Atlas

CATALOG
NO. D43

DRILL PRESSES

ATLAS PRESS COMPANY • KALAMAZOO • MICHIGAN • U • S • A

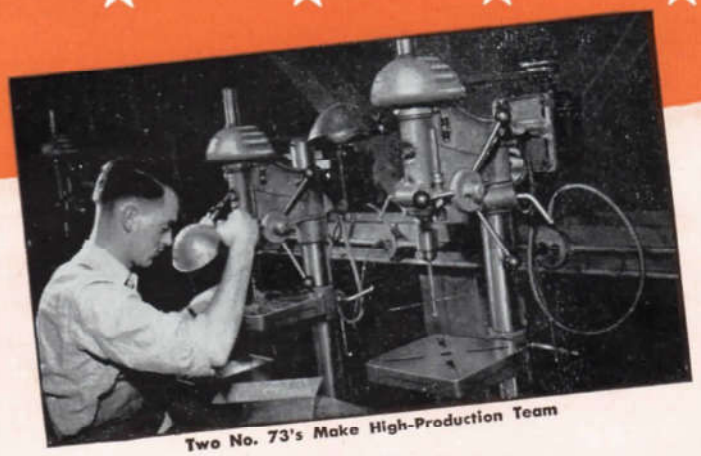
STEP UP SMALL-HOLE DRILLING

Atlas

ATLAS DRILL PRESSES continue to do two important jobs in thousands of plants. They step up production on the full range of small-hole drilling and tapping operations. And they slash costs . . . both initial machine costs and operating costs.

Battery after battery of these modern high-speed machine tools have proved their durability at peak production — maintained their accuracy after thousands of tough production hours, thanks to rugged and ingenious construction. The pictures on these pages show typical Atlas drill press installations in the plants of some of the world's leading producers.

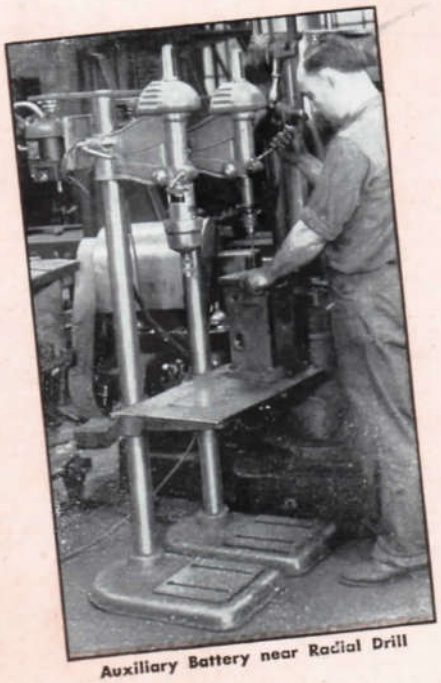
"Match the machine to the job"—*the Atlas idea that puts modern, fast precision tools to work on small-parts production so capacities of larger machines will not be wasted* — is playing an increasingly important role in industry. Atlas drill presses have proved themselves ideal multi-purpose tools for this new production strategy. The following pages give you the details of their construction features and specifications.



Two No. 73's Make High-Production Team

Precision Optical Work

Continuous Work on Aluminum



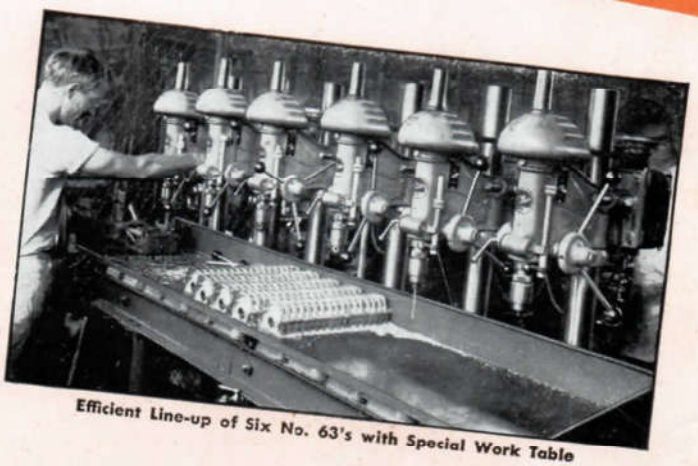
Auxiliary Battery near Radial Drill

High-Speed Drilling of Plastics

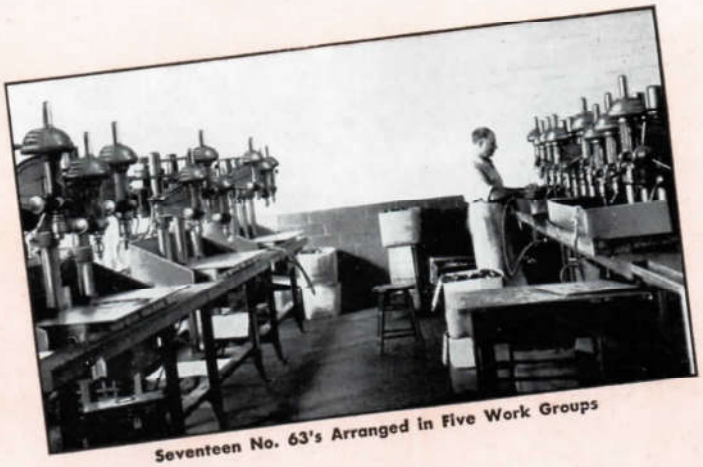
AND TAPPING PRODUCTION WITH

DRILL PRESSES

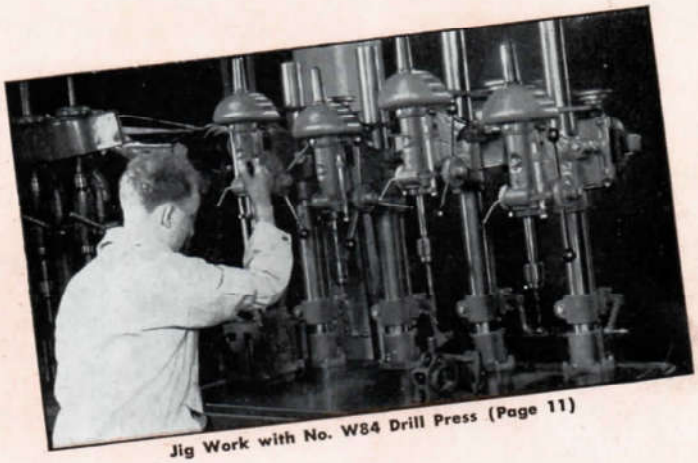
Battery of Eight No. 63's in Large Aircraft Plant



Efficient Line-up of Six No. 63's with Special Work Table

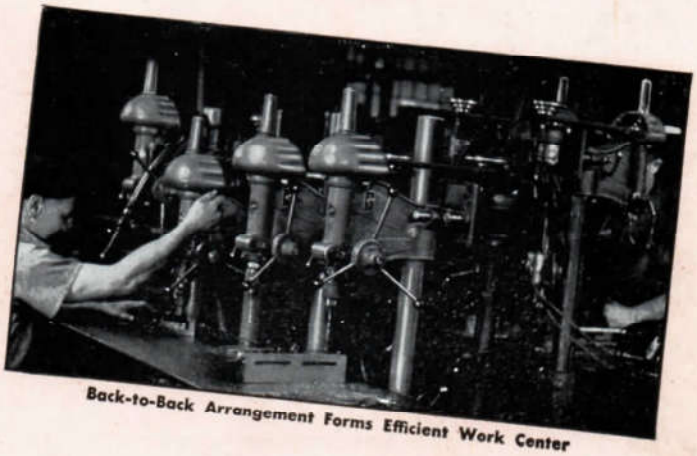


Seventeen No. 63's Arranged in Five Work Groups



Jig Work with No. W84 Drill Press (Page 11)

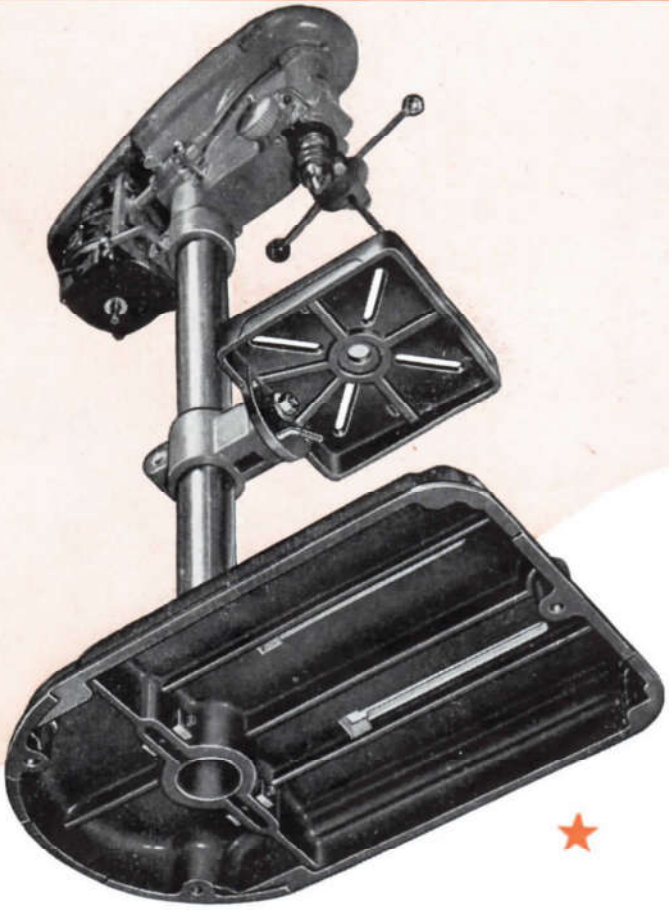
Nine No. 73's Handling All Operations on Intricate Parts



Back-to-Back Arrangement Forms Efficient Work Center

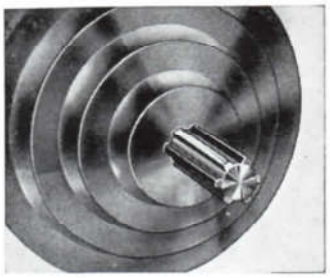
Atlas RUGGED ACCURATE "FLOATING

★ FOR EFFICIENCY and CONVENIENCE



HEAVY, MASSIVE BASE, TABLE and HEAD

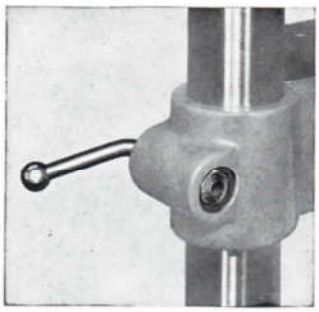
The drill press base, table, and head are massive iron castings, extra heavy and scientifically rib-braced for maximum rigidity, inside and outside. The base casting forms a solid foundation for the entire drill press. The thickly ribbed table is a rigid, accurate working surface. The heavy well-braced head casting is a strong, rigid, fully enclosed housing for the spindle-bearing assembly.



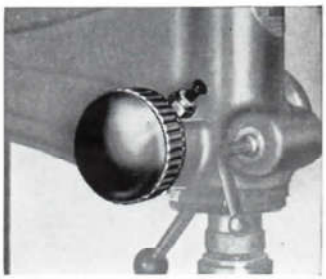
SIX-SPLINED SPINDLE AND PULLEY—Maintain spindle alignment and transmit maximum power to the drill without whip or backlash. Spindle is special alloy steel ground to extremely close tolerances.

Matched and balanced pulleys, combined with splined drive, practically eliminate vibration. Removable cap and iron safety guard cover spindle and pulley.

PRECISION JACOBS CHUCK—Accurate spindle alignment plus precision Jacobs chuck, the finest available, means maximum accuracy at the drill point. Capacity 0 to ½". No. 1 Morse taper spindle is available.



