

RICE**MILWAUKEE
DIE FILER****RICE**

Bulletin 55-DF

NEW MODEL FS4 . . . four speed Machine with NEW Deep-Throated All-purpose Overarm. Stand optional. Stand height 27".

If 2-speed machine wanted specify Model FS.

Equipment Includes both overarms.



Two or four operating speeds . . . 1 1/2" stroke . . . table tilts 4-ways . . . quick zeroing table.

Chuck below table is ball-jointed for easy and accurate alignment of files with work pieces.

**Available with 2 or 4
Speeds . . . for FILING
SAWING and LAPPING**

CUTS TOOL AND DIE MAKING COSTS

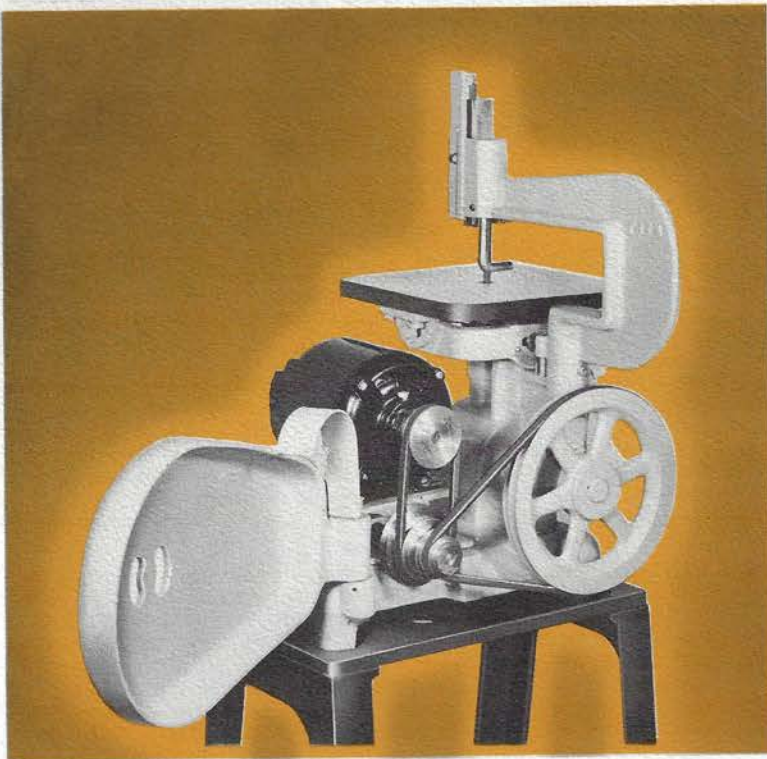
This compact, low-cost, bench-type machine performs all sawing, filing, and lapping operations with accuracy and speed at a remarkably low cost. Users report savings up to 60% as compared to tedious, costly hand methods. Use it for finishing dies, templates and gauges; for sawing metal, rubber, fibre and plastics.

PERMITS INSTANT REMOVAL

The Overarms can be instantly released from the file or saw and swung clear of the table, allowing quick removal of the work from the table for inspection and checking against templates. Adjustable stop assures instant return to original setting.

MANY PLUS-VALUE FEATURES

Milwaukee Die Filers embody features which result in greater convenience, finer workmanship and lower cost. For example, the work table tilts 15° in four directions for filing and sawing of compound angles. The lower chuck, mounted on the reciprocating ram, has a ball jointed jaw, which permits quick and easy alignment of any file having a warped or crooked shank with the work pieces. Table is indicated for level position by inserting pins thru matching holes in pivot brackets.



