motors and Controls-See Below)

NO. OF	SPINDLES	6-STEP PULLEY NO. 2 M.T. SPINDLE			VARIABLE SPEED
2 Spindle —	() 1 14M°	15-498	15-476	15-499	15-477
3/4" Pipe Tap at Rear		622 lbs.	626 lbs.	622 lbs.	626 lbs.
3 Spindle —	54° 0 118W	15-500	15-478	15-501	15-479
¾" Pipe Tap at Rear		1065 lbs.	1070 lbs.	1065 lbs.	1070 lbs.
4 Spindle —	9.000 pisw	15-502	15-480	15-503	15-481
¾" Pipe Tap at Rear		1120 lbs.	1160 lbs.	1120 lbs.	1160 lbs.
5 Spindle — Two ¾" Pipe Taps at Ends	65° 138%.	15-504 1425 lbs.	75/455	15-505 1425 lbs.	15-483 1465 lbs.
6 Spindle — Two	95"	15-506	15-484	15-507	15-485
3/4" Pipe Taps at Ends		2025 lbs.	2045 lbs.	2025 lbs.	2045 lbs.
8 Spindle — Two	95'- ISM'	15-508	15-486	15-509	15-487
3/4" Pipe Taps at Ends		2304 lbs.	2318 lbs.	2304 lbs.	2318 lbs.

All models include belts and motor pulleys. Spindle to table maximum with No. 2 M.T. Spindle, 23 $\frac{1}{2}$ ".

Spindle to table maximum with 1/2" key chuck, 24%".

The 2, 3 and 4 spindle drill presses all have one piece tables. The 5, 6
MOTORS AND CONTROLS (Factory Mounted and Wired)

and 8 spindle drill presses have sectional tables. Tables on multiple spindle units have $1\frac{1}{2}$ coolant trough. Working surface is 32" from the floor. Counterbalance for raising and lowering heads is included. Sectional table units with three sections have three steel legs—all other multiple spindle units have two legs.

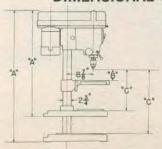
MOTOR	MOTOR CONTROL	MOTOR ENCLOSURE	CYCLES & MOTOR RPM	VOLTAGE	SHIP. WT. (LBS.)	CAT, NO.	CAT. NO. 208 V	CAT. NO.	CAT. NO. SPEC. 208 V
Single Phase,	Push Button Switch Only	GD	60 — 1140	115/230	46	49-449			
1/2 Horsepower	Push Button Switch & Magnetic Starter	GD	60 — 1140	115/230	49	49-702		49-801	
Single Phase.	Push Button Switch Only	TEFC	60 — 1725	115/230	31	49-703			
3/4 Horsepower	Push Button Switch & Magnetic Starter	TEFC	60 1725	115/230	35	49-704		49-802	
	Push Button Switch Only	GD	60-1140	230/460	32	49-403	49-913		
T) Di	Push Button & Overload Switches	GD	60-1140	230/460	37	49-709	49-910	49-803	49-914
Three Phase, 1/2 Horsepower	Push Button Switch & Magnetic Starter	GD	60-1140	230/460	39	49-710	49-911	49-804	49-941
72 Horseponer	Push Button Switch & Magnetic Starter (w/115V Transformer)		60—1140	230/460	44	49-711	49-912	49-805	49-965
	Push Button Switch Only	TEFC	60-1725	230/460	31	49-712	49-966		
	Push Button & Overload Switches	TEFC	60-1725	230/460	36	49-713	49-960	49-806	49-967
Three Phase, 34 Horsepower	Push Button Switch & Magnetic Starter	TEFC	60-1725	230/460	38	49-714	49-961	49-807	49-968
74 Horsepower	Push Button Switch & Magnetic Starter (w/115V. Transformer)		60—1725	230/460	35	†49-715	49-962	†49-808	52-061

NOTE: Single phase dual-voltage electricals will be supplied wired for 115 V, unless 230 V is specified. Three phase dual-voltage electricals will be supplied wired for 230 V, unless 460 V is specified. Power Cord and Plug supplied for single phase only. Motors and Motor Controls for Rockwell Delta 6" Stroke 15" Drill Presses may be ordered unmounted. For listing, see Sections P and Q. †No. 49-000 "JIC" Type Control Kit. Specify this Catalog Number, in addition to Three Phase Cat. No. 49-715,

in order to obtain 15" Drill Press with "JIC" type electricals, factory mounted and wired.

*Magnetic Starters or Overload Switches used in "special" kits are mounted behind the motor. These kits are recommended only for 8-spindle multiple spindle drill presses, or other 15" multiple spindle drill presses where the center to center distance between columns is less than 13 inches.

DIMENSIONAL DATA



ue pi ue eu		1/2" K	EY CHUCK N	IODELS	NO. 2 M	ORSE TAPER	MODELS
"6 PLUS 6" and "VS6" 15" DRILL PRESSES	Model	"A" Overall Height	"B" Spindle To Table (max.)	"C" Spindle To Base (max.)	"A" Overall Height	"B" Spindle To Table (max.)	"C" Spindle To Base (max.)
Bench Type	VS6	50¾	243/8	-	50%	231/2	
With Production Table	6+6	481/4	243/8	1	481/4	231/2	-
Bench Type	VS6	421/2	12	16¾	421/2	111/4	15%
With Standard Tilting Table	6+6	40	12	16¾	40	111/8	15%
Floor Type	VS6	74	371/2	47	74	36%	461/8
With Production Table	6+6	71½	371/2	47	711/2	36%	461/8
Floor Type	VS6	74	431/8	47	74	421/4	461/8
With Standard Tilting Table	6+6	711/2	431/8	47	711/2	421/4	461/8

ROCKWELL DELTA 6" STROKE 15" DRILL PRESSES

MAKE SPECIAL-PURPOSE MACHINES WITH THESE DRILL PRESS COMPONENTS

(Used with Rockwell Delta "6 PLUS 6" and "VS6" 15" Drill Press Heads)

No. 15-804 Column, 2¾" x 33¾", with 5½2" wall thickness, 13 lbs.

No. 15-805 Column, 2¾" x 38¾", with $\frac{5}{3}$ 2" wall thickness. 15 lbs.

No. 15-806 Column, 2¾" x 65¼", with 5%2" wall thickness. 24 lbs.

No. 15-810 Column, 2¾" x 78", with 532" wall thickness, 30 lbs.

No. 15-010 (old 1010) Collar, head or table support, for column, 2 lbs.

No. 15-019 (old 1019) Flange, for mounting column on table, with screws, 10 lbs.

No. 15-030 (old 1030) Counterbalance, complete assembly includes spring, chain, column top casting, ball bearing roller and screws. Cannot be used with columns shorter than 3834". 9 lbs.

No. 15-615 (old 1516) Production Table*, 14 x 16" ground work surface, for single spindle bench models. This table cannot be mounted on 50-399 Legs. 100 lbs.

No. 15-715 (old 1517) Production Table*, 193 x 28" ground work surface, for two spindle models. For bench or floor models, fits 50-399 Legs. 240 lbs.

No. 15-814 Production Table*, 23 x 54" ground work surface, for three or four spindle models. For bench or floor models, fits 50-399 Legs. 465 lbs.

No. 15-155 (old 1505) Production Table, center section, 23%" front to rear x 30" left to right ground work surface with 1½" coolant trough, 365 lbs.

No. 15-751 (old 1507) Production Table, end section, 23%" front to rear x 32½" left to right ground work surface with 1½" coolant trough and ¾" pipe tap at end. 352 lbs.

Sturdy table center and end sections with accurately ground work surfaces can be used for multiple spindle drill presses or machines. On these sections any type of 15" or 17" 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 15" or 17" heads on one machine or a combination of both-you can have them spaced at any distance you desire-close together or far apart. Minimum center to center distances for columns are: Super Hi-Speed 14"-9"; 15"-12"; 17"-15"; Power Feed 17"-18"; 20"-13"; Power Feed 20"-15".



IMPORTANT . . . Give these specifications with order: (1) number of drill press heads needed, (2) if 15, 17 or 20" heads, (3) spacing between heads, (4) if table is to be completely assembled, (5) if table should be drilled and tapped for mounting flanges.

No. 50-506 Leg, Steel, 27½" high for mounting production tables. Cannot be used with 14" Super-Hi drill press tables. 50 lbs.

No. 50-399 Legs, Steel, one pair, 27½" high for mounting production tables. Cannot be used with 14" Super-Hi drill press tables. 100 lbs.

No. 50-400 Riser Blocks, cast iron, one pair, 2" high with studs, nuts and lock washers for mounting under legs 50-399 and 50-506. One pair required for each single leg to raise machine 2". Two blocks can be stacked to raise machine 4" 8 lbs.

*These tables can be supplied blank or drilled and tapped for Delta mounting flange 1019.

> DATA SHEETS WITH DIMENSIONS ARE AVAILABLE TO AID IN SPECIAL MACHINE DESIGN.

DELTA QUALITY ACCESSORIES PROVIDE INCREASED JOB PERFORMANCE

MOTOR PULLEYS

No. 41-832 6-Step-½" bore. 3½ lbs. No. 41-833 6-Step-%" bore. 3½ lbs.

MOTOR PULLEY ASSEMBLIES No. 41-952 Variable Speed Type, with spring, ½" bore. 6 lbs. No. 41-953 Variable Speed Type, with spring, %" bore. 6 lbs.

No.15-010 (old 1010) Collar-Head or table support. For 23/4" dia. column. 2

No. 15-809 Tilting Table—11x14" ground surface, complete with column bracket. Ledges at sides and slots make clamping of work easy. Tilt angle scale indicates to 90° both right and left. Fits any 15" drill press with 2\%" column. 37 lbs.

No. 15-801 Table, 10 x 10½" ground surface, non-tilting type, with integral column bracket. Ledges at sides and slots make clamping of work easy. Holes on front apron facilitate work or fixture mounting. Fits any 15" drill press with 2¾" column. 22 lbs.

No. 15-850 Production Table—12 x 18" ground work surface (including coolant trough, 15½ x 21½"), for single spindle floor model drill presses (without 1008 Raising Mechanism). 76 lbs.

No. 15-008 (old 1008) Raising Mechanism—For 15-850 Production Table. Includes rack, collar and bearing. 10 lbs.

No. 15-030 (old 1030) Head Counterbalance Attachment—Complete assembly including spring, chain, column top casting, ball bearing roller and screws. Cannot be used with columns shorter than 38¾". 9 lbs.



No. 40-882 (old 882) Lamp Attachment

-Uses standard 15 or 25-watt bulb. Includes mounting bracket, shade, socket and 115 V 8-foot cord. 1½ lbs.



No. 15-830 Drill Chuck—Key Chuck, $0-\frac{1}{2}$ " capacity, 3-jaw type, with threaded mounting collar and key. $1\frac{1}{2}$ lbs.

SPINDLE ADAPTERS



No. 15-832 Adapter with No. 1 M.T. hole, with threaded mounting collar. 2 lbs.



ROCKWELL DELTA 6" STROKE 15" DRILL PRESSES



No. 15-833 Adapter with No. 2 M.T. hole, with threaded mounting collar. 1 lb.



No. 15-835 Adapter, ½" shaft and flange. For cup, dish or straight grinding wheels. With mounting collar tapped 1½6"-20. 1 lb.

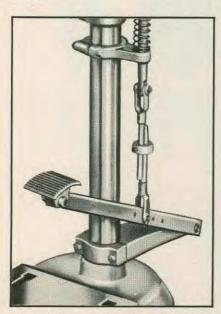


No. 15-836 Adapter with collars and threaded mounting collar for shaper cutters with ½" hole. 1 lb.

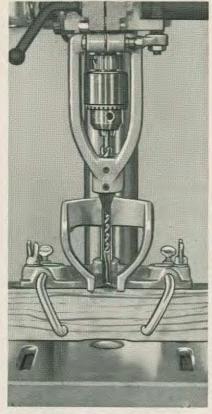


No. 15-837 Adapter, ½" hole, with threaded mounting collar for router and spur bits, etc. 1 lb.

No. 15-838 Spanner Wrench—1½" x 5¾" long, with single lug for 732" hole. Recommended for threaded mounting collar of Drill Chuck 15-830 or Adapters 15-832, 15-833, 15-835, 15-836 and 15-837. ¼ lb.



No. 15-820 Foot Feed—For floor type models with 64" column. Maximum quill travel with foot feed connected is 6". Consists of foot pedal, rods, mounting brackets and spring. 36 lbs.



No. 15-840 Mortising Attachment—This attachment converts the 15" Drill Press into an accurate mortising machine. Capacity under hold-down—4\%", from ends of hooked rods to fence—2\%". Used with key chuck models only. No. 15-820 Foot Feed recommended for mortising with single spindle models. Includes fence with mounting bolts, hooked rods, hold-down and chisel holder. 8\% lbs.

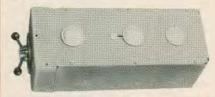
MULTI-SPEED ATTACHMENTS

(Not for variable speed models)

Especially recommended for jobs like spot facing, counterboring, reaming and core drilling.



No. 15-802 Multi-Speed Attachment— For 6-step pulley models. Provides eight speeds from 125 RPM to 5800 RPM with 1725 RPM motor or 85 to 3800 RPM with 1140 RPM motor. Includes motor pulley with ½" bore. 7 lbs. No. 15-803 Multi-Speed Attachment— For 6-step pulley models, Same as 15-802 except motor pulley has %" bore. 7 lbs.



No. 15-846 Belt Guard Top Cover Plate
—For 15" Variable Speed (Spring Pulley
Type) Drill Presses. Includes hole plugs
and screws for mounting. 4 lbs.

BELTS

No. 49-091 V-belt-28¹½6" OC, rear, for No. 15-802 Multi-Speed Attachment. 1½ lbs.

No. 49-092 V-belt-33½" OC, front, for No. 15-802 Multi-Speed Attachment. 1½ lbs.

No. 49-093 V-belt-6-step pulley type, 45\%" OC. 1\% lbs.

No. 49-415 Belt-Variable speed type, 45 %" OC. 1 lb.

No. 15-825 Full Belt and Pulley Guard

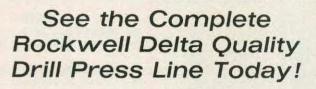
—For step-pulley models only. Encloses spindle pulley, V-belt and motor pulley. 9 lbs.

NOTE: For additional accessories, see Section A9.

ROCKWELL DELTA INDUSTRIAL DISTRIBUTORS

Your local Industrial Distributor, who makes Rockwell Delta Industrial Machines and Accessories conveniently available to you, also can assist you with expert application engineering. He is as close to you as your phone. He is always willing to help you by making prompt, emergency deliveries of hundreds of items which could prevent costly shutdowns and delays. Depend on him for all of your industrial requirements, just as Rockwell does at all of its plant locations.

ROCKWELL DELTA 6" STROKE 15" DRILL PRESSES





DELTA 20" DRILL PRESSLINE—48 Models Available . . . Hand or power feed, standard or geared spindle pulley, production or tilt table, single or multiple spindle with No. 2 or 3 M.T.



DELTA 17" VARIABLE SPEED DRILL PRESS LINE—18 Models Available . . . Hand or power feed, standard or production table, single or multiple spindle with key chuck or No. 2 M.T.





DELTA 15" DRILL PRESSLINES-52 Models Available . . Variable speed and step-pulley utility and deluxe, production or tilt table, single or multiple spindle with key chuck or No. 2 M.T.



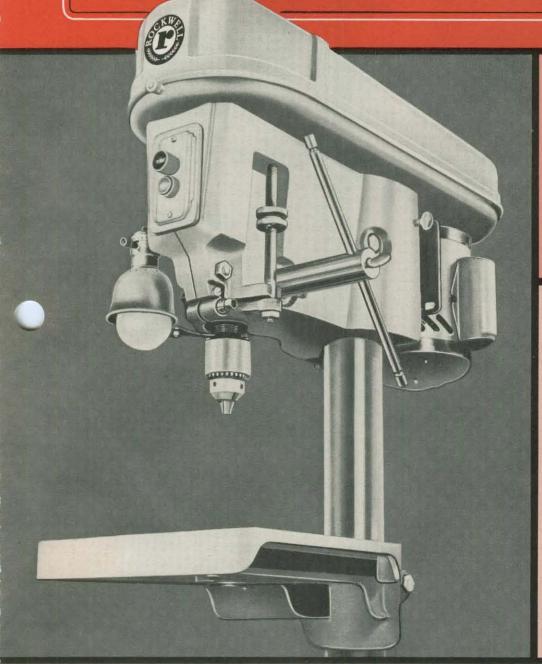


DELTA UNIDRILL®—4 Models Available . . . Hand feed, 4 or 6-step pulley, high or slow speed, key chuck or No. 2 M.T. spindle.



DELTA RAM TYPE RADIAL DRILL PRESS LINE—4 Models Available . . . Hand feed, 6" spindle travel, T-slot production table, key chuck or No. 2 M.T. spindle.

ROCKWELL DELTA 15" Utility DRILL PRESS



OFFERS

- Rugged, heavy duty construction throughout.
- Exceptional versatility.
- Famous built-in Delta "quality" features.
- All at exceptionally low cost!

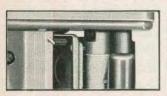
Truly versatile, this Rockwell Delta 15" Utility Drill Press is unsurpassed in its ability to do many useful jobs. Six interchangeable spindle adapters and dozens of accessories convert it in seconds for scores of operations varying from metal drilling to wood shaping. It's the ideal machine for every shop, large or small.

ROCKWELL DELTA 15" UTILITY DRILL PRESS

DELTA QUALITY FEATURES THAT MAKE THE 15" UTILITY DRILL PRESS YOUR BIGGEST DRILL PRESS VALUE!



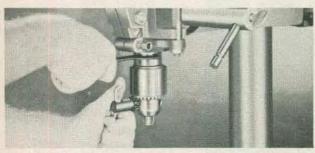
Full Belt Guard (on some models). Full length and counterbalanced, it swings up, out of the way for easy speed changing. Gives complete protection.



Pivoting Motor Mounting Plate. Permits quick belt tension release for easy speed changes. A spring-loaded plunger, with reverse taper lock feature, holds belt tension constant.



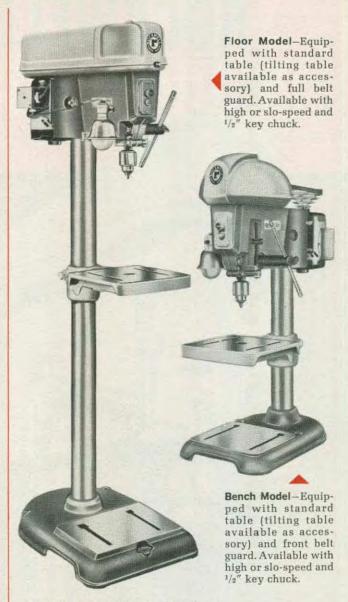
Many-Purpose Work Table. Side ledges and slots facilitate clamping of work to table. Accurately ground surface permits drilling to close tolerances.



Quick Change Spindle Adapter. Any of six interchangeable spindle adapters may be changed in seconds for dozens of operations varying from metal drilling to wood shaping.

PLUS THESE IMPORTANT DELTA EXTRAS:

- Choice of high speed—slow speed—floor or bench model—front or full hinged guard.
- 6 Spindle adapters for unequalled versatility.
- Delta Quality construction throughout.
- Husky 2" quill for rigid spindle support.
- Easy adjustment to compensate for quill wear.
- Extra large spindle pulley bearing.
- Floating drive that transmits torque with no belt pull on spindle.
- Provision in head for Push Button Switch (optional accessory) to provide maximum safety and convenience for operator.



Big! Rugged! Built to Last!

These are the qualities that every user wants and gets in the Rockwell Delta 15" Utility Drill Press. It's a man-sized machine designed for heavy duty production work—perfect for schools and commercial wood or metalworking shops, yet priced right down to the small shop budget.

You get Delta Quality construction throughout—lubricated-for-life ball bearings...dynamically balanced spindle pulley...floating spindle drive...big 2" quill ... full 4%6" quill stroke and many other

important features.

Don't let the low price tag of this Rockwell Delta 15" Utility Drill Press mislead you. It will capably handle many of the production jobs ordinarily done by heavy, fixed machines. It can easily be moved in and out of the production line to relieve production bottlenecks. And it offers the job versatility required in commercial and school shops.

Investigate this BIG VALUE!

ROCKWELL DELTA 15" UTILITY DRILL PRESS

MACHINE DATA

MACHINE DATA
Overall Dimensions:
Front Guard Models
Bench Type
Height
Front to Rear
Floor Type
Height
Width
Standard Table
Production Table-Available as
an Accessory
Front to Rear
Full Guard Models
Bench Type
Height
Front to Rear
Floor Type
Height
Width
Standard Table
Production Table—Available as
an Accessory
Front to Rear
Table Working Surface:
Standard
Ground Surface
Ground Surface, including
Ground Surface, including
Coolant Trough
Base Working Surface:
Bench Type9 x 10"; Floor Type81/2 x 12"
Quill:
Stroke
Capacities:
Key Chuck
Dia. Hole in Cast Iron
Dia. Hole in Steel
Chuck to Table (Max.)
Bench Model
Chuck to Base (Max.)
Bench Model17"; Floor Model471/4"
SOUTH THE SAME STATE THE TAXOUR STATE OF THE SAME STATE OF THE SAM

Spindle Speeds:
With 1725 rpm Motor
High Speed Model
Slow Speed Model
With 1140 rpm Motor
High Speed Model

Motor:

Accommodates NEMA Frame Motors 48 and 56

CATALOG LISTING

SINGLE SPINDLE 4-STEP PULLEY 4-5/16" STROKE MODELS (Less Motor and Control—See Below)

BENCH MODELS	FLOOR MODELS	HEADS ONLY		
Standard Table 1/2" Key Chuck	Standard Table 1/2" Key Chuck			
15-027	15-037	15-017		
Slo-Speed	Slo-Speed	Slo-Speed		
Front Belt Guard	Front Belt Guard	Front Belt Guard		
120 lbs.	148 lbs.	62 lbs.		
15-028	15-038	15-018		
High-Speed	High-Speed	High-Speed		
Front Belt Guard	Front Belt Guard	Front Belt Guard		
120 lbs.	148 lbs.	62 lbs.		
15-067	15-077	15-057		
Slo-Speed	Slo-Speed	Slo-Speed		
Full Belt Guard	Full Belt Guard	Full Belt Guard		
122 lbs.	150 lbs.	64 lbs.		
15-068	15-078	15-058		
High-Speed	High-Speed	High-Speed		
Full Belt Guard	Full Belt Guard	Full Belt Guard		
122 lbs.	150 lbs.	64 lbs.		

STANDARD EQUIPMENT

Slo-Speed Models and Heads include 49-167 V-belt, 41-703 Motor Pulley, 5%" bore, unless ½" bore is specified. High-Speed Models and Heads include 49-168 V-belt, 41-703 Motor Pulley, 5%" bore, unless ½" bore is specified. Front or Full Belt Guard also included.

MOTORS AND CONTROLS (Factory Mounted and Wired)

MOTOR	MOTOR CONTROL	MOTOR ENCLOSURE	CYCLES & MOTOR RPM	VOLTAGE	SHIP, WT. (LBS.)	CATALOG NUMBER	CAT. NO. 208 V
	Push Button Switch Only	TEFC	60 — 1725	115/230	26	49-700	
Single Phase,	Push Button Switch & Magnetic Starter	TEFC	60 — 1725	115/230	30	49-701	
1/2 Horsepower	Push Button Switch Only	Guarded Drip Proof	60 — 1140	115/230	46	49-449	
	Push Button Switch & Magnetic Starter	Guarded Drip Proof	60 — 1140	115/230	49	49-702	
	Push Button Switch Only	TEFC	60 — 1725	230/460	28	49-705	49-955
	Push Button & Overload Switches	TEFC	60 — 1725	230/460	33	49-706	49-956
Three Phase, ½ Horsepower	Push Button Switch & Magnetic Starter	TEFC	60 — 1725	230/460	33	49-707	49-957
	Push Button Switch & Magnetic Starter (w/115V, Transformer)	TEFC	60 — 1725	230/460	35	49-708	49-958
	Push Button Switch Only	Guarded Drip Proof	60 1140	230/460	33	49-403	49-913
	Push Button & Overload Switches	Guarded Drip Proof	60 — 1140	230/460	37	49-709	49-910
	Push Button Switch & Magnetic Starter	Guarded Drip Proof	60 — 1140	230/460	39	49-710	49-911
	Push Button Switch & Magnetic Starter (w/115V Transformer)	Guarded Drip Proof	60 — 1140	230/460	44	49-711	49-912

NOTE: Single phase dual-voltage electricals will be supplied wired for 115 V, unless 230 V is specified. Three phase dual-voltage electricals will be supplied wired for 230 V, unless 460 V is specified. Power Cord

and Plug supplied for single phase only. Motors and Motor Controls for Rockwell Delta 15" Utility Drill Presses may be ordered unmounted. For listing, see Sections P and Q.

DELTA
QUALITY ACCESSORIES
THAT PROVIDE
INCREASED
JOB PERFORMANCE



No. 40-882 (old 882) Lamp Attachment—Uses standard 15 or 25-watt bulb. Includes mounting bracket, shade, socket and 115 V 8-foot cord. 1½ lbs.

SPINDLE ADAPTERS



No. 15-832 Adapter with No. 1 M.T. hole, with threaded mounting collar. 2 lbs.



No. 15-833 Adapter with No. 2 M.T. hole, with threaded mounting collar. 1 lb.

ROCKWELL DELTA 15" UTILITY DRILL PRESS



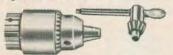
No. 15-835 Adapter, $\frac{1}{2}$ " shaft and flange. For cup, dish or straight grinding wheels. With mounting collar tapped $1\frac{1}{16}$ "-20. 1 lb.



No. 15-836 Adapter with collars and threaded mounting collar for shaper cutters with ½" hole. 1 lb.



No. 15-837 Adapter, ½" hole, with threaded mounting collar for router and spur bits, etc. 1 lb.



No. 15-830 Drill Chuck-Key Chuck, 0-½" capacity, 3-jaw type, with threaded mounting collar and key. 1½ lbs.

No. 15-838 Spanner Wrench—1½" x 5¾" long, with single lug for ¾2" hole. Recommended for threaded mounting collar of Drill Chuck 15-830 or Adapters 15-832, 15-833, 15-835, 15-836 and 15-837. ¼ lb.

No. 15-820 Foot Feed-For floor type models with 64" column. Maximum quill travel with foot feed connected is 6". Consists of foot pedal, rods, mounting brackets and spring. 36 lbs.

