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# TENCAN

## Product Brochure



**SINTERING SERIES**

# Vertical Tube Furnace

**TC-12NVT/14SVT/16MVT**

Vertical tube furnace for sintering, pyrolysis, and CVD under vacuum or protective atmosphere. Ideal for laboratory and industrial heat treatment of materials.

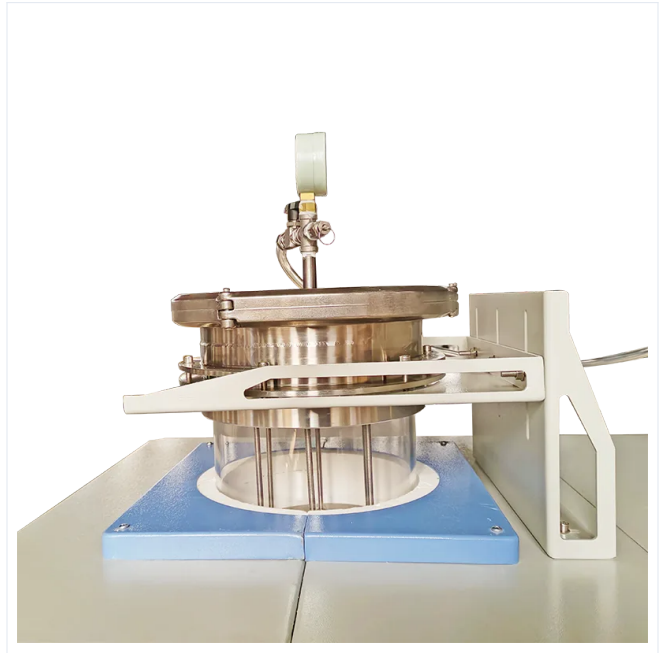
<https://www.planetaryballmills.com/products/sintering-series/vertical-tube-furnace.html>



## Product Overview

Vertical tube furnace for sintering, pyrolysis, and CVD under vacuum or protective atmosphere. Ideal for laboratory and industrial heat treatment of materials.





## Product Introduction

The vertical tube furnace is an efficient and stable material processing equipment, suitable for material processing processes under various temperature ranges in vacuum or protective atmosphere. Depending on the temperature requirements, the furnace tube can be made of high-purity quartz or high-purity alumina to ensure the best high-temperature resistance and stability. At the same time, it is equipped with a vacuum sealing flange system to ensure the sealing and efficient performance of the furnace.

## Technical parameters

model	Furnace tube diameter x heating zone length	power	maximum temperature	working temperature	Thermocouple	Furnace tube material	heating element
TC-12NVT-40/300	40x300mm	3kW	1200°C	1100°C	K type	quartz tube	Molybdenum resistance wire
TC-12NVT-60/300	60x300mm	3kW					
TC-12NVT-80/300	80x300mm	5kW					
TC-12NVT-100/300	100x300mm	5kW					
TC-12NVT-120/300	120x300mm	6kW					
TC-12NVT-40/450	40x450mm	3kW					
TC-12NVT-60/450	60x450mm	3kW					
TC-12NVT-80/450	80x450mm	5kW					
TC-12NVT-100/450	100x450mm	5kW					
TC-12NVT-120/450	120x450mm	6kW					

model	Furnace tube diameter x heating zone length	power	maximum temperature	working temperature	Thermocouple	Furnace tube material	heating element
TC-14SVT-40/300	40x300mm	4kW	1400°C	1300°C	S type	corundum tube	Silicon carbide rod
TC-14SVT-60/300	60x300mm	4kW					
TC-14SVT-80/300	80x300mm	4kW					
TC-14SVT-100/300	100x300mm	6kW					
TC-14SVT-120/300	120x300mm	6kW					
TC-14SVT-40/450	40x450mm	4kW					
TC-14SVT-60/450	60x450mm	4kW					
TC-14SVT-80/450	80x450mm	4kW					
TC-14SVT-100/450	100x450mm	6kW					
TC-14SVT-120/450	120x450mm	6kW					

model	Furnace tube diameter x heating zone length	power	maximum temperature	working temperature	Thermocouple	Furnace tube material	heating element
TC-16MVT-40/300	40x300mm	4kW	1600°C	1500°C	Type B	corundum tube	Silicon molybdenum rod
TC-16MVT-60/300	60x300mm	4kW					
TC-16MVT-80/300	80x300mm	4kW					
TC-16MVT-100/300	100x300mm	6 kW					
TC-16MVT-120/300	120x300mm	6kW					
TC-16MVT-40/450	40x450mm	5kW					
TC-16MVT-60/450	60x450mm	5kW					
TC-16MVT-80/450	80x450mm	5kW					
TC-16MVT-100/450	100x450mm	9kW					
TC-16MVT-120/450	120x450mm	9kW					

## Product Features

- Maximum temperature: 1200°C (HRE resistance wire heating), 1400°C (silicon carbon rod heating), 1600°C (silicon molybdenum rod heating)
- Intelligent 50-segment programmable automatic control.
- Furnace shell structure, double-layer air-cooling structure.
- Stainless steel double-layer sealing flange.
- Adjustable flange support structures at both ends extend the service life of the furnace tube.
- Over-temperature protection function, automatically cuts off power when the temperature exceeds the allowed set value.
- Safety protection: Automatically cut off power when the furnace body leaks electricity.
- Heating rate  $\leq 20^{\circ}\text{C}/\text{min}$ .
- Temperature control accuracy  $\pm 1^{\circ}\text{C}$ .
- Maximum vacuum degree -0.1MPa.
- Molecular pump unit can be configured, and the vacuum degree can reach  $7 \times 10^{-4}\text{Pa}$ .

## Accessories & Customization

4 pipe plugs; 1 thermocouple; 1 furnace tube; 1 vacuum pump.  
1 set of vacuum flange ; 1 vacuum pressure gauge.

## Accessories & Customization

### Accessories

Grinding jars, heating elements, sample holders, control modules and other matching accessories can be selected according to the product configuration.

### Customization

For voltage, capacity, chamber size, process temperature or application requirements, please contact TENCAN for a suitable configuration.