

FREEZE DRYING SYSTEM

LYOPHILIZATION



ABOUT US

VIKUMER is a known Freeze Dryer Lyophilizer Supplier locate in Shenzhen, China. Also, we are one of the earliest enterprise in China engage in freeze drying equipment, in the past 2 decades, VIKUMER have get remarkable achievement in the field: High efficient, Reliable, Stable etc. our products' features have known by global customer and have supplied over 200 sets commercial and industrial freeze dryers around the world, as well as numerous lab/pilot models.

We have well-developed quality control system and skilled QA team stay in workshop supervise the production, strongly ensure the manufacturing qualify our state-of-the-art design.

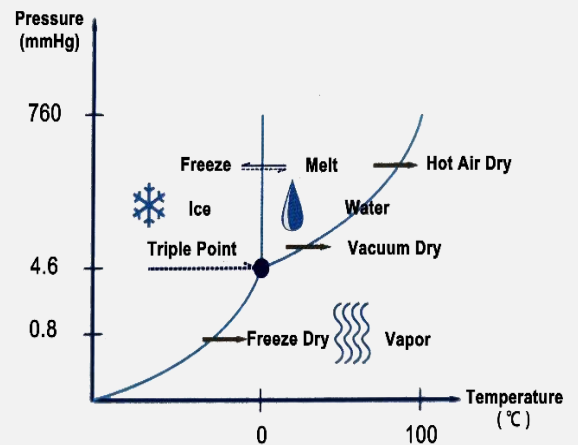
We have an experienced engineer team that close with you, consider all factors and provide you the best freeze drying solutions according to user requirements or specifications you listed. Whatever you are in pharmaceutical, biological, chemical, diary, floral or food industry, VIKUMER could provide you the right size freeze dryer machine which could fully customizable, from small lab investigation scale to medium pilot production and commercial/industrial bulk production plant.

Strict quality control, extraordinary performance and cost-effective prices, our freeze dryer and freeze drying plant could compare any brand in its class.

We warm welcome your visit and cooperation.

FREEZE DRYING TECHNOLOGY

The fundamental principle in freeze drying is sublimation, a water remove process by freezing the raw material to solid phase, reduce its surround pressure and proper give energy, enable water sublime from solid phase(ice) direct to gas phase(vapor), the sublimation drying process skip liquid phase.



Products go through freeze drying process, will have great advantages compare other drying method even its original type, freeze dried products well keep its original characters like appearance, taste, color, nutrition, no shrink, packages no need refrigeration, only 3% to 10% weight but nutritional or ingredients contain same with original form, shelf life up to 20 years, could quick rehydration by add water or solvent if need.

Freeze dryer machine design and build based on phases (Liquid, Solid, Vapor) interconversion under a certain range, it's a system support by interconversion research and integration include vacuum, freezing, heating, mechanical transmission, automatic control etc.

Freeze drying technology could widely apply to various industrial, in principle, almost all products could success drying and storage in room temperature for a long time. Current, freeze drying technology have widely use in food, pharmaceutical, biological, diary, chemical etc.



LGJ LAB FREEZE DRYER

LGJ laboratory freeze dryer with bench top design, compact size, removable drying chamber and shelf module, programmable touch screen controller enable storage/modify/create tens freeze drying recipes, real-time check the raw material temperature, ice condenser temperature and vacuum degree. History data could export to U-disk. Widely applications in Pharmaceutical, biological, chemical, foods etc. with bulk loading, vials or flasks loading.



Model	LGJ-10	LGJ-10-TP(Stoppering)	LGJ-10-FT (Mainfold)
Shelf Area	0.12m ²	0.08m ²	0.12m ²
Drying House Size	Φ260×430mm	Φ260×490mm	Φ260×465mm
Material Trays	4EA	3EA	4EA
Ice Capacity	2L/4L		
Condenser Temp.	-55°C/-80°C		
Vacuum	<5Pa		
Defrosting	Natural Defrosting		
Control Type	Touch Screen		
Power Install	970w/1200w		
Electric	110V/220V		
Install Size	615×450×800mm (-55°C)		
	850×680×835mm (-80°C)		



BFD PILOT FREEZE DRYER



BFD freeze dryers have hot sale 15+ years, combine many features of commercial models, affordable price, rich configurations and perfect controller system, designed could fit lab research or pilot production.

FD-PILLOT control system combine PLC/Touch screen, enable the lyophilizer could apply to almost all freeze drying process, Pilot production or deeper research. As well as complete

authority to create/modify/storage recipes, check/storage/export freeze drying data. Manual operation and automatic operation could select in control page.

