



TOP PRESS WITH MULTI-MANIFOLD VACUUM FREEZE DRYER

Top Press With Multi-Manifold Vacuum Freeze Dryer is an advanced drying process based on the principle of sublimation. The material is rapidly frozen at a low temperature, and in a controlled vacuum environment, the frozen water molecules transition directly into water vapor and escape. Throughout the process, the substance remains at a low temperature (frozen state), ensuring that ice crystals are evenly distributed.

APPLICATIONS

This method prevents dehydration-related issues like foaming and oxidation by avoiding concentration during sublimation. Freeze-dried products are lightweight, spongy, non-shrinking, and exhibit excellent rehydration properties with low moisture content. When properly packaged, they can be stored and transported at room temperature for extended periods.

Freeze dryers are widely used in biological research, medicine, pharmaceuticals, the chemical industry, food processing, and educational institutions.

This process helps protect heat-sensitive substances, preserves nutritional value, and eliminates the need for additives, ensuring long-lasting freshness. Freeze-dried materials remain porous and sponge-like, dissolving quickly and completely when water is added, effectively restoring their original form.

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CYFD-12 / CYFD-18

FEATURES

- **Efficient Cooling and Water Capture:** Rapid cooling with uniform inner wall temperature in the cold trap, enhanced by professional gas diversion technology for superior water capture.
- **Eco-Friendly Refrigeration:** Features a Secop compressor with hybrid, single-machine environmentally friendly refrigeration technology.
- **Integrated Pre-Freezing:** The cold trap includes a sample pre-freezing function, eliminating the need for ultra-low temperature refrigerators or liquid nitrogen.
- **Advanced User Interface:** Equipped with a 7-inch color LCD touch screen, offering a user-friendly interface with lock screen functionality and optional remote control via mobile or computer.
- **Comprehensive Parameter Display:** Displays cold trap temperature, vacuum level, sample temperature, and running time. Includes a simple operation system with permission controls to prevent misoperation.
- **Data Management:** Supports viewing, exporting, and deleting freeze-drying data with automatic saving and USB data export capability.
- **Versatile Compatibility:** Suitable for freeze-drying ampoules, vials, glass flasks, plasma bottles, or trays.
- **Convenient Defrosting:** Features independent pre-freezing capabilities in the cold trap and a one-click defrost function.
- **Maintenance Reminders:** Built-in maintenance alerts to ensure timely instrument upkeep.
- **Vacuum Monitoring:** Includes a vacuum alarm to promptly alert users to abnormal vacuum levels.
- **Precision Vacuum Control:** Equipped with a high-precision micro-adjustable vacuum valve.

- **Durable Components:** Includes a stainless steel anti-corrosion vacuum connecting pipe and a standard KF25 vacuum quick coupling clamp.

TECHNICAL SPECIFICATIONS

Model	CYFD-10 Top press with multi-manifold type		CYFD-12 Top press with multi-manifold type		CYFD-18 Top press with multi-manifold type	
Freeze dried area	0.08 m²		0.08 m²		0.09 m²	
Cold trap temperature	-60 °C (optional -80 °C)					
Catching water volume/batch	4KG				6KG	
Standard vacuum degree	≤ 5 Pa (no-load)					
Ultimate vacuum	0.1 Pa					
Pumping speed	2L/s				4L/s	
Material tray	180mm, 3 layers in total		180mm, 3 layers in total		200mm, 3 layers in total	
Disc spacing	100mm					
Bottled loading number of vials	Vial Φ 12mm: 560 pieces v Φ 16mm: 318 pieces Vial Φ 22mm: 165 pieces		Vial Φ 12mm: 560 pieces v Φ 16mm: 318 pieces Vial Φ 22mm: 165 pieces		Vial Φ 12mm: 630 pieces v Φ 16mm: 358 pieces Vial Φ 22mm: 180 pieces	
Eggplant shaped flask	100ml*2 150ml*2	250ml*2 500ml*2	100ml*2 150ml*2	250ml*2 500ml*2	100ml*2 150ml*2	250ml*2 500ml*2
Overall power	950W (including vacuum pump)				1100W (including vacuum pump)	
Machine size	520W * 600D * 400H mm		480W * 600D * 770H mm		560W * 560D * 980H mm	
Machine net weight	48KG		63KG		88KG	

Model	CYFD-10 Top press with multi-manifold type	CYFD-12 Top press with multi-manifold type	CYFD-18 Top press with multi-manifold type
Packaging size	740W * 810D * 850H mm	620W * 850D * 920H mm	630W * 670D * 1500H mm
Total weight with packaging	98KG	140KG	150KG
Voltage	AC220V 50Hz or 110V/60Hz		
Application environment	Ambient temperature $\leq 35\text{ }^{\circ}\text{C}$		
Operating noise of the entire machine	$\leq 55\text{dB}$		



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