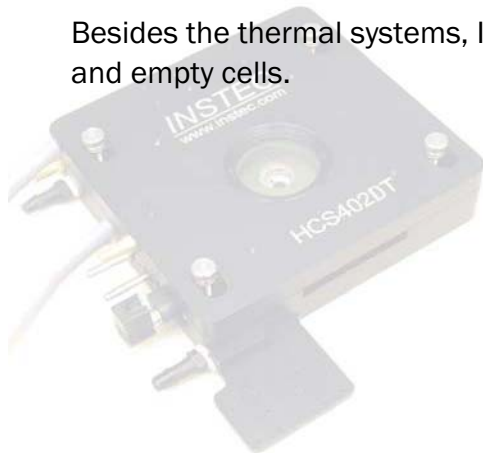


Instec offers a full range of standard products however we also pride ourselves on that we have provided users with customized thermal solutions to meet their specific temperature control needs. We often deliver custom projects at lower cost and shorter lead time than competitor's standard products. With almost half of Instec's business coming from custom products, our experience is unparalleled. In the past we have designed products used in applications such as a warm stage for live mouse operations, high vacuum and high temperature plates, MEMS, photovoltaic solar cells, ultra high uniformity hot chucks, a 432 mm hot plate for LCD evaluation, and more. Just like our standard products, these custom products have the same simplicity, reliability, and durability that have become hallmarks of Instec's products.

Besides the thermal systems, Instec also make customized LCD testing systems, and empty cells.



## HCS402DT

### Dual-Control Hot and Cold Stage

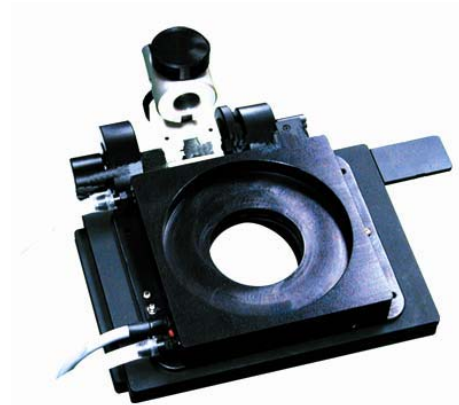
- Temperature Range: -60 °C to 400 °C
- Dual Heaters Located Above and Below the Sample Chamber for Superior Temperature Uniformity
- Dual Sensors and Temperature Controllers to Create a Temperature Gradient



## TSA04i

### Inverted Microscope Thermal Stage

- Temperature Range: -5 °C to 60 °C
- 100 mm Petri Dish Thermal Stage
- Application: Operation on Live Mouse



## HCS40512

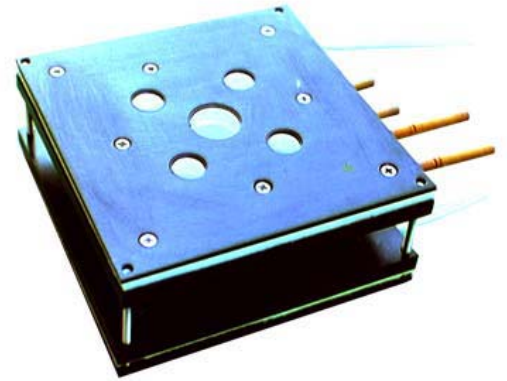
### Dual-Heating and Dual-Cooling Side Viewing Stage

- Temperature Range: -60 °C to 400 °C
- Heating and Cooling on Both Sides of the Sample Chamber
- Tilted Window to Reduce Reflection
- Side Viewing for Wafer Cross Section Examination



## Dual-Heating and Dual-Cooling Stage with 5 Viewing Apertures

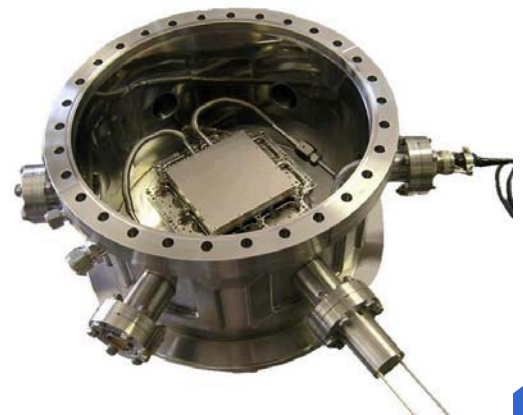
- Temperature Range: -30 °C to 200 °C
- Heating and Cooling Both Above and Below the Sample Chamber
- Built-in Defrost Channels
- Application: LCD Testing



