



Freeze Dryer

/ Laboratory and Processing Equipment

- Industrial Scale



/ Laboratory and Processing Equipment

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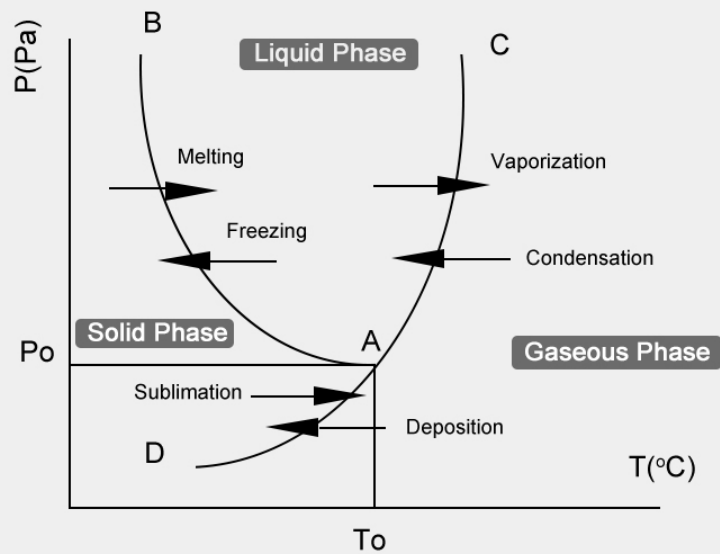
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PRODUCT USAGE

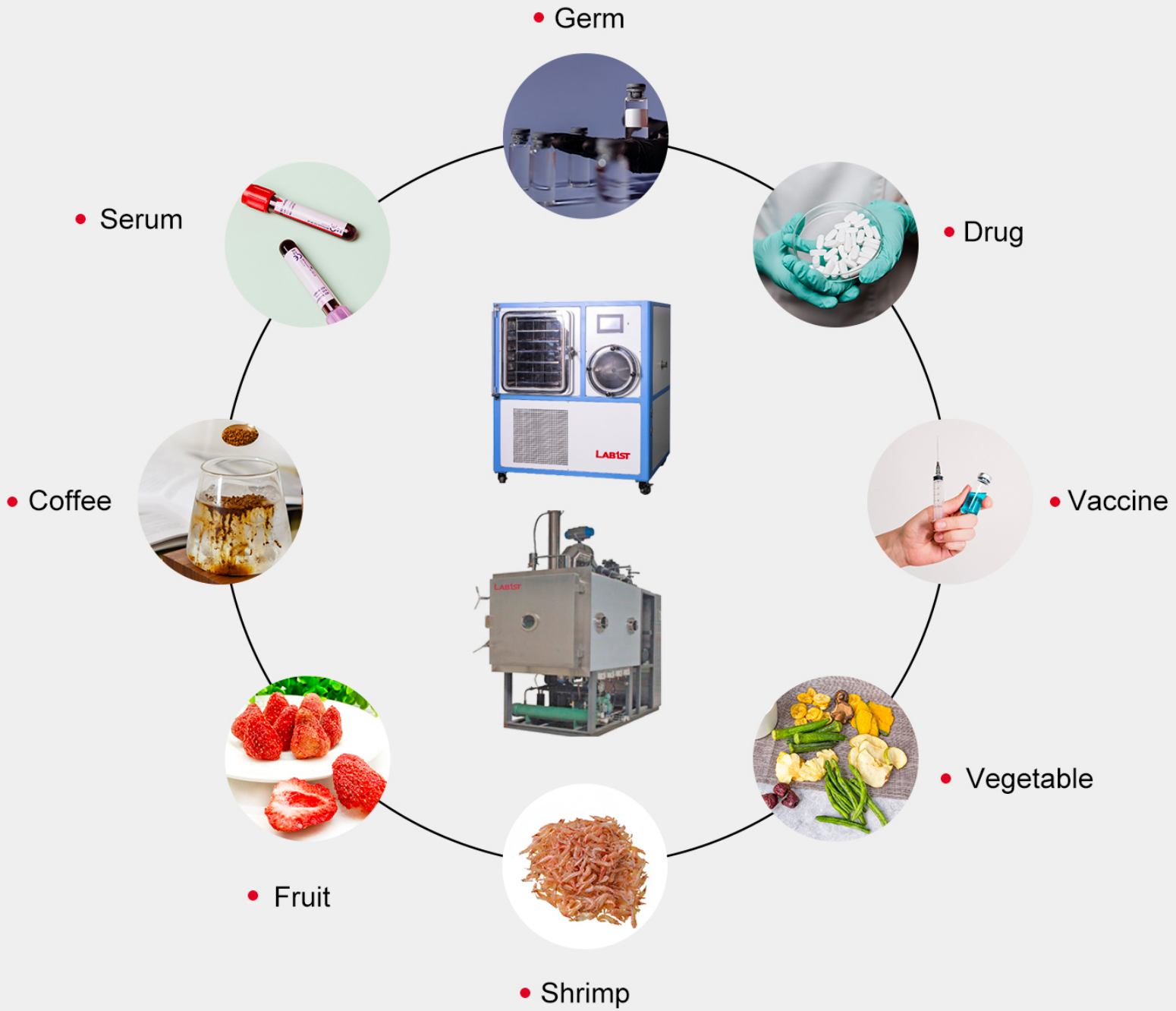
- Pharmaceutical industry: freeze-drying technology can be used for the dehydration and preservation of serum, plasma, vaccines, enzymes, antibiotics, hormones and other drugs.
 - Food industry: Vacuum freeze-drying technology is mainly used in the food industry to dry coffee, vegetable leaves, juice, strawberries, shrimp, meat, specialty vegetables, etc., to maintain the color, aroma, taste, shape and nutritional components of food. It is convenient for long-term storage and transportation, and it is very suitable for the production of convenient nutritious food.
 - Biological research: the use of vacuum freeze-drying technology can preserve bacteria, arteries, bones, skin, cornea and nerve tissues and various organs for a long time, and can be regenerated by supplying water when in use, and can maintain its biochemical and physical properties.



