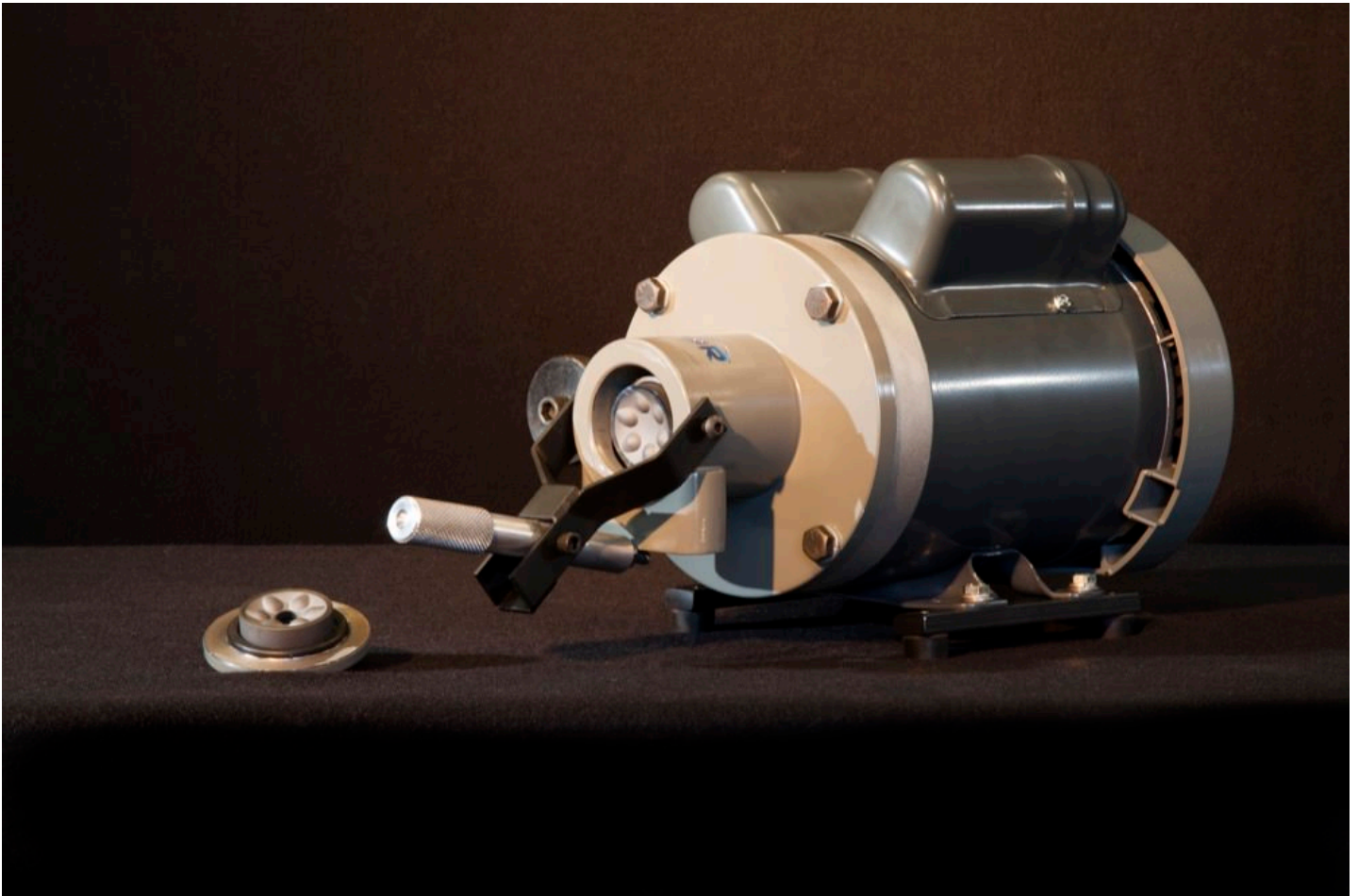




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OPERATING MANUAL

Sepor Mini-Pulverizer



Instructions for Operating and Maintenance

The Sepor Mini-Pulverizer is a specialty piece of laboratory apparatus designed for pulverizing samples from 1 - 20 grams. It has earned a reputation in the assay, industrial, educational, metallurgical and chemical laboratories the world over. It is a sturdy and serviceable machine built to give years of satisfactory service. To obtain the service which this pulverizer is capable of delivering, it must have proper care. The maintenance requirements are few and simple, but they must be observed for maximum efficiency and economy. The instruction brochure contains directions for installation and care of your pulverizer.

