

# FLOOR STANDING FREEZE DRYERS



# FLOOR STANDING FREEZE DRYERS

Also known as Floor Standing Freeze Dryer, Freeze Drying Equipment, Floor Type Freeze Dryer, Laboratory Floor Type Freeze Dryer, laboratory Floor Standing Freeze Dryer, Laboratory Freeze Drying Equipment, Floor Standing Lyophilizer, Floor Type Lyophilizer, Standard Freeze Dryer, Manifold Freeze Dryer, Top Press Freeze Dryer, Top Press with Manifold Freeze Dryer, T-Manifold Freeze Dryer.

## LTFDR10 FLOOR STANDING FREEZE DRYERS

- 7 Inch color touch control LCD display
- Display run time & vacuum parameter
- The cold trap with freezing function eliminates the low temperature refrigerator
- Imported compressor, high capability of water-capture, low noise
- Mixed refrigerant, green environmental protection
- Built-in heat exchanger effectively reduces the temperature of cold trap
- Anti-return oil vacuum pump to prevent the pollution of the material
- Transparent bell-cap drying room is safe and visual
- Optional distribution defrosting function
- Optional nitrogen inflating valve



### SPECIFICATIONS

Model	LTFDR10-1	LTFDR10-2	LTFDR10-3	LTFDR10-4
Type	Standard	Manifold	Top Press	Top Press with Manifold
Drying area	0.12 m <sup>2</sup>	0.07 m <sup>2</sup>	0.12 m <sup>2</sup>	0.07 m <sup>2</sup>
Tray size	200 x 4 mm	200 x 3 mm	200 x 4 mm	200 x 3 mm
Tray Capacity	1.5 L	2 L	1.5 L	2 L
Condenser Temperature	< -55°C (-80 or -100optional )			
Vaccum	< 10 Pa			
Tray Spacing	70 mm			
Vials number (only for reference)	160 (22) 280 (16) 420 (12)	85 (22) 185 (16) 260 (12)	160 (22) 280 (16) 420 (12)	85 (22) 185 (16) 260 (12)
Ability to capture Water	6 Kg			
Machine Size	400x500x600 mm			401x500x600 mm
Power	950 W			
Voltage	220 V 50 HZ /110 V 60 Hz			
Power Supply	220 V 50 HZ /110 V 60 Hz	-	-	-
Plate Load Capacity	-	-	-	-
Water Holding Capacity	-	-	-	-
Freeze Drying Surface Area	-	-	-	-
Vacuum Degree	-	-	-	-
No of Sealed Valves	-	-	-	-
Overall Dimension (mm)	-	-	-	-
Flask	-	-	-	-

Model	LTFDR10-5	LTFDR10-6	LTFDR10-7	LTFDR10-8
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Type	T-Manifold	Standard	Manifold	Top Press
Drying area	-	0.27 m <sup>2</sup>	0.094 m <sup>2</sup>	0.27 m <sup>2</sup>
Tray size	-	240 x 4 mm	240 x 3 mm	240 x 4 mm
Tray Capacity	-	2 L	1.5 L	2 L
Condenser Temperature	<50°C	< -55°C (-80 or -100optional )		
Vaccum	-	< 10 Pa		
Tray Spacing	-	70 mm		
Vials number (only for reference)	-	260 (22) 480 (16) 920 (12)	165 (22) 285 (16) 560 (12)	260 (22) 480 (16) 920 (12)
Ability to capture Water	-	6 Kg		
Machine Size	-	800x530x900 mm		
Power	950 W	850 W		
Voltage	-	220 V 50 HZ /110 V 60 Hz		
Power Supply	220 V 50 HZ /110 V 60 Hz	-	-	-
Plate Load Capacity	1 L	-	-	-
Water Holding Capacity	4 Kg/24 h	-	-	-
Freeze Drying Surface Area	0.092 m <sup>2</sup>	-	-	-
Vacuum Degree	<10 Pa	-	-	-
No of Sealed Valves	24 pieces for 24 ampoules	-	-	-
Overall Dimension (mm)	500x400x650 mm	-	-	-
Flask	-	-	-	-

