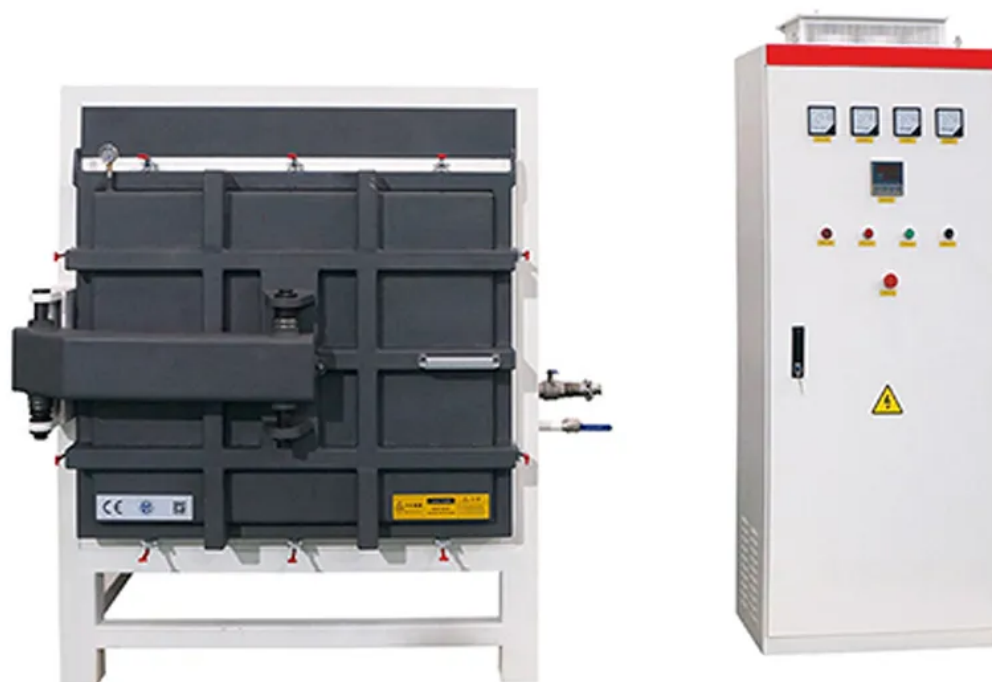




TORONTECH



LOW ATMOSPHERE FURNACE TT-AF-245- 1200

1200°C chamber atmosphere furnace is built with a flange-sealed structure for reliable performance. It supports heat treatment using protective gases such as nitrogen, argon, or oxygen, making it suitable for processing carbon, metal, and biomass materials. The system is also designed for lithium battery ternary material sintering.

Model No.	TT-AF-245-1200
Inner Dimension (WxDxH MM)	300x500x300
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

- **Large-Volume Batch Processing:** Ideal for heat treatment, annealing, and materials processing in larger batches, featuring a 300 x 500 x 300mm chamber (45L 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:** Utilizes a flange-sealed chamber to reliably process samples under controlled atmospheres (N2, Ar, O2) or pre-evacuation vacuum, achieving up to 20,000Pa.
- **Complex Process Control:** Supports advanced, multi-stage processing requirements with a program controller capable of executing up to 30 segments for customized thermal curves.

- **Laboratory and Pilot R&D:** Offers a versatile platform for research and development requiring a spacious chamber while operating on a convenient 220V/3kW power supply.

Low Atmosphere Furnace TT-AF-245-1200

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FEATURES

Furnace Shell

- Constructed from Q235 low-carbon steel with an electrostatically resistant, anti-corrosion surface.
- Durable tank-style shell design that maintains a low exterior temperature.
- Furnace door features a flange-sealed structure with manual screw compression and a side-opening design for easier operation.

Refractory Material

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

Heating System

- High-quality heating elements securely installed on both sides of the furnace, providing free-radiation heating for efficient performance, energy savings, and long service life.
- Dual-side (left and right) heating elements ensure excellent temperature uniformity inside the chamber.

Temperature Control Panel

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

Program Controller

- Advanced controller capable of handling complex process requirements.
- Straightforward operation with flexible programming.
- Supports up to 30 programmable segments for a single curve.
- Over-temperature and fault alarms with automatic safety protection.

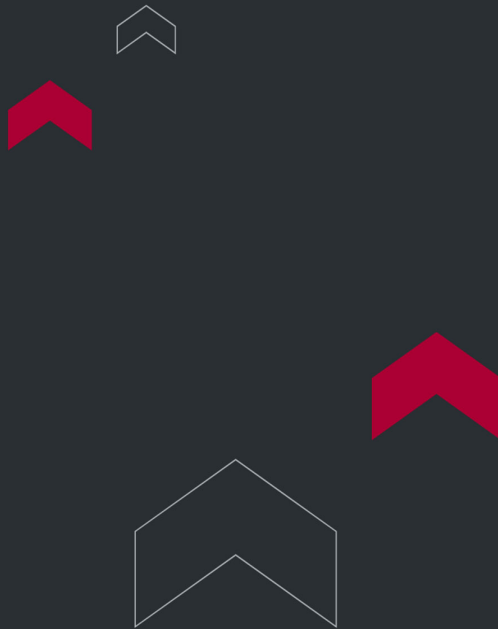
Vacuum Atmosphere Function

- Furnace chamber equipped with adjustable air inlet and outlet ports for protective gas flow.
- High-performance rotary vane vacuum pump achieving a vacuum level of up to 20,000 Pa.
- Optional gas circuit control unit available, with 1–3 adjustable flow meters.

TECHNICAL SPECIFICATIONS

Product Model	Chamber Size □ mm□	Volume	Max Temp	Work Temp	Voltage	Power	Heating Element	Controller Accuracy
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TT-AF-8-1200	200×300×120	8L	1200℃	1100℃	220V (110V is also available)V	3KW	HRE	±1℃
TT-AF-12-1200	200×300×200	12L	1200℃	1100℃	220V (110V is also available)V	4KW	HRE	±1℃
TT-AF-18-1200	250×300×250	18L	1200℃	1100℃	220V (110V is also available)V	6KW	HRE	±1℃
TT-AF-30-1200	300×500×200	30L	1200℃	1100℃	380V	7.5KW	HRE	±1℃
TT-AF-8-1400	200×200×200	8L	1400℃	1350℃	220V (110V is also available)V	5KW	SIC	±1℃
TT-AF-12-1400	200×300×200	12L	1400℃	1350℃	220V (110V is also available)V	5KW	SIC	±1℃
TT-AF-18-1400	250×300×250	18L	1400℃	1350℃	220V (110V is also available)V	6KW	SIC	±1℃
TT-AF-36-1400	300×400×300	36L	1400℃	1350℃	380V	12KW	SIC	±1℃
TT-AF-45-1400	300×500×300	45L	1400℃	1350℃	380V	14KW	SIC	±1℃
TT-AF-8-1700	200×200×200	8L	1700℃	1600℃	220V (110V is also available)V	5KW	MoSi2	±1℃
TT-AF-12-1700	200×300×200	12L	1700℃	1600℃	220V (110V is also available)V	6KW	MoSi2	±1℃
TT-AF-20-1700	250×320×250	20L	1700℃	1600℃	380V	7KW	MoSi2	±1℃
TT-AF-36-1700	300×400×300	36L	1700℃	1600℃	380V	13KW	MoSi2	±1℃



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