

# 6" and 8" laboratory mills (continued)

## GENERAL SPECIFICATIONS

**ROLLS:** Chilled iron, ground on face and journals, chamber bored for uniform heating and cooling, and fitted with internal distributing pipes and rotary connections designed for a maximum of 250 psi.

**ROLL BEARINGS:** Solid bronze with spring-loaded preload buttons between roll journals.

**HOUSING:** Integral Meehanite metal castings mounted on welded steel base.

**DRIVE:** Belt drive to steel worm with bronze worm wheel. Meehanite drive gear with steel pinion and steel connecting gears.

**GUIDES:** Cast aluminum with steel guide plates, hinged for cleaning. Front guide moves with the front roll.

**ROLL ADJUSTMENT:** Steel adjusting screws threaded in housing. Manually operated by bar on single-motor mills; by ratchet wrench through enclosed worm and wheel on two-motor mills. Dials and pointers indicate roll opening.

**STOCK PAN:** Sheet aluminum.

**SAFETY:** Knee-operated throwout on both sides of mill.

**LUBRICATION:** Self-contained flood system with pump and strainer for continuous oil flow to all gears and bearings.

**ROLL SCRAPER:** Manually operated, tool-steel, adjustable, swinging scraper. Can be mounted on either roll.

**DRIVE MOTOR:** Alternating-current motors are squirrel cage, drip-proof; direct-current motors are totally enclosed, fan cooled, with power units. Operation is normally on 230-, 460- or 575-volt, 3-phase, 60-Hertz current. Customer should advise characteristics of supply line. Stopping means in accordance with safety code.

**CONTROL:** In NEMA 12 wall-mounted enclosure, full voltage, magnetic reversing, complete with overload protection and three-element push-button station. Fusible disconnect switch for short-circuit protection provided on all models. For variable-speed drives, electrical tachometers show roll speed in feet per minute.

## ACCESSORIES AND EXTRAS

The following special features are supplied only when specified, and at additional cost.

**CHROME-PLATED ROLLS:** Both rolls chrome plated and ground on the face.

**HAND-OPERATED SCRAPER:** An additional scraper for use on either the front or back roll.

**FIXED SCRAPER:** Similar to the hand scraper except the blade is held against the roll by pressure from compression springs on the scraper arms.

