

# MUFFLE FURNACE

## LMF-C Series



## Muffle Furnace LMF-C series

LMF-C series models of Muffle Furnace are efficient, accurate and reliable microprocessor controlled furnaces with optimum insulation properties and basic control options. Crafted for minimal space requirement in the laboratory, they are equipped with instantaneous energy consumption indicator, calculator for average working temperature, Total working hour counter and descriptive error indicator. With heating elements, Fe-Cr-Al embedded into bricks, dual shell housing for low outer temperature and K and S type thermocouple, they are perfect for maximum and continuous working temperature of 1200°C.

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### Features

- ❑ PID controller
- ❑ LCD display that shows current and target temperature
- ❑ Optimum insulation properties
- ❑ 2, 4, 8 and 16 step heating programs available
- ❑ Fe-Cr-Al heating element embedded in brick walls
- ❑ Accurate measurement and control of temperature using K and S type thermocouple
- ❑ Second thermocouple for different adjustable purposes
- ❑ Durable inside lining made of light insulating bricks
- ❑ Dual shell housing for low outer surface temperature
- ❑ Steel sheet housing material
- ❑ Insulating fire brick as inner and front face insulation material
- ❑ Ceramic fibre board as door insulation material
- ❑ Quartz tube used to protect heating element
- ❑ Provision of audio warning as the step changes and at the end of the program
- ❑ Provision of automatic power cut-off to the heating elements and alert if the control unit/control card is over heated.
- ❑ Instantaneous energy consumption indicator
- ❑ Calculator for average working temperature
- ❑ Descriptive error indicator
- ❑ User friendly menu

## Applications

They are used for applications such as: Fusing glass, Creating enamel coatings, Ceramics, Soldering, Brazing, Rubbers & Polymers. They are also used for metallurgical applications, for ash content determination and in research centers and medical laboratories to determine the volatile & non-combustible proportion of the sample.

## Specifications

Model No.	LMF-C10	LMF-C11	LMF-C12	LMF-C13
Max. Temperature	1200°C			
Capacity	5 L			
Heating Program	2 step	4 step	8 step	16 step
Thermal Rate	3-20°C			
Heating element	Fe-Cr-Al			
Program Memories	2	4	6	5
Thermocouple Type	K Type			
Heating Element Placement	Embedded into brick walls			
Inner Insulation Material	Insulating Fire Brick			
Front Face Insulation Material	Insulating Fire Brick			
Door Insulation Material	Ceramic Fibre Board			
Housing Material	Steel Sheet			
Housing Coating	Epoxy powder coating			
Chimney	Standard			
Heating Element Protection	Quartz Tube			
Lockable Door Handle	Sideways			
Temperature Control Accuracy	±1°C (can vary at low temperatures)			
Measurement Accuracy	±1°C			
Inner Volume Temperature Homogeneity	±10°C			
Max. Current	9 A			
Power	2.000 W			

Inner Chamber Dimension (W x H x D)	150 x 150 x 225 mm
Product Outer Dimension (W x H x D)	446 x 618 x 620 mm
Gross Dimension ( W x H x D)	506 x 780 x 678 mm
Net Weight	43 kg
Gross weight	57 kg

Model No.	LMF-C20	LMF-C21	LMF-C22	LMF-C23
Max. Temperature	1200°C			
Capacity	7 L			
Heating Program	2 step	4 step	8 step	16 step
Thermal Rate	3-20°C			
Heating element	Fe-Cr-Al			
Program Memories	2	4	6	5
Thermocouple Type	K Type			
Heating Element Placement	Embedded into brick walls			
Inner Insulation Material	Insulating Fire Brick			
Front Face Insulation Material	Insulating Fire Brick			
Door Insulation Material	Ceramic Fibre Board			
Housing Material	Steel Sheet			
Housing Coating	Epoxy powder coating			
Chimney	Standard			
Element Heating Element Protection	Quartz Tube			
Lockable Door Handle	Sideways			
Temperature Control Accuracy	±1°C (can vary at low temperatures)			
Measurement Accuracy	±1°C			
Inner Volume Temperature Homogeneity	±10°C			
Max. Current	11 A			
Power	2.600 W			

