

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.



Model Features

7-inch touchable panel displays digital and curve data for sample's temperature, condenser temperature, and vacuum valve.

Touch panel is designed with ergonomics in mind, providing comfortable operation.

Standard USB interface, data can be exported conveniently for user information management.

Large-volume stainless steel condenser without coils enables independent sample pre-freezing.

Rack temperature can be adjusted and controlled to aid in freeze-drying technology research.



Parts



Standard chamber



Stopper chamber



Standard stopper with 8 port manifolds



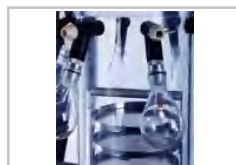
24 EA drying shelf



Standard chamber with 8 manifolds



Stainless steel with 8 port manifolds



Isolation valve



Valve and freeze drying bottle



Stainless steel drying chamber

Benchtop Freeze Dryer



Specification

Model	FD-10S	FD-10P	FD-10T	FD-10PT
Type	Standard chamber	Standard chamber with 8 port manifolds	Stoppering chamber	Standard chamber with 8 port manifolds
Freeze Drying Area(m ²)	0.12	0.12	0.09	0.09
Tray(Qty)	4/6(Optional)pcs	4/6(Optional)pcs	3pcs	3pcs
Tray Sizes(DiameterxH)(mm)	Ø200x20	Ø200x20	Ø200x20	Ø200x20
Height Between Trays(mm)	76/50	76/50	70(average)	70(average)
Condenser Temperature(°C)	-60	-60	-60	-60
Condenser Capacity (L)	6.5	6.5	6.5	6.5
Condenser Sizes(ØxH)(mm)	Ø215x190	Ø215x190	Ø215x190	Ø215x190
Vacuum Degree(no-loading) (Pa)	≤5	≤5	≤5	≤5
Ice Condensing Capacity (kg/24h)	3	3	3	3
Loading Capacity/ Shelf (mL)	300	300	300	300
Total Loading Capacity(mL)	1200	1200	900	900
Drying Chamber Sizes(standard)	Lower circle:Ø260mm;Upper circle:Ø240mm;Height:Ø450mm			
Total Qty. Of Vial Ø22	260	260	195	195
Total Qty. Of Vial Ø16	480	480	360	360
Total Qty. Of Vial Ø12	920	920	690	690
Refrigerant	CFC-free	CFC-free	CFC-free	CFC-free
Standard Accessories	Vacuum pump 2L/s,8m ³ /h,material tray,material rack,PC cover(for all modes) Conical-mouth flask 500mLx8 pcs,switch valvex8 pcs(only for model 10P/PT)			
Optional Function &Accessories	Electric defrost function,nitrogen gas filling valve,oil mist filter(for all models) 800mL wide-mouth flask(only for model 10P/PT)			
Consumption	0.85kW			
Electricity	AC220V,50Hz(standard), other electricity type can be customized			
External Sizes(WxDxH)(mm)	600x540x374/820	600x540x374/820	600x540x374/880	600x540x374/880
Shipping Main body(mm)	670x700x560	670x700x560	670x700x560	670x700x560
Sizes Drying chamber(mm)	410x410x640	410x410x640	410x410x640	410x410x640
(WxDxH) Vacuum pump(mm)	220x580x370	220x580x370	220x580x370	220x580x370
Gross Weight(kg)	110	110	110	110

Floor Freeze Dryer

CEISO

Specification



Model	FD-12S	FD-12T	FD-12P	FD-12PT
Type	Standard chamber	Standard chamber with 8 port manifolds	Stoppering chamber	Stoppering chamber with 8 port manifolds
Freeze Drying Area(m²)	0.12~0.18	0.12~0.18	0.09	0.09
Tray(Qty)	4/6(Optional)pcs	4/6(Optional)pcs	3pcs	3pcs
Tray Sizes(DiameterxH)(mm)	Ø200x20	Ø200x20	Ø200x20	Ø200x20
Height Between Trays(mm)	76/50	76/50	70(average)	70(average)
Condenser Temperature (°C)	-60/-80	-60/-80	-60/-80	-60/-80
Condenser Capacity (L)	9.5	9.5	9.5	9.5
Condenser Sizes(ØxH)(mm)	Ø217x250	Ø217x250	Ø217x250	Ø217x250
Vacuum Degree(no-loading) (Pa)	≤5	≤5	≤5	≤5
Ice Condensing Capacity (kg/24h)	4	4	4	4
Loading Capacity/ Shelf (mL)	300	300	300	300
Total Loading Capacity(mL)	1200~1800	1200~1800	900	900
Drying Chamber Sizes(standard)	Lower circle:Ø260mm;Upper circle:Ø240mm;Height:Ø450mm			
Total Qty. Of Vial Ø22	260	260	195	195
Total Qty. Of Vial Ø16	480	480	360	360
Total Qty. Of Vial Ø12	920	920	690	690
Refrigerant	CFC-free	CFC-free	CFC-free	CFC-free
Standard Accessories	Vacuum pump 2L/s,8m³/h,material tray,material rack,PC cover(for all modes) Conical-mouth flask 500mLx8 pcs,switch valvex8 pcs(only for model 12P/PT)			
Optional Function &Accessories	Electric defrost function,nitrogen gas filling valve,oil mist filter(for all models) 800mL wide-mouth flask(only for model 12P/PT)			
Consumption	0.95kW(-60°C)/1.5kW(-80°C)			
Electricity	AC220V,50Hz(standard), other electricity type can be customized			
External Sizes(WxDxH)(mm)	480x610x905/1355	480x610x905/1355	480x610x905/1415	480x610x905/1415
Shipping Sizes (WxDxH)	Main body(mm)	730x600x1180	730x600x1180	730x600x1180
	Drying chamber(mm)	410x410x640	410x410x640	410x410x640
	Vacuum pump(mm)	220x580x370	220x580x370	220x580x370
Gross Weight(kg)	135(-60°C)/155(-80°C)	135(-60°C)/155(-80°C)	135(-60°C)/155(-80°C)	135(-60°C)/155(-80°C)



