

FD - 3025

Freeze Dryer Lyophilizer



EPCC / PRODUCTS / APPLICATION / SOFTWARE / ACCESSORIES / CONSUMABLES / SERVICES

Analytical Technologies Limited

An ISO 9001 Certified Company

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►► Features:

Chamber:

- Rectangular type dry chamber, Pre-freezing, drying in same chamber without any manual operation.
- Drying chamber & shelves made by polished SS 304 or material contact parts SS316 is optional, adopted high transmittance plexiglass door, easy to observe, inside round corner, easy to clean.
- Oil circulation heating type with high temperature precision control, usually suitable for medical, bio field, electric heating type suitable for food field.
- GUNDFOS shielded circulating pump and PID control electric heating component; circulation liquid used Low-temperature low-viscosity silicone oil.
- Shelves heating system uses safe voltage, while heating rate controllable. (Electric heating type)

Condenser(cold trap):

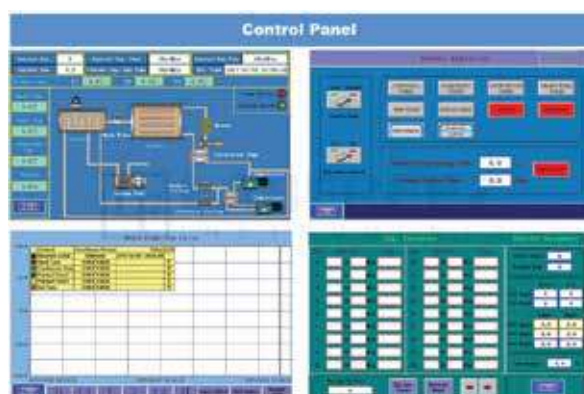
- Made by SS304 drum-type cold trap, with high transmittance plexiglass door. Integrity or separately condenser and chamber can be chosen.
- Patented gas diversion technology, cold trapping ice even, ice-catching ability.

Refrigeration:

- Dual-stage cooling, famous hermetic compressor which is low noise, capillary throttling technology, air-cooled or water-cooled is available.
- Brazen plate heat exchanger
- Environmental-friendly refrigerant.

Control:

- Flexible manual + automatic control, manual grouping process, automatic batch production.
- PLC control with 7" LCD touch graphic display, can be operated in auto, semi-auto and manual mode.
- Shelf temperature adjustable, controllable, explore suitable for pilot and production processes.
- 32 programs, each program can be set as 36 segments, curve can be stored, processing parameters can be modified in real time.
- Built with recorder, with USB interface data can be exported to computer for analysis, FD-LYO software & computer is optional for controlling by remote way.
- sensor calibration function, to ensure long-term use of the accuracy of the measured value.
- Real-time alarm display and historical alarm inquiry function, convenient fault diagnosis and equipment maintenance.
- Users can set the level and password, decentralized operation and management.



Vacuum:

- Two-stage rotary vane vacuum pump, vacuum is automatic adjust and can be set (optional).
- Ultimate vacuum can reach 5 Pa, in order to reach highest vacuum, Leybold brand vacuum pump is optional.



Others:

- Normal type suitable for bulk raw products like food, fruit, herbal medicine and bio material. Stoppering type suitable for vials comes with cap, to stoppering caps into the vials.
- Inflatable (water) valve with a safety diaphragm valve can be connected to the inert gas source, dry and filled with inert gas, to extend the shelf life of the material.

►► SPECIFICATIONS:

Drying chamber	
Freeze-drying area:	2.25 m ²
Shelves quantity:	5+1pcs
Shelf Temperature:	-50°C ~70°C
Shelf Temp. Accuracy:	± 1°C
Shelf spacing:	80-100mm
Size of shelves:	500*900*20 mm
Vials load capacity	
Φ22 vials (PCS)	4100
Φ16 vials (PCS)	7800
Φ12 vials (PCS)	14400
Condenser	
Max temperature:	≤-75°C
Water-capture capability:	40 Kg/24h
Material Capacity:	25L
Defrost:	water soaking
Material:	SS304 or SS316
Basic parameters	
Vacuum degree:	≤5Pa
Dimension:	1200*2100*1700 (mm)
Max Power	13.5kw
Weight	2300 kg
Data Process:	RS232 Interface or USB
Control method:	PLC auto + manual
Refrigeration unit	
Compressor:	Bitzer or TECUMSEH. 2 set
Power:	7 Kw
Refrigerant:	R507 & R23
Cooling type:	Air cooled
Pressure controller:	DANFOSS
Expansion valve:	DANFOSS

►► **Optional items for FD Pilot type:**

Item No.	Item Name
FDF-3101	Stainless steel shell(SS304 or SS316)
FDF-3102	Rotary Device
FDF-3103	Control software
FDF-3104	PC
FDF-3105	Eutectic point tester
FDF-3106	Leybold vacuum pump
FDF-3107	Defrost device(for special model)
FDF-3108	Air compressor (for Pneumatic door opening)
FDF-3109	Vaccum pump solenoid valve
FDF-3110	External material change to SS304
FDF-3111	Condenser, trays, shelves change to SS316
FDF-3112	6 port manifold system (extra port customizable)
FDF-3113	Data logger
FDF-3114	Backfill filter
FDF-3115	Capacitance type vacuum gauge
FDF-3116	Vacuum regulation system

HPLC Servicing, Validation, Trainings and Preventive Maintenance :

HPLC Servicing :HPLC Servicing : We have team of service engineers who can attend to any make of HPLC promptly @the most affordable cost.

Trainings :We also take up preventive Maintenance to reduce downtime of HPLC's Trainings.

AMC's/CMC :AMC's/CMC :We offer user training both in-House and at customer sites on HPLC principles, operations, trouble-shooting.

Validations :Validations :We have protocols for carrying out periodic Validations as per GLP/GMP/USFDA norms.

Instruments :Instruments :We offer instruments/Renting Services Modules like pumps,detector etc. on Rent.



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Spectrophotometer



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Counter



Optical Emission
Spectrophotometer



DSC/TGA



Semi Auto Bio
Chemistry Analyzer



HEMA 2062
Hematology
Analyzer



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Reader/Washer



URINOVA 2800
Urine Analyzer



Total Organic
Carbon 3800



Fully Automated
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Ion Chromatograph



Water purification
system

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Reach us @



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