

Lab World



FURNACES & OVENS TECHNOLOGY

LABORATORY DIVISION

MUFFLE FURNACES

COMPREHENSIVE STANDARD RANGE · 1000°C – 1300°C

LF - series



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FURNACES & OVENS TECHNOLOGY

LABORATORY DIVISION

MUFFLE FURNACES

COMPREHENSIVE RANGE · 1000°C – 1300°C

- **MF Series: High Quality 24/7 Continuous-T° Muffle Furnaces**
 - 1000°C – 1200°C – 1300°C
 - vertical parallel lift door · refined design · ceramic fiber insulation
- **PR Series: High Quality 24/7 Continuous-T° Muffle Furnaces**
 - 1000°C – 1200°C – 1300°C
 - pantograph side door · sturdy design · brick insulation
- **HD Series: Flex Muffle Furnaces**
 - 1000°C – 1200°C
 - drop down & side swing door · brick insulation
- **JB & HK series + HD200: Flex Muffle Furnaces**
 - 1000°C – 1100°C
 - drop down & side swing door · ceramic fiber insulation





LF.MF -series

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

High Quality 24/7 Continuous-T° Muffle Furnaces · 1000°C – 1200°C – 1300°C

Standard Features:

- CE manufactured
- Maximum operating temperature:
1000°C - 1200°C - 1300°C
- Rapid heating
- Compact and lightweight
- 24/7 continuous work capability
- 4 heating plates with KANTHAL AF
- 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 Controls

- Lower front control panel
- Solid state relay
- General safety switch
- General safety contactor
- PAD Digital control
- PID parameters
- Non-volatile memory
- Microprocessor-based temperature controls
- Alarm

Control Options

- 1 program / 8 segments programmer
- 4 program / 15 segments programmer
- Programmers up to 64 segments
- Data logger and programmer communication by Ethernet/ RS232

Safety Shut-Off

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

Accessories

- Interchangeable temperature-uniform trays with rim
- Refractory ceramic tray
- Incoloy stainless steel tray
- 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!



LF.MF -series

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

High Quality 24/7 Continuos-T° Muffle Furnaces 1000°C – 1200°C – 1300°C



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.
- **Bottom trays:**
Interchangeable, temperature uniform, with rim to protect against spilling, fusion or adherence of materials.

SPECIFICATIONS

MUFFLE FURNACES FOR LABORATORY & INDUSTRY MAX. TEMPERATURE 1000 - 1200 - 1300°C

Fully customized solutions by request
Manufactured according to the CEE standards BS EN 61010-1-2001
We reserve the right to change technical specifications

