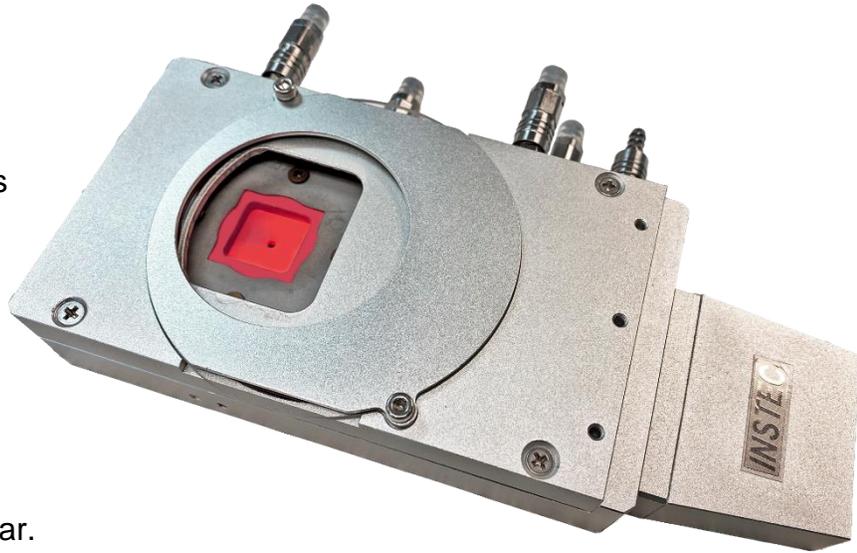


DESCRIPTION

The **HS1200G** high-temp heating stage is designed for the study of ceramics, metallurgy, geology, and high-temp materials. Using a ceramic heater, this stage is able to heat samples up to 1200°C. The HS1200G stage's gas-tight sample chamber also helps to prevent sample oxidation at high temperatures – making it a perfect choice for researchers needing precision heating and atmospheric control.



KEY FEATURES

Rotatable Window

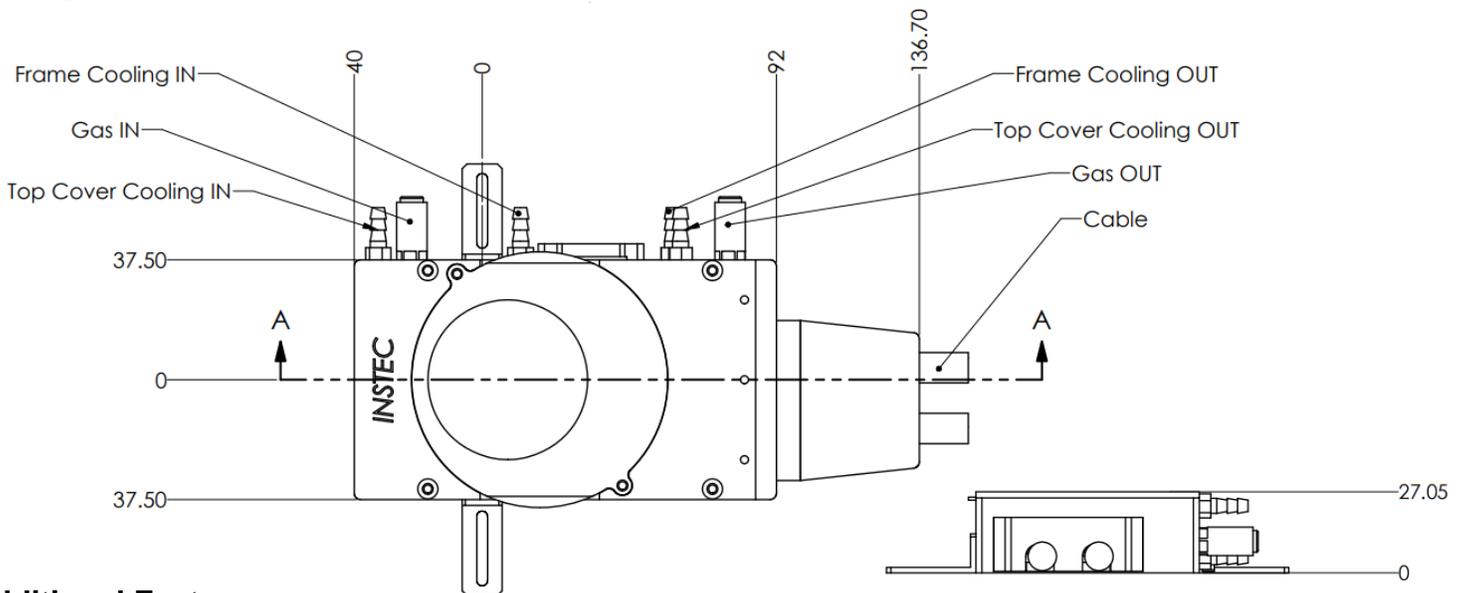
Used to keep the line of sight with the sample clear.