No. 15-840 Mortising Attachment—This attachment converts the 15" Drill Press into an accurate mortising machine. Capacity under hold-down—4%", from ends of hooked rods to fence—2%". Used with key chuck models only. No. 15-820 Foot Feed recommended for mortising with single spindle models. Includes fence with mounting bolts, hooked rods, hold-down and chisel holder. 8½ lbs.

No. 15-010 (old 1010) Collar—Head or table support. For 2¾" dia. column. 2 lbs. No. 15-030 (old 1030) Head Counterbalance Attachment—Complete assembly including spring, chain, column top casting, ball bearing roller and screws. Cannot be used with columns shorter than 36¾". 9 lbs.

No. 11-969 (old 969) Pilot Wheel 3-spoke type with handle knobs. 4 lbs.

No. 15-809 Tilting Table—11x14" ground surface, complete with column bracket. Ledges at sides and slots make clamping of work easy. Tilt angle scale indicates to 90° both right and left. Fits any 15" drill press with 2¾" column. 37 lbs.

No. 15-850 Production Table-12 x 18"

ground work surface (including coolant trough, 15½ x 21½"), for single spindle floor model drill presses (without 1008 Raising Mechanism), 76 lbs.

No. 15-008 (old 1008) Raising Mechanism—For 15-850 Production Table. Includes rack, collar and bearing. 10 lbs.

MULTI-SPEED ATTACHMENTS

Especially recommended for jobs like spot facing, counterboring, reaming and core drilling.

No. 15-848 Multi-Speed Attachment for High-Speed 15" Drill Press. 12 speeds from 275 to 10,500 rpm (the 10,500 rpm should be used only for occasional work due to the excessive wear on bearings). Includes mounting bracket, ball bearing cone pulley and two V-belts. 5½ lbs.

No. 15-849 Multi-Speed Attachment for Slo-Speed 15" Drill Press. 12 speeds from 185 to 4600 rpm. Includes mounting bracket, ball bearing cone pulley and two V-belts. $5\frac{1}{2}$ lbs.

No. 49-167-V-Belt for Slo-Speed Model. ½ lb.

No. 49-168-V-Belt for High-Speed Model. ½ lb.

No. 15-825 Full Belt and Pulley Guard

—For step-pulley models only. Encloses spindle pulley, V-belt and motor pulley.

9 lbs.

NOTE: For additional accessories see Section A9.

See the Complete Rockwell Delta Quality Drill Press Line Today!



DELTA 20" DRILL PRESS LINE—48 Models Available ... Hand or power feed, standard or geared spindle pulley, production or tilt table, single or multiple spindle with No. 2 or 3 M.T.



DELTA 17" VARIABLE SPEED DRILL PRESS LINE—18 Models Available . . . Hand or power feed, standard or production table, single or multiple spindle with key chuck or No. 2 M.T.



DELTA 17" STEP-PUL-LEY DRILL PRESS LINE— —36 Models Available... Hand or power feed, high or slow speed, standard or production table, single or multiple spindle with key chuck or No. 2 M.T.



DELTA 15" DRILL
PRESSLINES-52 Models
Available . . . Variable
speed and step-pulley
utility and deluxe, production or till table, single
or multiple spindle with
key chuck or No. 2 M.T.



DELTA UNIDRILL®—4 Models Available . . . Hand feed, 4 or 6-step pulley, high orslow speed, key chuck or No. 2 M.T. spindle.



DELTA RAM TYPE RADIAL DRILL PRESS LINE—4 Models Available . . . Hand feed, 6" spindle travel, T-slot production table, key chuck or No. 2 M.T. spindle.

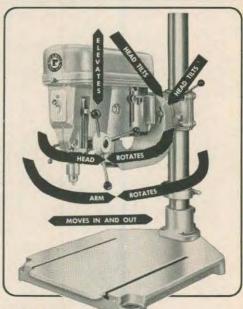
Unique ROCKWELL DELTA UNIDRILL®



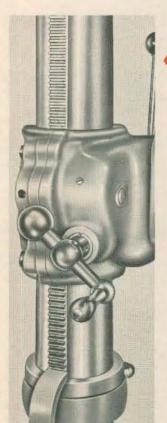
GIVES YOU FIVE-WAY FLEXIBILITY ... MOVE OR TILT THE DRILL, NOT THE WORK!

Because of the UNIDRILL'S® unique flexibility, an operator can position the cutting tool to the work in five different ways—more than any other radial drill press. He can: (1) Move the entire mechanism up and down on the main column; (2) Swivel the mechanism a full 360 degrees around the main column; (3) Rotate the head around the mounting post; (4) Move the head in and out from the column; (5) Most unusual of all, he can tilt the head 45 degrees left or right, making angle drilling an easy operation and eliminating the need for expensive jigs for holding work pieces at different angles.

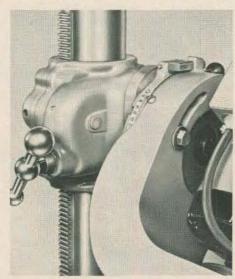
Let us show you this versatile machine today!



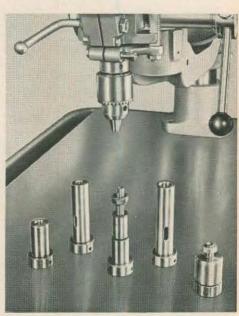
TYPICAL DELTA QUALITY FEATURES



Husky Arm Controls. Photograph at left shows massive ball bearing for easy swiveling of arm, large crank handle for quick elevation of arm, and fast-acting ball end handle for rigid clamping of arm to column.



Head Angle Tilt Accurately Controlled. A rigid swivel block permits fast, positive setting of head, tilts 45° left, 45° right or in the vertical position. Large, easily read scale, with adjustable pointer, facilitates setting head at intermediate angles.



Wide Versatility. The Rockwell Delta UNI-DRILL® is unsurpassed in its ability to do many different jobs. Six interchangeable spindle adapters adapt the UNIDRILL® in seconds for operations varying from drilling to wood planing or routing, including counterboring, reaming, spot facing, sanding and plug cutting, as well as buffing and many other operations.

ROCKWELL DELTA INDUSTRIAL MACHINES

ROCKWELL DELTA UNIDRILL®

Drills to Center of a 49" Circle

Only Rockwell Delta's unique UNIDRILL® offers the extra flexibility and wide versatility needed by these typical users ... tool rooms, pattern shops, wood shops, machine shops and maintenance departments.

This versatile radial drill press fills the gap between expensive machine tool type radial drill presses and light duty machines. See this outstanding value today.

STANDARD EQUIPMENT

Utility Bench Models: Slo-Speed Models include 49-167 V-belt and 41-703 Motor Pulley, %" bore, unless 41-702 1/2" bore is specified. High-Speed Models include 49-168 V-belt and 41-703 Motor Pulley, %" bore, unless 41-702 ½" bore is specified. Also Front Belt Guard that covers spindle pulleys.

Deluxe Bench Models: Include 49-093 V-belt and 41-833 Motor Pulley, %" bore, unless 41-832 1/2" bore motor pulley is specified. Also Full Belt Guard that covers belt and both pulleys.





CATALOG LISTING

UTILITY 4-SPEED 4 5/16" STROKE BENCH MODELS® (Less Motor and Control—See Below)

SPEED	1/2" KEY CHUCK
Slo-Speed	15-132-275 lbs.
High-Speed	15-130-275 lbs.

DELUXE 6-SPEED 6" STROKE BENCH MODELS" (Less Motor and Control-See Below)

1/2" KEY CHUCK	No. 2 M.T. SPINDLE
15-107-356lbs.	15-108-354lbs.

*For floor model set-ups, order No. 50-399 pair of steel legs.

MOTORS AND PUSH BUTTON SWITCHES (Factory Mounted and Wired)

MOTOR	MOTOR ENCLOSURE	CYCLES AND MOTOR RPM	VOLTAGE	SHIPPING WEIGHT	CATALOG NUMBER	CAT. NO. 208 V
Single Phase, ½ HP	Guarded Drip Proof	60-1725	115/230	33	49-769	
Three Phase, 1/2 HP	Guarded Drip Proof	60-1725	230/460	33	49-770	52-220
Three Phase, 1/2 HP	Guarded Drip Proof	60-1140	230/460	32	49-403	52-219

NOTE: Single phase dual-voltage electricals will be supplied wired for 115 V, unless 230 V is specified. Three phase dual-voltage electricals will be supplied wired for 230 V, unless 460 V is specified. Power Cord and Plug supplied for single phase only, Motors and Motor Controls for Rock-well Delta UNIDRILLS may be ordered unmounted. For listing, see Sections P and Q.

MACHINE DATA

-	-		
Overal	Din	nens	ions:

Height 48 % "; Width 23 1/2" Front to Rear38"

Capacities and Range:

Key Chuck 0 to 1/2" Dia. Hole in Cast Iron½" Dia. Hole in Steel3%" *Column to & of Spindle Maximum . . 24 % "; Minimum . . 10" Spindle Nose to Table

(DeLuxe Models) No. 2 M.T. ½" to 24 1/8" 1/2" Key Chuck 1 1/16" to 25 1/16" Spindle Nose to Table

(Utility Models)

No. 2 M.T. 25/16" to 2515/16" 1/2" Key Chuck 3%" to 27"

Surface (Front of Column

Flange) . . 231/2" Wide x 251/8" Deep T-Slots (2) 1/2" on 141/2" Centers Clamping

Ledges (3) ... Front and Both Sides

Quill (Deluxe Models):

Stroke6"; Diameter2" Quill (Utility Models):

Stroke 45/16"; Diameter 2"

Spindle Speeds (Deluxe Models):

With 1725 rpm Motor . . 425, 600, 1100, 2050, 3900 and 5500 rpm

With 1140 rpm Motor . . 280, 395, 725, 1355, 2575 and 3635 rpm

Spindle Speeds (Utility Models):

Slo-Speed Model (With 1725 rpm Motor) .470, 780, 1300 and 1950 rpm Slo-speed Model (With 1140 rpm Motor) ... 310, 515, 860 and 1290 rpm High-Speed Model (With 1725 rpm Motor) 680, 1250, 2400 and 4600 rpm High-Speed Model (With 1140 rpm Motor) .450, 825, 1580 and 3040 rpm

Head Tilts 90°:

Positive Stops at45° Left; Vertical; and 45° Right

Motor Plate:

Accommodates NEMA Frame Motors 48 and 56

*NOTE: Subtract 3/4" for column flange, which extends 5" above table surface.

ROCKWELL DELTA UNIDRILL® COMPONENTS FOR ASSEMBLING OTHER MACHINE MODELS

No. 14-846 Basic UNIDRILL® Kit complete. Consists of column mounting flange with screws, 31/2 x 381/2" column, raising mechanism, yoke and arm assembly, head swivel ball bearing, head swivel clamp handle, 234 x 12" head mounting column and head hold-down collar, 115 lbs.

HEADS

No. 15-018 Utility Head for High-Speed UNIDRILL, with front belt guard, 1/2" key chuck, 49-168 V-belt, 41-703 motor pulley, 5%" bore, 62 lbs.

No. 15-017 Utility Head for Slo-Speed UNIDRILL, with front belt guard, 1/2"

key chuck, 49-167 V-belt, 41-703 motor pulley, %" bore, 62 lbs.

No. 15-489 Deluxe Head for 6-Speed UNIDRILL, with deluxe belt guard, 1/2" key chuck, 49-093 V-belt and 41-833 motor pulley, %" bore. 72 lbs.

No. 15-488 Deluxe Head for 6-Speed UNIDRILL, with deluxe belt guard, No. 2 M.T. spindle, 49-093 V-belt and 41-833 motor pulley, %" bore. 72 lbs.

TABLES†

No. 14-845 Standard T-slot Table with front and side clamping ledges, ground work surface 231/2" wide by 251/8" deep (front of column flange). Fits 50-399 Legs. 190 lbs.

No. 14-847 Production Table, with 11/2" coolant trough all around, ground work surface 23 %" wide by 36" front to back. Tapped for UNIDRILL® column mounting flange. Fits 50-399 Legs. 366 lbs.

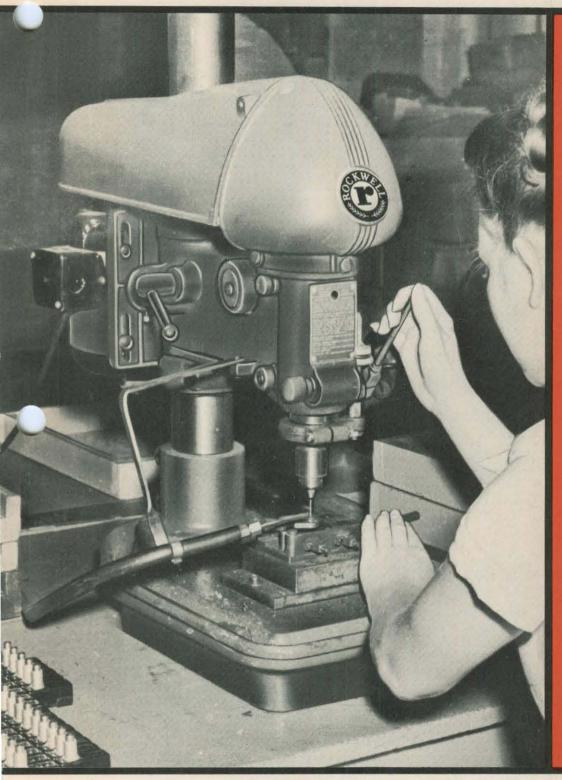
LEGS AND RISER BLOCKS

No. 50-399 Legs, steel, one pair, 271/2" high, for mounting Tables 14-845 and 14-847. 100 lbs.

No. 50-400 Riser Blocks, cast iron, one pair, 2" high with studs, nuts and lock washers for mounting under 50-399 Legs. One pair required for each single leg to raise machine 2". Two blocks can be stacked to raise machine 4". 8 lbs. †Other drill press tables may be utilized.

For Drill Press Accessories, See Section A9; For Coolant Equipment, See Section D1.





ROCKWELL DELTA 14" SUPER-HI SENSITIVE DRILL PRESS

Makes accurate, small hole drilling easy in jewelry, electronic devices, engine parts, fittings or other "problem jobs."

Now, with new capacity! Drills tiny No. 80 (.0135") holes. New spindle nose accommodates these Albrecht keyless chucks:

No. 30-J1,

No. 80 to $\frac{1}{8}$ " capacity.

No. 50-J1,

No. 80 to 3/16" capacity.

No. 65-J1,

No. 80 to 1/4" capacity.



ROCKWELL DELTA 14" SUPER-HI SENSITIVE DRILL PRESS

DELTA QUALITY FEATURES THAT MAKE THE SUPER-HI SENSITIVE DRILL PRESS AN OUTSTANDING VALUE

- Quill Counterbalanced—through holes are drilled without quill drop at breakthrough point. Drill breakage eliminated.
- Quill selected and lapped into head.
- Quill locks at any position.
- Four Ball Bearings, specially selected, preloaded, and lubricated-for-life.
- Dynamically Balanced, fully machined, aluminum pulleys.
- Spindle Pulley taper-hole mounted.
- 14-Spline Spindle Drive through feather-light floating sleeve.
- Specially Selected Chuck mounted on zero precision, tapered spindle nose.
- Comfortable, knurled feed wheel and separate feed lever provided. Lever adjustable to most convenient position.
- Head adjustable to any height on column.
- Table has accurately ground work surface and coolant trough with tapped drain hole.
- Motor specially selected and dynamically balanced.

MACHINE DATA

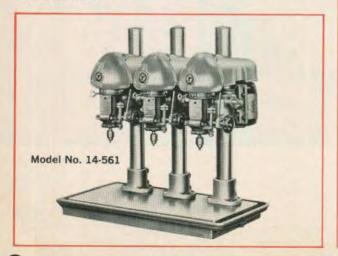
Column diameter
Quill stroke
Capacity:
Chuck holdsfrom 1/4" down to #80 (.0135"
Spindle to column
Spindle to table20½
Motor rating
Spindle speeds:
With 3450 rpm motors:
Standard
*Available
†Available9000, 6200 and 4000 rpr

*Order No. 14-829 Pulley extra. †Order No. 14-830 Pulley and Belt Set extra.

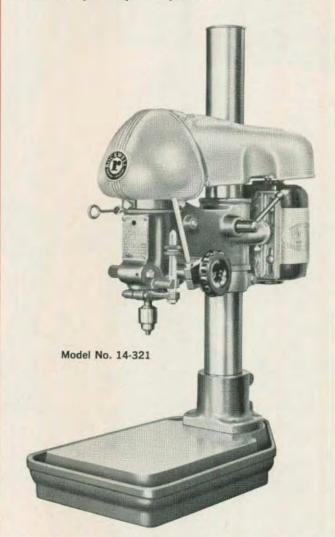
STANDARD EQUIPMENT

Motor pulley; spindle pulley; flat belt; chuck with key; adjustable depth-of-hole stop; belt and pulley guards; head support collar; column-hole plug; motor with on-and-off switch, cord and plug*; and switch rod*.

*Switch, cord and plug, and switch rod are not standard equipment with three phase models.



This sensitive drilling machine . . . with speeds up to 12,000 rpm . . . can solve your special problems



Drills tiny holes
 Drills accurate holes
 Speeds up production
 Reduces drill breakage
 Eliminates work spoilage

This Rockwell Delta Super-Hi Sensitive Drill Press meets the special problems of small hole drilling. It's ideal for manufacturers of jewelry, carburetors, brass fittings, electronic devices and specialty parts where small hole drilling is a problem.

While recommended for all drillable materials, it is especially suitable for non-ferrous metals like brass, copper, aluminum and all the precious metals. Also ideal for phenolics.

No other machine offers high speeds, sensitivity, accuracy and vibration-free operation at anywhere near the price.

As a special bonus for owners of standard presses, the separate heads shown on the opposite page, complete with motors, fit all 23/4" diameter columns. No need to discard present columns, tables and bases.

See This BIG VALUE Today!



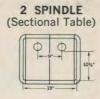
ROCKWELL DELTA 14" SUPER-HI SENSITIVE DRILL PRESS

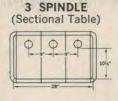
CATALOG LISTING

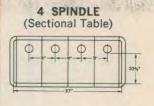
These models of the Super-Hi Drill Press include standard equipment as listed on page at left.

NOTE: Take drills from No. 80 to ½". 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 ½" Pipe Tap at rear-two, three and four-spindle models have two ½" Pipe Tap at rear. See Section D1 for Coolant Equipment, Accessories and Dimensions.









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 R.P.M. With Switch Rod.

Number	14-321	14-551	14-561	14-571
Table Surface	103/4 x 9	103/4 x 19	103/4 x 28	103/4 x 37
Ship. Wt.	140	368	498	686

With ½ H.P. 3 Phase Motor 230/460 V, 60 Cy, 3450 R.P.M.—SPINDLE SPEEDS: 12,000, 8,000 and 5,000 R.P.M. Switch and Switch Rod not furnished. No. 49-838 Manual Starter and No. 49-633 Mounting Bracket Recommended.

Number	14-326	14-502	14-503	14-504	
Table Surface	103/4 x 9	103/4 x 19	10 ³ / ₄ x 28	103/4 x 37	
Ship. Wt.	140	368	498	686	

You can make up your own single or multiple spindle Super-Hi Drill Press by ordering component parts as listed below.

SUPER-HI DRILL PRESS HEADS

Fit Rockwell Delta 14", 15" Or Any 23/4" Drill Press Column



STANDARD EQUIPMENT FOR HEADS

Each unit includes specially balanced motor, belt guard, belt and pulley set for the speed listed, and special key chuck taking drills from No. 80 to ½". 115V 8-foot cord, 3-prong grounding type plug, switch and 1331 switch rod furnished on single phase motors only.

No. 14-821 Head only with ½ HP, Single Phase, 3450 rpm, 115/230V, 60 Cycle Motor and Switch Rod. Speeds: 12,000, 8,000 and 5,000 rpm. 79 lbs.

No. 14-826 Head only with ½ HP, 3 Phase, 3450 rpm, 230/460 V, 60 Cycle Motor. Switch and Switch Rod not furnished but 49-838 Switch is recommended. Speeds: 12,000, 8,000 and 5,000 rpm, 79 lbs.

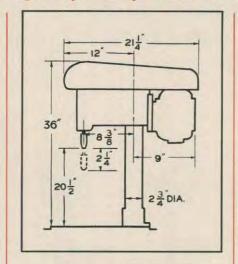


TABLE SECTIONS AND COLUMN PARTS

Minimum center to center distance for column is 9".

No. 14-836 Table Section, 9" x 15%", for Super-Hi-no ends. 50 lbs. (For other sections, see Page 6, Section A3.)

No. 14-837 Two End Sections, $\frac{1}{2}$ " x 15%", for Super-Hi sectional table. 25 lbs. (For other sections, see Page 6, Section A3.)

No. 14-840 One Piece Table, $9'' \times 10\%''$. 40 lbs.

No. 15-804 Column, 2¾" dia. x 33¾" long, with ½2" wall thickness. 13 lbs. No. 15-805 Column, 2¾" x 38¾", with ½2" wall thickness. 15 lbs.

No. 15-806 Column, 2¾" x 65¼", with 5/32" wall thickness. 24 lbs.

No. 15-810 Column, 2¾" x 78", with $\frac{5}{4}$ 2" wall thickness. 30 lbs.

No. 15-010 (old 1010) Head-Support Collar for Column. 2 lbs.

No. 15-019 (old 1019) Column Mounting Flange and Screws. 10 lbs.

PULLEY AND BELT UNITS

No. 14-829 Spindle Pulley for 3450 rpm motors offering speeds: 10,000, 7,000 and 4,500 rpm. $\frac{1}{2}$ lb.

No. 14-830 Spindle Pulley and 14-834 Belt for 3450 rpm motors offering speeds: 9,000,6,200 and 4,000 rpm. ½ lb.

No. 14-833 Std. Flat Belt, 39" long. ¼ lb. No. 14-834 Flat Belt, 39½" long. ¼ lb.

THREE PHASE CONTROLS

No. 49-838 Starter, Manual. Provides overload protection. Specify motor number and voltage when ordering. 6 lbs.

No. 49-665 Starter, Magnetic. For 60 cy, 208-230/460 V. Provides low-voltage, no-voltage and overload protection. Does not include No. 49-842 start-stop control station. Specify motor number and voltage when ordering. 11½ lbs.

No. 49-842 Magnetic Starter Control Push Button Switch Kit. Provides integral start-stop control station for 49-665 Starter. 1 lb.

No. 49-633 Mounting Bracket. Used with 49-665 and 49-838 Starters on single spindle drill presses only. 3 lbs.

ROCKWELL DELTA 14" SUPER-HI SENSITIVE DRILL PRESS

DELTA QUALITY ACCESSORIES PROVIDE INCREASED JOB PERFORMANCE



No. 40-882 (old 882) Lamp Attachment -Uses standard 15 or 25-watt bulb, Includes mounting bracket, shade, socket and 115 V 8-foot cord. 1½ lbs.

Handy, Quick-Set Vises—Raise to any angle. Side of vise accurately 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



NO.	JAW	OPEN- ING	LENGTH	SHIP. WT.
†15-024 (Old 1024)	1 x 1½"	15/8*	4% "	4 lbs.
15-025 (Old 1025)	1 x 1½ "	1%"	45% ×	6½ lbs.
15-026	11/16 x 21/2"	21/2"	61/4 "	9 lbs.
(Old 1026) 20-620	1¾ x 4"	4 "	10¾ "	19 lbs.

tNo. 15-024 same as No. 15-025 but without raising feature.

No. 20-620 4" Drill Press Vise with steel jaw plates. Plate for fixed jaw has vertical and horizontal grooves for holding round pieces. Recommended for drilling, tapping, milling, bench work and other operations. Vise is machined so that it can be placed in the normal position on either side, or it can be stood up on end. 19 lbs.



No. 24-902 Univise—A truly universal vise for drilling, grinding, milling, other operations, 16 lbs.

See the Complete Rockwell Delta Quality Drill Press Line Today!



DELTA 20" DRILL PRESS LINE—48 Models Available . . . Hand or power feed, standard or geared spindle pulley, production or tilt table, single or multiple spindle with No. 2 or 3 M.T.



DELTA 17" VARIABLE SPEED DRILL PRESS LINE—18 Models Available . . . Hand or power feed, standard or production table, single or multiple spindle with key chuck or No. 2 M.T.



DELTA 17" STEP-PUL-LEY DRILL PRESS LINE

-36 Models Available...
Hand or power feed, high
or slow speed, standard
or production table, single
or multiple spindle with
key chuck or No. 2 M.T.



DELTA 15" DRILL PRESSLINES-52 Models Available . Variable speed and step-pulley utility and deluxe, production or tilt table, single or multiple spindle with key chuck or No, 2 M.T.



DELTA 14" SENSITIVE DRILL PRESS LINE — 8 Models Available . . .

Hand feed, production table, single or multiple spindle with key chuck.

DELTA UNIDRILL®—4 Models Available . . . Hand feed, 4 or 6-step pulley, high or slow speed, key chuck or No. 2 M.T. spindle.



DELTA RAM TYPE RADIAL DRILL PRESS LINE—4 Models Available . . . Hand feed, 6" spindle travel, T-slot production table, key chuck or No. 2 M.T. spindle.



ROCKWELL DELTA RAM TYPERADIAL DRILL PRESS

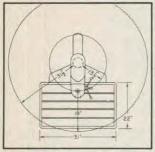
HERE'S A UNIT THAT GIVES YOU MACHINE TOOL CAPACITY AND PERFORMANCE COMBINED WITH POWER TOOL ADAPTABILITY AND VERSATILITY

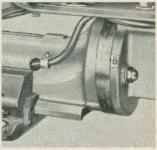
Check its extra big drilling capacity plus its extra wide speed range.

You'll agree that it offers the flexibility you need to supplement or replace fixed machines costing more than twice as much.

ROCKWELL DELTA RAM TYPE RADIAL DRILL PRESS

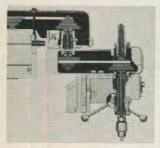
FEATURES THAT PROVIDE THE PERFORMANCE AND VERSATILITY OF MACHINES COSTING MORE THAN TWICE AS MUCH!

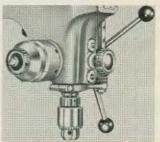




(Left) Wide Drilling Range for Full Versatility. The ram has a big 18" travel that permits drilling to the enter of a 62" circle. Head, ram and cradle swing a full 360° around the column for drilling anywhere on the massive table or on work that must be kept on the floor.

(Right) Head Tilt Adjustments Are Easily Made. Head tilts a full 45° right or left. Easy-to-read head tilt angle scale permits setting of head at exact angle desired. Double locks—one on each side of head—securely lock head to prevent angle deviation under heavy loads.