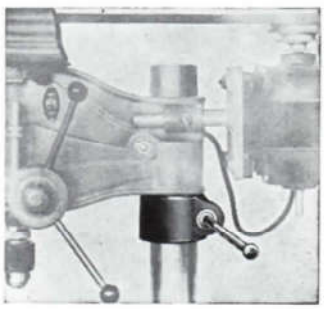
COORDINATE CLAMP LOCKS—For head, column collar, table support and quill. Ball handle tightens and releases two clamping wedges simultaneously. Permits quick, rigid positioning without scoring or distorting quill or column.



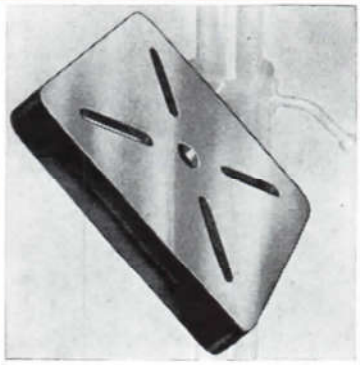
ADJUSTABLE FEED TENSION—Provides any desired feed tension. Heavy-duty spring housed in cap shown above controls tension on feed pinion shaft. Tension is set by turning ratchet device, released with button.

Pinion gear, controlled by 3-spoke feed wheel, meshes with quill rack, advancing spindle to work. Accurately machined teeth and adjustable spring mechanism give feather-touch feeding.

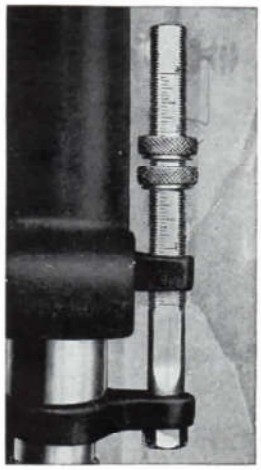
MOTOR CONTROL SWITCH—Built into head at convenient position near feed wheel within easy reach. Switch is 10 ampere at 110 volt, toggle type.



COLUMN COLLAR—Furnished with Nos. 63 and 73 drill presses. Simplifies raising and lowering head and permits swinging head for drilling at different points on large, heavy work. Lock is coordinate type.

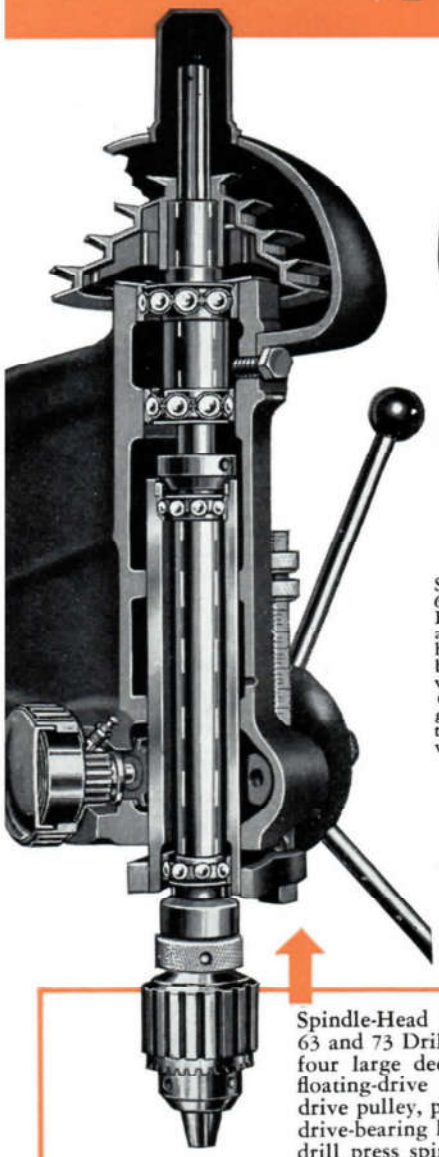


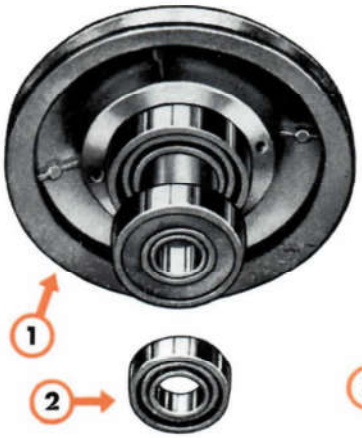
FULL-TILTING TABLE—Heavy, well-braced, machine ground casting—a rigid, accurate working surface. May be tilted to any desired angle, right or left, and locked securely. 90° and horizontal positions are indexed. Table support casting is line-bored to fit column, accurately machined and fitted to table.



DEPTH INDICATOR—Graduated in 1/16ths. Has two knurled feed-stop nuts. Design eliminates rotational play in drill press quill.

DRIVE" Spindle Bearing Design



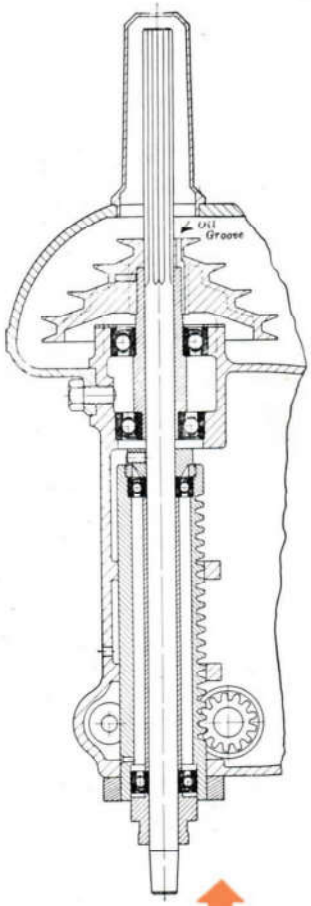


Spindle-Head Bearing Assembly of Nos. 63 and 73 Drill Presses showing: (1) Floating drive unit consisting of pulley and independent spindle supported in head by large deep-grooved SKF ball bearings, (2) two SKF ball bearings which float spindle free from quill, and (3) six-splined spindle and precision-ground quill. Notice accurately hobbed teeth in quill which form rack meshing with pinion feed gear.

FOUR SKF BEARINGS

SKF EQUIPPED

Above: Cross-section view of large deep-grooved SKF ball bearing used in Nos. 63 and 73 spindle-head bearing design. Two of these bearings support floating spindle drive unit in head—two more float the spindle free from the quill.



Spindle-Head Bearing Construction of Nos. 63 and 73 Drill Presses from left side. Notice four large deep-grooved SKF ball bearings, floating-drive design, splined spindle and drive pulley, precision-bored quill guides and drive-bearing housings. Dotted line indicates drill press spindle.

Above, Right: Cross-section drawing showing right side of Nos. 63 and 73 spindle-head bearing construction. All details of design are completely described on this page — floating spindle drive unit, six-splined spindle and drive pulley, precision-bored quill guides and drive-bearing housings. Drawing shows how pinion gear meshes with quill rack-teeth, advancing spindle to work.

★ RUGGED, ACCURATE SPINDLE-HEAD BEARING CONSTRUCTION

To handle production drilling and tapping and give long, accurate service at high speeds, today's drill press requires a rugged and accurate spindle-head bearing construction. The cross-section views on this page show in detail how Atlas heavy-duty drill presses meet this requirement.

The Atlas drill press head is a heavy, well braced casting — a strong, rigid, fully enclosed housing for the entire spindle-bearing assembly comprising spindle, quill, spindle-driving unit, and feed-control mechanism. The three quill guides and two drive-bearing housings are precision-bored for perfect concentricity of the quill with the drive unit for accurate spindle alignment. By boring holes for the column at the same setting, accurate alignment with the column is obtained.

Spindle drive unit — consisting of the six-splined pulley mounted on an independent tubular steel spindle supported in the head by large deep-grooved SKF ball bearings — IS ENTIRELY SEPARATE FROM THE DRILL PRESS SPINDLE. This floating drive transmits turning power only to the spindle — all belt pull is taken to the head through the drive unit.

The steel quill is precision ground. Two SKF ball bearings float the spindle free from the quill. The accurately bored quill guides provide three widely spaced supports to maintain quill alignment through its full travel.

The spindle is supported firmly at widely separated points — by the six-splined drive pulley at one end, the lower quill bearing at the other, and between these by upper quill bearing. This design maintains alignment as spindle is advanced into work, eliminates spindle whip, assures sensitive feeding, smooth accurate performance.

The heavy massive base casting is a rigid foundation for the entire drill press. It provides an auxiliary table for extra long work. The rugged ground steel column maintains accurate alignment of head, table, and base.

Atlas Nos. 63 and 73 15-inch

No. 63 15-INCH HEAVY DUTY Bench Type DRILL PRESS

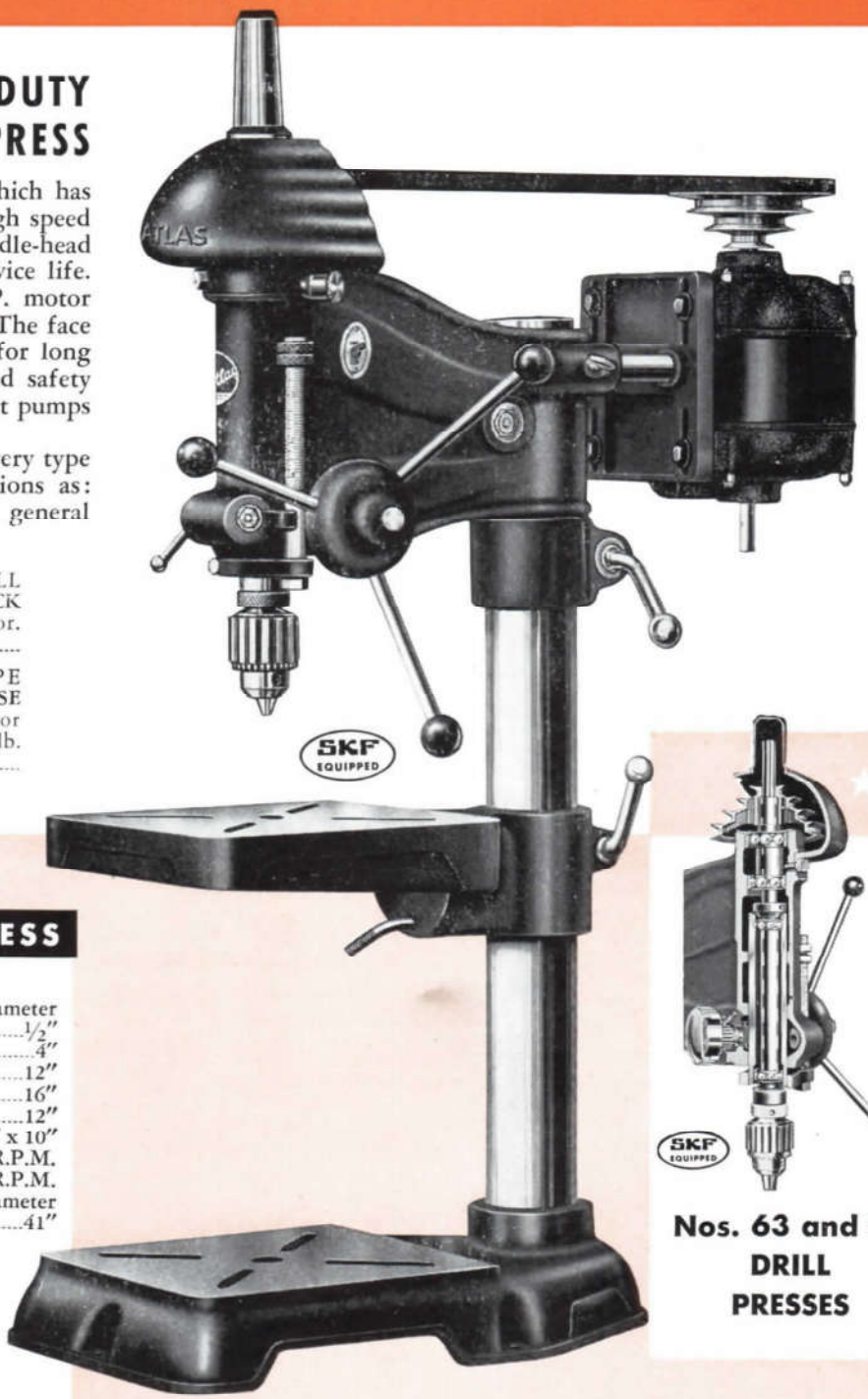
Pages 4 and 5 describe in detail the construction which has made the Atlas 63 preferred by manufacturers for high speed production drilling and tapping. The superior spindle-head bearing design means increased output and long service life. Initial cost is extremely low and the 1/3 or 1/2 H.P. motor requirement keeps operating expense at a minimum. The face of the base is ground to serve as an auxiliary table for long work. Production oil table, tapping attachments, and safety belt guard are completely described on page 8; coolant pumps page 12.

