

# Special Applications SEMThermo Stage

A variable temperature sample stage installed in the sample chamber of a scanning electron microscope (SEM)

- In-situ variable temperature observation
- Wide temperature range
- High-precision temperature control
- Compatible with various analyse



## One Platform Many Possibilities

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VLS-190-200



VLS-600-RT



VLM-RT-1200

## Overview

### Introduction to SEMThermo Stage :

It can precisely control the sample temperature within a wide temperature range from -196 to over 1000 , supporting various modes such as constant temperature, linear temperature rise and fall, and program temperature control. Its high-stability design ensures that the sample position remains stable during temperature changes, and it is compatible with analytical techniques such as SEM imaging, EBSD, and EDS. Some models also support atmosphere control. It is widely used in in-situ research in fields such as material phase transformation, thermal expansion, fracture mechanism, cryobiology, and catalytic reactions.

## Specifications

### Same parameters

Parameter	Description
Both use liquid nitrogen - related refrigeration methods	Use liquid nitrogen to achieve low - temperature environments
Have temperature stability indicators	Can stabilize the temperature within a certain range
Have temperature control rate parameters	Can achieve corresponding heating or cooling rates
Equipped with sample stages	Used to place samples to be tested
Have external dimension specifications	Corresponding to different space occupation situations
Have net weight parameters	Reflect the weight of the product itself

## Application

- Materials Science: In-situ Phase Transition Observation
- Semiconductors & Microelectronics: Thermal Failure Analysis
- Polymers & Soft Matter: Polymer Crystallization & Melting Study
- Extreme Environment Simulation: Dynamic Characterization at Extreme Temperatures



## Explore Series

Model	Net Weight	Overall Dimensions	Temperature stability	Sample stage	Temperature range
VLS-190-200	-	-	±0.1°C	Copper: 23mm×23mm	-190°C-200°C
VLS-600-RT	-	-	±0.3°C	Copper: φ30mm	-160°C-RT
VLM-RT-1200	4.9kg	200mm×90mm×90mm	-	Ceramic, diameter 20mm	RT - 1200°C

 Get in touch with our team to explore configurations, request a quote, or learn more about customized solutions tailored to your needs.

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