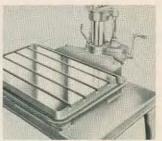




(Left) Jack Shaft Assembly Provides Wide Multiple-Speed Range. The built-in ball bearing Jack Shaft assembly provides for easy selection of 16 different speeds from 175 to 8200 rpm with a 1725 rpm motor [115 to 5400 rpm with an 1140 rpm motor]. You get the right speed for every drilling operation.

(Right) Convenient Controls for Extra Operating Ease. 6" spindle travel model, with single point spindle lubrication, has calibrated depth indicator which shows exact drill penetration. Also features a quill lock knob, two quill wear adjustment screws and an adjustable spindle return stop control.





(Left) Ball Bearing Construction Facilitates Ram and Drill Head Movement. Cradle has eight ball bearings placed on an eccentric to permit take-up for wear and provide easy glide movement of ram. Thirty-eight ball bearings in support collar facilitate movement of drill head in a complete circle.

(Right) Massive Table—Convenient Head Raising Mechanism. Big 18 x 26" cast iron, machined table has four "T" slots and oil trough tapped to accommodate ½" pipe. Handle on right permits rapid raising or lowering of head mechanism.



Drills to Center of a 62" Circle

Rugged built, this economically-priced radial drill press offers the extras usually found only in heavy, fixed machinery:

Extra Drilling Capacity. You can take the drill head right to the work... tilt it up to 45° right or left... swivel the head 360° for operations either on or off the table.

Extra Wide Speed Range. Built-in jack shaft assembly provides 16 different speeds from as low as 115 rpm to as high as 8200 rpm—the right speed for any job.

Extra Big Capacity. You have your choice of standard 30-inch or the long 42-inch column for extra spindle nose to table capacity, also a big 6" quill stroke with a ram travel of 18". This means you can handle even the BIGGEST jobs.

If you need a radial drill press that's ideal for rapid, precision drilling of large, heavy stock, sheet stock, panels and similar materials, ask for complete information on this Rockwell Delta machine today!

STANDARD EQUIPMENT

All models (excluding Radial Drill Heads) include head, jack shaft assembly, ram, cradle, column, table, raising mechanism, belt guards, 41-772 motor pulley, 49-287 (old 287) V-belt (31½" OC) and 49-105 V-belt (30½" OC). Key chuck models include spanner wrench for spindle adapters. No. 65-863 Floor Stand not included.

ROCKWELL DELTA RAM TYPE RADIAL DRILL PRESS

CATALOG LISTING

		S FLOOR STAND Control—See Be		HEADS WITH AND WITHOUT JACKSHAFT (Less Motor and Control—See Below)				
	COLU	MN LENGTH	H AND TYPE OF SPINDLE RADIAL DRILL HEADS (INCLUDING 49-105 V-				RADIAL DRILL JACK SHAFT (INC GUARDS, 41-772 M 49-287 (OLD 287) AND	OTOR PULLEY,
1000	30-INCH		42-1N	CH	TYPE OF SPINDLE		TYPE OF SPINDLE	
MODEL	NO. 2 MORSE TAPER	%" KEY	NO. 2 MORSE TAPER	½" KEY CHUCK	NO. 2 MORSE TAPER	%" KEY CHUCK	NO. 2 MORSE TAPER	%" KEY CHUCK
6" Spindle Travel Model	15-114 540 lbs.	15-115 540 lbs.	15-116 570 lbs.	15-117 570 lbs.	15-120 71 lbs.	15-121 71 lbs.	15-124 154 lbs.	15-125 154 lbs.

MOTORS AND CONTROLS (Factory Mounted and Wired)

MOTOR	MOTOR CONTROL	MOTOR ENCLOSURE	CYCLES & MOTOR RPM	VOLTAGE	SHIP, WT. (LBS.)	CATALOG NUMBER	CAT. NO. 208 V
Single Phase,	Push Button Switch Only	Guarded Drip Proof	60-1725	115/230	31	49-716	
1/2 Horsepower	Push Button Switch & Magnetic Starter	Guarded Drip Proof	60-1725	115/230	36	49-717	
Push Button Switch Only Push Button & Overload Switches Push Button Switch & Magnetic Starter Push Button Switch & Magnetic Starter w/115V Transformer	Push Button Switch Only	Guarded Drip Proof	60—1725	230/460	28	49-718	52-024
	Guarded Drip Proof	60—1725	230/460	31	49-719	52-025	
	Push Button Switch & Magnetic Starter	Guarded Drip Proof	60-1725	230/460	30	49-720	52-026
		Guarded Drip Proof	60—1725	230/460	36	49-721	52-027
Three Phase, 1/2 Horsepower	Push Button Switch Only	Guarded Drip Proof	60—1140	230/460	32	49-722	52-028
72 Horsepower	Push Button & Overload Switches	Guarded Drip Proof	60—1140	230/460	36	49-723	52-029
	Push Button Switch & Magnetic Starter	Guarded Drip Proof	60—1140	230/460	41	49-724	52-030
	Push Button Switch & Magnetic Starter w/115V Transformer	Guarded Drip Proof	60—1140	230/460	43	49-725	52-031

NOTE: Single phase dual-voltage electricals will be supplied wired for 115 V, unless 230 V is specified. Three phase dual-voltage electricals will be supplied wired for 230 V, unless 460 V is specified. Power Cord

and Plug supplied for single phase only. Motors and Motor Controls for Rockwell Delta Ram Type Radial Drill Presses may be ordered unmounted. For listing, see Sections P and Q.

MACHINE DATA

Overall Dimensions
Height (with 30" column)
Width33
Front to Rear58
Capacities
Key Chuck0 to ½'
Dia. Hole in Cast Iron ¹ / ₂
Dia. Hole in Steel%'
Column to € of Spindle
Maximum (Ram Forward)31'
Minimum (Ram Back)
*Spindle Nose to Table
With 30" Column
With 42" Column
Vertical Travel of Head Using Raising Mechanism . 10
Column

Table

Ground Work Surface.......26" wide x 18" deep Has Four Parallel ½" T-slots on 4" centers 1¾" Coolant Trough All Around with ½" Pipe Tap Ouill

 Stroke
 6"

 Diameter
 11¾6"

 Spindle Speeds
 16

Spindle Speeds

With 1725 rpm Motor: 175, 365, 380, 600, 695, 765, 1030, 1250, 1380, 1450, 2200, 2300, 2800, 4000, 4750,

With 1140 rpm Motor: 115, 240, 250, 395, 455, 505, 680, 825, 910, 960, 1450, 1520, 1850, 2640, 3130, 5400 rpm

Head Tilts 90°45° Left, Vertical, 45° Right

*NOTE: With ½" Key Chuck Spindle, jaws closed. Add 7/16" to all spindle nose to table dimensions for No. 2 M.T. Spindle.

DELTA QUALITY ACCESSORIES PROVIDE INCREASED JOB PERFORMANCE

No. 65-863 Floor Stand-For all Ram Type Radial Drill Presses, 216 lbs.

KEY CHUCKS

No. 46-968 (old 968) Drill Chuck—3-jaw type, 0 to ½" capacity, with No. 2 M.T. shank. Includes chuck key. 2½ lbs.



No. 15-830 Drill Chuck, 0- $\frac{1}{2}$ " capacity, with mounting collar tapped $1\frac{1}{16}$ "-20. Includes chuck key. $1\frac{1}{2}$ lbs.

SPINDLE ADAPTERS

No. 15-832 Spindle Adapter, No. 1 M.T., with mounting collar tapped $1\frac{1}{16}$ "-20. 2 lbs.



No. 15-833 Spindle Adapter, No. 2 M.T., with mounting collar tapped 11/16"-20. 1 lb.



No. 15-837 Spindle Adapter, $\frac{1}{2}$ " hole, with mounting collar tapped $1\frac{1}{4}$ 6"-20. For router bits, wood bits, etc. 1 lb.



ROCKWELL DELTA RAM TYPE RADIAL DRILL PRESS

ACCESSORIES-Continued

No. 15-838 Spanner Wrench—1½" x 5¾" long, with single lug for ¾2" hole. Recommended for threaded mounting collar of Drill Chuck 15-830 or Adapters 15-832 and 15-833. ¼ lb.



Handy, Quick-Set Vises—Raise to any angle. Side of vise accurately 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 body.

NO.	WAL	OPEN- ING	LENGTH	SHIP. WT.
†15-024 (Old 1024)	1 x 1½"	15/8 *	45% "	4 lbs.
15-025	1 x 1½ "	15% "	4%"	61/2 lbs.
(Old 1025) 15-026	11/16 x 21/2"	21/2 "	61/4 "	9 lbs.
(Old 1026) 20-620	1% × 4"	4"	10% "	19 lbs.

†No. 15-024 same as No. 15-025 but without raising feature.

No. 20-620 4" Drill Press Vise with steel jaw plates. Plate for fixed jaw has vertical and horizontal grooves for holding round pieces. Recommended for drilling, tapping, milling, bench work and other operations. Vise is machined so that it can be placed in the normal position, on either side, or it can be stood up on end. 19 lbs.



No. 24-902 Univise—A truly universal vise for drilling, grinding, milling, other operations. 16 lbs.



No. 25-857 Lamp Attachment, for 115 V. Includes 18" flexible gooseneck, reflector and 8-foot cord with 2-prong plug. Uses standard bulb (not included) up to 75 watts. 3 lbs.

MOTOR PULLEYS

No. 41-772 Four-Step—1/2" bore. 1 lb. No. 41-773 Four-Step—5%" bore. 1 lb.

BELTS

No. 49-287 (old 287) V-Belt, 31\%" OC, for Ram Type Radial Drill Presses (rear belt). ½ lb.

No. 49-105 V-Belt, 30 1/8" OC, for Ram Type Radial Drill Presses (front belt). 1/2 lb.

For Coolant Equipment, see Section D1.

See the Complete Rockwell Delta Quality Drill Press Line Today!



DELTA 20" DRILL PRESS LINE—48 Models Available . . . Hand or power feed, standard or geared spindle pulley, production or tilt table, single or multiple spindle with No. 2 or 3 M.T.



DELTA 17" VARIABLE SPEED DRILL PRESS LINE—18 Models Available . . . Hand or power leed, standard or production table, single or multiple spindle with key chuck or No. 2 M.T.



DELTA 17" STEP-PUL-LEY DRILL PRESS LINE
—36 Models Available...
Hand or power feed, high
or slow speed, standard
or production table, single
or multiple spindle with
key chuck or No. 2 M.T.



DELTA 15" DRILL PRESSLINES-52 Models Available . Variable speed and step-pulley utility and deluxe, production or fill table, single or multiple spindle with key chuck or No. 2 M.T.



DELTA 14" SENSITIVE DRILL PRESS LINE —

8 Models Available . . . Hand feed, production table, single or multiple spindle with key chuck.

DELTA UNIDRILL®—4 Models Available . . . Hand feed, 4 or 6-step pulley, high or slow speed, key chuck or No. 2 M.T. spindle.



DELTA RAM TYPE RADIAL DRILL PRESS LINE—4 Models Available . . . Hand feed, 6" spindle travel, T-slot production table, key chuck or No. 2 M.T. spindle.

ROCKWELL DELTA DRILL PRESS ACCESSORIES

DELTA QUALITY ACCESSORIES THAT PROVIDE INCREASED JOB PERFORMANCE

Handy, Quick-Set Vises—Raise to any angle. Side of vise accurately 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 body.



NO.	JAW	OPEN- ING	LENGTH	SHIP. WT.
†15-024 (Old 1024)	1 x 1½"	1%*	45%"	4 lbs.
15-025	1 x 1½ "	1% "	45/8 *	6½ lbs.
(Old 1025) 15-026	17/16 x 21/2"	21/2"	61/4 *	9 lbs.
(Old 1026) 20-620	1% x 4"	4*	10%"	19 lbs.

†No. 15-024 same as No. 15-025 but without raising feature.

No. 20-620 4" Drill Press Vise with steel jaw plates. Plate for fixed jaw has vertical and horizontal grooves for holding round pieces. Recommended for drilling, tapping, milling, bench work and other operations. Vise is machined so that it can be placed in the normal position, on either side, or it can be stood up on end. 19 lbs.



No. 24-902 Univise . . . First truly universal vise for grinding, drilling and milling. Can be set at any angle desired. Vise can be returned exactly to its original setting for duplicate grinding. Each station had a 360° circular scale. 16 lbs.



Machine Spur Bits—Production type. Made of selected steel. Have brad point and two cutting spur lips. Approximately 6" long with ½" shank. Weight per set 3 lbs.

No. 15-538 (old 818)—Complete set of 8 machine spur bits.



Plug Cutters—Used for making wood plugs and dowels. ½ x 2" shank, barrel 2¼" long. Cuts plugs 2" thick and dowels 2" long.

No. 15-534 (old 814) ¾ " dia. No. 15-537 (old 817) ¾ " dia. No. 15-535 (old 815) ½ " dia. No. 15-539 (old 819) 1 " dia. No. 15-536 (old 816) % " dia.

No. 15-542 (old 822)—Complete set of 5 plug cutters, 2½ lbs.

SANDING DRUMS AND ABRASIVE SLEEVES FOR INSIDE AND CURVED 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. Disks expand uniformly, run dead true, produce perfect work.



No. 46-038 (old 830) Drum, 3" dia. x 3", with one sleeve. Fits ½" dia. shaft. 2 lbs.

No. 46-138 (old 831) Sleeves, ½ doz. 3 x 3". 40 grit coarse garnet. ½ lb.

No. 46-832 (old 832) Sleeves, ½ doz., 3 x 3". 60 grit medium garnet. ½ lb.

No. 46-338 (old 833) Sleeves, ½ doz., 3 x 3". 50 grit al. ox. (for metal). ½ lb.



No. 46-538 (old 835) Drum, 1¾" dia. x 2", with one sleeve. Fits ½" dia. shaft. 1¾ lbs.

No. 46-638 (old 836) Sleeves, ½ doz., 1¾ x 2". 40 grit med. garnet. ¼ lb.

No. 46-837 (old 837) Sleeves, $\frac{1}{2}$ doz., $1\frac{3}{4} \times 2^{\prime\prime}$, 60 grit fine garnet. $\frac{1}{4}$ lb.

No. 46-838 (old 838) Sleeves, $\frac{1}{2}$ doz., $1\frac{34}{4} \times 2^{\prime\prime}$. 50 grit al. oxide (for metal). $\frac{1}{4}$ lb.



No. 46-048 (old 840) Drum, $\frac{11}{16}$ " dia. x $2\frac{1}{2}$ ", with one sleeve. With $\frac{1}{2}$ " shank to fit hollow spindle or chuck. $\frac{1}{2}$ lb.

No. 46-841 (old 841) Sleeves, ½ doz., 1½ x 2½". 50 grit med. garnet. ½ lb.

No. 46-248 (old 842) Sleeves, ½ doz., 1½ a 2½". 80 grit fine, garnet. ½ lb.

No. 46-847 (old 847) Sleeves, $\frac{1}{2}$ doz., $\frac{1}{16} \times 2\frac{1}{2}$ ". 50 grit al. oxide (for metal). $\frac{1}{2}$ lb.

NARROW SANDING DRUMS AND SLEEVES

Drums of solid rubber for use in 3-jaw chuck.

No. 46-679 (old 679) Drum, 1½" dia. x 1", with one sleeve, 5/16" shank. ½ lb.



No. 46-682 (old 682) Sleeves, ½ doz., 1½ x 1". 40 grit. al. oxide. ¼ lb.

No. 46-683 (old 683) Sleeves, ½ doz., 1½ x 1". 80 grit al. oxide. ¼ lb.

No. 46-680 (old 680) Drum, 2%6'' dia. x 1", with one sleeve. %6'' shank. $\frac{1}{2}$ lb.

No. 46-684 (old 684) Sleeves, ½ doz., 2%₁₆ x 1". 40 grit al. oxide. ¼ lb.

No. 46-685 (old 685) Sleeves, ½ doz., 2¾6 x 1". 80 grit al. oxide. ¼ lb.

No. 46-681 (old 681) Drum, 3" dia. \times 1", with one sleeve, $\frac{4}{16}$ " shank. $\frac{4}{16}$ lb.

No. 46-686 (old 686) Sleeves, ½ doz., 3 x 1". 40 grit al. oxide. ½ lb.

No. 46-687 (old 687) Sleeves, ½ doz., 3 x 1". 80 grit al. oxide. ½ lb.



Mortising Chisels—Production type. Made of selected steel. Shank of chisel is % x1¼".

No. 15-404 (old 504) $-\frac{1}{4} \times \frac{1}{4}$ ", mortises $1\frac{1}{6}$ " deep.

No. 15-405 (old 505) $-\%_{16} \times \%_{16}$ ", mortises 1%" deep.

No. 15-406 (old 506)—% x %", mortises 3" deep.

No. 15-408 (old 508)— $\frac{1}{2}$ x $\frac{1}{2}$ ", mortises 3" deep.

Mortising Chisel Bits-Of selected steel. Bit operates inside chisel.

No. 15-514 (old 514)-\%" bit x \%6" dia. shank.

No. 15-515 (old 515)-\%6" bit x \%" dia. shank.

No. 15-516 (old 516)-%" bit x ¹⁹%4" dia. shank.

No. 15-517 (old 518)—½" bit x ¹%4" dia. shank.

For Complete Information on Rockwell Delta Light Duty Drill Presses, Write for Catalog AD-1927R.

ROCKWELL DELTA INDUSTRIAL MACHINES ARE USED EVERYWHERE

In Industry-Building Trades-Schools-Custom and Job Shops



MAINTENANCE DEPARTMENT



PRODUCTION SHOP



TOOL MAINTENANCE DEPARTMENT

Whatever your particular operation may be-cutting ... drilling ... grinding ... finishing-Delta produces a wood or metalworking machine suited to meet your most exacting requirements. Shown are just a few of the hundreds of such applications to which users put the world's most complete industrial tool line of 61 machines . . . 302 models . . . over 1400 accessories.



WOOD SPECIALTY SHOP



SCHOOL SHOP



TOOL ROOM



MILL WORKSHOP



METAL FABRICATOR



PATTERN SHOP



BUILDER

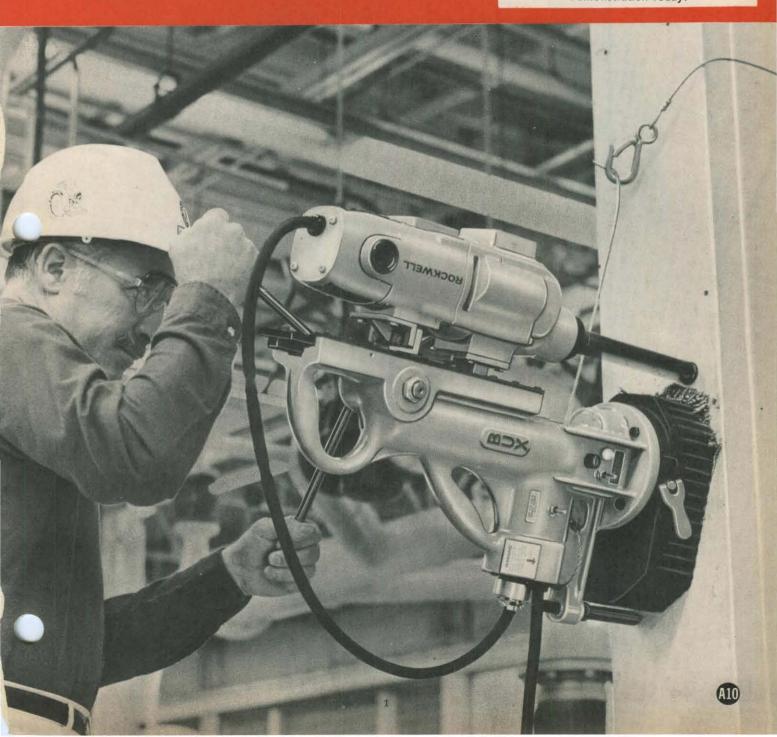
ROCKWELL BUX PORTABLE MAGNETIC DRILLS

For Big Capacity Drilling Not Possible With Conventional Drill Presses or Radial Drills

Now! Rockwell Extra Heavy Duty Drills have been teamed with famous BUX Magnetic Stands to give you big capacity portable drilling machines. The magnetized base attaches with tremendous force to steel surfaces horizontally, vertically or overhead. With the portable drill firmly held in position, you can precision drill, tap or ream at a drill point pressure up to 2500 pounds. You can perform these operations on large, special-purpose machines, on girders, and in other places that cannot be reached with conventional drill presses or radial drills.

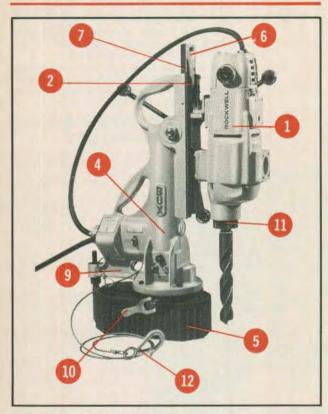
Take the capacity of stationary drill presses to your job site to save on labor, the expense of dismantling heavy machinery or the cost of transporting large equipment.

See a "PROOF-BY-PERFORMANCE"
Demonstration Today!



ROCKWELL BUX PORTABLE MAGNETIC DRILLS

ROCKWELL BUX FEATURES GIVE YOU LONG, TROUBLE-FREE PERFORMANCE ON THE JOB!



 Extra Heavy Duty Motor—built to rigid specifications, this "job proven" motor has been used on other Rockwell Power Tools in thousands of industrial applications.

Replaceable Wear Strips—slide assembly is supported by quickly replaceable, adjustable gib and wear strips.

3. All Steel Pinion Shaft—supported by special oil impregnated bronze bearings, has three-handled feed for ease of operation.

Lightweight Stand

—tough, aircraft aluminum post is lightweight, yet strong. Pound for pound, BUX stand is most
powerful available.

"Power Channel" Bases—BUX magnetic bases are available in five different sizes, shapes and strengths.

 Medium and Large Size Units—have 11½" of travel for greater accuracy on all work as well as increasing "hole depth" capacity.

7. Lower Ratio Rack and Pinion Feeds—assure greater mechanical advantages with more pressure delivered to the drill point. Will drill holes faster with less operator fatigue.

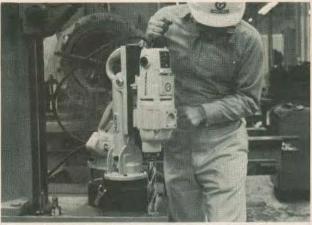
8. Positive Depth Gage—large, easy-to-read scale can be marked to measure holes of desired depth. No slipping possible, no rule needed.

 Stabilizer Leg—adjustable stabilizer leg moves pivot point rearward and increases mechanical advantage—more drill point pressure.

10. Fast Action Positioner—one-fourth turn of oversize operating handle releases drill stand to rotate 330° with up to %" lateral movement. No tedious adjustments—simply place drill point over center-punch mark, tighten handle and start to drill.

11. Five Chucks or Spindles Available—5%" and 34." Chucks, No. 2 and No. 3 M.T. Spindles, and No. 3 M.T. Internal Socket.

12. Six-Foot Safety Cable—acts as a precaution against operator losing control of unit while positioning or from possible power failure during operation.



Extra Powerful, Specially Designed Motors provide a full 6.5 amps on Small Round Base Models, 12 amps on Medium Round Base Models and 15 amps on Large Radial Position and Rectangular Base Models. Typical long-life, quality construction features include:

 Cartridge-Type Brushes—Are spring-loaded and selfadjusting for better commutation.

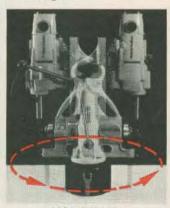
 Precision Machine Wound Armatures—With resin coated, bonded wire and welded commutator leads to withstand high overload conditions.

 Efficient Cooling System—Flow-thru venting and 12-blade fan work together to maintain lower motor operating temperature for better efficiency.

•Ball and Roller Bearing Construction—To assure troublefree performance, gear and spindle shafts run smoothly on self-lubricating ball and roller bearings.







330° RADIAL MOVEMENT

With the Bux precision engineered base, you get positive mechanical action—no "partial magnetism." Bux exclusive radial positioner assures fast, accurate alignment of Bux portable magnetic drill stands. The magnetic base remains stationary, safely holding unit to the work. A fast, ¼ turn of the mechanical locking handle releases drill stand for 330° radial positioning and up to %" lateral movement is also provided, assuring positive, precision positioning.

ROCKWELL BUX QUALITY EXTRAS:

•Two-speed motors provide speeds of 250 and 500 RPM-a low speed for large hole drilling, tapping and reaming-a high speed for small hole drilling.

•Both Medium and Large Base Models have "Power Channel" design. Magnetic strength is funneled along a central axis, concentrating the holding power in areas where there is apt to be more workpiece contact.

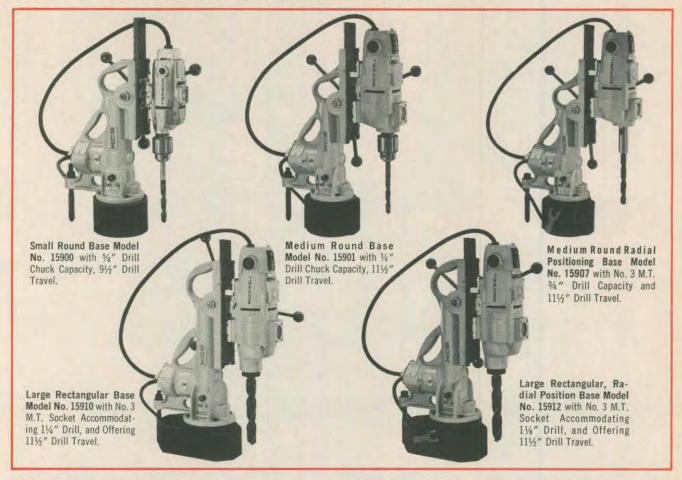
·Forward, reverse and neutral feed control.

Magnetic control switch and pilot lamp.

·Large, easy-to-operate controls.

ROCKWELL DELTA INDUSTRIAL MACHINES

ROCKWELL BUX PORTABLE MAGNETIC DRILLS



STANDARD EQUIPMENT

Rockwell Bux Portable Magnetic Drills are shipped complete. Motor and Stand are ordered together by specifying the appropriate Drill Catalog Number. Assembly of motor to stand is quick and easy and requires no special tools or knowledge. A single, heavy duty 9-foot cord and plug supplies power to both stand and motor. All stands are supplied with a 6-foot safety cable as a precaution against operator losing control of unit while positioning or from possible power failure during operation. All motors are reversing type. Motors have reverse mounting position, permitting outboard spindle location for close-quarter drilling requirements.

Special mounting brackets allow for perfect motor and drill stand slide alignment, providing precision drilling capabilities.