## HCP604SCV

### Hot and Cold Plate with High Vacuum Chamber

- Temperature Range: -100 °C to 600 °C
- High Vacuum Chamber
- Integrated Vacuum Chamber Cooling
- Large Viewing Aperture on the Cover
- 80 Electric Feed-Through Leads for Sample Probing



## HS40917

### Hot Stage for IR Spectrometer

- Temperature Range: Ambient to 600 °C
- Accommodate Standard Quartz Cuvettes: 12.5 mm x W x 45 mm (W ranges from 3.5 mm to 12.5 mm)



## TP10S2A

### 10 Sample Hot and Cold Plate

- Temperature Range: -30 °C to 100 °C
- 10 Individual Sample Chambers
- Each Chamber Has 4 Electric Feed-Through Leads for Sample Probing or Testing
- Compact Design to Be Used on Microscope or Optical Bench
- Applications: OLED or LCoS Life Testing



## HP10HDC

### Large Area Hot Plate

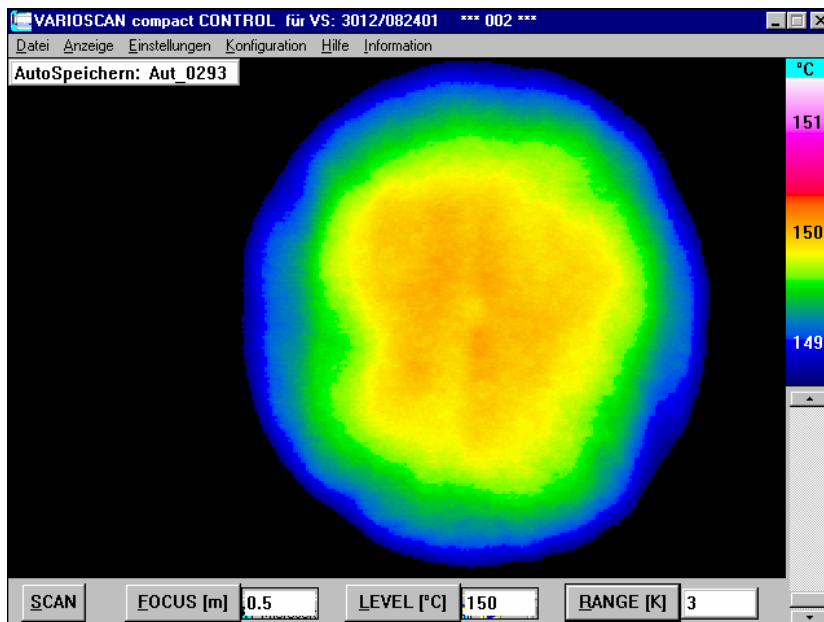
- Temperature Range: Ambient to 70 °C
- Super Large Sample Area: 420 mm x 320 mm
- Gas Tight Chamber with Large Quartz Window (400 mm x 300 mm)
- Two Electric Feed-Through Leads for Sample Probing or Testing
- Application: LCD Testing



## HCC308-C

### High Uniformity Hot Chuck

- Temperature Range: Ambient to 310 °C
- Accommodate Up To 200 mm x 200 mm Sample Size
- High Uniformity



Left figure shows the temperature uniformity testing result of the HCC308-C Hot Chuck. A black painted wafer was put onto the HCC308-C and after 10 seconds an image was taken with a Jenoptik Varioscan Infrared Camera. The Hot Chuck temperature was set to 150 °C. The observed image was set to a measurement range of 2 °C.

The observed image colours show a standard 200 mm wafer. The whole wafer has a uniformity better than +/- 0.5 °C. The mastering area is better than +/- 0.2 °C.