Model	FD-18AS/FD-18BS	FD-18AT/FD-18BT	FD-18AP/FD-18BP	FD-18APT/FD-18BPT
Type	Standard chamber	Standard chamber with 8 port manifolds	Stoppering chamber	Stoppering chamber with 8 port manifolds
Freeze Drying Area(m²)	0.18~0.27	0.18~0.27	0.09	0.09
Tray(Qty)	4/6(Optional)pcs	4/6(Optional)pcs	3pcs	3pcs
Tray Sizes(DiameterxH)(mm)	Ø240x20	Ø200x20	Ø200x20	Ø200x20
Height Between Trays(mm)	81/51	81/51	71(average)	71(average)
Condenser Temperature (°C)	-60	-60	-60	-60
Condenser Capacity (L)	28	28	28	28
Condenser Sizes(ØxH)(mm)	Ø300x420	Ø300x420	Ø300x420	Ø300x420
Vacuum Degree(no-loading) (Pa)	≤5	≤5	≤5	≤5
Ice Condensing Capacity (kg/24h)	6	6	6	6
Loading Capacity/ Shelf (mL)	450	450	300	300
Total Loading Capacity(mL)	1800~2700	1800~2700	1350	1350
Drying Chamber Sizes(standard)	Circle:Ø300mm;Height:Ø450mm			
Total Qty. Of Vial Ø22	360	270	270	270
Total Qty. Of Vial Ø16	740	555	555	555
Total Qty. Of Vial Ø12	1320	990	990	990
Refrigerant	CFC-free	CFC-free	CFC-free	CFC-free
Standard Accessories	Vacuum pump 4L/s,14.4m³/h,material tray,material rack,PC cover(for all modes) Conical-mouth flask 500mLx8 pcs,switch valvex8 pcs(only for model 18AP/18APT/18BP/18BPT)			
Optional Function &Accessories	Electric defrost function,nitrogen gas filling valve,oil mist filter(for all models) 800mL wide-mouth flask(only for model 18AP/18APT/18BP/18BPT)			
Consumption	1.2kW(-60°C)/1.7kW(-80°C)	1.2kW(-60°C)/1.7kW(-80°C)	1.2kW(-60°C)/1.7kW(-80°C)	1.2kW(-60°C)/1.7kW(-80°C)
Electricity	AC220V/50Hz	AC220V/50Hz	AC220V/50Hz	AC220V/50Hz
External Sizes(WxDxH)(mm)	560x710x940/1390	560x710x940/1390	560x710x940/1450	560x710x940/1450
Shipping Sizes (WxDxH)	Main body(mm)	790x630x1180	790x630x1180	790x630x1180
	Drying chamber(mm)	410x410x640	410x410x640	410x410x640
	Vacuum pump(mm)	220x580x370	220x580x370	220x580x370
Gross Weight(kg)	150/170	150/170	150/170	150/170

Pilot Freeze Dryer



Pilot Freeze Dryer is widely used in drugs, biological products, chemical and food industries. On the heat-sensitive substances such as antibiotics,vaccines, blood products, hormones and other biological tissue enzymes, freeze-drying technology is applied. Also provide a valuable solution for the preservation and drying of a wide range of products across various industries.

Model Features



7-inch touchable panel displays digital and curve data for sample's temperature, condenser temperature, and vacuum valve.

Touch panel is designed with ergonomics in mind, providing comfortable operation.

Standard USB interface, data can be exported conveniently for user information management.

