



Technical resources

Vacuum freeze-drying oven

Model: FD

<https://www.tencanballmills.com/en/products/sintering-series/vacuum-freeze-drying-oven.html>

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Vacuum freeze-drying oven

Model: FD

Vacuum freeze-drying oven for biotech, pharma, and food. Ensures reliable lyophilization and strain preservation with vacuum control.

Technical specifications

Condensing temperature	-50℃
Vacuum level	<20Pa
Freeze-drying area	0.07~0.12m ²

These specifications describe the series. Confirm the selected model, power supply and configuration before ordering.



The main principle of the vacuum freeze dryer is a low-temperature drying equipment that uses sublimation to dehydrate materials. It freezes water-containing materials into solids. It uses the sublimation performance of water under low-temperature and low-pressure conditions to dehydrate materials at low temperatures to achieve drying. It is suitable for freeze-drying and bacterial strain preservation in biological research, medical pharmaceuticals, chemical industry, food processing,

colleges and universities and other fields.

干燥系列

产品细节



Technical parameters

model	FD-10-50A	FD-10-50B	FD-10-50C	FD-10-50D	FD-10-50E
Specification	Ordinary type	Gland type	Ordinary hanging bottle type	Press cap hanging bottle type	T-frame multi-manifold type
condensation temperature°C	-50	-50	-50	-50	-50
Vacuum degree Pa	<20	<20	<20	<20	<20
Freeze-drying area m²	0.12	0.07	0.12	0.07	---
Tray material (thickness 1cm) L	1.2	0.7	1.2	0.7	---
Water replenishment capacitykg/h	3	3	3	3	3
Sample tray mm	Φ200mm×4	Φ200mm×3	Φ200mm×4	Φ200mm×3	---
Number of vials	---	---	8	8	24 pieces (ampoules)
Power V/Hz/W	220/50/850				
Host size mm	380×600×345				

Standard configuration: desktop host, 2-liter domestic vacuum pump, ordinary drying device (4 sample trays)

1. Desktop design, compact, occupying a small countertop.
2. Beautiful appearance, ergonomic design, easy to operate.
3. Original imported fully enclosed compressor, efficient, reliable and low noise.
4. Equipped with a cold trap sample pre-freezing function, there is no need to equip an ultra-low temperature refrigerator or treat it with liquid nitrogen.
5. The cold trap is made of stainless steel, there is no coil in the cold trap, it is smooth and corrosion-resistant.
6. The patented design of the guide tube increases the effective area of the cold trap and enables rapid freeze-drying.
7. Comes standard with a filling valve, which can be filled with dry nitrogen or inert gas.
8. Transparent bell-type drying chamber, safe and intuitive.
9. International standard vacuum interface, can be used with a variety of vacuum pumps.

10. Digital display of temperature and vacuum degree.
11. Sample temperature display and touch screen display (optional).

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Before operation, review the selected model's instructions and the material requirements.