

PILOT FREEZE DRYER MACHINE (PFD SERIES)				
	PFD-S1	PFD-S2	PFD-S3	PFD-S4
Overall Dimensions (m)	1.2W*1.2D*1.6H		1.4W*1.4D*1.6H	
Machine Frame and Cover	St 37-Epoxy Coated for Machinery Frame and SS304 for Machine Cover			
Materials of (Chambers, shelves &Ice Condenser)	SS 316L/SS 304L (Based on Request)			
Surface Finish	Less than 0.6μm			
Type of Main Chamber	Horizontal Cylinder			
Type of Ice Chamber	Ice Coils in main Chamber			Vertical Cylinder
Number of Shelves	3+1			
Shelf Dimension	305*550 (mm)			
Useable Sublimation Area	0.5 m <sup>2</sup>			
Distance Between Shelves	45 mm			100 mm
Shelf Temperature	Ambient ~ +60°C	-30° C ~ +60° C	-50° C ~ +70° C	-50° C ~ +70° C
Shelf Temperatures Uniformity	±1°C			
Shelf Flatness	±0.5 mm/m			
Ice Condenser Capacity	10kg			
Ultimate Ice Condenser Temperature	-50° C		-75° C	
Refrigeration Cycle Type	Hermetic Compressors, Electronics EXV/TEXV, Water Cooled Condensers			
Vacuum Range	0.01mbar			
Vacuum Leak Rate	0.02 mbar.L/sec.			
Evacuation Time	Atm. to 0.13mbar Less than 20 min			
Chamber-Condenser Isolation Valve	Not Applicable			Mushroom Valve
Control of Machine	PLC&HMI			
Stoppering System	Not Applicable			Up to Down
Manifold for Ampules	Option			
Defrost Method	Manual			Automatic by Hot Water
GMP Documentation	Based on User Requirements			

