Tube Furnace - 1700°C High Temperature Horizontal Tube Furnace - Ø40-100 mm Tube, MoSi2

Model **MSFNC-TB1700-A2SWISS,MSFNC-TB1700-B2SWISS,MSFNC-TB1700-C2SWISS,MSFNC-TB1700-D2SWISS,MSFNC-TB1700-A3SWISS,MSFNC-TB1700-B3SWISS,MSFNC-TB1700-C3SWISS,MSFNC-TB1700-D3SWISS,MSFNC-TB1700-A4SWISS,MSFNC-TB1700-B4SWISS,MSFNC-TB1700-C4SWISS,MSFNC-TB1700-D4SWISS** | Brand **Master Science**





The Master Science 1700°C Tube Furnace is a horizontal, single-zone high-temperature furnace for heat treatment, sintering and materials research under controlled conditions. It reaches 1700°C for short periods and works continuously at up to 1550°C, using MoSi2 heating rods and a B-type thermocouple.

KEY HIGHLIGHTS

- Very high temperature
- Precise programs
- Safe exterior
- Flexible sizing
- For box-type heating, see our muffle furnace.

AT A GLANCE

≤ 1550°C CONTINUOUS WORKING TEMPERATURE	**Alumina ceramic fibre** CHAMBER MATERIAL
±1°C ACCURACY	**PID with SCR phase control keeps ±1°C accuracy.** TEMPERATURE OVERSHOOT

Request a Quotation
Contact us for pricing, configuration options and delivery details.

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www.themsci.com

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Overview

Samples are processed inside high-purity corundum (alumina) or quartz tubes installed horizontally through an alumina ceramic fibre chamber. A PID controller with SCR phase-angle firing holds temperature to ±1°C and stores 30-segment time-temperature programs, and twelve model variants of the Master Science 1700°C Tube Furnace combine tube lengths of 800, 1000 or 1200 mm with diameters from 40 to 100 mm.

High-temperature processing demands accurate control and safe operation. The Master Science 1700°C Tube Furnace helps with:

Overview

- High-purity corundum or quartz tube
- Horizontal installation
- Lengths 800, 1000 or 1200 mm

Key Benefits

Very high temperature
Up to 1700°C for advanced ceramics and materials work.

Precise programs
30-segment time-temperature curves with ±1°C control.

Safe exterior
Double-layer steel shell with cooling fan keeps the case cool.

Flexible sizing
Twelve combinations of tube length and diameter.

For box-type heating, see our muffle furnace.

Technical Specifications

GENERAL	
Brand	Master Science
Model Number	MSFNC-TB1700-A2SWISS,MSFNC-TB1700-B2SWISS,MSFNC-TB1700-C2SWISS,MSFNC-TB1700-D2SWISS,MSFNC-TB1700-A3SWISS,MSFNC-TB1700-B3SWISS,MSFNC-TB1700-C3SWISS,MSFNC-TB1700-D3SWISS,MSFNC-TB1700-A4SWISS,MSFNC-TB1700-B4SWISS,MSFNC-TB1700-C4SWISS,MSFNC-TB1700-D4SWISS
SKU	MSFNC-TB1700-A2SWISS,MSFNC-TB1700-B2SWISS,MSFNC-TB1700-C2SWISS,MSFNC-TB1700-D2SWISS,MSFNC-TB1700-A3SWISS,MSFNC-TB1700-B3SWISS,MSFNC-TB1700-C3SWISS,MSFNC-TB1700-D3SWISS,MSFNC-TB1700-A4SWISS,MSFNC-TB1700-B4SWISS,MSFNC-TB1700-C4SWISS,MSFNC-TB1700-D4SWISS
Brand	Master Science
Models	MSFNC-TB1700-A2/B2/C2/D2SWISS (800 mm tube), MSFNC-TB1700-A3/B3/C3/D3SWISS (1000 mm tube), MSFNC-TB1700-A4/B4/C4/D4SWISS (1200 mm tube); A/B/C/D = Ø40/60/80/100 mm
SKU	MSFNC-TB1700-A2SWISS, MSFNC-TB1700-B2SWISS, MSFNC-TB1700-C2SWISS, MSFNC-TB1700-D2SWISS, MSFNC-TB1700-A3SWISS, MSFNC-TB1700-B3SWISS, MSFNC-TB1700-C3SWISS, MSFNC-TB1700-D3SWISS, MSFNC-TB1700-A4SWISS, MSFNC-TB1700-B4SWISS, MSFNC-TB1700-C4SWISS, MSFNC-TB1700-D4SWISS
General	Max. Temperature: 1700°C (short time)
Continuous Working Temperature	≤ 1550°C
Heating Rate	0 to 20°C/min (0 to 10°C/min recommended)
Accuracy	±1°C
Uniformity	±5°C
Furnace Tube	Corundum tube
Tube Length / Heating Zone	800 mm / 205 mm; 1000 mm / 350 mm; 1200 mm / 440 mm
Tube Diameter	Ø40, 60, 80 or 100 mm
Heating Element	MoSi2 heating rods
Thermocouple	B type
Chamber Material	Alumina ceramic fibre
Controller	PID, SCR phase-angle control, 30-segment program
Power Supply	AC 220 V, 50/60 Hz

DIMENSIONS & WEIGHT	
External Size (W × D × H)	800 mm tube: 630 × 590 × 767 mm; 1000 mm: 724 × 590 × 807 mm; 1200 mm: 794 × 590 × 800 mm

PROBLEMS THE MASTER SCIENCE 1700°C TUBE FURNACE SOLVES	
Temperature overshoot	PID with SCR phase control keeps ±1°C accuracy.
Complex heating profiles	30 program segments cover ramps, holds and cooling.
Hot outer surfaces	Air-cooled double-layer shell keeps the exterior safe to touch.
Sample contamination	Processing inside a sealed tube isolates samples.

Applications

The Master Science 1700°C Tube Furnace is used for
Sintering of ceramics and powders Annealing and heat treatment of materials Materials science and battery research Crystal growth and calcination University and industrial research laboratories

Heating

- MoSi2 heating rods
- B-type thermocouple
- Alumina ceramic fibre chamber
- Single heating zone

Control

- PID automatic control with SCR phase-angle firing
- 30-segment programmable time-temperature curve
- Accuracy ±1°C

Safety

- Double-layer steel housing with air cooling fan
- Optional door safety interlock with automatic power-off

Standard Accessories Included

- Tube furnace main unit
- Corundum furnace tube

Optional Accessories

- Different chamber/tube sizes
- Touch screen controller with USB
- PC connection software with 16-segment controller (instead of touch screen)
- Door safety interlock