

INDUSTRIAL FURNACE - TT-IF-288-1700



TT-IF-288-1700 is designed for use in university labs, research institutions, and industrial or mining facilities. It supports debinding and sintering heat treatment processes for ceramics, ceramic substrates, powders, structural and functional ceramics, electronic ceramics, ceramic sensors, and other precision ceramic components. It is also suitable for processing special materials, building materials, non-metallic substances, and various chemical materials.

APPLICATIONS

Industrial Furnace – TT-IF-288-1700

Industrial Furnace – TT-IF-288-1700

- **Ceramic Sintering and Debinding** – Optimized for sintering and binder removal of ceramics, ceramic substrates, and ceramic powders. Ensures clean, precise, and repeatable results critical for advanced ceramic manufacturing.
- **Electronic Ceramics and Sensors** – Provides controlled high-temperature processing for electronic ceramics, ceramic sensors, and other precision ceramic components used in electronics and instrumentation.
- **Functional and Structural Ceramics** – Supports R&D and production of structural ceramics, functional ceramics, and specialty ceramic composites with excellent uniformity and stability.
- **Special and Non-Metallic Materials** – Suitable for processing special-purpose materials, building materials, and a wide range of non-metallic and chemical materials under controlled thermal environments.

- **Research and Development** – Designed for universities, laboratories, and research institutes conducting advanced studies on material properties, thermal processes, and innovative material development.
- **Industrial and Mining Applications** – Applicable to industrial and mining facilities requiring precise heat treatment processes for testing, production, and quality assurance of specialized materials.
- **Environmental and Emission Control** – Optional tail gas cracking system provides safe handling of emissions generated during the debinding process, ensuring compliance with environmental standards.

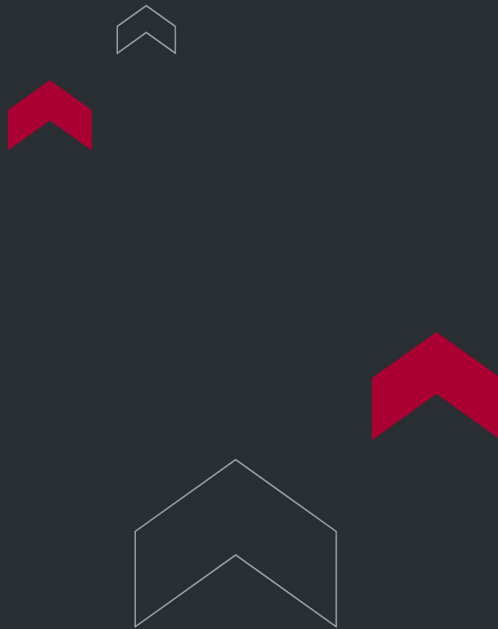
FEATURES

- Advanced lightweight foam ceramic insulation with a newly engineered structure for a clean, contaminant-free furnace environment.
- High-precision PLC-based intelligent temperature and process control system for efficient, unattended, and safe operation.
- Horizontal furnace base structure allows easy horizontal loading of samples.
- Integrated fresh-air preheating system ensures effective debinding of materials.
- Multi-point air intake design promotes uniform temperature distribution, preventing product cracking and deformation during heat treatment.
- Premium silicon molybdenum rod heating elements deliver balanced thermal output, withstand high temperatures, and are durable and contaminant-free.
- Optional tail gas cracking unit effectively manages emissions generated during the debinding process.
- Optional ceramic fixtures enable layered product loading, enhancing throughput and ensuring consistent results.

TECHNICAL SPECIFICATIONS

Model	TT-IF-288-1700
furnace size	600×800×600mm
Working area size	40×500×400mm
Rated temperature	1700℃
Voltage	380V/50KW
Heating element	silicon molybdenum rod
Insulation material	Lightweight alumina foam ceramic
Temperature control accuracy	±1℃
Temperature measuring element	B type
Temperature controller	7-inch intelligent microcomputer PID touch meter, SCR voltage regulation control, PID parameter self-tuning function; 4 programmable groups of 10 program segments, program heating, program insulation, program cooling
Heating rate	1-10C/min freely adjustable
furnace structure	Furnace temperature control split structure, independent temperature control box
Debinding system	Multi-point fresh air preheating system and furnace top automatic debinding system
Process control	High-precision PLC Multi-point
Equipment protection	Modular control, which will send out sound and light alarm signals for over-temperature and broken circuit in the working process, and automatically complete the protection action
Safety protection	The equipment is equipped with a circuit breaker, which will automatically pop open in the event of a short circuit or leakage, thus protecting the equipment and operators.
Furnace shell	High-quality cold-rolled steel plates are processed by CNC machine tools, and then welded, ground, polished, phosphated, pickled, and electrostatically sprayed with plastic powder on the surface.

Quality Certification	ISO9001 CE SGS TUV
Standard configuration	1. Furnace 1 set 2. Power cord 3 meters 3. Thermocouple 2 4. Manual 1 set 5. High temperature gloves 1 pair



Torontech Inc.

251 Consumers Road, Suite 1200
Toronto, Ontario, M2J 4R3, Canada 

Phone: +1 416 368 2721 | Fax: +1 416 981 7652
Email: info@torontech.com

Torontech, LLC

601 Brickell Key Drive, Suite 700
Miami, FL 33131, USA 

Toll-Free: 1-866-383-7919
Email: sales@torontech.com

Torontech ME FZE

Meydan Grandstand, 6th Floor,
Meydan Road, Nad Al Sheba,
Dubai-261440, UAE 

Phone: +971 488 19252
Email: me@torontech.com

