

Pilot Freeze Dryer



Introduction

Biobase freeze dryer (square cabinet) is made of SUS304 material, and the silicone oil circulation heating is used to ensure the uniformity of the cooling and heating of the shelf. The temperature difference is only 1°C after the temperature balance of the shelf. The temperature of the cold trap can reach - 80°C. Adapted to the samples containing organic solvent and drying and process conditions to explore (food drug processing, dehydration, soil preparation, etc.).

Features

- * Pre-freezing, drying in-situ, easy to operate, good drying effect.
- * Inflatable (discharge) valve adopts safety diaphragm valve, which can be connected to inert gas source, and is filled with inert gas after drying to extend the shelf life of the material.
- * Freeze-drying curve optimization control technology, which can control the cooling rate during the pre-freezing stage, and control the heating rate of the sample and the vacuum value of the current stage in the sublimation and analytical drying stages.
- * 10-inch true color touch screen.
- * Can save hundreds of process recipes, each group contains 50 temperature control sections to improve process optimization rate.
- * Intelligent data recording system, real-time recording and display of cold trap temperature curve, sample temperature curve, vacuum degree curve, export data can be browsed and printed by computer and various operations to facilitate process optimization and drying effect verification.
- * Flexible manual + automatic control mode, manual mode used for groping process, automatical mode used for batch production.
- * Real-time alarm display and historical alarm query function for fault diagnosis and equipment maintenance.
- * User level and password can be set and decentralized for operation management.

Technical Parameters

Model	BK-PFD20S	BK-PFD20T	BK-PFD30S	BK-PFD30T	
Type	Standard	Stoppering	Standard	Stoppering	
Freeze Drying Area	0.3m ²	0.2m ²	0.4m ²	0.3m ²	
Shelf Temperature	-55°C~+70°C(no-loading)				
Cold Trap Temperature	<-80°C(no-loading)				
Vacuum Degree	≤1 Pa(no-loading)				
Water Capture Capacity	≥6kg/24h		≥8kg/24h		
Cold Trap Volume	15L		20L		
Cold Trap Size (Diameter*H)	Φ200*450mm		Φ220*520mm		
Drying Chamber Size (W*D*H)	330*320*470mm	420*320*490mm	400*350*430mm	380*380*540mm	
Shelf Size (W*D*H)	Shelf:400*270*20mm		Shelf:340*300*20mm		
Qty. of Shelf & Tray	Shelf:3+1,Tray: 3	Shelf:2+1,Tray: 2	Shelf:4+1,Tray:4	Shelf:3+1,Tray: 3	
Sample Loading Capacity (Liquid)	3L	2L	4L	3L	
Height Between Trays	70mm	100mm	50mm	70mm	
Tray Temperature Difference	±1°C				
Refrigerant	R404A + R23				
Condenser Cooling Mode	Air cooling				
Defrost Mode	Electric defrosting	Electric defrosting	Natural defrosting	Electric defrosting	
Total Qty. of Vial	Φ12mm	/	1554	2187	
	Φ16mm	/	868	1200	
	Φ22mm	/	440	654	
Vacuum Pump	4L/S(14.4m ³ /h)		6L/S(22m ³ /h)		
Optional Accessory	Import vacuum pump; Vacuum pump anti-return valve; Oil mist filtration system; Vacuum adjustment device				
Silicone Oil Heating Rods Consumption	600W				
Total Consumption	3kW	4kW	4.5kW	5.5 kW	
Power Supply	AC220V, 50Hz/60Hz(Standard); AC110V,60Hz(Optional)				
Main Body Weight	300kg	400kg	300kg	400kg	
External Size(W*D*H)	1033*781*1580mm	1033*781*1704mm	825*928*1366mm	853*1277*1679mm	
Packing Size (W*D*H) And	Main Body	1433*1081*1880mm	1433*1081*2004mm	1225*1228*1666mm	1225*1577*1979mm
	Vacuum Pump	/330kg	/330kg	/430kg	/430kg
Gross Weight	770*350*450mm/65 kg				