No. 2 and No. 3 M.T. Models can easily be converted to %4" Key Chuck Models. Simply order 57091 Arbor (No. 3 M.T. to Jacobs Taper) or 57092 Arbor (No. 2 M.T. to Jacobs Taper) plus 58006 %4" Chuck.

Note: Units to be used on Single Phase, 115V, AC, 25-60 Cycle Current Only.

ACCESSORIES

No. 57091 Arbor, No. 3 MT to Jacobs Taper. ½ lb. No. 57092 Arbor, No. 2 MT to Jacobs Taper. ½ lb. No. 58006 Jacobs ¾" Geared Chuck. With key. 1½ lbs.

CATALOG LISTING AND SPECIFICATIONS

DRILL	STAND	MOTOR	CAP	ACITY	THE PARTICIONES	THE PROPERTY OF				*DRILL POINT NET WT. PRESSURE, STAND		
CATALOG NO.	SIZE	CATALOG NO.	DRILL	TAP	OR TAPER	RPM	HEIGHT	WIDTH	LENGTH	LBS.	ONLY	& DRILL
15900	Small Round	77768 (768RP-T2)	5/8"	%"-20	Chuck	500	19%"	6"	-	900	53	76
15901	Medium Round	77730 (730P-T2)	3/4"	34"-16	Chuck	400	233/8"	67/16"	73/16"	1500	63	87
15902	Medium Round	77732 (732P-T2)	3/4"	34"-16	No. 2 MT	400	23%"	67/16"	73/16"	1500	63	85
15903	Medium Round	77733 (733P-T2)	3/4"	3/4"-16	No. 3 MT	400	231/8"	67/16"	73/16"	1500	63	85
15905		77730 (730P-T2)	3/4"	3/4"-16	Chuck	400	24"	67/16"	73/16"	1500	66	90
15906	Medium Round	77732 (732P-T2)	3/4"	3/4"-16	No. 2 MT	400	24"	67/16"	73/16"	1500	66	88
15907	Radial Position	77733 (733P-T2)	3/4"	¾″-16	No. 3 MT	400	24"	67/16"	73/16"	1500	66	88
15908		77734 (734P-T2)	11/4"	11/4"-12	No. 3 MT Socket	250	24"	67/16"	73/16"	1500	66	89
15910	Large Rectangular	77740 (740-T2)	11/4"	11/4"-12	No. 3 MT Socket	250-500	241/4"	71/16"	85/16"	2550	81	107
15912	Large Rect. Radial Pos.	77740 (740-T2)	11/4"	11/4"-12	No. 3 MT Socket	250-500	25"	71/16"	85/16"	2550	88	114

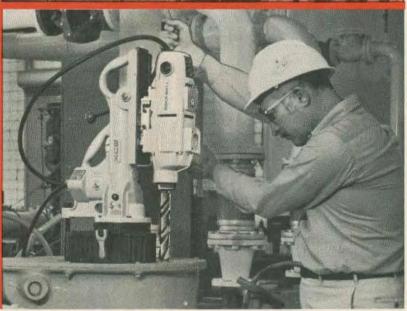
^{*} Pressure calculated on 1" steel plate. Thinner material and cast iron provide proportionately less holding power.

ROCKWELL BUX PORTABLE MAGNETIC DRILLS

Versatile, Dependable Rockwell Bux Drills save time and money for many industrial users!







- Air-Frame Manufacturing Automation Equipment Manufacturers Automotive
- Conveyer and Material Handling Equipment
 General Metal Fabrication
- Electrical Contractors Foundries Plant Maintenance
- Heavy Construction Equipment Machinery Manufacturing Ship-Building and Repair
- Tool and Die Shops Repair Shops Structural Steel Construction and Maintenance
- Machinery Re-Building Railroad-Original Equipment and Maintenance
- Truck-Trailer Manufacturing Utilities

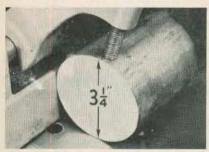
ROCKWELL DELTA 12" CUT-OFF MACHINES

Now! You can modernize your method of doing dry or wet abrasive cutting or the cutting of non-ferrous metals and wood. With Rockwell Delta Cut-Off Saws you cut off better than with power hack saws, band saws, lathes, grinders or torches. Let us "Performance-Prove" one of the four "cost-saving" models for you today!

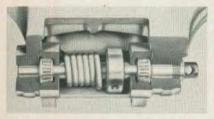
CUT FASTER! CUT COSTS!

ROCKWELL DELTA 12" CUT-OFF MACHINES

DELTA QUALITY FEATURES THAT SAVE PRODUCTION TIME AND PROMOTE OPERATING ECONOMY



Extra Large Capacity—You get these BIG capacities with the Rockwell Delta 12" Cut-Off Machine: wood and plastics—2 x 8"; non-ferrous tubing and solid round bars—3¼"; ferrous tubing—3¼" and solid round bars 1020 steel—1½"; angles—3 x 3"; channels—4". These are verified capacities which can be maintained at a production rate using a 5 HP motor (3 HP for wood, plastic, and thinwalled non-ferrous tubing). No machine limited to 2, 3, or 3½" HP can match this performance.



Tapered Bearings Assure Precision Accuracy—Pivot shaft is mounted on rigid, widely spaced Timken Tapered Roller Bearings. Selected for their adjustability, these bearings eliminate all play and assure perfect cutting accuracy. Torsion spring on pivot shaft adjusts in either direction to counter-balance motor. This provides correct, light feed pressure, assuring ease of operation.



Full, Even Power Transmission—Triple, matched, V-belt Drive utilizes the full power of the motor, eliminates transmission of any vibration from motor to cutting wheel. Dynamically balanced motor and arbor pulleys have V-grooved diameters concentric with center hole for long life and smooth running. Mitering never disturbs belt alignment.



Heavy Duty 1" Arbor—Precision ground, the husky 1" arbor is supported by extra large, pre-loaded, lubricated-for-life ball bearings that are mounted in Delta's Unique Cartridge Assembly. Pre-loading of bearings by means of steel sleeves for the inner and outer races removes all play and guarantees accuracy and long life with minimum vibration. Notice the port hole and slotted wheel flange, part of the coolant system for non-ferrous cutting.

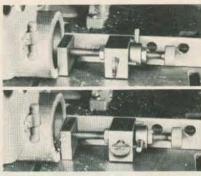


Exclusive Hollow Arbor Spray Coolant—Only Rockwell Delta Cut-Off Machines offer this patented feature which makes cutting of non-ferrous metals a simple operation. Oil drips from reservoir and enters hollow blade arbor. Then it flows from two staggered port holes, 180° apart but not in line, to lubricate both sides of the blade. The fan action of the blade throws a mist of oil on the work piece, preventing the development of heat and greatly increasing the cutting performance and life of the saw blade.



"Swinging Arbor" for Mitering—The complete Cut-Off Machine Arbor and Work Head swivels as one unit through a 90° arc. This means that work always moves in a straight line across the table, eliminating awkward swinging of stock when mitering. Double calibrated scale permits direct reading for miter cuts from 0° to 45°, right and left.

Safety Engineered Throughout—The specially designed wheel guard complies with ASA safety standards. Although it lifts up to permit front loading of stock, a "nose" drops to the table in front of the work to protect the operator during actual cutting.



Exclusive Retractable Size Gage—Accurately and quickly gages stock in lengths from 0 to 14". When finger is in "up" position (see top illustration), work is held against stop block. When finger is switched to "down" position, stock block moves slightly away. This avoids pinching of wheel as work piece expands due to cutting friction of abrasive wheel.



Exclusive Replaceable Arbor—Rockwell Delta Cut-Off machines incorporate in their arbor design a proven special Cartridge Assembly. When necessary, this assembly can be replaced in minutes, practically eliminating down time. The assembly contains Delta's Five Famous Quality Features—lubricated-for-life ball bearings, precision bored bearing seats, pre-loaded bearings, precision ground arbor and dynamically balanced pulley. Assembly also is sealed against dirt and full flood of water.

DELTA QUALITY EXTRAS

- Table has a BIG 11 x 27" working surface with four pairs of parallel T-slots for easy clamping of work.
- Motor mounts on and swings with arbor bracket to maintain belt alignment and tension throughout cutting arc.
- Arbor bracket support has hollow construction to form dust spout at rear. "Soup dish" guard under table forms second dust spout.
- Retractable size gage has screw adjustment greater than center of holes in fence.
- Rugged work clamp is double action (push or pull), cam type with "Universal" 3-position clamp.
- Air cylinder feeds, hydraulic check cylinders, air-mist coolant attachments, air clamps, and other automation devices may be easily attached for labor saving and quality control on high production work.

ROCKWELL DELTA 12" CUT-OFF MACHINES

Dry Abrasive Cut-Off Machine — Excellent for cutting steel (stainless, high speed, tool, etc.), wire rope, angleiron, iron pipe, ceramics, Tobin bronze, and many other hard materials. Cuts a square inch of steel in less than four seconds.

For Accessory Dust Collector and Attachment Package, See Section "D".





Wet Abrasive CutOff Machine—Provides for a full flow of coolant on the work. Used on the same hard materials handled on the Dry Abrasive Cut-Off Machine. Sacrifices speed for smooth cutting with minimum burr, long wheel life.

For Accessory Coolant Pump and Tank, See Section "D".

Non-Ferrous Cut-Off Machine — Ideal for cutting aluminum, plastics, micarta, Dow metal, etc. Patented coolant attachment assures an extremely fast, accurate cut with burr-free "polished smoothness" on all nonferrous metals.





Wood Cut-Off Machine—(Order Nos. 20-100, 50-399, 49-289, 41-637, plus electricals desired) — For handling all materials sawed with conventional wood cutting blades. Specially designed guard permits front loading of long stock. For high production cut off and mitering. Cuts off a 2 x 8" plank in less than one second.

For Dry and Wet Abrasive Cutting and for Cutting Non-Ferrous Metals and Wood

If you have the problem of cutting off materials to proper length, in your small shop or your large industrial plant, Rockwell Delta 12" Cut-Off Machines will do a faster, more accurate and smoother job than any other cut-off method.

Here's why—the BIG 3¼" capacity makes this machine ideal for doing hundreds of jobs...the extra powerful motors assure maintained cutting speeds, even on the heaviest cuts...the unmatched combination of Delta Quality Features guarantees quick, accurate cutting of practically any material.

In metalworking shops this method is replacing hand and power type hack saws, vertical and horizontal band saws, acetylene torches, presses, shears, lathes, screw machines, mills, grinders and similar equipment. Where cutting of non-ferrous metals, wood, plastic and allied materials is necessary, the Cut-Off Method is replacing hand, portable, band, circular and radial saws.

If you want increased production, improved quality and lowered costs, replace your present cutting off setup with a modern Rockwell Delta Cut-Off Machine.

MACHINE DATA

Overall Dimensions (With Legs):
Width35"; Front to Rear35"; Height50"
Capacities (For 90° Cutting):
Wood and Plastic2 x 8"
Non-Ferrous Metals (With Saw Blade):
Tubing (Maximum Diameter)
Solid Round Bar (Maximum Diameter)31/4"
Ferrous Metals (With Abrasive Wheel):
Tubing (Maximum Diameter)
Solid Round Bar 1020 Steel (Maximum Diameter) 11/2"
Angles3 x 3'
Channels4"
Speeds:
With 3450 rpm Motor and 3" Motor Pulley:
Arbor Speed, rpm4,000
Rim of 12" Blade or Wheel, sfpm
Blade or Wheel Diameter (Maximum)
Arbor Hole
Wheel Flanges, Diameter
Miters (Swinging Arbor)45° Left and 45° Right
Table:
Working Surface in Front of Fence
Height (Without Coolant Pan)32"
Height (With Coolant Pan)
Has Four Pairs of Parallel T-Slots and Double Calibrated Miter Scale.
Motor:

STANDARD EQUIPMENT

Mounting Plate Accommodates

All Models include wheel guard, belt guard, fence with size gauge, 3½" wheel flanges and 5" wheel flanges with coolant slate.

NEMA Frame Motors 213, 215, 182T and 184T.

CATALOG LISTING

No. 20-100 12" Cut-Off Machine. Includes wheel guard, belt guard, fence with size gauge, 3½" wheel flanges, and 5" wheel flanges with coolant slots. 278 lbs.

Continued on next page

ROCKWELL DELTA 12" CUT-OFF MACHINES

CATALOG LISTING-Continued

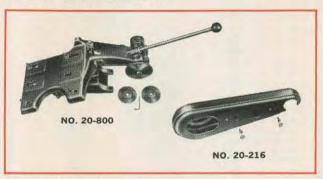
No. 20-220 12" Cut-Off Machine for Dry Abrasive Cutting (With Legs). Same as No. 20-100 except with No. 50-399 pair of steel legs 27½" high, No. 20-801 clamp fixture, No. 49-289 (old 289) (set of 3) 46%" OC V-belts, and No. 41-637 3" 3-belt motor pulley 1%" bore with ½" keyway. Without abrasive wheel, motor and switch. 390 lbs.

No. 20-222 12" Cut-Off Machine for Wet Abrasive Cutting (With Legs). Same as No. 20-100 except with No. 50-399 pair of steel legs 27½" high, No. 20-801 clamp fixture, No. 49-289 (old 289) (set of 3) 46½" OC V-belts, No. 41-637 3" 3-belt motor pulley 1½" bore with ¼" keyway, and No. 20-840 coolant pan. Without abrasive wheel, motor and switch. 531 lbs.

No. 20-221 12" Cut-Off Machine for Non-Ferrous Cutting (With Legs). Same as No. 20-100 except with No. 50-399 pair of steel legs 27½" high, No. 20-801 clamp fixture, No. 49-289 (old 289) (set of 3) 46½" OC V-belts, No. 41-637 3" 3-belt motor pulley 1½" bore with ¼" keyway, and No. 20-832 coolant attachment. Without saw blade, motor and switch. 394 lbs.

WORK HEAD AND GUARDS FOR BUILDING SPECIAL PURPOSE MACHINES

This work head is used on all Rockwell Delta Cut-Off Machines. It is also offered as a separate unit for those users who wish to design a special-purpose cut-off machine to meet their needs.



No. 20-800 Work Head, including ball bearing arbor assembly, $2^{1}\frac{1}{16}$ " 3-belt arbor pulley, $3^{1}\!\!\!\!/_{2}$ " and 5" wheel flanges, feed handle, motor mounting plate, pivot shaft with Timken roller bearings and adjustable torsion spring, adjustable rubber stops and base casting. Motor and controls are not supplied factory mounted on Work Head. 79 lbs.

No. 20-802 Blade Guard, complete with lifting spring and mounting parts. 33 lbs.

No. 20-216 Guard for Belts and Pulleys, complete with mounting bolts. 26 lbs.

MOTORS AND CONTROLS (Factory Mounted and Wired)

(For general purpose applications, 5 HP is recommended; use 3 HP for saw blade cutting of wood, plastic and thin-wall non-ferrous tubing only.)

MOTOR	MOTOR CONTROL	MOTOR ENCLOSURE	CYCLES AND MOTOR RPM	VOLTAGE	SHIPPING WT., LBS.	CATALOG NUMBER	CAT. NO. 208 V
Single Phase.	Push Button Manual Starter w/Overload	TEFC	60-3450	115/230	132	52-004	
3 Horsepower	Magnetic Starter with Push Button Control	TEFC	60-3450	115/230	133	52-005	
	Push Button Manual Starter w/Overload	TEFC	60-3450	230/460	111	52-006	52-194
Three Phase,	Magnetic Starter with Push Button Control	TEFC	60-3450	230/460	113	52-007	52-195
3 Horsepower	Magnetic Starter with Push Button Control (w/115 V Transformer)	TEFC	60-3450	230/460	116	52-008	52-196
	Push Button Manual Starter w/Overload	TEFC	60-3450	230/460	120	52-009	52-197
Three Phase,	Magnetic Starter with Push Button Control	TEFC	60-3450	230/460	122	52-010	52-198
Horsepower	Magnetic Starter with Push Button Control (w/115 V Transformer)	TEFC	60-3450	230/460	126	†52-011	52-199

NOTE: Single phase dual-voltage electricals will be supplied wired for 230 V only. Three phase dual-voltage electricals will be supplied wired for 230 V, unless 460 V is specified. Power Cord and Plug not supplied. Motors and Motor Controls for Rockwell Delta 12" Cut-Off Machines may

be ordered unmounted. For listing, see Sections P and Q. †No. 49-000 "JIC" Type Control Kit. Specify this Catalog Number, in addition to Three Phase Cat. No. 52-011, in order to obtain 12" Cut-Off Machine with "JIC" type electricals, factory mounted and wired.

DELTA QUALITY ACCESSORIES THAT INCREASE THE VALUE OF THE 12" CUT-OFF MACHINE

No. 20-817 Abrasive Wheel for dry cutting, general purpose, for soft and hard steel and hard bronze, $\frac{3}{2}$ " x 12" dia. with 1" hole. 1¼ lbs.

No. 20-819 Abrasive Wheel for dry cutting, used for long wheel life where burr is permissible. For all steels and hard bronze, $\frac{3}{32}$ " x 12" dia. with 1" hole. 2 lbs.

No. 20-820 Abrasive Wheel for dry cutting, used where maximum freedom from burr is more important than long wheel life. For thin steel tubing and molding. $\frac{3}{32}$ " x 12" dia. with 1" hole. 2 lbs.

No. 20-846 Saw Blade for non-ferrous metal, 12'' dia., $\frac{3}{2}''$ thick x 1'' hole, 100 teeth, for cutting large solids. 2 lbs.

No. 20-847 Saw Blade for non-ferrous metal, 12'' dia., 32'' thick x 1'' hole, 150 teeth, best general purpose blade. 3 lbs.

No. 20-848 Saw Blade, same as 20-847 except high speed steel, hard rim. 2 lbs.

No. 20-849 Saw Blade for non-ferrous metal, 12" dia., $\frac{3}{3}2$ " thick x 1" hole, 200 teeth, for cutting thin wall tubing. 2 lbs.

No. 33-197 Saw Blade for wood, 12" dia. \times 1" hole, combination type. $1\frac{1}{2}$ lbs.

No. 33-246 Saw Blade for wood, 12'' dia. $\times 1''$ hole, cross cut type. 2 lbs.

No. 34-842 Saw Blade for wood and plastic, 12" dia. x 1 1/8" hole (with bushing to fit 1" arbor), 24 carbide-tipped teeth, combination type. 4 lbs.

No. 20-801 Clamp Fixture, 19 lbs.

No. 20-832 Coolant Attachment, for non-ferrous metal. Includes sight gravity feed oiler, mounting post, coolant line, nozzle and fittings. $3\frac{1}{2}$ lbs.

No. 49-294 (old 294) V-belts (matched set of 3), 51\%" OC, for 6" motor pulley. 1\% lbs.

No. 49-289 (old 289) V-belts (matched set of 3), $46\frac{1}{8}$ " OC, for 3" motor pulley. $1\frac{1}{2}$ lbs.

No. 41-627 Motor Pulley, 6'', 3-belt type, 1%'' bore with $\frac{1}{4}''$ keyway. 6 lbs.

No. 41-637 Motor Pulley, 3", 3-belt type, 1\%" bore with \\"keyway. 3 lbs.

No. 50-399 Legs, steel, one pair, 271/2" high. 100 lbs.

No. 50-400 Riser Blocks (two pair required), cast iron, one pair, 2" high, with studs, nuts and lock washers for mounting under legs. 8 lbs.

NOTE: For Dust Collector recommended for all dry abrasive cutting and for coolant Pump for wet cutting, see Section "D".

ROCKWELL DELTA TG-3 TOOLMAKER*GRINDERS



Rockwell Delta Surface Grinder... produces a 16 microinch finish or better to handle practically all surface grinding requirements in the average shop.

Rockwell Delta Tool and Cutter Grinder . . . an excellent unit for sharpening mills, reamers, saws blades and other multiple point cutting tools.

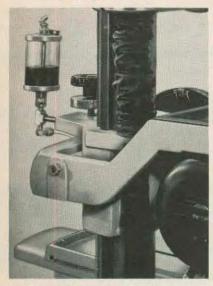
Only Rockwell Delta TG • 3 TOOLMAKER Grinders offer all these exclusives:

*Trademark

- Widest speed range available—3300, 3700 and 5600 RPM—to handle any grinding job.
- Unique 360° rotation of head and spindle for correct tool and cutter grinding.
- Exclusive "Center Mist" Coolant Attachment for cooler, more efficient grinding with longer wheel life.
- Preferred Teflon-lined V and flat ways on table for long life and effortless feed.
- Plus many additional Rockwell engineered extras!

ROCKWELL DELTA TG·3 TOOLMAKER GRINDERS

DELTA QUALITY FEATURES ASSURE PRECISION GRINDING AND SHARPENING



Safety and Convenience Features—Both the elevating and cross feed screws are completely enclosed by a protective sleeve to keep out harmful abrasive dust. The totally enclosed motor is mounted upside down, providing a handy tray for wrenches, indicators and work pieces. Efficient Coolant Attachment provides just the right amount of coolant to keep diamond wheels cool for chip-breaker grinding.



Quick Operating Hand Wheel; Precision Down Feed Control—Large hand wheel facilitates rapid, vertical travel of head for rough settings while Micrometer Down Feed Knob (with no back lash) permits fine settings. Extra large micrometer collar is easy to read, graduated in .0005", and has "slip" feature for zero start reading.



Exclusive Three-Speed Range—Unlike other machines, Rockwell's TG•3 provides matched three-step cone pulleys with a flat belt drive to the spindle. You get these benefits: Three spindle speeds—3300, 3700 and 5600 RPM—the right SFPM for the different diameters of straight, dish and cup wheels. The flat belt drive assures vibration-free spindle operation.

Heavy Duty, Ball Bearing Spindle—The massive spindle, which is carefully ground and balanced, is mounted on preloaded, duplex, precision ball bearings to assure high quality grinding year after year. Sealed bearing construction protects the spindle from abrasive dust and prevents coolant from washing lubricant out of the bearing.



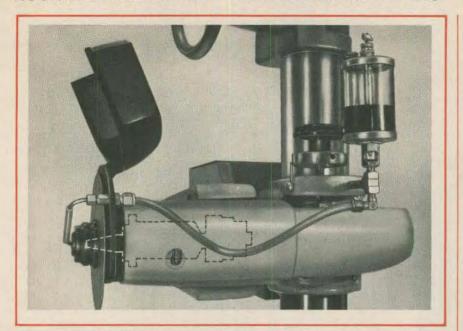


Time and Money-Saving Wheel Adapters—Rockwell makes available interchangeable, taper mounted wheel adapters which fit snugly on the ground, tapered spindle. These adapters save time and money because once a wheel is mounted and dressed, it can be removed, then mounted without resetting or redressing—especially important where diamond wheels are used.



Unique Rotation of Head and Spindle—The TG•3's use of a round column, versus competitive A-frame construction, gives it a versatility and ease of set-up not available with other grinders. This is true because the column, with work head and spindle, can be rotated away from the normal "zero" position as shown by the witness marks. It is easy to provide wheel clearance for tool and cutter grinding, and the work head can even be rotated a full 360° for special jobs.

ROCKWELL DELTA TG·3 TOOLMAKER GRINDERS



Unique "Center Mist" Coolant—Only Rockwell's TG·3 offers a "center mist" coolant attachment developed especially for chip-breaker grinding with diamond wheels. It improves surface grinding quality, too. Coolant drips from reservoir through tube and enters hollow spindle. Then, it flows out through two staggered port holes, 180° apart. Wheel flanges, recessed in the center with grooves extending to the outer rims, carry the coolant down both sides as well as through the porous wheel. The fan action of the wheel breaks the coolant down into a fine mist which cools the work exactly at the point of grinding, much better than coolants sprayed or flooded onto the general grinding area.



Many-Purpose Table—Has a 5%" x 13" surface, finish ground by its own spindle to within 16 microinches. Designed with T-slot to facilitate clamping of work or the mounting of work-holding fixtures. Coolant trough permits wet or dry grinding [side and end shields can easily be added for wet grinding). Adjustable, spring-loaded stops act as cushion . . . are especially suited for tool and cutter grinding.





Multi-Position Handle—You can select the most comfortable position of the handle on the table feed hand wheel, in a matter of seconds. Just pull out the handle, set it where you want it, and let it snap back into engagement. This is especially important when the operator is grinding small pieces and must continually "short stroke" the table. Large micrometer sleeve on cross feed is easy to read and has "zero" start feature.



Smooth Operating Table and Cross Slide

-Table and cross slide have precision
ground V and flat ways (no troublesome gibs to adjust). Ways are Teflonlined, practically eliminating wear and
providing smooth, effortless table feed.

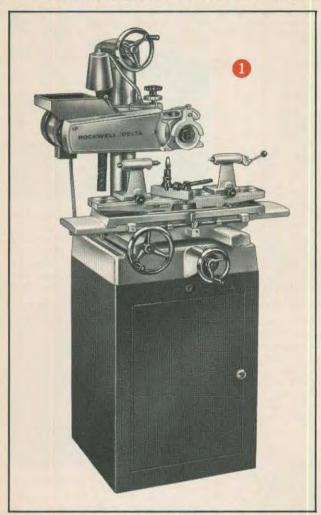


Specially Designed Base—Massive, scientifically ribbed base provides extra rigid support for the ¾ " thick cast iron column and grinding head. Built-in leveling jacks at rear corners (not shown) guarantee proper alignment for precision grinding.



Large, Deluxe Cabinet Base—The TG *3 rests on a heavy, rigidly reinforced steel base. Vibration pads, furnished for placement under each corner, isolate the grinder, protecting it from floor vibrations caused by trucks, elevators, punch presses and similar machinery. This assures smooth grinder performance. Two large shelves provide ample storage room. Large door has a cam type, rattle-proof latch.

ROCKWELL DELTA TG·3 TOOLMAKER GRINDERS



No. 24-151 TG • 3 TOOLMAKER * Tool and Cutter Grinder shown with Accessory 25-857 Lamp Attachment and Electricals.



No. 24-150 TG·3 TOOLMAKER* Surface Grinder shown with Accessory 25-857 Lamp Attachment, 24-823 Coolant Attachment and Electricals.



2 A Surface Grinding Machine

3 A Single Point Tool Grinding Machine

Only Rockwell offers you a complete line of three individual grinding machines ... each suited to meet your particular grinding requirements.

The TOOLMAKER Surface Grinder, for example, is an excellent machine for the small shop while larger, high production plants find it ideal as a secondary unit to relieve bottlenecks or to use when larger grinding equipment is tied up.

The TOOLMAKER Tool and Cutter Grinder, which consists of the TG*3 Surface Grinder and Tool and Cutter Grinding parts, efficiently sharpens all types of mills, reamers, taps, saw blades and other multiple-point cutting tools. It does this right in your plant to reduce operating costs.