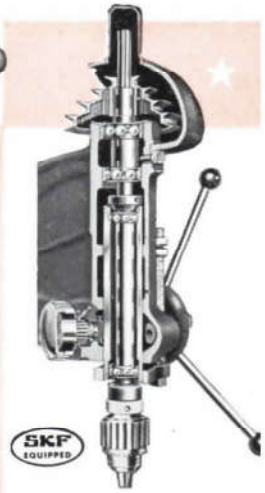
All-around utility makes the No. 63 a favorite in every type of shop. It handles quickly and easily such operations as: shaping, mortising, routing, carving, sanding, and general drilling in metal and wood.

No. 63 15" HEAVY-DUTY BENCH TYPE DRILL PRESS WITH 0 to 1/2" JACOBS CHUCK complete as shown with belt and motor pulley, less motor. Code word ZEBSE, weight 125 lb.

No. 63-IM 15" HEAVY-DUTY BENCH TYPE DRILL PRESS WITH NO. 1 MORSE TAPER in place of chuck. Complete with belt and motor pulley, less motor. Code word ZECAS, weight 125 lb. (5/8" diameter spindle — 11 1/4" capacity over table)

Morse taper spindle does not accommodate standard drill press attachments.





Nos. 63 and 73 DRILL PRESSES

SPECIFICATIONS No. 63 DRILL PRESS

Drills to Center of Circle	15" diameter
Chuck Capacity	1/2"
Spindle Travel	4"
Maximum Distance Table to Chuck	12"
Maximum Distance Base to Chuck	16"
Table Travel	12"
Size of Table	10" x 10"
9 Speeds between	600 and 5200 R.P.M.
With Hi-Lo Speed Attachment (below)	Low Speed 200 R.P.M.
Ground Steel Column	2 3/4" diameter
Overall Height	41"
Overall Width	12"
Overall Depth with Motor	24"
Shipping Weight less Motor	125 lb.
Motor Recommended	1/3 or 1/2 H.P. 1740 R.P.M. Ball Bearing
Built-in Switch Furnished	10 Amperes at 110 volts.
Switch is for single current only	3-phase controls, page 8.

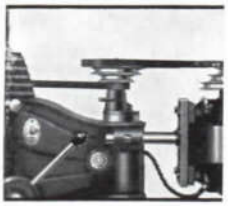
Motor pulley furnished is for 1/2" diameter motor shaft —prices of pulleys for other motor shafts on request.

ATTACHMENTS and ACCESSORIES No. 63

TAPPING ATTACHMENTS

For high-speed production tapping. See page 8.

No. W39A TAPPING ATTACHMENT with tap holder and 7 collets. Code ZAERF, wt. 13 lb.

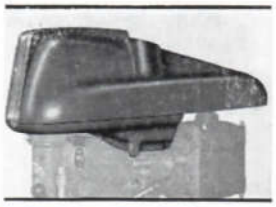


SPEED ATTACHMENT

Provides low speed of 200 RPM and higher than standard speeds.

See page 15.

W15 HI-LO ATTACHMENT for 60 and 70-series drill presses. Code ZAFTO, wt. 6 lb.



SAFETY GUARD

Covers belt, pulleys, and spindle—easily raised to change speeds.

See page 8.

SAFETY GUARD ordered with 63 or 73-series drill press, extra....

HEAVY DUTY DRILL PRESSES

No. 73 15-INCH HEAVY DUTY Floor Type DRILL PRESS

The Atlas No. 73 has a rugged floor-type mounting, 40½" capacity over table and 46" capacity over base. Spindle-head bearing design with floating-drive, splined spindle and drive pulley, adjustable feed return, precision Jacobs chuck, full-tilting table — all the modern construction features of the 73 are fully described on pages 4 and 5.

Equipped with the No. W33 foot-lever feed control (page 8), the 73 drill press is an ideal machine for repetitive drilling and tapping operations. Other production accessories are also shown on page 8 — coolant pumps, page 12.

No. 73 15" HEAVY-DUTY FLOOR TYPE DRILL PRESS WITH 0 to ½" JACOBS CHUCK complete as shown with belt and motor pulley, less motor. CODE ZECIV, wt. 175 lb.....

No. 73-1M 15" HEAVY-DUTY FLOOR TYPE DRILL PRESS WITH No. 1 MORSE TAPER in place of chuck. Complete with belt and motor pulley, less motor. Code word ZECUX, weight 175 lb. (⅝" diameter spindle — 39¾" capacity over table)

Morse taper spindle does not accommodate standard drill press attachments.

SPINDLE-HEAD BEARING DESIGN

Nos. 63 and 73 Drill Presses

Complete Description, Page 5

Cross section view showing spindle-head bearing construction of Nos. 63 and 73 heavy-duty drill presses. Spindle driving unit is entirely separate from drill press spindle. Notice four deep-grooved SKF ball bearings, splined spindle and drive pulley, precision-bored quill guides and drive-bearing housings.

SPECIFICATIONS No. 73 DRILL PRESS

Drills to Center of Circle	15" diameter
Chuck Capacity	½"
Spindle Travel	4"
Maximum Distance Table to Chuck	40½"
Maximum Distance Base to Chuck	46"
Table Travel	40½"
Size of Table	10" x 10"
9 Speeds between	600 and 5200 R.P.M.
With Hi-Lo Speed Attachment (below, left)	Low Speed 200 R.P.M.
Ground Steel Column	2¾" diameter
Overall Height	71"
Overall Width	14"
Overall Depth with Motor	30"
Shipping Weight less Motor	175 lb.
Motor Recommended	⅓ or ½ H.P. 1740 R.P.M. Ball Bearing
Built-in Switch Furnished	10 Ampere at 110 volts.
Switch is for single phase current only	3-phase controls, page 8.

Motor pulley furnished is for ½" diameter motor shaft — prices of pulleys for other motor shafts on request.

ınd 73 DRILL PRESSES

OIL TABLE

10½" x 16½" working surface.

See page 8.

OIL TABLE ordered with 63 or 73-series drill press in place of standard full-tilting table. Extra.....

COOLANT PUMPS

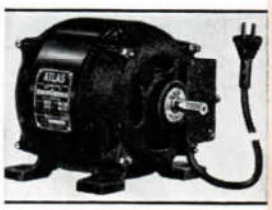
Efficient, compact, portable. See page 12.

No. W88 COOLANT PUMP with 2½ gal. tank, cord, switch and plug. Capacity 3.75 GPM. Code ZEIRL, wt. 17 lb.....

MOTORS

SKF ball bearings, ½" single-end shaft, cord and plug. Operate in any position. See page 8.

No.	HP	Wt.
2520S	⅛	33 lb.
2530A	½	38 lb.



PRODUCTION ACCESSORIES FOR Nos. 63 and 73 DRILL PRESSES

Pictured at the right is the Atlas 73 drill press equipped to handle high-speed production operations. The complete machine includes No. 73 drill press with:

No. 61-2S ..... Production Oil Table
No. W33 ..... Foot Lever Feed Control
No. W32A ..... Tapping Attachment
No. 62-7A ..... Safety Belt Guard

These accessories are fully described on this page.

THREE PHASE MOTORS

The motors listed below are designed for use with three-phase current. All are 1740 RPM, 60 cycle — have SKF ball bearings, ½" single-end shaft. Furnished with BX connector in terminal box — do not have switch, cord, or plug.

No.	HP	Voltage	Wt.	Code
2630S	1/3	220	28 lb.	ZEWPE
2620S	1/2	220	35 lb.	ZEWRO
2635	1/3	440	28 lb.	ZEWYT
2625	1/2	440	35 lb.	ZEWUS

THREE PHASE SWITCH

Required with 3-phase motor. Thermal overload 3-pole manual starters for 3-phase circuits. Mounting bracket and flexible cable-covered motor connection cord are furnished.

No. W67 THREE PHASE SWITCH for Nos. 53, 63 and 73 drill presses, with mounting bracket and connections. Code ZECET, wt. 6 lb.....

No. W86 THREE PHASE SWITCH for multiple spindle drill presses, with mounting bracket and connections. Code ZEIKD, wt. 6 lb.....

SAFETY GUARD
for Belt, Pulleys and Spindle

This light, durable shield provides a safety cover for the complete drill press drive mechanism, as required by industrial and vocational safety codes in most states. Pin hinges permit quick raising for speed changes — it is not necessary to remove guard to change belts. Spring clip holds guard closed.

SAFETY GUARD ordered with 63 or 73 series drill press. Extra.....

No. 62-7A DRILL PRESS SAFETY GUARD for 60 and 70 series drill presses, ordered separately. Ready tapped for easy installation. Code ZABSY, wt. 7 lb.....

TAPPING ATTACHMENTS
See Complete Description Below

Available in two sizes: No. W39A to tap up to 5/16" in steel, ⅜" in cast iron, and ½" in brass; and No. W39 to tap up to 3/16" in steel, and ¼" in brass and cast iron.

PRODUCTION OIL TABLE

For production work with jigs and fixtures. Can be furnished with Nos. 63 and 73 drill presses in place of standard full-tilting table. Has 10½" x 16½" ground working surface and drain channel to remove oil or cutting compound. Held firmly in position by coordinate clamp lock. Extra weight and proper bracing assure maximum rigidity and accurate work.

PRODUCTION OIL TABLE ordered with No. 63 or No. 73 series drill press in place of standard table. Extra.....