Model	LTFDR10-9	LTFDR10-10
Type	Top Press with Manifold	T-Manifold
Drying area	0.094 m <sup>2</sup>	-
Tray size	240 x 3 mm	-
Tray Capacity	1.5 L	-
Condenser Temperature	< -55°C (-80 or -100optional )	<50°C
Vaccum	< 10 Pa	-
Tray Spacing	70 mm	-
Vials number (only for reference)	165 (22) 285 (16) 560 (12)	-
Ability to capture Water	6 Kg	-
Machine Size	800x530x900 mm	-
Power	850 W	1300 W
Voltage	220 V 50 HZ /110 V 60 Hz	-
Power Supply	-	220 V 50 HZ /110 V 60 Hz
Plate Load Capacity	-	1 L
Water Holding Capacity	-	6 Kg/24 h
Freeze Drying Surface Area	-	0.27 m <sup>2</sup>
Vacuum Degree	-	<10 Pa
No of Sealed Valves	-	24 pieces for 24 ampoules
Overall Dimension (mm)	-	800x530x900 mm
Flask	-	8



LTFDR10-1



LTFDR10-2



LTFDR10-3



LTFDR10-4



LTFDR10-5



LTFDR10-6



LTFDR10-7



LTFDR10-8



LTFDR10-9



LTFDR10-10

## LTFDR13 FLOOR STANDING FREEZE DRYERS



### SPECIFICATIONS

Model	LTFDR13-1	LTFDR13-2	LTFDR13-3	LTFDR13-4
Type	Standard type			Top Press type
Condenser Temperature	-110°C			
Freeze Drying area	0.12 m <sup>2</sup>	0.18 m <sup>2</sup>	0.24 m <sup>2</sup>	0.08 m <sup>2</sup>
Bulk capacity	1.2 L	1.8 L	2.4 L	0.8 L

Tray	φ200mm, 4pcs	φ200mm, 6pcs	φ200mm, 8pcs	φ180mm, 3pcs
Round bottom flask	-	-	-	-

Model	LTFDR13-5	LTFDR13-6	LTFDR13-7	LTFDR13-8
Type	Top Press type	Manifold Type		
Condenser Temperature	-110°C			
Freeze Drying area	0.1 m <sup>2</sup>	0.12 m <sup>2</sup>	0.18 m <sup>2</sup>	0.24 m <sup>2</sup>
Bulk capacity	1.0 L	1.2 L	1.8 L	2.4 L
Tray	φ180mm, 4pcs	φ200mm, 4pcs	φ200mm, 6pcs	φ200mm, 8pcs
Round bottom flask	-	1000ml,500ml ,250ml	1000ml,500ml ,250ml ,100ml,50ml	

Model	LTFDR13-9	LTFDR13-10	LTFDR13-11	LTFDR13-12
Type	Top Press with Manifold Type		T Type	Standard type electric heating shelf
Condenser Temperature	-110°C		-	-110°C
Freeze Drying area	0.08 m <sup>2</sup>	0.1 m <sup>2</sup>	-	0.12 m <sup>2</sup>
Bulk capacity	0.8 L	1.0 L	-	1.2 L
Tray	φ180mm, 3pcs	φ180mm, 4pcs	-	φ200mm, 4pcs
Round bottom flask	1000ml,500ml ,250ml ,100ml,50ml		-	-

Model	LTFDR13-13	LTFDR13-14	LTFDR13-15	LTFDR13-16
Type	Standard type electric heating shelf		Top Press type electric heating shelf	
Condenser Temperature	-110°C			
Freeze Drying area	0.18 m <sup>2</sup>	0.24 m <sup>2</sup>	0.08 m <sup>2</sup>	0.1 m <sup>2</sup>
Bulk capacity	1.8 L	2.4 L	0.8 L	1.0 L
Tray	φ200mm, 6pcs	φ200mm, 8pcs	φ180mm, 3pcs	φ180mm, 4pcs
Round bottom flask	-	-	-	-