The TOOLMAKER Single Point Tool Grinder, which consists of the TG·3 Surface Grinder with the Univise and "Center Mist" Coolant Attachment, capably precision grinds the chip-breaker groove in carbide-tipped and other tool bits. It will do this without delay to keep production moving.

Many machines are available which perform only one function—surface grinding, tool and cutter sharpening or the grinding of chip-breaker grooves. Only Rockwell offers you three individual machines, tailored to handle your specific grinding needs. If you prefer, you can purchase the TG·3 TOOLMAKER Surface Grinder only, plus the various accessories, and do all three types of grinding on this one machine. You can do this at less cost than on comparable single-purpose machines.

Let us PERFORMANCE-PROVE a TG·3 TOOL-MAKER Grinder for you today!



No. 24-152 TG-3 TOOLMAKER* Single Point Tool Grinder shown with Accessory 25-857 Lamp Attachment and Electricals. *Trademark

ROCKWELL DELTA TG·3 TOOLMAKER GRINDERS

CATALOG LISTING

*BASIC MACHINES (Less Motor and Control-See Below)

No. 24-150 TOOLMAKER Surface Grinding Machine on cabinet, less electricals. Includes motor pulley [5%" bore), flat belt, guard for belt and pulleys, guard for straight wheel, wheel adapter, holder for diamond wheel dresser, ½ pint oil for spindle bearings, wrenches and instruction manual. 742 lbs.

No. 24-151 TOOLMAKER Tool and Cutter Grinding Machine. Consists of 24-150 Basic Surface Grinder on cabinet with 24-822 Tool and Cutter Grinding components. Components are partially mounted. 812 lbs.

No. 24-152 TOOLMAKER Single Point Tool Grinding Machine. Consists of 24-150 Basic Surface Grinder on Cabinet with 24-823 Coolant Attachment, mounted and ready to use, and 24-902 Univise. 748 lbs.

ONTE: Shipped only with specially balanced motor and motor control which are factory mounted, wired and tested.

STANDARD EQUIPMENT

All Toolmaker grinders include storage type cabinet with shelves and door, four anti-vibration pads, motor pulley (%" bore), flat belt, guard for belt and pulleys, guard for straight 7" wheel, wheel adapter, holder for diamond wheel dresser, oil for spindle bearings, wrenches, T-bolts (2) and instruction manual. No. 24-822 Tool and Cutter Grinding Attachment is included with No. 24-151 Tool and Cutter Grinding Machine. No. 24-823 Coolant Attachment and No. 24-902 Univise are included with No. 24-152 Single Point Tool Grinding Machine.

MOTORS AND CONTROLS (Factory Mounted and Wired)

MOTOR	MOTOR CONTROL	MOTOR ENCLOSURE	CYCLES & MOTOR RPM	VOLTAGE	SHIP. WT. (LBS.)	CATALOG NUMBER	CAT. NO. 208 V
Single Phase,	Push Button Switch Only	Totally Enclosed	60—3450	115/230	32	49~752	
1/2 Horsepower	Push Button Switch and Magnetic Starter	Totally Enclosed	60—3450	115/230	37	49-753	
	Push Button Switch Only	Totally Enclosed	60—3450	230/460	37	49-754	52-033
Three Phase,	Push Button and Overload Switches	Totally Enclosed	60—3450	230/460	43	49-755	52-034
1/2 Horsepower	Push Button Switch and Magnetic Starter	Totally Enclosed	60—3450	230/460	39	49-756	52-035
	Push Button Switch and Magnetic Starter (w/115V Transformer)	Totally Enclosed	60—3450	230/460	43	†49-757	52-036

NOTE: Single phase dual-voltage electricals will be supplied wired for 115 V, unless 230 V is specified. Three phase dual-voltage electricals will be supplied wired for 230 V, unless 460 V is specified. Power Cord and Plug supplied for a single phase only. †No. 49-000 "JIC" Type

Control Kit. Specify this Catalog Number, in addition to Three Phase Cat. No. 49-757, in order to obtain TG-3 TOOLMAKER Grinder with "JIC" type electricals, factory mounted and wired.

MACHINE DATA

Table

	Table
	Ground Work Surface 5¾" x 13"
	T-Slot (One)
	Longitudinal Travel (Rack and Pinion)
	Ways (Teflon Lined)One Flat and One V
	Height from Floor40"
1	Cross Slide
	Transverse Travel (Covered Lead Screw)""
	Micrometer Collar

Head (On 4" Column with Key and Gib)	
Vertical Travel (Covered Lead Screw)	
Down Feed (Zero-Backlash Lead Screw)	
Micrometer Collar	
I	Each Grad0005"
Rotation	360°

Ways.....One Flat and One V

Capacities	
Surface Grinds 6 x 13	3", With 13" Under 7" Whee
Max. Dia. Cutter Sharpens	
Determine #Combons	TATTAL Com TATA and 0"

Spindle Ball Bearings.....Oil E

FILL STATE OF THE
Ball BearingsOil Bath, Preloaded, Angular Contact
Wheel Adapter (Mounts on Spindle Nose Taper)
Takes Wheels With Hole14"
Has Flanges for
Straight Wheel 7 x ½"
Cup Wheel4 x 11/2"
Dish Wheel
Speeds (With 3450 RPM Motor) 3300, 3700 and 5600 RPM

	Delta No. 6 Frame,	Totally	Enclosed
Overall Dimensions			

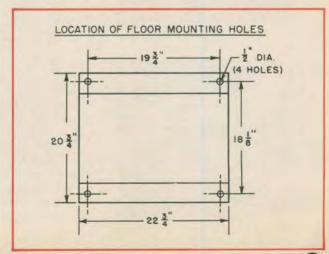
Height		"
Width (Table	in Center Position)34	17

 Cabinet Base Dimensions
 22¾"

 Width
 22¾"

 Front to Rear
 20½"

*Accessory Item



ROCKWELL DELTA TG.3 TOOLMAKER GRINDERS

YOU CAN DO ALL THESE OPERATIONS WITH ROCKWELL DELTA TG-3 TOOLMAKER GRINDERS:

TOOL AND CUTTER GRINDING



Grinding a spiral milling cutter.



Grinding a reamer.



Sharpening a 16" carbide-tipped saw blade using the 24-955 Unihead.



Grinding an angular cutter using the 24-955 Unihead.

SURFACE GRINDING



Grinding a precision surface on flat stock (magnetic chuck not sold by Rockwell).



Applying a perfectly true, smooth finish to a part (magnetic chuck not supplied by Rockwell).

SINGLE POINT TOOL GRINDING



Using a diamond wheel to grind the chip-breaker groove on a tool bit using the 24-902 Univise.



Grinding a new cutting edge on a carbide-tipped tool bit using the 24-902 Univise.

Practically every conceivable grinding or sharpening operation can be accomplished with Rockwell Delta TG·3 TOOL-MAKER Grinders. Why? Because Rockwell offers you a selection of three individual machines, designed specifically for tool and cutter grinding, surface grinding or chip-breaker grinding. These machines come equipped with specially designed and patented work holding devices—Tool and Cutter Grinding Attachment, Unihead and Univise—that are unmatched in flexibility and versatility. You can set them at any angle or position to handle practically any grinding or sharpening job. And there are dozens of other cost-saving accessories, too.

Add up all of these benefits and you will agree that Rockwell Delta TG·3 TOOLMAKER Grinders deserve a place in your operation.

ROCKWELL DELTA TG.3 TOOLMAKER GRINDERS

MOTOR AND BELT REPLACEMENT PARTS

No. 24-800 consists of ½ HP, 115/230 V, single phase motor; motor pulley and 49-085 Belt, balanced together for field installation, 32 lbs.

No. 24-803 consists of ½ HP, 230/460 V, three phase motor; motor pulley and 49-085 Belt, balanced together for field installation. 32 lbs.

No. 24-802. Same as 24-803 except 575 V. 32 lbs.

No. 49-085 Flat Belt, ¾" wide, 35" OC.

DELTA QUALITY ACCESSORIES THAT MAKE TG·3 TOOLMAKER GRINDERS UNMATCHED IN VERSATILITY

No. 24-807 Wheel, 7 x ½", aluminum oxide, 1¼" hole, for soft material, balanced to within 1/8-ounce inch. 2 lbs.

No. 24-808 Wheel, 7 x ½", aluminum oxide, 1¼" hole, for hard material, balanced to within 1/8-ounce inch. 2 lbs.

No. 24-973 Standard Dish Wheel, Type 12, $6 \times \frac{1}{2} \times \frac{5}{16}$ ", aluminum oxide, $1\frac{1}{4}$ " hole, 5 lbs.

No. 24-974 Standard Cup Wheel, Type 11, $4 \times 1\frac{1}{2}$ ", aluminum oxide, $1\frac{1}{4}$ " hole, 5 lbs.

No. 24-820 Adapter for wheels with 14" hole. Has 215/2" flange for straight wheels, 4 x 1½" type 11 cup wheels and 6 x ½ x 5/16" type 12 dish wheels, plus a 27/32" flange for 3½ x 1½" cup wheels. Same as adapter supplied with 24-150 Surface Grinder, except has holes and slots needed for use with 24-823 Coolant Attachment. Order extra adapters for each kind of wheel to be used to obviate centering or dressing wheel each time it is mounted on spindle. 2 lbs.

No. 24-805 Diamond-pointed Wheel Dresser, with $\frac{7}{16} \times 2''$ body. $\frac{1}{2}$ lb.



No. 25-857 Lamp Attachment, for 115 V. Includes 18" flexible gooseneck, reflector and 8-foot cord with 2-prong plug. Uses standard bulb (not included) up to 75 watts, 3 lbs.

No. 24-812 Spindle and Way Oil, Velocite-E. ½ pt. can.

No. 24-819 Attachment Package for Dust Collector. 20 lbs. See Section D1 for complete information.

NOTE: See Section D1 for Dust Collectors recommended for Toolmaker Grinders.

THE UNIHEAD® WITH INDEXING FEATURE IS UNIVERSALLY ADJUSTABLE WORK HEAD

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

Unit consists of a heat treated sleeve arranged with a No. 9 Brown & Sharpe taper accurately mounted in lubricated-for-life ball bearings. The adjustable index stop collar and dog can be disengaged or set in any position that is convenient to the operator. It is equipped with a 12-tooth index collar with selector plate which permits the dog to engage automatically 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 24-822.



No. 24-955 Unihead arranged with sealed-for-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. 23 lbs. No. 24-970 tooth stop unit not furnished. Indexing collars listed below cover a varied range of combination spacing and should be ordered separately as required.

INDEXING COLLARS

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

No. 24-958 Plain, 34-tooth, for 17 and 34 equal spaces. % lb.

No. 24-959 Plain, 33-tooth, for 3, 11 and 33 equal spaces. ¾ lb.

No. 24-960 Plain, 32-tooth, for 2, 4, 8, 16 and 32 equal spaces. ¾ lb.

No. 24-961 Plain, 30-tooth, for 3, 5, 6, 10, 15 and 30 equal spaces. ¾ lb.

No. 24-962 Plain, 28-tooth, for 4, 7, 14 and 28 equal spaces. ¾ lb.

No. 24-963 Plain, 26-tooth, for 13 and 26 equal spaces. ¾ lb.

No. 24-964 Plain, 24-tooth, for 2, 3, 4, 6, 8, 12 and 24 equal spaces. % lb.

No. 24-965 Collar, blank. 34 lb.

ADAPTERS

No. 24-967 Adapter for Unihead with No. 9 B & S outside taper arranged with 1"-8 R.H. threaded end to receive 6" Face Plate (No. 937). 1¼ lbs.

No. 24-968 Adapter for Unihead with No. 9 B & S outside taper arranged with No. 33 Jacobs taper to receive drill chucks. 1¼ lbs.

TOOTH STOP UNIT

The Unihead uses the same tooth stop unit regularly furnished with the Tool and Cutter Grinder Attachment (No. 24-822). 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 (included with No. 24-822 Grinder Attachment). 5 lbs.

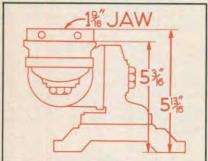
THE UNIVISE® FIRST TRULY UNIVERSAL VISE FOR GRINDING, DRILLING AND MILLING



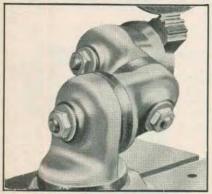
The Univise is a heavy, rigid, massive vise completely universal so that it can be set at ANY angle desired. It is composed of four separate parts, each of which can be rotated and independently set so that there are four separate distinct planes of adjustment. This means that ANY angle desired can be easily and readily obtained. It means, also, that for duplicate grinding the vise can be returned EXACTLY to its original setting. Each part has a circular scale of 360 degrees. Each station is

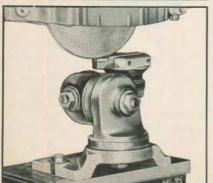
ROCKWELL DELTA TG·3 TOOLMAKER GRINDERS

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 51%6" high, 6" wide and 7¼" long. Jaws take up to 1½" tools. Fits any surface or tool grinder. Has detachable keys in base which can be removed to permit use on a drill press or other machine without table slots, or on a magnetic chuck. No. 24-902 Univise, complete. 16 lbs.



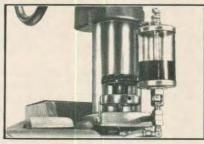






"CENTER MIST" COOLANT ATTACHMENT

With instructions for field mounting on any TG•3 Grinder. Supplied as standard equipment on 24-152 TOOLMAKER Single Point Tool Grinder.

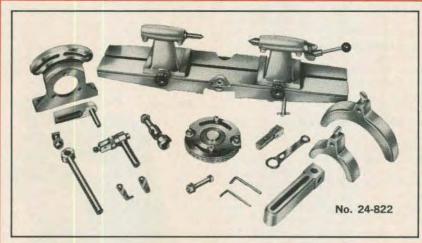


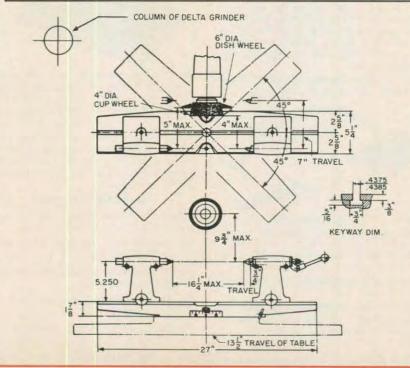
No. 24-823 Coolant Attachment complete with sight gravity feed oiler, coolant line, fittings, 24-820 Wheel Adapter with holes and slots for coolant, and instructions. 5 lbs.

GRINDER ATTACHMENT CONVERTS STANDARD SURFACE GRINDER TO A TOOL AND CUTTER GRINDER

The Tool and Cutter Grinding Attachment is designed and engineered to permit conversion of the basic Toolmaker Surface Grinder for tool and cutter grinding work. This complete attachment, when added to the basic Toolmaker Surface Grinder, provides the workholding features for sharpening many types of small tools and cutters.

No. 24-822 Toolmaker Tool and Cutter Grinding Attachment consisting of swivel table with head and tail stocks and No. 24-970 tooth stop unit, 2 wheel guards and support bracket. Standard on 24-151 Grinder. Can be added to 24-150 and 24-152 Toolmaker Grinders. 70 lbs.





ROCKWELL DELTA 1 HP 10" GRINDER



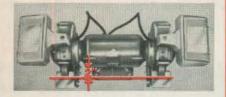


Here's a grinder that is a TOP PERFORMER in any league. Why? Because only the Rockwell Delta 10" Grinder offers:

- A dual voltage, "thin-line" motor that provides a FULL 2" CLEARANCE BETWEEN WHEELS AND MOTOR.
- Fully adjustable tool rests that assure EXTRA VERSATILITY TO HANDLE MANY JOBS.
- An extra safe design that COMPLIES WITH ALL SAFETY CODES.
- Rugged, heavy duty construction for YEARS OF LONG, TROUBLE-FREE SERVICE.

ROCKWELL DELTA 1 HP 10" GRINDER

DELTA QUALITY FEATURES THAT ASSURE LONG, TROUBLE-FREE GRINDER PERFORMANCE



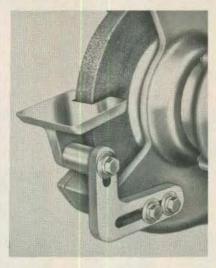
Modern "Thin-Line" Motor: Heavy duty, dual voltage motor is slim in design, providing a full 2" space between wheels and motor, ample clearance for grinding odd-shaped items and long stock. Totally enclosed motor has double sealed ball bearings to keep out harmful abrasive dust. Twin-Lite® Safety Shields may be easily swung out of the way, yet are instantly available when required.



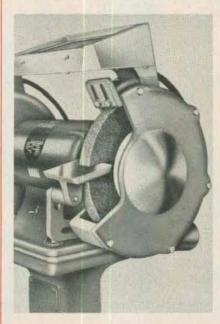
Famous Twin-Lite* Safety Shields: Designed to operate independently of the shop lighting system, they have no equal. Double strength, shatterproof glass safeguards operator's eyes. Special spring clips prevent rattle. Bayonet type bulbs stay tight and are shielded to prevent glare. Ideally placed, they throw a full flood of light on both sides and face of wheel without casting any shadow.



Handy Water Pot: Included as standard equipment is the conveniently located water pot. Centrally positioned at the front of the base, it is immediately accessible to the operator, who need not change his position, whether he is using the right- or left-hand grinding wheel.



Many-Purpose Tool Rests: Fully machined tool rests adjust both horizontally and vertically and tilt for exact grinding angle desired. They lock rigidly in place, yet may be quickly removed for accessory attachments. Note wraparound ledges that permit grinding on sides as well as face of wheel.

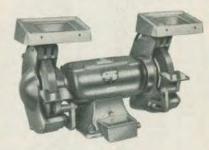


Excellent Safety Features: This new Delta grinder, which complies with all safety codes, is unmatched for safety in design. Shatterproof glass in eyeshields, heavy cast iron guards with integral dust chutes, removable extra thick side plates and adjustable spark deflectors provide for maximum operator safety.

DELTA QUALITY GRINDER EXTRAS

- Motors are dual voltage, re-connectable type.
- Single phase motor is preferred capacitor-start type.





1 H.P. 10" Grinder shown with accessory Twin-Lite® Safety Shields.

Tool rooms, experimental departments, foundries, garages and schools are just a few of the many users who appreciate the new Rockwell Delta 10" Grinder. Why? Because it will capably handle all grinder operations—stock removal...snagging...sharpening of tool bits...shaping of special parts...cleaning of rust and scale...and dozens of additional jobs.

Here's why! This new 10" Grinder incorporates all the right features for quick, easy, efficient operation, year after year.

Only Delta gives you Twin-Lite® Safety Shields, a modern "thin-line" motor, fully adjustable tool rests, plus heavy duty construction throughout.

ROCKWELL DELTA 1 HP 10" GRINDER

MACHINE DATA

Motor:
Horsepower 1
RPM
Shaft: Diameter 34"
Extends beyond Wheel Flange . 21/2"
All Motors, Except 208 V, Are Dual
Voltage With Reconnectable Feature.
Single Phase Motors Are Capacitor
Start Type.
Wheels:
Size.10" Diameter, 1" Face, 34" Hole
Balance 1/8-ounce inch
Distance Between Centers18"
Wheel Flanges, Diameter:
Inner
Outer
Dimensions, Overall, Bench Type:
Height (Without Twin-Lites)124"
Width 24"
Front to Back 13"
Base:
Overall Space on Bench. 8 1/2 x 8 1/2"
Centers of Mounting
Holes
Dimensions, Overall, Pedestal Type:
Height (Without Twin-Lites)46"
Width24"
Front to Back
Base:
Overall Space on Floor: Width.16"
Front to Back14"

STANDARD EQUIPMENT

Grinders are furnished with two wheels balanced to 1/8-ounce inch, wheel guards, spark deflectors, tool rests and water pot. Single phase models are wired for 230V operation and include two-pole on-and-off toggle switch and 8-foot power cable with 230V grounding type tandem blade plug. Three phase models include 16" motor leads for power connections. Twin-Lite® Safety Shields and bulbs must be ordered separately.

Centers of Floor Mounting Holes:

Left to Right......12"

DELTA QUALITY GRINDER ACCESSORIES PROVIDE INCREASED JOB PERFORMANCE

No. 23-817 Aluminum Oxide Wheel, 1"x10", 24 G, P grade, 34" hole, balanced to 1/8-ounce inch. 7 lbs.



No. 23-818 Aluminum Oxide Wheel, 1"x10", 46 G, M grade, 34" hole, balanced to 1%-ounce inch. 7 lbs.

CATALOG LISTING

NO.	TYPE	MOTOR - 1 HP	SPEED RPM	MOTOR SWITCH	SHIPPING WEIGHT
23-100	Bench	115/230V, 60 cycle, Single Phase	1725	Toggle	138
*23-107 *23-108	Bench Bench	230/460V, 60 cycle, 3 Phase 208V, 60 cycle, 3 Phase	1725 1725	None None	127 127
*23-103	Bench	575V, 60 cycle, 3 Phase	1725	None	127
23-127	Pedestal	115/230V, 60 cycle, Single Phase	1725	Toggle	205
§†23-133 §‡23-134	Pedestal Pedestal	230/460V, 60 cycle, 3 Phase 230/460V, 60 cycle, 3 Phase	1725 1725	Starter Starter	205 205
§x23-135	Pedestal	208V, 60 cycle, 3 Phase	1725	Starter	205

*Use No. 49-671 Push Button Switch or 49-838 Manual Starter or 49-665 Magnetic Starter, Integral Push Button Switch 49-842 or Remote Control Push Button Switch 49-672 is required with the magnetic starter. Specify grinder catalog number and voltage when ordering.

§Manual Push Button Starter is shipped mounted in pedestal, with proper thermal elements for motor overload protection, twith thermal elements for 230V operation.

With thermal elements for 460V operation.

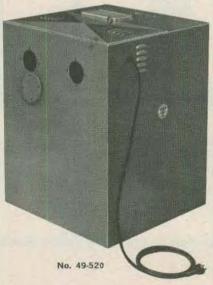
xWith thermal elements for 208 V operation,



No. 23-801 Twin-Lite® Safety Shield (two required), with mounting block and ½" box connector. Without bulbs. (Order one No. 49-330 Switch when Twin-Lites® are to be used on a three phase grinder.) 5 lbs.

No. 23-280 (old 1280) Appliance Type Bulb, clear glass, 25 watt, 115-125V, with double contact bayonet ("plug-in") base. Four required, ¼ lb.

No. 23-805 Pedestal. Used to convert 10" Bench Grinder to pedestal type. 67 lbs.



No. 49-520 Dust Collector for single phase operation, ¼ HP, 115/230V, 60 cy, 3450 rpm. Includes on-and-off switch, switch rod, 115V 8-foot cord and 3-prong grounding type plug, mounted and wired. 95 lbs.

No. 49-527 Motor Driven Dust Collector for three phase operation, ½ HP, 230/ 460 V, 60 cy, 3450 rpm. Includes 3-pole on-and-off switch, switch rod and 8-foot 4-conductor grounding type cord, wired to switch for 230 V. Less plug. 97 lbs.

No. 49-529 Extra Standard Filter for dust collector, 7 lbs.

No. 49-531 Holder with two expanded fiber filter pads for dust collector. Recommended for fine dust. 12 lbs.

No. 23-802 Attachment Package for dust collectors. 7 lbs.



No. 23-294 (old 1294) Edge Tool Grinding Attachment. For sharpening plane irons, wood chisels, etc., up to 3½" wide. See Page 3, Section C3 for complete description. 6 lbs.



No. 23-664 (old 1664) Wheel Dresser Holder. Used with No. 23-312 Wheel Dresser. 4 lb.

No. 23-312 (old 3121) Diamond Pointed Wheel Dresser. Should be used with No. 23-664 Holder. 1 lb.

No. 49-330 Two-Pole Toggle Switch, one hole mounting, bat type lever. Required for separate on-and-off control of No. 23-801 Twin-Lites® when used on three phase grinders, 1/4 lb.

See the Complete Rockwell Delta Quality Grinder Line Today!



ROCKWELL 6" EDGE TOOL BENCH GRIND-ER. Ideal for general grinding. Perfect for sharpening edge tools up to

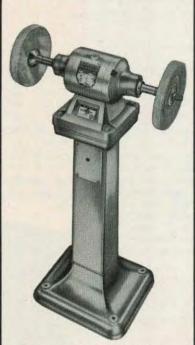
Rockwell 1/3 HP 6" Grinder. A low-cost grinder that's perfect for grinding, buffing and polish-



ROCKWELL DELTA 1 HP 10" GRINDER. Heavy duty motor and extra capacity make it excellent for every grinding or buff-ing job.



ROCKWELL DELTA 1/2 HP 7" STANDARD GRINDER. Excellent for all general purpose grinding in every shop.



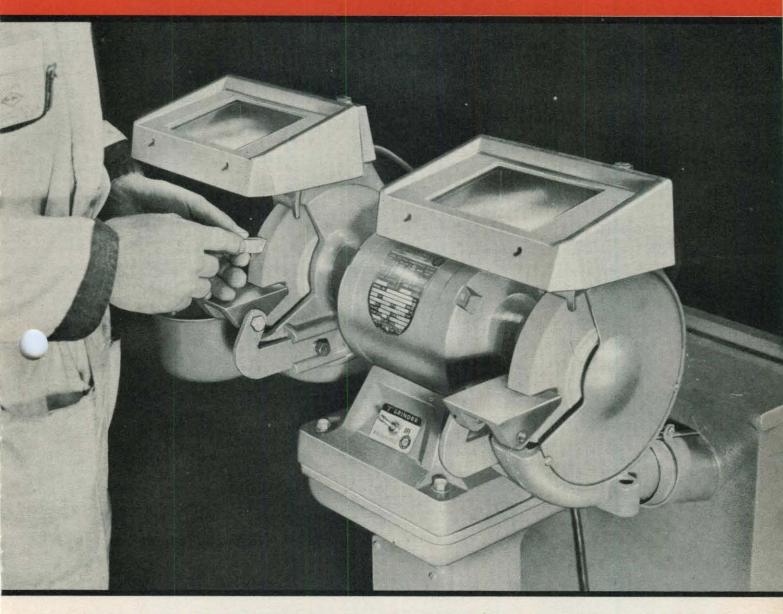
ROCKWELL DELTA 1/2 HP LONG SHAFT BUFFER. Offers extra room for all buffing, cleaning and polishing operations.



ROCKWELL DELTA 1/2 HP 6" TOOL GRINDER. For grinding carbide-tipped and high-speed single point cutting tools.



ROCKWELL DELTA 7"STANDARD GRINDER



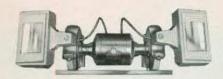
Check any toolroom, experimental department, production line or school shop, and it is quite likely that you will see a Rockwell Delta 7" Standard Grinder in action. Why? Because its built-in quality and

accuracy of performance, together with its unsurpassed safety features, have made it the accepted standard on the market.