Article No.	Model	Internal Dimensions mm			External Dimensions mm			Volume Liter	Power kW	Voltage	Maximum Temperature	T _{max} limited work	T _{max} Continuous	Net Weight	Termo- couple	Control Type	Heating Elements	Heating Zones
		High	Width	Deep	High	Width	Deep											
Temperature range up to 1000°C																		
300200310	LF.MF3-104	100	150	200	600	430	425	3	2,2	220	1000	950	900	60	K	Digital	Wire Kanthal	4
300200910	LF.MF9-102	150	200	300	660	480	525	9	2,5	220	1000	900	-----	65	K	Digital	Wire Kanthal	2
300400910	LF.MF9-104	150	200	300	660	480	525	9	3,3	220	1000	950	900	70	K	Digital	Wire Kanthal	4
300401210	LF.MF12-104	150	200	400	660	480	625	12	3,3	220	1000	950	900	80	K	Digital	Wire Kanthal	4
300201210	LF.MF12-102	150	200	400	660	480	625	12	3	220	1000	900	-----	75	K	Digital	Wire Kanthal	2
300202210	LF.MF22-102	200	280	390	750	580	625	22	3,5	220	1000	900	-----	95	K	Digital	Wire Kanthal	2
300402210	LF.MF22-104	200	280	390	750	580	625	22	5,5	220	1000	950	900	100	K	Digital	Wire Kanthal	4
Temperature range up to 1200°C																		
300400312	LF.MF3-124	100	150	200	600	430	425	3	3,3	220	1200	1150	1100	60	K	Digital	Wire Kanthal	4
300200912	LF.MF9-122	150	200	300	660	480	525	9	3	220	1200	1100	-----	65	K	Digital	Wire Kanthal	2
300400912	LF.MF9-124	150	200	300	660	480	525	9	5,5	220 220III 380III	1200	1150	1100	70	K	Digital	Wire Kanthal	4
300401212	LF.MF12-124	150	200	400	660	480	625	12	5,5	220 220III 380III	1200	1150	1100	80	K	Digital	Wire Kanthal	4
300201212	LF.MF12-122	150	200	400	660	480	625	12	4	220	1200	1100	-----	75	K	Digital	Wire Kanthal	2
300202212	LF.MF22-122	200	280	390	750	580	625	22	4,5	220	1200	1100	-----	95	K	Digital	Wire Kanthal	2
300402212	LF.MF22-124	200	280	390	750	580	625	22	8	220 220III 380III	1200	1150	1100	100	K	Digital	Wire Kanthal	4
300400313	LF.MF3-134	100	150	200	600	430	425	3	3,3	220	1300	1250	1100	60	S	Digital	Wire Kanthal	4
300200913	LF.MF9-132	150	200	300	660	480	525	9	3	220	1300	1250	-----	65	S	Digital	Wire Kanthal	2
Temperature range up to 1200°C																		
300400913	LF.MF9-134	150	200	300	660	480	525	9	5,5	220 220III 380III	1300	1250	1100	70	S	Digital	Wire Kanthal	4
300401213	LF.MF12-134	150	200	400	660	480	625	12	5,5	220 220III 380III	1300	1250	1100	80	S	Digital	Wire Kanthal	4
300201213	LF.MF12-132	150	200	400	660	480	625	12	4	220	1300	1250	-----	75	S	Digital	Wire Kanthal	2
300202213	LF.MF22-132	200	280	390	750	580	625	22	4,5	220	1300	1250	-----	95	S	Digital	Wire Kanthal	2
300402213	LF.MF22-134	200	280	390	750	580	625	22	8	220 220III 380III	1300	1250	1100	100	S	Digital	Wire Kanthal	4
300403010	LF.MF30-104	250	280	390	800	580	625	30	8	220 220III 380III	1000	950	900		K	Digital	Wire Kanthal	4
300403012	LF.MF30-124	250	280	390	800	580	625	30	8	220 220III 380III	1200	1150	1100		K	Digital	Wire Kanthal	4
300403013	LF.MF30-134	250	280	390	800	580	625	30	8	220 220III 380III	1300	1250	1100		S	Digital	Wire Kanthal	4





LF.PR -series

VERTICAL PANTOGRAPH SIDE DOOR · STURDY DESIGN · BRICK INSULATION (23/26)

High Quality 24/7 Continuous-T° Muffle Furnaces · 1000°C – 1200°C – 1300°C

Standard Features:

- CE manufactured
- Maximum operating temperature: 1000°C - 1200°C - 1300°C
- Compact and lightweight
- 24/7 continuous work capability
- 4 heating plates with KANTHAL AF
- 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 Controls

- Lower front control panel
- Solid state relay
- General safety switch
- General safety contactor
- **PAD Digital control**
- PID parameters
- Non-volatile memory
- Microprocessor-based temperature controls
- Alarm

Control Options

- 1 program / 8 segments programmer
- 4 program / 15 segments programmer
- Programmers up to 64 segments
- Data logger and programmer communication by Ethernet/ RS232

Safety Shut-Off

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

Accessories

- Interchangeable temperature-uniform trays with rim
- Refractory ceramic tray
- Incoloy stainless steel tray
- 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!



