

# Freeze dryer FD-50



## FD-50 Freeze dryer introduction

The model FD-50 is one of the smallest freeze dryers made by KEMOLO. Different from homemade freeze-dryers or mini benchtop laboratory freeze-dryers, the FD-50 freeze dryer is an industrial type pilot freeze-dryer, or it can be regarded as a small commercial freeze-dryer for trial production, but with a cheaper price. The FD-50 is not for laboratory in research institute or university, but for investors or companies to make freeze-dried samples or develop different products to trial the market. Through various pilot producing to accumulate freeze drying data and experiences before mass production.

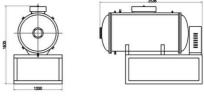
### Application of the freeze dryer

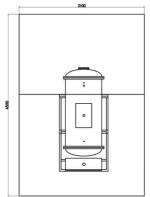
Freeze drying technology is applied to process a variety of materials. The FD-50 freeze dryer is a mini lyophilizer among all models, and it is used in all conceivable kinds of fruits, vegetables, meals, meat, shrimp, fish, seafood, pets food, herbals, plants extraction, coffee, milk; all kinds of biological products, healthy products.

#### The feature of FD-50 freeze dryer

- 1, Integrated structure, all accessories assembled together with the freeze dryer chamber, and cooled by air cooling condenser, no water consumption during freeze drying process.
- 2, The entire process is fully automatic, monitored and controlled by a touch screen or via mobile devices. The FD-50 freeze dryer operated by only 1-2 people only for loading and unloading.
- 3, The historical production data is recorded and shown as a graph, the data can be downloaded as an excel file. There are 4 languages (English, Spanish, Russian, Chinese) in the touch screen (HMI) for workers whom cannot speak English.







#### Technical specification

Model	FD-50
Capacity	50kg/batch
Vapor Condenser Temperature (°C)	-45°C
Shelf Temperature (°C)	From -30°C to 100°C
Product Cooling	-30°C
Shelf area	5.0m <sup>2</sup>
Refrigeration compressor	Low temperature
Refrigerant	R404A
Cooling way	Air/water cooling
Vacuum pump	Double stage
Ultimate vacuum level (Pa)	10 Pa
Installed power	12kW
Defrost way	By hot water
Control system	PLC with HMI; Recipes setting, Data records
Installation area (m²)	14 m² (estimated)
Chamber–over all dimension	2700*1200*2000mm (L*W*H), SUS304
Estimated Weight (kg)	2000kg