



JOSTON INDUSTRY
Pharmaceutical Equipment
Solution Provider



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**JOSTON
INDUSTRY**

Pharmaceutical Equipment
Solution Provider

Endless continuous improvement is our core value.
Quality improvement, there is no best, only better.

JOSTON INDUSTRY



JOSTON

CORPORATE PHILOSOPHY

SPIRIT

Diligent ,Exploring ,Innovation and Serving the clients.

BUSINESS PRINCIPLE

"human oriented, credit and quality foremost ".Human oriented means customers foremost and employees satisfied; credit foremost means that only the enterprises with good credit standing will grow powerful; quality foremost means that JOSTON tries to create the brand, erect fame and win customers via high quality, product

MANAGEMENT

"Strict, capable and impartial", namely strict management, capable personnel, high salary as well as impartial awards and punishments.

PROMISES

We may not produce the most sophisticated products in the world, but make better products of competitive prices and offer your better services.

TARGETS

Let every customer who buys our products be satisfied.



ENTERPRISE PROFILE

Joston enterprise is specialized in the design, production and installation of pharmaceutical machinery, dairy machinery, brew machinery, beverage & food machinery, chemical industry machinery and sanitary fluid equipments. We are the leading professional machinery and equipment supplier; we produced the equipment with a long history of over 15 years in China.

Professional ,Service ,Genuineness are our value !

Meet customer needs, creating customer value,it is our aim!

We has obtained customers' trust and satisfaction depending on its professional service, good quality, complete varieties, and competitive price. Our products have been exported to lots of countries and areas, Such as Europe, USA,middle east ,Russia ,Central Asia,South American and Southeast Asia etc.

We can supply you with the full set solutions of the engineering, equipment and technical service in pharmaceutical and food industry after years of specific experience in pharmaceutical industry and food industry, engineering research and technical service.

SELF TRANSCENDING, ENDLESS INNOVATION

Market competition is actually competition of specialization, because reliance from users is accomplished through mature product technology, which comes from specialization.

Being engaged in one field and making all efforts to make become our own advantage, holding the principle of satisfying customer requirements, being devoted to making main products and sparing no efforts in providing specialized service, All of these is the long term development strategy of JOSTON Company.



ORIGINALITY, PATIENCE, PROFESSION AND FOCUS

Stable is the basic what create a sustainable economic benefit to our customers.

We constantly to summarize experience and improve technology. base on the stable, we further to challenge the limits of technology in order to offer our customers the best stable and efficiency equipments.



we make up our minds to have advanced manufacture way, perfect test equipment and high market share, and make promise to users by creditable service.

we will make sure that all machines can exert their performances in effective life by our perfect design, manufacture and service.



**INNOVATION ARE ENDLESS
THE GO-AHEADISM OF
JOSTON PEOPLE
HAS NO END FOREVER**

We hope that through our perfect design and production to ensure the each products can exert the every design property index In the effective operating period.



CONTENTS

09 ■ Solution Preparation System	29 ■ Vacuum Emulsifying Machine
10 ■ Mixing Tank	30 ■ Automatic Tube Filling and Sealing Machine
11 ■ Fermentor Reactor	31 ■ Brewhouse System
12 ■ Reactor	32 ■ Fermentation Tank
13 ■ Multifunctional Extractor Tank	33 ■ Distill Plant
14 ■ Basket Type High Pressure Extractor Tank	34 ■ Pot Distiller
15 ■ Multifunctional thermal reflux extractor And concentrator machine	35 ■ CIP machine
16 ■ Multifunctional Minature Extractor And Concentrator Machine	36 ■ Milk Cooling Tank
17 ■ Counter Current Extractor Machine	37 ■ Sterilizer Machine
18 ■ Storage Tank	38 ■ Vacuum Dryer
19 ■ Single Effect Concentrator	39 ■ Spray Dryer
20 ■ Double Effect Concentrator	40 ■ Mixing Machine
21 ■ Falling Film Evaporator	41 ■ Lifter With Bin
22 ■ Vacuum Scraper Concentrator	42 ■ RO Water Treatment Machine
23 ■ Vacuum Concentrator	43 ■ Multi-effect Water Distillation Machine
24 ■ Jacketed Kettle	44 ■ Filter Series
25 ■ Resin Column	45 ■ Sanitary Pump Series
26 ■ Sediment Tank (deposition Tank)	46 ■ Heat Exchanger Series
27 ■ Solvent Recovery Tower	47 ■ Sanitary Pipe Fittings
28 ■ Gelatin Melting Tank	

Solution Preparation System

Solution preparation system is mainly used for the preparation and sterilization filtration of sterile drugs, biological products, oral liquid, eye drop, syrup solution, infusion solution, ampoule solution, injection solution and other pharmaceutical liquids in pharmaceutical fields.



