

PROBE MASTER SERIES TEST STATIONS

DESCRIPTION

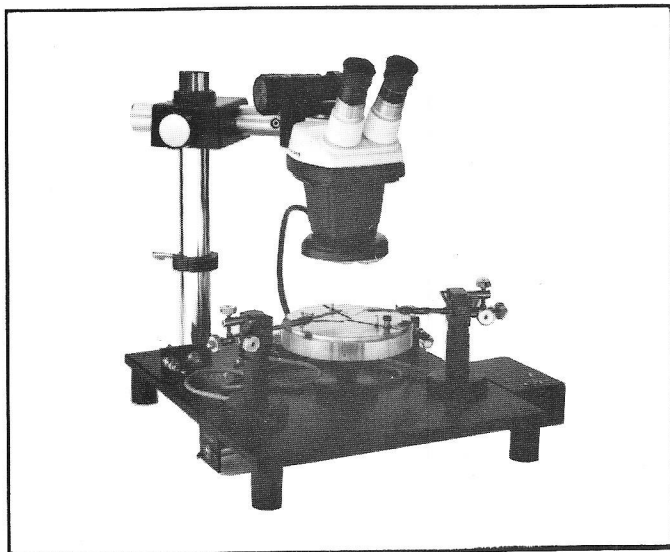
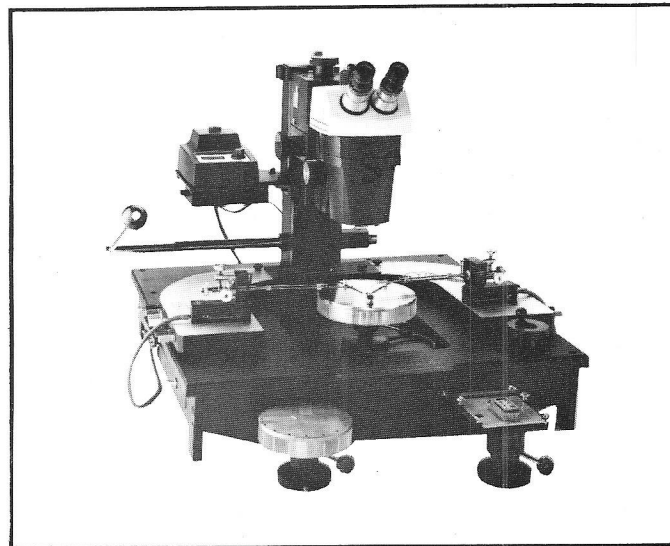
Probe Master test stations are designed and manufactured with care and precision in the Micromanipulator tradition. The Model 350PM is a powerful, economical probe station with outstanding flexibility. Interchangeable stage assemblies are available to facilitate probing wafers up to 6" in diameter, hybrid substrates up to 4" x 4", packaged delidded devices and wafers at elevated temperatures.

Although inexpensive, the 350PM accommodates the entire range of Micromanipulator vacuum base manipulators. It also includes both coarse and fine platen Z control for precise probe placement. In addition, 2" x 2" X, Y microscope translation is provided. The 350PM is in a value class by itself with high performance at a very affordable price.

The Model 100PM is ideal for probing geometries as small as 8 microns. Multiple choice stage assemblies permit probing of wafers to 6 inches in diameter, delidded packaged devices while operating, thin and thick film circuits, and flat substrates/hybrid circuits from 1/2" x 1/2" to 4" x 4" in size. Many of Micromanipulator's vast array of accessories may be used including probes, manipulators, hot stages, StereoZoom optics, etc.

MODEL 350PM

- Multiple interchangeable stage assemblies provide maximum flexibility. These include 4", 5" and 6" wafer stages, a 6" hot stage, 2" x 2" and 4" x 4" hybrid stages, and a packaged device stage.
- 2" x 2" X,Y microscope translation.
- Choice of Cambridge StereoZoom 4, 5 or 7. Model 355PM permits choice of Cambridge MicroZoom II or Mitutoyo FS-50 compound microscopes.
- 150 square inch platen holds 10 or more vacuum base manipulators as well as a probe card holder.
- Both coarse and fine platen lift control.
- Massive baseplate is fully braced for rigidity and vibration attenuation. Attractive black anodized finish won't chip for cleanliness and decades of service.