Let us PERFORMANCE-PROVE it for you today!

ROCKWELL DELTA 7" STANDARD GRINDER

DELTA QUALITY FEATURES
THAT MAKE THE
7" STANDARD GRINDER
YOUR BEST BUY!



"Thin-Line" Motor: The slim design of the motor, combined with the extra long end bells, assures ample clearance for grinding odd-shaped items and long stock. Totally enclosed, it incorporates double sealed ball bearings, plus an extra seal, to keep out harmful abrasive dust. Note how Twin-Lite® Safety Shields may be easily swung out of the way, yet are instantly available when required.



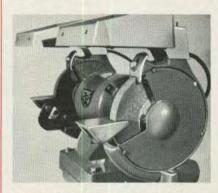
Famous Twin-Lite® Safety Shields: Designed to operate independently of the shop lighting system, they have no equal. Double strength, shatterproof glass safeguards operator's eyes. Special spring clips prevent rattle. Bayonet type bulbs stay tight and are shielded to prevent glare. Ideally placed, they throw a full flood of light on both sides and face of wheel without casting any shadow.



Precision Ground Tool Rests: These fully machined tool rests feature a single mounting screw that locks them rigidly in place, yet they may be quickly removed for accessory attachments. They adjust completely for the exact grinding angle desired. Note the special ledges that permit grinding on both sides as well as the face of the wheel.



Specially Designed End Bells: Unique End Bell Hubs are oval in cross section—thick from top to bottom for extra rigidity—thin from front to back to give an extra measure of room for manipulating odd-shaped work pieces. These hubs extend out extra far, provide more room between the grinding wheel and the motor.



Advanced Safety Features: This unmatched combination of safety features makes the Rockwell Delta Grinder the safest 7" grinder on the market! Shatterproof glass in patented eyeshields, heavy cast iron guards with integral dust chutes, removable steel side plates, and adjustable spark deflectors provide maximum safety to the operator.

DELTA QUALITY GRINDER EXTRAS

- Single phase, 115/230 V motor is capacitor start type requiring low starting current—won't dim lights like split-phase motors.
- Balanced motor, and wheels which are balanced to within ¼-ounce inch, assure extra smooth operation.
- Large, over-size wheel flanges eliminate wheel breakage, meet ASA safety code specifications.
- Wheel guard chutes utilize the natural fan action of the grinding wheels, make installation of dust collectors an easy job.
- Handy water pot conveniently mounts on either side.



No. 23-220 Pedestal Model 7" Standard Grinder equipped with accessory Plane Blade Grinding attachment.



No. 23-200 Bench Model 7" Standard Grinder.

Here's the Finest, Safest, Most Accurate 7" Grinder That You Can Buy! Why? Because it has built into it all the famous Rockwell Delta Quality features that have made Delta 7" grinders the accepted standard in thousands of the nation's shops for more than 25 years.

Check it feature for feature with any other 7" grinder on the market. Listen to its quiet, smooth operation. You'll see why leaders in industry, schools and commercial shops continually make it their first choice!

STANDARD EQUIPMENT

Grinders are furnished with a water pot, Twin-Lite® safety shields, wheel guards, tool rests and two wheels. Single phase models are wired for 115V operation and include on-and-off switch with 115V 8-foot grounding cord and 3-prong plug.

Note: Four No.23-280 Lamp Bulbs must be ordered separately.

ALSO MADE IN CANADA



ROCKWELL DELTA 7" STANDARD GRINDER

MACHINE DATA

Pedestal Type:

Width 231/4"; D	epth15
Height	
Tool Rest From Base	
Bench Type:	
Race	914" - 914"

Base
Width 23 1/4" Depth 11"
Height
Tool Rest From Base6%"

CATALOG LISTING

NO.	TYPE	MOTOR ½ HP	SPEED RPM	MOTOR SWITCH	WT. LBS.
23-200	Bench	115/230V, 60 cy, Sgl. Ph.	1725	Toggle	80
23-201	Bench	115/230V, 60 cy, Sgl. Ph.	3450	Toggle	80
23-202	Bench	115/230V, 50 cy, Sgl. Ph.	2850	Toggle	88
§23-206	Bench	230/460V, 60 cy, 3 Ph.	3450	*None	75
§23-207	Bench	230/460V, 60 cy, 3 Ph.	1725	*None	79
§23-208	Bench	208V, 60 cy, 3 Ph.	3450	*None	75
§23-209	Bench	208V, 60 cy, 3 Ph.	1725	*None	79
23-220	Pedestal	115/230V, 60 cy, Sgl. Ph.	1725	Toggle	147
23-221	Pedestal	115/230V, 60 cy, Sgl. Ph.	3450	Toggle	147
23-222	Pedestal	115/230V, 50 cy, Sgl. Ph.	2850	Toggle	147
•23-223	Pedestal	208V, 60 cy, 3 Ph.	3450	*Starter	150
†23-224	Pedestal	230/460V, 60 cy, 3 Ph.	3450	*Starter	149
‡23-225	Pedestal	230/460V, 60 cy, 3 Ph.	3450	*Starter	146
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§Use No. 49-671 Push Button Switch or 49-838 Manual Starter or 49-665 Magnetic Starter, Integral Push Button Switch 49-842 or Remote Control Push Button Switch 49-672 is required with the Magnetic Starter. Specify grinder catalog number and voltage when ordering starter

*Separate toggle switch is furnished for Twin Lites®.

†With thermal elements for 230V operation.

‡With thermal elements for 460V operation.

.With thermal elements for 208V operation,

CONVENIENT ALL-INCLUSIVE NUMBERS

No. 23-240 Bench Grinder, same as No. 23-200, except includes No. 23-294 (old 1294) Edge Tool Grinding Attachment. 86 lbs.

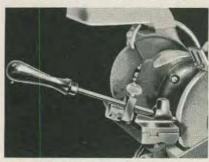
No. 23-244 Pedestal Grinder, same as No. 23-220, except includes 23-294 (old 1294) Edge Tool Grinding Attachment. 153 lbs.

DELTA **QUALITY ACCESSORIES**

No. 23-267 (old 1267) Vitreous Alumi-

num Oxide Wheel, % x 7", 46 G, Grade N, %" hole. Special friable wheel for cool grinding of drills, plane blades, chisels,

No. 23-815 Aluminum Oxide Wheel, 1 x 7", 60 G, Grade N, %" hole. 4 lbs. No. 23-816 Aluminum Oxide Wheel, 1 x 7", 46 G, Grade M, 5%" hole. 4 lbs.



No. 23-312 (old 3121) Diamond Pointed Wheel Dresser. For dressing all types of general grinding wheels. Diamond is securely held. Sturdy tool is 91/2" long with a comfortable handle. 1 lb.

No. 23-664 (old 1664) Holder for Diamond Wheel Dresser. Used with No. 23-312 Wheel Dresser. 4 lb.



(A) No. 23-825 8" Buffing Wheel for %" arbor, 3/4" face, 48 ply, fine muslin, cushion type with three circles of lockstitched sewing. Includes one pair of toothed flanges for %" arbor and instructions for use. A professional quality, general purpose buff recommended for light cutting down and for finish coloring. 1 lb.

(B) No. 23-632 (old 1236) Wire Brush, 6" diameter, fine, 5%" hole. 1 lb.

(C) No. 23-637 (old 1237) Wire Brush, 6" diameter, medium, 3/8" hole. 1 lb.

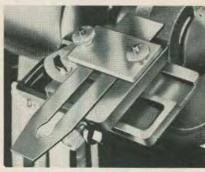
(D) No. 23-638 (old 1238) Wire Brush, 6" diameter, coarse, %" hole. 1 lb.



No. 23-025 (old 1250) Twin-Lite® Safety Shield (two required). Without bulbs.

No. 23-280 (old 1280) Appliance Type Bulb, clear glass, 25 watt, 115-125V, with double contact bayonet ("plug-in") base. ½ lb.

No. 23-805 Pedestal. Used to convert 7" Standard Bench Grinder to a pedestal type. 67 lbs.



No. 23-294 (old 1294) Edge Tool Grinding Attachment. Ideal for school shops, cabinet shops, and all types of woodworking shops. Although especially recommended for sharpening plane irons, this attachment also does an excellent job of grinding wood chisels, putty knives, scrapers and similar items up to 31/4" wide. See Page 4, Section C6 for applications.

Slide is notched for wooden handles of wood chisels, including "butts" which have a very short chisel blade. Adjustable quadrant permits accurate grinding of angle knives, assures absolute right angle position for straight knives. Knurled nut gives hairline adjustment for amount of "cut." Blade or chisel being ground can be lifted off and inspected at any time without disturbing the micrometer adjustment of clamp and carriage. No. 23-267 Vitreous Aluminum Oxide Wheel is recommended. Can be used with No. 23-312 Diamond Wheel Dresser instead of No. 23-664 Wheel Dressing Tool Holder. 6 lbs.



No. 23-296 (old 1296) Drill Grinding Attachment. So accurately made and easy to operate that anyone can do a perfect drill sharpening job. Grinds with the face of the wheel. 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. With it you can grind straight shank twist drills to fit your job-with clearance and point angles at any degree you need. Capacity-1/8" to 1/8" drills. Furnished with No. 23-664 Holder for Wheel Dresser. Order No. 23-312 (old 3121) Diamond Wheel Dresser separately. 12 lbs.

ROCKWELL DELTA 7" STANDARD GRINDER

DELTA ACCESSORIES-continued

No. 23-292 (old 1292) Motorless, Gravity Type Dust Collector for pedestal grinder. A self-contained unit that need not be connected to the shop blower system. No power is required. Efficient filters trap virtually all of the fine dust. Complete with filter, bracket and screws. 29 lbs.

No. 23-293 (old 1293) Replaceable Filter for above. 3 lbs.

No. 49-520 Motor Driven Dust Collector for single phase operation, ½ HP, 115/ 230V, 60 cy, 3450 rpm. Includes on-andoff switch, switch rod, 115V 8-foot cord and 3-prong grounding type plug, mounted and wired. 95 lbs. No. 49-527 Motor Driven Dust Collector for three phase operation, ½ HP, 230/460 V, 60 cy, 3450 rpm. Includes 3-pole on-and-off switch, switch rod and 8-foot 4-conductor grounding type cord, wired to switch for 230 V. Less plug. 97 lbs.

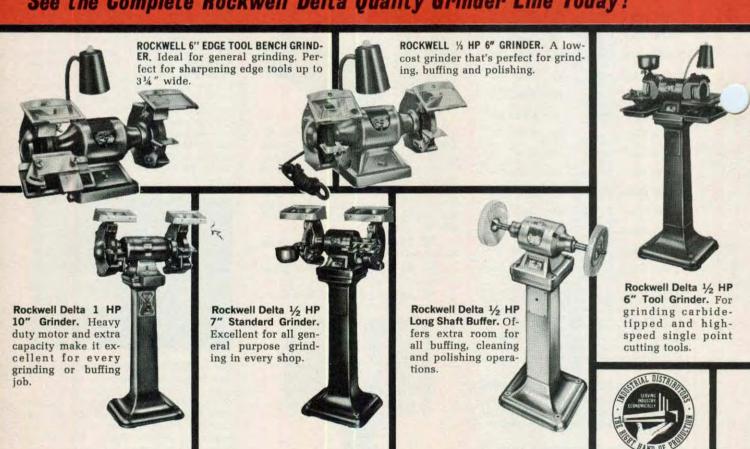
No. 49-529 Extra Standard Filter for motor driven dust collector. 23 lbs.

No. 49-531 Holder with two expanded filter pads for motor driven dust collector. Recommended for fine dust. 12 lbs.

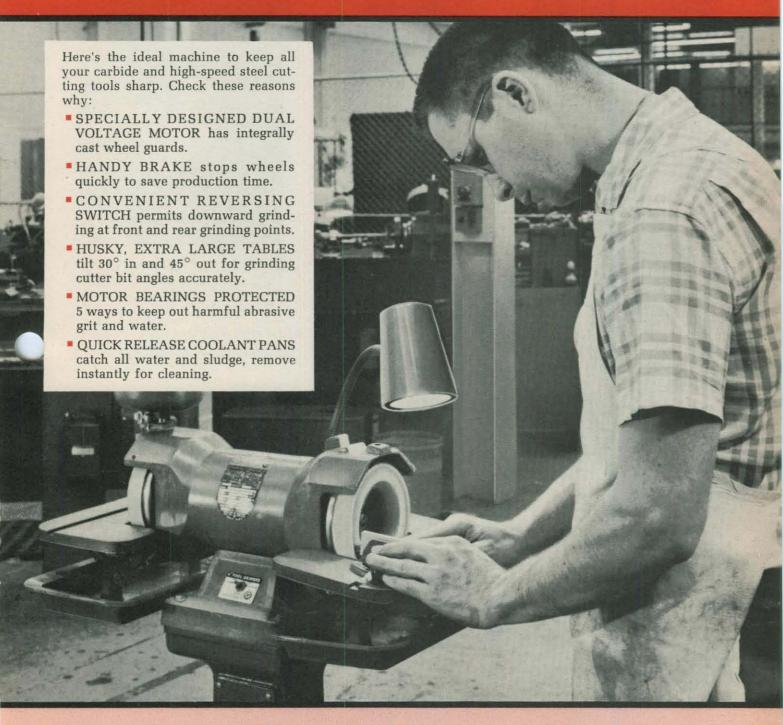
No. 23-802 Attachment Package for motor driven dust collectors. 7 lbs.



See the Complete Rockwell Delta Quality Grinder Line Today!



ROCKWELL DELTA 6"TOOL GRINDER

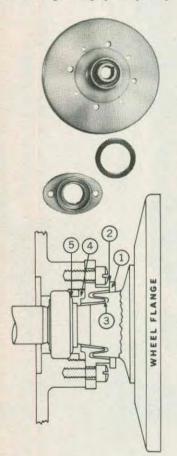


ROCKWELL DELTA 6" TOOL GRINDER

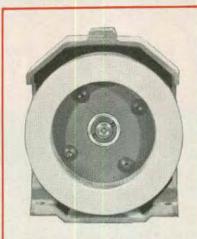
DELTA QUALITY FEATURES THAT ASSURE PRECISION GRINDING PERFORMANCE



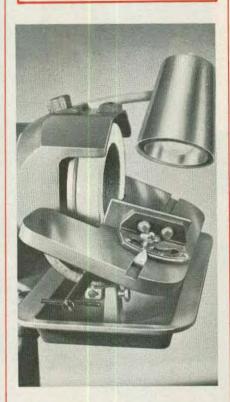
Specially-Designed Motor: Totally enclosed motor has heavy, integrally cast end bells which double as husky, safe wheel guards. All motors are dual voltage, re-connectable type. Single phase motors are powerful capacitor-start type that won't dim lights and that reach full grinding speed quickly.



Motor Bearings Protected 5 ways: It is impossible for water or abrasive grit to reach the motor bearings. Here's why:
(1) Neoprene slinger washer throws water off by centrifugal force. (2) Positive contact of washer against seal closes opening to labyrinth. (3) Labyrinth type, centrifugally designed bearing seal interlocks with wheel flange.
(4) Space between labyrinth seal and motor bearing is packed with grease.
(5) Actual motor bearing is sealed as final protective measure.



Wheel Centering Ring (Shown in Place): A ring is provided to automatically center wheels when mounted. Flanges have two sets of mounting holes, one for silicon-carbide or aluminum-oxide wheels and one for diamond wheels.



Husky, Extra Large Tables: Made of cast iron, they ride on widely spaced trunnions for maximum rigidity in operation. Easy-to-read scales at both ends facilitate tilting to 30° in and 45° out for grinding cutter bit angles easily, accurately and safely. A ½ x ¾ 6" groove accommodates jigs and fixtures. Wheel changing is easy because tables lift off machine without need for using wrenches.



Handy Brake; Convenient Reversing Switch: Positive brake quickly stops wheels to save valuable production time. Switch instantly reverses wheel rotation so wheel is turning downward at both front and rear grinding points. Therefore, operator's hands are always safely placed outside and away from upward traveling face of wheel.



Quick-Release Coolant Pans: Designed to catch all water and sludge. Knurled knobs permit their quick removal for washing away from grinder. This saves operator's time, also keeps machine and working area clean and dry for added safety.

ROCKWELL DELTA 6" TOOL GRINDER

DELTA FEATURES-continued



Specially Designed Sliding Angle Jig (Standard Equipment): Tilt angle scale, with adjustable pointer, facilitates accurate grinding of compound angles up to 45°, right or left. Movable face plate can be adjusted to bring support of cutting tool as close to wheel as desired. This feature assures better grinding with greater safety for the operator.



Diamond Pointed Wheel Dresser: This accessory dresses aluminum oxide and silicon carbide wheels. With the aid of the Wheel Dressing Tool Holder, it quickly sharpens the face of the wheel and trues it exactly parallel to table groove. Thus, tool bits can be sharpened to exact specifications.

DELTA QUALITY GRINDER EXTRAS

- To assure smooth, vibration-free operation, aluminum wheel flanges are dynamically balanced, then faced off after assembly. Light in weight, they permit quicker starting and stopping.
- Lamp Attachment has a flexible gooseneck for providing a full flood of light at the four grinding points. Nylon cool-shield on lamp prevents burned fingers.
- Handy Water Pot With Faucet conveniently mounts on either side. A tapered brass mounting post securely holds it in place.
- Balanced motor, and wheels which are balanced to within ¼-ounce inch, assure extra smooth operation.



If you grind or lap carbide-tipped tool bits or sharpen either high-speed steel or alloy steel single-point cutting tools, the Rockwell Delta 6" Tool Grinder is the ideal machine for you.

As a Small Shop Owner You Can Do Your Own Grinding Economically and Quickly, Right in Your Own Shop, the Way You Prefer. It reduces operating costs because it makes possible internal grinding, therefore, a smaller investment in tools is required. It increases production. There's no loss of production time because tools are ground right in the plant. It increases efficiency. Tools can be sharpened to exact specifications without delay.

As a Large Shop Owner You Can Use the Rockwell Delta 6" Tool Grinder to Relieve the Bottleneck on Your Larger Grinders. When the tool room has your large grinders tied up, you can use the Delta Grinder to handle the smaller jobs. The use of smaller grinding wheels will save dollars in wheel costs, particularly when diamond wheels are used.

As a School Shop Instructor You Can Teach Accurate Grinding on the Rockwell Delta 6" Tool Grinder. When you ask your students to grind a specific rake, clearance, or point angle, there will be no guesswork on their part. They can get it by setting the table and the sliding angle jig. Their work will have a single face, not many faces. Your students' work will meet the high standards you demand.

With a Rockwell Delta 6" Tool Grinder You Can Sharpen Tools to Your Specifications. As a toolmaker, model maker, lathe operator or maintenance man, you can do precision grinding or diamond finishing of carbide-tipped tool bits, high-speed, alloy steel or carbon steel single-point cutting tools right in your plant to keep work moving through your shop. This inexpensive grinder also is ideal for sharpening boring bars, star drills, blades, and for roughing multiple point tools.

MACHINE DATA Motor:

Horsepower
Totally Enclosed (TENV)
All Motors are Dual Voltage with Re-
connectable Feature.
Single Phase Motors are Capacitor
Start type.
Wheels Recommended:
Size: 6" Diameter, 1" Thick, 1" Face,
with 1¼" Hole
Type: Plate Mounted (D6A2C Dia-
mond Wheels)
Bolt Circle
Holes in Plate (4)
For Diamond Wheels %2", Coun-
tersunk
For Sil. Carb. and Alum. Ox.
Wheels 13/32", Straight
Wheel Flanges:
6" Diameter Tapped for Mounting

6" Diameter, Tapped for Mounting Wheels

Aluminum, Dynamically Balanced

ables:	
Tilt	45° Out and 30° In
Size	71/4 x 123/4 '
Groove for S	Sliding Angle
Tig	

Dimensions, Overa	II, Benci	h Type	
Height (Without	Lamp).	*****	.1414"
Width 24 34 "	Front		
Base			
Overall Space	on Ren	ch 81%	v 81/6"

Height (Without Lamp)471/4"

Width 24 34 "	Front to Back 15"
Base	
Overall Space	on Floor
Width 16"	Front to Back 14"
Centers of Flo	oor Mounting Holes
Left to Righ	t
	ck

CATALOG LISTING

NO.	TYPE	MOTOR-½ HP	SPEED RPM	SHIP. WT. LBS.
23-501	Bench	115/230 V, 60 Cy, Sgl. Ph.	3450	85
23-502	Bench	230/460 V, 60 Cy, 3 Ph.	3450	85
23-504	Bench	5/5 V, 60 Cy, 3 Ph.	3450	85
23-509	Bench	208 V, 60 Cy, 3 Ph.	3450	85
23-521	Pedestal	115/230 V, 60 Cy, Sgl. Ph.	3450	152
23-522	Pedestal	230/460 V, 60 Cy, 3 Ph.	3450	152
23-524	Pedestal	208 V, 60 Cy, 3 Ph.	3450	152

STANDARD EQUIPMENT

All models have one each lamp attachment, water pot, sliding angle jig and on-and-off reversing switch. Single phase models are wired for 115 V operation and include 115 V 8-foot grounding cord and 3-prong plug. Note: When overload protection is desired, use No. 49-669 Overload Switch. Specify grinder catalog number and voltage when ordering switch.

ROCKWELL DELTA 6" TOOL GRINDER

DELTA QUALITY ACCESSORIES FOR INCREASED GRINDER VERSATILITY

No. 23-661 (old 1661) Wheel, $1 \times 6''$, 60' grit, silicon-carbide, grade H 12, 1" face, $1\frac{1}{4}$ " hole. 4 lbs.

No. 23-662 (old 1662) Wheel, 1 x 6", 120 grit, silicon-carbide, grade H 12, 1" face, 11/4" hole. 4 lbs.

No. 23-841 Wheel, 1 x 6", 46 grit, aluminum-oxide (for roughing), grade G, 1" face, 1¼" hole. 4 lbs.

No. 23-842 Wheel, 1 x 6", 80 grit, aluminum-oxide (for finishing), grade J, 1" face, 1\%" hole, 4 lbs.

No. 23-805 Pedestal, for converting 6" Bench Grinder to pedestal type. 67 lbs.



No. 23-312 (old 3121) Wheel Dressing Tool, diamond pointed. 1 lb.

No. 23-664 (old 1664) Holder, for Diamond Wheel Dresser, 4 lbs.



No. 25-857 Lamp Attachment, for 115 V. Includes 18" flexible gooseneck, reflector and 8-foot cord with 2-prong plug.

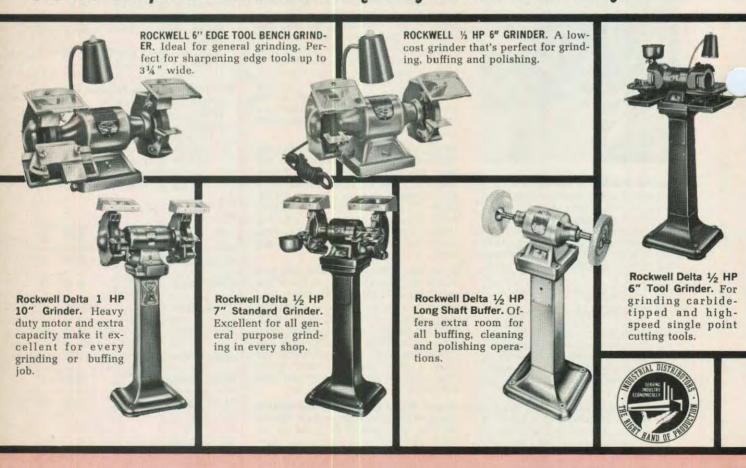
Uses standard bulb (not included) up to 75 watts. 3 lbs.

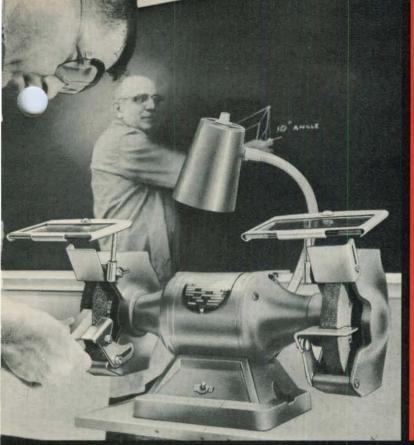
No. 23-663 (old 1663) Water Pot, with faucet. Same as furnished with machine, 2 lbs.



No. 31-804 Sliding Angle Jig. Same as furnished with machine. 2 lbs.

See the Complete Rockwell Delta Quality Grinder Line Today!





ROCKWELL 6"BENCH GRINDER

- It's so Low in Cost, every shop owner can afford it!
- It's so Ruggedly Built, it will stand up day after day, year in and year out!
- It Performs so Well, it answers the grinding needs of every user!



MEETS ALL INDUSTRIAL REQUIREMENTS . IDEALLY SUITED FOR SCHOOL SHOPS

ROCKWELL 6" BENCH GRINDER

ROCKWELL QUALITY FEATURES ASSURE SMOOTH GRINDER PERFORMANCE



Shatterproof Eyeshield ... Each specially designed eyeshield contains two sections of shatterproof glass that are completely enclosed within a protective metal frame. Mounting post provides additional positioning flexibility.

Benefit: Shatterproof eyeshield safeguards operator's eyes while providing complete positioning flexibility for grinding on front or sides of wheel.



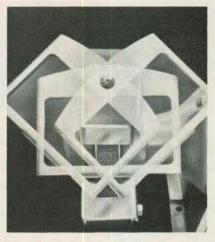
Thin Motor Design ... Heavy duty motor is thin in design and completely enclosed.

Benefits: You have ample clearance for grinding long stock, even after wheel wear. Totally enclosed motor, which has shielded, lubricated-for-life ball bearings, keeps out harmful abrasive dust.



Small End Bells ... The long, tapered end bells provide an extra amount of room between the motor and grinding wheel.

Benefit: You have ample clearance for grinding large or odd-shaped work pieces easily and quickly.



Flexible Eyeshields ... Fully adjustable, they move up, down, left or right, to any desired position.

Benefit: You can position eyeshields to the exact angle desired for safe, accurate grinding.



Fully Adjustable Tool Rests ... Adjust both horizontally and vertically ... tilt for exact angle desired. Designed with wrap-around ledges.

Benefits: Complete adjustability feature enables you to position rests at any grinding angle desired. Wrap-around ledges permit grinding on sides as well as face of wheel.



Designed for Safety ... Maximum safety is guaranteed by the shatterproof eyeshields, adjustable spark deflectors, cast iron wheel guards and removable end plates.

Benefits: The Rockwell 6" Bench Grinder complies with all safety codes—U.L., C.S.A. and A.S.A.—provides maximum safety for the operator.