Inner Chamber Dimension (W x H x D)	180 x 160 x 260 mm
Product Outer Dimension (W x H x D)	476 x 628 x 655 mm
Gross Dimension ( W x H x D)	536 x 815 x 688 mm
Net Weight	48 kg
Gross weight	63 kg

Model No.	LMF-C30	LMF-C31	LMF-C32	LMF-C33
Max. Temperature	1200°C			
Capacity	10 L			
Heating Program	2 step	4 step	8 step	16 step
Thermal Rate	3-20°C			
Heating element	Fe-Cr-Al			
Program Memories	2	4	6	5
Thermocouple Type	K Type			
Heating Element Placement	Embedded into brick walls			
Inner Insulation Material	Insulating Fire Brick			
Front Face Insulation Material	Insulating Fire Brick			
Door Insulation Material	Ceramic Fibre Board			
Housing Material	Steel Sheet			
Housing Coating	Epoxy powder coating			
Chimney	Standard			
Element Heating Element Protection	Quartz Tube			
Lockable Door Handle	Sideways			
Temperature Control Accuracy	±1°C (can vary at low temperatures)			
Measurement Accuracy	±1°C			
Inner Volume Temperature Homogeneity	±10°C			
Max. Current	13 A			

Power	3.000 W
Inner Chamber Dimension (W x H x D)	200 x 180 x 300 mm
Product Outer Dimension (W x H x D)	496 x 648 x 695 mm
Gross Dimension ( W x H x D)	556 x 855 x 708 mm
Net Weight	50 kg
Gross weight	67 kg

Model No.	LMF-C40	LMF-C41	LMF-C42	LMF-C43
Max. Temperature	1200°C			
Capacity	20 L			
Heating Program	2 step	4 step	8 step	16 step
Thermal Rate	3-20°C			
Heating element	Fe-Cr-Al			
Program Memories	2	4	6	5
Thermocouple Type	K Type			
Heating Element Placement	Embedded into brick walls			
Inner Insulation Material	Insulating Fire Brick			
Front Face Insulation Material	Insulating Fire Brick			
Door Insulation Material	Ceramic Fibre Board			
Housing Material	Steel Sheet			
Housing Coating	Epoxy powder coating			
Chimney	Standard			
Element Heating Element Protection	Quartz Tube			
Lockable Door Handle	Sideways			
Temperature Control Accuracy	±1°C (can vary at low temperatures)			
Measurement Accuracy	±1°C			
Inner Volume Temperature Homogeneity	±10°C			

Max. Current	2 x 9 A
Power	4.200 W
Inner Chamber Dimension (W x H x D)	250 x 200 x 395 mm
Product Outer Dimension (W x H x D)	546 x 668 x 790 mm
Gross Dimension ( W x H x D)	606 x 950 x 728 mm
Net Weight	65 kg
Gross weight	85 kg

Model No.	LMF-C50	LMF-C51	LMF-C52	LMF-C53
Max. Temperature	1200°C			
Capacity	40 L			
Heating Program	2 step	4 step	8 step	16 step
Thermal Rate	3-20°C			
Heating element	Fe-Cr-Al			
Program Memories	2	4	6	5
Thermocouple Type	K Type			
Heating Element Placement	Embedded into brick walls			
Inner Insulation Material	Insulating Fire Brick			
Front Face Insulation Material	Insulating Fire Brick			
Door Insulation Material	Ceramic Fibre Board			
Housing Material	Steel Sheet			
Housing Coating	Epoxy powder coating			
Chimney	Standard			
Element Heating Element Protection	Quartz Tube			
Lockable Door Handle	Sideways			
Temperature Control Accuracy	±1°C (can vary at low temperatures)			
Measurement Accuracy	±1°C			