MODEL 100PM

- Multiple interchangeable stage assemblies provide maximum flexibility. These include 4", 5" and 6" wafer stages; 4", 5" 6" hot stages; 2" x 2" and 4" x 4" hybrid stages; and a packaged device stage.
- Choice of StereoZoom 4, 5 or 7 microscopes; magnification to 280x.
- 100% viewing of the sample up to 6" in diameter. Manual positioning of vacuum secured stage with theta adjust and lock.
- Massive base plate accommodates up to 6 manipulators.

350PM SPECIFICATIONS

PLATEN:

Accepts 10 or more vacuum base manipulators.
Polished anodized aluminum surface.
Convenient vacuum distribution on sides.

Fine Lift Control:

True planar vertical motion, convenient knob control.
Resolution: 0.3 micron per degree revolution.
Range: 0.5 in. (12.7 mm)

Fast Lift Control:

Raises platen and microscope with adjustable microscope lift delay.

Range: 1.35 in. (34.3 mm)

STAGE ASSEMBLY OPTIONS:

Wafer Chucks:

Vacuum hold-down, manually positioned.
360° theta adjust.
Gold plated brass surface.
Flatness ± 0.0005 inches.
Electrical isolation exceeds 5000 megohms at 500 VDC.

EVA/356VM-4 4" diameter
EVA/356VM-5 5" diameter
EVA/356VM-6 6" diameter

Rotary Substrate Stage Assemblies:

Vacuum hold-down, manually positioned.
360° theta adjust.
Stainless steel surface.
Spring-loaded adjustable fixturing.

RSH/356VM-2 (1/2" x 1/2" to 2" x 2")

RSH/356VM-4 (1/2" x 1/2" to 4" x 4")

Socket Stage Adaptor:

Vacuum hold-down, manually positioned.
Holds socket stage cards for packaged device probing.
Edge connector (SSD-022) included

SSA/356VM

Optics:

Choice of Cambridge StereoZoom 4, 5 or 7.
Z motion is 2" via focus knobs.
Model 355 PM permits choice of MicroZoom II or FS-50 microscope.

Microscopes:

Cambridge MicroZoom® II with 2:1 zoom in body
3 long working distance objectives (2.25X, 8X, 25X)
Quadruple nosepiece accepts optional 50X objective
Trinocular head with camera port, 10X eyepieces
Coaxial illuminator with mounted transformer and infinite rheostat control

Optional Mitutoyo FS-50 with 2:1 zoom in body
3 long working distance objectives (2X, 10X, 20X)
Quadruple nosepiece
50X objective optional
Trinocular head with camera port, 10X eyepieces
Reflected illumination; Koehler system; 6V, 20W

100PM SPECIFICATIONS

Stage Assembly Options:

Wafer Chucks:

Vacuum hold-down, manually positioned.
360° theta adjust.
Gold plated brass surface.
Flatness $\pm .0005$ inches.
Electrical isolation exceeds 5000 megohms at 500 VDC.

EVA/356VM-4 4" diameter
EVA/356VM-5 5" diameter
EVA/356VM-6 6" diameter

Rotary Substrate Stage Assembly Options:

Vacuum hold-down, manually positioned.
360° theta adjust.
Stainless steel surface.
Spring-loaded adjustable fixturing.

RSH/356VM-2 (1/2" x 1/2" to 2" x 2")

RSH/356VM-4 (1/2" x 1/2" to 4" x 4")

Socket Stage Adaptor:

Vacuum hold-down, manually positioned.
Holds socket stage cards for packaged device probing.
Edge connector (SSD-022) included.

SSA/356VM

Baseplate/Platen:

Holds up to 6 Model 110 or 210/356VM vacuum base manipulators.

Finish: grained black anodized aluminum for long life.
BNC connectors for test equipment (4 each).

Optics:

Choice of Cambridge StereoZoom 4, 5 or 7.
Z motion is 2" via focus knobs.