

Signatone H-150 5mm - 100mm Manual Probe System Economically designed for reliable and accurate analytical testing of DC, CV-IV, applications.

❖ FEATURES / BENEFITS

Multi – Use

- Designed for a wide variety of test.
- Robust design intuitive motion controls

Ergonomics and Optional Configurations

- Ease of use, single-handed X-Y Stage knobs for quick movement.
- Quick platen lift with adjustable platen separation
- Chuck rotation for DUT alignment
- Steel platen accepts Positioners (magnetic or vacuum mount)
- Available in multiple configurations including a variety of chuck options, micropositioners, microscopes, camera's, PCB holders, and more.
- Optional Vibration Isolation tables, Thermal chucks, dark-box, and other accessories



❖ SPECIFICATIONS

Chuck XY Stage (Standard)

Travel Range	101.6mm X 101.6mm (4 x 4 in)
Travel Resolution	75 µm Per Degree of Knob Rotation
Theta Travel	360°
Planarity	< 10 µm

Chuck to Platen

Chuck to Platen Separation (Quick Lift)	12.75mm (1/2")
Chuck to Platen Separation (Fine Adjust)	38.1mm (1.5")

Standard Microscope Mount (Fixed)

Movement Range	No X-Y motion
Scope "Z" Range	25mm-100mm * (dependent on microscope selection)

❖ PROBE PLATEN

Specifications

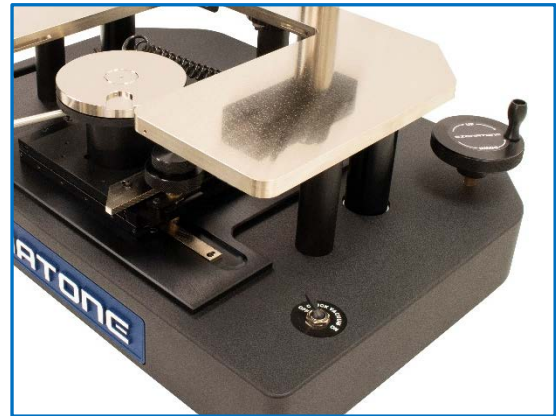
Design	Four Post Support
Dimension	L = 260.25.5mm x W = 406mm x H = 12.7mm 10.25" x 16" x 0.5"
Chuck to Platen Top	Min. 12.7mm (Variable Separation with Fine Platen Adjust)
Max. No of Micro Positioners	6 x DC
Quick Platen Lift Control (CVL)	Continuous Variable Lift (0 to 12.7mm)
Contact Repeatability	< 1 µm (0.04 mils) by Manual Control
Micro Positioner Mounting	Magnetic (vacuum optional)

Signatone Multi Benefit Ergonomically Correct Platen Adjust and Features:

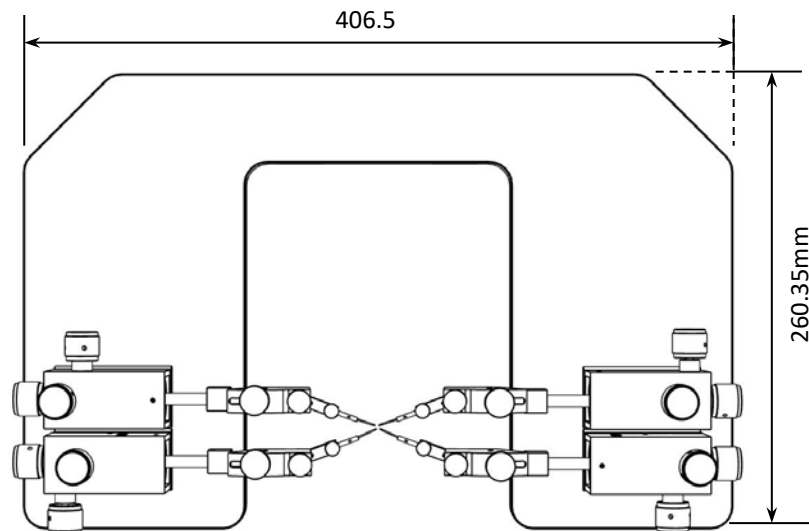
- "Quick Lift" with Continuous Variable Lift (CVL) for easy probe to pad separation and alignment
- "Fine Adjust" for Probe card and variable Chucks and DUT thickness setup



Platen "Quick Lift"



Platen "Fine Adjust"