Gas Tight Chamber

Allows for gas purging to prevent condensation and oxidation. Also allows for a controlled atmosphere around sample. Includes quick-connect gas ports by default, SS KF-16 bellows are available upon request.

Accuracy and Stability

A platinum S-Type Thermocouple sensor is embedded into the ceramic sample heating block to guarantee high temperature accuracy and stability in very high temperature applications. The sensor is calibrated to measure the temperature of the surface of the sample heating block – giving the closest and most accurate reading of sample possible.



Additional Features

- Includes standalone *mK2000* temperature controller
- Includes 'InstecApp' Windows compatible software for optional operation via PC
- Comes standard with optical glass windows that can be easily replaced with IR or UV transparent glass.

THERMAL SPECIFICATIONS

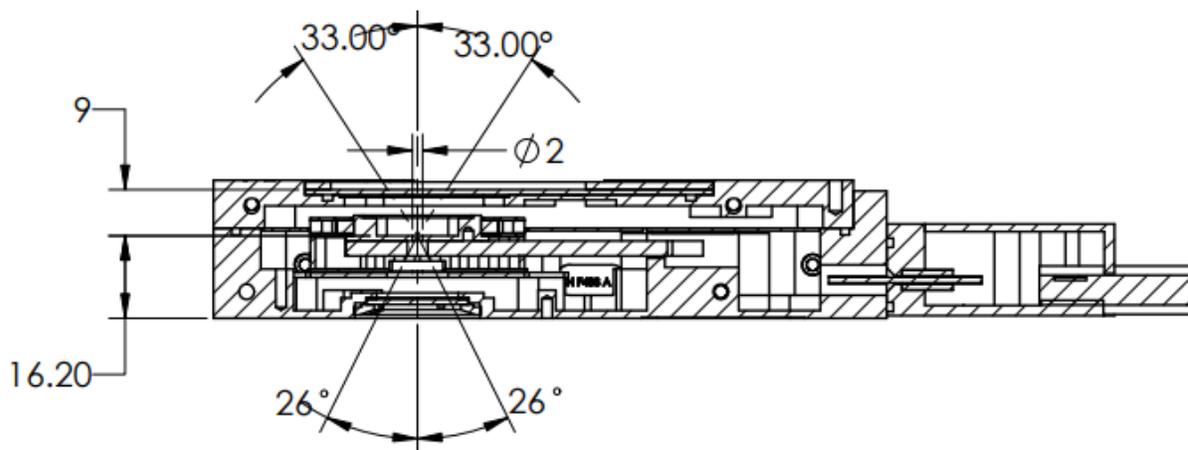
Temperature Control	<i>mK2000</i> with programmable precision switching PID method
Thermal Block	Ceramic
Minimum Temperature	Ambient (active cooling by purge-gas flow)
Maximum Temperature	1200°C
Temperature Sensor	S Type Thermocouple
Maximum Heating Rate	+100°C per minute ≤800°C, +20°C per minute >800°C
Temperature Resolution	0.1°C
Temperature Stability	±1°C
Power supply	Universal power input
Software	Windows software to record and export temperature-time data