- Technology data specification -

Item	Technology specification
Working volume	20-30000L
Material	SS304 or SS316L
Tank structure	Single layer, double layers (inside shell with insulation layer or inside shell with jacket), double jacketed layers (inside shell, jacket and insulation layer)
Jacket structure	Single full jacket type, limpet coil jacket, dimple jacket etc.
Jacket medium	Heating by steam, hot water & hot oil or electrical heating etc. Cooling by cooling water or chiller etc
Insulation layer material	PUF, mineral wool, rock wool, Aluminum silicate etc
Top mounted agitator	Propeller type agitator, anchor type agitator, scraper type agitator, high shear emulsifying agitator etc.
Bottom mounted agitator	Bottom Magnetic type agitator, bottom high shear emulsifying agitator etc.
Equipment of tank	Manhole (handhole), CIP Spray ball, vent filter, sight glass, sight light, safety valve, sampling valve, level sensor, temperature sensor, pressure gauge, load cell, PH sensor, PO2 sensor, foam sensor, flush bottom valve, VFD etc. *the equipment choose according to the production process requirement *
CIP/SIP	Tank with the pipeline can be online CIP/SIP
Surface finish	Inside surface is mirror polish: Ra<0.4um Outside surface is mat polish: Ra<0.8um
Solution preparation System construction	Mixing tank +filter +transfer pump +storage tank +pipeline +control system

*Above model just for reference, we can do according to client's URS *

四. 注射液调配罐 (底部磁力搅拌罐, 配小图显示磁力搅拌的结构), 三和四可以做在一起2页参考日泰的制作方式。

Mixing Tank

Mixing tank is used to mix one or several materials together according to the technological proportions. Which is widely used in pharmaceutical ,food, daily & beverages, chemicals etc industries.the design and production can fit pharmaceutical & food industrial GMP & FDA requirement.



- Technology data specification -

Components Item	Function and usage
CIP spray ball	Wash & clean tank inside surface and devices automatic, which should connect to the CIP machine station.
Vent filter	Filter air to prevent the bacteria into the tank, also can release the tank inside pressure.
Temperature sensor (gauge)	Indicate inside tank temperature and PID temperature control with the necessary valve and fittings.
Pressure sensor (gauge)	Indicate the inside tank pressure
PH sensor	Indicate the product PH data
PO2 sensor	Indicate the product Oxygen content
Level sensor (gauge)	Indicate the inside tank product level height, there are have different models: (static) pressure type, ultrasonic type, radar type, glass tube type, plate sight glass type.
Load cell	Indicate the product weight.
VFD (inverter)	Control and adjust agitator speed.
Safety valve	Release inside tank pressure to protect the tank safety.
Flow meter	Indicate the solution inlet and outlet volume.
Sight light	Indicate inside tank bright for watching easily.
Manhole (handhole)	Charge solid product into tank ,also can be used for maintenance inside tank components.
Sampling valve	Take inside tank products sample for offline checking.

*Above model just for reference, we can do according to client's URS *

Fermentor Reactor

Our company new developed fermentor reactor used for various kinds of microbiology fermentation, our equipment adopt the top mechanical agitator system, the speed can adjustable, and the all parameters can control, like the reactor temperature, pressure PH data, PO2 data, foam destroyed etc. All the parameters can be recorded, stored and printed from the control panel automatic. So it is excellent stability and convenient operation.

