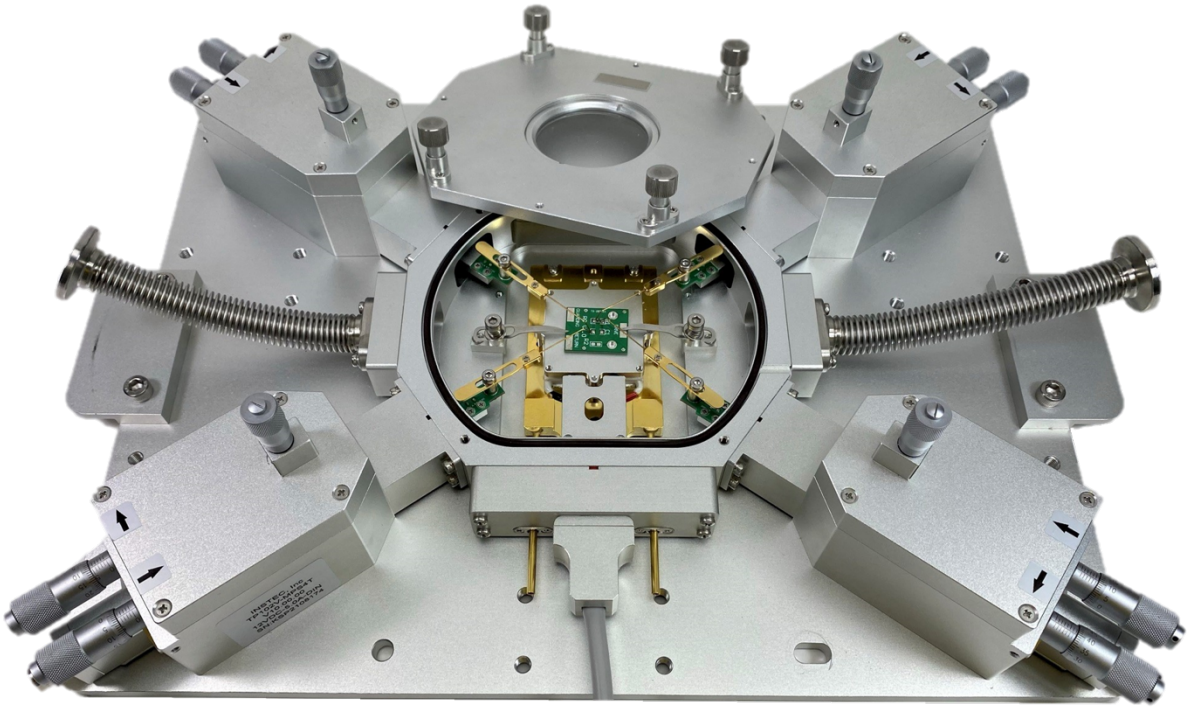
HCP-400-V-MPS

PROBE STATION UNDER CONTROLLED ENVIRONMENT



HIGHLIGHTS

- XYZ remote positioning
- Under vacuum
- Software control
- Quick installation

PARAMETERS

- Temperature range -196°C to 400°C
- Control humidity
- Measure I/V
- Sample size 10-50 mm

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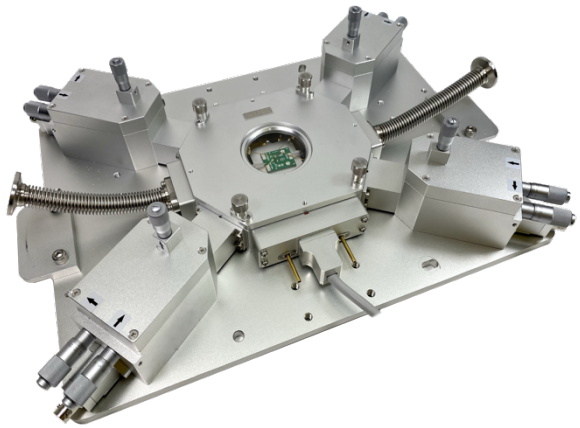
The **HCP-400-V-MPS** Micro Probing Station is designed for applications where both thermal and atmospheric control is critical. With XYZ remote positioning, this thermal probing station allows electrical testing at ease without compromising atmospheric control. The low-vacuum/gas tight chamber creates a closed environment to eliminate oxidation, aid in humidity studies, or conserve expensive reacting gases. Additionally, this stage is large enough to accommodate a variety of samples, including wafers from 10mm to 50mm.

Key Features



System Integration

Integrates with modern instruments thanks to small footprint tabletop design; low profile and low working distance for optical instrument compatibility.

Wide Temperature Range

Heating up to 400°C (Ambient or Vacuum), cooling down to -196°C with optional LN2-Kit cooling system.

Rapid Heating Rates

+150°C per minute @ 100°C max heating rate.

Accuracy and Stability

A pt100 platinum RTD sensor is embedded into the sample heating and cooling block to guarantee high temperature accuracy and stability. The RTD sensor is calibrated to measure the surface temperature of the sample heating block – giving the closest and most accurate reading of the sample possible.

Vacuum/Gas Tight Chamber

Allows gas purging for defrosting as well as prevents condensation and oxidation. Also allows for a controlled atmosphere around the sample. Features quick connect and release gas ports or KF vacuum ports.

Additional Features

Includes standalone ***mK2000*** temperature controller.

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Technical Specifications

Thermal Specifications

Temperature Control	mK2000 with programmable precision LVDC switching PID method
Thermal Block	Silver
Temperature Minimum	-196°C (with optional liquid N2 cooling)
Temperature Maximum	+400°C (600°C option available)
Temperature Resolution	0.01°C (RTD)
Temperature Stability	±0.05°C (>25°C), ±0.1°C (<25°C)
Software	Windows software to record and export temperature vs. time data

Optical Specifications

Optical access	Reflection (custom transmission option available)
Optical windows	Removable and exchangeable windows permit full-spectrum transparency
Minimum objective working distance	12 mm
Top window	Ø50mm
Window defrost	Integrated external window defrost

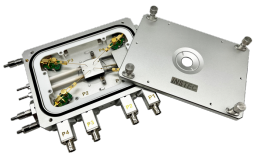
Structural Specifications

Sample area	Fits Ø10mm – Ø50mm wafers and devices
Chamber Height	8.0mm
Atmosphere control	Gas tight chamber with purge to control humidity, condensation, and oxidation
Frame cooling	Integrated frame cooling channels (optional chillers available)
Frame dimensions	300 mm x 300 mm x 40 mm

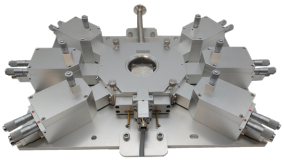
Electrical Features

Electrical probes	Tungsten-rhenium DC probes
Probe positioning	XYZ micro positioners with 10um resolution
Connectors	Coaxial BNC (default), or triaxial BNC
Sample surface	Grounded (default), floating, or triaxial

Other products

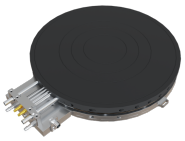


MW-HCP-600-G-PM



MW-TP102-V-MPS

MW-HCC218S



MW-HCC30CR