LF.PR -series

VERTICAL PARALLEL LIFT DOOR ·

REFINED DESIGN ·

CERAMIC FIBER INSULATION (1200/1400, 300/400)

High Quality 24/7 Continuos-T° Muffle Furnaces 1000°C – 1200°C – 1300°C

CHARACTERISTICS

- Reinforced construction, 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.
- Pantograph side door allows for a complete clear opening, protecting workers from ceramic block heat radiation. Pressure-adjusted door system, allowing for complete sealing. Half-opened door mode for a quick smoke evacuation. Electrically and thermally isolated door handle.

BASIC 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 fastat resistance in refractory insulation of very low thermal conductivity coefficient.
- **Bottom trays:**
Interchangeable, temperature uniform, with rim to protect against spilling, fusion or adherence of materials.

SPECIFICATIONS

MUFFLE FURNACES FOR LABORATORY & INDUSTRY
MAX. TEMPERATURE 1000 - 1200 - 1300°C

Fully customized solutions by request
Manufactured according to the CEE standards BS EN 61010-1-2001
We reserve the right to change technical specifications

Article No.	Model	Internal Dimensions mm			External Dimensions mm			Volume Liter	Power kW	Voltage	Maximum Temperature	T _{max} limited work	T _{max} Continuous	Net Weight	Termo- couple	Control Type	Heating Elements	Heating Zones
		High	Width	Deep	High	Width	Deep	Liters	kW	V	° C	° C	° C	kg				

Temperature range up to 1000°C

990000310	LF.PR3-104	100	150	200	505	460	560	3	2,2	220	1000	950	900	90	K	Digital	Wire Kanthal	4
990000910	LF.PR9-104	150	200	300	700	550	800	9	3,3	220	1000	950	900	98	K	Digital	Wire Kanthal	4
990002210	LF.PR22-104	200	280	390	750	600	900	22	5,5	220	1000	950	900	180	K	Digital	Wire Kanthal	4

Temperature range up to 1200°C

990000312	LF.PR3-124	100	150	200	505	460	560	3	3,3	220	1200	1150	1100	90	K	Digital	Wire Kanthal	4
990000912	LF.PR9-124	150	200	300	700	550	800	9	5,5	220 220III 380III	1200	1150	1100	98	K	Digital	Wire Kanthal	4
990002212	LF.PR22-124	200	280	390	750	600	900	22	8	220 220III 380III	1200	1150	1100	180	K	Digital	Wire Kanthal	4
990003012	LF.PR30-124	250	280	390	750	600	600	30	8	220 220III 380III	1200	1150	1100	200	K	Digital	Wire Kanthal	4
990004312	LF.PR43-124	250	350	500	820	700	1000	43	8	220 220III 380III	1200	1100	1000	250	K	Digital	Wire Kanthal	4
990005212	LF.PR52-124	250	350	600	820	700	1100	52	8	220 220III 380III	1200	1100	1000	300	K	Digital	Wire Kanthal	4

Temperature range up to 1300°C

990000313	LF.PR3-134	100	150	200	505	460	560	3	3,3	220	1300	1250	1100	90	S	Digital	Wire Kanthal	4
990000913	LF.PR9-134	150	200	300	700	550	800	9	5,5	220 220III 380III	1300	1250	1100	98	S	Digital	Wire Kanthal	4
990002213	LF.PR22-134	200	280	390	750	600	900	22	8	220 220III 380III	1300	1250	1100	180	S	Digital	Wire Kanthal	4
990003013	LF.PR30-134	250	280	390	750	600	600	30	8	220 220III 380III	1300	1250	1100	200	S	Digital	Wire Kanthal	4





LF.HD -series

VERTICAL PANTOGRAPH SIDE DOOR · STURDY DESIGN · BRICK INSULATION (23/26)

DROP DOWN & SIDE SWING DOOR · BRICK INSULATION (23)

Flex Muffle Furnaces

1000°C – 1200°C – 1300°C

Standard Features:

