Muffle Furnaces up to 1100 °C or 1200 °C

The muffle furnaces L 3/11 - LT 60/12 have been proven for daily laboratory use. These models stand out for their excellent workmanship, advanced and attractive design, and high level of reliability. The muffle furnaces come equipped with either a flap door or lift door at no extra charge.

Muffle furnace LT 5/12 with lift door

Standard Equipment

- Tmax 1100 °C or 1200 °C
- Heating from two sides by ceramic heating plates (heating from three sides for muffle furnaces L 24/11 - LT 60/12) for an optimal temperature uniformity
- Thermocouple type N (1100 °C) or type S (1200 °C)
- Ceramic heating plates with integral heating element which is safeguarded and easy to replace
- Optional flap door (L) which can be used as work platform or lift door (LT) with hot surface facing away from the operator
- Adjustable air inlet integrated in door (see illustration)
- Exhaust air outlet in rear wall of furnace
- Controller with touch operation B510 (5 programs with each 4 segments) resp. controller R7 for L 1/12 (adjustable for one temperature), alternative controllers see page 84

Muffle furnace L 3/11 with flap door

Additional Equipment

- Chimney, chimney with fan or catalytic converter (not for L 1 and L 15) see page 16
- Over-temperature limiter with adjustable cutout temperature as temperature limiter to protect the furnace and load
- Protective gas connection to purge with non-flammable process gases (not available in combination with chimney, chimney with fan or catalytic converter) not gas tight
- Manual or automatic gas supply system
- Port for thermocouple in the rear wall or in the furnace door
- Charging rack with closed or perforated trays for loading the furnace in two levels incl. holder for inserting/removing the trays up to a max. temperature of 800 °C and a max. loading weight per layer of 2 kg for the L(T) 9/11 respectively 3 kg for the L(T) 15/11 respectively 3,5 kg for the L(T) 24/11 and L(T) 40/11 see page 17
- Please see page 17 for more accessories

Muffle furnace L 3/12

Muffle furnace L 3/11 with flap door

Model	Tmax	Inner dimensions in mm			Volume	Outer dimensions[2] in mm			Temperature uniformity of +/− 5K in the empty workspace[5]			Max. connected load	Electrical	Weight	Heating time
	in °C[1]	w	d	h	in l	W	D	H[3]	w	d	h	in kW	connection*	in kg	in min[4]
L(T) 3/11	1100	160	140	100	3	385	330	405+155	110	50	50	1.3	1-phase	21	41
L(T) 5/11	1100	205	170	130	5	385	390	460+205	170	80	80	2.6	1-phase	27	47
L(T) 9/11	1100	235	240	170	9	415	455	515+240	180	150	120	3.3	1-phase	35	63
L(T) 15/11	1100	230	340	170	15	415	555	515+240	180	250	120	3.5	1-phase	43	74
L(T) 24/11	1100	280	340	250	24	490	555	580+320	230	250	200	4.9	3-phase	52	69
L(T) 40/11	1100	320	490	250	40	530	705	580+320	270	400	200	6.5	3-phase	70	80
LT 60/11	1100	380	490	330	60	610	705	660+385	290	360	240	9.8	3-phase	83	150
L 1/12	1200	90	115	110	1	290	280	410	40	45	60	1.6	1-phase	15	25
L(T) 3/12	1200	160	140	100	3	385	330	405+155	110	50	50	1.3	1-phase	21	48
L(T) 5/12	1200	205	170	130	5	385	390	460+205	170	80	80	2.6	1-phase	27	59
L(T) 9/12	1200	235	240	170	9	415	455	515+240	180	150	120	3.3	1-phase	35	78
L(T) 15/12	1200	230	340	170	15	415	555	515+240	180	250	120	3.5	1-phase	43	99
L(T) 24/12	1200	280	340	250	24	490	555	580+320	230	250	200	4.9	3-phase	52	82
L(T) 40/12	1200	320	490	250	40	530	705	580+320	270	400	200	6.5	3-phase	70	97
LT 60/12	1200	380	490	330	60	610	705	660+385	290	360	240	9.8	3-phase	83	160

[1]Recommended working temperature for processes with longer dwell times is 1000 °C (L../11) rsp. 1100 °C (L../12)
[2]External dimensions vary when furnace is equipped with additional equipment. Dimensions on request.
[3]Including opened lift door (LT models)
[4]Heating time of the empty and closed furnace up to Tmax −100 K (connected to 230 V 1/N/PE rsp. 400 V 3/N/PE)
[5]Temperature uniformity of +/− 5 K with closed fresh-air inlet in empty work space according to DIN 17052-1 at working temperatures above 800 °C see page 77

*Please see page 84 for more information about supply voltage

Chimney with fan

Adjustable air inlet integrated in the door

Gas supply system for non-flammable process gas

Muffle Furnaces with Brick Insulation up to 1300 °C

Heating elements on support tubes radiating freely into the furnace chamber provide for particularly short heating times for these muffle furnaces. Thanks to their robust lightweight refractory brick insulation, they can reach a maximum working temperature of 1300 °C. These muffle furnaces thus represent an interesting alternative to the familiar L(T) ../12 models, when you need a higher application temperature.