**AIR-OPERATED SCRAPER:** Similar to the fixed scraper, except it is held against or away from the roll by

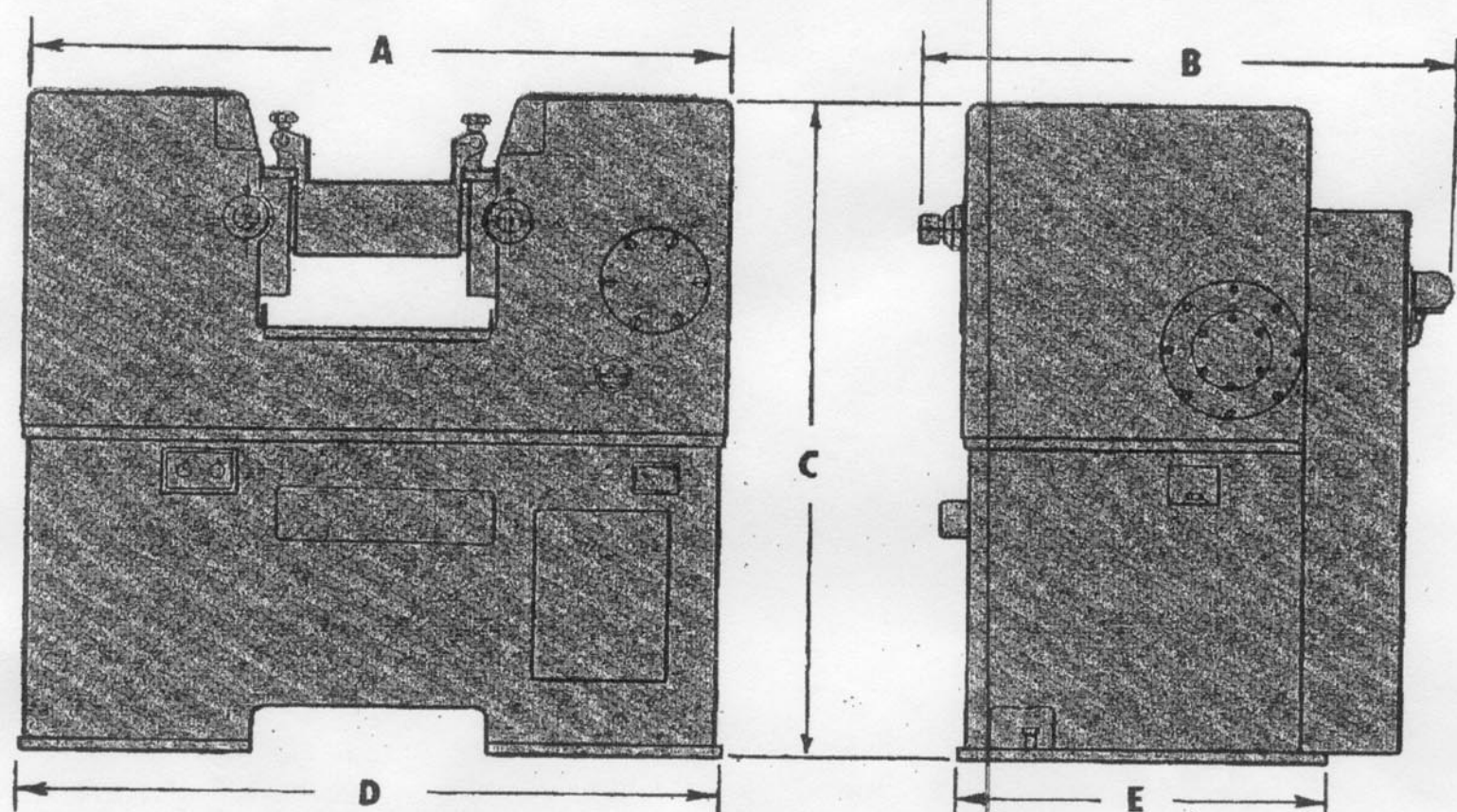
air cylinders. Furnished complete with cylinders, four-way valve, regulator and air line oiler.

**BATCHOFF ROLL:** A belt-driven, steel windup roll with cutting groove and band brake.

**OVERHEAD SAFETY:** Overhead cable safety, complete with switch, furnished in addition to the knee-operated safety.

**SPECIAL POSITION FOR ADJUSTING-SCREW CROSS SHAFT:** Two-motor mills supplied with dropped cross shaft between worm and wheel in a lower position to provide improved access to rolls.

# 6" and 8" laboratory mills (continued)



## DIMENSIONS AND WEIGHTS

Model	A	B	C	D	E	Weight
6FF350AC 6FF500AC	54½	39	53	54½	29¼	4500
6VF350AC 6VF500AC	54½	42½	53	54½	29¼	4500
6VV350AC 6VV500AC	70½	42½	53	54½	29¼	6200
6VV350DC 6VV500DC	70½	65⅞*	53	54½	29¼	6200
8FF350AC 8FF500AC	65	57	59	64½	40⅜	8000
8VF350AC 8VF500AC	65	57	59	64½	40⅜	8000
8VV350AC 8VV500AC	84	62	59	64½	40⅜	9000
8VV350DC 8VV500DC	84	62	59	64½	40⅜	9000

Dimensions are in inches; weights are in pounds.

\*Includes space required for motors, which extend beyond the housing.

Standard laboratory mills are made in any one of five drive arrangements, with either 6" x 13" or 8" x 16" rolls, as listed in the table on the opposite page. The drive option provides a choice of fixed or variable roll speeds and friction ratios over a wide range. With the optional design features, which may be incorporated in each, a mill can be selected to meet practically any need, without paying for features that are not essential.

Approximate capacities, per batch, are as follows:

6" x 13" mills... 1¼ to 2 pounds

8" x 16" mills... 2½ to 4 pounds

Mills are designed for maximum operating roll temperatures of either 350°F or 500°F, as required. 350°F mills are arranged for steam heating and water cooling. Maximum steam required: 60 pounds

per hour at 150 psi; maximum cooling water required: 10 gpm at 60°F. 500°F mills incorporate larger rotary unions and an external lubricating oil cooler. Heating should be supplied by a hot-fluid system incorporating cooling means and controls. Farrel can supply a recommended system as additional equipment.

