VENUSLAB
OPTOELECTRONICS

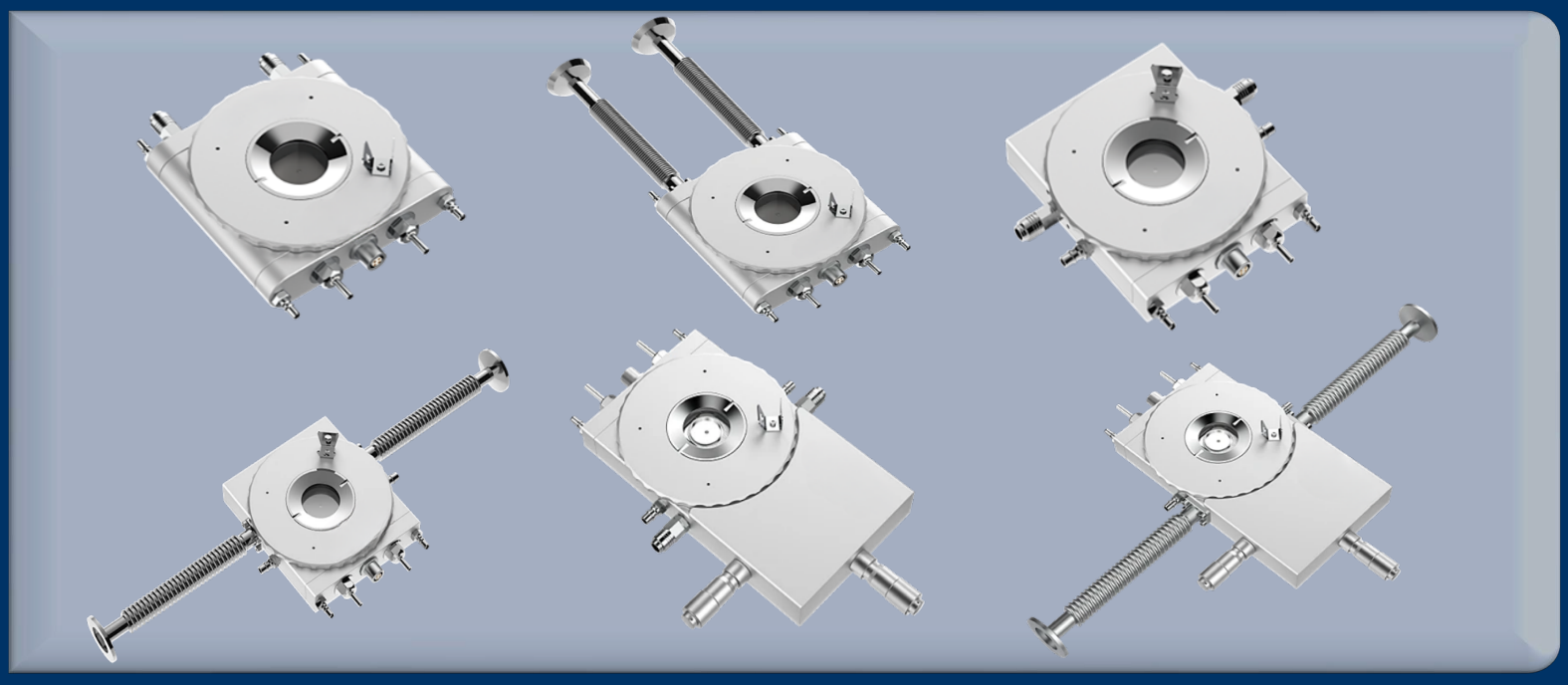
Precision
Meets
Simplicity

Optical

OptiThermo Stage

Universal temperature control technology + unified optical adaptability + consistent sample positioning system

- Compatibility with multi-scenario environments
- Intelligent temperature control integration
- Modular interface design
- Lightweight and compact design