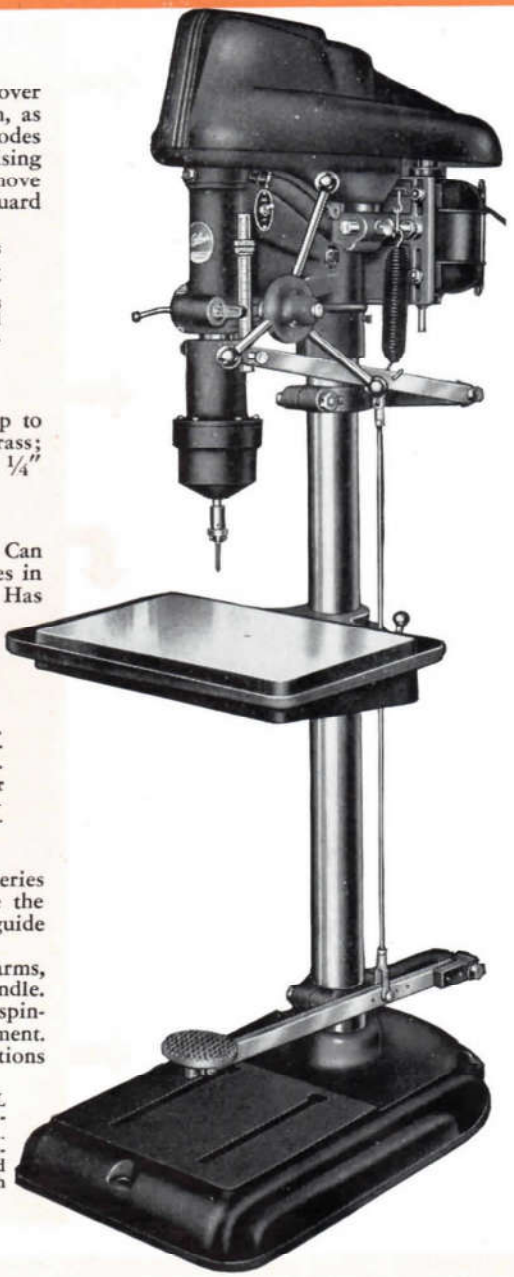
No. 61-2S PRODUCTION OIL TABLE for 60 and 70 series drill presses. Ordered separately—Code ZABUR, 65 lb.....

FOOT-LEVER FEED CONTROL

Speeds up any repetitive operation with 70-Series drill presses. Accuracy is improved because the operator has both hands free to hold and guide the work.

Includes draw rod mounted between two arms, one for foot pedal and one for drill press spindle. Heavy-duty return spring has 3 positions on spindle arm and tension nut for quick adjustment. Draw rod can be bolted at any one of 4 positions on foot lever arm.

No. W33 FOOT LEVER FEED CONTROL for 70-series drill presses complete as shown. Code word ZAETH, wt. 31 lb... Note: No. W33 is not recommended for production mortising. Please specify if foot lever feed control will be used on drill press equipped with Hi-Lo speed attachment (page 15).



Atlas TAPPING ATTACHMENTS

For High-Speed Production Tapping

These Atlas tapping attachments convert any 60 or 70 series drill press into a sensitive high-speed production tapping machine. They meet the modern demand for a light, compact, accurate tapper.

The lightweight durable housing encloses a 3-point balanced, heat-treated gear reversing mechanism which distributes pull to three gears, minimizing wear and eliminating torsion. Improved head design — chuck rotates in tapping direction when idling. This construction means a more sensitive head and increases tap life. Reverse speed is twice forward speed. Double-cone friction clutch has cork facing — spindle turns on ball bearings.

These tapping attachments have tapered socket for drill press spindle and cover which clamps directly to quill. No adapters necessary. Atlas tapping attachments are available for drill presses with Morse taper spindles — details on request.

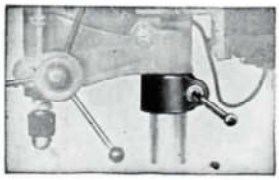
No. W39A TAPPING ATTACHMENT complete with "Tru-Grip" tap holder and 7 collets for following taps: Nos. 8, 9, 10, ¼", 5/16", ⅜" (shank diameter .381"), 7/16", and ½". CAPACITY: No. 8 tap to 5/16" in steel, ⅜" in cast iron, ½" in brass. Code word ZAERF, wt. 13 lb.....

No. W39 TAPPING ATTACHMENT complete with "Tru-GRIP" tap holder and 4 collets for following taps: Nos. 2, 3, 4, 5, 6, 7, 8, 9, 10, and ¼". CAPACITY: up to 3/16" in steel, ¼" in brass and cast iron. Code ZAEMZ, wt. 7 lb.....

"TRU-GRIP" TAP HOLDER

The "Tru-Grip" tap holder furnished with Atlas tapping attachments is light in weight, accurate and has no delicate parts to cause trouble. Spring collets are furnished — both holder and collets are hardened and ground.

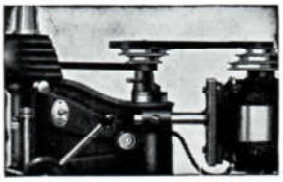
Atlas No. 53 12¾" BENCH TYPE DRILL PRESS



COLUMN COLLAR

Simplifies raising, lowering, and moving drill press head.

No. 52-75A COLUMN COLLAR. Code word ZEHZE, weight 3½ lb.....



SPEED ATTACHMENT

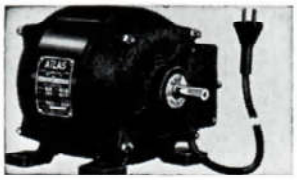
Provides low speed of 200 RPM and higher than standard speeds. V-belts furnished—see page 15.

No. W14B . HI-LO SPEED ATTACHMENT for 53 drill press. Code word ZEKFO, weight 6 lb.....

BELT RELEASE

Speeds up belt changes—complete description page 15. V-belt furnished.

QUICK-CHANGE BELT RELEASE ordered with 53 drill press. Extra.....



MOTORS

SKF ball-bearings. Operate in any position. Single phase, capacitor start.

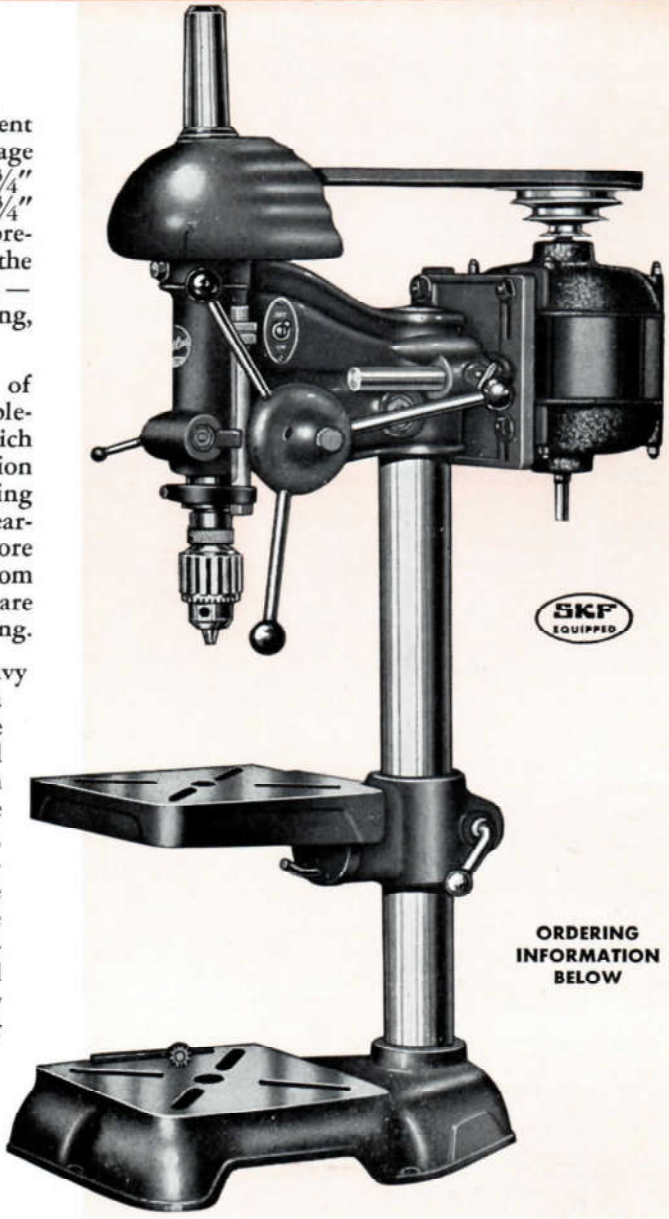
No.	HP	Wt.	Code
2520S	1/3	33 lb.	ZEWOR
2530A	1/2	38 lb.	WYZIC

★ ★ ★

The No. 53 drill press is an excellent general purpose machine for the average shop. It drills to the center of a 12¾" circle, has 3" spindle travel, takes 9¾" over table, and is equipped with precision Jacobs chuck. It handles the full range of drill press operations—mortising, shaping, sanding, carving, and routing.

The spindle-head bearing design of the No. 53 incorporates a new flexible-type drive (U.S. Patent 2287391) which insures smoother, more quiet operation at all speeds. The floating drive bearing is a large deep-grooved SKF ball bearing mounted in the pulley. Two more ball bearings float the spindle free from the quill. Vibrations and belt pull are absorbed by a special flexible coupling.

The No. 53 drill press head is a heavy accurately machined casting—a strong, fully enclosed housing for the spindle and bearings. Matched and balanced pulleys, combined with splined drive, practically eliminate vibration. Precision Jacobs chuck, graduated depth indicator, three-spoke feed wheel, built-in 10 ampere motor control switch, and adjustable motor mounting bracket are furnished. Drive pulley and splined spindle are completely enclosed by iron guard and cap. Clamp locks for head, quill, and table support are coordinate type. Full tilting table is accurately ground. Heavy base is a rugged support—face is ground to serve as table for long work. Column is 2¼" ground steel



ORDERING INFORMATION BELOW

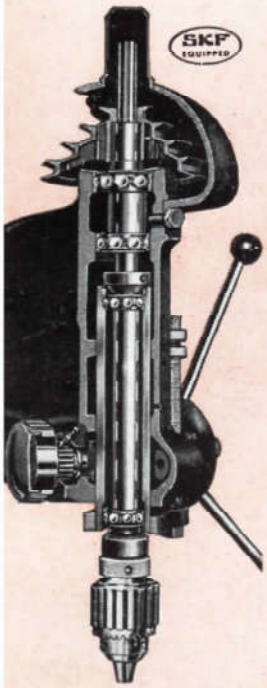
SPECIFICATIONS No. 53 DRILL PRESS

Drills to Center of Circle	12¾" diameter
Chuck Capacity	½"
Spindle Travel	3"
Maximum Distance Table to Chuck	9¾"
Maximum Distance Base to Chuck	13½"
Table Travel	9¾"
Size of Table	8" x 9"
Ground Steel Column	2¼" diameter
9 Speeds between	600 and 5200 RPM
With Hi-Lo Speed Attachment (left)	Low Speed 200 RPM
Overall Height	36"
Overall Width	11"
Overall Depth with Motor	24"
Shipping Weight Less Motor	95 lb.
Motors Recommended	⅓ or ½ HP 1740 RPM Ball Bearing (left)

ORDERING INFORMATION

No. 53 12¾" BENCH TYPE DRILL PRESS WITH 0 to ½" JACOBS CHUCK complete as shown with belt and motor pulley, less motor. Code word ZEWTY, shipping weight 95 pounds.....

Built-in Switch Furnished . . . 10 Amp. at 110 volt. Switch is for single phase current only. 3-phase controls, page 8. Motor pulley furnished is for ½" diameter motor shaft—prices of pulleys for other motor shafts on request.



FLOATING-DRIVE SPINDLE DESIGN

Drilling heads of the Atlas multiple spindle drill presses are equipped with the well-known Atlas SKF spindle-head bearing construction. Cross section view from the left side (above) shows all the details of this "floating drive," completely described on page 5. Notice four large deep-grooved SKF ball bearings, floating spindle drive unit, six-splined spindle and drive pulley, precision-bored quill guides and drive bearing housings. Dotted line indicates drill press spindle.

TO STEP UP PRODUCTION on small-hole drilling and tapping, put these Atlas drill presses on the job. They eliminate waste motion in manufacturing any part requiring a series of drilled and tapped holes. Their cost is surprisingly low.

The massive production table provides plenty of "elbow room" for the smooth movement of large heavy jigs and fixtures. The famous Atlas 4-bearing floating drive makes the drilling action smooth and sensitive. Each drill head is equipped with its own motor mounting and a unique type of control which positions the head with a few turns of a crank handle. Modern convenience features boost output by saving operator's time and effort. 1/3 or 1/2 HP motor requirement cuts power cost.