- Technology data specification -

Item	Technology specification
Working volume material	5-30000L Contact product is SS316L, non-contact part is SS304
Surface finish	Inside surface is mirror polish Ra: 0.3-0.5um Outside surface is mat polish Ra<0.8um
Working pressure	Inside shell is 0.2MPa; jacket is 0.3MPa
Agitation	-Top mechanical agitator with two layers six blade impeller, one is for foam destroyer, gear motor use SEW brand -Speed is 0-400RPM (adjustable)
Equipment of tank	-Using alcohol flame inoculation -Sterile type sampling valve and bottom flush valve -PH sensor, PO2 sensor, foam sensor, flow meter, temperature sensor, Pressure sensor, level sensor, sight glass, sight light etc
Construction	Fermentation reactor tank with completely pipeline and PLC/HMI control panel

*Above model just for reference, we can do according to client's URS *



Reactor



Reactor is a closed vessel, which is used to perform a chemical reaction, distillation, crystallization, mixing, and isolation of materials etc. in API manufacturing facility. This is specially designed equipment with agitator and gearbox with flameproof electrical motor. Agitator is used for proper mixing, eddy formation, Vortex formation as per requirement. Agitator types are decided based on process requirement.

Single full Jacket/limpet coil jacket is used for maintaining reaction conditions by providing utilities like steam, chilled water, cooling water, chilled brine and hot water. Solids are charged into reactor through

Manhole/ Nozzles manually and liquids are charged in to reactor by liquid transfer pipelines connected to reactor or manually through manhole .

Solution or slurry is discharged from the reactor by nitrogen pressure or by pump, through bottom discharge valve.

- Machine structure -

Reactor system including the following unit : reaction tank, condenser, sub-cooler, collection tank and pipeline

- Technology data specification -

Item	Technology specification
Working volume	20-30000L
Material	SS304, SS316L, F40 coated SS material and Glass lined
Jacket structure	Single full jacket type, limpet coil jacket, dimple jacket, inside coil pipe
Jacket medium	Heating by steam, hot water & hot oil or electrical heating Cooling by cooling water or chiller etc
Top mounted agitator	Propeller type agitator, anchor type agitator, scraper type agitator, high shear emulsifying agitator etc.
CIP/SIP	Tank with the pipeline can be online CIP/SIP

*Above model just for reference, we can do according to client's URS *

八. 传统提取罐（自锁式排渣门，需要带小图显示排渣门自锁结构），如果位置够的话，可以加张带搅拌的提取罐）✓

九. 篮式提取设备（显示篮子的小图）✓

Multifunctional Extractor Tank

Multifunctional extractor tank is widely using the solution (water /solvent) to extractor the active ingredient from the different raw material, like herbal leaf, root, stem, fruit, seed, flower, animal bones & viscera etc.

It can meet the different extractor process, like the water based extractor process, solvent based extractor process, steam distill aromatic oil process .

The equipment is suitable for the operation of vacuum pressure, atmospheric pressure, micro pressure for inside shell.

- Machine structure -

The equipment including the following unit: extractor tank, condenser, sub-cooler, oil/water separator, filter, pump and pipeline etc.

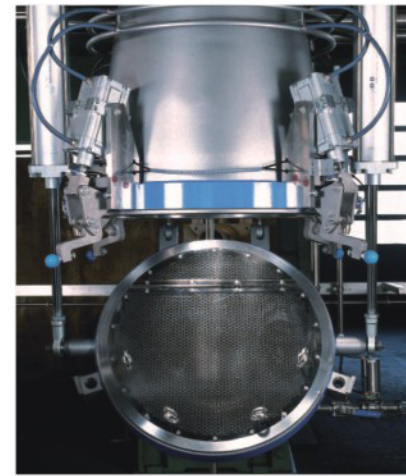
- Optional Functional for the extractor tank -

- Extractor tank can equipped with top mounted agitator.
- Special side filter discharge unit in the tank bottom shell to avoid the fine raw material block the solution outlet nozzle.
- Bottom discharge gate equipped with steam heating coil.

- Technology data specification -

Model	TQ-0.5	TQ-1.0	TQ-2.0	TQ-3.0	TQ-6.0	TQ-10.0
Item						
Total volume capacity (L)	570	1200	2300	3300	6700	11000
Work volume capacity (L)	500	1000	2000	3000	6000	10000
Design pressure inside tank (MPa)			-0.1/0.09			
Design pressure in jacket (MPa)			0.33			
Compressed air pressure (MPa)			0.6-0.7			
Charging manhole diameter (mm)	400	400	400	400	500	500
Condenser cooling area (m ²)	3	4.5	5.5	6.5	9.5	15
Sub-cooler cooling area(m ²)	0.5	0.5	1.0	1.2	2.0	3.0
Filter area(m ²)	0.2	0.2	0.25	0.25	0.3	0.5
Steam consumption (kg/h)@2bar	180	250	300	350	650	850
Cooling water consumption (t/h) @inlet temp is 25°C ,outlet temp is 32 °C	4	5	7	8	12	20

*Above model just for reference, we can do according to client's URS *



Basket Type High Pressure Extractor Tank

Basket type high pressure extractor tank is widely used to extractor the raw material in high temperature and high pressure, which can save the extracting time, like the extractor animal bone and distill flower oil etc.