- CE manufactured
- Affordable basic line
- Maximum temperature 1200°C
- Compact and lightweight
- Designed for occasional intermittent work
- 2 or 3 heating plates with KANTHAL AF
- Double low thermal mass insulation
- Built with low density ceramic 23/26 bricks and ceramic fiber
- Outer case in painted metal sheet (inox optional)
- Ceramic chimney
- Thermocouple type K
- Spare parts easily replaceable by end user

Furnace Controls

- Lower front control panel
- Solid state relay
- **PA Analog control or**
- **PAD Digital control**
- PID parameters
- Non-volatile memory
- Microprocessor-based temperature controls
- Alarm

Safety Shut-Off

- Thermocouple break shut-off

Chamber Options

- Fiber insulation by request

Digital Control Options

- 1 program / 8 segments programmer
- 4 program / 15 segments programmer
- Programmers up to 64 segments
- Data logger and programmer communication by Ethernet/ RS232

Accessories

- Interchangeable temperature-uniform trays with rim
- Refractory ceramic tray
- Incoloy stainless steel tray
- 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!



LF.HD -series

DROP DOWN & SIDE SWING DOOR
BRICK INSULATION (23)

Flex Muffle Furnaces • 1100°C – 1200°C

CHARACTERISTICS

- Metal case with chrome-phosphatizing base protection and external finish with heat-resistant metal paint.
- Easy loading drop down or side swing door closes hermetically, brick on brick.

CONTROLS OPTIONS

- **"PA" CONTROL:** analog temperature adjustment.
or
- **"PAD" CONTROL:** Allows for automatic temperature control and adjustment through an automatic digital adjusting pyrometer, such that temperature and temperature rise speed and inertia can be monitored at any time.

BASIC 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.
- **Bottom trays:**
Interchangeable, temperature uniform, with rim to protect against spilling, fusion or adherence of materials.

SPECIFICATIONS

MUFFEL FURNACES FOR LABORATORY & INDUSTRY
MAX. TEMPERATURE 1100 - 1200°C

Fully customized solutions by request
Manufactured according to the CEE standards BS EN 61010-1-2001
We reserve the right to change technical specifications

Article No.	Model	Internal Dimensions mm			External Dimensions mm			Volume Liter	Power kW	Voltage V	Maximum Temperature ° C	T _{max} limited work ° C	T _{max} Continuous ° C	Net Weight kg	Termo- couple	Control Type	Heating Elements	Heating Zones
		High	Width	Deep	High	Width	Deep	Liters	kW			° C	° C	° C				
Temperature range up to 1100°C																		
970010411	LF.HD2/3112	120	150	200	450	350	430	3,6	1,2	220	1100	1000	___	30	K	Digital	Wire Kanthal	2
970010411	LF.HD1/3112	120	150	200	450	350	430	3,6	1,2	220	1100	1000	___	30	K	Analog	Wire Kanthal	2
Temperature range up to 1200°C																		
960020212	LF.HD2/2123	80	130	150	430	300	330	1,6	1,7	220	1200	1100	___	30	K	Digital	Wire Kanthal	3
960010212	LF.HD1/2123	80	130	150	430	300	330	1,6	1,7	220	1200	1100	___	30	K	Analog	Wire Kanthal	3
940020411	LF.HD2/8123	160	200	240	490	430	450	7,6	3,8	220	1200	1100	___	45	K	Digital	Wire Kanthal	3
940010411	LF.HD1/8123	160	200	240	490	430	450	7,6	3,8	220	1200	1100	___	45	K	Analog	Wire Kanthal	3
500021812	LF.HD2/18122	230	260	300	600	600	600	18	4,5	220	1200	1100	___	60	K	Digital	Wire Kanthal	2
500011812	LF.HD1/18122	230	260	300	600	600	600	18	4,5	220	1200	1100	___	60	K	Analog	Wire Kanthal	2
490022112	LF.HD2/24123	260	310	300	650	650	600	24	4,5	220	1200	1100	___	75	K	Digital	Wire Kanthal	3
490012112	LF.HD1/24123	260	310	300	650	650	600	24	4,5	220	1200	1100	___	75	K	Analog	Wire Kanthal	3
4800212	LF.HD2/30123	300	310	300	700	750	600	28	4,5	220	1200	1100	___		K	Digital	Wire Kanthal	3
4800112	LF.HD1/30123	300	310	300	700	750	600	28	4,5	220	1200	1100	___		K	Analog	Wire Kanthal	3





