

innoTHERM 1220-HE

Muffle furnace with parameter documentation and graphical representation of the measured values

Inexpensive and high quality

- Just a "touch" method icon to start the program
- Support program for all common work steps
- Use of high quality materials and sturdy furnace housing
- Graphical representation of heating programs and power consumption for perfect quality assurance
- Standard working range from room temperature to 1200 °C
- Optimum removal of pyrolysis gases reduces deposits
- 16 heating elements on both sides offer the best temperature homogeneity
- Perfect method repeatability through heating curve specification
- Colour graphics playback of all measurement parameters
- LAN interface for data transmission in the customer network
- LIFT UP door with space-saving technology
- Exhaust chimney at the back
- As an option with extraction unit with ventilation
- Special versions: Higher temperatures and other volumes on demand



Homogeneous temperature distribution through 16 heating zones

The innoTHERM 1220-HE model is designed for universal heat treatments such as; drying processes, preheating, de-binding, firing, sintering, annealing, melting, hardening, tempering, ashing and calcining. Typical applications are chemical analyzes (melting digestions), incandescent residue determination, research & development of new products, material testing, ceramics and dental industry, as well as the precious metals, plastics, rubber and glass industry.

The unique interface use via touch icons simplifies the development of methods and daily routine work. The desired temperature curve is graphically created (drawn) on the colour screen as a curve. Due to the protected control of the heating power, the system automatically tracks the specified temperature-time curve. This ensures optimal repeatability of self-created and published methods. Thus, the methods are automatically adapted to the number of samples or sample amount.



Quantum Equipment Co. Pvt. Ltd.

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Muffle furnaces with method storage for daily use

The innoTHERM high-temperature laboratory furnaces are made with high quality, environmentally friendly insulation material. Large numbers of heating elements provide excellent temperature homogeneity and stability. The maximum temperature of 1200 °C is designed for continuous use. The core, the annealing chamber is lined with an insulation material and suitable for high temperatures. The double-walled metal housing with multi-layer insulation ensures that the temperature at the outer casing of the furnace remains low. Like the insulation, the heating elements are made of a high quality iron-chromium-aluminium alloy. The compact and robust design allows practical use on standard workbenches. An upwardly opening

sliding door and heating chamber made of stainless steel offer optimum handling and occupational safety. Another feature is the unique control technology. The innovative program designed with graphic symbols guides the user through the individual work steps. At the same time, external systems can be adapted and operated via 5 USB interfaces, 2 serial and 2 video interfaces. An additional LAN connection ensures optimal documentation of the complete work process. In addition to the quality and the special properties, the innoTHERM muffle furnaces have a very attractive purchase price. We have set ourselves the goal of offering users optimum benefits as well as optimum flexibility with universal application possibilities.



High quality, functional construction and device design



Comfortable working space with practical storage drawer



Colour screen with graphical parameter representation

Graphic and alphanumeric representation

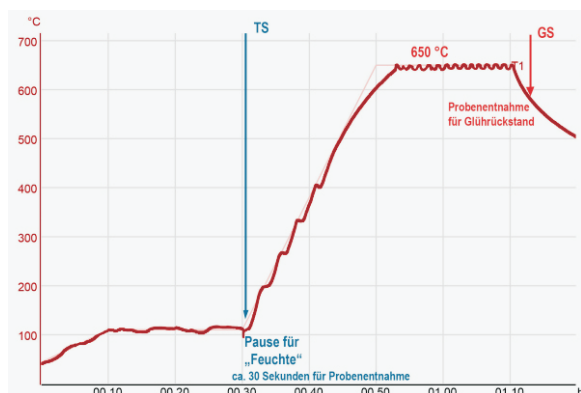
of all parameters such as temperature and performance on the colour screen result in a perfect quality report. The data collection complies with the latest Code of Federal Regulations less than 21 CFR Part 11, with background tracking of processes and events. Several thousand tests and methods with all working parameters can be stored on a "memory stick" (USB) and recalled at any time. Allowing each attempt is to be repeated exactly with one simple function using the "touch" screen. By automatically tracking the curve, the following methods are performed identically and are virtually independent of the number of samples.

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Determine dry substance and loss on ignition



Several methods with a work program

The determination of the dry substance and the loss on ignition can be carried out in one run. Before the process, the samples are weighed using a balance connected to the terminal. After approx. 30 minutes and drying at 110 °C (DS), the heating program is interrupted for a few seconds, the samples are weighed back and the dry substance recorded. These are then treated in the chamber room at 650 °C for residue determination (ash) in the same way. The complete calculation and evaluation takes place on the terminal and can be printed out for documentation or transferred to a data network.

Technical specifications

Programmable heating rates	System follows recordings of heating curves (colour graphics representation)
Temperature range	20 °C (room temperature) to 1200 °C
Maximum heating rate	approx. 120 minutes at 1200 °C (depending on mains voltage)
Power	3500 watts
Electrical connection	1 phase
Heating programs (methods)	Program START by touching only one method symbol. Memory for several thousand procedures with all control parameters
Chamber volume	20 litres
Furnace room interior H x W x D	25,5 x 25 x 26,5 cm
Terminal control system	High-resolution colour graphics screen with symbol guidance ("Touch")
Standard accessories	Power cable
Weight	64 kg
Dimension outside H x W x D	67 x 52,5 x 53 cm
Warranty	12 months

Datasheets for further innoTHERM models with different volume and temperature ranges on request, as below:



innoTHERM 1205-HE

5 litres chamber volume
1200 °C max. Temperature
2000 watts power
1 phase electr. connection
15 x 15 x 23 cm (HxWxD Inside)
55 x 44 x 48,5 cm (HxWxD Outside)



innoTHERM 1210-HE

10 litres chamber volume
1200 °C max. Temperature
3000 watts power
1 phase electr. connection
20 x 20 x 25 cm (HxWxD Inside)
60 x 49 x 50,5 cm (HxWxD Outside)



innoTHERM 12100-HE

100 litres chamber volume
1200 °C max. Temperature
14000 watts power
3 phase electr. connection
36,5 x 50 x 55 cm (HxWxD Inside)
76,3 x 79 x 80,5 cm (HxWxD Outside)

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