

Rail Polisher



Description

The South Bay Technology (SBT) Precision Lapping and Polishing Fixtures are designed to accurately produce polished parallel, tapered or critically oriented samples with minimal sub-surface damage. The Rail Polisher portrays SBT's continued support for product development. Derived from the Model 195 MultiLap[™] Polishing Tool the Rail Polisher version exhibits significant difference from the Model 195 MultiLap[™]. The employment of a rail guide system allows for precision hand polishing of delicate specimens, which might be damaged on rotary polishing machines. Additionally, the rail guide system employs a non-contacting base, reducing wear on many types of abrasive films and media. The rail polisher incorporates up to 3 separate

pistons, which are used for holding the specimen during preparation and controlling the amount of material to be removed. Specimens up to 1" in diameter can be polished with controlled material removal in 10-micron increments. The magnetic specimen mounts provide a simple means of attachment and removal for rapid viewing of the specimen in the light microscope. Also the magnetic mounts have a circular aperture, which provide means for viewing the specimen in transmitted light. Overall, the Rail Polisher is a versatile instrument for performing any controlled material removal process in the laboratory.

Micrometer Controlled Accuracy

The micrometer method of thickness control employs a dial with 10-micron graduations that is adjusted relative to the outside support ring to set the amount of material to be removed. To set the dial, the sample is initially zeroed against the flat surface of the rail system and then the dial is adjusted to create a gap between the outside support ring and the center slide. This gap corresponds to the amount of material to be removed and gradually decreases, as the sample is lapped or polished, until the final thickness is reached. Due to the ease of adjustment a micrometer controlled fixture is generally used when desired sample thickness will vary from sample to sample.



- Low friction rails allow a smooth glide of the fixture
- Non-contact footing reduces abrasive film wear.
- Magnetic specimen mounts allow rapid and easy removal of specimens for viewing.
- Peek-thru aperture in the magnetic specimen mounts allow for transmitted light viewing.
- Variable loading is optional by adding weights or finger pressure to the top of the fixture.
- Micrometer depth control allows precise control over specimen thickness.
- Precisely crafted stainless steel construction ensures long life and high precision.
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Fixture Versatility

South Bay Technology, Inc offers many different fixtures, which are suited to multiple applications. For example there are small fixtures such as the model 145 used processing TEM and SEM specimens. Larger specimens such as wafers or optical devices can be processed using the models 150 or 155 lapping & polishing fixtures. Specific applications, such as edge polishing can also be accommodated with special mounting blocks or special fixtures such as the models 147E or 155E. Additional options are available for most fixtures such as vacuum mounting and higher resolution thickness control by means of a digital indicator. It is important to remember whatever the application, SBT offers fixtures to solve the most difficult lapping and polishing obstacles.

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