Colo Science
Laboratory & Scientific Equipment

COLO.SCIENCE · TECHNICAL SPECIFICATION

MUFU-T17

High-Temperature Laboratory Muffle Furnaces · 2 L to 36 L · up to 1700 °C · ±1 °C · 30-segment program controller

MUFU-T17 muffle furnaces are high-temperature laboratory furnaces with a vacuum-formed polycrystalline mullite fibre chamber, molybdenum disilicide ($MoSi_2$) heating rods and a microprocessor PID program controller with a B-type thermocouple. A MUFU-T17 1700 °C muffle furnace holds the set temperature within ±1 °C. The maximum temperature is 1700 °C. The double housing with an air gap, the mirror-finish stainless steel chamber mouth and the exhaust chimney are standard, and the heating is switched off as soon as the door opens. Six chamber sizes from 2 L to 36 L cover sintering, melting and the analysis of metals, non-metals and compound materials. A 30-segment program controller with LED display is standard; the 7-inch touch-screen controller MUFU-TS7 with curve display is fitted in the factory on request.

UP TO 1700 °C · ±1 °C · 1 °C RESOLUTION · 2 · 4 · 8 · 12 · 20 · 36 L · $MOSI_2$ HEATING RODS · MULLITE FIBRE CHAMBER · B-TYPE SENSOR · 30-SEGMENT PROGRAM · OPTION: 7" TOUCH SCREEN

Document type: **Technical Specification Sheet**
Product series: **MUFU-T17 High-Temperature Muffle Furnaces 1700 °C**
Models: **MUFU-T17-2 · MUFU-T17-4 · MUFU-T17-8 · MUFU-T17-12 · MUFU-T17-20 · MUFU-T17-36**
Format: **A4 landscape · CORE-TECHSPEC 1.0**

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MUFU-T17 · 1700 °C muffle furnace · 30-segment program controller



MUFU-T17 · mullite fibre chamber with $MoSi_2$ heating rods, door open

SERIES
MUFU-T17

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MUFU-T17 · technical specification

High-temperature muffle furnaces up to 1700 °C with $MoSi_2$ heating rods, mullite fibre chamber and 30-segment program controller, 2 L to 36 L

MOSI$_2$ HEATING RODS | B-TYPE THERMOCOUPLE | PID PROGRAM CONTROLLER | OVER-TEMPERATURE ALARM | DOOR SAFETY SWITCH | LEAKAGE PROTECTION — Sintering, melting and materials analysis up to 1700 °C

Product Overview

Application profile

Sintering: technical ceramics, powders and powder-metallurgy samples that need more than 1600 °C.

Melting: glass, frits and small metal samples in suitable crucibles.

Materials analysis: metals, non-metals and compound materials in research and quality laboratories.

Heat treatment: high-temperature treatment of small parts and test pieces.

Research and teaching: materials science in universities, institutes and industrial laboratories.

Why MUFU-T17

The highest temperature among the MUFU muffle furnaces: maximum 1700 °C, for methods above the range of the MUFU-T16 1600 °C series.

Program instead of manual steps: 30 segments of ramps and dwells — heating, holding and cooling follow one stored profile.

Efficient chamber: vacuum-formed polycrystalline mullite fibre insulation with low thermal mass.

Six sizes, one series: 2, 4 and 8 L at 220 V single-phase; 12, 20 and 36 L at 380 V three-phase.

Touch screen on request: factory-fitted 7-inch touch-screen controller MUFU-TS7 (SKU PRO8073) with curve display.

Key features

Controller: microprocessor PID program controller, 30 segments, fixed-value or program operation, timer 0–9999 min.

Heating: high-purity molybdenum disilicide ($MoSi_2$) rods; B-type thermocouple.

Housing: cold-rolled steel with electrostatic powder coating, double shell with air gap and two air-guiding channels.

Chamber mouth: mirror-finish stainless steel that does not discolour in long-term use; exhaust chimney as standard.

Safety: heating cut-off when the door opens, over-temperature protection with sound and light alarm, leakage protection, sensor fault alarm.

Service: lockable door handle and quick-detachable construction for maintenance.

Core technical summary

Parameter	Specification
Maximum temperature	1700 °C
Temperature accuracy	±1 °C
Display resolution	1 °C
Chamber volume	2 · 4 · 8 · 12 · 20 · 36 L
Heating power	3 to 15 kW

MAX. TEMPERATURE	HEATING	ACCURACY	CHAMBER
1700 °C	$MoSi_2$ rods	±1 °C	2 L to 36 L

Values from the manufacturer's technical documentation. Final configuration, supply voltage and accessories are confirmed in the COLO.Science quotation.

