



BSLFD-10C



BSLFD-10E

Vacuum Freeze Dryer

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Freeze Dryer

Widely used in the fields of medicine, pharmacy, biological research, chemical industry and food. The freeze-dried articles are easy to be stored for a long time, and can be restored to the state before freeze-drying and maintain the original biochemical properties after processing.

Main features

- Refrigeration uses Linde-hampson, the world's leading technology, with a refrigeratory (secondary cooling by refrigeration), high refrigeration efficiency;
- The use of environmentally friendly refrigerants (absolutely does not contain the refrigerants banned by the state, some manufacturers still use the mixed refrigerant scheme with the ratio of R 12 and R22 banned by the state);
- Refrigeration temperature
 - 1 Temperature of cold trap up to standard (no load): <60 (DegC) and room temperature <28 (DegC)
 - 2 Limit cold trap temperature (no load): <65 C, room temperature <25 C;
- Using a 7-inch touch screen, the display is intuitive and easy to operate, without defining the inexplicable button selection
- Support freeze-drying data curve recording function
- The requirement of cold trap temperature can be set when the vacuum pump starts, so as to avoid starting the vacuum pump when the cold trap temperature does not reach the effective low-temperature water catching performance, resulting in water entering the vacuum pump
- With an additional set of sensors, it can be used to measure sample temperature and record data
- Temperature and vacuum have correction function.
- Switching unit with vacuum pressure display, supporting Mbar (millibar), Pa (Pascal), Torr (Toll).
- Free upgrade of electric defrosting function.

Vacuum Freeze Dryer

Freeze dryer is widely used in medicine, pharmacy, biology research, chemical industry and food production ,etc. After freeze drying process, a long term preservation for material is much easier. They can be restored to original state and maintain their chemical and biological characteristics after being watered.

The vacuum freeze drying technology, which is also called sublimation drying, is a technical method that freezes the samples in advance, and then sublimates its moisture under vacuum state.

Types : standard type, manifold type, top press type, manifold with top press type, T-type.

Series: laboratory freeze dryer , pilot scale freeze dryer and small scale production freeze dryer and big scale production freeze dryer

BSLFD-10 Series Bench Top Freeze Dryer



BSLFD-10A



BSLFD-10B



BSLFD-10C



BSLFD-10D



BSLFD-10E

BSLFD-12/18 Series Floor Type Freeze Dryer



BSLFD-12A/18A



BSLFD-12B/18B



BSLFD-12C/18C



BSLFD-12D/18D



BSLFD-12E/18E



BSLFD-12E/18E



BSLFD type



top press type



manifold type



manifold with top press type



T-type

BSLFD-10/12/18 Series of Freeze Dryer for laboratory research

BSLFD-10 freeze dryers are designed as bench top model, BSLD-12/18 as floor type with caster.

Types: standard type, top press type, manifold type, manifold with top press type, T-type

Main features:

- Control panel display in English
- Vacuum can be displayed in Pa or mbar
- Condenser with uniform and good ice capture function
- Acrylic drying Chamber is safe and easy to view sample status
- Small and compact structure , with easy and convenient operation
- Vacuum pump with high pumping speed , to reach good final vacuum
- Big opening condenser with external coiling tubes, has pre-freezing function
- Color LCD touch screen displays running time, display sample temperature, condenser temperature , vacuum degree, and save data automatically
- Display sample temperature curve, condenser temperature curve and vacuum curve
- CFC-free refrigerant, international famous brand compressor, low noise, good efficiency
- Condenser, trays, drying shelf and pre-freezing shelf made of stainless steel 304, anti-corrosion
- Stainless steel air inlet valve (drain valve) is safe, anti-corrosion , no leak
- With USB port to output freeze drying data, open and view data in Excel format

Options

- Vacuum control valve
- Intake backfilling filter
- Air inlet filter for pump
- Nitrogen inflation valve
- Eutectic point test device
- Electricity heating defrosting
- Exhaust filter/oil mist filter for pump
- Cascade refrigeration , condenser temperature -80°C
- Stainless steel chamber used for organic solvent sample
- Check valve for pump to prevent oil sucked into chamber
- Leybold pump or other international brand vacuum pump
- RS232 and software: Check, keep freeze drying data and control freeze dryer through computer
- Special requirements can be customized