MODEL FS4, 4-SPEED DRIVE ARRANGEMENT

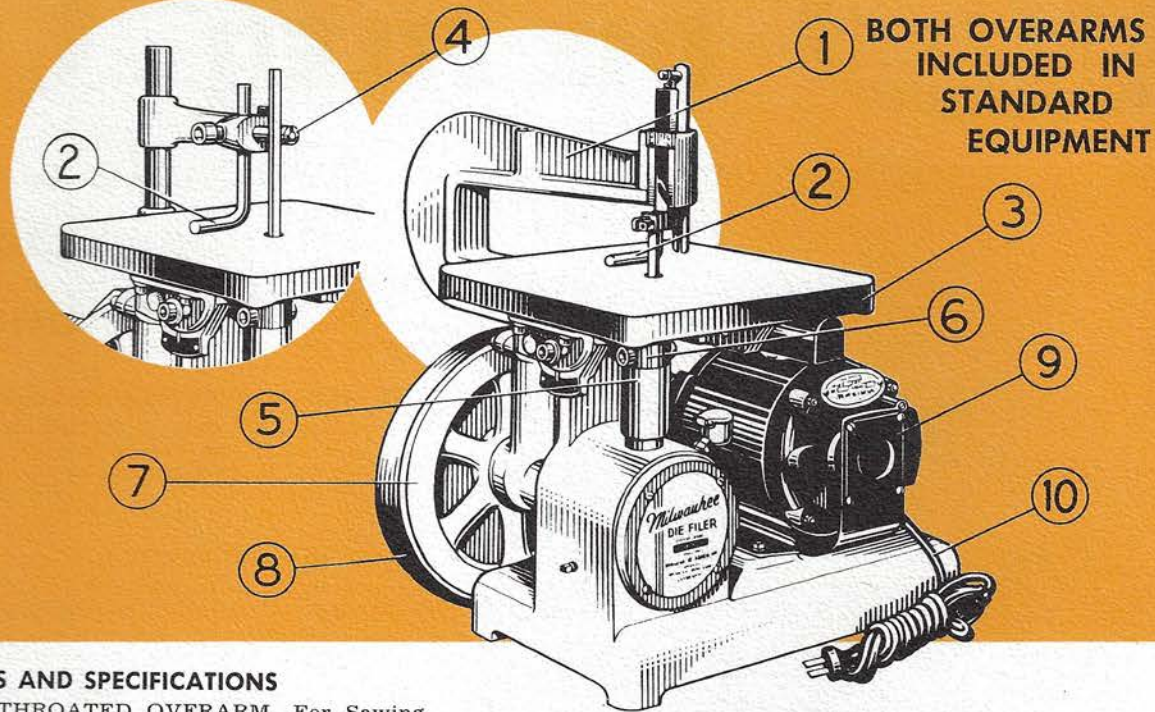
—shows countershaft drive for the two additional speeds. Hinged belt guard facilitates quick speed changes. Coil spring under motor mount keeps belt taut at all times.

RICE PUMP & MACHINE COMPANY
BELGIUM, WISCONSIN, U. S. A.

A COMPLETE DIE-MAKING MACHINE...

All-Purpose, Deep-Throated Overarm. Performs all 3 die-making operations... filing, sawing, lapping.

Improved File Roller Support equipped with adjustable hold-down finger.



BOTH OVERARMS INCLUDED IN STANDARD EQUIPMENT

FEATURES AND SPECIFICATIONS

- 1 ALL-PURPOSE, DEEP-THROATED OVERARM**—For Sawing, Filing or Lapping. Deep Throat ($9\frac{3}{4}$ "") permits working to center of 19" circle. Saws and files tool steel $3\frac{1}{4}$ " thick.
- 2 HOLD-DOWN FINGER**—Adjustable. Holds work piece flat against table surface.
- 3 WORK TABLE**—11" square, ground finished. Tilts 15° 4-ways for working compound angles. Indicated for level position by inserting pins thru matching holes in pivot brackets. 16" x 18" table available at additional cost.
- 4 FILE ROLLER SUPPORT**—For accuracy when using long files. Adjustable 6" up or down. Grooved steel roller, hardened and ground, contacts and rotates with file. Files tool steel $3\frac{1}{4}$ " thick.
- 5 RECIPROCATING RAM**—Alloy steel tubing, hardened and ground slides in Oilite bearings. Splash lubrication. Because it is actuated by a "Scotch Yoke" this light weight ram is smooth and quiet in operation and produces true up and down strokes, eliminating tapering or rounded edges.
- 6 2-JAW ADJUSTABLE, BALL-JOINTED CHUCK**—Adjustable, hardened jaws with floating cap. Firmly grips files, saws, lapping stones. Ball-joint permits aligning of files with warped or twisted shanks before clamping in rigid position. Caps have serrated faces and V-grooves to grip and align files, saws or stones of any size or shape. Files may be adjusted vertically to use entire cutting surface.
- 7 2 or 4-SPEED DRIVE**—Stroke length $1\frac{1}{2}$ ". Speed—300 and 400 strokes per minute for model FS; 100, 200, 300 and 400 strokes per minute for model FS4. Large double grooved pulley gives fly wheel effect for smooth, steady power application. Pulley is notched for quick speed change. Same belt tension for either speed. $\frac{1}{2}$ " V-belt, endless type. Countershaft arrangement provides two additional speeds on model FS4.
- 8 CAST BELT GUARD**—Hinged so operator can "inch" large pulley by hand when setting-up.
- 9 MOTOR**—Standard types 1725 rpm, 110 or 220 volt, 50 or 60 cycle, single phase, A.C. with connecting cord, socket plug with feed through switch. Motors of other current characteristics can be furnished. Special attention given to export requirements.
- 10 BENCH SPACE**—19" x 20" Hole in base permits bolting to work bench or table. **EQUIPMENT**—All-Purpose, Deep-Throated Overarm and File Roller Support Overarm. Motor Belt Guard and Wrenches included with both models. **WEIGHT** (approx.)—with motor and standard equipment about 135 lbs. net; ready for shipment about 150 lbs. Packed in one box $18\frac{1}{2}$ " x $24\frac{1}{2}$ " x $20\frac{1}{2}$ "

