



**Innovative Fine Teknowledge**

ISO 9001:2000

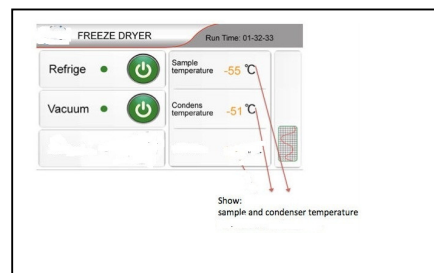
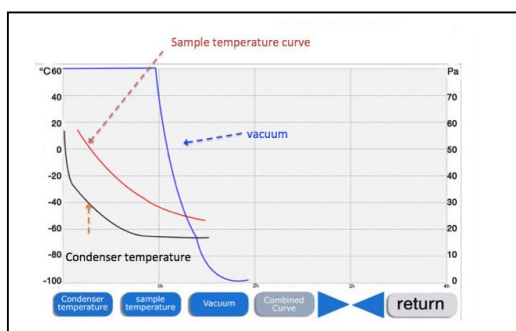
## **FREEZE DRYER - 4Kg CAPACITY -80DEG C MULTI TASK BENCHTOP MODEL**

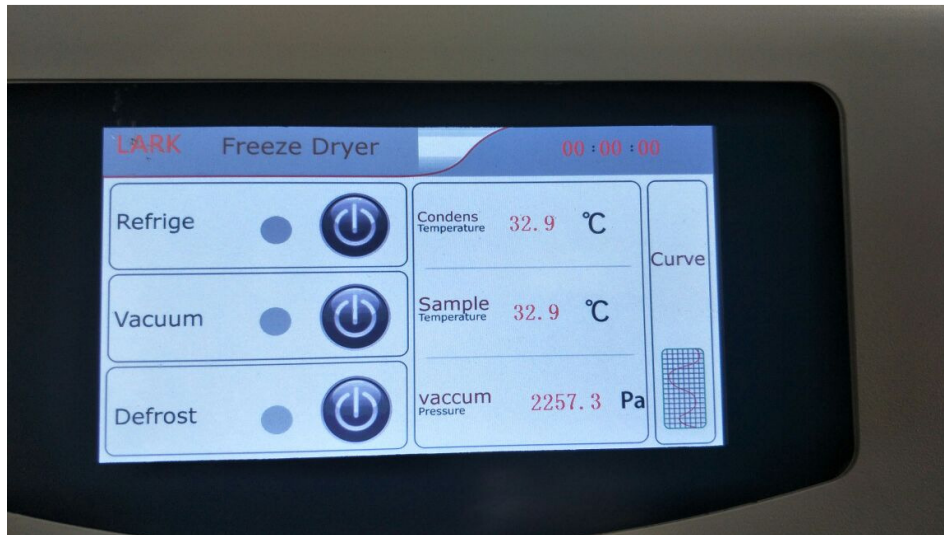
Drying in : Flaks , Stoppering Tray(fruits, vegetables, leaf, tissues, petri plates,Vials),  
Ampoules (ampoule adaptor -8Nos provided) & in built pre freezing trays-ISO CERTIFIED

**Model: Penguin Classic -Fully automatic-TOUCH SCREEN GRAPHICAL DISPLAY & CONTROL**

**Model: Penguin Classic -BENCHTOP**

Vacuum freeze-dry technology, or sublimation dry, is a method of moisture - bearing substances frozen in advance become dry in the vacuum owing to vapouring away the moisture. The substances frozen can be well preserved for a long time and returned to their former state once being watered without losing their bio - chemical properties. This technology has a broad use in medicine, pharmacy, food industries and bio - products fields etc.