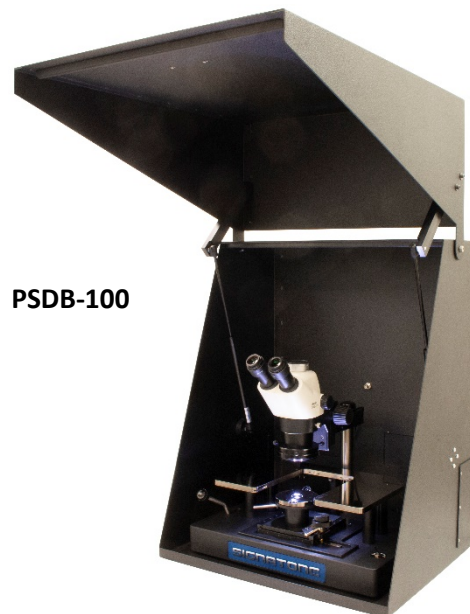
Sample Configured with 4 DC Probes

❖ SYSTEM OPTIONS – ACCESSORIES

Probe Station Dark Box (PSDB-100)

Probe Station light tight, electrically shielded enclosure
Excellent for use in conjunction with the following:

- Low-Leakage measurements
- Thermal measurements
- Light-Sensitive measurements



PSDB-100

H-710 Probe Card Adapter

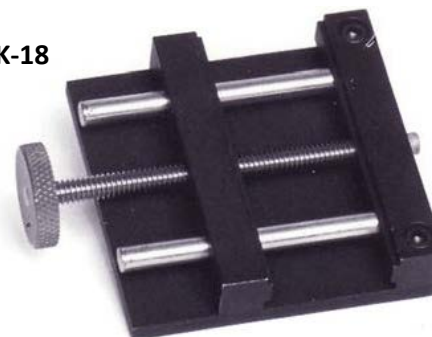
The probe card adapter is used to mount all standard 4.5" wide probe cards to the platen of the H-150 Prober. Standard models are available in 5" or 6" lengths with 48 to 72 pin connectors. Please call the factory for probe card adapters of wider dimensions, or double ended connectors, etc.



H-710

HK-18 Clamp Chuck

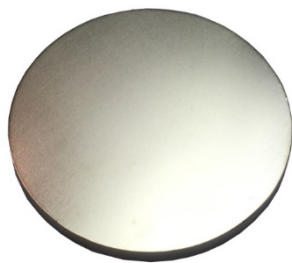
Two-sided hybrids or samples that cannot be held with vacuum may be held in place by means of the HK-18 Clamp Chuck. The Hk-18 is a miniature vise that grips the two edges of DUT. The HK-18 will accept samples up to 3.5" wide. After clamping the DUT in place the entire assembly is place on the vacuum chuck and held by chuck vacuum.



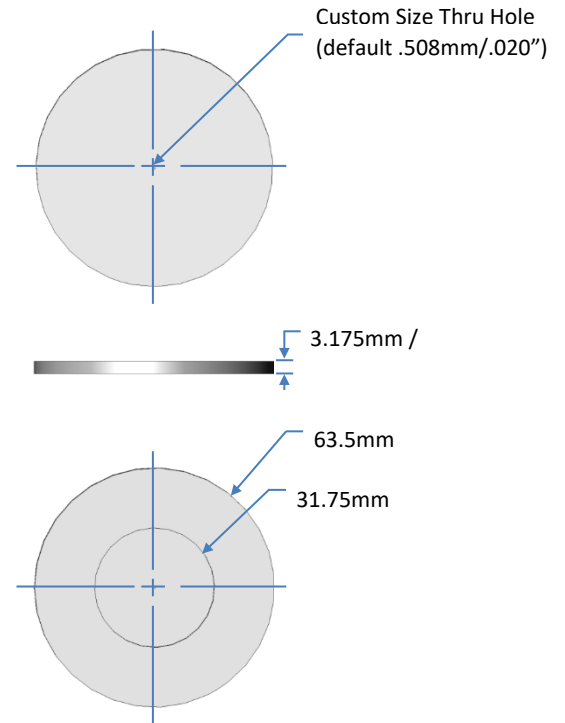
HK-18

WL - DC Device Chuck - for holding single devices

- 63.5mm / 2.5" round x 3.175mm/0.125" thick
- Nickle plated ½-hard brass
- For vacuum holding of small single devices
- Held in place by probe station vacuum zones
- For use at ambient or extreme temperatures
- Customer defined hole size or pattern
(Default size –centered hole = .508mm / .020")



