



Technical resources

Rotary Tube Furnace

Model: TC-12NRT

<https://www.tencanballmills.com/en/products/sintering-series/rotary-tube-furnace.html>

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Rotary Tube Furnace

Model: TC-12NRT

Rotary tube furnace for uniform sintering of inorganic compounds, ideal for Li-ion battery anode coating and material drying. Achieve consistent calcination and high-quality powder processing.

Technical specifications

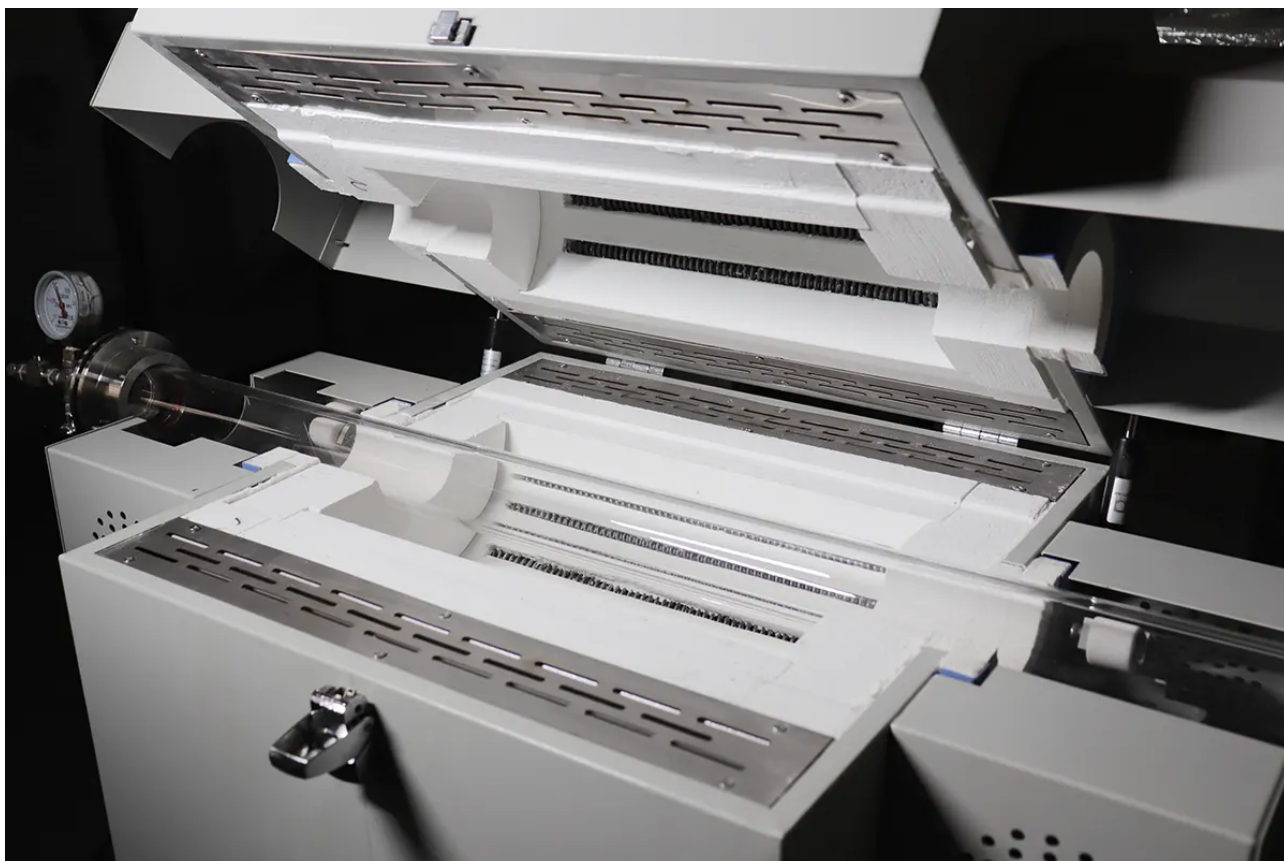
Maximum temperature	1200°C
Working temperature	1100°C
Heating rate	0-20 °C/min

These specifications describe the series. Confirm the selected model, power supply and configuration before ordering.



The rotary tube furnace is specially designed to obtain better consistency when sintering inorganic compounds. It is especially suitable for preparing negative electrode materials with conductive coatings for lithium-ion batteries; it can also be used for uniform drying and calcination of materials. The furnace body can be tilted 30 degrees and the furnace tube can be rotated 360 degrees. According to needs, it can also be made into dual temperature zones.





A rotary tube furnace is a type of heat treatment equipment in which the furnace tubes can rotate around their long axis during the heating process. This rotating action helps achieve uniform heating and mixing of samples, and is especially suitable for continuous heat treatment, drying, chemical reactions, sintering and other processes of powdered, granular or small block materials.

Technical parameters

model	Furnace tube size (diameter of thin end*diameter of thick end* Heating area) (mm)	Thick end diameter (mm)	Power (kW)	Maximum temperature (°C)	Working temperature (°C)	Thermocouple	Furnace tube material	heating element
TC-12NRT-60/300	60x300	120	5	1200	1100	K type	quartz tube	Molybdenum resistance wire
TC-12NRT-60/450	60x450		5					
TC-12NRT-80/300	80x300	150	5					
TC-12NRT-80/450	80x450		5					
TC-12NRT-100/300	100x300	180	7					
TC-12NRT-100/450	100x450		7					
TC-12NRT-150/300	150x300	200	9					
TC-12NRT-150/450	150x450		9					

- The maximum temperature is 1200°C.
- Intelligent 50-segment programmable automatic temperature control.
- Heating rate: 0~20°C/minute.
- Temperature control accuracy $\pm 1^{\circ}\text{C}$.
- The top-opening furnace cover design allows real-time observation of the heated materials.
- The tilt angle of the furnace body is adjustable from 0 to 30 degrees, making it easy to load and unload materials.
- The furnace tube speed is 0~15 rpm (reversible). There are 3 quartz lifting plates on the inner wall of the furnace tube. When rotating, the materials are fully turned over and heated evenly.
- It has safe operation functions such as power-off when opening the door, over-temperature alarm, and leakage protection.

- 2 pipes blocked;
- 1 furnace tube;
- 1 vacuum pump;
- 1 set of vacuum flange;
- 1 vacuum pressure gauge.

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Before operation, review the selected model's instructions and the material requirements.