ROCKWELL QUALITY GRINDER EXTRAS

- Rugged Motor Design—Built for heavy duty grinding in industrial, commercial and school shops.
- Quick-Mounting Eyeshields—Can be mounted in a few minutes without requiring any disassembly of grinder.
- Excellent Bearing Construction—Large, lubricated-for-life ball bearings assure smooth grinder performance.
- Wheel Guards Quickly Removed—Enable grinder to be quickly converted for use as a buffer or polisher.
- Precision Balanced Wheels—Balanced to within %-ounce inch to assure extra smooth running—36 grit wheel for coarse grinding—60 grit wheel for fine grinding.
- Three Conductor Cord—8-foot, jacketed type cord with 3-prong grounding type plug, is U.L. and C.S.A. approved.
- Lamp Mounting Feature—Grinder base is drilled and tapped for mounting accessory Lamp Attachment.
- Many Accessories Available—Only Rockwell offers a complete line of accessories for increased grinder performance.



ROCKWELL 6" BENCH GRINDER



This Rockwell 6" Bench Grinder is an all-purpose unit . . . excellent for grinding, polishing and buffing. It's ideally suited for use in tool rooms, experimental departments, foundries, garages, on farms, and in school and home workshops. Here's why: Its accuracy is insured by the balanced grinding wheels, a precision ground shaft and sealed-for-life ball bearings. Maximum safety is guaranteed by such features as adjustable spark deflectors, cast iron wheel guards, removable end plates and fully adjustable tool rests. Shatterproof eyeshields and lamp attachment provide additional operator safety. Only that portion of the grinding wheel being used is actually exposed.

Increase the efficiency of your operation. Place one of these low-cost, versatile grinders at every bench in your shop!

MACHINE DATA

Motor:
Horsepower
Volts
RPM3450
Arbor %" Dia Ends Threaded 1/2"-20 Left and Right
Wheels:
Size6" Diameter, ¾" Face, ½" Hole
Balance%-Ounce Inch
Distance Between Centers
Wheel Flanges:
Diameter
Dimensions, Overall:
Left to Right
With Eyeshields
Without Eveshields
Front to Rear
Height9%"
Base:
Width
Front to Back
Mounting Holes (2), Center to Center63%"

STANDARD EQUIPMENT

Grinders are furnished with two wheels (36 and 60 grit), wheel guards, spark deflectors, tool rests, on-and-off switch and 8-foot cord with 115 V grounding type plug. Eyeshields and Lamp Attachment must be ordered separately.

CATALOG LISTING

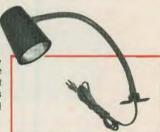
BASIC MACHINE

No. 23-635 6" Bench Grinder. With ½ HP motor, on-and-off switch, 8-foot cord with 115 V grounding type plug, wheel guards, spark deflectors, tool rests and two wheels—36 grit and 60 grit. Less eyeshields and lamp attachment. 41 lbs.

BASIC ACCESSORIES

No. 23-800 Eyeshields. One pair, with brackets and screws. 3 lbs.

No. 25-857 Lamp Attachment, for 115 V. Includes 18" flexible gooseneck, reflector and 8-foot cord with 2-prong plug. Uses standard bulb (not included) up to 75 watts. 3 lbs.



CONVERT YOUR ROCKWELL 6" BENCH GRINDER TO AN EDGE TOOL GRINDER

You can do this simply by replacing the left wheel with the special No. 23-828 Wheel and the left tool rest with the No. 23-845 Edge Tool Grinding Attachment. No. 23-312 Diamond Dresser also recommended.



No. 23-845 Edge Tool Grinding Attachment, Ideal for school shops, cabinet shops, and all types of woodworking shops. Although especially recommended for sharpening plane irons, this attachment also does an excellent job of grinding wood chisels, putty knives, scrapers and similar items up to 3¼" wide. See Page 4, Section C6 for applications.

Slide is notched for wooden handles of wood chisels, including "butts" which have a very short chisel blade. Adjustable quadrant permits accurate grinding of angle knives, assures absolute right angle position for straight knives. Knurled nut gives hairline adjustment for amount of "cut." Blade or chisel being ground can be lifted off and inspected at any time without disturbing the micrometer adjustment of clamp and carriage. No. 23-828 resinoid bonded wheel is recommended. Can be used with No. 23-312 Diamond Wheel Dresser instead of No. 23-664 Wheel Dressing Tool Holder.

No. 23-828 Aluminum Oxide Wheel, ½" x 6", 54 G, Grade K, ½" hole. A specially selected, resinoid bonded wheel recommended for sharpening edge tools at the standard speed of 3450 rpm, or for other work where cool grinding is important, 2 lbs.



No. 23-312 (old 3121) Diamond-Pointed Wheel Dresser. For dressing all types of general grinding wheels. Diamond is securely held. Sturdy tool is 9½" long with a comfortable handle. 1 lb.

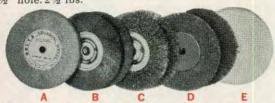
ROCKWELL 6" BENCH GRINDER

ROCKWELL QUALITY ACCESSORIES THAT MAKE THE 6" BENCH GRINDER EVEN MORE VALUABLE

GRINDING, BUFFING, WIRE AND FIBER WHEELS

No. 23-826 Aluminum Oxide Wheel. % x 6", 36G, Grade O, $\frac{1}{2}$ " hole. $\frac{2}{2}$ lbs.

(A) No. 23-827 Aluminum Oxide Wheel, ¾ x 6", 60G, Grade O, ½" hole. 2½ lbs.



(B)No. 23-114 (old 3114) Wire Brush. 6" diameter, fine, 1/2" hole. 1 lb.

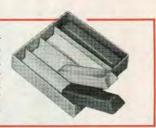
(C)No. 23-113 (old 3113) Wire Brush. 6" diameter, coarse, 1/4" hole 1 lb.

(D)No. 23-511 (old 3115) Fiber Brush. 6" diameter, ½" hole.

(E)No. 23-005 (old 4005) Buffing Wheel. 6" diameter, ½" thick, circular stitching, ½" hole. 2 lbs.

BUFFING COMPOUNDS

No. 23-004 (old 4004) Buffing Compound Kit. Consisting of four ¼ pound bars, with instructions. Includes one each of red rouge, white rouge, emery and tripoli bars. 19 ounces.



No. 23-007 (old 4007) Red Rouge Buffing Compound. One pound bar, with instructions. Recommended for coloring gold, silver and other precious metals. 19 ounces.

No. 23-008 (old 4008) White Rouge Buffing Compound. One pound bar, with instructions. Recommended for cutting down and coloring stainless steel, chromium, nickel plate, brass, aluminum and plastics. 19 ounces.

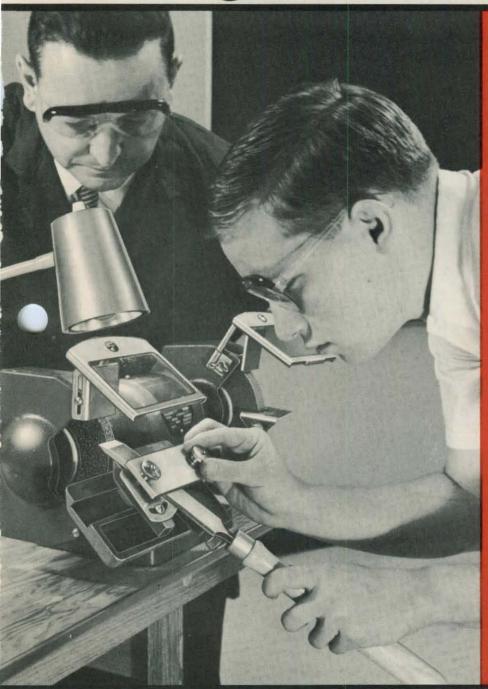
No. 23-009 (old 4009) Emery (Black) Buffing Compound. One pound bar, with instructions. Recommended for coarse polishing to remove rust, scale, scratches and burrs from iron, steel and other hard metals. 19 ounces.

No. 23-010 (old 4010) Tripoli (Brown) Buffing Compound. One pound bar, with instructions. Recommended for cutting down and coloring of aluminum, brass, copper, pewter, plastics, hard rubber, animal horn and wood. 19 ounces.

See the Complete Rockwell Delta Quality Grinder Line Today!



ROCKWELL 6" Edge Tool BENCH GRINDER



Designed Especially for the School Shop

Also ideal for the commercial wood or cabinet shop and the home workshop, too.
Check these Rockwell
Quality-Built Exclusives!

- Big Capacity . . . handles edge tools up to 3¹/₄" wide.
- Straight-Line, Micrometer In-Feed . . . assures that correct clearance angle is always maintained.
- Unique "Butt" Chisel Design Feature . . . accommodates short-bladed chisels with ease.
- Exclusive Built-In Protractor . . . lets the operator pre-set the proper cutting edge angle for angle sharpening.
- Thin Motor Design . . . provides ample clearance for grinding long stock and odd-shaped work pieces.

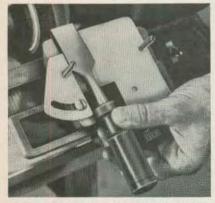
ROCKWELL 6" EDGE TOOL BENCH GRINDER

QUALITY FEATURES THAT
ARE EXCLUSIVE WITH
THE 6" EDGE TOOL
BENCH GRINDER



Straight-Line, Micrometer In-Feed-Only Rockwell offers an Edge Tool Grinding Attachment that precision feeds the cutting tool onto the wheel in a straight line

Benefits: Correct clearance angle is maintained once it is pre-set into the attachment-does not change with infeed like pivoting-type attachments. Work set-up may be removed and inspected at any time without disturbing the micrometer adjustment.



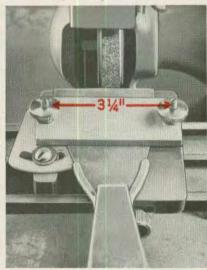
Special Design Facilitates Sharpening "Butt" Chisels—Note that the Rockwell Edge Tool Grinding Attachment contains a special notch in the slide that permits the sharpening of short-bladed chisels or "butts."

Benefit: Only Rockwell offers this special design feature which permits the clamping of "butts" such as wood chisels which otherwise would have to be sharpened free-hand. This feature cuts costs, too, because long-bladed cutting tools can be sharpened, even after the blade has been considerably ground away.



Protractor Makes Angle Grinding Easy— The Rockwell Edge Tool Grinding Attachment includes an angle plate that permits pre-setting the proper cutting edge angle when sharpening special cutting tools like wood skews.

Benefit: Only Rockwell enables you to precision grind the exact compound cutting edge angle perfectly every time. This not only saves time but tools are not ground away unnecessarily due to mistakes by the operator.



Big Capacity-Edge Tool Grinding Attachment accommodates edge tools up to 314" wide.

Benefit: Unlike smaller capacity competitive models, with Rockwell's Edge Tool Grinder you can sharpen extra wide cutting tools like cabinet scrapers, paint scrapers etc.—up to a full 3½" width.



Handy Wheel Dressing Feature—Only the Rockwell Edge Tool Grinding Attachment holds and feeds the Diamond-Pointed Wheel Dresser at exactly the proper negative rake angle.

Benefit: Wheels are quickly and properly dressed, assuring perfect sharpening of edge type cutting tools, even by beginner operators.



Thin Motor Design—Heavy duty motor is thin in design and completely enclosed.

Benefits: You have ample clearance for grinding long stock, even after wheel wear. Totally enclosed motor, which has shielded, lubricated-for-life ball bearings, keeps out harmful abrasive dust.

ROCKWELL QUALITY GRINDER EXTRAS

- Rugged Motor Design—Built for heavy duty grinding in industrial, commercial and school shops.
- •Quick-Mounting Eyeshields—Can be mounted in a few minutes without requiring any disassembly of grinder.
- Excellent Bearing Construction—Large, lubricated-for-life ball bearings assure smooth grinder performance.
- Wheel Guards Quickly Removed—Enable grinder to be quickly converted for use as a buffer or polisher.
- Precision Balanced Wheels—Balanced to within ¼-ounce inch to assure extra smooth running—36-grit wheel for general-purpose grinding and a special, resinoid-bonded, 54-grit wheel for extra cool operation as required for grinding edge tools.
- Three Conductor Cord—8-foot, jacketed type cord with 3-prong grounding type plug.
- Lamp Mounting Feature—Grinder base is drilled and tapped for mounting accessory Lamp Attachment.
- Many Accessories Available—Only Rockwell offers a complete line of accessories for increased grinder performance.

ROCKWELL 6" EDGE TOOL BENCH GRINDER



Versatility is the one word that best describes the Rockwell 6" Edge Tool Bench Grinder. Why? Because it has a 36-grit wheel on the right for general-purpose grinding and a special 54-grit resinoid wheel on the left for cool, precision sharpening of edge tools. The 3450 RPM motor provides the proper speed for all types of general grinding applications and the correct speed for sharpening edge tools without burning because of the special resinoid wheel that is provided. When you consider the many other built-in extras—3½" edge tool capacity... straightline, micrometer in-feed ... special, notched grinding attachment to handle "butt" chisels ... protractor for angle grinding ... "thin-line" motor for extra grinding clearance ... balanced grinding wheels ... precision ground motor shaft ... sealed-for-life ball bearings ... shatterproof eyeshields ... cast iron wheel guards ... removable end plates ... and adjustable tool rest, you realize the tremendous value this machine represents.

MACHINE DATA

CapacityGrinds Edge Tools up to 3¼" Wide
Motor:
Horsepower
Volts
RPM3450
Arbor 5%" Dia., Ends Threaded 1/2"-20 Left and Right
Wheels:
Size6"; Diameter½" Hole
Balance 1/8-Ounce Inch
Distance Between Centers
Wheel Flanges: Diameter 3"
Dimensions, Overall:
Left to Right (With Eyeshields)234"
Front to Rear 8%"
Height (Without Eyeshields) 9%"
Base:
Width 73/8"
Front to Back 65%"
Mounting Holes (2), Center to Center 63/8"

STANDARD EQUIPMENT

Grinders are furnished with two wheels (one 54 grit, ½" face, and one 36 grit, ¾" face), wheel guards, spark deflectors, one tool rest, eyeshields, edge tool grinding attachment, on-and-off switch and 8-foot cord with 115 V grounding type plug. (No. 25-857 Lamp Attachment and No. 23-312 Diamond Dresser not included.)

CATALOG LISTING

BASIC MACHINE

No. 23-636 6" Edge Tool Bench Grinder complete. With instructions for operating and ready to plug in and run on 115 V, 60 cycle, single phase current. 42 lbs.

BASIC ACCESSORIES

No. 25-857 Lamp Attachment for 115 V. Includes 18" flexible gooseneck, reflector and 8-foot cord with 2-prong plug. Uses standard bulb (not included) up to 75 watts. 3 lbs.



No. 23-312 (old 3121) Diamond-Pointed Wheel Dresser. For dressing all types of general grinding wheels. Diamond is securely held. Sturdy tool is 9½" long with a comfortable handle. 1 lb.

CONVERT YOUR PRESENT ROCKWELL 6" BENCH GRINDER TO AN EDGE TOOL GRINDER

You can do this simply by replacing the left wheel with the special No. 23-828 Wheel and the left tool rest with the No. 23-845 Edge Tool Grinding Attachment. No. 23-312 Diamond Dresser also recommended.

No. 23-828 Aluminum Oxide Wheel, ½" x 6", 54 G, Grade K, ½" hole. A specially selected, resinoid bonded wheel recommended for sharpening edge tools at the standard speed of 3450 rpm, or for other work where cool grinding is important. 2 lbs.

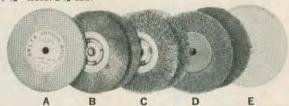
No. 23-845 Edge Tool Grinding Attachment. Same as supplied as standard equipment on 23-636 Grinder. 6½ lbs.

ROCKWELL QUALITY ACCESSORIES FOR INCREASED JOB PERFORMANCE

No. 23-800 Eyeshields. One pair, with brackets and screws. 3 lbs.

GRINDING, BUFFING, WIRE AND FIBER WHEELS No. 23-826 Aluminum Oxide Wheel. ¾ x 6", 36G, Grade O, ½" hole. 2½ lbs.

(A) No. 23-827 Aluminum Oxide Wheel. $\% \times 6$ ", 60G, Grade O, %" hole. 2½ lbs.



(B) No. 23-114 (old 3114) Wire Brush. 6" dia., fine, ½" hole.

(C) No. 23-113 (old 3113) Wire Brush. 6" dia., coarse, ½" hole. 1 lb.

(D) No. 23-511 (old 3115) Fiber Brush. 6'' dia., $\frac{1}{2}$ " hole. 1 lb. (E) No. 23-005 (old 4005) Buffing Wheel. 6'' dia., $\frac{1}{2}$ " thick, circular stitching, $\frac{1}{2}$ " hole. 2 lbs.

BUFFING COMPOUNDS

No. 23-004 (old 4004) Buffing Compound Kit. Consisting of four ¼ pound bars, with instructions. Includes one each of red rouge, white rouge, emery and tripoli bars. 19 ounces.



No. 23-007 (old 4007) Red Rouge Buffing Compound. One pound bar, with instructions. Recommended for coloring gold, silver and other precious metals. 19 ounces.

No. 23-008 (old 4008) White Rouge Buffing Compound. One pound bar, with instructions. Recommended for cutting down and coloring stainless steel, chromium, nickel plate, brass, aluminum and plastics, 19 ounces.

No. 23-009 (old 4009) Emery (Black) Buffing Compound. One pound bar, with instructions. Recommended for coarse polishing to remove rust, scale, scratches and burrs from iron, steel and other hard metals. 19 ounces.

No. 23-010 (old 4010) Tripoli (Brown) Buffing Compound. One pound bar, with instructions. Recommended for cutting down and coloring of aluminum, brass, copper, pewter, plastics, hard rubber, animal horn and wood. 19 ounces.

ONLY THE ROCKWELL 6" EDGE TOOL BENCH GRINDER CAN DO SO MANY JOBS SO WELL!



Putting an absolutely square, new edge on a screw driver is a simple operation with the Rockwell Edge Tool Grinder.



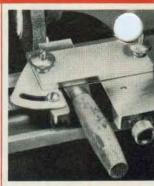
The ability to tilt the attachment to any angle, then feed in on a straight line results in correct sharpening of plane irons every time.



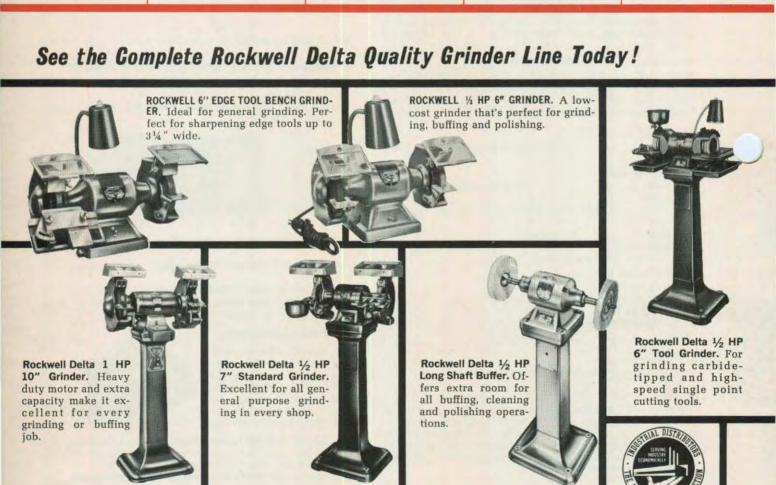
With the aid of the builtin angle plate you can pre-set the exact cutting edge angle required, then sharpen tools like this wood turning chisel easily and quickly.



Tools such as this wood chisel, are clamped so that they are perfectly square and held at the proper angle. Work may be removed and checked without disturbing the micrometer adjustment.



Short-bladed tools such as this putty knife can be sharpened in seconds because of the attachment's special, notched design and micrometer in-feed.





ROCKWELL DELTA 1/2 HP LONG-SHAFT BUFFER

DELTA QUALITY FEATURES THAT ASSURE EFFICIENT PERFORMANCE YEAR AFTER YEAR!



In Industry—Oval end bell hubs and extra long shafts facilitate the removal of rust and burrs from odd-shaped castings and parts.



In commercial shops—Plastic manufacturers find the Rockwell Delta Long-Shaft Buffer an excellent unit for turning down, polishing and coloring plastic pieces and components.



In repair shops—Appliance shops appreciate the extra amount of clearance between the motor and the buffing wheel when cleaning and polishing bulky items like sweeper housings.

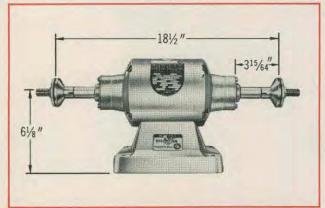


In specialty and "pro" shops—The Rockwell Delta Buffer is ideal for removing rust and tarnish from golf clubs, guns, etc., to provide a factory-new surface in just minutes.



ROCKWELL DELTA 1/2 HP LONG-SHAFT BUFFER





A precision-built machine, this husky buffer will perform efficiently year after year, even under the most demanding shop conditions.

Check its Delta quality construction and you will agree that it provides all the right features to let you do more!

- Unique oval end bell hubs and the extra long shafts which extend 3¹⁵/₆₄" from bearing seal to wheel flange provide more room for handling large or oddly shaped work pieces.
- Slim designed, "Thin-Line" motor and extended shafts assure ample clearance for buffing long stock. Totally enclosed motor incorporates double sealed ball bearings, plus an extra seal to keep out harmful dust.
- Capacitor start, 115/230V, single phase motor requires low starting current. It won't dim lights like split-phase motors.

MACHINE DATA

Horsepower
Shaft:
Diameter %"; Extends beyond flange 21/2"
Frame Diameter
Distance between faces of wheel flanges
Distance from bearing seal to wheel flange face 315/64"
Centerline of spindle to bottom of base
Diameter of wheel flange
Overall Dimensions:
Base8½ x 8½": Depth
Width 231/6": Height 133/4"

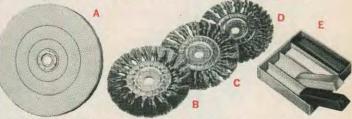
CATALOG LISTING

NO.	TYPE	MOTOR	SPEED RPM	MOTOR SWITCH	SHIP.
*23-233	Bench	115/230V, 60 Cy, Sgl. Ph.	3450	Toggle	43
*23-234	Bench	115/230V, 60 Cy, Sgl. Ph.	1725	Toggle	43
‡23-241	Bench	230/460V, 60 Cy, 3 Ph.	3450	None	43
‡23-242	Bench	230/460V, 60 Cy, 3 Ph.	1725	None	43
‡23-239	Bench	208 V, 60 Cy, 3 Ph.	3450	None	43
‡23-243	Bench	208 V, 60 Cy, 3 Ph.	1725	None	43

*Single phase models are wired for 115V operation and include on-and-off switch with 115V 8-foot grounding cord and 3-prong plug.

[‡]Use No. 49-671 Push Button Switch, 49-838 Manual Starter or 49-665 Magnetic Starter. Integral Push Button Switch 49-842 or Remote Control Push Button Switch 49-672 is required with the magnetic starter. Specify buffer catalog number and voltage when ordering starter.

DELTA QUALITY ACCESSORIES FOR INCREASED JOB PERFORMANCE



No. 23-805 Pedestal, cast iron, 26" high. Base is 14" front to back and 16" left to right. 67 lbs.

(A) No. 23-825 8" Buffing Wheel for %" arbor, ¾" face, 48 ply, fine muslin, cushion type with three circles of lock-stitched sewing. Includes one pair of toothed flanges for %" arbor and instructions for use. A professional quality, general purpose buff recommended for light cutting down and for finish coloring. 1 lb.

(B)No. 23-632 (old 1236) Wire Brush, 6" diameter, fine, 5%" hole. 1 lb.

(C)No. 23-637 (old 1237) Wire Brush, 6" diameter, medium, %" hole, 1 lb.

(D)No. 23-638 (old 1238) Wire Brush, 6" diameter, coarse, 5%" hole. 1 lb.

No. 23-007 (old 4007) Red Rouge Buffing Compound, one pound bar, with instructions. Recommended for coloring gold, silver, and other precious metals. 19 oz.

No. 23-008 (old 4008) White Rouge Buffing Compound, one pound bar, with instructions. Recommended for cutting down and coloring stainless steel, steel, chromium, nickel plate, brass, aluminum and plastics. 19 oz.

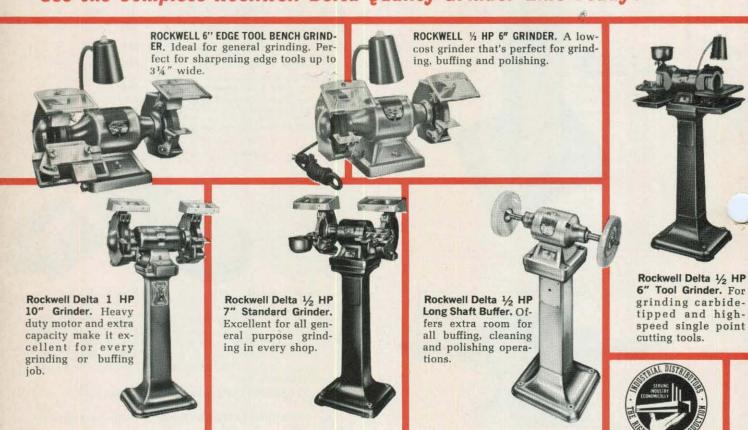
No. 23-009 (old 4009) Emery (black) Buffing Compound, one pound bar, with instructions. Recommended for coarse polishing to remove rust, scale, scratches and burrs from iron, steel and other hard metals, 19 oz.

No. 23-010 (old 4010) Tripoli (brown) Buffing Compound, one pound bar, with instructions. Recommended for cutting down and coloring of aluminum, brass, copper, pewter, plastics, hard rubber, animal horn and wood. 19 oz.

(E)No. 23-004 (old 4004) Buffing Compound Kit, four 1/4 pound bars, with instructions. Includes one each of Red Rouge, White Rouge, Emery and Tripoli bars. 19 oz.

