

Ashing Furnaces up to 1100 °C

Ashing furnace LV(T) .. 11 is designed especially for ashing processes to 1050 °C in the laboratory. Applications include determining loss on ignition, ashing food and plastics for subsequent substance analysis. A special fresh-air and exhaust air system ensures that the air is replaced 6 times per minute so that there is always sufficient oxygen for the ashing process. Incoming air passes the furnace heating and is pre-heated to ensure good temperature uniformity.



Ashing furnace LV 5/11

Standard Equipment

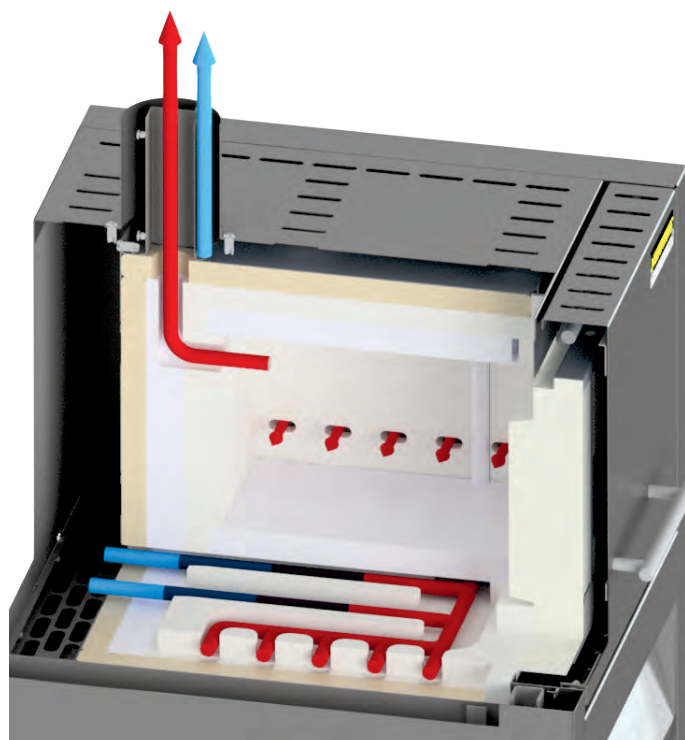
- Tmax 1100 °C
- Heating from two sides
- Ceramic heating plates with integral heating element which is safeguarded, and easy to replace
- Air exchange of more than 6 times per minute
- Good temperature uniformity due to preheating of incoming air, temperature uniformity according to DIN 17052-1 to ± 10 °C in the defined empty work area (from 550 °C) see page 73
- Suitable for many standardized ashing processes according to ISO, ASTM, EN, and DIN
- Optional flap door (LV) which can be used as work platform or lift door (LVT) with hot surface facing away from the operator
- Controller with touch operation B510 (5 programs with each 4 segments), alternative controllers see page 84



Ashing furnace LVT 9/11

Additional Equipment

- Over-temperature limiter with adjustable cutout temperature as temperature limiter to protect the furnace and load
- 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 LV(T) 15/11 see page 17
- Please see page 17 for more accessories



Air inlet and exhaust flow principle in ashing furnaces

Hot air
Cold air

Model	Tmax	Inner dimensions in mm			Volume	Outer dimensions ² in mm			Max. loading weight of organic substances in g	Max. evaporation rate of organic substances in g/min	Connected load ⁵	Electrical	Weight	Heating time
Flap door	in °C ¹	w	d	h	in l	W	D	H ³			in kW	connection*	in kg	in min ⁴
LV 3/11	1100	180	150	120	3	345	390	810	5	0.1	1.3	1-phase	20	45
LV 5/11	1100	205	170	130	5	385	415	810	10	0.2	2.6	1-phase	29	55
LV 9/11	1100	235	240	170	9	415	485	865	15	0.3	3.3	1-phase	36	70
LV 15/11	1100	230	340	170	15	415	590	865	25	0.3	3.6	1-phase	44	80

Model	Tmax	Inner dimensions in mm			Volume	Outer dimensions ² in mm			Max. loading weight of organic substances in g	Max. evaporation rate of organic substances in g/min	Connected load ⁵	Electrical	Weight	Heating time
Lift door	in °C ¹	w	d	h	in l	W	D	H ³			in kW	connection*	in kg	in min ⁴
LVT 3/11	1100	180	150	120	3	345	390	810	5	0.1	1.3	1-phase	20	45
LVT 5/11	1100	205	170	130	5	385	415	810	10	0.2	2.6	1-phase	29	55
LVT 9/11	1100	235	240	170	9	415	485	865	15	0.3	3.3	1-phase	36	70
LVT 15/11	1100	230	340	170	15	415	590	865	25	0.3	3.6	1-phase	44	80

¹Recommended working temperature for processes with longer dwell times is 1000 °C

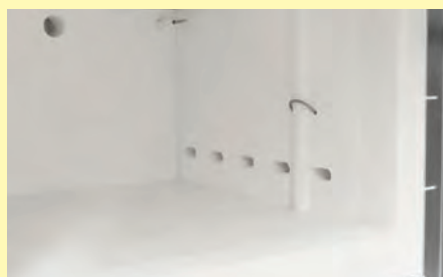
²External dimensions vary when furnace is equipped with additional equipment. Dimensions on request.

³Including exhaust tube (Ø 80 mm)

⁴Approx. heating time of the empty and closed furnace up to Tmax – 100 K (connected to 230 V 1/N/PE)

⁵The connected load refers to the standard furnace and may increase for a furnace with additional equipment. For furnaces with connection options for multi-range voltages, the connected load applies to the highest permissible connected voltage.

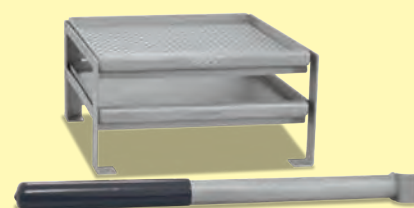
*Please see page 84 for more information about supply voltage



Furnace chamber with air inlet openings for air exchange of more than 6 times per minute



Ashing furnace LV 5/11 with port for thermocouple in the rear wall of furnace



Charging rack to load the furnace in different levels

Muffle Furnaces up to 1400 °C

Muffle furnaces are the reliable and long-lasting all-rounders in the laboratory and are ideally suited for a large number of processes in the field of material research and heat treatment. Moreover, Nabertherm offers specially designed ashing furnaces for the wide range of analyzes of ash residues.

The following equipment applies to all furnaces in this chapter:



Dual shell ventilated housing made of textured stainless steel sheets for low surface temperature and high stability



Solid state relays provide for low noise operation



Exclusive use of insulation materials without categorization according to EC Regulation No 1272/2008 (CLP). This explicitly means that aluminosilicate wool, also known as "refractory ceramic fiber" (RCF), which is classified and possibly carcinogenic, is not used.



Defined application within the constraints of the operating instructions



Controller with intuitive touch operation



NTLog Basic for Nabertherm controller: recording of process data with USB-flash drive



Freeware NTEdit for convenient program input via Excel™ for Windows™ on the PC



Freeware NTGraph for evaluation and documentation of firings using Excel™ for Windows™ on the PC



MyNabertherm App for online monitoring of the firing on mobile devices for free download



As additional equipment: Process control and documentation via VCD software package for monitoring, documentation and control