Food Freeze Dryer & Manufacture Freeze Dryer

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Compact Food Freeze Dryer

Compact food freeze dryer, humanized design, small size, compact structure, high degree of automation, only one button to complete the whole process of freeze drying. Suitable for personal and business use.Used for vegetables, aquatic products and meat, seasonings, instant beverages, convenience foods and so on.

01 Features:

- Humanized design of the whole machine, plug and play, beautiful appearance, compact structure, high cost performance.
- Chamber and trap integrated design, sublimation channel is shorter, conducive to a large number of rapid sublimation of water vapor.
- Original imported refrigeration compressor, large refrigeration capacity, high efficiency and
- energy saving, long service life, low noise.
- Adopting aerospace-grade high transmittance plexiglass door, which can observe the whole
- process of sample freeze-drying in real time.
- Easy operation, high degree of automation, only one button to complete the whole process of freeze-drying.
- Preset standard freeze-drying process, no need to understand the complicated freeze-drying principle and freeze-drying process, one key process import.
- Intelligent fault diagnosis technology, displaying fault information in text form, which greatly facilitates equipment maintenance and fault repair.
- Safety locking function. Prevent misoperation to modify the system status and process parameters, resulting in lyophilization failure or damage to the instrument.
- Intelligent energy-saving temperature control technology of the space, with high precision of temperature control, remarkable energy-saving effect and stable and reliable system.
- One-key fast defrosting technology, safe and efficient.

02 Specifications

Model	INOFD-1F	INOFD-3F	INOFD-4F	INOFD-6F
Freeze-drying area （㎡）	0.1	0	0.43	0.67
Condenser temperature(℃)	≤ -45(no load)	≤-45℃ (no load)	≤-45℃ (no load)	≤-45℃ (no load)
Ultimate vacuum(Pa)	≤5 (no load)	≤10Pa (no load)	≤5Pa (no load)	≤5Pa (no load)
Qty of shelf	3+1	4+1	5+1	5+1
Tray size(mm)	280x140	540x200	380×225	600×225mm
Material capacity	1L (liquid)	4L (liquid)	4L (liquid)	6L (liquid)
Power supply	AC220V, 50Hz	AC220V, 50Hz	AC220V, 50Hz	AC220V, 50Hz
Power(kW)	1	2	1.5	2.5
Dimension(mm)	575×370×565	700x510x670	710×520×850	915×550×950mm
Weight(Kg)	40	80	80	120

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Manufacture Biomedical Freeze Dryer

Medical Freeze Dryer INOL Freeze Dryer has changed the tedious operation of the drying process in the past, prevented the contamination of materials and realized the automation of drying sublimation. This model is equipped with professionally designed LYO-CONTROL control system and special SH-HPSC-IV modular controller, which has high reliability and stability; the control system is professionally designed, which can save multiple sets of process formulas and improve the rate of process optimization. It can memorize the freeze-drying curve, come with u-disk extraction function and remote PC control.Widely used in blood products, vaccines, biological products, chemicals and other pharmaceutical fields, especially in the western medicine section.

01 Features:

- The partition plate is resistant to high pressure, high flatness, and good temperature uniformity.
- Optimized control technology of freeze-drying curve, which can control the rate of temperature reduction in the pre-freezing stage, and at the same time can control the rate of temperature increase of the sample and the value of vacuum degree in the current stage in the sublimation and resolved drying stage.
- Gas infusion design and control technology, strong water trapping ability, high drying efficiency.
- Unique mobile + fixed dual-channel box door sealing device dual-channel sealing technology, in the steam sterilization at the same time as the fixed silicone rubber sterilization.
- Vacuum degree adjustment during drying operation to avoid blistering and bottle blowing of special substances and improve drying efficiency.
- Industrial-grade embedded touch screen + special SH-HPSC-IV modular controller, the system is stable and reliable, with high control precision.
- LYO-CONTROL control system, which can save multiple sets of process recipes, and at the same time can make real-time adjustments to the process during the drying process to improve the rate of process optimization.
- Flexible manual+automatic control mode, manual for figuring out the process, automatic for batch production.
- Standardly equipped with powerful LYO-MEGA upper computer control system, which can record and save operation data, curves and alarm records for a period of up to 10 years to improve product traceability; at the same time, it is convenient for observation, operation and troubleshooting.
- User level and password can be set up for decentralized operation and management to meet GMP requirements.
- Non-standard customization is available according to user requirements.

02 Specifications

Freeze Dryer
Crafted with GMP-compliant stainless steel. Integratedchamber design reduces leakage risks with a simple,easy-to-clean and sterilize interior structure.

Shelf Assemblies
Patented welding technology ensures even tempera-ture distribution and effcent heat exchangeon tray layers.

Cold Trap
Steam flow guidance maximizes cold trap utilization,ensuring uniform ice formation

Refrigeration System
Independent circulatory refrigeration system offersstrong cooling capacity with lowenergy consumption.

