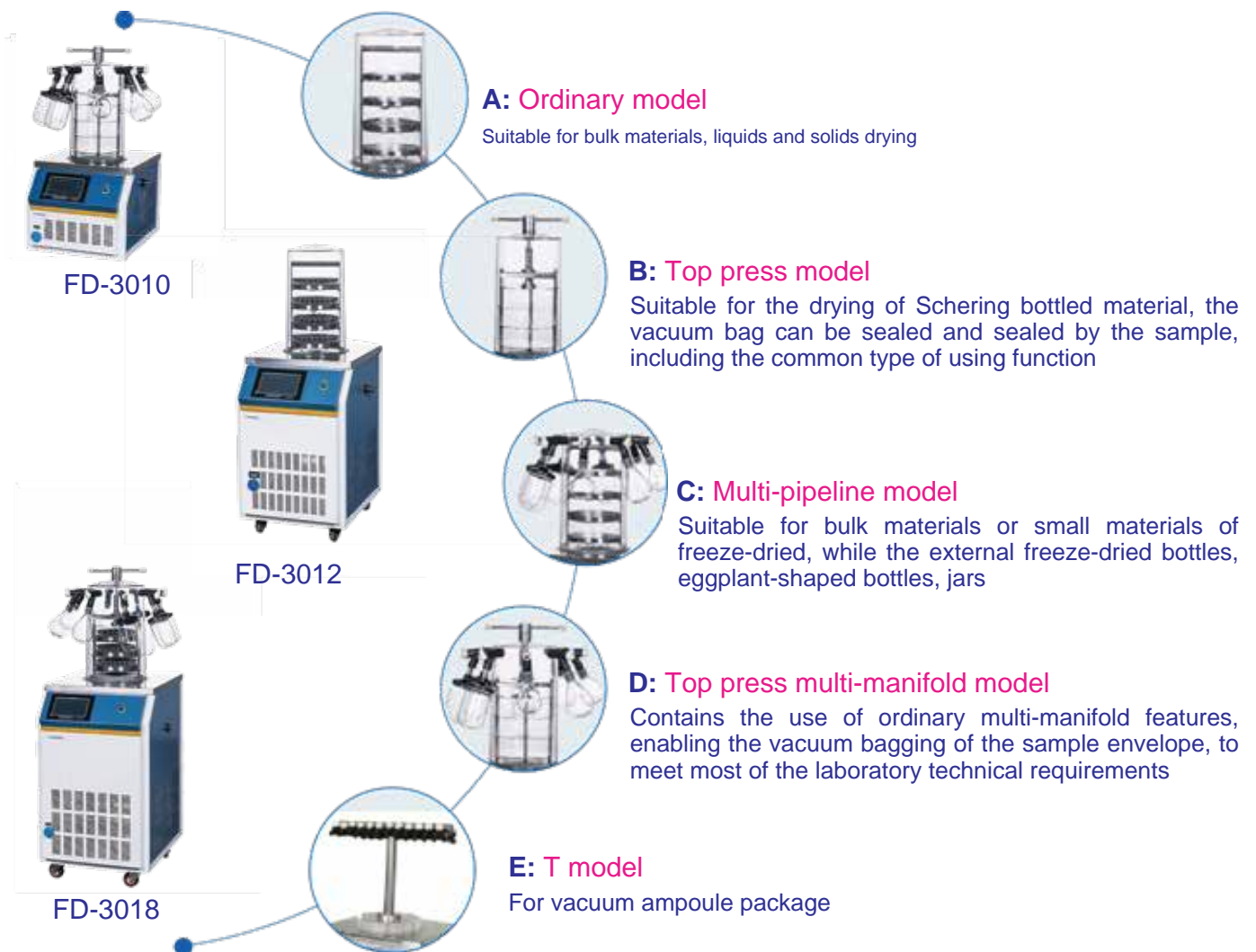


FREEZE DRYER

3000 Series



FREEZE DRYER SYSTEM

3000 series freeze-drying machine is compact, with large-scale freeze dryer flexibility, less space, can handle more flexible samples, cost-effective. Suitable for small laboratory, and can choose a variety of configurations: Common type: suitable for bulk materials, liquid and solid dry Gland type: suitable for Schering bottled material drying, can achieve sample vacuum pressure package. Contains general type of use function. Ordinary multi-manifold type: suitable for a variety of different materials, small freeze-dried, and can be linked to freeze-dried bottles, eggplant bottles, jars. Grip multi-manifold type: Contains the function of ordinary multi-manifold type, can achieve the sample vacuum pressure package, to meet the vast majority of the laboratory technical requirements. T-frame: for fungal ampoule tube package.



FD-3018

The 3018 freeze-dryer adds heating to the 3000-series, accelerating the drying process, saving energy, and providing heating curve settings with a variety of drying solutions for laboratory use.

This series of freeze dryer is divided into four configurations: ordinary type, gland type, multi-manifold general type, multi-manifold gland type, with pre-freeze function.



A: Ordinary model

Suitable for bulk materials, liquids and solids drying



B: Top press model

Suitable for the drying of Schering bottled material, the vacuum bag can be sealed and sealed by the sample, including the common type of using function



C: Multi-pipeline model

Suitable for bulk materials or small materials of freeze-dried, while the external freeze-dried bottles, eggplant-shaped bottles, jars



D: Top press multi manifold model