Compare with the traditional multifunctional extractor tank, it have the following advantage:

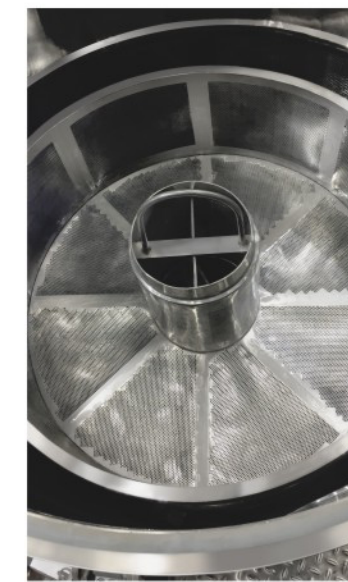
- Inside shell can be bear high pressure and high temperature, so it can save the extractor time.
- After extracting, the residue raw material can be take out with the basket together from the top head of the extractor tank, so it can avoid the raw material block the outlet nozzle of the solution discharge.
- Flowers, pulps, and raw materials containing mucus are prone to

blockage of filters and difficulties in discharge extracting solution during traditional extraction. This device places raw material materials in a basket, effectively avoiding the above phenomena.

-Fine powder particle can be packaged in a cloth bag then put the cloth bag into the basket to extractor, after extracting, the bag with fine powder particle can take out completely, so it also fit the fine powder particle material.

- Machine structure -

This equipment including the following unit : pressure type extractor tank (top can be open/closed by the pneumatic cylinder or hydraulic cylinder), raw material feeding basket, condenser, sub-cooler, oil/water separator, filter, pump and pipeline.



Multifunctional Thermal Reflux Extractor and Concentrator Machine

Multifunctional Thermal reflux extractor & concentrator machine is a new developed extractor & concentrator machine. This machine have the advantages of the large raw material feeding processing capacity per batch, few solvent consumption, low concentrator temperature, high efficiency and energy-saving. etc.characteristic.

- Advantage For The Machine -

-This machine not only can fit to the organic solvent thermal reflux process, but also it can fit water thermal reflux extractor in the vacuum& low temperature condition.

-This machine resolve the problem of the reflux process under high temperature in long time, avoid the destroying Medicinal ingredients which temperature sensitive.

This machine can fit the processes of extractor& concentrator in atmospheric pressure; extractor in atmospheric pressure & concentrator in vacuum pressure; extractor & concentrator in vacuum pressure; steam distill volatile oil .Especially for the water based and solvent extractor etc.process .

- Machine Structure -

This machine including :extractor tank, single effect concentrator, condenser, oil/water separator, water (solvent) automatic drain system and pipeline.

- Working Principle -

The extractor solution outlet from the bottom of the extractor tank to the single effect concentrator to evaporate and the evaporated solvent condenser then reflux back to the extractor tank as the fresh solvent. The fresh solvent mixture with the solution completely and evaporate again, till to extractor all the medicine from the raw material herbs.

- Technology Data Specification -

Item	Model	RHL— 1.0		RHL— 2.0		RHL— 3.0		RHL— 6.0	
		extractor	concentrator	extractor	concentrator	extractor	concentrator	extractor	concentrator
Jacket steam pressure (MPa)	0.3	0.2	0.3	0.2	0.3	0.2	0.3	0.2	
Shell (tube) pressure (MPa)	≤0.09	-0.084	≤0.09	-0.084	≤0.09	-0.084	≤0.09	-0.084	
Jacket steam temperature (°C)	142	132	142	132	142	132	142	132	
Shell (tube) temperature(°C)	≤100	60	≤100	60	≤100	60	≤100	60	
Extractor tank volume (L)		1000		2000		3000		6000	
Evaporator capacity (kg/h)		500		800		1000		2000	
Concentrator heating area (m ²)		6.2		9.8		12.2		25	
Condenser area (m ²)		21		30		44		82	
Steam consumption(kg/h)@3bar		600		950		1200		2500	
Cooling water consumption (kg/h)		25		35		50		90	
Dimension L*W*H(mm)		4000*1800*4600		4500*2200*5900		5200*2400*7250		6600*2800*7550	

*Above model just for reference, we can do according to client's URS *



Multifunctional Miniature Extractor And Concentrator Machine



Multifunctional miniature extractor and concentrator machine is widely used in the studying the parameter for new process R&D, pilot plant, new medicine researchment, herb extractor, volatile oil recovery in the university, R&D center, hospital etc.