Model	LTFDR13-17	LTFDR13-18	LTFDR13-19	LTFDR13-20
Type	Manifold type Electric heating shelf			Top Press with Manifold type electric heating shelf
Condenser Temperature	-110°C			
Freeze Drying area	0.12 m <sup>2</sup>	0.18 m <sup>2</sup>	0.24 m <sup>2</sup>	0.08 m <sup>2</sup>
Bulk capacity	1.2 L	1.8 L	2.4 L	0.8 L
Tray	φ200mm, 4pcs	φ200mm, 6pcs	φ200mm, 8pcs	φ180mm, 3pcs
Round bottom flask	1000ml,500ml ,250ml ,100ml,50ml			

Model	LTFDR13-21		LTFDR13-22	LTFDR13-23	LTFDR13-24
Type	Top Press with Manifold type electric heating shelf		Standard type		Top Press Type
Condenser Temperature	-110°C				
Freeze Drying area	0.1 m <sup>2</sup>		0.18 or 0.27 m <sup>2</sup>	0.36 m <sup>2</sup>	: 0.09 m <sup>2</sup>
Bulk capacity	1.0 L		1.8 or 2.7 L	3.6 L	0.9 L
Tray	φ180mm, 4pcs		φ240mm, 4 or 6pcs	φ240mm, 8pcs	φ200mm, 3pcs
Round bottom flask	1000ml,500ml ,250ml ,100ml,50ml		-	-	-

Model	LTFDR13-25	LTFDR13-26	LTFDR13-27	LTFDR13-28
Type	Top Press Type	Manifold Type		Top Press with Manifold Type
Condenser Temperature	-110°C			
Freeze Drying area	0.12 m <sup>2</sup>	0.18 or 0.27 m <sup>2</sup>	0.36 m <sup>2</sup>	: 0.09 m <sup>2</sup>

Bulk capacity	1.2 L	1.8 or 2.7 L	3.6 L	0.9 L
Tray	φ200mm, 4pcs	φ240mm, 4 or 6pcs	φ240mm, 8pcs	φ200mm, 3pcs
Round bottom flask	-	1000ml,500ml ,250ml ,100ml,50ml		

Model	LTFDR13-29		LTFDR13-30	LTFDR13-31	LTFDR13-32
Type	Top Press with Manifold Type		T Type	Standard type electric heating shelf	
Condenser Temperature	-110°C				
Freeze Drying area	0.12 m <sup>2</sup>		-	0.18 or 0.27 m <sup>2</sup>	: 0.36 m <sup>2</sup>
Bulk capacity	1.2 L		-	1.8 or 2.7 L	3.6 L
Tray	φ200mm, 4pcs		-	φ240mm, 4 or 6pcs	φ240mm, 8pcs
Round bottom flask	1000ml,500ml ,250ml ,100ml,50ml		-	-	-

Model	LTFDR13-33	LTFDR13-34	LTFDR13-35	LTFDR13-36
Type	Top Press type electric heating shelf		Manifold type Electric heating shelf	
Condenser Temperature	-110°C			
Freeze Drying area	0.09 m <sup>2</sup>	0.12 m <sup>2</sup>	0.18 or 0.27 m <sup>2</sup>	0.36 m <sup>2</sup>
Bulk capacity	0.9 L	1.2 L	1.8 or 2.7 L	3.6 L
Tray	φ200mm, 3pcs	φ200mm, 4pcs	φ240mm, 4 or 6pcs	φ240mm, 8pcs
Round bottom flask	-	-	1000ml,500ml ,250ml ,100ml,50ml	

Model	LTFDR13-37		LTFDR13-38	
Type	Top Press with Manifold type electric heating shelf			
Condenser Temperature	-110°C			
Freeze Drying area	0.09 m <sup>2</sup>		0.12 m <sup>2</sup>	
Bulk capacity	0.9 L		1.2 L	
Tray	φ200mm, 3pcs		φ200mm, 4pcs	
Round bottom flask	1000ml,500ml ,250ml ,100ml,50ml			