Muffle furnace L 9/13 with flap door

Standard Equipment

- Tmax 1300 °C
- Heating from two sides
- Heating elements on support tubes ensure free heat radiation and a long service life
- Multi-layer insulation with robust lightweight refractory bricks in the furnace chamber
- Optional flap door (L) which can be used as work platform or lift door (LT) with hot surface facing away from the operator
- Adjustable air inlet in the furnace door
- Exhaust air outlet in rear wall of furnace
- Controller with touch operation B510 (5 programs with each 4 segments), alternative controllers see page 84

Additional Equipment

- Chimney, chimney with fan or catalytic converter see page 16
- Over-temperature limiter with adjustable cutout temperature as temperature limiter to protect the furnace and load
- Protective gas connection to purge with non-flammable process gases (not available in combination with chimney, chimney with fan or catalytic converter) not gas tight
- Manual or automatic gas supply system
- Port for thermocouple in the rear wall or in the furnace door
- Please see page 17 for more accessories

Model	Tmax	Inner dimensions in mm			Volume	Outer dimensions[2] in mm			Temperature uniformity of +/− 5K in the empty workspace[5]			Max. connected load	Electrical	Weight	Heating time
	in °C[1]	w	d	h	in l	W	D	H[3]	w	d	h	in kW	connection*	in kg	in min[4]
L, LT 5/13	1300	225	170	130	5	490	450	580+320	170	100	80	2.6	1-phase	46	55
L, LT 9/13	1300	250	240	170	9	530	525	630+350	180	170	120	3.3	1-phase	58	60
L, LT 15/13	1300	250	340	170	15	530	625	630+350	180	270	120	3.5	1-phase	71	80

[1]Recommended working temperature for processes with longer dwell times is 1200 °C
*Please see page 84 for more information about supply voltage
[2]External dimensions vary when furnace is equipped with additional equipment. Dimensions on request.
[3]Including opened lift door (LT models)
[4]Heating time of the empty and closed furnace up to Tmax −100 K (connected to 230 V 1/N/PE)
[5]Temperature uniformity of +/− 5 K with closed fresh-air inlet in empty work space according to DIN 17052-1 at working temperatures above 800 °C see page 77

Muffle furnace LT 5/13 with lift door

Furnace lining with high-quality lightweight refractory brick insulation

Example of an over-temperature limiter

Muffle Furnaces up to 1400 °C

These models stand out for their excellent workmanship, advanced and attractive design, and high level of reliability. Heating elements on support tubes radiating freely into the furnace chamber provide for particularly short heating times and a maximum temperature of 1400 °C. These muffle furnaces are a good alternative to the familiar L(T) ../12 series when higher application temperatures are needed.

Muffle furnace LT 9/14 with lift door

Standard Equipment

- Tmax 1400 °C
- Heating from two sides
- Heating elements on support tubes ensure free heat radiation and a long service life
- Adjustable air inlet integrated in door
- Exhaust air outlet in rear wall of furnace
- Controller with touch operation B510 (5 programs with each 4 segments), alternative controllers see page 84

Additional Equipment

- Chimney, chimney with fan or catalytic converter see page 16
- Over-temperature limiter with adjustable cutout temperature as temperature limiter to protect the furnace and load
- Protective gas connection to purge with non-flammable process gases (not available in combination with chimney, chimney with fan or catalytic converter), not gas tight
- Manual or automatic gas supply system
- Please see page 17 for more accessories

Model	Tmax	Inner dimensions in mm			Volume	Outer dimensions[2] in mm			Temperature uniformity of +/– 5K in the empty workspace[5]			Max. connected load	Electrical	Weight	Heating time
	in °C[1]	w	d	h	in l	W	D	H[3]	w	d	h	in kW	connection*	in kg	in min[4]
L, LT 5/14	1400	225	175	130	5	490	450	580+320	170	120	80	2.6	1-phase	42	45
L, LT 9/14	1400	250	250	170	9	530	525	630+350	180	190	120	3.5	1-phase	55	50
L, LT 15/14	1400	250	350	170	15	530	625	630+350	180	290	120	3.5	1-phase	63	70

[1]Recommended working temperature for processes with longer dwell times is 1300 °C
[2]External dimensions vary when furnace is equipped with additional equipment. Dimensions on request.
[3]Including opened lift door
[4]Heating time of the empty and closed furnace up to Tmax –100 K (connected to 230 V 1/N/PE)
[5]Temperature uniformity of +/– 5 K with closed fresh-air inlet in empty work space according to DIN 17052-1 at working temperatures above 800 °C see page 77

*Please see page 84 for more information about supply voltage

Muffle furnace L 9/14 with flap door

Chimney with fan

Example of an over-temperature limiter