Contains the use of ordinary multi-manifold features, enabling the vacuum bagging of the sample envelope, to meet most of the laboratory technical requirements



Historical curve



Control interface



U disk extraction data interface

FEATURES

Accord with international standards of Green environmental friendly

7" True-color Touch Screen, Chinese English Bilingual Interface, display drying curve and history curve;

U disk Can storage lyophilized data;

Upload software can print curve;

Embedded circuit design, 128 M FLASH, can save dozen times Lyophilized data;

Large opening trap, no coil inside, with samples pre-freeze function.

Imported refrigeration compressor, low noise.

Cold trap and control panel were made by stainless steel, corrosion-resistant, easy to clean.

Transparent Bell type drying room, secure and ocular.

Stainless steel sample holder, common sample plate spacing adjustable.

Small size and easy to operate.

Nitrogen inflation valve within.

Industrial embedded operating system, ARM9 core control circuit design, 32M memory 128M FLASH, the operation response speed, large amount of stored data.

The control system automatically saves the freeze-dried data, and can be real-time curve and historical curve in the form of view, the entire freeze-drying process clear.

Drying room with a colorless transparent injection molding polycarbonate drying trap, corrosion-resistant, non-friable, non-adhesive, high transparency, strong sealing, the sample is clear and intuitive, can observe the freeze-drying of the whole product.

Vacuum pump and host connection using international standard KF quick connector, simple and reliable.

The machine can store multiple freeze-drying curve, and use U disk to extract data to the computer, with the host computer software in the computer to browse print and a variety of options.

Equipped with inflatable valve, can be filled with dry inert gas.