One Platform Many Possibilities

Contact Us sales@venuslabtech.com

Get a Quote

Get Expert Advice
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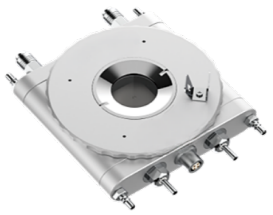
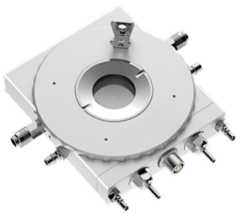
Visit Us
www.venuslabtech.com

OptiThermo Stage

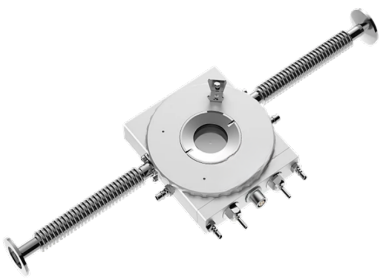


VLO-190-600S

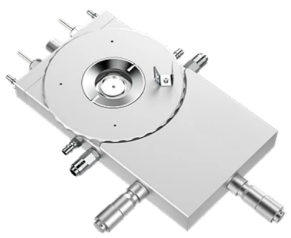
VLO-190-400SV



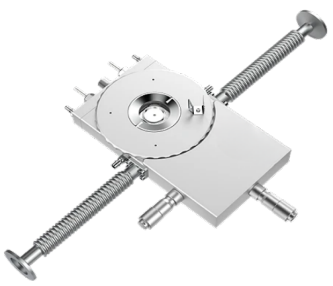
VLO-190-600S-T



VLO-190-400SV-T



VLO-190-600S-XY



VLO-190-400SV-X

Overview

Introduction to VL Optical Thermal Stage Product:

The optical thermal stage features excellent temperature control. It achieves wide temperature adjustment through advanced refrigeration and heating technologies, with high stability, adapting to extreme testing requirements from ultra-low temperatures to high temperatures. Equipped with high-quality optical windows, it offers good light transmittance and low distortion, balancing operability and sealing performance. It supports reflection/transmission optical paths and can be combined with microscopes and spectrometers to realize photoelectric synchronous testing. It includes a high-precision sample positioning and adjustment device, and the sample chamber supports vacuum/ specific atmospheres to reduce interference, providing a stable and reliable platform for scientific research and industrial testing in fields such as materials science and semiconductors.

Specifications

Parameter Item	Parameter Value
Temperature Stability	±0.1°C
Window Material	JGS2 Quartz Glass (Transmission band range: 220nm~2500nm, detachable and replaceable manually)
Optical Path Support	Reflection/Transmission (φ2mm light-transmitting hole)
Sample Stage Basic Feature	Metal material (silver/copper, etc.) for stable loading and thermal conductivity
Basic Chamber Configuration	Supports vacuum/atmosphere environment (customizable on demand)
Core Temperature Control Method	Liquid nitrogen cooling + resistance heating (some models include TEC cooling)

OptiThermo Stage

Application

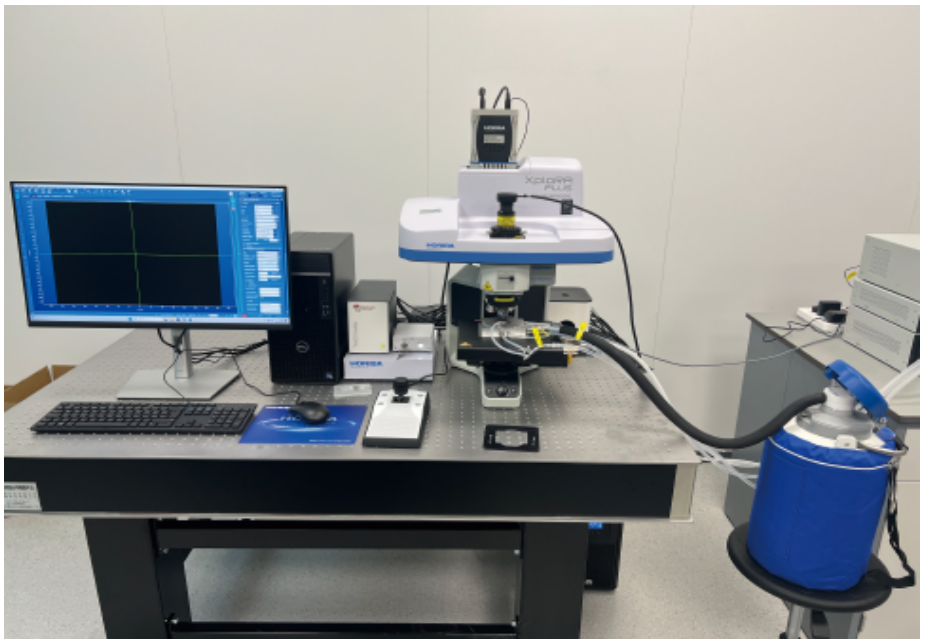
- **In-situ Thermal Microscopy**
(Melting, Crystallization, and Phase Transitions under -190°C to 600°C)