LTFDR13-1



LTFDR13-2



LTFDR13-3



LTFDR13-4



LTFDR13-5



LTFDR13-6



LTFDR13-7



LTFDR13-8





LTFDR13-29



LTFDR13-30



LTFDR13-31



LTFDR13-32



LTFDR13-33



LTFDR13-34



LTFDR13-35



LTFDR13-36



LTFDR13-37



LTFDR13-38

## LTFDR14 IN SITU FREEZE DRYER



### SPECIFICATIONS

Model	LTFDR14-1	LTFDR14-2	LTFDR14-3	LTFDR14-5
Type	Food freeze Dryer		Silicone Oil Heating In-situ pilot freeze Dryer	
Lowest condenser temperature	-50 °C			-
Drying area	0.3m <sup>2</sup>	0.56m <sup>2</sup>	0.1m <sup>2</sup>	0.2m <sup>2</sup>
Tray temperature	heating to +50 °C		-40°C to +50°C	



Trays load capacity	3L	6L	1L	2~3kg/24hr
Condenser Temperature	-	-	-	-50°C



LTFDR14-1



LTFDR14-2



LTFDR14-3



LTFDR14-5

## LTFDR14-4 IN SITU FREEZE DRYER

Pre-freeze-drying integrated

LCD display, PID control, with freeze-drying curve

Square stainless steel material tray, easy to operate and clean,

Configurable inflation valve, one-time dry inert gas

Vacuum sealing, liquid crystal display partition temperature, cold trap curve

Shuangjia PLC controller supports 20 programs, and each program can be divided into 40 segments of programming

Freeze-drying program parameters can be modified during operation, and record the final drying curve

Optional USB connection function, export curve data to U disk

Optional computer remote connection function

Optional manual capping device

4 freeze-dried bottles are optional



## SPECIFICATIONS

Model	LTFDR14-4
Type	Electric heating in situ freeze dryer
Lowest condenser temperature	-50°C
Drying area	0.1m <sup>2</sup>
Tray temperature	-50°C to +60°C
Trays load capacity	1.5L

## LTFDR14-6 IN SITU FREEZE DRYER

The pre-freeze-drying is carried out in situ, which reduces the tedious operation of the drying process and realizes the automation of the freeze-drying process

Silicone oil is used as a circulating medium, with high temperature control accuracy, shelf temperature difference  $\leq 1^{\circ}\text{C}$ , and uniform drying effect

Shelf temperature is adjustable, controllable, groping, pilot test and production process

20 programs can be stored, each program can be set to 36 segments, the program parameters can be modified during the operation of the freeze dryer, and the final drying curve can be recorded

Touch screen operation, PID control, display drying curve

The square tray is not easy to deform, easy to operate and easy to clean

Equipped with an inflation valve, it can be filled with dry inert gas

The drying room adopts high-transmittance colorless transparent organic glass door, which can clearly observe the change process of materials during operation

Optional eutectic point testing device



### SPECIFICATIONS

Model	LTFDR14-6
Type	Silicone Oil Heating In-situ pilot freeze Dryer
Condenser Temperature	-50°C
Drying area	0.34m <sup>2</sup>
Tray temperature	-40°C to +60°C
Trays load capacity	3kg/24hr

## LTFDR14 IN SITU FREEZE DRYER

One-piece design, compact equipment installation

The maintenance orientation is concentrated on one side, which is convenient for maintenance

A variety of security interlocking functions to fully protect the product

The equipment is conveniently connected to the clean room, and can be connected to the isolator

Realize dual control of clean room and maintenance room, but interlocking with each other

Simple operation, all run automatically



### SPECIFICATIONS

Model	LTFDR14-7	LTFDR14-8	LTFDR14-9
Type	Pilot In-situ freeze Dryer		
Condenser Temperature	-75°C		
Drying area	1m <sup>2</sup>	0.24m <sup>2</sup>	0.3m <sup>2</sup>
Trays load capacity	15kg	6.5kg/24hr	7kg
Liquid loading capacity	15L	-	4L

Tray temperature	-	-50°C to +60°C
Computer connection	-	RS232

Model	LTFDR14-10	LTFDR14-11
Type	Pilot In-situ freeze Dryer	
Condenser Temperature	-75°C	
Drying area	2m <sup>2</sup>	0.5m <sup>2</sup>
Trays load capacity	30kg	10kg
Liquid loading capacity	30L	10L
Tray temperature	-	-
Computer connection	RS232	-



LTFDR14-7



LTFDR14-8



LTFDR14-9



LTFDR14-10



LTFDR14-11



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