



Muffle furnace LE 1/11



Muffle furnace LE 6/11

With their unbeatable price/performance ratio, these compact muffle furnaces are perfect for many applications in the laboratory. Quality features like the dual shell furnace housing of rust-free stainless steel, their compact, lightweight constructions, or the heating elements encased in quartz glass tubes make these models reliable partners for your application.

- Tmax 1100 °C, working temperature 1050 °C
- Heating from two sides from heating elements in quartz glass tubes
- Maintenance-friendly replacement of heating elements and insulation
- Only fiber materials are used which are not classified as carcinogenic according to TRGS 905, class 1 or 2
- Housing made of sheets of textured stainless steel
- Dual shell housing for low external temperatures and high stability
- Flap door which can also be used as a work platform
- Exhaust air outlet in rear wall
- Solid state relays provide for low-noise operation
- Compact dimensions and light weight
- Controller mounted under the door to save space
- Defined application within the constraints of the operating instructions
- Controls description see page 72

Additional equipment

- Chimney, chimney with fan or catalytic converter (not for L 1)
- Over-temperature limiter with adjustable cutout temperature for thermal protection class 2 in accordance with EN 60519-2 as temperature limiter to protect the furnace and load
- Protective gas connection to purge with non-flammable protective or reaction gases
- Manual gas supply system
- Observation hole in the door
- Please see page 14 for more accessories



Over-temperature limiter

Model	Tmax °C	Inner dimensions in mm			Volume in l	Outer dimensions ² in mm			Connected load kW	Electrical connection*	Weight in kg	Minutes to Tmax ¹
		w	d	h		W	D	H				
LE 1/11	1100	90	115	110	1	290	280	430	1.5	1-phase	10	10
LE 2/11	1100	110	180	110	2	330	385	430	1.8	1-phase	10	25
LE 6/11	1100	170	200	170	6	390	435	490	1.8	1-phase	18	35
LE 14/11	1100	220	300	220	14	440	535	540	2.9	1-phase	25	40

¹If connected at 230 V 1/N/PE resp. 400 V 3/N/PE

*Please see page 73 for more information about supply voltage

²External dimensions vary when furnace is equipped with additional equipment. Dimensions on request.

Exhaust Systems/Accessories



Article No.:
631000140

Chimney for connection to an exhaust pipe.



Article No.:
631000812

Chimney with fan, to remove exhaust gas from the furnace better. The B400 - P480 controllers can be used to activate the fan automatically (not for models L(T) 15..., L 1/12, LE 1/11, LE 2/11).*



Article No.:
631000166

Catalytic converter with fan for removal of organic components from the exhaust air. Organic components are catalytically oxidized at about 600 °C, broken into carbon dioxide and water vapour. Irritating odors are thus largely eliminated. The B400 - P480 controllers can be used to switch the catalytic converter automatically (not for models L(T) 15..., L 1/12, LE 1/11, LE 2/11).*

* Note: If other controller types are used an adapter cable for connection to mains supply has to be ordered separately. The device will be activated by plugging in the socket.



Exhaust torch to burn exhaust gases which are generated during the process. The torch is gas-fired and will be operated with propane gas. If a catalytic post combustion cannot be used for the process this torch is recommended.



Article No.:
699000279 (saggars)
699000985 (lid)

Square saggars for furnaces LHTC and LHT, Tmax 1600 °C

The load is placed in ceramic saggars for optimal utilization of the furnace space. Up to three saggars can be stacked on top of each other in the furnace. Each saggars has cut-outs for better ventilation. The top saggars should be closed with a lid made of ceramics also.



Article No.:
699001054
(sintering dish)
699001055
(spacer ring)

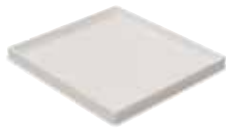
Round saggars (Ø 115 mm) for furnaces LHT/LB, Tmax 1650 °C

These saggars are perfectly suited for furnaces LHT/LB. The load is placed in the saggars. Up to three saggars can be stacked on top of each other in order to use the overall furnace chamber.

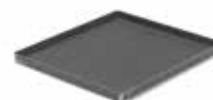
Select between different **bottom plates** and **collecting pans** for protection of the furnace and easy loading (for models L, LT, LE, LV and LVT on pages 4 - 13).



Ceramic ribbed plate, Tmax 1200 °C



Ceramic collecting pan, Tmax 1300 °C



Steel collecting pan, Tmax 1100 °C

For models	Ceramic ribbed plate		Ceramic collecting pan		Steel collecting pan (Material 1.4828)	
	Articel No.	Dimensions in mm	Articel No.	Dimensions in mm	Articel No.	Dimensions in mm
L 1, LE 1	691601835	110 x 90 x 12.7	-	-	691404623	85 x 100 x 20
LE 2	691601097	170 x 110 x 12.7	691601099	100 x 160 x 10	691402096	110 x 170 x 20
L 3, LT 3, LV 3, LVT 3	691600507	150 x 140 x 12.7	691600510	150 x 140 x 20	691400145	150 x 140 x 20
LE 6, L 5, LT 5, LV 5, LVT 5	691600508	190 x 170 x 12.7	691600511	190 x 170 x 20	691400146	190 x 170 x 20
L 9, LT 9, LV 9, LVT 9, N 7	691600509	240 x 220 x 12.7	691600512	240 x 220 x 20	691400147	240 x 220 x 20
LE 14	691601098	210 x 290 x 12.7	-	-	691402097	210 x 290 x 20
L 15, LT 15, LV 15, LVT 15, N 11	691600506	340 x 220 x 12.7	-	-	691400149	230 x 330 x 20
L 24, LT 24	691600874	340 x 270 x 12.7	-	-	691400626	270 x 340 x 20
L 40, LT 40	691600875	490 x 310 x 12.7	-	-	691400627	310 x 490 x 20

Heat-resistant **gloves** for protection of the operator when loading or removing hot materials, resistant to 650 °C or 700 °C.



Article No.:
493000004

Gloves, Tmax 650 °C



Article No.:
491041101

Gloves, Tmax 700 °C



Article No.:
493000002 (300 mm)
493000003 (500 mm)

Various **tongs** for easy loading and unloading of the furnace

Accessories for Annealing Hardening and Brazing

Our wide selection of chamber furnaces for annealing, hardening and brazing can be extended with a variety of accessories to suit your application. The accessories shown below represent only a small fraction of the products available. For further details, please see our separate catalogues for heat-treatment furnaces and hardening accessories.

Annealing Boxes

- Annealing boxes with or without protective gas connectors, up to 1100 °C, also in a tailor-made variant for cold evacuation, for instance for the annealing of small parts and bulk goods



Annealing Tray with Holder

- Annealing tray with alloy bag and holder with protective gas connection for models N 7/H to N 87/H for annealing and hardening under protective gas and quenching in air



Hearth Plates

- Hearth plates for up to 1100 °C for protection of the furnace floor for models N 7/H to N 87/H, edged on three sides



Hardening Tongs

- Hardening tongs in various sizes and forms for use in annealing and hardening



Heat Treating Foil

- Heat treating foil for wrapping of samples for oxidation-free annealing and hardening of steels up to 1200 °C



Gloves

- Heat-resistant gloves to 650 °C or 700 °C for protection of operator during loading see page 14