Let us help you economize on the repetitive drilling operations in your plant. The services of the entire Atlas engineering staff are at your disposal.

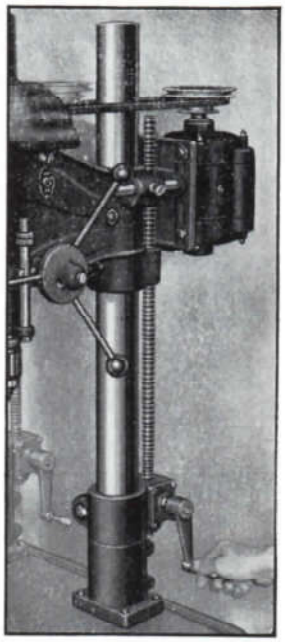
RUGGED TABLE AND FLOOR LEGS — The massive production oil table of these Atlas drill presses is a heavy grey iron casting, braced rigidly by a network of thick ribs covering the entire bottom surface. Table alone of the 3- and 4-spindle machines weighs 575 pounds! The table working surface is accurately planed square with the drilling spindles to insure accurate work with jigs and fixtures. Drain channel removes oil or cutting compound.

The floor legs are heavy solid well-braced iron castings, each held fimly to the table by three 1/2" cap screws. A wood shelf 11" from the floor provides convenient space for tools and jigs.

FLOATING-DRIVE SPINDLE DESIGN — Atlas multiple spindle drill presses incorporate the famous Atlas SKF-equipped spindle head bearing construction featured in all Atlas heavy-duty drill presses. Details are completely described on pages 4 and 5. More than any other single factor, this fine head design accounts for new operating records set by Atlas drill presses in hundreds of the largest, most efficient production plants.

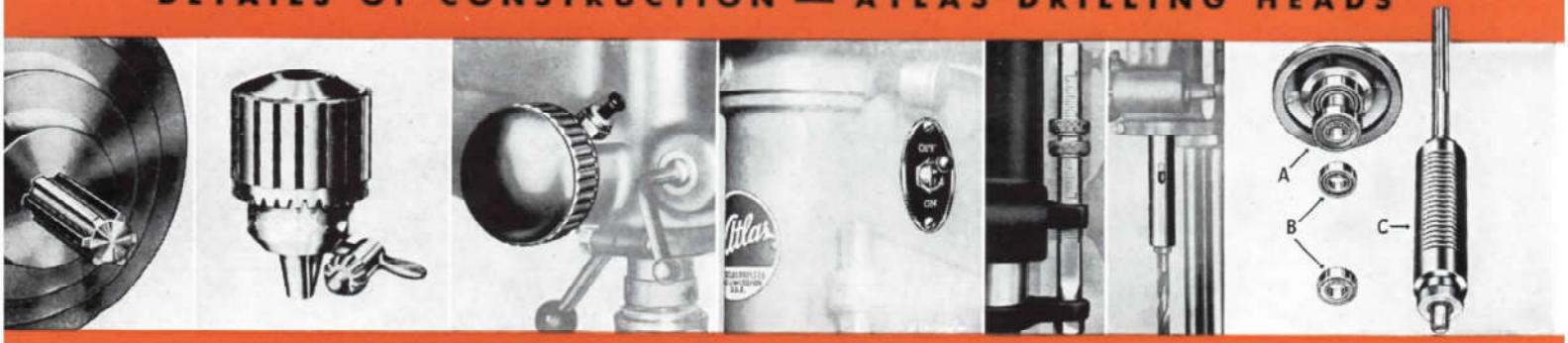
ATLAS HEAD POSITIONING CONTROL — Simply turning a crank handle raises or lowers the drill head on the support column, a unique design which reduces set-up time to a minimum. The elevating screw controls a column collar below the drill head — screw has ball thrust bearing at lower end. Head clamping lock is coordinate type for quick, rigid positioning without scoring column.

The head support columns are 2 3/4" diameter ground steel locked securely to the table by 4"-high split type brackets, each anchored by four 3/8" cap screws.



Head Position Control

DETAILS OF CONSTRUCTION — ATLAS DRILLING HEADS



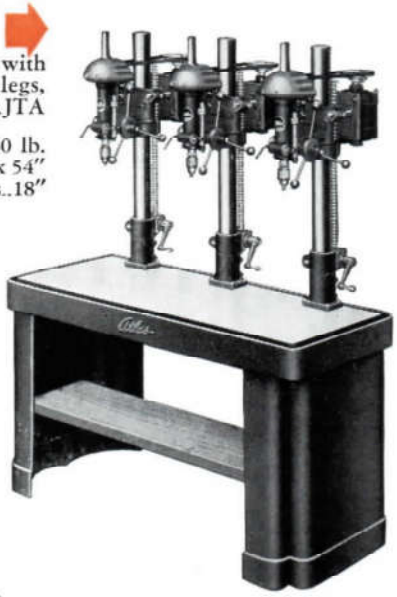
1. SIX-SPLINED SPINDLE AND PULLEY maintain spindle alignment and transmit maximum power to the drill without whip or backlash. Matched and balanced pulleys, combined with splined drive, practically eliminate vibration. **2. PRECISION JACOBS CHUCKS** — Accurate spindle alignment plus precision Jacobs chucks means maximum accuracy at the drill point. **3. ADJUSTABLE FEED TENSION** — Turning ratchet device provides any desired feed tension. Accurately machined feed mechanism and adjustable tension give feather-touch feeding. **4. MOTOR CONTROL SWITCH** built into head at convenient position near feed wheel within easy reach. **5. DEPTH INDICATOR** graduated in 1/16ths. Has two knurled feed-stop nuts. **6. MORSE TAPER SPINDLES** can be furnished to accommodate No. 1 Morse taper shank drills. Ordering information page 11. **7. SPINDLE-HEAD BEARING ASSEMBLY** showing: (A) Floating drive unit consisting of pulley and independent spindle supported in head by large deep-grooved SKF ball bearings, (B) two SKF ball bearings which float the spindle free from quill, and (C) six-splined spindle and precision-ground quill. Notice accurately hobbed teeth in quill which form rack meshing with pinion feed gear.

SPINDLE DRILL PRESSES ★ ★ ★

Atlas No. W83

Three-Spindle Drill Press with Jacobs 0-1/2" Chucks, floor legs, less motors.....Code ZAJTA

Net Weight less Motors..960 lb.
Table Surface.....21" x 54"
Center to Center of Spindles..18"



Atlas No. W82

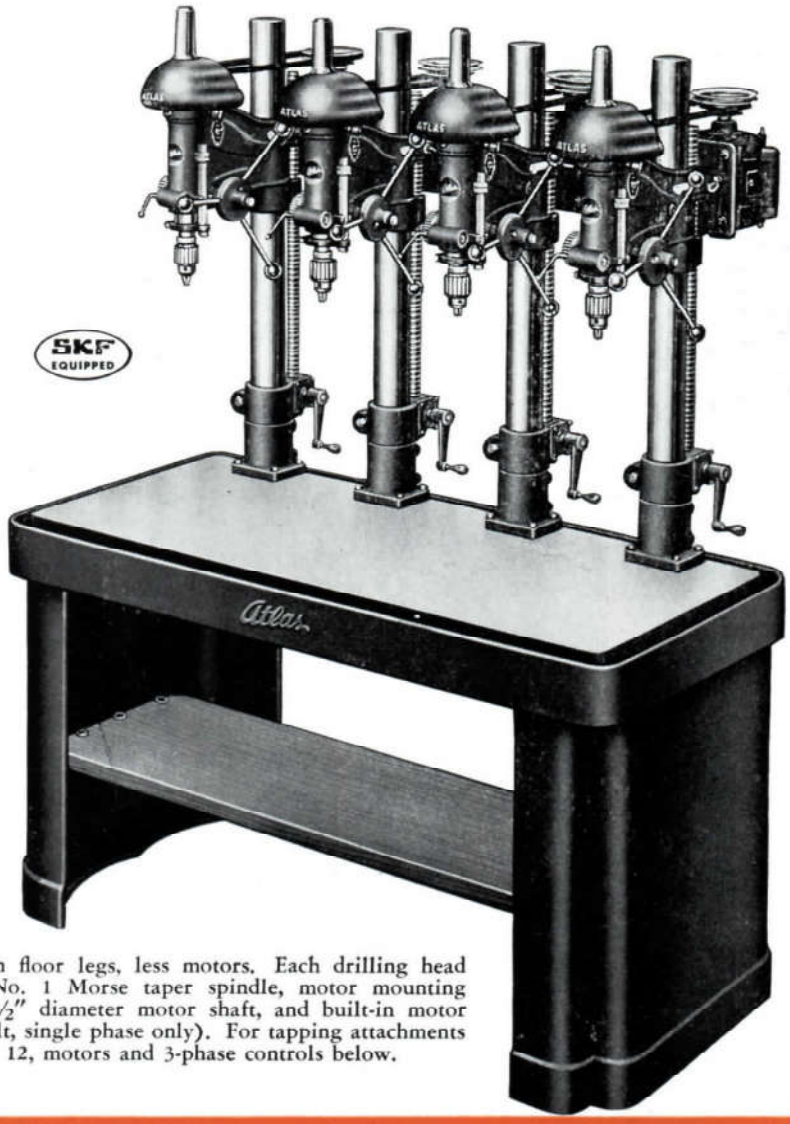
(Below) Two-Spindle Drill Press with Jacobs 0-1/2" Chucks, complete with floor legs, less motors .....Code ZAJOY

Net Weight
less Motors.....735 lb.
Table Surface.....21" x 30"
Center to Center
of Spindles .....15"

Atlas No. W84

Four-Spindle Drill Press with Jacobs 0-1/2" Chucks, complete with floor legs, less motors..Code ZAJUZ

Net Weight less Motors.....1040 lb.
Table Working Surface.....21" x 54"
Center to Center of Spindles.....13"



FURNISHED complete as shown with floor legs, less motors. Each drilling head includes: Jacobs 0-1/2" chuck or No. 1 Morse taper spindle, motor mounting bracket, V-belt, motor pulley for 1/2" diameter motor shaft, and built-in motor control switch (10 ampere at 110 volt, single phase only). For tapping attachments refer to page 8, coolant pumps page 12, motors and 3-phase controls below.

SINGLE-PHASE MOTORS

The 1740 RPM 60 cycle motors listed below are recommended for the Atlas multiple spindle drill presses. Both are capacitor-start, developing full power instantly under load without drawing excess current. Have large SKF ball bearings and 1/2" single-end shaft. Furnished with 10 ft. SJ approved extension cord and plug.

No.	HP	Voltage	Wt.	Code Word
2520S	1/3	110/220	33 lb.	ZEWOR
2530A	1/2	110/220	38 lb.	WYZIC

THREE-PHASE MOTORS

These motors are designed for use with three-phase current. All are 1740 RPM, 60 cycle — have SKF ball bearings, 1/2" single-end shaft. Furnished with BX connector in terminal box — do not have switch, cord, or plug.

