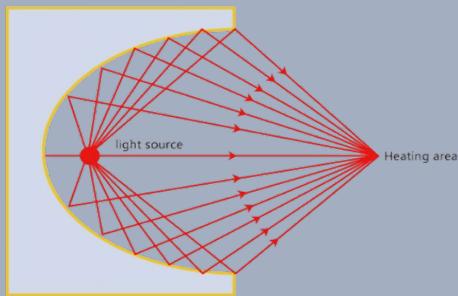


Optical Infrared Heating Furnace

Equipment that uses infrared radiation for heating

- Fast heating speed
- Precise temperature control
- Energy-saving and environmentally friendly
- Flexible heating methods



One Platform Many Possibilities

Contact Us sales@venuslabtech.com

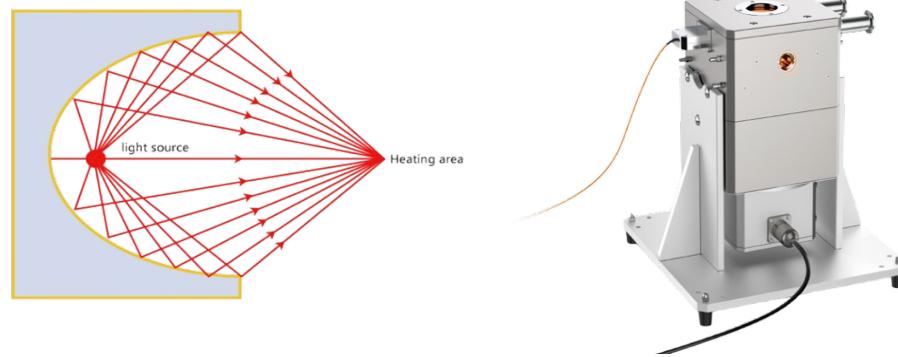
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Overview

Introduction to Infrared Heating Furnace :

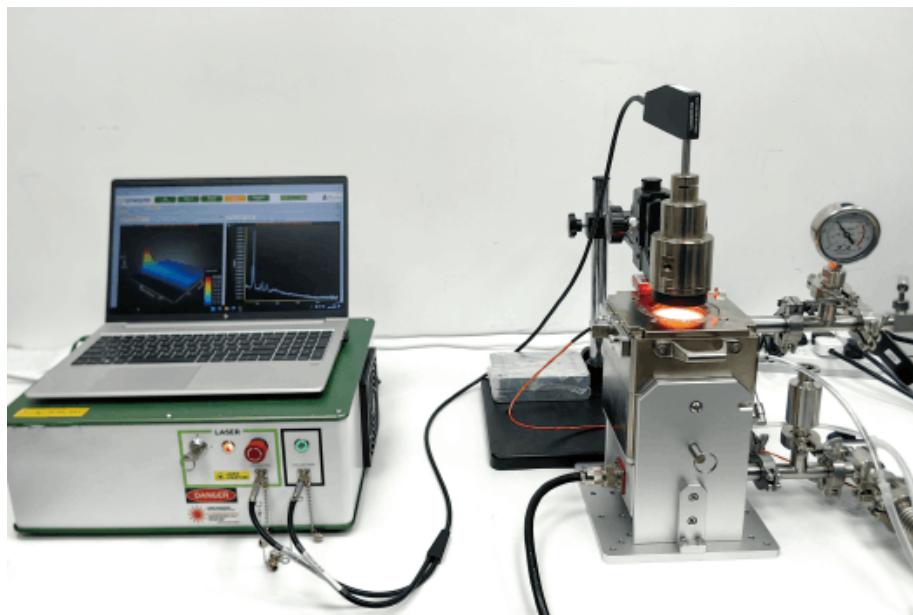
It is mainly composed of an infrared radiator, a reflector, a control system, etc. It uses an infrared heating tube as the heating element and adopts infrared mirror reflection technology to concentrate and focus infrared radiation energy on the surface of the workpiece, making it heat up quickly. The temperature of this furnace can reach 1700°C, the long-term operating temperature is 1600°C, and the commonly used temperature is 1500°C. The temperature rise rate in the range is greater than 280°C/s, the voltage and power are 220 (380) V and 6-36kw, the heating ranges include point, line (columnar), and surface heating, the cooling method of the reflecting surface is water cooling, the temperature control accuracy is $\pm 1^\circ\text{C}$, and the temperature display accuracy is 0.1°C .

Specifications

Parameter Name	Content
Heating and Cooling Method	Infrared Heating
Temperature Range	RT - 1700°C
Temperature Stability	$\pm 0.1^\circ\text{C}$
Temperature Control Rate	Maximum heating rate 30°C/s, natural cooling
Sample Stage	Platinum; 10mm
Optical Path	Reflection/Transmission
Viewport Size	7mm
Viewport Material	JGS - 2 quartz glass (transmission wavelength range 220 - 2500nm), manually detachable and replaceable
Distance from the Upper Surface of the Viewport to the Upper Surface of the Sample Stage (h)	17mm
Chamber	Vacuum/Atmosphere
Overall Dimensions	140mm×160mm×265mm
Net Weight	12.5kg

Application

- **Rapid Thermal Processing (RTP):** Ideal for quenching, annealing, and thermal shock testing due to its fast heating rate (up to 30°C/s).
- **In-Situ Optical Analysis:** Optimized for real-time microscopic observation and spectroscopic analysis via reflection or transmission modes.
- **High-Temperature Material Research:** Suitable for studying phase transitions, melting, and sintering of materials up to 1700°C under vacuum or controlled atmospheres.



Explore Series

Model	Net Weight	Overall Dimensions	Viewport Size	Sample Stage	Optical Path	Temperature Range
VLO-RT-1700	12.5kg	140mm×160mm×265mm	7mm	Platinum; 10mm	Reflection/Transmission	RT - 1700°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 move science forward—faster and smarter.

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