

## Freeze dryer series

Vacuum 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.

Types : A : chamber type ,B: stoppering type, C: manifold type , D: stoppering manifold type, E :T-type

### LGJ-10/12/18 series of freeze dryer

LGJ-10/12/18 freeze dryers, small amount of samples can pre-freeze in condenser. They are suitable for lab use or small-scale production, and they can meet requirements for most laboratories.

### LGJ-12S/18S heating in-situ freeze dryer

LGJ-12S/18S heating in-situ freeze dryer series are small vertical freeze dryer machine. These models have shelf heating and programmable function.They are suitable for lab use or small-scale production, and they can meet requirements for most laboratories.



#### Main features:

- Imported compressor, CFC Free refrigeration.
- Big opening of condenser , condenser has pre-freeze function.
- The machine can store freeze-dried data for many times, experimental data can be output by a USB flash disk.
- Touch screen as human-computer interface, Chinese (English) convertible interface, display drying curve.
- Small volume, compact structure ,easy and convenient operation.
- The international standard KF vacuum interface, with a variety of vacuum pump combination.
- Condenser and operation panel are all stainless steel, corrosion resistant and easy to clean.
- Pre-freeze shelf can work as a lead tube, speed up the drying speed.
- Optional charging valve, filling dry inert gas.
- Cascade refrigeration is optional , applied for -80°C machine.



### LGJ-12S/18S heating in-situ freeze dryer

#### Main features:

- 7 inch embedded integrated color touch-screen, the operating system is a set of advanced Cortex-A8 processor, 128 MB capacity of high performance control system.
- The machine control system can save 40 freeze-drying scheme, each scheme can be set up 40 segments of temperature parameter values. Shelf has heating function.
- Operating system has manual operation and automatic operation, two working modes, to improve the selectivity of freeze-drying process.
- Have automatic alarm and protection function, equipment failure is easy to judge.
- Have password protection function, to ensure the safe and reliable operation.
- Cascade refrigeration is optional , applied for -80°C machine.
- Optional remote monitoring and remote operation functions, convenient for user operation in different conditions.

Model	LGJ-10					
Type	Unit	Chamber	Stoppering	Manifold	Stoppering Manifold	T-type Shelf
Drying area	m <sup>2</sup>	0.12	0.08	0.12	0.08	-
Condenser temperature	°C	-56°C				
Electricity Power	V, Hz	220V/ 50 Hz, 110V/ 60Hz				
Condenser capacity	kg/24 hours	3-4				
Power	W	970				
Weight	Kg	41 (main machine ONLY, not included the drum, vacuum pump)				
Vacuum degree	Pa	<10				≤5
Sample tray	mm x layer	Dia. 200 x 4 (6 layers optional)	Dia.180 x3	Dia. 200 x 4 (6 layers optional)	Dia.180 x3	cold trap Φ215*140mm
Dimension	mm	615x 450 x (370+430), 430mm is for the drum				615×450×370 (T Shelf, 430×480mm, H*W)
Bulk capacity	Liter	1.2 (thickness 10mm)	0.8 (thickness 10mm)	1.2 (thickness 10mm)	0.8 (thickness 10mm)	-
Vial capacity Dia12mm	Pcs	920	560	920	560	-
Vial capacity Dia16mm	Pcs	480	285	480	285	-
Vial capacity Dia22mm	Pcs	260	165	260	165	-
manifold	ports	-	-	8 ports		24 ports (Ampoule)
flask	ml	-	-	1000ml, 500ml, 250ml, 100ml (2 pcs for each)		-

Notice: Manifold type will be with 100ml, 250ml, 500ml, 1000ml (2 pcs for each) for standard.

Model	LGJ-12 / LGJ-12S					
Type	Unit	Chamber	Stoppering	Manifold	Stoppering Manifold	T-type Shelf
Drying area	m <sup>2</sup>	0.12	0.08	0.12	0.08	-
Condenser temperature	°C	-56 (-80 °C available, optional)				
Electricity Power	V, Hz	220V/ 50 Hz, 110V/ 60Hz				
Condenser capacity	kg/24 hours	3-4				
Power	W	970				
Weight	Kg	62 (main machine ONLY, not included the drum, vacuum pump)				
Vacuum degree	Pa	<10				≤5
Sample tray	mm x layer	Dia. 200 x 4 (6 layers optional)	Dia.180 x3	Dia. 200 x 4 (6 layers optional)	Dia.180 x3	cold trap Φ215*140mm
Dimension	mm	580 x 500 x (720+ 430), 430mm is for the drum				580 x 500 x 720 (T Shelf, 430×480mm, H*W)
Bulk capacity	Liter	1.2 (thickness 10mm)	0.8 (thickness 10mm)	1.2 (thickness 10mm)	0.8 (thickness 10mm)	-
Vial capacity Dia12mm	Pcs	920	560	920	560	-
Vial capacity Dia16mm	Pcs	480	285	480	285	-
Vial capacity Dia22mm	Pcs	260	165	260	165	-
manifold	ports	-	-	8 ports		24 ports (Ampoule)
flask	ml	-	-	1000ml, 500ml, 250ml, 100ml (2 pcs for each)		-

Notice: Manifold type will be with 100ml, 250ml, 500ml, 1000ml (2 pcs for each) for standard.



A: Chamber



B: Stoppering



Heating & Programming

LGJ-12S/18S Manifold with 7 inch touch-screen



C: Manifold



D: Stoppering Manifold

Model	LGJ-18 / LGJ-18S								
Type	Unit	Chamber		Stoppering	Manifold		Stoppering Manifold	T-type Shelf	
Drying area	m <sup>2</sup>	0.18	0.27	0.09	0.18	0.27	0.09	-	
Condenser temperature	°C	-56 (-80 °C available, optional)							
Electricity Power	V, Hz	220V/ 50 Hz, 110V/ 60Hz							
Condenser capacity	kg/24 hours	6							
Power	W	1400							
Weight	Kg	105 (main machine ONLY, not included the drum, vacuum pump)							
Vacuum degree	Pa	<10							≤5
Sample tray	mm x layer	Dia. 240 x 4	Dia. 240 x 6	Dia.200 x3	Dia. 240 x 4	Dia. 240 x 6	Dia.200 x3	cold trap Φ270*400mm	
Dimension	mm	630 x 580 x (970+460), 460mm is for the drum							630 x 580 x 970 (T Shelf, 430x480mm, H*W)
Bulk capacity	Liter	1.8 (thickness 10mm)	2.7 (thickness 10mm)	0.9 (thickness 10mm)	1.8 (thickness 10mm)	2.7 (thickness 10mm)	0.9 (thickness 10mm)	-	
Vial capacity Dia.12mm	Pcs	1320	1980	990	1320	1980	990	-	
Vial capacity Dia.16mm	Pcs	740	1110	555	740	1110	555	-	
Vial capacity Dia.22mm	Pcs	360	540	270	360	540	270	-	
manifold	ports	-	-	-	8 ports			24 ports (Ampoule)	
flask	ml	-	-	-	1000ml, 500ml, 250ml, 100ml (2 pcs for each)			-	

Notice: The temperature of cold trap may reach -80-80°C according to the user's needs. T type is only for LGJ-10 / LGJ-12 / LGJ-18.

Notice: Manifold type will be with 100ml, 250ml, 500ml, 1000ml (2 pcs for each) for standard.



Pre-freezing function



Danfoss compressor



Green environmental protection compound refrigerant



The refrigeration system adopts heat interchanger



Vacuum pump that against the oil returns to



Defrosting function