Large-volume stainless steel condenser without coils enables independent sample pre-freezing.

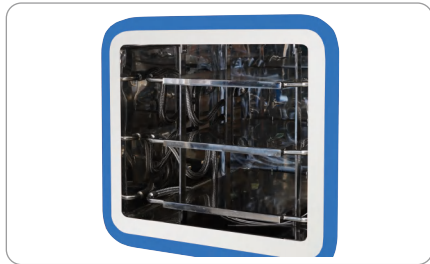
Rack temperature can be adjusted and controlled to aid in freeze-drying technology research.

The condenser and drying chamber are separately designed for high moisture capture and fast dry time.

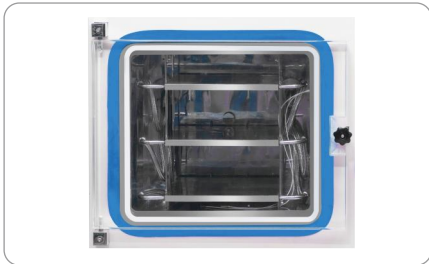
Two working modes, manual and automatic, are available with 40 programs in the automatic operation program, each with 40 temperature control sections to meet various freeze-drying processes.

User level and password can be set for decentralized operation and management.

The equipment can save hundreds of process recipes with each group containing 40 temperature control sections to improve process optimization rate.



In-situ freeze-drying design,avoid the contamination during material transfer.



High transparent organic glass in Drying chamber helps users to observe materials changes.



7 inches colorful touch panel Display

Specification



Model	FD-20S	FD-20T	FD-30S	FD-30T
Type	Standard	Top-press	Standard	Top-press
Freeze Drying Area(m²)	0.24	0.24	0.36	0.36
Shelf Temperature (°C)	-50~+70	-50~+70	-50~+70	-50~+70
Condenser Temperature(no-loading) (°C)	≤-80	≤-80	≤-80	≤-80
Vacuum Degree(no-loading) (Pa)	≤5	≤5	≤5	≤5
Condenser Capacity (L)	13	13	13	13
Ice Condenser Capacity (kg/24h)	6.5	6.5	6.5	6.5
Tray(Qty)	2+1	2+1	3+1	3+1
Tray Sizes(LxWxD)(mm)	300x400x13	300x400x13	300x400x13	300x400x13
Height Between Trays(mm)	145	145	90	90
Total Loading Capacity(L)	4.5	4.5	7	7
Temperature Uniformity(Tray) (°C)	±1	±1	±1	±1
Refrigerant	CFC-free	CFC-free	CFC-free	CFC-free
Electric Defrosting	Y	Y	Y	Y
Stoppering Mode	/	Automatic hydraulic	/	Automatic hydraulic
Total Qty. Of Vial Ø22	468	468	702	702
Total Qty. Of Vial Ø16	864	864	1296	1296
Total Qty. Of Vial Ø12	1584	1584	2376	2376
Consumption(kW)	3.5	4.5	3.5	4.5
Electricity	AC380V/50Hz(standard), other electricity type can be customized			
External Sizes(WxDxH)(mm)	1339x932x1319	1339x932x1601	1339x932x1319	1339x932x1601
Shipping Sizes (WxDxH)	Main body(mm)	1490x1140x1660	1490x1140x1660	1490x1140x1960
	Vacuum pump(mm)	850x330x450	850x330x450	850x330x450
Gross Weight(kg)	550	600	580	630

Optional

Optional eutectic point test function, convenient for users to better explore the freeze-drying process.



Specification

Model	FD-50S	FD-50T	FD-100S
Type	Standard	Top-press	Standard
Freeze Drying Area(m²)	0.5	0.5	1
Shelf Temperature (°C)	-50~+70	-50~+70	-50~+70
Condenser Temperature(no-loading) (°C)	≤-80	≤-80	≤-80
Vacuum Degree(no-loading) (Pa)	≤5	≤5	≤5
Condenser Capacity (L)	17	17	35
Ice Condenser Capacity (kg/24h)	10	10	15
Tray(Qty)	4+1	4+1	4+1
Tray Sizes(LxWxD)(mm)	300x400x13	300x400x13	550x480x13
Height Between Trays(mm)	90	90	90
Total Loading Capacity(L)	10	10	20
Temperature Uniformity(Tray) (°C)	±1	±1	±1
Refrigerant	CFC-free	CFC-free	CFC-free
Electric Defrosting	Y	Y	Y
Stoppering Mode	/	Automatic hydraulic	/
Total Qty. Of Vial Ø22	1040	1040	2016
Total Qty. Of Vial Ø16	1944	1944	3944
Total Qty. Of Vial Ø12	3456	3456	7020
Consumption(kW)	6.5	7.5	9.5
Electricity	AC380V/50Hz(standard), other electricity type can be customized		
External Sizes(WxDxH)(mm)	1337x1015x1454	1337x1015x1754	1633x1027x1612
Shipping Sizes (WxDxH)	Main body(mm)	1660x1260x1710	1960x1340x1860
	Vacuum pump(mm)	850x330x450	1010x340x510
Gross Weight(kg)	690	740	900



