CE

Pilot Freeze Dryer



Introduction

Biobase pilot freeze dryer uses silicone oil circulation heating 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

* Heating and cooling rates up to 1°C/min.
* Powder-coated exterior, aesthetically pleasing with a premium finish.
* The top layer of the shelf is a radiant heating plate, ensuring uniform heat distribution across all samples.
* High-quality shelves and cold trap ensure uniform drying efficiency.
* Stable control system, easy to operate, facilitating process optimization and drying validation.
* Utilizes the same PLC system as industrial freeze dryers, ensuring adequate control and process reproducibility.
* Supports designing, loading, and storing process programs with real-time recording of the freeze-drying process, generating freeze-drying curves, reports, historical logs, and alarms.

Technical Parameters

Model		BK-PFD20S	BK-PFD30S	BK-PFD50S	BK-PFD100S	BK-PFD200S
Type		Standard				
Freeze Drying Area		0.3m²	0.4m²	0.7m²	1.03m²	2.25m²
Shelf Temperature		-55~70℃(No-load)				
Cold Trap Temperature		-80℃(No-load)				
Vacuum Degree		≤1Pa(No-load)				
Water Capture Capacity		≥6kg/24h	≥8kg/24h	≥10kg/24h	≥15kg/24h	≥30kg/24h
Cold Trap Volume		14L	20L	40L	40L	122L
Cold Trap Size(Diamater*H)		Φ200*450mm	Φ220*525mm	Φ300*560mm	Φ300*560mm	Φ400*970mm
Drying Chamber Size(W*D*H)		330*470*320mm	350*435*400mm	410*560*410mm	560*560*410mm	605*1020*585mm
Shelf & Tray Size		Shelf: 270*400mm Tray: 265*395*20mm	Shelf: 300*340mm Tray: 295*335*20mm	Shelf: 360*480mm Tray: 355*475*20mm	Shelf: 360*480mm Tray: 355*475*20mm	Shelf: 505*905mm Tray: 500*450*20mm
Qty. of Trays		Tray*3 Radiant plate*1	Tray*4 Radiant plate*1	Tray*4 Radiant plate*1	Tray*6 Radiant plate*1	Tray*5 Radiant plate*1
Sample Loading Capacity(Liquid)		3L	4L	7L	10L	22.5L
Height Between Trays		70mm				80mm
Tray Temperature Difference		±1℃				
Refrigerant		R404A+R23				
Condenser Cooling Mode		Air cooling				
Defrost Mode		Electric defrosting				
Vacuum Pump		4L/s	6L/s	8L/s		15L/s
Electric Defrosting Consumption		800W	1000W	1000W	1500W	2000W
Silicone Oil Heating Rods Consumption		800W	1000W	1000W	1600W	4000W
Optional Accessories		Import vacuum pump, vacuum pump anti-return valve, oil mist filtration system, vacuum adjustment device				
Total Consumption		3kW	4.5kW	5.5kW	6.5kW	17kW
Power Supply		AC 220V, 50/60Hz(Single-phase 3-wire)		AC 380V, 50Hz(Three-phase 5-wire)		
External Size(W*D*H)		1135*960*1330mm	1286*960*1450mm	1300*960*1470mm	1650*960*1650mm	1200*1700*2100mm
Packing Size (W*D*H)	Main Body	1260*1100*1380mm	1390*1150*1500mm	1400*1150*1550mm	1750*1150*1700mm	1300*1800*2150mm
	Vacuum Pump	665*370*450mm	665*400*450mm	750*450*550mm	750*500*530mm	1000*465*600mm
Net Weight		300kg	400kg	600kg	700kg	1200kg
Gross Weight	Main Body	350kg	475kg	678kg	785kg	1315kg
	Vacuum Pump	45kg	76kg	103kg	107kg	135kg

Note: The stainless steel exterior can be customized.

E-mail: export@biobase.com
www.biobase.cc / www.biobase.com