Model	BFD-50P	BFD-50P-TP	BFD-100P	BFD-100P-TP
Shelf Area	0.69m ²	0.51m ²	1.04m ²	1.15m ²
Ice Capacity	10L	10L	15L	15L
Shelves	4+1	3+1	6+1	4+1
Trays	4EA	3EA	6EA	4EA
Shelf Temp.	-45°C to +70°C	-45°C to +70°C	-45°C to +70°C	-45°C to +70°C
Condenser Temp.	-80°C	-80°C	-80°C	-80°C
Vacuum	<5Pa	<5Pa	<5Pa	<5Pa
Defrosting	Electric	Electric	Electric	Electric
Power Install	5.5kw	6.5kw	6.5kw	7.5kw
Size	1000*800*1450mm	1000*800*1450mm	1200*850*1700mm	1650*1100*2000mm
Vials Capacity(φ22)	/	1000Pcs	/	2400Pcs

LYO FREEZE DRYER



LYO freeze dryers are our hit product that designed All-Include body, the model designed meet CGMP and could satisfy any rigorous investigation or pilot production demand. Versatility, multifunction, and its economic price could compare and beat any brand in its class.

Model	LYO-068	LYO-120	LYO-200
Shelf Area	0.68m ²	1.2m ²	2.2m ²
Ice Capacity	16L	16L	36L
Shelves	4+1	6+1	6+1
Shelf Size	420*480mm	420*480mm	610*610mm
Trays	4EA	6EA	6EA
Shelf Temp.	-55°C to +80°C	-55°C to +80°C	-55°C to +80°C
Condenser Temp.	-80°C	-80°C	-80°C
Vacuum	<3Pa	<3Pa	<3Pa
Defrosting	Hot Gas	Hot Gas	Hot Water
Condenser Isolation	Butterfly Valve	Butterfly Valve	Butterfly Valve
Power Install	6.4kw	7.5kw	18kw
Size	1950*1510*986mm	1950*1510*986mm	2900*1550*3550mm
Vials Capacity(φ22)	1500Pcs	2400Pcs	3800Pcs



FDL TRAY FREEZE DRYER



Tray freeze dryers are popular and could universal use in various industrial, for fluid, powder or solid products bulk loading/drying, the range of freeze drying machine come with rectangular shape S/S drying house with PUF insulation, a higher temperature uniformity assured.

Model	FD-1L	FD-2L	FD-3L	FD-5L
Shelves area	1.15m ²	2.16m ²	3.24m ²	5.25m ²
Ice Capacity	20L	40L	60L	100L
Shelves	4+1	4+1	6+1	7+1
Shelves size	480*600mm	600*900mm	600*900mm	750*1000mm
Trays	4EA	8EA	12EA	28EA
Shelf Temp.	-50°C to +70°C	-50°C to +70°C	-50°C to +70°C	-50°C to +70°C
Condenser Temp.	-80°C	-80°C	-80°C	-80°C
Vacuum	<5Pa	<5Pa	<5Pa	<5Pa
Power	7.6kw	9.5kw	15.5kw	25kw
Size	2500*1100*2000mm	2500*1300*2100mm	2800*1200*2500mm	4000*1500*2500mm

Model	FD-10L	FD-20L	FD-30L	FD-50L
Shelves area	10.5m ²	19.8m ²	29.7m ²	48.6m ²
Ice Capacity	200L	300L	400L	600L
Shelves	7+1	11+1	11+1	18+1
Shelves size	1000*1500	1200*1500	1500*1800	1500*1800
Trays	42EA	66EA	99EA	162EA
Shelf Temp.	-50°C to +70°C	-50°C to +70°C	-50°C to +70°C	-50°C to +70°C
Condenser Temp.	-80°C	-80°C	-80°C	-80°C
Vacuum	<5Pa	<5Pa	<5Pa	<5Pa
Power	45kw	60kw	85kw	125kw
Size	4500*2000*2500mm	6000*2100*2500mm	7500*2200*3000mm	11000*2200*3500mm

FDL-TP Stopper Freeze Dryer



Stopper Freeze Dryers include all functions of tray freeze dryers, as well as its exclusive vials stoppering function, capping bottles or vials under vacuum or charge inert gas into drying chamber after drying finish to extend material storage life. CIP and SIP optional.

Model	FD-1L-TP	FD-2L-TP	FD-3L-TP
Shelves area	1.15m ²	2.16m ²	3.24m ²
Ice Capacity	20L	40L	60L
Shelves	4+1	4+1	6+1
Shelves size	480*600mm	600*900mm	600*900mm
Trays	4EA	8EA	12EA
Shelf Temp.	-50°C to +70°C	-50°C to +70°C	-50°C to +70°C
Condenser Temp.	-80°C	-80°C	-80°C
Vacuum	<5Pa	<5Pa	<5Pa
Power	9kw	15kw	18kw
Size	2500*1100*2000	2500*1300*2100	2800*1200*2500
Vials Capacity (φ22)	2200Pcs	4300Pcs	6500Pcs