**TOUCH SCREEN CONTROLLER**

#### **CHARACTERISTICS:**

- This machine is used **Germanic compressor**, (danfos) which cools fast, and can get low temperature.
- The temperature, vacuum are exactly and intuitionistic displayed with **LCD TOUCH SCREEN GRAPHICAL**, **microprocessor based controller display sample temp, condenser temp and vacuum level both graphically and digitally.**
- Display digitally and graphically condenser temp, sample temperature and vacuum level in Pascals
- **Electrical defrost facility** & drain valve
- This machine is used **Germanic compressor**, (danfos) which cools fast, and can get low temperature.
- The temperature, vacuum are exactly and intuitionistic displayed with **LCD TOUCH SCREEN color GRAPHICAL**
- Display digitally and graphically condenser temp, sample temperature and vacuum level in Pascals/mbar & run time
- **Automatic electrical defrost facility**
- The cover of dry chamber is made of colorless and clarity organic glass, this makes it easily to observe the total vacuum process.
- Vacuum pump is connected with main machine with international standard KF fast joint, It is concision and stable.
- Can pre-freeze substances for saving the cost of refrigerator.
- HCFC/CFC CASCADING REFRIGERATION SYSTEM
- Caster Wheel for easy mobility

**MULTICOLOR TOUCH SCREEN GRAPHICAL DISPLAY** , Shows temperature, vacuum curve and run time .

### Technical Parameters

- **Ice Condensor temperature** : < -75 to -80deg C. depends on RT
- Maximum Ice condensing capacity: 4Kg/24hour
- Temperature sensor: pt 100-2Nos for sample temperature and condenser temperature
- **Refrigeration System cascading inbuilt compress(Two Nos): HCFC/CFC Free**
- **Touch screen graphical display microprocessor control with display of condenser temp, sample temp and vacuum level**
- Drain Side mounted with valve

**Stainless Steel drying chamber with 8-port manifold with rubber valve sealing mechanism and SS trays-3Nos**

3 drying shelves with 3 SS tray with tray sealing device , 12 flasks, 100ml, 150ml, 250ml, 500ml, 1000ml & 2000ml—each 2Nos Pre freezing trays-SS three Nos

8-Ampoule Adaptor & 100nos Of 2ml Ampoules-500Nos. Disposable Gas torch, 2ml vials - 500Nos with rubber septum and crimper with aluminum cap.

- **Consuming Wattage** : 2000VA, **Power** 200V-240v, 50 Hz. Indian standard

### **VACUUM PUMP -HIGH EFFICIENCY AND FASTER LYOPHILIZATION**

- Vacuum pump displacement capacity (L/m) - 150
- Limit Vacuum (mbar) -  $2 \times 10^{-3}$
- Electric machine power (v/kw) - 380 220/0.37
- Inner diameter - 25φ
- Net weight - 27kg
- Shape & Size (Lx Wx H) - 478 x 148 x 277

NRV(solenoid valve-**Non return valve**-avoid reverse of oil to condenser & **Thermal protector** for over heat of vacuum pump motor. **Oil Mist filter**.

### **ADDITIONAL ACCESSORIES**



**Ampoule Adaptor   Glass ampoule   Serum Bottle, Septum & aluminum Cap   Crimper**



WIDE MOUTH FLAKS WITH CAP



ROUND BOTTOM FLAKS VARIOUS SIZE

### BASIC CONTENT OF THE PACKAGE:

Basic unit come with a SS/transparent drying chamber with 8-port flask manifold (rubber valve)

*3 drying shelves with 3 SS tray with tray sealing device , 12 flasks, 100ml, 150ml, 250ml, 500ml, 1000ml & 2000ml—each 2Nos Pre freezing trays-SS three Nos*

*8-Ampoule Adaptor & 100nos Of 2ml Ampoules-500Nos. Disposable Gas torch, 2ml vials -500Nos with rubber septum and crimper with aluminum cap.*

Condenser with pre freezing facility,

Vacuum pump lark make with 150 lit/min displacement, NRV & Thermal protector to prevent vacuum pump from over heat. Exhaust filter console and filter to avoid oil mist and odor

Additional spare exhaust filter-1No. 5lit vacuum oil and vacuum grease-1box.

Suitable 5KV stabilizer

Graphical Larger **Color Touch Screen** display

Microprocessor controller with touch screen graphical display. *Display of condenser temp, sample temp, vacuum level,*

*MSME, NSIC, ISO CERTIFIED COMPANY*

### CONTACT:

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