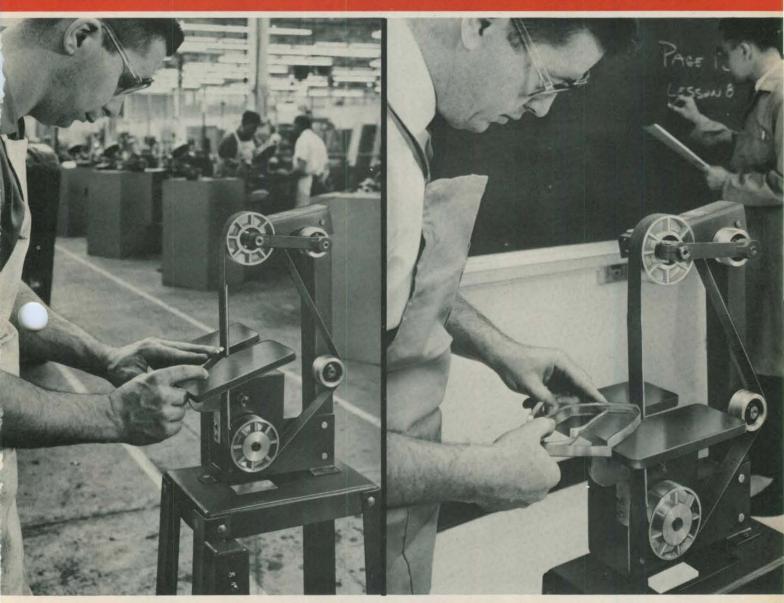
ROCKWELL DELTA 1/2 HP LONG-SHAFT BUFFER

See the Complete Rockwell Delta Quality Grinder Line Today!



World's Most Versatile Finishing Machine ...

ROCKWELL DELTA SANDER/GRINDER



When it comes to versatility, the Rockwell Delta Sander/Grinder has no equal! Why? Because it will sand, grind, sharpen, deburr, finish, contour and polish almost any material. What's more, it will do all of these operations quickly, efficiently and with better quality. It's the ideal machine for all users — production lines, tool rooms, foundries, electronic laboratories, pattern and school shops. Investigate this BIG VALUE today!

ROCKWELL DELTA SANDER/GRINDER

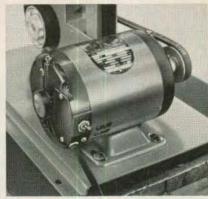
DELTA QUALITY FEATURES THAT GUARANTEE UNMATCHED VERSATILITY AND PERFORMANCE



Specially Designed Plastic Wheels—The balanced, true running wheels are made of heat resistant CYCOLAC®, precision molded onto sealed, lubricated-for-life ball bearings. Wheel rims are crowned for easy belt tracking and made of wear resistant TEXIN®, permanently bonded to the wheel body.



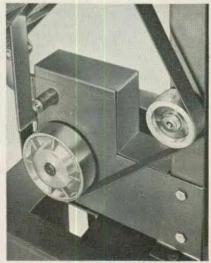
Precision Ground Table—Sturdy 7 x 8" table has a single mounting bolt for quick positioning or removal. Table tilts 10° in and 90° out for bevel work.



Proper Motor Used—Only Rockwell offers a heavy duty, ½ HP, 3450 RPM motor. You get the right belt speeds for efficient sanding and grinding—4000 SFPM with a standard pulley . . . 4600 SFPM with the contact wheel.



Efficient Rubber Contact Wheel—A general purpose wheel, it is recommended for a wide variety of jobs including fast removal of stock or rough finishing. Also excellent for flash grinding on soft metals.



Fully Protected Arbor Shaft—Arbor shaft bearing is completely enclosed, preventing entry of harmful abrasive dust. Note also the use of husky 5%" bearing shafts, plus sealed-for-life ball bearing construction throughout.



Shown With Pulley and Belt Guard, and Motor, Mounted on Metal Base Plate.





ROCKWELL DELTA SANDER/GRINDER

HERE'S WHY THE ROCKWELL DELTA IS THE BIGGEST SANDER/GRINDER VALUE ON THE MARKET!

Performs Unlimited Operations—Perfectly suited for all users, it can be used on wood, metal, plastics, leather, rubber, ceramics, and compositions to do dozens of jobs like these: Sanding or grinding to a line . . . deburring parts and pieces . . . contouring to a desired shape . . . finishing for painting or plating . . polishing the finished product . . sharpening cutting edges . . . cleaning intricate or inside edges.

Does Work of Many Machines—This one low-cost machine will do the work of the band saw, jig saw, coping saw or hand file, only better. It sands at amazing speed while giving perfect results. It's more flexible than the grinder, too, because it can be used to sand or grind internal or external surfaces with or without the platen.

Complete Portability-can easily be moved from one location to anotherno lost production time!

Belts Are Better Than Any Other Method Because:

- They cut faster—result in sharper, faster cutting action than conventional grinding wheels.
- They operate cooler—you get increased production with longer belt life.
- They give better quality-sharper grain structure, cooler operation, custom-selected belt all result in better quality finish.
- Wide variety of belts available—you can select a specific belt for material being worked and finish desired.

YOU GET MORE OF THE QUALITY YOU WANT WITH A ROCKWELL DELTA SANDER/GRINDER AND THE COST IS LOW!

The wide versatility, together with the excellent features built into the Rockwell Delta Sander/Grinder, makes it an ideal machine for every shop-toolroom ... pattern shop ... foundry ... school shop ... even the home workshop. Although Rockwell Delta quality constructed throughout, you'll be amazed at its exceptionally low price! Investigate this BIG VALUE today!

STANDARD EQUIPMENT

Basic Sander/Grinder furnished with table, one flat platen for 1" belts, 2" arbor V-pulley and one 1 x 42", 80 grit, aluminum oxide belt.

MACHINE DATA

	overall Dimensions
	Bench Type (without 31-360 Plate)
	Height 181/2"; Width 81/2"
	Front to Rear12'
	Floor Type (on 50-106 Stand)
	Height50"; Width14"
	Front to Rear
1	Table

93	able
	Size7" deep x 8" wide
	with 13/16 x 3/4" slo
	Tilts10° in; 90° ou
	Height from Bench
	Height from Floor (on 50-106
	Stand)401/4'
C	anacities

Abrasive Belt Length Min...40"; Std...42"; Max...44" Width Min.....'%"; Max......1" Speed (with contact wheel)—

....4600 sfpm; Std.4000 sfpm.

Diameter of Drive Shaft

CATALOG LISTING

No. 31-350 Basic Sander/Grinder with table, one flat platen for 1" belts, 2" arbor V-pulley and one 1 x 42", 80 grit, aluminum oxide belt. 19 lbs.

No. 31-354 Single Phase Sander/Grinder Heavy Duty Portable Unit Complete. Consists of 31-350 Basic Machine, 49-105 V-belt, 2½" Motor Pulley, 31-360 Base and 62-660 Motor. Completely assembled and ready to plug in on 115 V, 60 cycle, single phase. 44 lbs.

No. 31-355 Single Phase Sander/Grinder Standard Duty Portable Unit Complete. Same as No. 31-354 except with 60-050 Motor instead of 62-660 Motor.

No. 31-356 Three Phase Sander/Grinder Portable Unit Complete. Consists of 31-350 Basic Machine, 49-105 V-belt, 2½" Motor Pulley, 31-360 Base and 66-069 Motor. Completely assembled. 43 lbs.

MOTORS AND CONTROLS For Single Phase Operation

No. 60-050 Standard Duty Motor, ½ HP, 115 V, 60 cycle, 3450 rpm, ½" single shaft. Includes on-and-off toggle switch and 8-foot cord with 3-prong 115 V grounding type plug. 19 lbs.

No. 62-660 Heavy Duty Motor, ½ HP, 115/230 V, 60 cycle, AC, 3450 rpm, %" single shaft. Includes on-and-off toggle switch and 8-foot cord with 3-prong 115 V grounding type plug. 23 lbs.

No. 49-670 Push Button Switch, 2-pole type, used for on-and-off control where overload protection is not desired. Includes switch, box and cover. 1½ lbs.

No. 49-385 Switch Box and 2-Wire Cable. For use with 60-050 or 62-660 Motor. Provides up-front remote control utilizing the Toggle Switch and 8-foot cord furnished with the motor. 1½ lbs.

No. 51-330 (old 1330) Switch Rod for use with 60-050 or 62-660 Motor on steel stand. ½ lb.

For Three Phase Operation

No. 66-069 Motor, ½ HP, 230/460 V, 60 cycle, AC, 3450 rpm, ½" single shaft, sleeve bearing, 6" frame, guarded drip proof enclosure. Without switch or power cord. 17 lbs.

No. 66-062 Motor, ½ HP, 208 V, 60 cycle, AC, 3450 rpm, ½" single shaft, sleeve bearing, 6" frame, guarded drip proof enclosure. Without switch or power cord, 16 lbs.

No. 49-671 Push Button Switch, 3-pole type, used for on-and-off control where overload protection is not desired. Includes switch, box and cover, 2 lbs.

No. 49-838 Starter, Manual. Provides overload protection. Specify motor number and voltage when ordering. 5 lbs.

No. 49-665 Starter, Magnetic. For 60 cy, 208-230/460 V. Provides low-voltage, no-voltage and overload protection. Does not include No. 49-842 start-stop control station. Specify motor number and voltage when ordering. 6 lbs.

No. 49-842 Magnetic Starter Control Push Button Switch Kit. Provides integral start-stop control station for 49-665 Starter. 1/2 lb.

No. 49-848 Mounting Bracket for mounting manual or magnetic starters on 50-106 Steel Stand. 2 lbs.

No. 49-315 Cable Kit, three-wire type, 3-foot long with clamp fittings. Used for wiring 49-671, 49-665 or 49-838 Control to 66-062 or 66-069 Mator, 114 lbs.

trol to 66-062 or 66-069 Motor. 1½ lbs.
THE ROCKWELL DELTA
SANDER/GRINDER DOES
ALL THESE JOBS EASIER
... FASTER... BETTER!



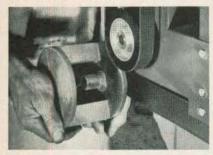
Toolroom . . . grinds cutting tools to exact specifications.



Plating Department . . . polishes die cast aluminum housing prior to plating.

See next page for additional operations.

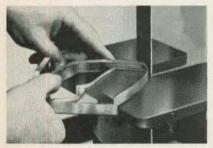
ROCKWELL DELTA SANDER/GRINDER



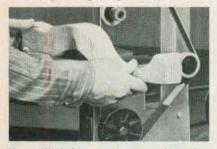
Foundry . . . using contact wheel, aggressively removes flash and excess stock.



Pattern Shop ... narrow band gets into small openings . . . finishes patterns rapidly to close tolerances.



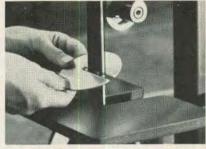
School Shop . . , enables students to contour plastic parts perfectly.



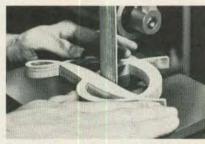
Home Workshop . . . items, such as this table leg, can be sanded in just a few minutes.



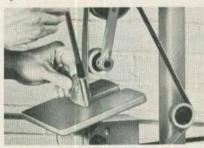
Electronics Laboratory . . . perfectly touches up parts for precision assembly.



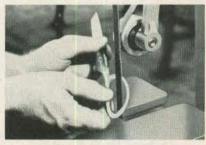
Assembly Department . . . quickly removes sharp edges on metal stampings, even in small openings.



Sign Shop . . . after quickly threading belt, internal sanding becomes an easy operation.



Golf Pro Shop . . . quickly removes rust to make golf irons look like new.



Scissors Manufacturer . . . using narrow belt, and without platen, internal grinds rounded edges with ease.



Industrial Plant . . . rapidly deburrs sharp edge following stock cut-off with abrasive wheel.

DELTA QUALITY ACCESSORIES THAT PROVIDE INCREASED JOB PERFORMANCE

No. 41-022 Motor Pulley, 2½" dia., ½" bore. ½ lb.

No. 41-023 Motor Pulley, 2½" dia., %" bore. ½ lb.

No. 41-024 Motor Pulley, 2½" dia., ¾" bore, ½ lb.

No. 49-105 V-Belt, 30 1/8" O.C. Used with 31-360 Base or for rear motor position on customer's bench. 1/2 lb.

No. 49-354 (old 453) V-Belt, 47%" O.C. Used with 50-106 Steel Stand. ½ lb.

No. 31-360 Metal Base Plate, $8\%_2 \times 17$ ". Drilled for mounting Sander/Grinder and motor, and for mounting Base Plate to work bench. 8 lbs.

No. 50-106 Open Steel Stand with shelf for motor, for Sander/Grinder. 26 lbs.

No. 31-361 Guard for Arbor Pulley. Can be used for rear or underneath motor position. Includes mounting screws and washers. 2 lbs.

No. 31-362 Rubber Contact Wheel, 4" diameter, 1" face, special bore size, with set screw, 60 durometer, with 45° standard serrations. A general purpose wheel recommended for both stock removal and rough finishing. Can be used for flash grinding on soft metals. 1 lb.

No. 31-363 Flat Platen for 1" belts. ½ lb.

No. 31-364 Flat Platen for 1/2" or narrower belts. 1/4 lb.

No. 31-365 Convex Platen, ½" radius, for 1" belts. ¼ lb.

No. 31-366 Guard for V-Pulleys and V-Belt. Include mounting parts. Recommended for use when motor is mounted to rear on customer's bench or on 31-360 Base Plate. 4½ lbs.

No. 31-370 Abrasive Belt, aluminum oxide, pkg. of 5, 1 x 42", 40 grit (coarse), cloth backing, closed coat. ½ lb.

No. 31-371 Abrasive Belt, aluminum oxide, package of 5, 1 x 42", 50 grit (coarse), cloth backing, closed coat. ½ lb.

No. 31-372 Abrasive Belt, aluminum oxide, pkg. of 5, 1 x 42", 80 grit (medium), cloth backing, closed coat. ½ lb.

No. 31-373 Abrasive Belt, aluminum oxide, pkg. of 5, 1 x 42", 120 grit (medium), cloth backing, closed coat. ½ lb.

No. 31-374 Abrasive Belt, aluminum oxide, package of 5, 1 x 42", 150 grit [fine], cloth backing, closed coat. ½ lb.

No. 31-375 Abrasive Belt, aluminum oxide, package of 5, 1 x 42", 220 grit (fine), cloth backing, closed coat. ½ lb.

No. 31-376 Abrasive Belt, aluminum oxide, pkg. of 5, 1 x 42", 320 grit (extra fine), cloth backing, closed coat. ½ lb.

No. 49-363 Retractable Caster Set for 50-106 Steel Stand. 12 lbs.

ROCKWELL DELTA METAL DUST COLLECTOR and other Cost-Saving Equipment

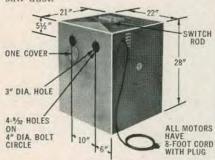
METAL DUST COLLECTOR SAFEGUARDS HEALTH, PROTECTS MACHINERY

Pressed steel cabinet is strong and husky . . . large door at back provides quick access to filter, door at top permits inspection of motor. Efficient, squirrel-cage fan moves 350 cubic feet of air per minute, develops static suction of 3 inches of water. The 1/2 HP, lubricated-for-life ball bearing motor is in a separate compartment, away from harmful dust. Fireproof, cleanable filter is easily removed for cleaning. Overall dimensions: height 28", depth 21", width 22"

Unit is ideal for grinding, polishing, buffing and other operations where dust must be efficiently collected to protect workers' health, also keeps harmful dust away from expensive machinery

A self-contained, portable unit, it collects both fine and coarse dust and particles. Openings are so located that it can be attached to all types of abrasive

NOTE: This Dust Collector is not suitable for collecting wood shavings and saw dust.



DUST COLLECTORS For Single Phase Operation

No. 49-520 1/8 HP, 115/230 V, 60 cy, 3450 rpm. Includes on-and-off switch, switch rod, 115 V 8-foot cord and 3prong grounding type plug, mounted and wired. 120 lbs.

For 3 Phase Operation

No. 49-527 1/3 HP, 230/460 V, 60 cy, 3450 rpm. Includes 3-pole on-and-off switch, switch rod and 8-foot 4-conductor grounding type cord, wired to switch for 230 V. Less plug. 120 lbs.

ACCESSORIES FOR DUST COLLECTORS

No. 49-529 Extra Standard Filter. 8 lbs. No. 49-531 Filter Pad Holder with two expanded Filter Pads. 7 lbs.

When ordering Dust Collector, remember to order proper Attachment Package listed below.

ATTACHMENT PARTS (Include Necessary Connection Fittings and Hoses)

No. 20-838 Attachment Parts for 12" Cut-Off Machine. 121/4 lbs.

No. 23-802 Attachment Parts for 7" Standard Grinder, 8 lbs.

No. 24-819 Attachment Parts for TG-3 TOOLMAKER Grinder. 19 lbs.

No. 31-803 Attachment Parts for 12" Abrasive Disk Finishing Machine when mounted on Open Stand 50-432. 12 lbs.

No. 31-856 Attachment Parts for 6" Abrasive Belt Finishing Machine and for Belt Unit of Combination Belt and Disc Finishing Machine. Includes 3 x 22" hose, two hose flanges, two hose clamps and adapter. 6 lbs.

No. 50-141 Attachment Parts for 12" Abrasive Disk Finishing Machine when mounted on Enclosed Stand 50-126 and for Disc Unit of Combination Belt and Disc Finishing Machine. Includes 3 x 22" hose, two hose flanges, two hose clamps and cast iron funnel. 131/2 lbs.

AVAILABLE CONNECTION FITTINGS No. 49-533 Flexible Rubber Hose, 25/16"

I.D. x 20" long. 2 lbs.

No. 49-534 Flexible Rubber Hose, 3" I.D. x 22" long. 2 lbs.

No. 49-535 Flexible Rubber Hose, 3" I.D. x 48" long. 3 lbs.

No. 49-538 Flange for 25/16" hose, with mounting screws and washers. 2 lbs.

No. 49-539 Flange for 3" hose, with mounting screws and washers. 21/2 lbs. No. 49-541 Hose Clamps adjustable to hose. ½ lb.

BELT GRINDING, DEBURRING AND POLISHING COMPONENTS



Build your own Grinding and Polishing Units around the Rockwell Delta No. 31-438 Arbor Head or convert your present Polishing Lathe using Set-Up Wheels, or your Bench Grinder using Grinding Wheels, to the modern Coated Abrasive Belt Method of Grinding and Polishing. With a contact wheel, backstand idler and abrasive belts, most standard floor or bench grinders and most polishing lathes or jacks can be converted at low cost.

ARBOR HEAD

Husky and engineered for long life, it can be mounted on your machine stand or on a bench top. The 3/8" arbor runs in sealed, lubricated-for-life ball bearings. Arbor shaft extends 31/2" out from the inner flange on either side of the head. Arbor shaft ends have a 21/6" ground Acme thread to accommodate contact rolls and wheels from 7/8" to 2%" in width.

No. 31-438 Arbor Head, complete with dynamically balanced arbor pulley, two No. 560 drive belts, two 211/32" diameter flanges with nuts to fit 5%" arbor. 25 lbs.

4" RIGHT BACKSTAND IDLER UNIT

Finest, low-cost backstand idler unit available. Suitable for either left or right side operation. Hand knob swivels drum for belt tracking and lateral adjustment is provided for accurate belt alignment. Belt tension is quickly adjusted by means of a self-locking hand knob. Convenient lever instantly releases tension for quick belt changing. No. 31-425 Backstand Idler Unit with 4" wide by 5%" dia. drum, with mounting bolts and instructions for changing from R.H. to L.H. set-ups. 19 lbs.

23/4" LEFT IDLER UNIT

No. 31-431-Similar to No. 31-425 except drum is 23/4" wide. Includes instructions for right-hand assembly. 17 lbs.

RUBBER CONTACT WHEEL

With this new type wheel you can obtain a better finish in less time. Furthermore, it increases the life of your grinder belts to cut costs for you. Tire may be replaced on the hub which is designed for permanent use.

No. 31-877 Rubber Contact Wheel complete. Consists of No. 31-875 Tire and No. 31-876 Hub. 6 lbs.

No. 31-875 Rubber Tire for Contact Wheel, 21/2" wide, 6" dia., 30-40 durometer (med. soft), with 45° standard serrations. Can be used up to 7500 sfpm. A general purpose tire for wood or metal work-stampings, die castings, forgings and contour grinding. 3 lbs.

No. 31-876 Hub for Contact Wheel. %" bore, consists of bushing and washer for mounting No. 31-875 Tire and other tires with same mounting dimensions.

LAYOUT PLATES FOR LAYOUT, TESTING AND INSPECTION WORK



of this massive plate and the clamping ledge all around the squared

Delta Surface Plates offer four essentials of a 100% useful surface plate:

- (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.
- (4) Edges that are machined square with one another and the surface.

Low cost Rockwell Delta Surface Plates have a corner to corner out of flat tolerance of + or -.0005. They can easily and economically be made into precision plates simply by scraping to a master plate or each other.

No. 50-640 (old 640)-Size 15" x 18" x 3". 63 lbs.

No. 50-641 (old 641)-Size 16" x 22" x 3". 71 lbs.

ROCKWELL DELTA COOLANT EQUIPMENT

GET MORE MACHINE FLEXIBILITY WITH ROCKWELL COOLANT EQUIPMENT

Here's the perfect answer for big cost savings on your production jobs. Rockwell Coolant Equipment gives you these important benefits:

- Lubricates the cut-maintains feeds and speeds with less horsepower.
- Cools the work and cutting tool—prevents overheating or discoloration of work.
- Flushes chips away from the workassures a higher quality finish.

ROCKWELL 16-GALLON COOLANT SYSTEM

Big capacity ¼ HP pump provides a full flood of coolant making it ideal for use with Metal Lathes, Multiple Spindle Drill Presses, Cut-Off Machines and many other applications. Check these built-in Rockwell Quality Features:

- Adjustable—can be shut down to mere trickle without damage.
- Highly adaptable—flat machined flange permits use on most wet machine tools.
- Motor fully enclosed—not affected by moisture or caustic solutions.
- Double-sealed, lubricated-for-life ball bearings.
- Drilled and tapped for standard pipe fittings.
- Six-bladed impeller connected directly to motor shaft.
- 16-gallon tank has settling basin and wire mesh filter to keep coolant free from chips.



16-Gallon Coolant System shown with Pump, Cord, Switch and Tank.

For Single Phase Operation

No. 49-610 Coolant Pump complete with ¼ HP, 115 V, 60 cy, AC, 1725 rpm motor. 68 lbs. Order 49-618, 49-312 separately. No. 49-611 Coolant Pump complete with ¼ HP, 230 V, 60 cy, AC, 1725 rpm motor. 68 lbs. Order 49-618, 49-313 separately.

For 3 Phase Operation

No. 49-619 Coolant Pump complete with 14 HP, 230/460 V, 60 cy, AC, 1725 rpm motor. 68 lbs. Order 49-618, 49-838 separately.

ACCESSORIES

No. 49-618 Tank, 16-gal. capacity, $15\% \times 25\% \times 11$ " high, required with any of above pumps. 38 lbs.

No. 49-312 On-and-off Toggle Switch, 2-pole, 1½ HP, AC-DC, 115-230 V. Includes 115 V 8-foot cord, 3-prong grounding type plug and clamp. 2 lbs. No. 49-313 On-and-off Toggle Switch, 2-pole, 1½ HP, AC-DC, 115-230 V. Includes 230 V 8' cord, 3-prong grounding type tandem plug and clamp. 2 lbs.

No. 49-671 Push Button Switch for manual on-and-off control of three phase motor, where overload is not desired. 2 lbs.

No. 49-838 Starter, manual, 3-phase. Provides overload protection. Specify coolant pump no. and voltage. 5 lbs.

COOLANT LINE ASSEMBLY FOR DRILL PRESSES

Recommended for single or multiple spindle drill presses or any machine with a round column from 2\%" to 4" in diameter.

No. 17-802 Coolant Line Assembly consisting of Nozzle, Valve, Column Mounting Clamp and Flexible Hose Assembly for providing coolant feed and connection to piping (coolant piping, table clamps not furnished). 3 lbs.



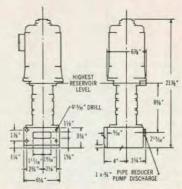
NEW, LOW-COST ROCKWELL 5-GALLON COOLANT SYSTEM

Rockwell's new 5-Gallon Coolant System is well suited for use with Single Spindle Drill Presses having a column from 2¾" to 4" in diameter, also Metal Lathes, Hand Screw Machines and Surface Grinders.

The system incorporates these Rockwell Quality Features:

- Pump is hermetically sealed, has lifetime lubrication, a nylon impeller and double "X" viton double lip seals. Equipped with a U.L. approved, 3-conductor, grounding type cord and plug.
- Flow of coolant can be regulated to any amount desired or completely shut off, without harmful effects.
- Double protection is provided against chips recirculating and causing a bad finish on the work. A screen traps the larger particles. A baffle in the tank provides a settling basin.

No. 49-620 5-Gallon Coolant System for 115 V, 60 cycle, single phase. Includes submersible pump with \(^14\)" male outlet, 5-gallon tank with screen and baffle, 6-foot plastic hose, flexible pipe with nozzle and valve, and 6-foot 3-conductor power cord with 3-prong 115 V grounding plug. The universal clamp with garter spring may be instantly snapped onto any round drill press column from 2\%" to 4" in diameter. It firmly holds and points nozzle exactly at hole being drilled. Does not include drain hose from machine table to coolant tank. 17\% lbs.



COOLANT FLOW—16-GAL. SYSTEM Coolant Flow in Gal. Per Hour with a 1725 RPM Motor at 70° F.

(1425 RPM Motor About 1/6 Less)

		COOLANT			
HEAD IN	PIPE DIA.	WATER AND SOLUBLE OIL	LARD	SAE 20 MACHINE OIL	
		FLOW IN GAL. PER HOUR			
	3/4"	1200	720	600	
0	1"	1920	1200	1200	
-	3/4"	840	480	360	
5	1"	1620	900	900	
10	3/4"	420	-	_	
10	1"	1020	-	-	

14 ft. Maximum Lift with water. Discharge for water or soluble oil solution applies to all solutions of similar viscosity and density. Higher viscosity and density, less flow.

COOLANT FLOW-5-GAL. SYSTEM Using Water Soluble Oil or Light Cutting Oil

HEAD IN FEET	GALLONS PER HOUR	STATIC PRESSURE
1 FT.	205	3.2 PSI
3 FT.	168	3.2 PSI
4 FT.	142	3.2 PSI
5 FT.	120	3.2 PSI
6 FT.	78	3.2 PSI
7 FT.	35	3.2 PSI

COOLANT PAN FOR ROCKWELL CUT-OFF MACHINES

The Coolant Pan, used with 16-Gallon Coolant System, is recommended for your Rockwell Delta Cut-Off Machine for efficient wet abrasive cutting.

Order the proper ¼ HP pump, 16-gallon tank and switch. This ruggedly constructed Coolant Pan features a nozzle that swivels by means of a convenient handle to allow for a full flow of coolant on the blade, even when making miter cuts.

No. 20-840 Coolant Pan complete with spray nozzle, splash control accessories, deflector plate and bracket. Piping, control valve and reducer from ¾ to ½" not furnished. 148 lbs,



No. 20-840 Coolant Pan.

