## Specification for Lab Freeze Dryer

- System should be able to perform product drying capacity/Performance minimum 2kg of sample or more in 24 hours.
- System should have a Stainless steel 316L grade Ice condenser which have Ice condensing capacity minimum of 2.5kg
- ◆ System should have Ice Condenser temperature minimum −55 deg C at ambient room temperature of 25 deg C.
- Stainless steel high grade SS 316L with Ice Condenser holding Capacity 3.5 liters.
- System should facility with control vacuum using Electromagnetic valve to reduce drying process time.
- Facility to dry round bottom flasks.
- Should include facility to find out the product temperature while in process by using the vapour pressure reading.
- ◆ Should have minimum 6 connections with individual control rubber valves along with stainless steel filter insert to prevent dried product lost.
- Necessary filters for round bottom flask to prevent loss of product during drying.
- ♦ Should provide all accessories for drying in ampoules long term microbial cultures.
- ◆ Suitable hybrid pump with a suction capacity of 2.3 m³/h, final achieve vacuum level 0.001 mBar at 230 V, 50/60 Hz along with Pirani Vacuum Sensor control (Highly accurate vacuum sensor).
- Vacuum control for optimization/reduction of process times through electromagnetic pressure control valve to reduce drying process time.
- Round Bottom & Wide mouth Flask of 250-500 ml: 6-12 flasks as well as adaptors for bottles.
- Graphic LC- Display showing process data like ice condenser temperature, process time, section time and vacuum.
- Necessary Stainless Steel filters for round bottom flask to prevent loss of product during drying.

Shawandub

Mun

- Digitally displayed ice condenser temperature and indirect Determining of the product temperature corresponding to the vapour pressure curve above ice, vacuum control for optimization of process times.
- Easily accessible ice condenser, simple facilities for defrosting, cleaning and decontamination (GMP/GLP requirements), drain valve included.
- ◆ Conversion of product temperature and vacuum according to the vapour pressure curve above ice
- Rubber valve should be compatible with directly connect to Round bottle flask.
- Optionally quote for Round bottles 250ml, 500 ml, Wide mouth bottle with filters 250 ml, 600 ml, 1200 ml, 2000 ml

Mamarelub.