Bridge
Technology

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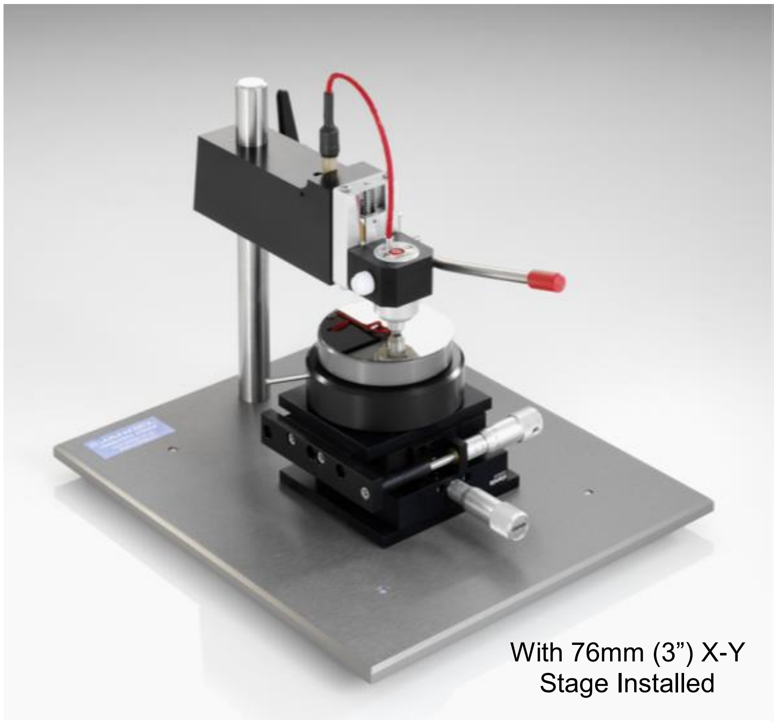
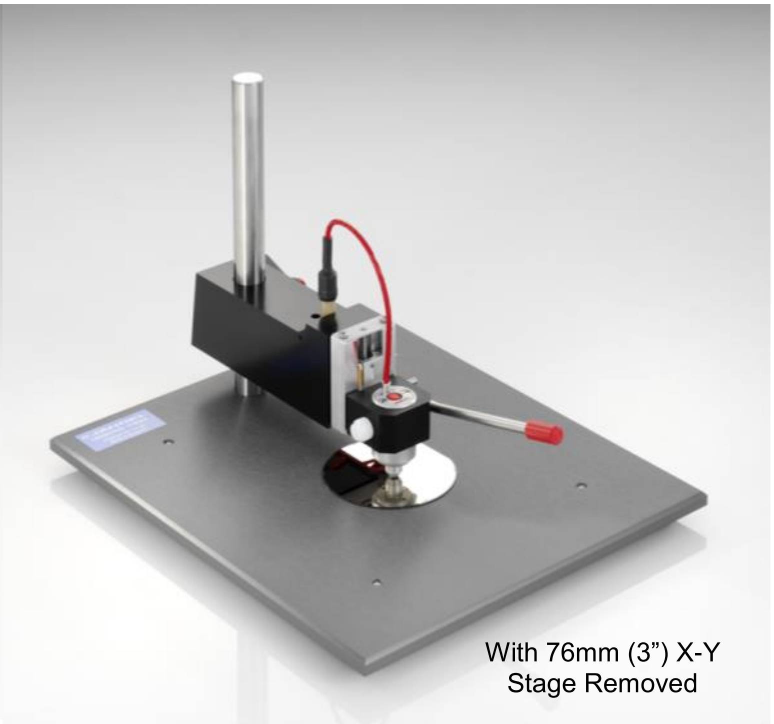
JANDEL ENGINEERING LTD.