Specification list

Model	Unit	BSLFD-10		BSLFD-12		BSLFD-18	
		Top press	standard	Top press	standard	Top press	standard
Drying area	m ²	0.08/0.1	0.12/0.18	0.08/0.1	0.12/0.18	0.09/0.12	0.18/0.27
Condenser temperature	°C	-50°C (-80°C optional)					
Vacuum degree	Pa	<10					
Condenser capacity	kg/24 hours	3-4		3-4		6	
Sample tray	Φmm x layer	Φ180 x3/4	Φ200x4/6	Φ180 x3/4	Φ200x 4/6	Φ200x 3/4	Φ240 x 4/6
Shelf spacing	mm	70/50	70/50	70/50	70/50	70/50	70/50
Bulk liquid capacity (10mm thickness)	Liter	0.8/1	1.2/1.8	0.8/1	1.2/1.8	0.9/1.2	1.8/2.7
Vial capacity Φ12mm	Pcs	492/656	820/1230	492/656	820/1230	615/820	1220/1830
Vial capacity Φ16mm	Pcs	279/372	460/690	279/372	460/690	345/460	680/1020
Vial capacity Φ22mm	Pcs	147/196	244/366	147/196	244/366	183/244	348/522
Optional manifold	ports	8 ports					
Optional flask	ml	Round bottom flask: 1000ml, 500ml, 250ml, 100ml, 50ml Wide neck flask: 1200ml, 600ml, 300ml, 150ml					
Vacuum Pump Flow Rate	L/S	2 L/S, 7.2 m ³ /h		2 L/S, 7.2 m ³ /h		4 L/S, 14.4 m ³ /h	
Voltage	V, Hz	220V ,50 Hz 110V/120V, 60Hz		220V ,50 Hz 110V/120V, 60Hz		220V ,50 Hz 110V/120V, 60Hz	
Power	W	970		1070		1400	
Dimension	mm	565x 420 x (360+430)		560x460x(710+430)		635x540x(970+430)	
Weight	kg	75	70	105	100	160	155



BSLFD-10E vacuum freeze dryer

BSLFD-10E Freeze Dryer is suitable for freeze-drying experiment in laboratory. It is bench top equipment.

This equipment is used for long term preservation for bacteria, fungi and other microbial strains. After freeze drying process, samples can be sealed in the ampules.



Main features

- Control panel display in English
- Vacuum can be displayed in Pa or mbar
- Condenser with uniform and good ice capture function
- Small and compact structure , with easy and convenient operation
- Vacuum pump with high pumping speed , to reach good final vacuum
- Condenser made of stainless steel 304, anti-corrosion and easy to clean
- Stainless steel air inlet valve (drain valve) is safe, anti-corrosion , no leak efficiency
- Big opening condenser with external coiling tubes, has pre-freezing function
- Color LCD touch screen displays running time, display sample temperature, condenser temperature,vacuum degree, and save data automatically
- Display sample temperature curve, condenser temperature curve and vacuum curve
- With USB port to output freeze drying data, open and view data in Excel format
- CFC-free refrigerant, international famous brand compressor, low noise,good

Options

- Vacuum control valve
- Intake backfilling filter
- Air inlet filter for pump
- Nitrogen inflation valve
- Eutectic point test device
- Electricity heating defrosting
- Exhaust filter/oil mist filter for pump
- Cascade refrigeration ,condenser temperature -80℃
- Check valve for pump to prevent oil sucked into chamber
- Leybold pump or other international brand vacuum pump
- RS232 and software: Check and keep freeze drying data on computer, control freeze dryer through PC

Technical Parameter

Ice condenser capacity	3-4 kg /24h
Condenser temperature	-50°C (-80°C optional)
Rubber valve	24 pcs, for connect with 24 ampules special requirement can be customized
Final vacuum	< 10 Pa
Condenser size	Φ215mm, 140mm deep
T-type shelf	430×480mm
Vacuum Pump Flow Rate	2 L/S, 7.2 m3/h
Defrosting	Off Cycle Defrosting
Cooling	Air cooling, ambient temperature≤25°C
Voltage	220V/50 Hz, 110V/60Hz, 120V/ 60Hz
Power	970W (-50°C) 1400W (-80°C)
Dimension	610x 450 x (370+430)mm (-50°C) 850 x 680x (400+430)mm (-80°C)
weight	70kg (-50°C) 130kg (-80°C)

BSLFD-12E/18E vacuum freeze dryer

BSLFD-12E/18E Freeze Dryer is suitable for freeze-drying experiment in laboratory. It is floor type equipment.

