

Muffle Furnaces with Flap Door or Lift Door



L 5/11 (Flap Door)



LT 5/12 (Lift Door)

- ▶ Both **flap door** (L) and **lift door** (LT) options are available
- ▶ Maximum Temperature 1100°C or 1200°C
- ▶ Ceramic heating plates with integral heating element which is safeguarded against fumes and splashing, and easy to replace
- ▶ Only use fiber materials 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
- ▶ Adjustable air inlet integrated in door
- ▶ Exhaust air outlet in rear wall of furnace
- ▶ Solid state relays provide for low-noise operation
- ▶ NTLog Basic for Nabertherm controller: recording of process data with USD-Flash drive



Adjustable air inlet intergrated in the door



Over temperature timer

Model	Tmax °C	Inner dimensions in mm (W x D x H)	Volume in L	Outer dimensions in mm (W x D x H)	Connected load kW	Electrical connection	Weight in kg	Minutes to Tmax
L 5/11	1100	200 x 170 x 130	5	385 x 390 x 460	2.4	1-phase	30	60
L 9/11	1100	230 x 240 x 170	9	415 x 455 x 515	3.0	1-phase	35	75
LT 9/11	1100	230 x 240 x 170	9	415 x 455 x 515+240	3.0	1-phase	35	75
LT 15/11	1100	230 x 340 x 170	15	415 x 555 x 515+240	3.5	1-phase	40	95
LT 5/12	1200	200 x 170 x 130	5	385 x 390 x 460+205	2.4	1-phase	30	75
LT 9/12	1200	230 x 240 x 170	9	415 x 455 x 515+240	3.0	1-phase	35	90
LT 15/12	1200	230 x 340 x 170	15	415 x 555 x 515+240	3.5	1-phase	40	110

Muffle Furnaces Basic Models



LE 1/11



LE 6/11

- ▶ Max. temperature 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 of furnace
- ▶ Solid state relays provide for low-noise operation
- ▶ Compact dimensions and light weight
- ▶ Controller mounted under the door to save space



Over temperature timer

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

Chamber Kilns, Heated from Two Sides



Chamber kiln N 40 E as a tabletop model



Chamber kilns N 70 E with base as an accessory

Designed as chamber kilns with wide-opening door these models can be easily and clearly loaded. The appealing design and attractive price are unbeatable arguments for this kiln series. The heating elements are protected in grooves.

The kilns can be used for ceramics and glass or porcelain painting or also for simple fusing works. Most chamber kilns are available from stock. These kilns are ideal for working temperatures between 900 °C and 1230 °C. The infinitely adjustable air inlet opening in the door and the exhaust air opening in the roof ensure good ventilation inside the kiln and reduce cooling times.



Standard design

- ▶ Heating elements protected in grooves
- ▶ Heating from both sides
- ▶ Designed as a tabletop model, base available as an accessory
- ▶ Infinitely adjustable fresh air inlet
- ▶ Scope of delivery includes an option for connecting an exhaust air pipe (80 mm diameter)
- ▶ Dual shell housing for low outer temperatures
- ▶ Defined application within the constraints of the operating instructions

Model	Tmax °C	Inner dimensions in mm (W x D x H)	Volume in L	Outer dimensions in mm (W x D x H) *	Connected load kW	Electrical connection	Weight in kg
N 40 E	1300	350 x 330 x 350	40	640 x 800 x 600	2.9	1-phase	90
N 40 E/R	1300	350 x 330 x 350	40	640 x 800 x 600	5.5	3-phase	90
N 70 LE	1200	400 x 380 x 450	70	690 x 850 x 700	2.9	1-phase	120
N 70 E	1300	400 x 380 x 450	70	690 x 850 x 700	3.6	1-phase	120
N 70 E/R	1300	400 x 380 x 450	70	690 x 850 x 700	5.5	3-phase	120
N 100 E	1300	460 x 440 x 500	100	750 x 910 x 750	7.0	3-phase	150

* Height with base + 700mm

Process Control



Controller B410/C450/P480

Nabertherm has many years of experience in the design and construction of both standard and custom control alternatives. All controls are remarkable for their ease of use and even in the basic version have a wide variety of functions.



Controller B400/C440/P470

Standard Controllers

Our extensive line of standard controllers satisfies most customer requirements. D60Based on the specific furnace model, the controller regulates the furnace temperature reliably and is equipped with an integrated USB-interface for documentation of process data (NTLog/NTGraph).

The standard controllers are developed and fabricated within the Nabertherm group. When developing controllers, our focus is on ease of use. The user can choose between 17 languages. From a technical standpoint, these devices are custom-fit for each furnace model or the associated application. From the simple controller with an adjustable temperature to the control unit with freely configurable control parameters, stored programs and PID microprocessor control with self-diagnosis system, we have a solution to meet your requirements.

Functionality of the Standard Controllers

	R7	B400/B410	C440/C450	P470/P480
Number of programs		5	10	50
Segments		4	20	40
Extra functions (e.g. fan or autom. flaps) maximum		2	2	2-6
Maximum number of control zones		1	1	3
Drive of manual zone regulation		●	●	●
Auto tune		●	●	●
Real time clock		●	●	●
Status messages in clear text		●	●	●
Data input via jog dial and buttons		●	●	●
Entering program names (i.e. "Sintering")		●	●	●
Keypad lock		●	●	●
Skip-button for segment jump		●	●	●
Program entry in steps of 1 °C or 1 min.	●	●	●	●
Start time configurable (e.g. to use night power rates)		●	●	●
Switch-over °C/°F	○	●	●	●
Malfunction memory		●	●	●
kWh meter		●	●	●
Operating hour counter		●	●	●
NTLogBasic for Nabertherm controller: recording of process data with USB-flash drive		●	●	●
Interface for VCD-software		○	○	○
Number of selectable languages		17	17	17

- Standard
- Option