Operating Principle

A grooved revolving plate is rotated against a grooved stationary plate to produce the grinding action. The space which separates the plates determines the fineness to which friable material is reduced. Feed is introduced between the plates through a opening located in the stationary plate.

Installation

Unpack the pulverizer and set it on a flat, level surface in the desired location. The rubber feet on the pulverizer provide a secure foundation for the pulverizer. A swivel clamping rod holds the stationary plate in place and swings down for cleaning and easy access to the grinding chamber. The swivel clamping rod has an adjustable screw to increase or decrease the tension on the stationary plate. An on/off switch is mounted on the side of the pulverizer. A power cord with a standard 110 volt plug is connected to the control switch. A stainless steel feed scoop sample pan is optional and may be provided with the pulverizer. Connect the power cord to your 110 volt outlet and the pulverizer is ready for operation. Note that the plates may rotate in either direction. Machines for use on 220 V/1 Ph/50-60 Hz do not normally have a plug on the end of the cord.

Adjustment

NOTE: Grinding plates must be parallel at all times. Always clean all mating surfaces to insure repeatability of plate settings. Before operation, clean the pulverizer thoroughly, being careful to wipe all oil from the grinding plates and interior. The Mini-Pulverizer can be adjusted to the desired mesh by means of an adjusting hand wheel at the feed end of the pulverizer. By turning the hand wheel, the space between the grinding plates can be adjusted, and subsequently, the grinding size can be adjusted. If the desired grinding size cannot be achieved by turning the hand wheel, there is another way to further make adjustments. Move the stationary coupling (with the movable grinding plate attached) either forward or backwards on the shaft. This is done through the bottom opening in the front of the mill. Loosen the set screw holding the Lovejoy coupling and slide it on the shaft. Tighten the set screw, and re-adjust the clearance between the plates with the hand wheel. The ball bearings are totally sealed and need no lubrication.

Replacing Grinding Plates

FIRST UNPLUG THE UNIT FROM IT'S POWER SOURCE BEFORE ATTEMPTING ANY MAINTENANCE ON THE MINI PULVERIZER. To replace the grinding plates, first open the front end of the pulverizer, by loosening the large adjusting screw mechanism located in the yoke at the front of the pulverizer. This will allow the stationary plate to fall away from the pulverizer. On the stationary plate, still attached to the cover, remove two screws located below the feed hopper. This unfastens the grinding plate from the cover. Replace the stationary plate and re-tighten the two screws. For the movable grinding plate, first locate the opening on the bottom of the front end of the crusher, behind the discharge opening. Place an object in the housing opening (it is easily done with the fingers) and push the movable grinding plate attached to the primary side of the Lovejoy coupling (one without the set screw) out of the grinding chamber. It slides easily. Then replace with a new movable grinding plate attached to the coupling unit (they come this way) by sliding it in and aligning the 'fingers' so they mesh. be sure the movable plate and coupling is firmly seated. Replace the stationary grinding plate, tighten the screw mechanism attached to the yoke and it is ready for operation.