Vacuum System
LEYBOLD Or EDWARDs pumps for high-performance vacuum system enhances sublimation and drying efficiency.

Pneumatic System
Pressure monitoring and precise control for accurate airpeessure. Valves equipped with position indicators forsystem can tral.

Hydraulic System
Internationally renowned hydraulic components forstability, Realtime pressure monitoring and precisecantrol

Pneumatic System
Pressure monitoring and precise control for accurate airpeessure. Valves equipped with posi tion indicators forsystem control.

Contral System
Advanced PIC and SCADA systems for easy management of complex process cycles.

CIP System
Internationally renowned cleaning components forthorough cleaning Utilizes mist spraying andpogrammed actions for thorough shelf cleaning.

SIP System
Pure steam achieved through pulsating air intake andsteam injections, integrity testing and pressure relief filter for safe sterilization.

Automatic Loading and Unloading System
This system can automatically perorm materialtrans-port and loading/unloading operations in an A-grade environment within a B-grade background

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03 Specifications

Model	Freeze-drying area (㎡)	Ultimate vacuum (Pa)	Condenser temperature(℃)	Water condenser capacity (kg/Batch)	Shelf temperature(℃)	Tray size(mm)	Qty of shelf	Penicillin bottle volume φ 16	Dimension(mm)	Power(kW)
INOL-0.5	0.5	≤1	-75	>10	-55~+80	410x410	3+1	2058	2660x1450x2300	10
INOL-1(T)	1.15	≤1	-75	>20	-55~+70	480x600	4+1	4788	1640x1100x1830	7.5
INOL-2(T)	2	≤1	-75	>40	-55~+70	610x910	4+1	9216	2500x1560x2020	12
INOL-3(T)	3.3	≤1	-75	>60	-55~+70	480x600	6+1	13824	2500x1560x2300	15
INOL-5(T)	5.25	≤1	-75	>100	-50~+70	750x1000	7+1	22540	4000x1360x2800	24
INOL-10(T)	10.5	≤1	-75	>200	-50~+70	990x1520	7+1	45360	5500x1670x2800	46
INOL-20(T)	20.2	≤1	-75	>400	-50~+70	1210x1520	11+1	84942	6500x1980x2800	85
INOL-30(T)	30	≤1	-75	>600	-50~+70	1520x1800	11+1	131967	7500x2280x2900	160
INOL-40	41	≤1	-75	>800	-50~+70	1520x1800	15+1	179955	7500x2280x3300	180
INOL-50	51	≤1	-75	>1000	-50~+70	1520x2250	15+1	-	6200x6200x2900	200
INOL-60	60	≤1	-75	>1000	-50~+70	1520x2250	18+1	-	9800x2500x3300	230

Specialty Materials Preparation Dryer

INOL-M patented design for a new materal processing dryer
,combining years of industry applicaion experience and a completelynew design based on aerodynamics
meets aerodynamic requirements, and prevents material drift. Providing technical support for enterprises and institutions.

01 Features:

- Advanced Design: Employs 3D design andaerodynamics to reduce airflow from theair intake and maintain pressure balanceeffectively.
- Air Filtration: Indudes air intake fltration asstandard to prevent moisture absorption infreeze-dried products
- Expertise:Adoption of endpoint judgment technology specially designed for new material products, which is conducive to optimizing the freeze-drying process and reducing energy consumption.
- Effcient Operations: Tailors freeze-drying processes andcontrol technology to cut equipment power consumptionand operational costs
- Centralized Control: incorporates a modern centralizedcontrol system for automated, reliable operation
- Safety Assurance: Features multiple protection systems for equipment, product,and production environment safety.
- Parameter customization.

