# INSTRUCTIONS



### MICRO-MILL® GRINDER

#### **CATALOG NUMBER H37250, H37252 & H37254**

#### **FEATURES:**

The Micro-Mill® Grinder consists of three separate assemblies:

- 1. The base which houses the controls and driving motor.
- 2. The lower grinding chamber which contains the cutter assembly and mounts on top of the base.
- 3. The upper grinding chamber which encloses and locks to lower grinding chamber.

**NOTE:** Both the upper and lower grinding chambers have a built-in heat exchange for cooling or heating.

#### **OPERATION:**

If the Micro-Mill® Grinder is clean and completely assembled, the operation proceeds as follows:

- 1. Remove upper grinding chamber by releasing the latches and lifting it off.
- 2. Place test sample into the lower grinding chamber. A sample must have a volume between 20ml and 50ml. Lesser or greater amounts will not result in adequate milling. Note: Samples must be dry if they are to be milled. Moist or oily substances will build up on the blade. Freezing such samples will permit them to be ground. Cooling the chamber is recommended for the frozen samples. In many instances, pieces of dry ice placed in the grinding chamber with the sample will suffice.
- 3. Replace upper grinding chamber by inserting the pins through the holes in the back plate on the lower grinding chamber. Fasten latches, left one first.
- 4. If heat exchanger facilities are to be used, make the necessary connections to the hose ends on the grinding chambers.
- 5. Set timer to any desired milling interval up to 5 minutes. When machine stops, open the chamber and check the results. Reassemble and restart the unit if more grinding time is required. Use the continuous position of the timer for grinding intervals over 5 minutes. The model which does not have a timer is equipped with a hold-down type switch. It is necessary to keep this switch depressed for the length of time sample is to be milled.
- 6. Remove upper grinding chamber, lift off lower grinding chamber and pour out milled material. Brush out particles with a soft camel's hair brush.
- 7. After cleaning all parts, reassemble and place on the base. when placing lower grinding chamber on the base, make certain the drive coupling and alignment pins engage and seat. DO NOT FORCE; if in line, the chamber will drop in place.



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#### **CAUTION:**

- 1. Do not restrict or block air flow into the base assembly.
- 2. Do not leave unit on if motor stalls or runs slowly.
- 3. Before cleaning cutting head, disconnect mill from power source.

#### **AVAILABLE ALTERNATE FEATURES:**

Interchangeable Grinding Chamber: Consists of the standard upper and lower stainless steel grinding chambers as supplied with the Micro-Mill®. This interchangeable feature makes it possible to have additional chambers on hand to provide a means of running a series of grinding operations in rapid succession. this feature facilitates use of the mill when autoclaving is required. Includes cutting head with stainless steel blade.

Part No. 90500-0642 & 90500-0629

**Hard-faced Grinding Chamber:** Same as above except inner chamber surfaces are of hard-faced stainless steel. Cutting head with hard-faced stainless steel blade is included.

Part No. 90510-0604 & 90504-0602

**Standard Stainless Steel Blade:** Replacement blade for H37250 and H37252.

Part No. H37257-0000

**Hard-faced Blade:** Stellite-faced blade for grinding of samples up to hardness of stellite 6. Replacement blade for the H37254. Part No. H37258-0000

#### **REPLACEMENT PARTS:**

Timer 0-5 min. w/hold 115V	90502-0001
Motor, 115V	90500-0851
Switch, Safety	99932-0025
Switch, Pushbutton	90500-0015

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