This machine have complete functions, it can be used to the aromatic oil distill extract process, water based

extract process ,solvent based extract process, thermal reflux extract process, sediment process, concentration & solvent recovery etc.

As the heating method difference, it have two models: steam heating type and electrical heating type (heat conducting oil).

- Technology data Specification (steam heating model as example) -

Item	Model	DNT-100	DNT-200	DNT-300	DNT-500
Extractor	Tank Volume(L)	110	220	350	620
	Heating Area(m ²)	0.52	0.96	1.12	1.5
	Jacket Pressure (MPa)	0.3	0.3	0.3	0.3
	Shell Pressure (Mpa)	ATM	ATM	ATM	ATM
Multifunctional tank	Volume(L)	130	230	350	620
	Heat Exchanger Area(m ²)	0.7	1.5	2.0	2.9
	Agitator Motor Power (kw)	0.37	0.75	0.75	0.75
Single -effect evaporator	Heating Area(m ²)	0.85	1.50	2.30	3.20
	Condenser Cooling Area(m ²)	2.0	4.0	5.0	10
Utility Consumption	Agitator Motor power (kw)	0.37	0.37	0.37	0.37
	Vacuum pump power (kw)	1.5	2.2	2.2	3.0
	Transfer pump power (kw)	0.37	0.37	0.37	0.37
	Total motor power (kw)	2.6	3.7	3.7	4.5
	Steam Consumption (kg/h)	100	150	200	250
	Cooling water consumption(T/h)	2	4	5	10
	Dimension L*W*H (mm)	2450*800*2350	2800*975*2500	3200*1050*2600	3500*1300*3050

*Above model just for reference, we can do according to client's URS *

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Counter Current Extractor Machine

Counter current extractor machine is a new developed extractor machine. This machine have the advantages of providing a method of dynamic counter current extraction of herbal medicine extractor tank group, which is labor-saving, energy-saving, solvent (solution) consumption-reducing, shorten extraction time, the extracting active ingredient high yield.

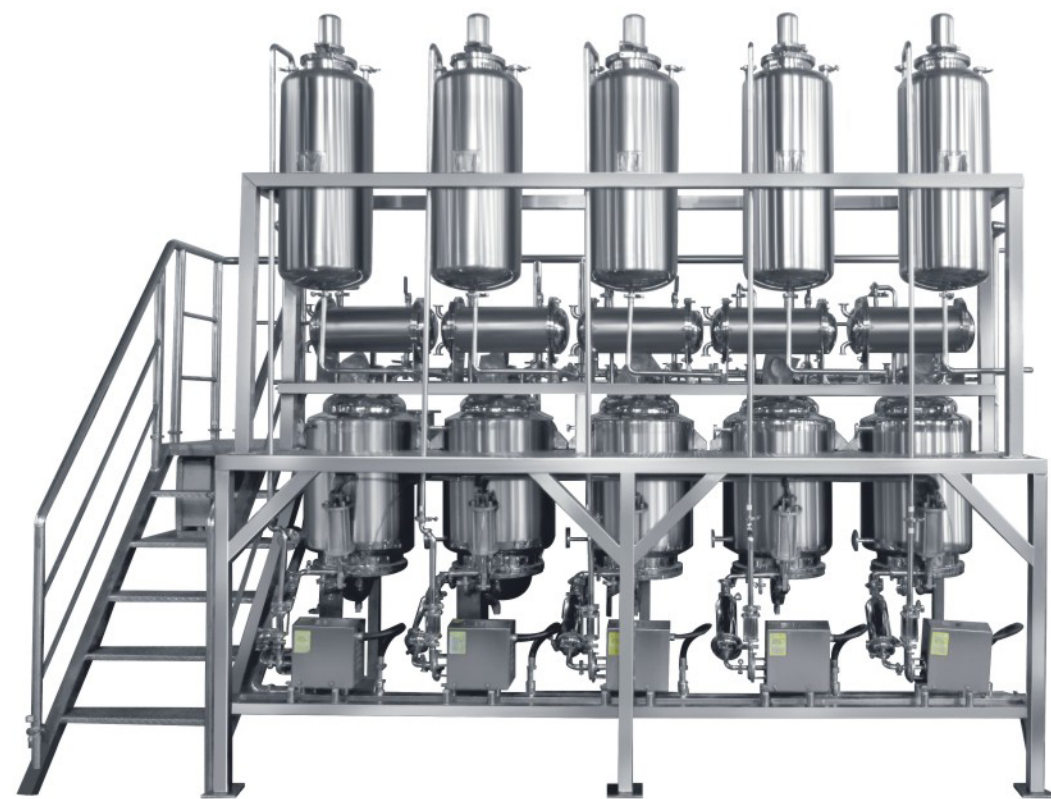
The technical effect is that the traditional single extraction tank is replaced by the extractor tank-group extraction, and the traditional static extraction

