

BOGIE HEARTH FURNACE TT-BHF-1028- 1300A



The trolley-type sintering Bogie Hearth Furnace TT-BHF-1028-1300A is engineered for processing large materials or supporting small-scale production. Constructed with high-performance furnace components and advanced building techniques optimized for high-capacity systems, it delivers stable and consistent temperature control. An automated trolley system ensures smooth material handling and reliable product quality, making it ideal for continuous operation in research or production settings.

This furnace is well-suited for processing advanced materials, including metals, ceramics, nanomaterials, and semiconductors. It features a 1028L chamber capable of continuous operation at 1100°C, with a maximum temperature of 1200°C. Heating is provided via high-quality HRE alloy resistance wire, and temperature is precisely monitored using an N-type thermocouple, achieving $\pm 1^{\circ}\text{C}$ accuracy. Operating on 380V/30 kW, the system delivers robust, high-efficiency performance for both industrial and laboratory applications.

Model No.	TT-BHF-1028-1300A
Chamber Volume	1028L
Continuous Temperature	1100°C
Max Temperature	1200°C
Voltage	380V/30kw
Heating Element	High Quality Alloy Resistance Wire□ HRE□
Temperature Precision	$\pm 1^{\circ}\text{C}$
Thermocouple	N type

APPLICATIONS

- **Advanced Ceramic Materials** – Enables high-temperature sintering and densification of ceramics, ensuring excellent structural integrity, thermal resistance, and mechanical strength for both industrial and research applications.
- **Nanomaterials Research** – Provides precise, uniform thermal processing for nanostructures and advanced composites. Supports R&D in functional nanomaterials used in electronics, catalysis, and energy storage.
- **Semiconductor Materials** – Facilitates annealing, diffusion, and oxidation of semiconductor substrates at high temperatures. Delivers precise temperature control essential for microelectronics and optoelectronics development.
- **Powder Metallurgy** – Supports high-temperature sintering of metal powders into dense, uniform components. Ideal for manufacturing complex shapes and advanced alloys in research and production settings.
- **Petrochemical & Chemical Laboratories** – Suitable for catalyst activation, thermal decomposition, and reaction mechanism studies requiring temperatures up to 1700°C. Ensures accurate and reproducible results for chemical R&D.
- **Aerospace Materials Engineering** – Enables testing and processing of high-performance alloys, ceramics, and composites used in aerospace applications. Maintains thermal stability and strength validation under extreme conditions.
- **Energy & Battery Research** – Provides thermal treatment for solid-state electrolytes, lithium-ion battery materials, and next-generation energy storage systems. Ensures high-temperature stability and consistency in energy materials research.
- **Universities & Research Institutes** – Ideal for advanced studies in physics, chemistry, materials science, and engineering. Offers versatile programming, reliable performance, and robust safety for academic laboratories.

- **Industrial Quality Control & Certification** – Delivers high-temperature testing for product validation, compliance verification, and certification. Conforms with ISO, CE, SGS, and TÜV standards for regulated industries.

FEATURES

- The furnace features a multi-layer heat insulation design using high-quality refractory materials. It includes either lightweight refractory brick lining or ceramic fiber lining with a durable structure, tightly stacked and joined for strength. Free from asbestos, the design minimizes heat loss and reduces energy consumption.
- Three-sided heating (left, right, and bottom) ensures uniform temperature distribution throughout the chamber.
- A silicon carbide plate protects the furnace base, offering high mechanical strength, excellent thermal conductivity, and stable horizontal load support.
- The bottom-mounted trolley moves smoothly and without shock. Materials are loaded from below, and the workbench is movable for added convenience.
- Customization is available to meet specific process requirements.
- Equipped with an advanced control system for accurate temperature regulation. The top-mounted automatic flip-type exhaust port enables effective material debinding. A circulation fan at the furnace top enhances temperature uniformity.
- An optional rapid cooling unit allows fast cooling down to 400°C. Manual or automatic air intake controls are also available.

TECHNICAL SPECIFICATIONS

Model	Chamber size□ mm□	Volume	Max temp.	Working temp.	Voltage	Power	Heating element	Temp precision
TT-BHF-96-1200	400×600×400	96L	1200°C	1100°C	380V	18KW	HRE	±1°C

TT-BHF-288-1200	600×800×600	288L	1200℃	1100℃	380V	30KW	HRE	±1℃
TT-BHF-640-1200	800×1000×800	640L	1200℃	1100℃	380V	45KW	HRE	±1℃
TT-BHF-1200-1200	1000×1200×1000	1200L	1200℃	1100℃	380V	80KW	HRE	±1℃
TT-BHF-2160-1200	1200×1500×1200	2160L	1200℃	1100℃	380V	150KW	HRE	±1℃
TT-BHF-96-1400	400×600×400	96L	1400℃	1300℃	380V	21KW	SIC	±1℃
TT-BHF-288-1400	600×800×600	288L	1400℃	1300℃	380V	30KW	SIC	±1℃
TT-BHF-640-1400	800×1000×800	640L	1400℃	1300℃	380V	50KW	SIC	±1℃
TT-BHF-1200-1400	1000×1200×1000	1200L	1400℃	1300℃	380V	100KW	SIC	±1℃
TT-BHF-2160-1400	1200×1500×1200	2160L	1400℃	1300℃	380V	200KW	SIC	±1℃
TT-BHF-96-1700	400×600×400	96L	1700℃	1600℃	380V	25KW	MoSi2	±1℃
TT-BHF-288-1700	600×800×600	288L	1700℃	1600℃	380V	50KW	MoSi2	±1℃
TT-BHF-640-1700	800×1000×800	640L	1700℃	1600℃	380V	80KW	MoSi2	±1℃
TT-BHF-1200-1700	1000×1200×1000	1200L	1700℃	1600℃	380V	150KW	MoSi2	±1℃
TT-BHF-2160-1700	1200×1500×1200	2160L	1700℃	1600℃	380V	300kw	MoSi2	±1℃



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