This equipment is used for long term preservation for bacteria, fungi and other microbial strains. After freeze drying process, samples can be sealed in the ampules. It is also suitable for product in flask.



Options

- Vacuum control valve
- Intake backfilling filter
- Air inlet filter for pump
- Nitrogen inflation valve
- Eutectic point test device
- Electricity heating defrosting
- Exhaust filter/oil mist filter for pump
- Cascade refrigeration ,condenser temperature -80°C
- Check valve for pump to prevent oil sucked into chamber
- Leybold pump or other international brand vacuum pump
- RS232 and software: Check, keep freeze drying data and control freeze dryer through computer
- Special requirements can be customized

Technical Parameter

Model	BSLFD-12E	BSLFD-18E
Condenser capacity	3 kg /24h	6 kg/24h
Condenser temperature	-50°C (-80°C optional)	
Vacuum degree	$< 10\text{ Pa}$	
Rubber valve	Option A: 24 pcs, for 24 ampule , special requirement can be customized	
	Option B: 12 pcs , for connection of flask Round bottom flask : 50ml,100ml,250ml,500ml,1000ml Wide neck flask:150ml, 300ml, 600ml, 1200ml special requirement can be customized	
Cooling	Air cooling, draughty, ambient temperature $\leq 25^{\circ}\text{C}$	
Vacuum pump flow rate	2 L/S, 7.2 m ³ /h	4 L/S, 14.4 m ³ /h
Voltage	220V ,50 Hz 110V, 60Hz; 110V, 60Hz	220V ,50 Hz 110V, 60Hz ; 110V, 60Hz
Power	1070 W 1400W(-80°C)	1400 W 1800W(-80°C)
Dimension	560x460x(710+430)mm 660x460x(710+430) mm (-80°C)	635x540x(970+430)mm 735x540x(970+430) mm (-80°C)
Weight	100kg (-50°C) 155kg (-80°C)	160kg (-50°C) 190kg (-80°C)

BSLFD-12H/18H series vacuum freeze dryer



BSLFD-12HA/18HA



BSLFD-12HB/18HB



BSLFD-12HC/18HC



BSLFD-12HD/18HD



BSLFD type



top press type



manifold type



manifold with top press type



T-type

BSLFD-12H/18H series vacuum freeze dryer for Laboratory

BSLFD-12H/18H series freeze dryer is suitable for experiment and a small amount production.

Types: standard type, top press type, manifold type, manifold with top press type

Main features:

- Control panel display in English
- Vacuum can be displayed in Pa or mbar
- Acrylic drying Chamber is safe and easy to view sample status
- Small and compact structure , with easy and convenient operation
- Vacuum pump with high pumping speed , to reach good final vacuum
- With electricity heating shelf, increasing drying speed
- Safety control system used for shelf heating, to control heating rate
- With programmable function, shelf temperature can be set in drying process
- Hundreds of recipe can be stored, and each recipe can be set up 36 segments
- Condenser with uniform and good ice capture function
- Big opening condenser with external coiling tubes, has pre-freezing function
- With USB port to output freeze drying data, open and view data in Excel format
- Color LCD touch screen displays running time, display sample temperature, condenser temperature , vacuum degree, and save data automatically
- Display sample temperature curve, condenser temperature curve and vacuum curve
- Historical curves and records can be checked, and storage cycles can be modified in real time
- The user level and password can be set up, and the operation management can be divided
- Powerful sensor calibration functions to ensure accuracy of measured values in long-term use
- CFC-free refrigerant, international famous brand compressor, low noise, good efficiency
- Condenser, trays, drying shelf and pre-freezing shelf are made of stainless steel 304, anti-corrosion
- Stainless steel air inlet valve (drain valve) is safe, anti-corrosion , no leak
- Real-time alarm display, historical alarm query function for fault diagnosis and maintenance

Options

- Vacuum control valve
- Intake backfilling filter
- Air inlet filter for pump
- Nitrogen inflation valve
- Eutectic point test device
- Electricity heating defrosting
- Exhaust filter/oil mist filter for pump
- Automatic backfilling / drainage system
- Cascade refrigeration , condenser temperature -80℃
- Stainless steel chamber used for organic solvent sample
- Check valve for pump to prevent oil sucked into chamber
- Leybold pump or other international brand vacuum pump
- RS232 and software: Check and keep freeze drying data on computer, control freeze dryer through PC