- Working Principle -

It is assumed that several extraction tanks are connected to each other to form a series of extraction tanks. The herbal materials in each tank are in turn new-loaded herbal materials, After extraction, the fresh solvent is added to the last tank. The other tanks are successively filled with the extract transferred

process is replaced by the dynamic counter current extraction in each extraction process. Therefore, the number of extractor tank can be flexibly combined according to the needs of the extraction and production of traditional herbal medicine, and the concentration gradient of solid and liquid phases can be effectively utilized to increase the temperature difference and raise the extraction rate. The extraction speed increases the concentration of the extract and shortens the extraction period.

from the next pot for extraction. The extract is eventually discharged from the front tank. Then, the final extract tank discharges the residue and loads the new herbal into the first extract tank, so the circular extraction is carried out.



Storage Tank

Storage tank is widely used in the pharmaceutical, food, dairy, juice, beer and wine industry to stock the liquid product, ointment product, powder product and gas.



- Technology data specification -

Item	Technology specification
Working volume	5-100000L
Material	SS304 or SS316L
Tank structure	Single layer, double layers (inside shell with insulation layer or inside shell with jacket), double jacketed layers (inside shell, jacket and insulation layer).
Equipments of tanks	Manhole, CIP Spray ball, glass type level gauge, level sensor, temperature gauge (sensor) and pressure gauge. *the equipment choose according to the production process requirement *
CIP/SIP	Tank with the pipeline can be online CIP/SIP.

Model	CG500	CG1000	CG2000	CG3000	CG5000	CG10000
Tank working volume (L)	500	1000	2000	3000	5000	10000
Working pressure (Mpa)	-0.1---1					
Working temperature (°C)	-100 --- 500					
Dimension (mm)	Ø900X1700	Ø1000X2250	Ø1200X2700	Ø1500X2900	Ø1600X3800	Ø2000X4600

*Above model just for reference, we can do according to client's URS *

Single Effect Concentrator

Single-effect concentrator is suitable for the evaporator the water or solvent from solution such as traditional herbal medicine, western medicine, glucose, wine-making, starch, oral liquid, chemical industry, food, natural flavor, food additives, monosodium glutamate, dairy products, etc.the outlet ointment density is about 1.2g/cm³.

It can be used for vacuum condition for the raw material which is thermal sensitivity.

- Machine Structure -

The equipment including the following units: heating tank, evaporator tank, gas/water separator, condenser, sub-cooler, collection tank and pipeline.

- Working Principle -

The steam enters the outside of the tube of the heating tank, heating up the raw material which inside tube of tank, the raw material spraying it into the evaporator tank, the vapor gas will be vapor from the evaporator tank to the condenser for condensate, then cooling and collect in the storage tank, the ointment products will be back into the evaporator tank. The raw material is concentrated to a certain extent, and after sampling is determined, the ointment is discharged from the bottom outlet of the evaporator tank.