No.	HP	Voltage	Wt.	Code Word
2630S	1/3	220	28 lb.	ZEWPE
2620S	1/2	220	35 lb.	ZEWRO
2635	1/3	440	28 lb.	ZEWYT
2625	1/2	440	35 lb.	ZEWUS

THREE-PHASE SWITCH

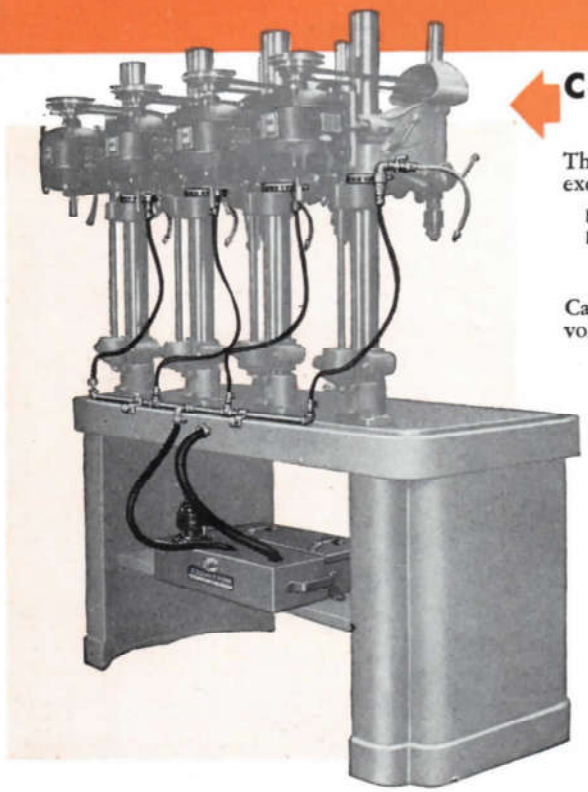
No. W86 switch is required with a 3-phase motor. It is a thermal overload 3-pole manual starter for 3-phase circuits. Mounting bracket and flexible cable-covered motor connection cord are furnished.

No. W86 THREE PHASE SWITCH for multiple spindle drill presses, with mounting bracket and connections. Code ZEIKD, wt. 6 lb.

Complete Specifications — Atlas Multiple Spindle Drill Presses

Number of Spindles	4	3	2
Center to Center of Spindles	13"	18"	15"
Maximum Distance, Table to Jacobs Chucks	26"	26"	26"
Maximum Distance, Table to No. 1 Morse Taper Spindles	24 1/4"	24 1/4"	24 1/4"
Column to Center of Spindle	7 1/2"	7 1/2"	7 1/2"
Column Support Bracket to Center of Spindle	6 7/8"	6 7/8"	6 7/8"
Chuck Capacity	1/2"	1/2"	1/2"
Spindle Travel	4"	4"	4"
Table Working Surface	21" x 54"	21" x 54"	21" x 30"
9 Speeds between	600 and 5200 RPM	600 and 5200 RPM	600 and 5200 RPM
Ground Steel Columns	2 3/4" diam.	2 3/4" diam.	2 3/4" diam.
Overall Height	79 1/2"	79 1/2"	79 1/2"
Overall Depth with Motors	31 1/4"	31 1/4"	31 1/4"
Overall Width	58"	58"	34"
Floor to Top of Table	32"	32"	32"
Wood Shelf	14" x 57 1/4"	14" x 57 1/4"	14" x 33 1/4"
Net Weight less Motors	1040 lb.	960 lb.	735 lb.
Shipping Weight (Approximate)	1280 lb.	1200 lb.	820 lb.
ORDER NUMBER with Jacobs 0-1/2" Chucks	**W84**	**W83**	**W82**
Code Word with Jacobs 0-1/2" Chucks, less motors	ZAJUZ	ZAJTA	ZAJOY
ORDER NUMBER with No. 1 Morse Taper Spindles	**W84-1M**	**W83-1M**	**W82-1M**
Code Word with No. 1 Morse Taper Spindles in place of Chucks, less motors	ZAKAV	ZAJYO	ZAJVE

Atlas COOLANT SYSTEMS (COLUMN DIAMETERS TO 4½ INCHES)



COOLANT SYSTEMS FOR MULTIPLE SPINDLE DRILL PRESSES

The Atlas coolant equipment pictured at the left provides an excellent system for 4-spindle drilling machines. It includes:

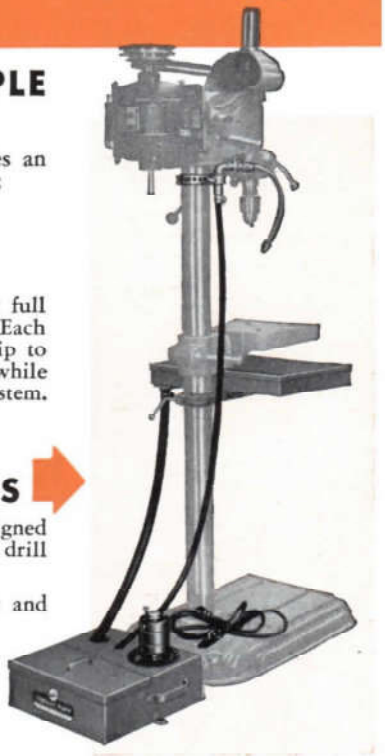
No. W89 Coolant Pump and Tank *(Below)*.
No. W94 Four-Spindle Feed and Return Lines *(Below)*.
No. W92 and W93 Two- and Three-Spindle Feed and Return Systems are also listed below.

Capacity of the W89 coolant pump is adequate to deliver full volume and pressure to all of the outlets simultaneously. Each control valve may be adjusted independently from drip to full-flow, and all valves may be closed completely while pump is operating without injury to any part of system.

COOLANT SYSTEM FOR FLOOR-TYPE DRILL PRESSES

The Atlas coolant system pictured at the right is designed for Atlas 73-series drill presses and other floor-type drill presses with column diameters to 4½". It includes:

No. W88 Coolant pump with induction-type motor and 2½ gallon tank *(Below)*.
No. W98 Single-spindle feed and return unit *(Below, right)*.
No. W91 Oil pan (for 2¾" diameter columns only). See description below at right.



UNIVERSAL PUMP AND TANK

Recommended for multiple-spindle drill presses and other machine tools, also for extra flood-washing capacity with single-spindle drill presses. **Pumping Capacity:** 50% soluble oil 7.5 GPM; lard oil, 70° F) 2.5 GPM. Modern centrifugal design insures continuous dependable performance.

No. W89 UNIVERSAL COOLANT PUMP complete as shown above with 8 ft. extension cord, push-thru switch and plug. Code ZEJAZ, wt. 24½ lb.

Universal Motor	6000 RPM, 110-120 volt AC-DC
Outlet	¼" pipe nipple (approx. ⅜" ID)
Tank Capacity	5 gallons
Tank Dimensions	14⅛" x 20⅝" x 4¼" deep
Overall Height with Motor	8½"

INDUCTION PUMP AND TANK

Recommended for single-spindle drill presses and other machine tools. **Pumping Capacity:** 50% soluble oil 3.75 GPM; lard oil (70° F) 1.5 GPM. The W88 is a compact centrifugal-type pump, an efficient utility unit engineered for continuous service.

No. W88 INDUCTION COOLANT PUMP complete as shown above with 8 ft. extension cord, push-thru switch and plug. Code ZEIRL, wt. 17 lb.

Induction Motor	3450 RPM, 110-120 volt 50-60 cycle AC
Outlet	¼" pipe nipple (approx. ⅜" ID)
Tank Capacity	2½ gallons
Tank Dimensions	12⅛" x 12⅝" x 4¼" deep
Overall Height with Motor	8½"

COOLANT SYSTEM FOR BENCH DRILL PRESSES

The Atlas coolant system listed below is recommended for all bench drill presses with column diameters to 4½". It includes:

No. W88 Coolant Pump and Tank (Left).
No. W98 Single-Spindle Feed and Return Lines (Below).
No. W90 Oil Pan (Below).

OIL PANS

Heavy-gauge steel, leakproof-welded.

No. W91 OIL PAN for 73-series drill presses and others with 2¾" columns. Size: 13" x 16" x 2" deep, outlet nipple for ¾" ID hose. Adjustable bracket supports pan on column. Code ZEKCE, wt. 12 lb.

No. W90 OIL PAN for bench-type drill presses. Size: 16" x 22" x 2" deep, outlet nipple for ¾" ID hose. Code ZEKBA, wt. 10 lb.

NOTE: We do not manufacture special oil pans.

MULTIPLE-SPINDLE FEED AND RETURN SYSTEMS

Efficient, easily installed. Outlet nozzles, flexible metal tubing, control valves and upper feed lines are supported by universal-type collars for column diameters up to 4½", easily adaptable to irregular surfaces. Manifold pipe supported by two clamp brackets distributes coolant fluid to upper feed lines.

Order No.	for	Weight	Code Word
W94	Four Spindle Drill Presses	12 lb.	ZEJOD
W93	Three Spindle Drill Presses	10 lb.	ZEJIC
W92	Two Spindle Drill Presses	7½ lb.	ZEJEB

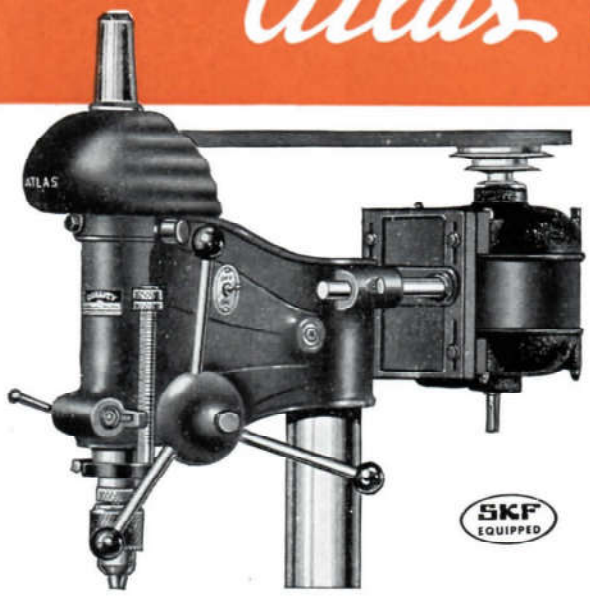
FURNISHED: 5' x ¾" (ID) plastic feed line, 3' x ¼" (ID) plastic feed lines above manifold, 4' x ¾" (ID) plastic return hose and nipple. Nozzle support collars may be used with round columns to 4½" diam. and adapted easily to irregular surfaces.

SINGLE-SPINDLE FEED AND RETURN SYSTEM

Has universal-type support collar which can be attached to round columns up to 4½" diameter and adapted easily to irregular surfaces. Includes 12" flexible metal tubing, nozzle and control valve. Furnished with 6' x ⅜" (ID) plastic feed line, 4' x ¼" (ID) plastic return hose nipple.

No. W98 FEED and RETURN UNIT for single-spindle drill presses, etc., as described above. Code ZEJDO, wt. 3½ lb.

Atlas DRILL PRESS HEADS SIMPLIFY PERPLEXING DRILLING PROBLEMS



The installations pictured on this page are typical of hundreds where Atlas drill press heads have solved difficult production set-ups. They show how expensive, awkward jobs can be simply converted into profitable operations. The possibilities for multiplying drilling efficiency with these heads are practically unlimited.

Atlas drilling heads often eliminate the need for a costly special drilling machine or intricate fixture. They are compact, portable, easily adapted to the job, and may be operated in any position. Atlas SKF ball bearing spindle-head design insures long, accurate service at high speeds. Their cost is a small fraction of special drilling units, and the ½ or ⅓ HP motor requirement keeps operating expense at a minimum.

