

# MF SERIES

VERTICAL LIFT DOOR · MODERN LINES · CERAMIC FIBER INSULATION (1200/1400, 300/400)

**High Quality 24/7 Continuous-T° Muffle Furnaces · from 1000°C to 1400°C**

The furnaces of the MF range are laboratory furnaces that meet the highest demands of each test, heated by 4 heating sides with kanthal wire offering excellent homogeneity and stability. Vertical opening to protect the operator. They can work at high temperatures continuously thanks to the best insulating materials on the market.

## STANDARD FEATURES

- CE manufactured
- Maximum operating temperature: Up to 1400°C
- Rapid heating
- Compact and lightweight
- 24/7 continuous work capability
- 4 heating plates with KANTHAL AF and APM
- Low thermal mass insulation
- Built with low density ceramic bricks and ceramic fiber
- Double insulation includes air chamber
- Outer case in painted metal sheet (inox optional)
- Rear ventilation via ceramic chimney
- Ceramic tray included
- Thermocouple type K or S
- Spare parts easily replaceable by end user

## FURNACE CONTROL

- Solid state relay
- General safety switch
- General safety contactor
- **Ramp programmer up to 64 steos**
  - PID parameters
  - Non-volatile memory
  - Microprocessor-based temperature controls
  - Alarm

## CONTROL OPTIONS ( Optional)

- Eurotherm EPC Series + Data logger Itools software by Ethernet
- Eurotherm Nanodac Series +Data logger and Itools software by Ethernet according AMS2750E and 21CFR Part 11

## ACCESSORIES

- Interchangeable temperature-uniform trays with rim
- Refractory, incoloy, SS and ceramic tray
- Forced cooling system
- Smoke chimney
- Forced smoke chimney
- Safety alarm Class II. Over-temperature protection
- Inlet gas entry
- Flow meter box
- and more, ask for our full assortment!



## SAFETY SHUT-OFF

- Thermocouple break shut-off
- Turns off upon door opening

# MF SERIES

VERTICAL PARALLEL LIFT DOOR · REFINED DESIGN · CERAMIC FIBER INSULATION (1200/1400, 300/400)

## High Quality 24/7 Continuous-T° Muffle Furnaces · Up to 1400°C

### MAIN APPLICATIONS

A muffle furnace is a type of high-temperature furnace that is used in various applications where high temperatures are required. Here are some common types of applications that use muffle furnaces:

- **Heat treatment:** Muffle furnaces are used for heat treatment of metals, ceramics, and other materials. This includes annealing, hardening, and tempering of metals, as well as sintering and firing of ceramics.
- **Ashing:** Muffle furnaces are used to remove organic material from a sample, leaving behind only the inorganic ash. This is commonly used in analytical chemistry for the analysis of samples such as soil, plants, and animal tissues.
- **Pyrolysis:** Muffle furnaces can be used for the thermal decomposition of organic materials, such as polymers, to produce char, gas, and other byproducts.
- **Burn-off testing:** Muffle furnaces are used for testing the resistance of materials to high temperatures, such as coatings and paints.
- **Laboratory research:** Muffle furnaces can be used in a variety of laboratory research applications, including materials science, environmental science, and geology.

### CHARACTERISTICS

- Modern design metal case with chrome-phosphatizing base protection and external finish with heat-resistant metal paint.
- Refractory parts engineered to resist extreme temperature changes, and specific ceramic paste types applied according to temperature and work fatigue of each part.
- Heat resistance in refractory insulation of very low thermal conductivity coefficient.
- Door system adjusted on the furnace frame by pressure, allowing for complete sealing. Electrically and thermally insulated door handle.

### ACCESSORIES

- **Extraction Chimney:** Self-extraction design to eliminate smoke in processes that produce smoke in a considerable amount or when smoke extraction is advisable due to the nature of the process. Chimney outlet connection to a smoke bell or to the exterior by end user.
- **Forced air extraction chimney:** Specially designed for a forced self-extraction to evacuate smoke fast at resistance in refractory insulation of very low thermal conductivity coefficient.

## SPECIFICATIONS

Fully customized solutions by request  
We reserve the right to change technical specifications

Model	Inner dimensions mm			Outer dimensions mm			Volume Liters	Power Kw	Voltage V	Heated Zones	Maximum Temperature °C	Maximum Temperature °C limited time	Maximum Temperature Continuous °C	Termo-couple	Control Type	Heating Elements
	High	Wide	Deep	High	Wide	Deep										
MF3-124	150	150	200	620	430	470	3	2,5	220	4	1200	1150	1100	K	R. Prog	Kanthal Wire
MF6-124	150	150	250	530	470	490	6	2,5	220	4	1200	1150	1100	K	R. Prog	Kanthal Wire
MF9-124	150	200	300	680	470	600	9	5,5	220	4	1200	1150	1100	K	R. Prog	Kanthal Wire
MF12-124	150	200	400	680	470	730	12	5,5	220	4	1200	1150	1100	K	R. Prog	Kanthal Wire
MF22-124	200	280	400	730	550	750	22	8,8	380 III	4	1200	1150	1100	K	R. Prog	Kanthal Wire
MF30-124	250	280	400	770	550	750	30	8,8	380 III	4	1200	1150	1100	K	R. Prog	Kanthal Wire
MF40-124	250	280	500	770	550	850	40	12,5	380 III	4	1200	1150	1100	K	R. Prog	Kanthal Wire

Model	Inner dimensions mm			Outer dimensions mm			Volume Liters	Power Kw	Voltage V	Heated Zones	Maximum Temperature °C	Maximum Temperature °C limited time	Maximum Temperature Continuous °C	Termo-couple	Control Type	Heating Elements
	High	Wide	Deep	High	Wide	Deep										
MF3-134	150	150	200	620	430	470	3	2,5	220	4	1300	1250	1200	S	R. Prog	Kanthal Wire
MF6-134	150	150	250	530	470	490	6	2,5	220	4	1300	1250	1200	S	R. Prog	Kanthal Wire
MF9-134	150	200	300	680	470	600	9	5,5	220	4	1300	1250	1200	S	R. Prog	Kanthal Wire
MF12-134	150	200	400	680	470	730	12	5,5	220	4	1300	1250	1200	S	R. Prog	Kanthal Wire
MF22-134	200	280	400	730	550	750	22	8,8	380 III	4	1300	1250	1200	S	R. Prog	Kanthal Wire
MF30-134	250	280	400	770	550	750	30	8,8	380 III	4	1300	1250	1200	S	R. Prog	Kanthal Wire
MF40-134	250	280	500	770	550	850	40	12,5	380 III	4	1300	1250	1200	S	R. Prog	Kanthal Wire

Model	Inner dimensions mm			Outer dimensions mm			Volume Liters	Power Kw	Voltage V	Heated Zones	Maximum Temperature °C	Maximum Temperature °C limited time	Maximum Temperature Continuous °C	Termo-couple	Control Type	Heating Elements
	High	Wide	Deep	High	Wide	Deep										
MF3-144	150	150	200	620	430	470	3	2,5	220	4	1400	1350	1300	S	R. Prog	Kanthal Wire
MF6-144	150	150	250	530	470	490	6	2,5	220	4	1400	1350	1300	S	R. Prog	Kanthal Wire
MF9-144	150	200	300	680	470	600	9	5,5	220	4	1400	1350	1300	S	R. Prog	Kanthal Wire
MF12-144	150	200	400	680	470	730	12	5,5	220	4	1400	1350	1300	S	R. Prog	Kanthal Wire
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Up to 1000°C available