Model	FD-5L-TP	FD-10L-TP	FD-20L-TP
Shelves area	5.25m ²	10.5m ²	19.8m ²
Ice Capacity	100L	200L	300L
Shelves	7+1	7+1	11+1
Shelves size	750*1000mm	1000*1500	1200*1500
Trays	28EA	42EA	66EA
Shelf Temp.	-50°C to +70°C	-50°C to +70°C	-50°C to +70°C
Condenser Temp.	-80°C	-80°C	-80°C
Vacuum	<5Pa	<5Pa	<5Pa
Power	32kw	55kw	80kw
Size	4000*1500*2500	4500*2000*2500	6000*2100*2500
Vials Capacity (φ22)	10000Pcs	21000Pcs	41000Pcs

FDR (AL ALLOY) FOOD FREEZE DRYER

FDR machine capacity from 10kg up to 2500kgs, with S/S body, anodized aluminum alloy shelves and trays, trays loading/unloading assist by trolleys, The range machines could successful drying products in shortest time and guarantee its quality, suit all kinds of edible food products like fruit, vegetables, coffee, meals etc.



Model	FD-1R	FD-5R	FD-10R	FD-20R
Shelves area	1m ²	5.25m ²	10.5m ²	20.6m ²
Ice Capacity	10L	50L	100L	200L
Shelves	4+1	7+1	7+1	13+1
Shelves size	400*625	750*1000	1000*1500	1260*1380
Trays	4EA	14EA	28EA	52EA
Shelf Temp.	-30°C to +120°C	-30°C to +120°C	-30°C to +120°C	-30°C to +120°C
Condenser Temp.	-45°C	-45°C	-45°C	-45°C
Vacuum	15Pa	15Pa	15Pa	15Pa
Power	7.5kw	15kw	25kw	50kw
Size	2500*1100*2000	3300*1500*2500	3500*2000*2500	7000*2700*3500

Model	FD-30R	FD-50R	FD-100R	FD-200R
Shelves area	29.9m ²	50.8m ²	100.6m ²	204m ²
Ice Capacity	400L	600L	1200L	2500L
Shelves	10+1	17+1	17+1	17+1
Shelves size	570*2850	570*2850	570*5610	630*10200
Trays	80EA	120EA	272EA	476EA
Shelf Temp.	RT to +120°C	RT to +120°C	RT to +120°C	RT to +120°C
Condenser Temp.	-45°C	-45°C	-45°C	-45°C
Vacuum	15Pa	15Pa	15Pa	15Pa
Power	60kw	95kw	205kw	350kw
Size	6500*2500*2800	6900*2700*3500	12000*3100*3500	18000*3100*3500

FDR S/S FOOD FREEZE DRYER



FDR S/S machine with stainless steel shelves and trays special fit fluid and powder material that need sanitary environment, such as dairy, yogurt, fruit/vegetable pulp, mixtures etc.

Model	FD-1R S/S	FD-5R S/S	FD-10R S/S
Shelves area	1m ²	5.25m ²	10.5m ²
Ice Capacity	10L	50L	100L
Shelves	4+1	7+1	7+1
Shelves size	400*625	750*1000	1000*1500
Trays	4EA	14EA	28EA
Shelf Temp.	-30°C to +120°C	-30°C to +120°C	-30°C to +120°C
Condenser Temp.	-45°C	-45°C	-45°C
Vacuum	15Pa	15Pa	15Pa
Power	10kw	25kw	35kw
Size	2500*1100*2000	3300*1500*2500	3500*2000*2500

Model	FD-20R S/S	FD-30R S/S	FD-50R S/S
Shelves area	19.8m ²	30m ²	55.5m ²
Ice Capacity	200L	300L	500L
Shelves	11+1	15+1	15+1
Shelves size	1200*1500	1000*2000	1800*2000
Trays	66EA	120EA	180EA
Shelf Temp.	-30°C to +120°C	-30°C to +120°C	-30°C to +120°C
Condenser Temp.	-45°C	-45°C	-45°C
Vacuum	15Pa	15Pa	15Pa
Power	60kw	90kw	125kw
Size	5000*2000*2500	6000*2400*3000	8500*2400*3000

FOOD FREEZE DRYING PLANT

With the technology improve and customer pay more attention to health and organic, freeze dried food now is popular in market, snacks, cooked meals, fruit, vegetables with affordable price.

Compare with other dehydration drying method use higher temperature and continues working that could process tons in one hour, freeze drying working by batch and each batch (or every day, 24hrs) only process MAX 2500kgs raw material, after freeze dried, products' weight only 5% to 10% compare original. So, more freeze dryers are needed.

Mostly, the freeze drying plant include several individual lyophilizers, consider the investment and power saving, public facilities or share systems will designed to support all the lyophilizers working. As well as the integrated controller system could use one software or computer operate all the lyophilizers.

VIKUMER engineer team have worked out (delivered) tens freeze drying plant to our customer, range from 3tons up to 10 tons feed capacity. And also, we have experiences build workshop.

If you need help, please don't hesitate to contact us get a solution.



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