- **Variable Temperature Spectroscopy**
(Raman, Photoluminescence, and UV-Vis-NIR analysis enabled by JGS2 Quartz Windows)

- **Semiconductor & Thin Film Characterization**
(Optoelectronic performance and thermal stability testing)

- **Controlled Environment Testing**
(Materials research under Vacuum or Inert Gas atmospheres)

- **Crystallization Kinetics**
(Real-time observation of nucleation and growth)



Serivce & Support

We are dedicated to delivering exceptional optoelectronic solutions to every client. From precision manufacturing and secure delivery to full-lifecycle technical support, we are here to ensure a seamless and reliable experience at every step.

1. Warranty Policy

Quality First, Worry-Free Operation

Warranty Period: We offer a **two-year** warranty service for all of our core optoelectronic products, effective from the date of shipment.

Coverage: We provide free repair or replacement services for malfunctions caused by material defects or workmanship errors under normal operating conditions.

Rapid Response: Upon receiving a warranty claim, we guarantee to initiate the assessment process within **24 hours** to minimize your equipment downtime.

2. Technical Support

Expert Team, Full-Process Guidance

Technical Consultation: Our team of senior optical engineers provides **24/7 online support** to assist with installation, commissioning, optical path alignment, and parameter optimization.

Scheduled Maintenance: We offer full-lifecycle maintenance recommendations, including firmware upgrades, optical component cleaning guidelines, and precision calibration services.

Training Services: We provide customized remote or on-site operational and safety training to ensure your team can operate the equipment efficiently and safely.

3. Logistics & Delivery

Precision Packaging, Global Reach

Professional Packaging: Given the fragile nature of optical instruments, we utilize industrial-grade shockproof, anti-static, and moisture-proof vacuum packaging to ensure zero damage during transit.

Logistics Partners: We partner with top-tier global logistics providers **(DHL / FedEx / UPS / SF Express)** to offer reliable shipping with real-time tracking.

Shipping Insurance: All shipments are fully insured to eliminate logistics risks.

4. Compliance & Certification

Strict Standards, Total Compliance

Quality Certification: Our manufacturing process is **ISO 9001 certified**, and our products comply with international standards such as **CE** and **RoHS.**

Export Compliance: "Committed to environmental responsibility, all our products comply with **RoHS 2.0** and **REACH** standards, ensuring safety and global compliance."

Explore Series

Model	Overall Dimensions (L×W×H)	Lower Window Size (Transmission Path Optional)	Net Weight	Temperature Range
VLO-190-600S	91mm×97mm×24mm	φ10mm×1mm	0.5kg	-190°C~600°C
VLO-190-400SV	91mm×97mm×24mm (Excluding Bellows)	φ10mm×1mm	0.6kg	-190°C~400°C
VLO-190-600S-T	86mm×100mm×21.5mm	φ10mm×0.5mm	0.5kg	-190°C~600°C
VLO-190-400SV-T	86mm×100mm×21.5mm (Excluding Bellows)	φ10mm×0.5mm	0.6kg	-190°C~400°C
VLO-190-600S-XY	155mm×86mm×21.5mm	φ10mm×1mm	0.7kg	-190°C~600°C
VLO-190-400SV-X	155mm×86mm×21.5mm (Excluding Bellows)	φ10mm×1mm	0.8kg	-190°C~400°C

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

Let us help you moves cience forward—faster and smarter.