- Technology data Specification -

Model	DX200	DX500	DX1000	DX1500	DX2000	DX3000
Evaporator capacity (kg/h)	200	500	1000	1500	2000	3000
Evaporator temperature (°C)	>55					
Heating area (m ²)	3.2	6.2	12.2	18.5	24.4	36.6
Condenser cooling area (m ²)	11	28	56	84	112	168
Sub-cooler cooling area (m ²)	1	2	3	3	5	6
Steam consumption (kg/h)@3bar	220	550	1100	1650	2200	3300
Cooling water consumption (T/h)	12	30	60	90	120	180
Vacuum air absorption (m ³ /h)	50	125	250	375	500	750
Dimension L*W*H (mm)	2300*700 *2750	2800*1200 *3700	3500*1300 *4600	4000*1400 *5150	4600*1600 *5500	5500*1800 *5800

*Above model just for reference, we can do according to client's URS *

Double Effect Concentrator



Double effect concentrator is suitable for pharmaceutical, chemical and dairy industries. It is used for evaporation and concentration of water /solvent. It has simple structure, convenient operation and maintenance. The whole process is completed in a vacuum sealed system, and the heat energy is reused. It not only saves energy and protects the environment, but also has the advantages of low evaporation temperature and high evaporation intensity.

- Machine Advantage -

Compare with single effect evaporator, it have the following advantage:

- Can save 50% steam consumption.
- Can save 50% cooling water consumption.

- Machine Structure -

This equipments is including the following units: first effect heating tank, first effect evaporator tank, second effect heating tank, second effect evaporator tank, gas/water separator, condenser, sub-cooler, collection tank. and pipeline.

- Technology data Specification -

Model	SX500	SX1000	SX1500	SX2000	SX3000
Evaporate capacity (kg/h)	500	1000	1500	2000	3000
First effect evaporated temperature (°C)	75-85				
Second effect evaporated temperature(°C)	55-65				
First effect heating area (m ²)	6.2	12.2	18.5	24.4	37
Second effect heating area (m ²)	6.2	12.2	18.5	24.4	37
Condenser cooling area (m ²)	14	28	42	56	84
Sub-cooler cooling area (m ²)	2	3	3	5	6
Steam consumption (kg/h)	275	550	825	1100	1650
Cooling water consumption (T/H)	16	30	45	50	90
Vacuum air absorption capacity (m ³ /h)	≥125	≥250	≥375	≥500	≥750
Dimension L*W*H (mm)	4800*1100*3750	5950*1200*4650	6300*1350*4750	6800*1550*4850	7500*1800*5800

*Above model just for reference, we can do according to client's URS *

Falling Film Evaporator

Falling Film evaporator is to feed the liquid raw material from the top end of heating tank and distribute it evenly to the inside heat exchanger tubes wall through the liquid distribution and film-forming device. Under the action of gravity and vacuum induction and airflow, it flows uniformly from top to bottom. In the process of flow, the steam produced by heating and vaporizing the shell side medium enters to the evaporator (separator) tank together with the liquid phase. The vapor and liquid are fully separated. The vapor gas enters the condenser condensation (as a single effect operation) or enters the next effective evaporator as the heating medium (as a multi-stage effect operation). The concentrated liquid phase is discharged from the evaporator (separator) tank.



- Machine structure -

This machine including the following unit: heating tank, evaporator (separator) tank, condenser, sub-cooler, collection tank.

- Technology data Specification -

Model	JMNS 200	JMNS 500	JMNS 1000	JMNS 1500	JMNS 2000	JMNS 3000
Evaporator capacity (kg/h)	200	500	1000	1500	2000	3000
Evaporator temperature (°C)	>55					
Steam pressure (Mpa)	<0.25					
Vacuum degree (MPa)	-0.08					

*Above model just for reference, we can do according to client's URS *

Vacuum Scraper Concentrator

Vacuum scraper concentrator is a new developed machine special for the high concentration herbal ointment and food paste, like tomato paste, ketchup, honey jam etc.

Vacuum scraper concentrator is using the special scraper PTFE agitator which can make inside product move under evaporator, so the product will not stick to the inside shell wall of the concentrator tank, that can be get very high viscosity final products.

- Machine structure -

The equipment including the following unit: concentrator tank equipped with scraper agitator, condenser, sub-cooler, water/gas separator, collection tank and pipeline.



- Technology data Specification -

Model	GNZ-200	GNZ-500	GNZ-1000	GNZ-1500	GNZ-2000
Concentrator tank volume (L)	200	500	1000	1500	2000
Evaporate capacity (kg/h)	50	100	160	250	350
Evaporated temperature (°C)	<60				
Vacuum degree (MPa)	-0.08--- -0.095				
Concentrator tank jacket heating area (m²)	1	1.5	2.5	3.9	5.5
Condenser cooling area (m²)	4	8	10	15	20
Sub-cooler cooling area (m²)	0.5	0.5	1	1.5	2
Steam consumption (kg/h)	56	115	180	285	400
Cooling water consumption (T/H)	5	10	12	15	25
Agitator motor power (KW)	1.1	1.5	2.2	3.0	5.5

*Above model just for reference, we can do according to client's URS *

Vacuum Concentrator

Vacuum concentrator is mainly used for heat sensitive material low temperature vacuum concentration, also used for recovery the solvent from the raw material solution.