Technical Parameters

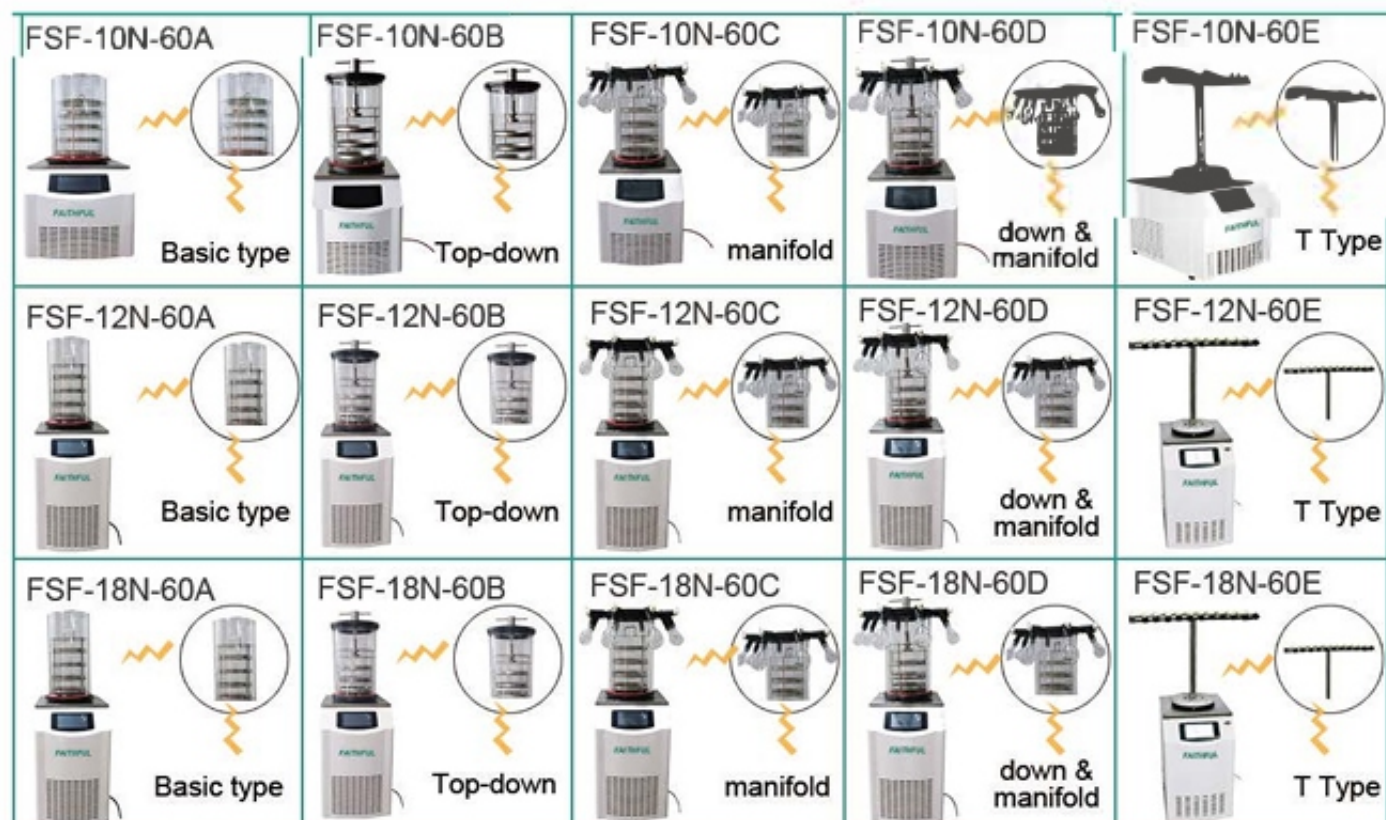
Model	Unit	BSLFD-12H		BSLFD-12H	
		Standard		Top press	
Drying area	m ²	0.12 m ²	0.18 m ²	0.08 m ²	0.1 m ²
Condenser temperature	°C	-50°C or -80°C			
Vacuum degree	Pa	< 10			
Condenser capacity	kg/24 hours	3-4 kg /24h		3-4 kg /24h	
Sample tray	Φ mm x layer	Φ200 x 4	Φ200 x 6	Φ 180 x3	Φ 180 x4
Shelf spacing	mm	70	50	70	50
Shelf temp. range	°C	Ambient temperature to +80°C			
Bulk liquid capacity (10mm thickness)	Liter	1.2 L	1.8 L	0.8 L	1.0 L
Vial capacity Φ 12mm	Pcs	820		492	656
Vial capacity Φ 16mm	Pcs	460		279	372
Vial capacity Φ 22mm	Pcs	244		147	196
Optional manifold	ports	8 ports			
Optional flask	ml	Round bottom flask :1000ml, 500ml, 250ml, 100ml, 50ml Wide neck flask:150ml, 300ml, 600ml, 1200ml			
Vacuum Pump Flow Rate	L/S	2 L/S, 7.2 m ³ /h		2 L/S, 7.2 m ³ /h	
Voltage	V, Hz	220V/50 Hz, 110V/120V/60Hz		220V/50 Hz, 110V/120V/60Hz	
Power	W	1400W(-50°C) 1800W(-80°C)		1400W(-50°C) 1800W(-80°C)	
Dimension	mm	580x500x(720+430)mm (-50°C) 770x550x(720+430)mm (-80°C)		580x500x(720+490)mm (-50°C) 770x550x(720+490)mm (-80°C)	
weight	kg	105kg (-50°C) 155kg (-80°C)		110kg (-50°C) 165kg (-80°C)	



