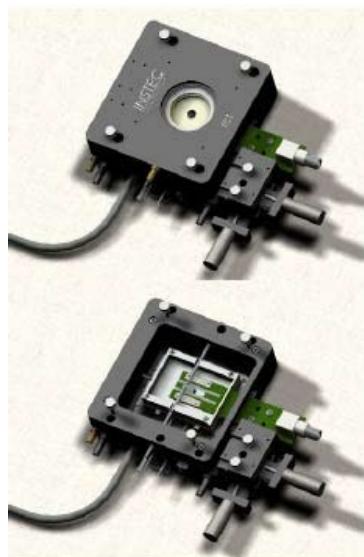


HEATING AND COOLING STAGES

FS1 THIN FILM HOT AND COLD STAGE

Features:

- Hot and Cold Stage with Large Viewing Aperture for Thin Film Study
- Thin Film Drawing Kits with Removable Inner Chamber for Cleaning
- Programmable Precision Temperature Control from -60°C to 200°C with 0.1°C Temperature Precision
- Controlled Fast Heating and Cooling Rate
- Dual Heaters Located Both Above and Below The Sample Chamber for Ultra Temperature Uniformity.
- Variable Sample Chamber Height
- Easy Side Sample Loading with Standard Microscope Slides
- Gas Purge Sample Chamber
- RS232 Communication Port Included in Basic System with Windows Based Software
- Optional IEEE488 Communication Port
- Free LabVIEW Driver for IEEE488 and RS232



Technical Specification

Temperature Control Sensor	Platinum RTD
Control Method	Switching PID
Temperature Range	-60°C to 200°C (Optional wider temperature range available) Below ambient operation requires liquid nitrogen cooling accessory.
Temperature Precision	0.1°C
Temperature Stability	$\pm 0.1^{\circ}\text{C}$ at 100°C
Minimum Heating & Cooling Rate	$\pm 0.1^{\circ}\text{C}/\text{Hour}$
Maximum Heating Rate	$+100^{\circ}\text{C}/\text{Min.}$ at 37°C
Maximum Cooling Rate	$-50^{\circ}\text{C}/\text{Min.}$ at 37°C
Minimum Working Distance	14 mm without Glass Window
Minimum Condenser Distance	11.8 mm without Glass Window
Sample Area	1.5" X 2.3"
Chamber Height	2.0 mm, up to 12.5 mm (using optional spacers)
Sample View Aperture	10 mm diameter
XY Positioner	10 μm resolution
Mounting Hole Pattern	6 holes on the base frame, two mounting tabs on the side of the frame



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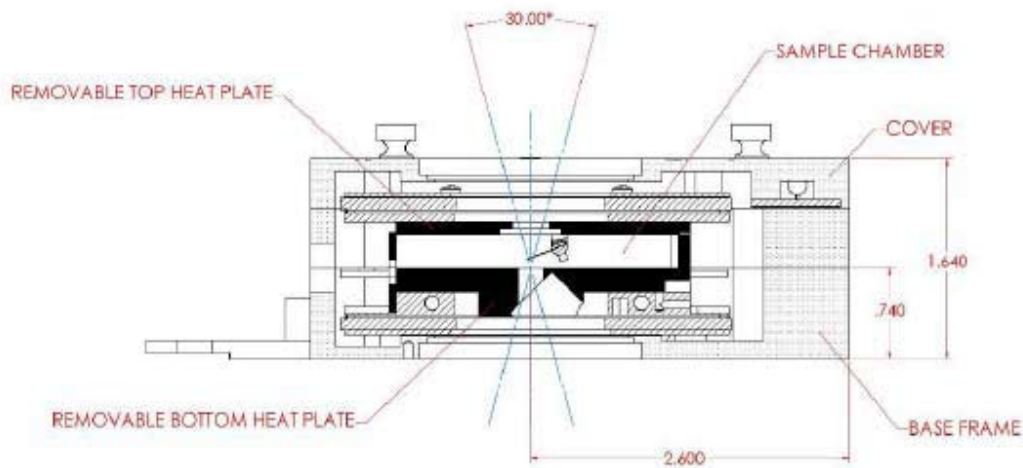
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HEATING AND COOLING STAGES

FS1 THIN FILM HOT AND COLD STAGE

Cross Section View



Ordering information

Part No	Description
FS1-STC200	FS1 Hot and Cold, Thin Film Stage. Dual Heaters. Configured with STC200 temperature controller. RS232 communication port, and WinTemp software. 115V/230V Universal Input Voltage.

Accessories	
Optional Parts for STC200	Please refer to the STC200 Temperature Controller brochure for add-on STC200 controller optional parts (e.g. IEEE-STC200: IEEE 488 communication port).
LN2-SYS	Liquid Nitrogen Cooling Accessory. Please refer to the LN2-SYS brochure for selections of liquid nitrogen cooling accessories.
WP115C/WP230C	115V or 230V circulation water pump for sample chamber cooling to below ambient temperatures (as low as 5 °C).
WP115V/WP230V	115V or 230V circulation water pump for frame cooling.



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