

TOPLAB INDIA

"Serving Science with Solution"

Freeze Dryer



High Stability
Most Universal
Easy Installation
Competitive Price
Excellent after-sales Service

**Mainly Applied to Chemical, Biotechnology, Medicines
and Food Industry**

It is suitable for heat-sensitive material such as antibiotics, vaccines, blood products, enzymes hormones and other biological tissue.

Chemistry



Drugs



Biotechnology

Freeze dryer is a technical method, which pre-freeze the aqueous items, and then drying by sublimation in vacuum, the frozen item can be kept for long-term, and also can restore the original biochemical characteristics after adding water.

Compressor



Imported closed compressor refrigeration, use overlapping refrigeration technology, rapid cooling, low temperature cold trap, low noise, efficient and reliable, use silicone as freezing medium, the error is $\leq 1\text{ }^{\circ}\text{C}$, uniform drying effect.

Air Condenser



High efficiency air condenser, the fan blades are shaped according to the aerodynamics, which improve cooling capacity, and be more energy-efficient.

PID Control System, LCD Display



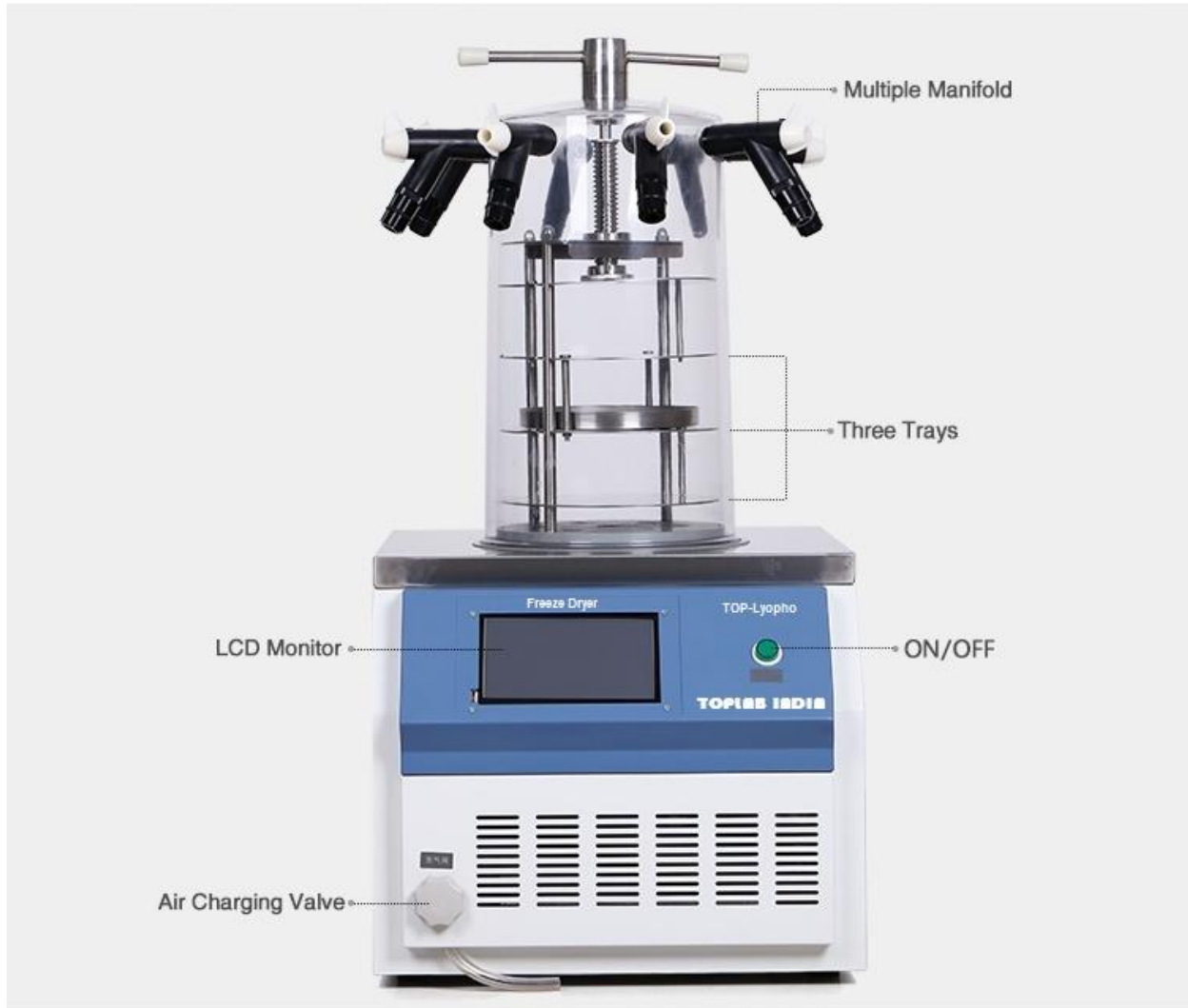
- 7 inch color LCD touch screen control, simple operation and powerful.
- ARM9 core control circuit design, 32M memory, fast response and large data storage.
- The control system automatically save data and can be viewed in the form of real-time curve and the historical curve, the whole freeze-drying process is clear.
- Repeated freezing and drying curves, USB memory can be extracted to a computer for data comparison and printing.

Drying Chamber



- Colorless and transparent injection-molded polycarbonate drying chamber, corrosion-resistant, shatterproof, non-adhesive, high transparency, sealing strong. We can observe the whole freeze-drying process clearly.
- Suitable for drying materials loading in the vials and compression seal in vacuum, that also can be used in sample frozen of different materials and continuous operation.

PRODUCT INTRODUCTION



PRODUCT SPECIFICATION

- TOP-Lyopho designed accord with international standards of Green environmental friendly.
- Can storage lyophilized data.
- Upload software can print curve.
- Large opening trap, no coil inside, with samples pre-freeze function.
- The control system has 36 lyophilized curve program selections, each program contains a 40-stage temperature control settings, enabling lyophilization process parameters record variety of materials.
- Heating is more stable, no overshoot, more accurate temperature control.
- The configuration inflation valve, rechargeable dry inert gas.
- Partitions adjustable temperature control, can be explored, pilot and production processes.
- With both manual and automatic modes, there can be freeze-dried curve manually explore new materials.
- Cooling trap and control panel were made by stainless steel, corrosion-resistant, easy to clean.

Product Parameters

Model		TOP-Lyopho
Power Supply (V/Hz)		220/50
Heating Power (W)		950
Specifications		Gland manifold
Freeze Area (m ²)		0.08
Sample Tray Size (mm)		Ø180*3
Plate Load Capacity (L)		1
No-load Temperature (°C)		<-56
Vacuum Degree		<10Pa
Interlayer Spacing (mm)		70
The Number of Schering Bottles	Ø22mm	165
	Ø16mm	285
	Ø12mm	560
The Number of Multiple Manifold		8
The Number of Eggplant Shape Bottle		8
Ability to Capture Water (Kg)		3
Cold Trap Size (mm)		Ø 215*160
Machine Dimension (W*H*D, mm)		450*580*380

DETAIL DISPLAY



Vacuum Pump — vacuum pumping, prevent oil return



Multiple Manifold — connecting eggplant shape bottle