Manufacture Food Freeze Dryer

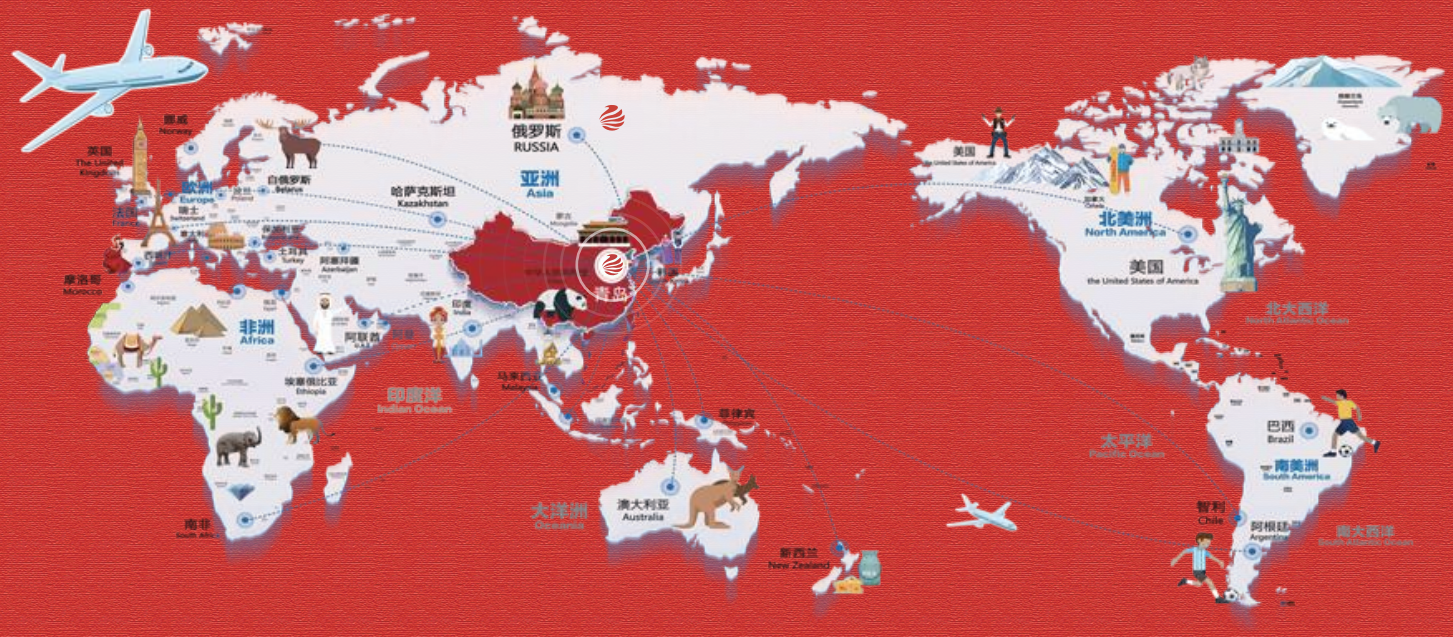
Manufacture Food Freeze Dryer is used for freeze drying of more than 20 types of foodstuffs, such as meat, vegetables, fruits, aquatic products, beans, beverages, soups, health products, etc. Its products meet the requirements of naturalness, nutrition, and ease of consumption.

01 Features:

- Pre-freezing and drying are separated structure and carried out at the same time, which improves the freeze-drying efficiency and shortens the freeze-drying time.
- Aerospace grade alloy partition material, double-sided radiant heating, radiation rate of more than 90%, good temperature uniformity.
- High-efficiency mixed-type refrigerant carrier medium, lower freezing point and higher boiling point, heat exchange efficiency
- Optimized control algorithm of drying curve, which can control the rate of temperature rise of the products and the value of vacuum degree in the drying stage.
- Professional gas infusion design and control technology, strong water trapping ability, high drying efficiency.
- Industrial-grade embedded touch screen + special SH-HPSC-III modular controller, stable and reliable system, high control precision.
- Professionally designed FD-MANAGER control system can save multiple sets of process formulas, while real-time adjustments can be made to the process during the drying process to improve the process optimization rate.
- Flexible manual + automatic control mode, manual for figuring out the process, automatic for batch production.
- Accurate sensor calibration function to ensure the accuracy of process parameters for long-term use.
- User level and password can be set up for decentralized operation and management.
- Optional powerful LYO-MEGA upper computer control system can record and save operation data, curves and alarm records for up to 10 years, which improves the traceability of the product; at the same time, it is convenient for observation, operation and troubleshooting.
- Non-standard customization is available according to user requirements.

02 Specifications

	Freeze-drying area (㎡)	Ultimate vacuum (Pa)	Condenser temperature(℃)	Water condenser capacity (kg/Batch)	Shelf temperature(℃)	Tray size(mm)	Qty of shelf	Material capacity (kg)	Dimension(mm)	Power(kW)	Prefreezing method
INOL-50F	5.1	≤10	≤55	80	-40~+90	1650x620	5+1	50~75	2500x1800x2400	24	In-situ
INOL-100F	10.2	≤10	≤55	160	-40~+90	1650x620	10+1	100~150	3200x1800x2400	45	In-situ
INOL-200F	21	≤10	≤55	320	-45~+90	1750x930	13+1	200~300	4300x2500x2500	60	In-situ
INOL-300F	30.3	≤10	≤55	480	-45~+90	1750x1240	14+1	300~450	6000x2300x2700	90	In-situ
INOL-500F	50	≤10	≤55	800	RT~+90	2900x1200	15+1	500~750	10000x2750x3000	120	Quick Freeze 2 Trolley
INOL-100F	100	≤10	≤55	1600	RT~+95	5800x1200	15+1	1000~1500	Reference to drawings	200	Quick Freeze 4 Trolley
INOL-200F	200	≤10	≤55	3200	RT~+95	12000x1200	15+1	2000~3000	Reference to drawings	300	Quick Freeze 8 Trolley



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