青源峰达
Quenda

FREEZE DRYER

Secure quality, Continuous Innovation

Qingdao Qingyuanfengda Import and Export Co., Ltd

Freeze Dryer

Freeze dryer is widely applied in pharmaceutical industry, biotechnology industry , biological science industry, materials science industry, chemical industry, food and agriculture industry etc. It is used to produce vaccines, drugs and permanently store biological tissues/organs.

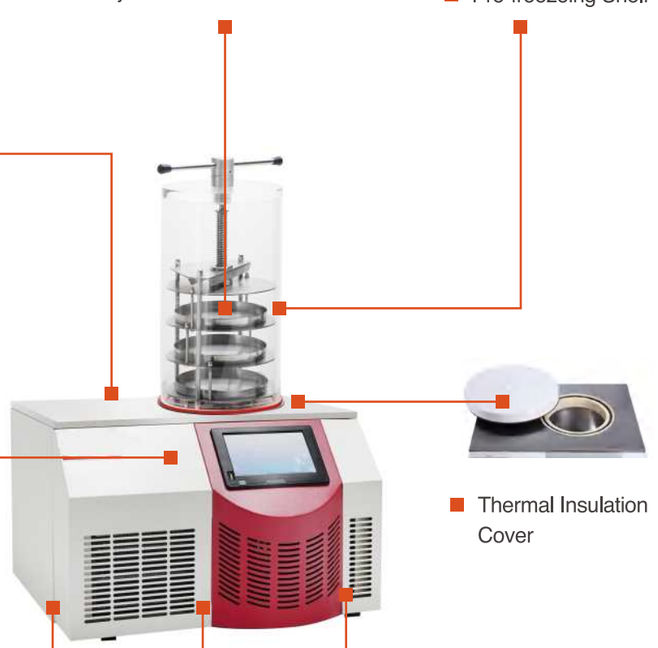
Innova INOFD freeze dryer is specialized designed for small batch test in laboratory. The Bench Top and Console freeze dryers are with advanced design and occupies small area.

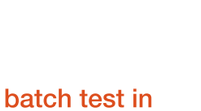
■ Stainless Steel Cold Trap

■ Adjustable Product shelf

■ Pre-freezeing Shelf

■ Touch screen with USB Interface





■ Thermal Insulation Cover

■ SECOP Compressor

■ High Efficent Cindenser

■ International Standard vacuum port

Humanized Design

7” colorful touch panel, can display the product samples temperature, cold trap temperature and vacuum etc in digital and curve.
Touch panel with tilt design conforms to ergonomics and operate more comfortably.

Optional for gas interface: can inject inert gas
Optional for Cold trap electrical heating defrost function
Optional for rack heating which is help to test in production
Eutectic point testing, it can have sublimation temperature

Freeze Dryer/Accessories

Accessories

Stopper Chamber		Standard Stopper with 8 port manifords		Standard Chamber with 8 manifords	
Standard Chamber		Stainless steel with 8 port maniflods		Valve and Freeze Drying Bottle	
Isolation Valve		24 EA Drying Shelf		Stainless steel Drying Chamber	

Pilot Freeze Dryer

Pilot freeze dryer is a small in-situ freeze-drying equipment. It is applied not only in pharmaceutical pilot workshop and small batch production but also in food or medicinal freeze-drying process. Situ freeze-drying technology is one of advanced international constructer design which avoid the contamination during materials transfer and realize the dry sublimation automatically. Pilot freeze dryer is with rack heating programmable function and memory freeze-drying curve which convenient users to get the freeze-drying production technology.
It is divided into standard type and gland type.

Reliable Performance

World famous compressor (SECOP) , high performance. lubricating oil with Sole design ensure the compressor work stable in high and low environment which enhance the compressor life.
World famous dry-filter to avoid moisture and Impurity went into refrigerant system.

The rack is cooled and heated through Silicone oil. The temperature accuracy is ≤1 °C,the refrigerant and heating are uniformity.

In-situ freeze-drying design, avoid the contamination during material transfer. High transparent organic glass in Drying chamber helps users to observe materials changes.

Cold trap and drying chamber are separately designed which is with high moisture capture and fast dry time.

Chamber is made of stainless steel, anti-corrosion and easy cleaning. Each rack is with temperature sensor and monitor the materials temperature changes in each rack.

Square racks easy to cleaning

With gas valve, can inject dry inert gas.

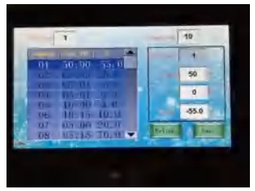
Humanized Design

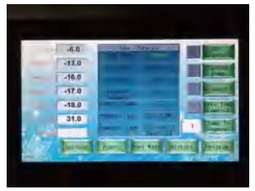
7" Colorful touch panel, can digital and curve display the real time status and historical data.

Large FAT32 files system storage can store all data for more than 1 month.

USB interface can download the freeze-drying data to U disk

Rack temperature can adjustable, controllable which helps to search for freeze-drying technology. It is two types manual and automatic type. The Automatic process can setting 36 programs, each program can set 40 temperature range, it can meet different requirements on freeze-drying process.





