

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, automatic 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-PFD50S	
Freeze Drying Area	0.69m ²	
Shelf Temperature	-50°C~+70°C (no-loading)	
Cold Trap Temperature	<-80°C (no-loading)	
Vacuum Degree	≤1 Pa (no-loading)	
Water Capture Capacity	≥10Kg	
Cold Trap Volume	40L	
Cold Trap Size (Diameter*H)	Φ300*560mm	
Drying Chamber Size (W*D*H)	410*410 *580mm	
Shelf & Tray Size (W*D*H)	Shelf: 480*360*18mm; Tray: 480*360*30mm	
Qty. Of Shelf & Tray	Shelf: 4+1, Tray: 4	
Sample Loading Capacity (Liquid)	5L	
Height Between Trays	50mm	
Tray Temperature Difference	±1°C	
Refrigerant	R404A + R23	
Condenser Cooling Mode	Air cooling	
Defrost Mode	Natural defrosting (option electric defrosting)	
Vacuum Pump	8L/S (29m ³ /h)	
Optional Accessory	Import vacuum pump; Vacuum pump anti-return valve; Oil mist filtration system; Vacuum adjustment device	
Silicone Oil Heating Rods Consumption	1600W	
Total Consumption	5.5KW	
Power Supply	AC380V, 50Hz/60Hz (three phase)	
Main Body Weight	650kg	
External Size(W*D*H)	1600*800*1420mm	
Packing Size (W*D*H)	Main Body	1800*1000*1620mm / 700kg
And Gross Weight	Vacuum Pump	800*310*480mm / 73kg