

Sample Mounting Fixtures



Lapping and
Polishing



Description

The proper mounting of samples is a critical step in the lapping and polishing process. It is imperative that the sample is firmly mounted parallel to the sample mount surface to ensure accurate results. Typically, samples are mounted using a low melting point wax as an adhesive and a Sample Mounting Fixture to apply uniform pressure. Sample Mounting Fixtures are designed to both monitor the temperature of the wax and to provide a uniform mounting pressure.

Operation

When using a low melting point wax, the mounting block is first heated on a hot plate then a thin layer of wax is melted evenly on it. The sample is placed on the mounting block, an appropriate size pressure plate is placed on the sample

and they are placed together on the base of the mounting fixture. A spring loaded rod is then positioned in the center of an indent in the pressure plate while setting the pressure with the height adjustment of the arm. The whole assembly is then placed on a hot plate until the correct temperature is reached and maintained for a short while to ensure a uniform layer of wax between the sample and the mounting block. The assembly is then removed from the hot plate and placed on the Model 125 cooling tray to facilitate the hardening of the wax.

Model 110 Sample Mount

The Model 110 is designed to mount samples up to 2" in diameter and is supplied with 6 pressure plates ranging in size from 1/2" to 2" diameter. The unit is also supplied with a set of tongs to lift the fixture when hot. The Model 110 is the most basic model and is ideal for routine sample mounting.

Model 112 Sample Mount

Same as Model 110, but is designed to accommodate samples up to 4" in diameter. The Model 112 is supplied with 3" and 4" pressure plates.

Model 115 Dual Position Sample Mount

The Model 115 is designed to accommodate 2 samples up to 2" in diameter simultaneously and incorporates a thermometer to measure the temperature of the mounting wax. Wax temperature is monitored so it is not overheated which would create air pockets beneath the sample. The Model 115 is supplied with two sets of 6 pressure plates ranging in size from 1/2" to 2" in diameter and is ideal for mounting samples where absolute precision is required.

Model 116 Six Position Sample Mount

The Model 116 can accommodate 6 samples up to 2" in diameter simultaneously. The Model 116 is supplied with six 2" diameter pressure plates. Other size plates can be substituted.

Model 120 Hot Plate

The Model 120 is a specially designed hot plate that operates in a temperature range from 100° to 700°F (38° to 371°C). The Model 120 is UL listed and provides 49 square inches of heating surface in a low profile design. The hot plate consists of a durable cast aluminum base and a ceramic coated stainless steel top which provides excellent corrosion and thermal shock protection.

Model 121 Hot Plate

The Model 121 is a 230 volt version of the Model 120.

Model 125 Cooling Tray

The Model 125 is intended to be used with the Model 120 or 125 Hot Plate and is designed so that a Sample Mount can slide directly from the hot plate onto the Cooling Tray without being lifted. The Cooling Tray consists of a large anodized aluminum plate with cooling fins that are designed to facilitate the rapid and uniform cooling of the Sample Mounting Fixture.

Model 10098 Sample Mounting Kit

The Sample Mounting Kit provides the necessary equipment to establish a basic sample mounting facility. The kit includes a Model 110 Sample Mounting Fixture, a Model 120 Hot Plate, a Model 125 Cooling Tray and a selection of mounting waxes.