The model numbers, listed in the third column of the table, provide a general description of the mills:

First number: diameter of rolls (6" or 8")

First letter: roll speed (F=fixed; V=variable)

Second letter: roll friction (F=fixed; V=variable)

Next three numbers: operating temperature (350°F or 500°F)

Last two letters: electrical characteristics (AC=alternating current; DC=direct current)

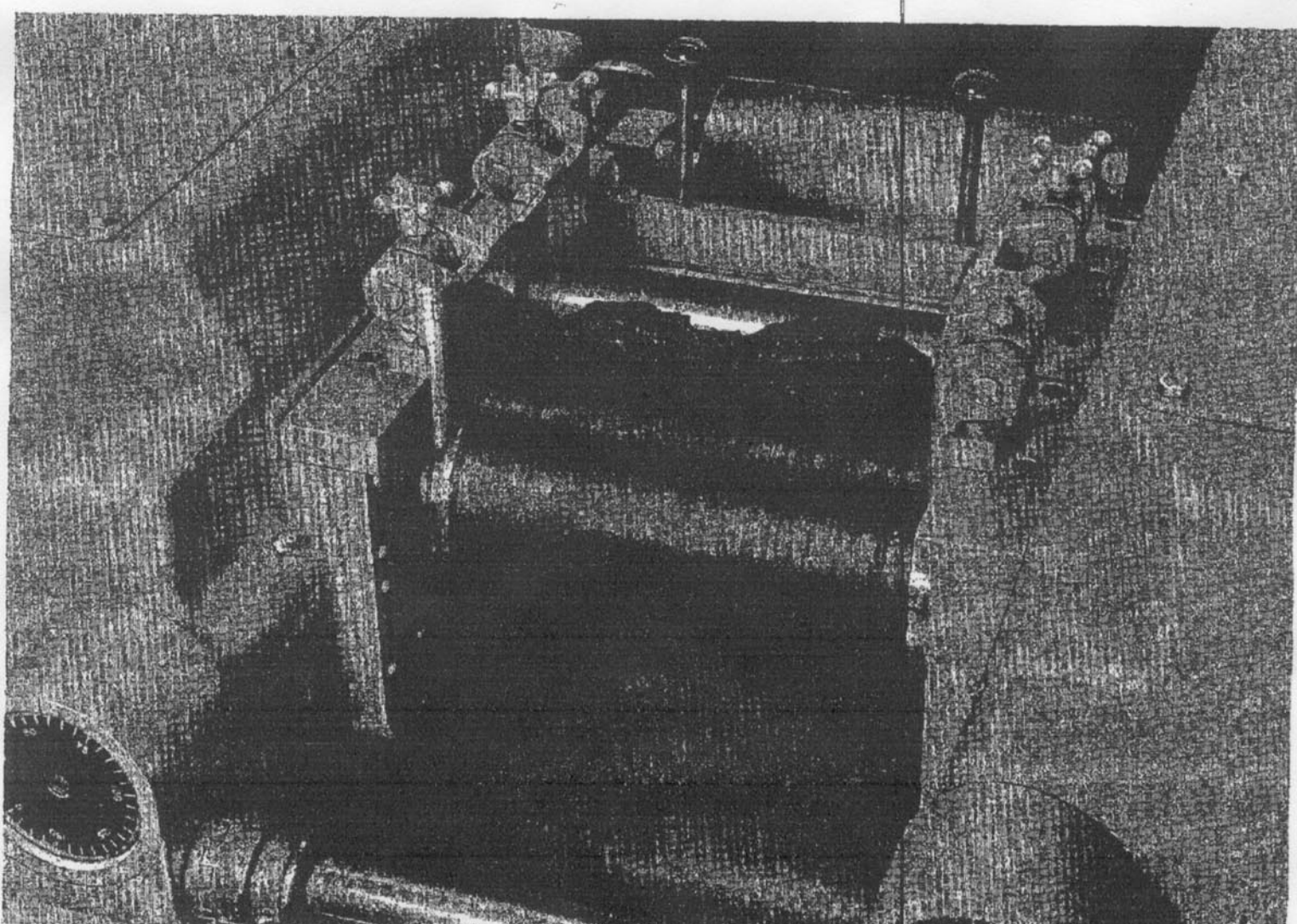


Fig. 3—Operating view of standard laboratory mill.