Technical Parameters

Model	Unit	BSLFD-18H		BSLFD-18H	
		Standard		Top press	
Drying area	m ²	0.18 m ²	0.27 m ²	0.09 m ²	0.12 m ²
Condenser temperature	°C	-50°C or -80°C			
Vacuum degree	Pa	<10			
Condenser capacity	kg/24 hours	6 kg /24h		6kg /24h	
Sample tray	Φ mm x layer	Φ240 x 4	Φ240 x 6	Φ 200 x3	Φ 200 x4
Shelf spacing	mm	70	50	70	50
Shelf temp. range	°C	Ambient temperature to +80°C			
Bulk liquid capacity (10mm thickness)	Liter	1.8 L	2.7 L	0.9 L	1.2 L
Vial capacity Φ 12mm	Pcs	1220	1830	615	820
Vial capacity Φ 16mm	Pcs	680	1020	345	460
Vial capacity Φ 22mm	Pcs	348	522	183	244
Optional manifold	ports	8 ports			
Optional flask	ml	Round bottom flask :1000ml, 500ml, 250ml, 100ml, 50ml Wide neck flask:150ml, 300ml, 600ml, 1200ml			
Vacuum Pump Flow Rate	L/S	4 L/S, 14.4 m3/h		4 L/S, 14.4 m3/h	
Voltage	V, Hz	220V/50 Hz, 110V/120V/60Hz		220V/50 Hz, 110V/120V/60Hz	
Power	W	1400W(-50°C) 1800W(-80°C)		1400W(-50°C) 1800W(-80°C)	
Dimension	mm	635x540x(970+430)mm 735x540x(970+430)mm (-80°C)		635x540x(970+430)mm 735x540x(970+430) mm (-80°C)	
weight	kg	160kg (-50°C) 190kg (-80°C)		165kg (-50°C) 195kg (-80°C)	





Main Technical Parameter

Parameters /Model		FSF-10N				FSF-12N				FSF-18N				
		-60A	-60B	-60C	-60D	-60A	-60B	-60C	-60D	-60A	-60B	-60C	-60D	-60E
		Basic type	Top-down	manifold	down & manifold	Basic type	Top-down	manifold	down & manifold	Basic type	Top-down	manifold	down & manifold	T Type
Drying area	m²	0.12	0.092	0.12	0.092	0.12	0.092	0.12	0.092	0.27	0.092	0.27	0.092	
Tray	mm	200*4	200*3	200*4	200*3	200*4	200*3	200*4	200*3	240*4	200*3	240*4	200*3	
Tray capacity	L	1.5	1	1.5	1	1.5	1	1.5	1	2	1	2	1	
No-load temperature	℃	<-60 (-80 optional)				<-60 (-80 optional)				<-60 (-80 optional)				<-60 (-80 optional)
Vacuum	Pa	<10pa				<10pa				<10pa				
Inter layer spacing	mm	70				70				70				
Vals number for reference	22	260	165	260	165	260	165	260	165	360	270	360	270	
	16	480	285	480	285	480	285	480	285	740	560	740	560	
	12	920	560	920	560	920	560	920	560	1320	990	1320	990	
Ability to capture water	KG	3				4				6				
voltage	V/Hz	220V/50Hz or 110V/60HZ												
Power	W	850				950				1300				
Machine size	mm	500*400*370				500*400*650				800*530*900				