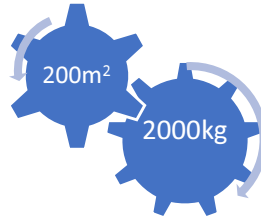


Freeze dryer FD-2000



FD-2000 Freeze dryer introduction

The input capacity of FD-2000 is two tons per batch. The chamber of the FD-2000 freeze dryer will be loaded by one 20 feet container and one 40 feet container. The FD-2000 freeze dryer is used for producing top quality lyophilized food. The water in the fresh product is quickly frozen to -35°C becoming ice. And the ice is sublimated in a vapor and removed out of the product, collected on a low temperature vapor condenser.

The product is dried 100% natural, without shape changing, color changing, nutrition lost, flavor lost, longer shelf time without additives and preservatives. The FD-2000 freeze dryer is widely used in food industry to freeze dry fruits, vegetables, plants, meat, sea food, cooked food, milk, coffee, pet food etc.

The fresh product is pre-frozen to -35°C in an individual quick freezer before entering freeze dryer. High heat transfer coefficient heating plates (thermal property: $160\text{W/m}\cdot\text{K}$) are used to speed up freeze drying process. The efficiency of thermal is 11.42 times higher than traditional freeze-drying equipment. To finish a batch of production, it takes 12 hours only for many kinds of food. Freeze-dry consumes a lot of power. To save energy, solar heating and steam is introduced to our freeze-dry system. The heat from refrigeration system is recycling, and the working load of compressor is reduced to 50-75% load at the middle and late stage of freeze dry, adjusted automatically according required cooling capacity. Ice on the vapor condenser could be recycled and filtered for re-use. By shorten the freeze-drying time and introducing energy saving technology, the KEMOLO freeze dryer could save 30-50% energy compared with traditional freeze-drying equipment.



Technical specification

Model	FD-2000
Capacity	2000kg/batch
Vapor Condenser Temperature ($^{\circ}\text{C}$)	-45°C
Shelf Temperature ($^{\circ}\text{C}$)	Ambient temperature to max. 100°C
Product Cooling	In IQF (-35°C)
Shelf Area	200m^2
Trolley	Included
Rail I steel, elbow & IQF	Included
Refrigeration compressor	Screw type
Refrigerant	R404A (Users provide)
Cooling way	By air/water cooling
Vacuum system	Vacuum pump + booster
Ultimate vacuum level (Pa)	10 Pa
Installed power	305kW
Defrost way	By hot water
Control system	PLC with HMI; Manual & Auto control, Records
Installation area (m^2)	400m^2
Chamber dimension	$14660*2600*3200\text{mm}$ (L*W*H), SUS304
Estimated Weight (kg)	25000kg