

Muffle Furnace incl. Software for Determination of Combustion Loss

This weighing furnace incl. ceramic plunger with base plate and software, was designed especially for combustion loss determination in the laboratory. The determination of combustion loss is necessary, for instance, when analyzing sludges and household garbage, and is also used in a variety of other processes for the evaluation of results. The difference between the charged total mass and the combustion residue is the combustion loss. During the process, the software included records both the temperature and the weight loss. Nabertherm offers a choice of 4 different scales, which are placed in the integrated base.



Weighing furnace L 9/11/SW with flap door

Standard Equipment

Like muffle furnaces L(T), except:

- Delivery includes base, ceramic plunger with base plate in the furnace lining and software package
- 4 scales available for different maximum weights and scaling ranges (to be ordered separately)
- Process control and documentation for temperature and combustion loss via VCD software package for monitoring, documentation and control see page 86
- 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
- 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
- Please see page 16 for more accessories

Model	Tmax in °C ¹	Inner dimensions in mm			Volume in l	Outer dimensions ² in mm			Connected load ⁵ in kW	Electrical connection*	Weight in kg	Heating time in min ⁴
		w	d	h		W	D	H				
L(T) 9/11/SW	1100	230	240	170	9	415	455	740+240 ³	3.3	1-phase	50	65
L(T) 9/12/SW	1200	230	240	170	9	415	455	740+240 ³	3.3	1-phase	50	75

¹Recommended working temperature for processes with longer dwell times is 1000 °C (L 9/11) resp. 1100 °C (L 9/12)

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

³Including opened lift door (Model LT ..)

⁴Heating 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

Scale* type	Readability in g	Maximum weighing range in g	Weight of plunger in g	Calibration value in g	Minimum load in g
EW-2200	0.01	2200 incl. plunger	850	0.1	0.5
EW-4200	0.01	4200 incl. plunger	850	0.1	0.5
EW-6200	0.01	6200 incl. plunger	850	-	1.0
EW-12000	0.10	12000 incl. plunger	850	1.0	5.0

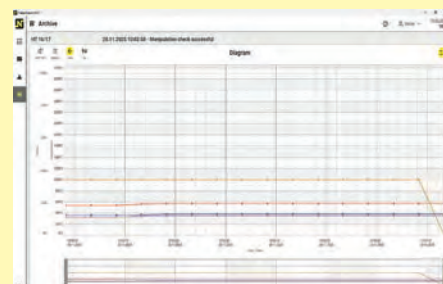
*The scale must be ordered separately.



4 scales available for different maximum weights and scaling ranges



Example of an over-temperature limiter



Graphic display of process curve

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