

# MUFFLE FURNACE

## LMF-D Series



## Muffle Furnace LMF-D series

LMF-D series models of Muffle Furnace are uniquely designed furnaces having optimal insulation properties and basic control options with user friendly operating menu in 4 line display for easy operation. With heating elements Fe-Cr-Al, embedded into bricks, they are ideal for maximum and continuous working temperature of 1250°C. They are equipped with instantaneous energy consumption indicator, calculator for average working temperature, Total working hour counter and descriptive error indicator and are efficient, accurate and reliable in working.

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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-D10	LMF-D11	LMF-D12	LMF-D13
Max. Temperature	1250°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	None			
Lockable Door Handle	Sidewards			
Temperature Control Accuracy	±1°C (can vary at low temperatures)			
Measurement Accuracy	±1°C			
Inner Volume Temperature Homogeneity	±10°C			
Auto Start at Certain Date	No	Yes	Yes	Yes
Max. Current	10 A			

Power	2.250 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	49 kg
Gross weight	63 kg

Model No.	LMF-D20	LMF-D21	LMF-D22	LMF-D23
Max. Temperature	1250°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			
Heating Element Protection	None			
Lockable Door Handle	Sideways			
Temperature Control Accuracy	±1°C (can vary at low temperatures)			
Measurement Accuracy	±1°C			
Inner Volume Temperature Homogeneity	±10°C			
Auto Start at Certain Date	No	Yes	Yes	Yes

Max. Current	16 A
Power	3.500 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	56 kg
Gross weight	71 kg

Model No.	LMF-D30	LMF-D31	LMF-D32	LMF-D33
Max. Temperature	1250°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			
Heating Element Protection	None			
Lockable Door Handle	Sideways			
Temperature Control Accuracy	±1°C (can vary at low temperatures)			
Measurement Accuracy	±1°C			

Inner Volume Temperature Homogeneity	±10°C			
Auto Start at Certain Date	No	Yes	Yes	Yes
Max. Current	16 A			
Power	3.500 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	60 kg			
Gross weight	77 kg			

Model No.	LMF-D40	LMF-D41	LMF-D42	LMF-D43
Max. Temperature	1250°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			
Heating Element Protection	None			
Lockable Door Handle	Sideways			

Temperature Control Accuracy	±1°C (can vary at low temperatures)			
Measurement Accuracy	±1°C			
Inner Volume Temperature Homogeneity	±10°C			
Auto Start at Certain Date	No	Yes	Yes	Yes
Max. Current	2 x 10/1 x 20 A			
Power	4.500 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	81 kg			
Gross weight	101 kg			

Model No.	LMF-D50	LMF-D51	LMF-D52	LMF-D53
Max. Temperature	1250°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			

Heating Element Protection	None			
Lockable Door Handle	Sidewards			
Temperature Control Accuracy	±1°C (can vary at low temperatures)			
Measurement Accuracy	±1°C			
Inner Volume Temperature Homogeneity	±10°C			
Auto Start at Certain Date	No	Yes	Yes	Yes
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-D60	LMF-D61	LMF-D62	LMF-D63
Max. Temperature	1250°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			
Heating Element Protection	None			
Lockable Door Handle	Sidewards			
Temperature Control Accuracy	±1°C (can vary at low temperatures)			
Measurement Accuracy	±1°C			
Inner Volume Temperature Homogeneity	±10°C			
Auto Start at Certain Date	No	Yes	Yes	Yes
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-D70	LMF-D71	LMF-D72	LMF-D73
Max. Temperature	1250°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			
Heating Element Protection	None			
Lockable Door Handle	Sidewards			
Temperature Control Accuracy	±1°C (can vary at low temperatures)			
Measurement Accuracy	±1°C			
Inner Volume Temperature Homogeneity	±10°C			
Auto Start at Certain Date	No	Yes	Yes	Yes
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