



HYDROGEN REDUCTION BOX ATMOSPHERE FURNACE TT-AF-64- 1200

1200°C chamber atmosphere furnace features a flange-sealed body for reliable operation. During heat treatment, protective gases such as nitrogen, argon, or oxygen can be introduced for processing carbon, metal, and biomass materials. It is also suitable for sintering ternary lithium battery materials.

Model No.	TT-AF-64-1200
Inner Dimension (WxDxH MM)	400x400x400
Continuous Temperature	1100°C
Max Temperature	1200°C
Voltage	220V/3kw (110V is also available)
Heating Element	High Quality Alloy Resistance Wire (HRE)
Temperature Precision	±1°C
Thermocouple	N type

APPLICATIONS

- **Pilot-Scale Batch Processing:** Ideal for general heat treatment, annealing, and materials processing in larger batches, utilizing a generous 400 x 400 x 400mm chamber (64L capacity).
- **Lithium Battery and Carbon Materials:** Effective for **sintering ternary lithium battery materials** and processing other components (carbon, metal, biomass) that require stable thermal cycles up to 1100°C continuous operation.
- **Precise Atmosphere Management:** Features a **flange-sealed chamber** to reliably process samples under controlled atmospheres (N2, Ar, O2) or pre-evacuation vacuum, achieving up to 20,000 Pa.

- **Complex Process R&D:** Supports sophisticated, multi-stage processing requirements with a program controller capable of executing up to 30 segments for customized thermal curves.
- **Cost-Effective Industrial Option:** Designed for efficiency and durability, offering large-volume capacity and reliable operation using High Quality Alloy Resistance Wire (HRE), suitable for production environments.

Hydrogen Reduction Box Atmosphere Furnace TT-AF-64-1200

Hydrogen Reduction Box Atmosphere Furnace TT-AF-64-1200

Hydrogen Reduction Box Atmosphere Furnace TT-AF-64-1200

FEATURES

Furnace Shell

- Constructed from Q235 low-carbon steel with an electrostatically resistant, anti-corrosion surface.
- Sturdy metal tank design ensures low external surface temperature.
- Flange-sealed furnace door with manual screw compression and side-opening design for easier operation.

Refractory Material

- Multi-layer insulation made of lightweight alumina ceramic fiber and premium insulation boards. The design is asbestos-free, minimizing heat loss and energy consumption.

Heating System

- High-quality heating elements installed securely on both sides of the chamber, delivering free-radiation heating for high efficiency and long service life.
- Dual-side configuration (left and right) ensures excellent temperature uniformity.

Temperature Control Panel

- PID with SSR control mode for precise temperature regulation.
- International-standard thermocouple with extended service life.
- Chamber volume available up to 1000L, suitable for factory production.

Program Controller

- Advanced controller for complex process requirements.
- User-friendly interface with flexible programming.
- Supports up to 30 programmable segments for a single curve.
- Over-temperature and fault alarms with automatic safety protection.

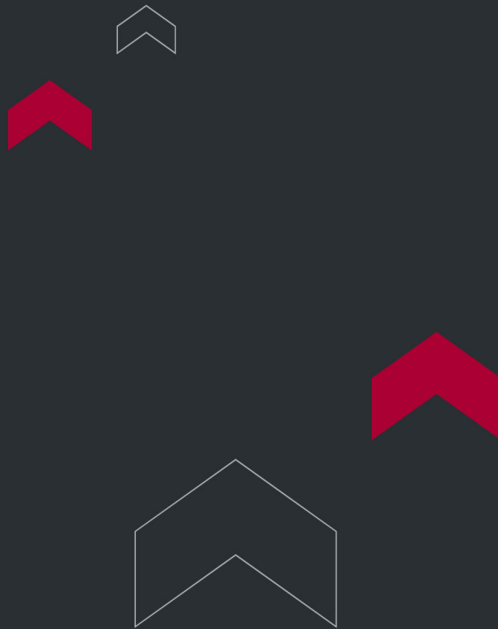
Vacuum Atmosphere Function

- Adjustable air inlet and outlet ports allow protective gas flow.
- High-performance rotary vane vacuum pump achieves up to 20,000 Pa vacuum level.
- Optional gas circuit control unit with 1–3 adjustable flow meters.

TECHNICAL SPECIFICATIONS

Product Model	Chamber Size □ mm□	Volume	Max Temp	Work Temp	Voltage	Power	Heating Element	Controller Accuracy
TT-AF-8-1200	200×300×120	8L	1200℃	1100℃	220V (110V is also available)	3KW	HRE	±1℃
TT-AF-12-1200	200×300×200	12L	1200℃	1100℃	220V (110V is also available)	4KW	HRE	±1℃

TT-AF-18-1200	250×300×250	18L	1200°C	1100°C	220V (110V is also available)	6KW	HRE	±1°C
TT-AF-30-1200	300×500×200	30L	1200°C	1100°C	380V	7.5KW	HRE	±1°C
TT-AF-8-1400	200×200×200	8L	1400°C	1350°C	220V (110V is also available)	5KW	SIC	±1°C
TT-AF-12-1400	200×300×200	12L	1400°C	1350°C	220V (110V is also available)	5KW	SIC	±1°C
TT-AF-18-1400	250×300×250	18L	1400°C	1350°C	220V (110V is also available)	6KW	SIC	±1°C
TT-AF-36-1400	300×400×300	36L	1400°C	1350°C	380V	12KW	SIC	±1°C
TT-AF-45-1400	300×500×300	45L	1400°C	1350°C	380V	14KW	SIC	±1°C
TT-AF-8-1700	200×200×200	8L	1700°C	1600°C	220V (110V is also available)	5KW	MoSi2	±1°C
TT-AF-12-1700	200×300×200	12L	1700°C	1600°C	220V (110V is also available)	6KW	MoSi2	±1°C
TT-AF-20-1700	250×320×250	20L	1700°C	1600°C	380V	7KW	MoSi2	±1°C
TT-AF-36-1700	300×400×300	36L	1700°C	1600°C	380V	13KW	MoSi2	±1°C



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