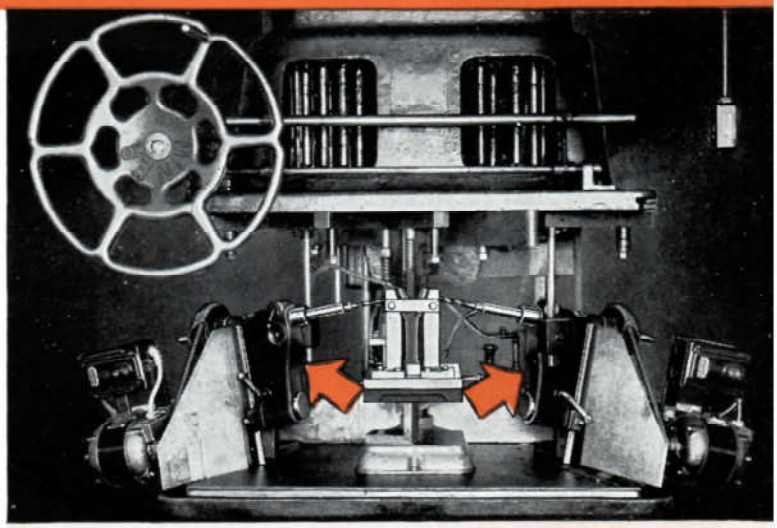
Atlas drilling heads are available in two sizes: the 15" 63-Series and 12¾" 53-Series — complete specifications below. Note: *We do not manufacture special drilling machines.*

SPECIFICATIONS

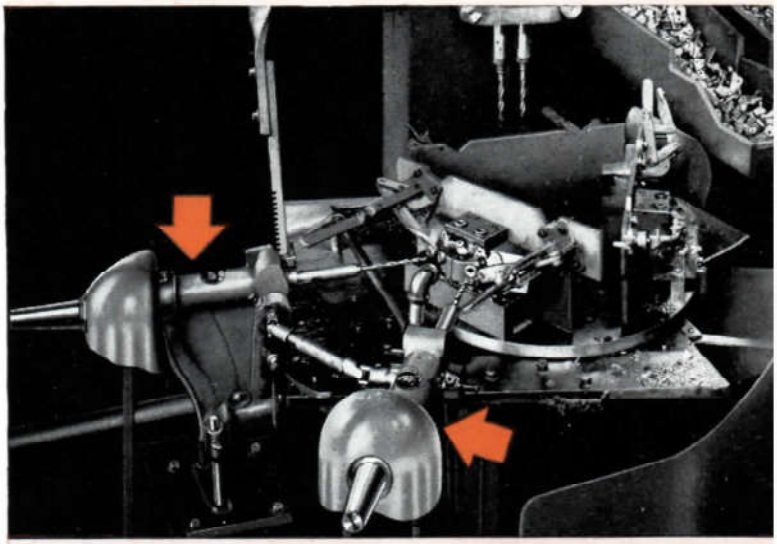
	63 Series	53 Series
Drills to Center of Circle	15"	12¾"
Spindle Travel	4"	3"
Column Bore	2¾"	2¼"
Chuck Capacity	½"	½"
Speed Range	600-5200 RPM	600-5200 RPM
Number SKF Ball Bearings	4	3

FURNISHED: Complete as shown with motor mounting bracket, belt and pulley; less motor and column. Motor control switch furnished is 10 ampere at 110 volt single phase only — three phase switch, page 8. Motor pulley furnished is for ½" diameter motor shaft — prices of pulleys for other motor shafts on request.

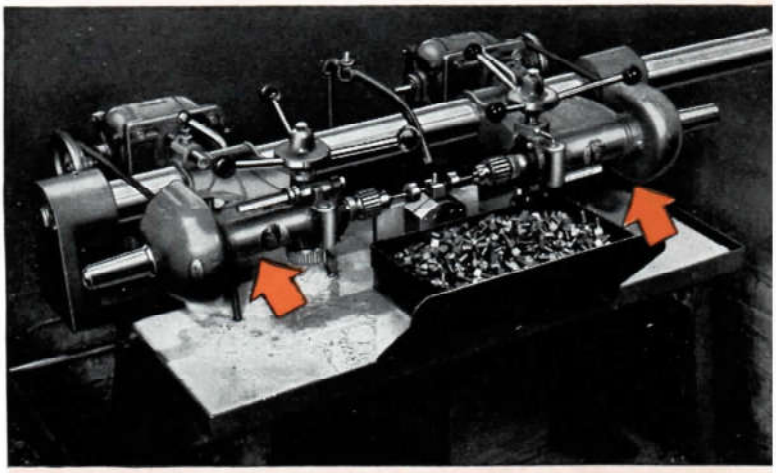
No.	Series	With	Bearing Design	Code	Weight
63-1V	63	0-½" Jacobs Chuck	Page 5	ZAHET	70 lb.
63-1Z	63	No. 1 Morse Taper	Page 5	ZAHUX	70 lb.
53-1X	53	0-½" Jacobs Chuck	Page 9	ZEWUS	55 lb.



Two 63-series Atlas drilling heads teamed up with multiple spindle drill. Bracket being drilled requires five holes, two of them at an angle to both vertical and horizontal planes. Universal angle bracket holds each head in position — rams attached to multiple spindle head automatically actuate the angular feeds. Drilling time has been reduced by more than 60 per cent — and the cost of a special drilling machine is eliminated



These two 63-series Atlas drill heads gave production a big boost by drilling two extra holes at an extremely low set-up cost. The feed of the vertical drill, carrying a double-spindle drill head for two vertical holes, also drives feed for the two Atlas heads drilling the horizontal holes. Three fixtures on rotary table permit loading parts at one station while two holes are being drilled at each of other two stations.



This ingenious drilling set-up multiplies production of a special bolt by simplifying operations from two directions. The two 63-series Atlas drill press heads are mounted horizontally on one column with height adjustments. The piece is first cross-drilled from the right, and the drill carries a tool which counterbores a radius as the hole is completed. Then the piece is counterbored from the left by the second drilling head.

ACCESSORIES AND
FOR ATLAS

For ANY GRINDER AND WHEEL THICKNESS

CAPACITY 3/32" to ½"

No. W30

DRILL GRINDING ATTACHMENT

Fast, clean, accurate drilling is an easy job when the drill point has been sharpened on the Atlas drill grinder. This attachment soon pays for itself by resharpening drills quickly and accurately, with none of the uncertainty and waste of hand work.

It takes just two minutes to sharpen any drill between 3/32" and ½" in diameter, and *both lips are always ground identically,* insuring maximum accuracy and prolonging drill life. Novel chuck and V-block center the drill — shank stop, micrometer graduated feed, and special lip stop assure accurate rechucking for grinding second lip. Radial movement of chuck provides scientific lip clearance. Swivel base allows wide range: 40° to 80° (80° to 160° included angle)—59° and 41° positions are indicated. Easily adaptable to any grinder and any wheel thickness. Overall length from face of wheel 11".

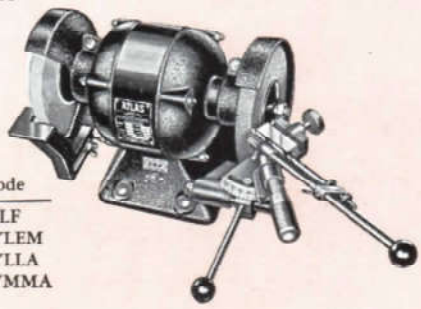
No. W30 DRILL GRINDING ATTACHMENT complete as shown above. Code WUVNE, wt. 7 lb

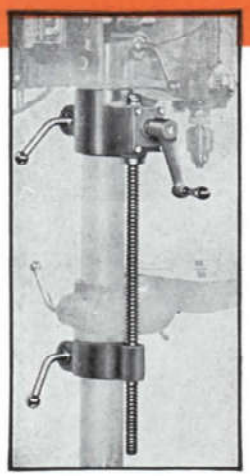
Atlas GRINDERS

Rugged, powerful, fast and smooth-running — the Atlas heavy-duty grinders are ideal for grinding tool bits, offhand grinding and snagging, buffing and polishing. Powered by 3450 RPM ball bearing motors, enclosed type. Shaft turns on large SKF ball bearings. All Atlas grinders are equipped with adjustable safety wheel guards and work rests. Floor pedestals and eye-shields are available.

The No. W30 drill grinding attachment (above) converts the Atlas grinder into an accurate, efficient drill grinding machine. Atlas grinders are completely described in Bulletin G1 (condensed specifications below).

No.	HP	Phase	Volt	Cycle	Wt.	Code
2590	⅓	Single	110	50-60	50	ZEILF
2500	⅓	Single	110	50-60	72	WYLEM
2570	½	Single	110	50-60	100	WYLLA
2575B	½	Three	220	50-60	100	WYMMA





POSITIONING MECHANISM
FOR HEAD AND TABLE
U. S. Patent 2260635

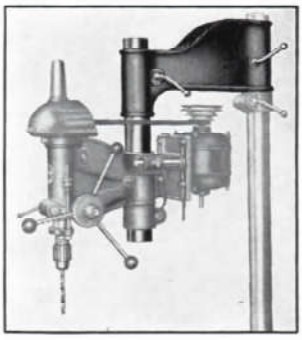
Makes fast, easy work of raising or lowering drill press head or table. Can be quickly installed on any Atlas 60- or 70-series drill press.

The W76 mechanism consists of support collars for the drill head and table, positioned by an acme-thread lift screw with bevel-gear drive controlled by the crank handle. Both support collars are equipped with coordinate clamp locks. When head support collar is tightened, lower collar may be loosened for raising or lowering table. In a similar manner, the table collar when tightened serves as a support for positioning drill press head.

One revolution of crank gives ⅛" travel — maximum travel at one setting is 12". Two bevel gears, thrust bearing and crank shaft are housed in the gear case cast integrally with upper support collar. Ball thrust bearing takes load on screw, so that crank handle turns freely.

No. W76 HEAD AND TABLE POSITIONING MECHANISM for 60- and 70-series drill presses. Code ZAIRG, wt. 18 lb.

RADIAL ARM
INCREASES THROAT CAPACITY TO 24"



Converts any Atlas 60- or 70-series drill press into a small radial drilling machine with work range which permits drilling of extra large pieces. It increases chuck-to-column capacity to a full 24", and the auxiliary column furnished adds 15" to chuck-to-base capacity. Can be mounted in an upright or inverted position.

Massive arm casting is ribbed and reinforced to maintain rigidity. Holes for drill press column and auxiliary column are precision bored. Arm has 8" bearing on the drill press column and 7" bearing on the auxiliary column. The 19" auxiliary column is 2¾" diameter ground steel tubing and allows travel of the drill head up to 6½" — also permits drill head to be mounted above or below arm.

No. W79 RADIAL ARM for 60- and 70-series drill presses. Code word ZAJAT, wt. 46 lb.

No. 61-75A COLUMN COLLAR for supporting drill head on auxiliary column with radial arm inverted. Code ZEHYA, wt. 3½ lb.

COLUMN COLLAR

Simplifies raising and lowering drill press head and permits swinging head. Furnished with Nos. 63 and 73 drill presses.

No.	Drill Press	Wt.	Code
61-75A	63 or 73	3½ lb.	ZEHYA
52-75A	53	3½ lb.	ZEHZE

DIAMOND POINT
FOR DRESSING WHEEL

No. W30-35A DIAMOND POINT. Held in chuck of drill grinding attachment. Code ZEERK, wt. 4 ozs.

RECESS WHEELS
For Drill Grinding Recessed One Side

No. W30-40
Diameter ..... 8"
Diam. Hole ..... ½"
Code ..... WUVSY
Weight ..... 2 lb.

No. W30-41
Diameter ..... 7"
Diam. Hole ..... ⅝"
Code ..... WUVUR
Weight ..... 2½ lb.

ATTACHMENTS
DRILL PRESSES

DRILL PRESS VISE

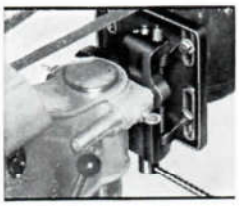
Iron jaws are 2⅝" wide and open to 3⅛"; jaw height over guide rods 1⅛". Steel guide rods keep jaws in accurate alignment and form level work support — base casting is accurately machined. Ample clearance height is provided so that drill point will not gouge table when breaking through. Recesses permit clamping vise.

No. W8 DRILL PRESS VISE as shown above. Code word ZADPA, wt. 5 lb.

No. W8V V-Block JAW for holding round work in drill press vise. Code ZADSO, wt. 10 oz.