OPTICAL SPECIFICATIONS

Optical access	Reflection and Transmission capability
Optical windows	Removable and exchangeable windows permit full-spectrum transparency
Minimum Objective Working Distance	9.0mm
Minimum Condenser Working Distance	16.2mm
Viewing Aperture	Ø21mm with Ø80mm quartz window
Top Viewing Angle	±33° from normal
Transmission Aperture	Ø2mm
Bottom Viewing Angle	±26.5° from normal

STRUCTURAL SPECIFICATIONS

Sample Area	16mm x 16mm flat plate Ø7.5mm x 3.5mm tall crucible cup
Atmosphere Control	Gas purging capability to control humidity, condensation, and oxidation
Frame Cooling	Integrated frame cooling with water cooling system
Mounting	Base model includes tapped holes on the frame and removable side-mounted L-Brackets. Horizontal and vertical mounting adaptors available for select instruments, or by custom design
Frame Dimensions	176 mm x 75 mm x 27 mm



OPTIONS



Sample Fixing Clamps

Secure samples using spring-loaded sample clips to allow for vertical orientations or to improve thermal contact.



Vacuum Tight Chamber

Allows for total atmosphere control, preventing condensation and oxidation. Includes KF vacuum tubes to connect to a vacuum pump (See [HS1000V](#))



Upgraded Chiller

Safety always comes first – a water circulator is included with each of our high-temp stages to keep the frame of the thermal stage cool and safe to touch. Frame cooling allows thermal control of the frame independent of the sample thermal block. For long-duration experiments, upgrading the C100W water circulator to a refrigerated chiller is recommended.



Microscope

Entry-level polarizing microscope offering superior performance for a variety of research applications with specifications to satisfy a wide range of demanding observational requirements. (see [TPM-CX40](#))



Camera

Integrate digital image acquisition with sample temperature overlay. Includes software (WinDV2 via InstecApp), USB 3.0 connection, 20-megapixel resolution, and standard C-mount microscope connection. (see [MITO2](#))



Mounting Adapter

Various mounting adapters are available for most microscope models and/or instruments. Custom mounting adapters may also be made to fit each and every application.



Windows

Additional or alternate available windows are Sapphire, BaF₂, CaF₂, ZnSe (see [HCS601GXY-IRM](#) for IR applications).

SIMILAR PRODUCTS

	HCS621GXY	HS1000GXY-IRM	HS1500G	HCS621GXY-GEO
				
Temperature Range	-190°C to 600°C	Ambient to 1000°C	Ambient to 1500°C	-190°C to 600°C
Atmospheric Control	✓	✓	✓	✓
Sample Area	Ø28mm	16mm x 16mm	Ø7.5mm	28mm x 30mm
Sample Cooling	LN2	-*	-*	LN2
Thermal Block	Silver	Ceramic	Ceramic	Silver
XY Manipulation	✓	✓		✓
Rotatable Window		✓	✓	

*Heating only stage

Other products to consider....



HP1000G-PM high-temp probing stage with 25mm x 25mm sample area. Temperature Range ambient to 1000°C. Gas tight chamber with gas purge capabilities. Includes four manual probe tips with coaxial BNC on the frame. Offers similar temperature control range and optical specifications to HS1200G, but also has integrated electrical probing capabilities.



HCS601G-IRM FTIR heating and cooling stage with 24mm x 24mm sample area. Temperature Range -190°C to 600°C. Gas tight chamber with gas purge capabilities. CWD=10.5mm WD=10.5mm, cone angle>100°C. Includes IR windows. Offers a smaller temperature range than HS1200G, but supports LN2 cooling down to -190°C and a smaller footprint for better compatibility with optical instruments.



HCP600G-CAP heating and cooling plate for capillary tube applications. 28mm x 30mm sample area. Temperature range -190°C to 600°C. Gas tight chamber with gas purge capabilities. Manipulate capillary tube while maintaining chamber atmosphere. Has a smaller temperature range than the HS1200G, but supports active cooling via LN2 and is optimized for capillary tube samples.

CONTACT A REPRESENTATIVE 