- Automatic frost
- Optional Eutectic point test function helps users to control materials' sublimation point
- Optional Freeze drying flask

Bench Top Freeze Dryer

Model	QFD-10S	QFD-10T	QFD-10P	QFD-10PT
				
Type	Standard chamber	Stoppering chamber	Standard chamber with 8 port manifold	Standard stoppering chamber with 8 port manifold
Final condenser temp (℃)	-55	-55	-55	-55
Vacuum Degree (Pa)	<10	<10	<10	<10
Condenser volume (L)	9	9	9	9
Freeze drying area (m2)	0.12	0.09	0.12	0.09
Ice condenser capacity (Kg/24h)	3	3	3	3
Qty of shelf	4	3	4	3
Material loading capacity/shelf (ml)	300	300	300	300
Material loading capacity (ml)	1200	900	1200	900
Freeze drying time (h)	24	24	24	24
Manifold	/	/	8 pieces	8 pieces
USB Interface	Y	Y	Y	Y
Drying Chamber(standard)	Transparent acrylic			
Vacuum Pump	Speed: 2L/S			
Control System	Microprocessor, touch screen			
Power supply (V/Hz)	220V/50Hz,60Hz			
Exterior dimension (WxDxH mm)	582*541*374/684			
Penicillin bottle Φ22	260	195		
Penicillin bottle Φ16	480	360		
Penicillin bottle Φ12	920	690		

Console Freeze Dryer

Model	QFD-12S	QFD-12T	QFD-12P	QFD-12PT
				
Type	Standard chamber	Stoppering chamber	Standard chamber with 8 port manifold	Standard stoppering chamber with 8 port manifold
Final condenser temp (℃)	-55 or -80	-55 or -80	-55 or -80	-55 or -80
Vacuum Degree (Pa)	<10	<10	<10	<10
Condenser volume (L)	9	9	9	9
Freeze drying area (m2)	0.12~0.18	0.09	0.12~0.18	0.09
Ice condenser capacity (Kg/24h)	4	4	4	4
Qty of shelf	4	3	4	3
Material loading capacity/shelf (ml)	300	300	300	300
Material loading capacity (ml)	1200	900	1200	900
Freeze drying time (h)	24	24	24	24
Manifold	/	/	8 pieces	8 pieces
USB Interface	Y	Y	Y	Y
Drying Chamber(standard)	Transparent acrylic			
Vacuum Pump	Speed: 2L/S			
Control System	Microprocessor, touch screen			
Power supply (V/Hz)	220V/50Hz,60Hz			
Exterior dimension (WxDxH mm)	480*630*920/1370			
Penicillin bottle Φ22	260	195		
Penicillin bottle Φ16	480	360		
Penicillin bottle Φ12	920	690		

Model	QFD-18S	QFD-18T	QFD-18P	QFD-18PT
				
Type	Standard chamber	Stoppering chamber	Standard chamber with 8 port manifold	Standard stoppering chamber with 8 port manifold
Final condenser temp (℃)	-55 or -80	-55 or -80	-55 or -80	-55 or -80
Vacuum Degree (Pa)	<10	<10	<10	<10
Condenser volume (L)	23	23	23	23
Freeze drying area (m2)	0.18~0.27	0.135	0.18~0.27	0.135
Ice condenser capacity (Kg/24h)	6	6	6	6
Qty of shelf	4	3	4	3
Material loading capacity/shelf (ml)	450	450	450	450
Material loading capacity (ml)	1800	1350	1800	1350
Freeze drying time (h)	24	24	24	24
Manifold	/	/	8 pieces	8 pieces
USB Interface	Y	Y	Y	Y
Drying Chamber(standard)	Transparent acrylic			
Vacuum Pump	Speed: 2L/S			
Control System	Microprocessor, touch screen			
Power supply (V/Hz)	220V/50Hz,60Hz			
Exterior dimension (WxDxH mm)	560*710*950/1390			
Penicillin bottle Φ22	360	270		
Penicillin bottle Φ16	740	555		
Penicillin bottle Φ12	1320	990		

Pilot Production

Model	QFD-20S	QFD-30T	QFD-50S	QFD-50T	QFD-100S	QFD-100T	QFD-200S	QFD-200T
								
Type	Standard	Top-press	Standard	Top-Press	Standard	Top-press	Standard	Top-press
Shelf temp (℃)	-50 ~ 70	-50 ~ 70	-50 ~ 70	-50 ~ 70	-50 ~ 70	-50 ~ 70	-50 ~ 70	-50 ~ 70
Final condenser temp (℃)	-80	-80	-80	-80	-80	-80	-80	-80
Vacuum Degree (Pa)	<10	<10	<10	<10	<10	<10	<10	<10
Freeze drying area (m2)	0.24	0.3	0.5		1		2	
Condenser capacity (Kg/24h)	6.5		10		15		30	
Shelf specification (L*W*H mm)	300*400*20	300*400*20	300*450*20		550*480*20	550*480*20	600*600*20	900*600*20
Qty of shelf	2+1	3+1	4+1	4+1	4+1	4+1	6+1	4+1
Distance between shelves(mm)	145		90	90	90	90	100	
Liquid material loading capacity (L)	4.5	7	10	10	20		40	
Temperature uniformity (℃)	±1	±1	±1	±1	±1	±1	±1	±1
Cooling mode	Air cooling	Air cooling	Air cooling	Air cooling	Air cooling	Air cooling	Air cooling	Air cooling
Electric heater defrost	Y	Y	Y	Y	Y	Y	Y	Y
Cap seal method	N	Hydraulic pressure	N	Hydraulic pressure	N	Hydraulic pressure	N	Hydraulic pressure
Penicillin bottle Φ22	468	702	1040	1040	2016	2016	4100	4100
Penicillin bottle Φ16	864	1296	1944	1944	3944	3944	7800	7800
Penicillin bottle Φ12	1584	2376	3456	3456	7020	7020	14400	14400
Power supply (V/Hz)	220V/50Hz,60Hz		220V/50Hz,60Hz 380V/50Hz,60Hz		380V/50Hz,60Hz		380V/50Hz,60Hz	
Exterior dimension (WxDxH mm)	1200*750*1250/1600		1200*850*1500/1850		1500*850*1600/1950		2100*1200*1800/2100	