No. W8S SWIVEL JAW for holding tapered and irregular work. Code ZADUT, wt. 8 oz.

QUICK-CHANGE BELT RELEASE



Speeds up belt changes. Handle brings motor toward drill press head, releasing belt tension instantly.

Easily installed, replacing standard motor bracket. Position of hinged motor base is shifted by hardened rocker-shaft with ball handle control, assuring correct belt tension at all times.

QUICK CHANGE RELEASE ordered with No. 52, 63, or 73 drill press. Extra.

No. 52-50A QUICK CHANGE RELEASE for 60- and 70-series drill presses, ordered separately. V-belt furnished. Code ZECWO, wt. 12½ lb.

No. 52-50B QUICK CHANGE RELEASE for 50-series drill presses, ordered separately. V-belt furnished. Code word, ZECZY, wt. 12½ lb.

SPEED ATTACHMENT

U. S. Patent 2073704

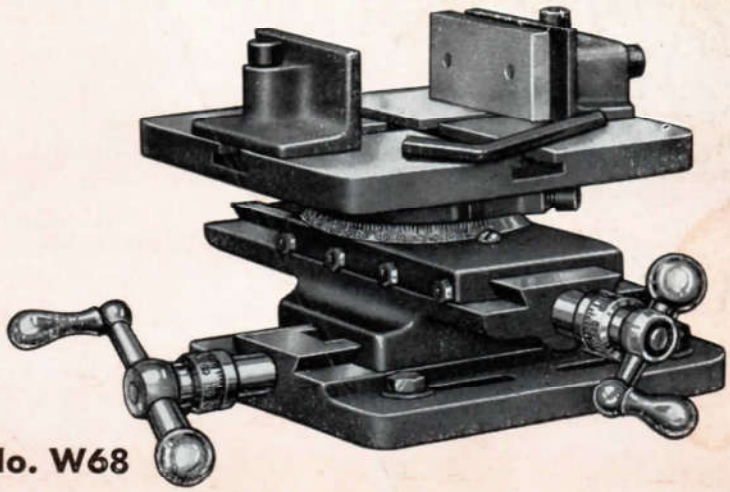
SKF EQUIPPED

The "Hi-Lo" provides a low speed of 200 RPM for heavy metal work and higher than standard speeds for woodworking. This wide range is obtained with a standard 1740 RPM motor.

The "Hi-Lo" can be mounted or removed in less than three minutes. The base is accurately machined to fit inside the top of the drill press column. Pulley is balanced and runs on a large double-row SKF ball bearing — pulley is mounted eccentric with the base, permitting quick release of belt tension for speed changes.

Order No.	Atlas Drill Press	Column Size Inside Diameter	Code Word
W-14A	52-Series★	2"	ZAFRE
W-14B	53-Series	2"	ZEKFO
W-15	60 and 70-Series	2½"	ZAFTO

Low Speed 200 R.P.M.
Weight 6 lb.—V-belts furnished.
★When ordering for 52-Series drill press, please give date purchased.



No. W68

UNIVERSAL COMPOUND VISE

This versatile fixture handles all types of accurate indexing, layout, and spacing work — straight lines, radial, circular — and is built rigidly to permit adapting drill presses to light milling operations. It can also be used with shaper, milling machine, lathe, and grinder for any jobs which require accurate feeds in two directions.

The rugged base casting is a rigid accurate foundation for the entire attachment — bottom is machine-ground. Four flanged slots permit bolting or clamping to the drill press table or base. Upper slide is graduated through 180° (90° right and left) so that the vise table may be rotated to any angle and set accurately. The transverse (upper) and cross (lower) slides travel on dovetail ways, carefully machined and hand-fitted — full-length gib plates with screws and lock nuts provide means for take-up. Feed screws have Acme threads, ball crank controls with take-up, and steel collars graduated in thousandths.

The machine-ground table casting is locked to the upper slide by two socket-head cap screws. Four T-slots for positioning and locking vise jaws extend from center of table to edges. Each vise jaw is locked by a socket-head cap screw. One jaw can be swiveled to grip irregular work — the other has a movable face which is tightened upon the work after both jaws have been clamped to the table. Table can be used alone to hold long work for boring on Atlas 10-inch lathes, replacing the lathe compound rest.

No. W68 UNIVERSAL COMPOUND VISE complete as shown above with wrench and bolts. Code ZEFWE, wt. 23¾ lb.

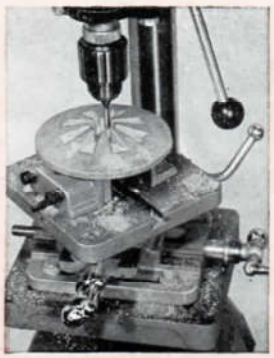
SPECIFICATIONS

Cross Feed Travel (lower)	6½"
Transverse Feed Travel (upper)	5½"
Size of Base	6" x 7"
Size of Table	7" x 7"
Jaw Width	3"
Jaw Opening	4⅝"
Jaw Height	1⅝"
Height: Base to Table	4¾"

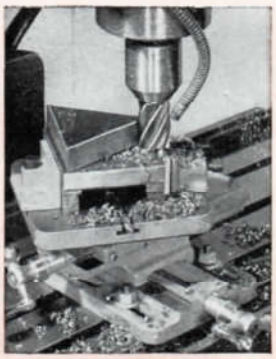
No. W68-2A TABLE ONLY for boring on Atlas 10" lathes, complete with vise and wrench. Code ZEFZO, wt. 12 lbs.

No. W8V V-BLOCK JAW for holding round work in vise jaws. Code ZADSO, wt. 10 oz.

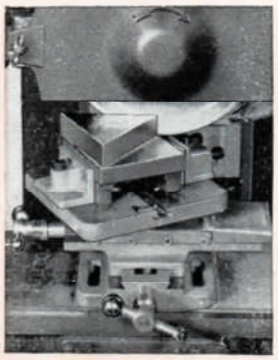
Typical spacing job for the W68 vise — drilling holes at 60° intervals around center of drill jig.



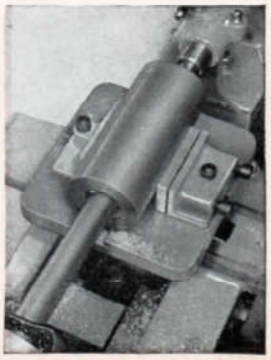
The W68 Vise simplifies many jobs in the pattern shop. Above, routing angular slots.



Machining triangular punch press die on milling machine with vise table at 60°.



Magnetic chuck of grinder holds W68 vise while sides of triangular die are finish-ground.



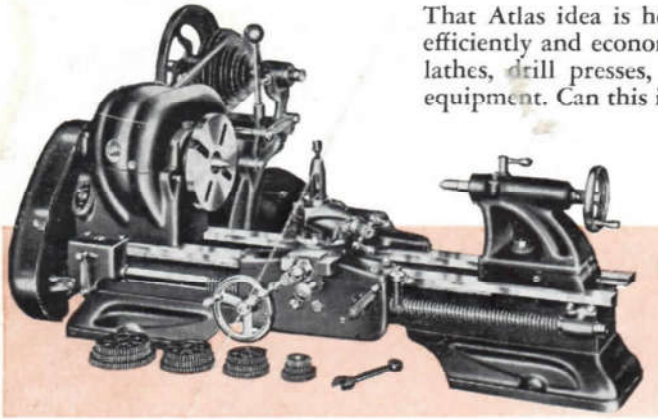
Vise table alone (No. W68-2A) holding long piece for boring in Atlas 10" lathe.

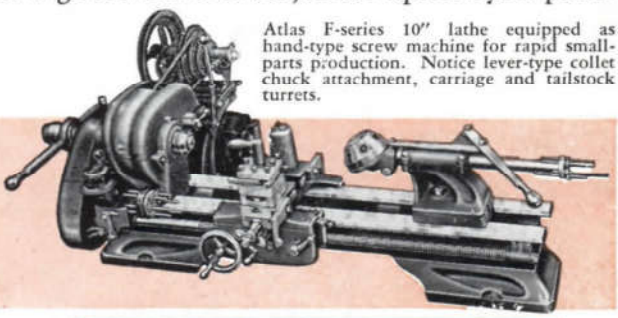
Atlas AN ECONOMICAL APPROACH TO A WIDE RANGE OF WORK

MATCH THE MACHINE TO THE JOB

"Use fast precision bench tools to take over the production of small parts so that capacities of larger machines will not be wasted."

That Atlas idea is helping thousands of plants, large and small, step up production efficiently and economically. There are Atlas tools for every machining operation — lathes, drill presses, arbor presses, shapers, milling machines, grinders, motors and equipment. Can this idea of matching the machine to the job be helpful in your plant?





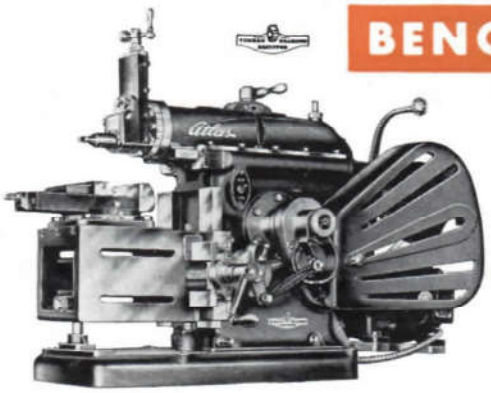
Atlas F-series 10" lathe equipped as hand-type screw machine for rapid small-parts production. Notice lever-type collet chuck attachment, carriage and tailstock turrets.

LATHES

The Atlas F-series 10" backgeared screw-cutting lathe fills every need as the basic multi-purpose machine tool for tool room and production shop. It has accuracy for the finest tool work, strength and power for heavy jobs, rugged design and large bearing surfaces for long service life on continuous production schedules.

Features: Precision ground bed ways, backgeared power, custom-built spindle bearings, instantly reversible power cross feed and longitudinal feed, wide threading range (4 to 96 per inch), 16 speeds between 28 and 2072 RPM, complete V-belt drive. Many modern features make the Atlas especially adaptable to today's requirements for simple, efficient operation.

Equipped with lever-type collet chuck, tailstock and carriage turrets, the Atlas lathe becomes a compact screw machine for rapid small-parts production.



BENCH SHAPERS

Atlas shapers handle all work within a 7" stroke accurately, economically and quickly. They are the counterparts of larger shapers in precision, production and power, and more flexible to set up.

Have crank-type bull-gear drive, Timken tapered roller bearings, 4 speeds between 45 and 186 strokes per minute (3½ to 116 feet per minute), 5 automatic cross feeds (.005, .010, .015, .020, .025 inches per stroke). Complete V-belt drive. Operate from ½ HP 1740 RPM motor. Ram stroke ½" to 7". Horizontal table travel 9¾"; vertical 5".

MILLING MACHINES

Compact, powerful, Timken-equipped bench millers for tool room and production. Have backgeared power, complete V-belt drive, 12 spindle speeds. Precision-ground table 4½" x 18" has 10" longitudinal travel, 3½" cross travel. Three models available: hand-operated controls, rapid-production levers, and the Atlas "Change-O-Matic" for instant selection of reversible automatic longitudinal table feeds. Operates from ⅓ HP 1740 RPM motor.

ARBOR PRESSES

Correct design, rugged materials, thorough testing — three big reasons why Atlas arbor and straightening presses are spotted throughout the largest, most efficient production plants, adding steadily to their 30-year reputation for power, strength and simple operation. Twenty-eight Atlas mechanical and hydraulic presses are available for pressures from 1 to 70 tons. (Right) Atlas No. 4 heavy-duty floor-type compound leverage press with adjustable table, capacity 12 tons.

FOR Atlas EQUIPMENT SEE—

ARMY E NAVY

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