Multi Height Microposition Probe



With 76mm (3”) X-Y
Stage Installed



With 76mm (3”) X-Y
Stage Removed

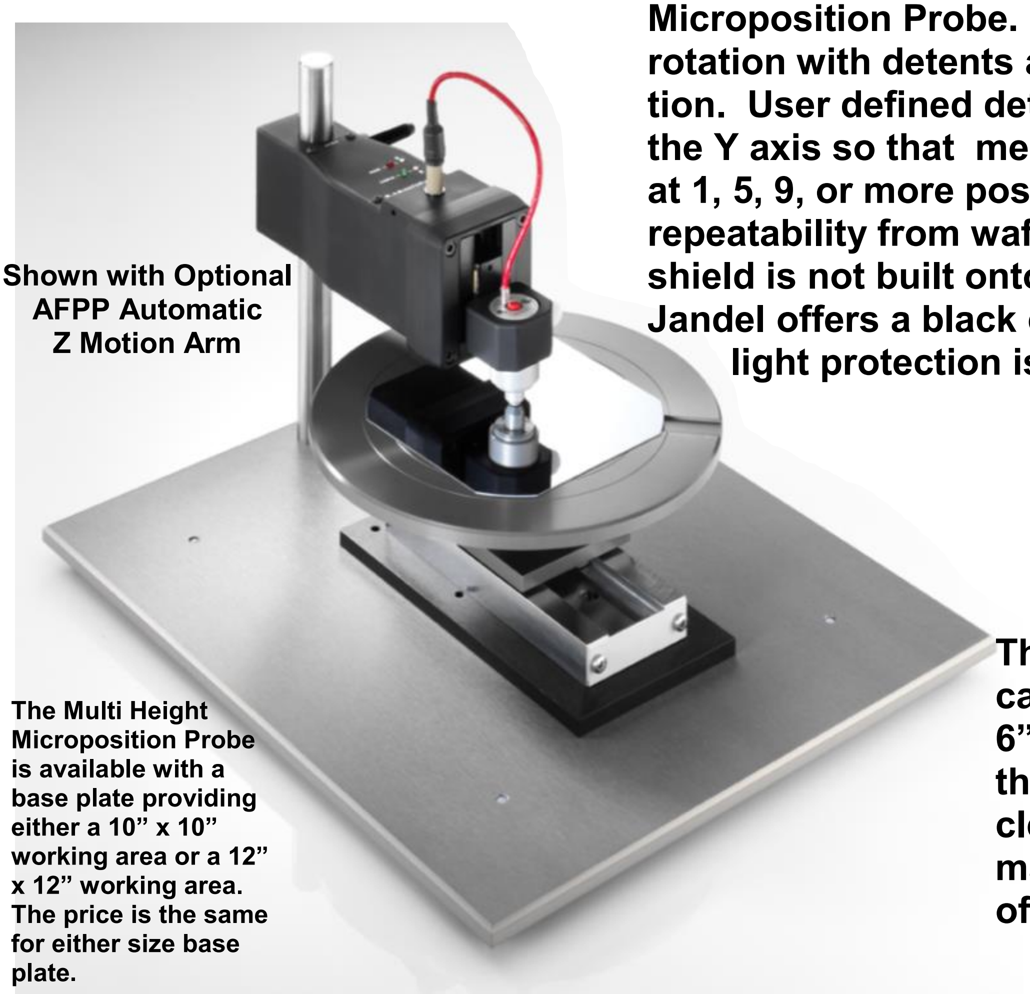
Multi Height Microposition Probe
The Multi Height Microposition Probe comprises a hard anodized aluminum base 25cm wide, 29cm deep and 0.8cm thick. A 19mm diameter stainless steel column 20cm high screwed to the base supports the probe head raising and lowering mechanism incorporating the vertical slide, operating lever shaft, and micro-switch. The vertical slide carries the probe-head, secured by a clamp screw. The probe-head is positioned so that the micro-switch does not pass current until the probes have made contact; lost motion ensures that the current is switched off before the probes are raised. The probe arm can be easily positioned on the vertical shaft to various heights to allow probing onto either flat materials or large or thick materials. For example, a shallow dish containing LN2 could be placed on the base plate and the arm could be positioned to allow the probe to be lowered onto a sample submerged in liquid nitrogen. With the X-Y stage removed, materials up to 10" x 10" x 6" tall can be positioned under the probe arm. If necessary, a taller vertical post can be supplied for use in measuring taller items. The Multi Height Microposition Probe includes a removable X-Y stage which can be bolted to the base plate to aid in positioning the materials accurately when probing onto small samples.

Features of the Removeable X-Y Stage:

- Precision ball-bearing X-Y stage with micrometer adjustments
- 25 mm x 25 mm X-Y travel
- 360 degree theta
- Sample holder for materials up to 76 mm in diameter
- Vacuum facility for use when needed - one hole in center

Wafer Stage Option

Jandel offers a 6” or 8” wafer stage as an upgrade option for use with the Multi Height Microposition Probe. The wafer stage has 360° rotation with detents at each 90 degree position. User defined detents are also set along the Y axis so that measurements can be made at 1, 5, 9, or more positions with 1mm location repeatability from wafer to wafer. A light shield is not built onto the system, however, Jandel offers a black cloth light shroud if light protection is required.



Shown with Optional AFPP Automatic Z Motion Arm

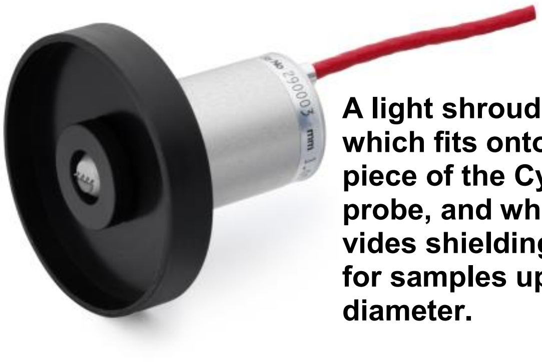
The Multi Height Microposition Probe is available with a base plate providing either a 10” x 10” working area or a 12” x 12” working area. The price is the same for either size base plate.

The Microposition stage can be replaced with the 6” or 8” wafer stage, or the base plate can be left clear for probing large materials, or for mounting of a thermal chuck.

Cylindrical Probe Head

The Cylindrical probe head, one of which is included with the Multi Height Microposition Probe, can withstand temperatures from 77K up to 120C in it's standard configuration. A modification to the Cylindrical probe will allow it to withstand temperatures from 77K up to 200C (in an oven). The Multi Height Microposition Probe is conservatively limited to 80C, however, temperatures up to 300C using a hot plate are okay if certain precautions are taken. The Cylindrical probe head is built to high standards of quality and accuracy. A brochure regarding the Cylindrical probe can be found here: http://www.fourpointprobes.com/jandelcylindrical.pdf

An application note with information regarding the constructions and specifications of the Jandel Cylindrical probe can be seen here: http://www.fourpointprobes.com/cylindrical_app_notes.pdf



A light shroud is available which fits onto the nosepiece of the Cylindrical probe, and which provides shielding from light for samples up to 2” in diameter.