

PRODUCT DATA SHEET

Molten Silicon Infiltration Furnace for Carbon-Ceramic Composites

Molten Silicon Infiltration Furnace for Carbon-Ceramic Composites is prepared for densification and infiltration of carbon-ceramic composites and silicon carbide components. Design temperature reference: up to 2300°C.



OVERVIEW

Product Overview

The Molten Silicon Infiltration Furnace for Carbon-Ceramic Composites is designed for infiltration, pyrolysis, densification or siliconizing routes used in carbon-ceramic composite manufacturing. It supports stable processing of carbon-ceramic composites and silicon carbide components while allowing the hot-zone structure and thermal cycle to be adapted to different preforms and process stages.

This type of system is usually matched to preform loading, atmosphere route, temperature staging and post-process densification goals. It is appropriate for customers building repeatable composite manufacturing processes.

MANUFACTURER

Yuanhang Industrial Furnace

Customized Furnace Engineering

Supplier of customized vacuum, atmosphere, graphitization, carbonization, sintering, brazing and CVD equipment with configurable structure, hot-zone dimensions and automation packages.

Contact Information

Phone: +86 15115399105

Website: <https://www.hnyhgyl.com>

Location: China, Zhuzhou, Hunan

TECHNICAL FEATURES

Technical Features

Supports impregnation, pyrolysis, PIP, siliconizing or RMI-related composite routes.

Configurable around preform size, densification stage and thermal cycle design.

Suitable for repeatable processing of carbon-ceramic composite structures.

Can be matched to pilot verification or production-oriented process scaling.

APPLICATIONS

Typical Applications

- carbon-ceramic composites
- silicon carbide components
- carbon-ceramic densification
- composite preform treatment
- high-temperature structural composites

PRODUCT IMAGES

Image Reference



Molten Silicon Infiltration Furnace for Carbon-Ceramic Composites image 2



Molten Silicon Infiltration Furnace for Carbon-Ceramic Composites image 3



Molten Silicon Infiltration Furnace for Carbon-Ceramic Composites image 4

REFERENCE DATA

Reference Information

Product

**Molten Silicon Infiltration Furnace for
Carbon-Ceramic Composites**

Process Type

Carbon-Ceramic Composite Processing

Temperature Reference

2300°C

Manufacturer

**China | Zhuzhou Yuanhang Industrial
Furnace Technology Co., Ltd.**

Website

<https://www.hnyhgyl.com>

Contact

+86 15115399105

COMPANY PROFILE

Zhuzhou Yuanhang Industrial Furnace Technology Co., Ltd.

Manufacturer of High-Temperature Industrial Furnaces and Thermal Processing Equipment



Zhuzhou Yuanhang Industrial Furnace Technology Co., Ltd. (Yuanhang Industrial Furnace) is a manufacturing company based in China, Zhuzhou, Hunan, specializing in thermal processing equipment. Centered on heat treatment and high-temperature thermal engineering technologies, we provide customized equipment and complete process solutions for industrial and research applications.

With more than 10 years of dedicated industry experience, we have served over 100 customers. Our principal product portfolio covers graphitization furnaces, carbonization furnaces, vacuum sintering furnaces, silicon carbide sintering systems, CVD furnaces and related custom high-temperature process equipment.

Particular attention is given to practical automation. After the workpieces are loaded and the furnace door is closed, the programmed cycle can be started with one command, allowing the system to operate automatically through the defined process sequence. This helps improve repeatability and reduce dependence on operator experience.

For projects involving vacuum, ultra-high-temperature, brazing, carbonization, graphitization, sintering or CVD-related thermal processing equipment, Yuanhang Industrial Furnace can provide technical communication, configuration support and project-oriented engineering coordination.

- Graphitization and carbonization equipment for carbon materials, felt, carbon fiber and graphite products.
- Vacuum and atmosphere sintering systems for advanced ceramics, cemented carbide and refractory metals.



- Bottom-loading, multi-station and large-format CVD systems for demanding composite processing routes.
- Technical support for furnace selection, custom engineering, retrofit evaluation and process matching.

Sales Hotline

+86 15115399105

Technical Support

+86 15273391550

Website

<https://www.hnyhgyl.com>

Location

China, Zhuzhou, Hunan

This material is intended for product introduction and selection reference. Final configuration, dimensions and technical parameters are subject to the mutually confirmed technical proposal.