Inner Volume Temperature Homogeneity	±10°C
Max. Current	3 x 11 A
Power	7.500 W
Inner Chamber Dimension (W x H x D)	300 x 300 x 445 mm
Product Outer Dimension (W x H x D)	630 x 785 x 840 mm
Gross Dimension ( W x H x D)	690 x 1000 x 845 mm
Net Weight	112 kg
Gross weight	136 kg

Model No.	LMF-C60	LMF-C61	LMF-C62	LMF-C63
Max. Temperature	1200°C			
Capacity	60 L			
Heating Program	2 step	4 step	8 step	16 step
Thermal Rate	3-20°C			
Heating element	Fe-Cr-Al			
Program Memories	2	4	6	5
Thermocouple Type	K Type			
Heating Element Placement	Embedded into brick walls			
Inner Insulation Material	Insulating Fire Brick			
Front Face Insulation Material	Insulating Fire Brick			
Door Insulation Material	Ceramic Fibre Board			
Housing Material	Steel Sheet			
Housing Coating	Epoxy powder coating			
Chimney	Standard			
Element Heating Element Protection	Quartz Tube			
Lockable Door Handle	Sideways			
Temperature Control Accuracy	±1°C (can vary at low temperatures)			



Measurement Accuracy	±1°C
Inner Volume Temperature Homogeneity	±10°C
Max. Current	3 x 15 A
Power	10.200 W
Inner Chamber Dimension (W x H x D)	400 x 300 x 495 mm
Product Outer Dimension (W x H x D)	730 x 785 x 890 mm
Gross Dimension ( W x H x D)	790 x 1050 x 845 mm
Net Weight	133 kg
Gross weight	160 kg

Model No.	LMF-C70	LMF-C71	LMF-C72	LMF-C73
Max. Temperature	1200°C			
Capacity	100 L			
Heating Program	2 step	4 step	8 step	16 step
Thermal Rate	3-20°C			
Heating element	Fe-Cr-Al			
Program Memories	2	4	6	5
Thermocouple Type	K Type			
Heating Element Placement	Embedded into brick walls			
Inner Insulation Material	Insulating Fire Brick			
Front Face Insulation Material	Insulating Fire Brick			
Door Insulation Material	Ceramic Fibre Board			
Housing Material	Steel Sheet			
Housing Coating	Epoxy powder coating			
Chimney	Standard			
Element Heating Element Protection	Quartz Tube			
Lockable Door Handle	Sideways			

Temperature Control Accuracy	±1°C (can vary at low temperatures)
Measurement Accuracy	±1°C
Inner Volume Temperature Homogeneity	±10°C
Max. Current	3 x 21 A
Power	14.000 W
Inner Chamber Dimension (W x H x D)	460 x 365 x 595 mm
Product Outer Dimension (W x H x D)	756 x 833 x 990 mm
Gross Dimension ( W x H x D)	816 x 1150 x 893 mm
Net Weight	160 kg
Gross weight	190 kg

### Optional Features

- Over Temperature Limiter
- Lift-up Door
- Stainless Steel body
- Gas Supply Connection
- Open Door Sensor
- Second Thermocouple
- Observation Hole
- PC Connection
- 110 V Power Supply

### Spare Parts

- Inner Module: Changing inner module renews your furnace close to a brand new furnace
- Door Insulation: With sheet metal holder vessel
- Control Card: Easy-to-replace, pre-programmed
- Power Card: Easy-to-replace
- Display: 4 x 20 LCD display
- Cooling Fan: 80 x 80 x 20/ 220 V fan
- Chimney Fan: 40 x 40 x 10/ 5V fan

### Optional Accessories

Sr. No.	Accessory
1	High Temperature Gloves
2	Tongs
3	Alumina Crucibles
4	Metal Crucibles
5	Alumina Combustion Boats
6	Ceramic pipes
7	Extra Thermocouples