

vacuum drying oven with one-shot silicone sealing strip

Vacuum drying oven is a kind of equipment specially designed for the substances which need to be dried under low-pressure environment, and it is often used for drying samples which are heat-sensitive, easy to decompose and easy to oxidize.

Vacuum Drying Oven

Vacuum drying oven can be dried under vacuum conditions, thus effectively preventing samples from being damaged due to high temperature, which is widely used in many fields such as laboratory, scientific research and production.

Main Features of Vacuum Drying Oven

- 1, special design for heat-sensitive substances: suitable for heat-sensitive, easily decomposed, easily oxidized substances, such as pharmaceuticals, chemical reagents, biological samples.
- 2, inert gas filling function: inert gas (such as nitrogen, argon, etc.) can be filled in the drying process to prevent the sample from oxidizing or reacting.



- 3, sealing design: equipped with adjustable door lock, adaptive observation window frame, and one-time molding silicone sealing strip to ensure long-term stable sealing and prevent air or gas leakage.
- 4, Accurate temperature control: Equipped with PID temperature controller, the temperature control is more accurate to ensure the temperature stability in the drying process.
- 5, feature-rich: temperature setting can be realized through the special function keys, and the auxiliary menu supports the functions of over-rise alarm, deviation correction and menu locking to ensure the safety and precision of operation.
- 6, safety design: the equipment has an over-rise alarm system to prevent damage to the sample caused by excessive temperature.
- 7, temperature range: from room temperature +10 °C to 250 °C, adjustable range, to adapt to different drying needs.
- 8, Vacuum range: less than 133Pa, which can realize efficient low-pressure environment and ensure good results in the process of sample drying.

Advantages

- 1, protection of heat-sensitive substances: through the vacuum drying technology, it can effectively prevent the sample from being damaged in the high temperature environment, which is suitable for those substances that are easy to deteriorate and oxidize.
- 2, high efficiency: the equipment can quickly remove water and solvent in the sample under low temperature and low pressure environment, improve the drying efficiency and reduce energy consumption at the same time.
- 3, Multi-functionality: The temperature and vacuum degree of the vacuum drying oven can be precisely adjusted to meet a variety of experimental needs, suitable for applications in different fields.
- 4, safe and reliable: precision PID control system and multiple safety measures (such as over-rise alarm and temperature control deviation correction) to ensure long-term stable operation of the equipment, to avoid potential safety hazards.
- 5, easy to operate: through simple function key operation and clear liquid crystal display, users can easily set and monitor the drying process.

Working Principle

Through hot air convection drying in a closed vacuum environment. As the air pressure is lowered under vacuum, the boiling point of moisture is also lowered, which makes the moisture evaporate at a lower temperature, thus achieving the drying effect. The hot air circulates inside the box through the forced convection device to ensure uniform heat distribution and improve the drying efficiency. In addition, by adjusting the vacuum degree, the speed and degree of water evaporation can be controlled to further ensure the safety of samples and drying quality.

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Model	OV24	OV52	OV91
Heating method	Decompression, four-wall heating		
Temperature range	ambient+10°C to 250°C		
Vacuum range	less than 133Pa		
Temperature resolution	0.1°C		
Temperature Accuracy	±1.0°C		
Temperature control method	PID		

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Model	OV24	OV52	OV91
Warming time	80minutes	100minutes	120minutes
Internal material	mirror polished stainless steel plate		
External Material	cold rolled steel plate, surface sprayed with plastic		
Insulation material	aluminum silicate fiber		
Heating element	stainless steel heating tube		
Viewing window	ballistic tempered glass		

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Model	OV24	OV52	OV91
Vacuum gauge	pointer type		
Rated power	0.8kw	1.4kw	2.0kw
Automatic vacuum level display method	no	digital tube display mode	
Timer	0 to 9999 minutes, with timed delay function		
Operating function	Constant value operation, timed operation, auto stop		
Additional functionality	deviation correction, menu key lock, power failure compensation, power failure memory		

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Model	OV24	OV52	OV91
Safety device	overlift alarm		
Internal dimensions	300x300x270mm	415x370x340mm	450x450x450mm
External dimensions	459x492x608mm	574x562x1266mm	609x642x1471mm
Volume	24L	52L	91L
shelf load bearing	15kg		
Number of shelf layers	2		

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Model	OV24	OV52	OV91
Shelf spacing	100mm	140mm	185mm
air inlet	Diameter 10mm		
exhaust port	Diameter 10mm		
Power supply	220Vac, 50Hz, 3.6A	220Vac, 50Hz, 6.3A	220Vac, 50Hz, 9.1A
Weight	37kg	53kg	87kg