Model	FD-100T	FD-200S	FD-200T
Type	Top-press	Standard	Top-press
Freeze Drying Area(m²)	1	2	2
Shelf Temperature (°C)	-50~+70	-50~+70	-50~+70
Condenser Temperature(no-loading) (°C)	≤-80	≤-80	≤-80
Vacuum Degree(no-loading) (Pa)	≤5	≤5	≤5
Condenser Capacity (L)	35	90	90
Ice Condenser Capacity (kg/24h)	15	40	40
Tray(Qty)	4+1	6+1	6+1
Tray Sizes(LxWxD)(mm)	550x480x13	500x700x13	500x700x13
Height Between Trays(mm)	90	90	90
Total Loading Capacity(L)	20	40	40
Temperature Uniformity(Tray) (°C)	±1	±1	±1
Refrigerant	CFC-free	CFC-free	CFC-free
Electric Defrosting	Y	Y	Y
Stoppering Mode	Automatic hydraulic	/	Automatic hydraulic
Total Qty. Of Vial Ø22	2016	4100	4100
Total Qty. Of Vial Ø16	3944	7800	7800
Total Qty. Of Vial Ø12	7020	14400	14400
Consumption(kW)	10.5	15	16
Electricity			
External Sizes(WxDxH)(mm)	1633x1027x1912	1260x3710x2076	1260x3710x2476
Shipping Sizes (WxDxH)	Main body(mm)	1960x1340x2210	1600x2050x2400
	Vacuum pump(mm)	1010x340x510	1010x340x510
Gross Weight(kg)	950	Around2500	Around2500

In-situ Freeze Dryer



In-situ freeze dryers are commonly used in the pharmaceutical and biotechnology industries for the drying of temperature-sensitive products such as vaccines, antibodies, proteins, and other biological materials. They are also used in research and development labs for the preparation of samples for analysis and storage. In-situ freeze dryers have the advantage of reducing the risk of contamination, preserving the sample integrity, and saving time and effort by eliminating the need for sample transfer.



Model Features

Colorful touch panel displays digital and curve temperatures of product sample, condenser, and vacuum.

Single-button start defrosting function is both simple and fast.

Rack temperature is adjustable and controllable, facilitating the search for freeze-drying technology.

Equipment is designed to be compact with a small footprint.

USB interface enables convenient data export, allowing for user information management.

Large-volume stainless steel condenser, without coils, allows for independent sample pre-freezing.



In-situ freeze-drying design, avoid the contamination during material transfer.



Imported brand compressor, high cooling efficiency and fast cooling speed.



Clear touch panel LCD display

Optional

Optional for gas interface: it can inject inert gas.



Specification

Model	FD-1	FD-4	FD-6
Freeze Drying Area(m ²)	0.1	0.4	0.6
Tray(Qty)	3	4	4
Tray Sizes(WxD)(mm)	145x275	195x450	330x440
Height Between Trays(mm)	45	45	50
Condenser Temperature (°C)	-40	-40	-40
Vacuum Degree(no-loading) (Pa)	10	10	10
Ice Condenser Capacity (kg/24h)	3	5	6
Refrigerant	CFC-free	CFC-free	CFC-free
Consumption(kW)	0.75	1.5	2.3
Electricity	AC220V/50Hz(standard), other electricity type can be customized		
External Sizes(WxDxH)(mm)	400x550x700	510x700x850	700x800x1300
Shipping Sizes(WxDxH)(mm)	730x700x810	1080x700x1030	1010x840x1300
Gross Weight(kg)	115	161	225

Model	FD-1A	FD-4A	FD-6A
Freeze Drying Area(m ²)	0.1	0.4	0.6
Tray(Qty)	3	4	4
Tray Sizes(WxD)(mm)	145x275	200x450	335x445
Height Between Trays(mm)	45	45	50
Condenser Temperature (°C)	-70	-70	-70
Vacuum Degree(no-loading) (Pa)	10	10	10
Ice Condenser Capacity (kg/24h)	3	6	8
Refrigerant	CFC-free	CFC-free	CFC-free
Consumption(kW)	1.7	2.6	3.3
Electricity	AC220V/50Hz(standard), other electricity type can be customized		
External Sizes(WxDxH)(mm)	400x550x700	510x700x850	700x800x1300
Shipping Sizes(WxDxH)(mm)	950x900x1020	1170x850x1190	1260x850x1320
Gross Weight(kg)	168	203	295