Colo Science
Laboratory & Scientific Equipment

COLO.SCIENCE · TECHNICAL SPECIFICATION

MUFU-T16

High-Temperature Laboratory Muffle Furnaces · 2 L to 36 L · up to 1600 °C · ±1 °C · 30-segment program controller

MUFU-T16 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 an S-type thermocouple. A MUFU-T16 1600 °C muffle furnace holds the set temperature within ±1 °C. The maximum temperature is 1600 °C; for long continuous work the furnace is used up to 1500 °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. The standard version has a 30-segment program controller with LED display; the touch version has a 7-inch touch-screen controller that shows the temperature curve and stores data on USB.

UP TO 1600 °C · ±1 °C · 1 °C RESOLUTION · 2 · 4 · 8 · 12 · 20 · 36 L · $MOSI_2$ HEATING RODS · MULLITE FIBRE CHAMBER · S-TYPE SENSOR · 30-SEGMENT PROGRAM · OPTION: 7" TOUCH SCREEN

Document type: **Technical Specification Sheet**
Product series: **MUFU-T16 High-Temperature Muffle Furnaces 1600 °C**
Models: **MUFU-T16-2 · MUFU-T16-4 · MUFU-T16-8 · MUFU-T16-12 · MUFU-T16-20 · MUFU-T16-36**
Format: **A4 landscape · CORE-TECHSPEC 1.0**

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MUFU-T16 · 1600 °C muffle furnace · 30-segment program controller



MUFU-T16 · mullite fibre chamber with $MoSi_2$ heating rods, door open

SERIES
MUFU-T16

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Technical data sheet · Informational document · Controlled electronic document
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MUFU-T16 · technical specification

High-temperature muffle furnaces up to 1600 °C with $MoSi_2$ heating rods, mullite fibre chamber and 30-segment program controller, 2 L to 36 L

MOSI₂ HEATING RODS | S-TYPE THERMOCOUPLE | PID PROGRAM CONTROLLER | OVER-TEMPERATURE ALARM | DOOR SAFETY SWITCH | LEAKAGE PROTECTION — Sintering, melting and materials analysis up to 1600 °C

Product Overview

Application profile

Sintering: technical ceramics, powders and powder-metallurgy samples up to 1600 °C.

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

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

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

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

Why MUFU-T16

Room above 1400 °C: for methods that a 1400 °C furnace cannot reach — maximum 1600 °C, long continuous work up to 1500 °C.

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.

Two controller versions: standard LED program controller, or 7-inch touch screen with curve display and USB data storage.

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; S-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	1600 °C
Long continuous work	up to 1500 °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	CONTINUOUS WORK	ACCURACY	CHAMBER
1600 °C	up to 1500 °C	±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-T16-2	MUFU-T16-4	MUFU-T16-8	MUFU-T16-12	MUFU-T16-20	MUFU-T16-36
SKU	PRO8027	PRO8028	PRO8029	PRO8030	PRO8031	PRO8032
SKU · 7" touch-screen version	PRO8039	PRO8040	PRO8041	PRO8042	PRO8043	PRO8044
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-T16-12, MUFU-T16-20 and MUFU-T16-36 need a three-phase 380 V connection; MUFU-T16-8 draws 9 kW on a single-phase supply. The supply circuit is confirmed with COLO.Science before installation.

Common Parameters

Maximum temperature	1600 °C	**Controller**	Microprocessor PID program controller, 30 segments, LED display, 4 keys
Long continuous work	up to 1500 °C	**Operation**	Fixed value or program
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	S-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
Timer	0–9999 min	**Standard accessories**	Heat-insulating gloves, crucible tongs

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Visuals, Configuration Guidance and Support



MUFU-T16 high-temperature muffle furnace · powder-coated housing, program controller

Ordering information

Item	SKU	SKU · touch	Chamber · supply
MUFU-T16-2	PRO8027	PRO8039	2 L · 220 V 1-phase
MUFU-T16-4	PRO8028	PRO8040	4 L · 220 V 1-phase
MUFU-T16-8	PRO8029	PRO8041	8 L · 220 V 1-phase
MUFU-T16-12	PRO8030	PRO8042	12 L · 380 V 3-phase
MUFU-T16-20	PRO8031	PRO8043	20 L · 380 V 3-phase
MUFU-T16-36	PRO8032	PRO8044	36 L · 380 V 3-phase

Standard controller or 7-inch touch screen

	Standard	Touch-screen version
Program	30 segments	30 segments
Display · setting	LED, 4 keys	7.0" touch screen
Temperature curve	—	Shown on screen
Data storage	—	USB
Timer	0–9999 min	0–9999 min

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 1300 °C the MUFUH 1400 °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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