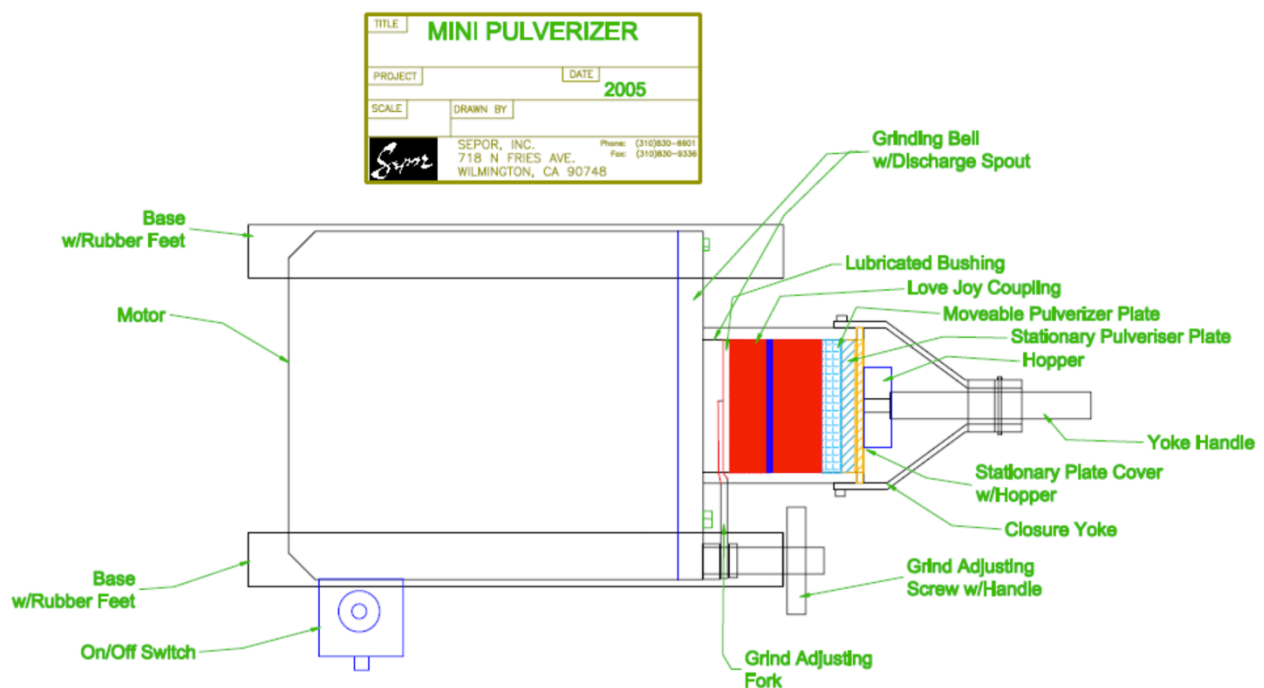
Cleaning

Your Mini-Pulverizer is easy to clean. It opens up so all of the interior parts are easily accessible for cleaning with a brush or with compressed air. Be sure all machine surfaces, the door and the grinding plates are cleaned of material before beginning each operation.

Thermal Relay

Note: We supply thermal relays 110 volt, 60 cycle operation, or for 220 V/1 Ph/50 Hz.

The motor is protected from overloading by means of a thermal relay, which is supplied with the switch. This shuts off the current automatically, should the pulverizer jam through improper adjusting of the plates or the introduction of foreign matter into the grinding chamber. Should an over- load occur, it is necessary to reset the thermal relay. To do this, turn the on/off switch off, then back on. This resets the thermal relay. Wait for a few minutes after an overload occurs before resetting to permit the relay to cool.