SPECIFICATION

Model	FD-3010				FD-3012				FD-3018				
Type	Type	Ordinary	Top press	Ordinary multi pipeline	Toppress multi pipeline	Ordinary	Top press	Ordinary multi pipeline	Toppress multi pipeline	Ordinary	Top press	Ordinary multi pipeline	
Dryer area (m ²)	0.125	0.08	0.125	0.08	0.125	0.08	0.125	0.08	0.18	0.09	0.18	0.09	
Ability to capture	3	3	3	3	4	4	4	4	6/8	6/8	6/8	6/8	
Schering bottle quantity	Φ12mm	920	560	920	560	920	560	920	560	1320	990	1320	990
	Φ16mm	480	285	480	285	480	285	480	285	740	560	740	560
	Φ22mm	260	165	260	165	260	165	260	165	360	270	360	270
Eggplant shape bottle	/	/	8	8	/	/	8	8	/	/	8	8	
Plate load capacity(L)	1.5	1	1.5	1	1.5	1	1.5	1	2	1	2	1	
Plate size (mm)	Φ200	Φ180	Φ200	Φ180	Φ200	Φ180	Φ200	Φ180	Φ240	Φ200	Φ240	Φ200	
Plate distance (mm)	70												
Plate size(pc)	4	3	4	3	4	3	4	3	4	3	4	3	
Cold trap size (mm)	Φ215×160				Φ215×216				Φ270×410				
Cold trap the lowest temperature (°C)	≤ -80 (No load)												
Ultimate vacuum(Pa)	≤10 (No load)				≤10 (No load)				≤10 (No load)				
Power Kw (220V/50Hz)	1.11	1.07	1.11	1.07	1.16	1.12	1.16	1.12	1.46	1.42	1.46	1.42	
Amibient temperature (°C)	≤25												
Overall dimension(mm)	590(L)×460(W)×400(H)+440				600(L)×450(W)×720(H)+440				670(L)×530(W)×800(H)+450				
Weight(Kg)	59	65	61	67	67	74	69	76	83	89	86	91	
Special note	The device size and weight not included in the external vacuum pump Top press model height not included in manual gland handle (The handle height 70mm)												
Power	950W				950W				1300W				
Power Supply	110V/60Hz or 220V/50Hz				110V/60Hz or 220V/50Hz				110V/60Hz or 220V/50Hz				
Interlayer Spacing	70 mm				70 mm				70 mm				



FREEZE DRYER FD-3030

vacuum freeze dryer 1)Pre-Freeze drying process at in situ situation, reduce the complicate operation from drying process, become automatically;2)Shelf temperature differences ± 1 °C, dry effect uniform; 3)Intermediate medium circulation technique, shelf can refrigeration, heating,...

FEATURES

Pre-freeze drying process at in situ situation, reduce the complicate operation from drying process, become automatically;

Shelf temperature differences ± 1 , dry effect uniform;

Intermediate medium circulation technique, shelf can refrigeration, heating, temperature adjustable, controllable, pilot scale test and production process;

Due to drying chamber and cold trap for fission structure, special gas circuit designed, capture water ability is strong and drying time to be short;

Embedded touch screen, PLC controlled and PID temperature controlled display lyophilized curve and history curve;

Control system can be stored 40 freeze-dry process programs, each program can have 40 temperature settings, and can choose the manual operation and automatic operation, the Top-Press type is equipped with an automatic defrost function;

Optional eutectic point test device;

U disk data available;

Equipped with PC software can print curve, browsing curve, modify data;

Square tray is shape not easily to deformed, easy to operate and clean;

Can be configured charging valve, rechargeable dry inert gas.

Drying chamber adopts high light colorless transparent organic glass door, in operation process can be observed clearly the change of material process;

Refrigeration system using overlap refrigeration technology, low refrigeration temperature, large refrigerating capacity, and adopt imported closed compressor, high efficient and reliable, low noise.

SPECIFICATION

FD-3030		Ordinary	Top-Press
Drying Area		0.3 m ²	0.3 m ²
No.of Tray		3+1 layer	3+1 layer
Temp. Range		-70~70 °C	-70~70 °C
Shelf Gap		50 mm	70 mm
Shelf Size		400mm×270mm	400mm×270mm
Schering bottles	φ12	1950	1950
	φ16	1080	1080
	φ22	540	540
Temperature		-70°C (No-load)	-70°C (No-load)
Ability to Capture Water		6Kg/24h	6Kg/24h
Power		2.1 kw	2.1 kw
Power Supply		380V 50/60Hz	380/60Hz
Plate Load Capacity		3 L	3 L
Vacuum		<10 Pa	<10 Pa
Dimension		630×800×1400 mm	1060×700×1500 mm
Drying chamber shape		square	square
Weight		300KG/ 340KG	360KG/ 400KG

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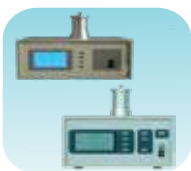
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URINOVA 2800 Urine Analyzer



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TOC Analyzer



Laser Particle Size Analyzer



Ion Chromatograph



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