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Technical Specifications by Model

Parameter	MUFU-T17-2	MUFU-T17-4	MUFU-T17-8	MUFU-T17-12	MUFU-T17-20	MUFU-T17-36
SKU	PRO8009	PRO8010	PRO8011	PRO8012	PRO8013	PRO8014
Chamber volume	2 L	4 L	8 L	12 L	20 L	36 L
Chamber W × D × H, mm	150 × 90 × 150	150 × 150 × 150	300 × 150 × 150	300 × 200 × 200	300 × 260 × 260	300 × 400 × 300
Exterior W × D × H, mm	600 × 755 × 1100	600 × 815 × 1100	750 × 815 × 1100	750 × 865 × 1150	750 × 925 × 1210	750 × 1065 × 1250
Heating power	3.0 kW	5.5 kW	9.0 kW	10 kW	12 kW	15 kW
Supply	AC 220 V 1-phase	AC 220 V 1-phase	AC 220 V 1-phase	AC 380 V 3-phase	AC 380 V 3-phase	AC 380 V 3-phase
Net / gross weight, kg	70 / 90	80 / 100	110 / 130	150 / 170	175 / 195	270 / 320
Packing W × D × H, cm	76 × 93 × 131	76 × 99 × 131	91 × 99 × 131	91 × 105 × 136	91 × 111 × 142	91 × 127 × 146

Exterior dimensions without chimney. MUFU-T17-12, MUFU-T17-20 and MUFU-T17-36 need a three-phase 380 V connection; MUFU-T17-8 draws 9 kW on a single-phase supply. The supply circuit is confirmed with COLO.Science before installation.

Common Parameters

Maximum temperature	1700 °C	**Controller**	Microprocessor PID program controller, 30 segments, LED display, 4 keys
Operation	Fixed value or program	**Timer**	0–9999 min
Temperature accuracy	±1 °C	**Controller functions**	Heating start/stop button, overshoot self-tuning, temperature correction, sensor fault alarm
Display resolution	1 °C	**Safety**	Heating cut-off on door opening, over-temperature alarm, leakage protection
Heating elements	Molybdenum disilicide ($MoSi_2$) rods	**Housing**	Cold-rolled steel, electrostatic powder coating, double shell with air gap
Temperature sensor	B-type thermocouple	**Chamber mouth · exhaust**	Mirror-finish stainless steel · exhaust chimney as standard
Chamber · insulation	Vacuum-formed polycrystalline mullite fibre	**Door**	Hinged door with lockable handle
Standard accessories	Heat-insulating gloves, crucible tongs	**Communication**	RS-485 and USB data storage on request

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Visuals, Configuration Guidance and Support



MUFU-T17 high-temperature muffle furnace · powder-coated housing, program controller

Ordering information

Item	SKU	Chamber · supply
MUFU-T17-2	PRO8009	2 L · 220 V 1-phase
MUFU-T17-4	PRO8010	4 L · 220 V 1-phase
MUFU-T17-8	PRO8011	8 L · 220 V 1-phase
MUFU-T17-12	PRO8012	12 L · 380 V 3-phase
MUFU-T17-20	PRO8013	20 L · 380 V 3-phase
MUFU-T17-36	PRO8014	36 L · 380 V 3-phase
Option MUFU-TS7	PRO8073	7" touch-screen controller, factory fitted

Standard controller or MUFU-TS7 touch screen

	Standard	MUFU-TS7 · PRO8073
Program	30 segments	30 segments
Display · setting	LED, 4 keys	7.0" touch screen
Temperature curve	—	Shown on screen
Data storage	—	USB
Fitting	Standard	Factory fitted, ordered with the furnace

SUPPLIER AND SUPPORT

COLO Lab Experts

Polje ob Sotli 4, SI-3255, Slovenia

Selection guidance: Send the method, the working temperature, the number of crucibles per run and the supply available at the site. COLO.Science will confirm the chamber size and the controller version. For work up to 1500 °C the MUFU-T16 1600 °C series is the economical choice.

QUICK CONTACT

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COLO.SCIENCE · MUFFLE FURNACE CONFIGURATION SUPPORT

Not sure which furnace fits your method?

Send your method or SOP — sintering, melting or heat treatment. COLO.Science will propose the chamber size, the controller and the qualification package, including installation, IQ/OQ and temperature calibration.

Web: **colo.si**

Ask us:
Price and current discount, delivery time, installation and qualification (IQ/OQ), temperature calibration, crucibles and spare heating elements — write to sales@colo.si or call us.

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