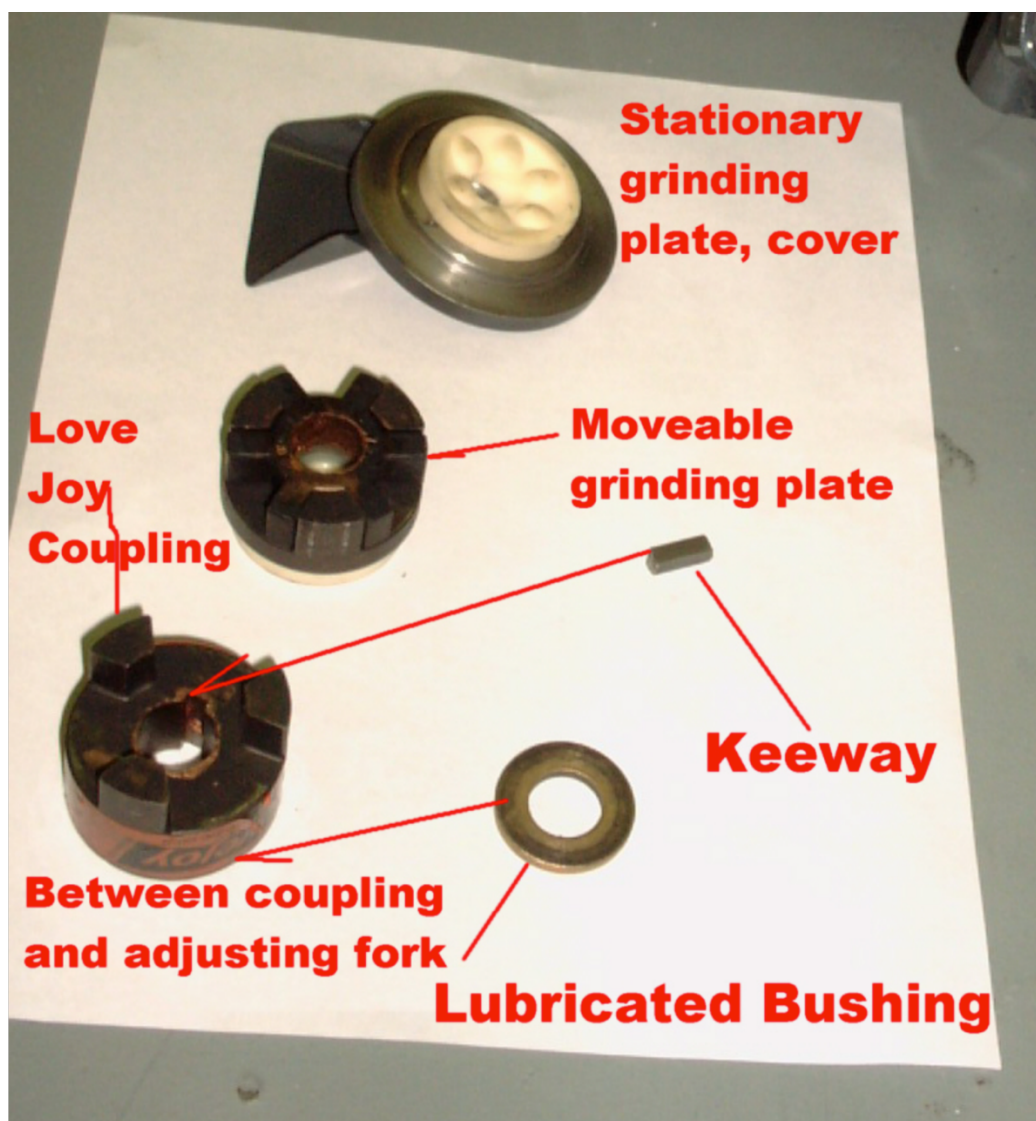


MINI PULVERIZER WITH ALUMINA PLATES • 010F-030

ITEM ID	DESCRIPTION	QTY
010F-P001	Grinding Bell Assembly MP	1
793ST105	Grinding Bell Plate 5/8"x6-3/4	1
700ST025	Grinding Bell 3ODx1.75IDx.625	1
010F-P003C	Closure Yoke MP Complete	1
010F-P016	Moveable Alumina Disc	1
010F-P017	Stationary Alumina Disc Plate	1
800ST245	Toggle Switch SPST Off-On 6 Am	1
800ST179	Miniature Toggle Switch DPDT	1
784ST036	SAE 841 Thrust Bearing 5/8"	1
720ST055	LOVE JOY SHAFT COUPLING	2
MO-Marathon E257	100-120/200-240v-60/50hz	1

MINI PULVERIZER WITH TUNGSTEN CARBIDE PLATES • 010F-030

ITEM ID	DESCRIPTION	QTY
010F-P020	Moveable Tungsten Carbide Disc	1
010F-P021	Stationary Tungsten Carbide	1