WL-DC

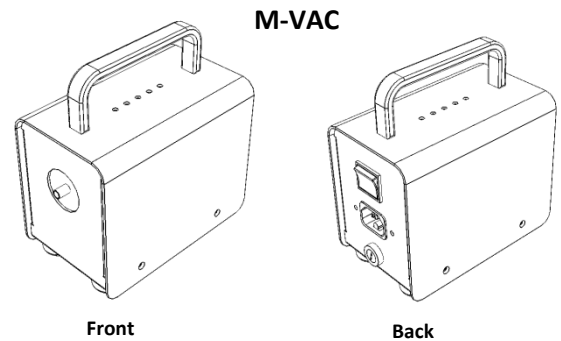


M-VAC

AC Linear Piston – (Small) Quiet Vacuum Pump

Supports vacuum hold-down of DUT and mounting of 1-10 Micro-positioners
(11 in. Hg @ 115VAC /428 mbar @ 230V AC)

- Includes Power Cord, On/Off Switch, 10' flexible vacuum tubing, 5Amp Fuse, Vibration dampening feet, Easy grip handle



❖ **MICRO POSITIONER**

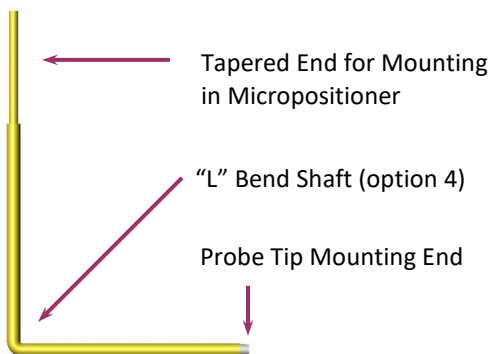
Choose the Micro Positioner that's best for your application (more positioner styles available)

The H-150 Series probe stations include a Steel Platen for use with Magnetic based (vacuum base optional) micro Positioners.

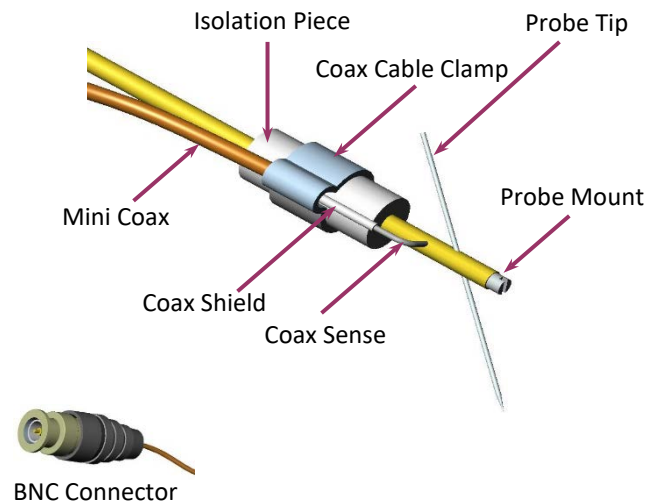
- The **SP-100** Series with 100 TPI linear X-Y-Z motion with in-line micrometer knobs for high precision probing sub-micron features at high magnification – great for use with multi probe applications
- The **S-926** Series with 100 TPI rectilinear X-Y-Z motion, good for probing down to 1 micron, at a very competitive price
- The **S-725** Series with 80 TPI is economically priced, Low profile, great for pad / large contact probing



The Signatone "S" Series probe tip holders offer options for length, type of probe mount, and shape of probe arm. The # 4 option when referring to the shape indicates that it has an "L" bend 2" - 3" from positioner mount. This option is recommended for use with the H-150 Series prober



The standard Signatone Shielded probe tip holder includes a 24" 50Ω mini coax cable w/ BNC termination, Delrin, Teflon, or Ceramic isolation piece, Cable clamp–strain relief and Probe tip mounting mechanism including Spring-Clip, or Screw-Lock.