Either model uses Standard Parallel Machine Files in $4\frac{3}{4}$ " and 8" lengths, in a choice of 12 patterns; coarse, medium and fine cuts. Also commercial hand files up to $\frac{1}{2}$ " wide.

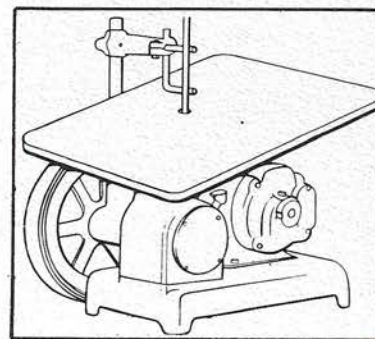
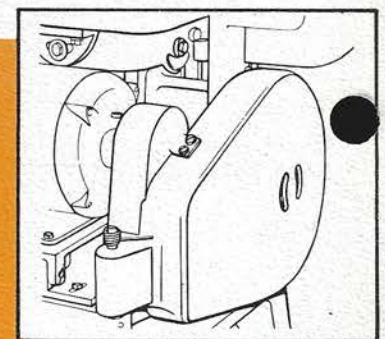
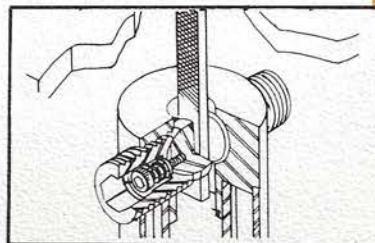


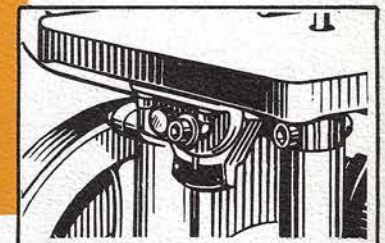
TABLE TILTS 15° FOUR WAYS
— for working compound angles — an exclusive Rice-Milwaukee feature.



SWING GUARD STANDARD EQUIPMENT
— on both 2 and 4 speed model. Large 16" x 18" table shown optional at small additional cost.



BALL JOINTED CHUCK
Files easily aligned with work piece. Chuck becomes rigid when clamped tight.



PIN ARRANGEMENT FOR ZEROING TABLE
Indicated for level position by inserting pins thru matching holes in pivot bracket.

TWO OR FOUR OPERATING SPEEDS

You have the choice of two or four operating speeds. The model FS which has been the standard with tool and die makers for years has two speeds of 300 and 400— $1\frac{1}{2}$ " long strokes per minute and as intended for average work involving free cutting steels, plastics and aluminum. For a small additional cost you can own the Model FS4 with four speeds of 100, 200, 300 and 400— $1\frac{1}{2}$ " long strokes per minute which in addition will handle the alloys and high carbon steels at the lower speeds to better advantage than the Model FS.

RICE PUMP & MACHINE COMPANY • BELGIUM, WISCONSIN, U. S. A.

In Milwaukee's Great Industrial Area

Printed in U. S. A.