Assembly procedure:

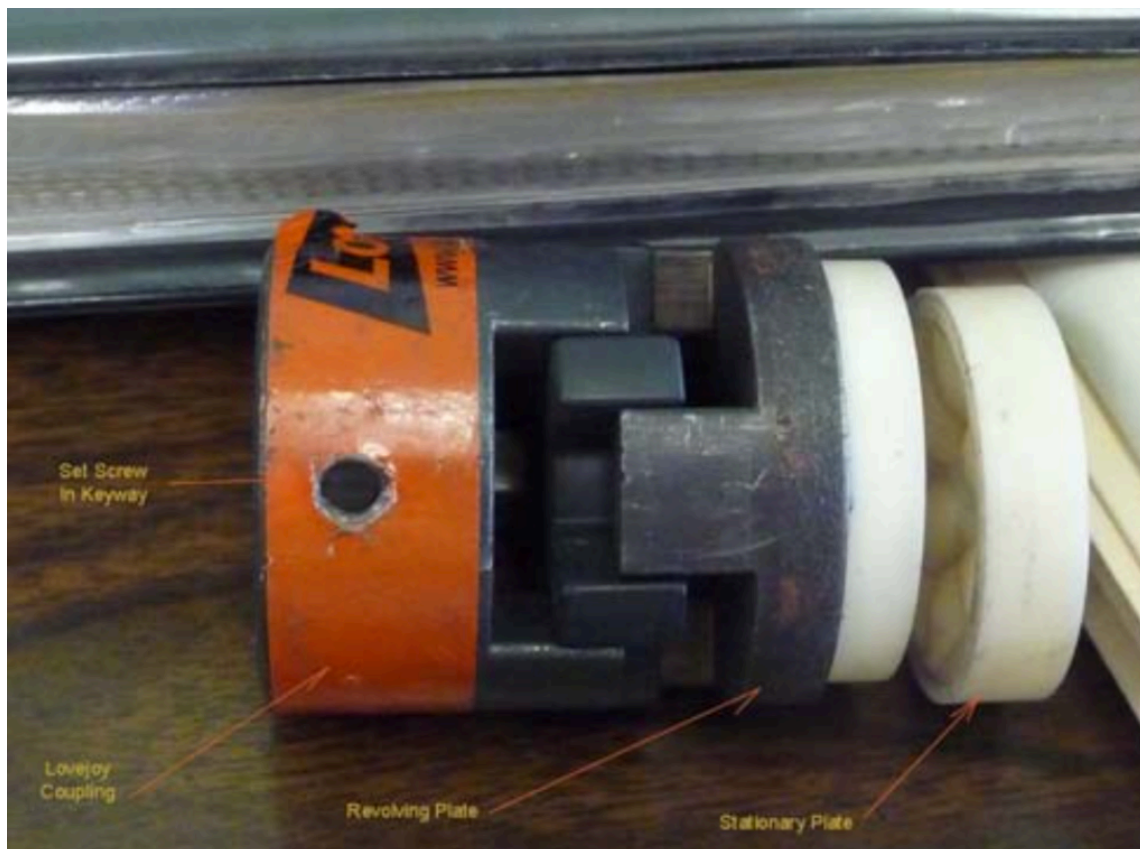
Take lubricated brass bushing and slide it on the shaft, resting against the adjusting fork.

Place back section of Love Joy coupling (Orange half) on motor shaft. Line up keyway in coupling with keyway in shaft. Insert Key. Take other half of Love Joy Coupling (with moveable pulverizer plate attached) and insert it into back half of Love Joy Coupling.

Take front cover, with hopper and stationary plate attached, and place it into the end of the pulverizer, affix it with the yoke and place the tip of the yoke handle into the depression and lock it into place, by pulling up until it is roughly horizontal.



An assembled coupling-ceramic pulverizer plate.



Above, a Mini-Pulverizer with Tungsten Carbide Plates, with the stationary plate partially removed.