❖ **SIGNATONE THERMAL CHUCKS**

Typical Specifications of *Signatone* Thermal Technology

100mm Standard Hot

Temperature Range	+25°C to +300°C
Connectivity	Coax (m)
Temperature control method	Liquid Cooled / Resistance heater
Coolant	Water
Smallest temperature selection step	0.1°C
Chuck temperature display resolution	0.01°C
External touchscreen display operation	Yes
Temperature stability	±0.1°C
Temperature accuracy	±0.5°C
Control method	Low noise DC/PID
Interfaces	RS232C
Optional Interfaces	GP-IB
Chuck surface plating	Nickel (gold optional)
Temperature sensor	RTD
Temperature uniformity	±0.5°C at ≤ 200°C ±1. °C at > 200°C
Surface flatness	< ±1 µm
Electrical isolation - Coax BNC (m) / SHV Triax	150nA
Heating Rates	25°C to 300°C < 4 min
Cooling Rates	300°C to 25°C < 2.5 min
Leakage @ 10 V Kelvin Triax	N/A
Residual Capacitance	
Maximum voltage between chuck top and GND	500V
3 Safety Circuits	Yes
Vacuum Pattern	Rings
Vacuum Zone (DUT Size)	5mm, 50mm, 100mm

System Controller / Dimensions / Weight / Power Consumption

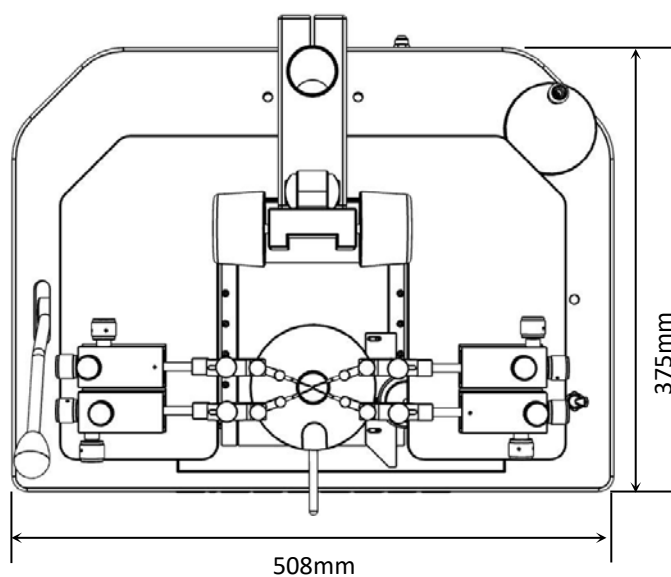
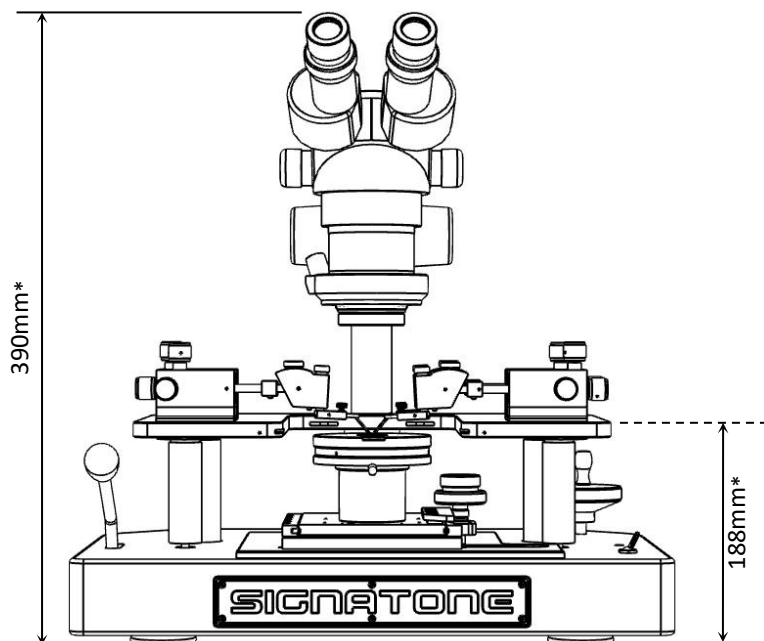
System Model	W x D x H (mm)	Weight (kg)	Weight (Lbs.)	Power cons. (VA)
S-1080	432 x 483 x 267	20.4	45	2000
TC-II	355 x 711 x 610	50.8	112	1500

❖ **SYSTEM DIMENSIONS**

H-150 / including microscope*

Dimensions (L x D x H)	375mm x 508mm x 390mm *	(14.76" x 20" x 15.35"*)
Weight	34kg	(75 lbs.)

* Can vary dependent on platen adjust, shelf, and microscope selection



❖ WARRANTY

- Standard Warranty 12 months *
- For Extended Warranty and Service Contracts : Contact Signatone Corp. for more information

* See *Signatone Corporate Terms and Conditions of Sale* for further details.

- **North America:** Sales.NA@signatone.com
- **Europe:** Sales.Europe@signatone.com
- **Asia:** Sales.Asia@signatone.com

