

High Temperature Furnace 1100 / 1300

Description

High-precision laboratory electric furnaces with fibre-insulated chambers made of high-quality materials. A selection of precise digital controllers and certified heating elements ensures excellent temperature stability.

The furnaces have ceramic heating plates. To eliminate the gases or smoke released during thermal processing, an additional vent and exhaust system can be installed in the products.

Application Areas

- Scientific laboratories
- Educational institutions
- Medicine
- Industrial use for hardening, dissolving, normalising
- Thermal treatments at temperatures of 1100°C or 1300°C

Equipment Basic Models

- Ceramic bottom plate
- Control panel on the base of the oven
- Door opens upwards
- Door safety switch
- Equipped with the Omron E5CC non-programmable PID controller
- Fast heating time due to low thermal mass build-up
- Good stability and uniformity
- The heating elements embedded in a vacuum-formed fibre are located in all four walls of the chamber in models with a temperature of up to 1100°C.
- In models with a temperature of up to 1300°C, the heating elements are on ceramic tubes on two sides of the chamber.
- Low energy consumption
- One-piece chamber made of vacuum-formed ceramic fibres with high thermal efficiency
- Outer casing - sheet metal, grey powder-coated



High temperature furnace 1100°C



High temperature furnace 1300°C

Optional Equipment

- Additional ceramic bottom plates
- Buzzer
- Calibration of the temperature measuring system
- Data transmission/USB
- Data recorder
- Digital timer
- Fan-assisted chimney for air extraction
- Gas box up to 1100 °C
- Metal tray
- Protection against overheating
- Process observation window (ø 35 mm) up to 1100 °C
- Protective gas atmosphere
- Table for supporting the furnace

High Temperature Furnace 1100 / 1300



Technical Data

Models	Models to 1100°C	Models to 1300°C
Useful volume	3 l / 8.2l / 13 l / 22 l oder 39 Liters	6.7 or 10 Liters
Ambient temperature	+3°C – 68°C	+3°C – 68°C
Sensor	LM345 Integrated temperature sensor	LM345 Integrated temperature sensor
Controller	PI	PI
Setpoint adjustment	Digital	Digital
Display	Digital LED	Digital LED
Max. temperature	1100°C	1300°C
Continuous operating temperature	T +10 – 1100	
Accuracy	±0,5°C	
Relative humidity (indoor)	~ 80%	~ 80%
Typical operation		Incubation
Heating element		1.250 Watt
Maximum heating- up time (without charge)	35 min	35 min
Weight	17 / 28 / 38 / 58 / 74 kg	35 / 38 kg
Working chamber material	Fiber muffle	Fiber muffle
Temperature stability in working chamber at rated temperature in thermal steady state without charge not more than	±1 °C	±1 °C
Temperature uniformity in working space at rated temperature in thermal steady state without charge not more than	±10 °C	±10 °C
Nominal power not higher than	1,7 / 1,8 / 3,0 / 6,0 kW	2,4 kW
Electrical power	230 V, 50 Hz	230 V, 50 Hz

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Dimensions Muffel Furnace up to 1100°C

Models up to 1100°C	Chamber dimensions (WxDxH)	Exterior dimensions (WxDxH)
3/1100 LHM01	120 x 200 x 105 mm	345 x 470 x 430 mm
8.2/1100 LHM01	195 x 310 x 135 mm	445 x 660 x 495 mm
13/1100 LHM01	220 x 335 x 170 mm	505 x 685 x 555 mm
22/1100 LHM01	280 x 500 x 160 mm	605 x 855 x 620 mm
39/1100 LHM01	320 x 495 x 230 mm	655 x 890 x 740 mm

Dimensions Muffel Furnace up to 1300°C

Models up to 1300°C	Chamber dimensions (WxDxH)	Exterior dimensions (WxDxH)
6.7/1300 LSM01	145 x 310 x 135 mm	445 x 575 x 525 mm
10/1100 LHM01	195 x 310 x 135 mm	445 x 660 x 495 mm