



# FREEZE DRYER



**BENCH TOP SERIES**

**LABOCON SCIENTIFIC** 18 A MELTON ROAD  
LEICESTER LE4 5EA UK Tel: +44 203 3724877,  
E-mail: [info@labocon.com](mailto:info@labocon.com) ,Web: [www.labocon.com](http://www.labocon.com)

## Benchtop Freeze Dryer LFD-BT-100 Series



Benchtop Freeze Dryer LFD-BT-100 Series from Labocon offers fast drying speeds, lowest temperature, easy maintenance, free operations and a wide range of chambers. Our product is environmental friendly, economical and efficient in use.

## Features

- ◆ Features vacuum freeze drying technology.
- ◆ Drying curves are displayed on LCD screen.
- ◆ Low noise compressor (Less than 50 dB) with a long shelf life.
- ◆ Condenser, control panel, shelves and trays are made of SS 304 with Teflon coating to protect from all kind of corrosion (SS316 as Optional)
- ◆ Tray spacing can be customized.
- ◆ The drying chamber is equipped with organic glass for safety and visibility.
- ◆ Condenser features pre-freezing function.
- ◆ Eco-friendly CFC/HCFC free refrigeration system.
- ◆ Features nitrogen valve and eutectic test device (optional).
- ◆ Acrylic Dry Chamber/Cold Trap has diameter of 250 mm which can accommodate diameter of Ø 200 mm Pre-freeze Shelves
- ◆ Sample load capacity : Standard (1.2L) Top Press (0.8L) with 10mm Thickness



## Application

Benchtop Freeze Dryer LFD-BT-100 Series from Labocon is ideally used to freeze dry samples such as plant material, waste products, organic tissues, and polymers. This unit finds use in polymers. This unit finds use in preservation of perishable material in their original state.



## Specification

MODEL	LFD-BT-101	LFD-BT-102	LFD-BT-103	LFD-BT-104
Type	Standard	Top Press	Manifold	Manifold Top Press
Capacity/Per Tray	1.2 litres	1.2 litres	1.2 litres	1.2 litres
Condenser Temperature	-55°C/-80°C/-90°C/-110°C at ambient temperature 20 °C to 26 °C			
Freeze Drying Surface Area	0.12/0.18 m <sup>2</sup>	0.08/0.10 m <sup>2</sup>	0.12/0.18 m <sup>2</sup>	0.08/0.10 m <sup>2</sup>
Pre-Freeze Shelf Dimension	Ø 200 mm	Ø 200 mm	Ø 200 mm	Ø 200 mm
Total no. of Shelves/Trays	3/4 : Shelves Space in mm 70/50 (Customizable)			
Water Removal Capacity/ Water Holding Capacity	3L/4L per 24 hrs			
Vacuum Degree	< 10 Pa			
Pump Flow Rate	2 Litres / sec			
Bottle Ø 22	244/366	147/196	244/366	147/196
Bottle Ø 16	460/690	279/372	460/690	279/372
Bottle Ø 12	820/1230	492/656	820/1230	492/656
Overall Dimension	565x420x(360/430) mm			
Weight	75 kg	80 kg	75 kg	80 kg
Power	970 W			
Power Supply	110-220V, 50/60Hz			
Catalog No.	9424144247	9424145247	9424146427	9424147247

## Specification of LFD-BT-105

MODEL	LFT-BT-105
Type	T-type
Condenser Temperature	-55°C/-80°C/-90°C/-110°C at ambient temperature 20 °C to 26 °C
Water Removal Capacity/ Water Holding Capacity	3L/4L per 24 hrs
Vacuum Degree	< 10 Pa
Pump flow Rate	2 Litres/sec
No. of Sealed Valves	24 pieces for 24 ampoules
Overall Dimension	565x420x(360+340) mm
Weight	70 kg
Power	970 W
Power Supply	110-220V, 50/60Hz
Catalog No.	9424148427



## Additional Features

1. Microprocessor controller LCD touchscreen display to set the protocol and operate and see the all the running parameters such temperature, Vacuum, Alarms all other running time
2. Low noise compressor-Single unit for -55°Degree C & Double unit for -80, -90, -110 Degree°C model with a Temperature Accuracy & Uniformity of  $\pm 0.5^{\circ}\text{C}$  .

## Optional Accessories and Features

1. Drying Chamber: Acrylic / SS304/SS316 Grade (Optional) with or without 8 port manifold for Flask/24-T Ampoules
2. Audio/Visual Alarms for power failure, voltage fluctuation, collector temperature reaches above/beyond threshold point, moisture detector/sensor in collector ,Low/High Vacuum,Compressor overload
3. Automated motor cooling features ensures continuous operation without stopping Vacuum Pump or Freezedryer
4. Drainage Valve with or without HEPA (99.9% 0.3 $\mu$  Efficiency) for disposal of stored water and other solvents
5. Vacuum sensor (Pirani Gauge)
6. Oil mist Filter,Odour control Filter
7. Vacuum break Valve & nitrogen Valve, Solvent trap,Cold trap, Vaccum Control
8. Eutectic point/ Sample temperature sensor Probes
9. Electric/Hot Air Gas Defrosting
10. RS-232 PC Connectivity Port and software
11. motor Power : Starts from 0.25 HP to 1HP depend upon optional feature addition to main Freeze dryer unit
12. Vacuum Pump:
  - Double stage Rotary Direct Driven (Comes by default with all our Freeze dryer systems) For aqueous and organic solvents (0.1Pa Maximum / 0.001mbar with Flow rate from 120L/min to 300 L/min.)
  - Hybrid Chemical Resistant (Optional) which is very resistant to harsh chemicals, less corrosion (Vacuum range up to 0.005 mbar with Flow rate from 120L/min to 300 L/min.
  - Anti suck back Valve
13. Vacuum Oil: Available in 1 L & 5L Pack.
14. Freezedryer and Vacuum Pump Stand
15. Featured with Automatic & Manual Vacuum ON/OFF
16. For Manifold: Flask capacity available from 50 ml to 3000 ml