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# TENCAN

## Product Brochure



**SINTERING SERIES**

# Vacuum freeze-drying oven

**FD**

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

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



## Product Overview

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



### Vacuum Freeze Dryer

Efficient and Reliable, Low Noise  
Sample Pre-Freezing Function

Standard Gas Inlet Valve

Imported Fully Enclosed Compressor

Safe and Intuitive  
Transparent Bell-Jar  
Drying Chamber





## Product Introduction

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.

Drying Series

# Product Details



## Technical parameters

model	FD-10-50A	FD-10-50B	FD-10-50C	FD-10-50D	FD-10-50E
<b>Specification</b>	Ordinary type	Gland type	Ordinary hanging bottle type	Press cap hanging bottle type	T-frame multi-manifold type
<b>condensation temperature °C</b>	-50	-50	-50	-50	-50
<b>Vacuum degree Pa</b>	<20	<20	<20	<20	<20
<b>Freeze-drying area m<sup>2</sup></b>	0.12	0.07	0.12	0.07	---
<b>Tray material (thickness 1cm) L</b>	1.2	0.7	1.2	0.7	---
<b>Water replenishment capacity kg/h</b>	3	3	3	3	3
<b>Sample tray mm</b>	Φ200mm×4	Φ200mm×3	Φ200mm×4	Φ200mm×3	---
<b>Number of vials</b>	---	---	8	8	24 pieces (ampoules)
<b>Power V/Hz/W</b>	220/50/850				
<b>Host size mm</b>	380×600×345				

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

## Product Features

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).

## **Accessories & Customization**

### **Accessories**

Grinding jars, heating elements, sample holders, control modules and other matching accessories can be selected according to the product configuration.

### **Customization**

For voltage, capacity, chamber size, process temperature or application requirements, please contact TENCAN for a suitable configuration.