

Micrometer and Positioner Heads

APPLICATIONS

- **Measuring standard** in calibration laboratory.
- **Small parts inspection.**
- **Industrial quality control microscope measurement** such as: magnetic tape head production, integrated circuit mask measurement, fuel cell dimensioning and semiconductor inspection.
- **Biomedical microscope measurement** such as cell measurement and culture growth measurement.



Displayed are two 1300 series digital micrometer heads and a digital readout.

- **Optical comparator measurement.**
- **Supermike retrofit.**

FEATURES

- **Smooth, precise operation.**
- **Anti-backlash design.**
- **Non-rotating spindle.**
- **Constant measurement performance.**
- **NIST traceable**
- **Remote zero reset on positioner ads.**

PRODUCT DESCRIPTION

Boeckeler® micrometer and positioner heads achieve consistent measurement performance. Digital micrometer and positioner heads can be connected to a Boeckeler digital readout which provides instant inch/metric conversion, zero reset, and absolute/relative measurement as standard features.

Boeckeler micrometer heads are carefully balanced over the full range of measurement in order to maintain the famous Boeckeler performance. The thimble and barrel are made of high tensile strength aluminum alloy. They have an anodized finish. Each hardened steel lead screw and carbide tip is individually calibrated to specified tolerances.

Every Boeckeler micrometer head is equipped with a non-rotating spindle which allows for consistent measurements while the thimble is being rotated. A flat carbide tip is standard. Spindles can be drilled and tapped on custom orders to accommodate the attachment of specially designed probes or anvils. Further stabilization of the spindle can be implemented by special ordering a captive spindle.

DIGITAL MICROMETER & POSITIONER HEAD SPECIFICATIONS

Model	Resolution	Accuracy	Range
1338D	0.000 005 in	±0.000 015 in	0-1 in
1398D	0.000 005 in	±0.000 015 in/in	0-2 in
1337D	0.000 1 mm	±0.000 4 mm	0-25 mm
1397D	0.000 1 mm	±0.000 4 mm/25 mm	0-50 mm
9538	0.000 025 in	±0.000 050	0-1 in
9598	0.000 025 in	±0.000 050 in/in	0-2 in

CALIBRATION: Boeckeler micrometer and positioner heads are calibrated using a laser interferometer with a 200 gram load applied to the spindle. A National Institute of Standards & Technologies (NIST) traceable calibration certificate is included with all micrometer and positioner heads. Calibration is recommended at least once a year to ensure the continued accuracy and service of Boeckeler micrometer and positioner heads. Instruments sent to Boeckeler for calibration and service will receive immediate attention and will be returned quickly with a 90-day warranty.

MOUNTING DIAMETERS: The standard mounting diameter for 9500-series positioner heads is 0.5 inch (12.7 mm) and a 0.625 inch (15.9 mm) bushing is included with standard orders. Optional positioner head bushings with diameters of 15.5 mm, 17.5 mm, 18 mm and 1.0 inch (25.4 mm) are available at no charge if specified when ordering. A positioner head mounting diameter of 12 mm is also available if specified when ordering. The mounting diameter of the 1300-series micrometer head is 0.75 inch (19.1 mm). An optional micrometer head bushing with a diameter of 1.0 inch (25.4 mm) is available for no additional charge when ordered with the micrometer head.

POSITIONER CRANK HANDLES: Standard 9500-series positioner heads are manufactured with a 2.25 inch (57.2 mm) diameter thimble and a crank handle. A smaller diameter thimble of 1.7 inch (43.2 mm) is available. This version can be ordered by adding "-S" to the model number. The small thimble positioner heads do not have crank handles.

PRATT & WHITNEY® SUPERMICROMETER™ A OR B RETROFIT: Boeckeler Instruments also upgrades Pratt & Whitney Supermikes to create a digital supermike system. At our factory in Tucson, Arizona, the mechanical micrometer drum is replaced by a specially designed model 1398 digital micrometer. The digital readout provided is a model 1-MO with offset thumbwheel switches, inch/metric selection switch, zero reset button, and a direction select switch. A lapping kit and instructions are included with the shipment.

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