LF.JB & HK -series

DROP DOWN & SIDE SWING DOOR · CERAMIC FIBER INSULATION (1200/300)

Flex Muffle Furnaces · 1000°C – 1100°C

Standard Features:

- CE manufactured
- Affordable basic line
- Maximum temperature 1100°C
- Compact and lightweight
- Designed for occasional intermittent work
- 1 or 2 heating plates with KANTHAL AF
- Double Low thermal mass insulation
- Built with ceramic fiber
- Outer case in painted metal sheet (inox optional)
- Ceramic chimney
- Thermocouple type K
- Spare parts easily replaceable by end user

Furnace Controls

- Lower front control panel
- Solid state relay
- **PA Analog control**
- **or**
- **PAD Digital control**
- PID parameters
- Non-volatile memory
- Microprocessor-based temperature controls
- Alarm

Safety Shut-Off

- Thermocouple break shut-off

Digital Control Options

- 1 program / 8 segments programmer
- 4 program / 15 segments programmer
- Programmers up to 64 segments
- Data logger and programmer communication by Ethernet/ RS232

Accessories

- Interchangeable temperature-uniform trays with rim
- Refractory ceramic tray
- Incoloy stainless steel tray
- 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!



LF.JB & HK -series

DROP DOWN & SIDE SWING DOOR
CERAMIC FIBER INSULATION (1200/300)

Flex Muffle Furnaces • 1000°C – 1200°C

CHARACTERISTICS

- Metal case with chrome-phosphatizing base protection and external finish with heat-resistant metal paint.
- Built with insulating ceramic fiber.

CONTROLS OPTIONS

- **"PA" CONTROL:** analog temperature adjustment.
or
- **"PAD" CONTROL:** Allows for automatic temperature control and adjustment through an automatic digital adjusting pyrometer, such that temperature and temperature rise speed and inertia can be monitored at any time.

BASIC 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

MUFFLE FURNACES FOR LABORATORY & INDUSTRY
MAX. TEMPERATURE 1000 - 1100°C

Fully customized solutions by request
Manufactured according to the CEE standards BS EN 61010-1-2001
We reserve the right to change technical specifications

Article No.	Model	Internal Dimensions mm			External Dimensions mm			Volume Liter	Power kW	Voltage	Maximum Temperature	T _{max} limited work	T _{max} Continuous	Net Weight	Termo- couple	Control Type	Heating Elements	Heating Zones
		High	Width	Deep	High	Width	Deep	Liters	kW	V	° C	° C	° C	kg				

Temperature range up to 1000°C

930020810	LF.HK2/8101	100	260	300	385	500	440	8	1,5	220	1000	950	—	35	K	Digital	Wire Kanthal	1
930010810	LF.HK1/8101	100	260	300	385	500	440	8	1,5	220	1000	950	—	35	K	Analog	Wire Kanthal	1

Temperature range up to 1100°C

940020211	LF.JB2/1112	120	150	200	340	450	430	3,6	1,2	220	1100	1000	—	29	K	Digital	Wire Kanthal	2
940010211	LF.JB1/1112	120	150	200	340	450	430	3,6	1,2	220	1100	1000	—	29	K	Analog	Wire Kanthal	2
940020411	LF-JB-20 PAD	120	120	120	330	250	280	2	1,2	220	1100	1000	—	27	K	Digital	Wire Kanthal	2
940010411	LF-JB-20 PA	120	120	120	330	250	280	2	1,2	220	1100	1000	—	27	K	Analog	Wire Kanthal	2

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