Principle Schematic (Water)

- Freeze dryer is a low temperature dehydration machine that involves freezing the product, lowering pressure, then removing the ice by sublimation. Because of the low temperature used in processing, the quality of the rehydrated product is excellent, and the original shape of the product is maintained.

APPLICATIONS



MAIN FEATURES

- 1 Efficient Protection for the Vacuum Pump, Starting After Reaching the Pre-set Temperature.
- 2 Digital Lcd Touch Screen, Recording the Temperature of Cold Trap and Sample As Well As the Vacuum Degree, Whose Data Can Be Exported.
- 3 36 Users' Programmes, Each of Them Can Control Up to 40 Temperature Zones and Memorize the Freeze Temperature Curve.
- 4 The Tray is Made of Silicon Rubber Electric Heating Plate, Which Can Pre-set the Temperature Heating Curve, So As to Automate the Sublimation.
- 5 The Tray Possesses the Freezing Function, Eliminating the Process of Pre-freezing the Sample and Automatically Starting the Drying Process Afterwards.
- 6 Inflation Valves Equipped, Which Can Be Filled with Dry Nitrogen or Inert Gas.
- 7 Single Working Time and Total Running Time Can Both Be Recorded Simultaneously.
- 8 The Drying Room Employs Glass Window with High Transparency to Witness the Process.



PRODUCT DESIGNATION FORMAT

FD P 1 E - 1 B

FD is freeze dryer for short.

This letter stands for the scale.

L: lab scale.

P: pilot scale.

I: industrial scale.

This number stands for the freezing temperature.

1: -50°C

2: -80°C

This letter stands for the heating type.

L: Liquid heating

R: Radiation heating

E: Electricity heating

This letter stands for the chamber

A: Standard chamber

B: Stoppering chamber

C: Standard chamber with manifolds

D: Stoppering chamber with manifolds

E: T-frame chamber with manifolds

This number stands for the drying area.

0: T-frame type.

1: 0.1 m².

5: 0.5 m².

10: 1 m².



PRODUCT PARAMETERS



FDI2L-20A



FDI2L-20B



FDI2L-50A

Model		FDI2L-20A	FDI2L-20B	FDI2L-30A	FDI2L-30B	FDI2L-50A	FDI2L-50B
Main Parameters	Chamber	Standard Chamber	Stopper Chamber	Standard Chamber	Stopper Chamber	Standard Chamber	Stopper Chamber
	Final Condenser Temperature	≤-85°C	≤-85°C	≤-80°C	≤-80°C	≤-50°C	≤-50°C
	Limiting Vacuum Degree	< 2.5Pa	< 2.5Pa	< 2.5Pa	< 2.5Pa	< 5Pa	< 5Pa
	Temperature Accuracy	±1°C	±1°C	±1°C	±1°C	±1°C	±1°C
	Ice Condenser Capacity	30Kg	30Kg	50Kg	50Kg	80Kg	80Kg
	Water Capture Capacity	30Kg/h	30Kg/h	50Kg/h	50Kg/h	80Kg/h	80Kg/h
	Temperature	≤-85°C	≤-85°C	≤-85°C	≤-85°C	≤-60°C	≤-60°C
	Drying Area	2.25m²	2.1m²	3.1m²	3.1m²	5m²	5m²
	Shelves Temperature Range	-50~70°C	-50~70°C	-50~70°C	-50~70°C	-60~80°C	-60~80°C
Configuration	Stopper Dryer	—	•	—	•	—	•
	Electric Stopper	—	•	—	•	—	•
	Vacuum Pump				•		
	Shelves				•		
	Vacuum Tube				•		
	Eutectic Point Sensor				○		
	PC Software				○		
	Dryness Determiner				○		
	Vacuum Controller				○		
	Mist(oil&water) Separator				•		
	Anti Oil Return Device				○		
	Remote Controller				○		
Function	PLC Touch Screen				•		
	USB Date Export				•		
	Inflatable Valve for Inert Gas				•		
	Electric Heating Defrost				•		
	Electric Heating Shelves				—		
	Oil Heating Shelves				•		
	Shelves Refrigeration				•		

Remark : • : Standard configuration ; ○ : Optional ; — : None