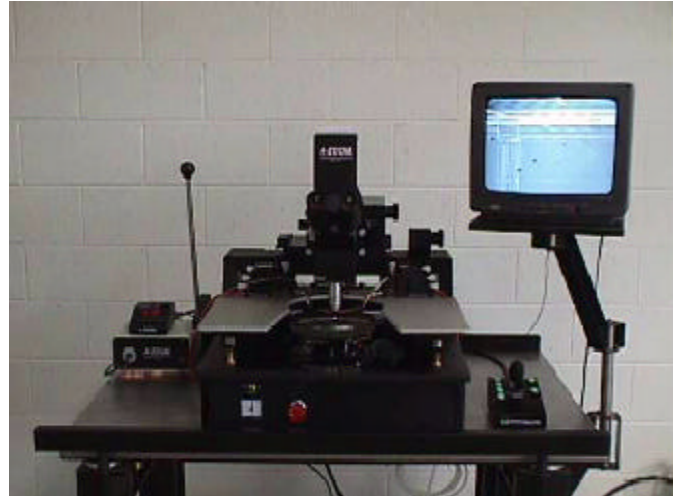


The Model 4460 probe station, available with either a 6" or 8" chuck, is designed to be the simple to use workhorse of the analytical probing lab. The 4460 design is based upon the Micromanipulator Model 8860 probe station which is recognized worldwide as the premium semi-automatic 8" analytical probe station. The 4460 was designed to retain the stability, open design and precise mechanics that make Micromanipulator probe stations the world standard, yet provide a more economical station for those customers not needing the low current capability, extreme precision of positioning and additional high powered control features of the 8860 and its pcProbe II™ control system. The Model 4460 prober provides a capable probe station solution for everyday semi-automatic analytical probing.



Model 4460 shown with optional A-Zoom Microscope

Features:

- Easy to use pendant makes *setup, indexing* and *X-Y-Z positioning* control available with a touch of a button.
- System joystick provides interactive control of stage and optional motorized microscope and manipulators.
- Compact system controller accepts control commands from external computers.
- Large area, ground aluminum platen accommodates vacuum based manipulators and features a stable four-point leadscrew driven platen support/lift mechanically isolated for stability.
- Optional probe card holder accommodates 4.5 inch rectangular and 8.75 inch circular probe cards.
- Integral fixture ring accommodates tester load boards and custom probe cards.
- Choice of USMCO, A-Zoom or Mitutoyo microscopes.
- Integrated facility for hot stage additions which include internal cable/hose handling and convenient termination at the rear of the probe station.
- Gold plated or ground stainless steel vacuum chuck.

The 4460 can be configured in many ways. Choose from:

Stage and Chuck Size:

6" or 8" Ambient Gold-plated, Stainless Steel, Thermal (hot only or hot/cold) Chucks with full plumbing integration

Microscope Control Modes:

Manual • Motorized (by system joystick) • Programmable (by external host)

Accessories:

Motorized/programmable manipulators • Laser Cutters • Probe Card Holders



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4460 Features and Specifications

Operational Specifications

Control method, "Local" to prober:

- Dedicated controller with user Pendant (keypad).
- Additional Joystick control for interactive positioning.

Local control functions include:

Load, Align, Set reference
Set and drive platen to up or down position
Enter index (die) size
Go to X,Y location
Go to Column/Row location
Store and recall up to 18 locations
Illuminator on/off
Speed high/low with indicator
Set units
Touchdown, illuminator, high speed, index mode indicators

Control method from external computer:

RS-232 standard, GPIB Optional, via OpenDoor™ prober control command set.

Stage Resolution:

0.5 micron

Stage accuracy and repeatability

Combined, *total* error: $\pm 3.0 \mu\text{m}$

Platen fine lift resolution

1.0 μm (programmable)

Chuck Theta control:

15 degrees standard, 64 TPI

Microscope range:

2" x 2" x 2" (8" Z Optional)

Microscope control modes available:

Manual
Motorized/programmable

Options for Model 4460

8800-FPC-FRX: Fixed probe card adapter.

7000-LTE or 8800-LTE: Light Tight Enclosure.

8800-ISE: Integrated Shielded Environment.

Vibration Isolation Tables (multiple options).

H1000 series hot/cold stages: with temperature range from -65 to 400° C.

Hot Stage integral plumbing option, provides services for Hot Stage usage within the probe station.

Laser Cutter: Single and multi-wavelength laser cutting systems available operating from single-shot to 40 Hz continuously for excellent control during material removal.

Motorized/Programmable microscope XYZ drive with joystick control or programmable control from external computer.

900VM:

Motorized/programmable manipulators with joystick control or programmable control from external computer.

Microscope Selection:

USMCO with up to 2000X (200X objective 10X eyepieces) magnification,

or

Mitutoyo FS-60 with up to 4000X (200X objective, 10X eyepieces, 2X zoom) magnification,

or

Leica GZ7 stereo microscopes with up to 210X (30X eyepieces, 7X objective) zoom magnification,

or

Ready Products A-Zoom microscopes with up to 9000X zoom magnification.



Controller



Model 4460 control pendant