- Machine structure -

The equipment including the following unit: concentrator tank, condenser, sub-cooler, water/gas separator, collection tank and pipeline.



Tank type vacuum concentrator

Ball type vacuum concentrator

- Technology data Specification -

Model	NZ-100	NZ-300	NZ-500	NZ-1000	NZ-2000
Concentrator tank volume(L)	100	300	500	1000	2000
Evaporate capacity (kg/h)	30	60	100	160	350
Evaporated temperature (°C)	<60				
Vacuum degree (MPa)	-0.08--- -0.095				
Concentrator tank jacket heating area (m ²)	0.8	1.3	1.5	2.5	5.5
Condenser cooling area (m ²)	2.5	4.5	6	10	20
Sub-cooler cooling area (m ²)	0.5	0.5	0.5	1.0	2
Steam consumption (kg/h)	35	70	115	180	400
Cooling water consumption (T/H)	3	5	7	12	25

*Above model just for reference, we can do according to client's URS *

Jacketed Kettle

Jacketed kettle is a double jacketed layer structure consisting of an inner and outer spherical pot body. The middle interlayer is heated by steam or electrical, which is widely used in pharmaceutical, food and chemical industry, it can be used to cook, boiling and concentration.

According to the construction structure, it can be choose as the following functions.

- Tilting model and support leg fixing model.
- Top cover mounted agitator model and non agitator model.
- Steam heating model and electrical heating model.
- Open top model and cover lid open model.



- Technology data Specification -

Model	JCG-100	JCG-200	JCG-300	JCG-500	JCG-1000
Tank volume (L)	100	200	300	500	1000
Evaporate capacity (kg/h)	40	65	75	150	250
Jacket working pressure (MPa)	>0.2				
jacket heating area (m ²)	0.4	1.0	1.2	1.9	3.5
Steam consumption (kg/h)	44	72	90	165	280
Dimension L*W*H (mm)	800*650*950	1400*700*1100	1450*800*1110	1600*900*1150	1900*1300*1950

*Above model just for reference, we can do according to client's URS *

Resin Column

Resin column is a cylindrical pressure column used for ion exchange. It is an exchange equipment for ion exchange by column method. A cylindrical exchange column is used. The Solution was introduced from one end of the column and contacted with the fixed ion exchange resin layer which was in a dense state in the column for ion exchange. so it is widely used for the purify and refine the extractor solution in pharmaceutical field.

Our new developed resin column have the following advantage:

-Designed new pillar construction device with the new structural material, avoid to wall flow phenomenon.

-The solution medium flow direction can adjust in forward and backward, can solve the resin absorption effective.

-Resin column can make in a group system to reality the functional for the Series and Parallel Connections as the different purify process.

- Equipment can equipped with On-line monitoring and control automatic by PLC/HMI control system .



Sediment Tank (deposition Tank)

Sediment tank is used in purifying traditional herbal medicine, oral liquid, food health products etc. It is the key equipment of precipitation process. It is also suitable for freezing, normal temperature precipitation and solid-liquid phase separation of suspensions in other pharmaceutical, chemical, food, oral liquid, health products.

Our company new developed sediment tank have the following functions.

-Jacketed can use the chiller system to cool in very low temperature, it can make the precipitation process much fast and effective.

-Top mounted propeller type agitator which can adjust the agitator speed to fit the different process.

-Shell side solution discharge system can discharge the upper solution easily and conveniently .

-Bottom sediment particle outlet nozzle with the pneumatic cylinder door to discharge easily .



- Technology data Specification -

Model	CCG-500	CCG-1000	CCG-2000	CCG-3000	CCG-6000
Tank volume (L)	500	1000	2000	3000	6000
Jacket cooling area (m ²)	2.8	4.2	7.5	10	15.5
Inside shell temperature (°C)	-90 --- room temperature				
Inside shell pressure (MPa)	-0.09/0.3				
Jacket pressure (MPa)	0.3				
Agitator speed (RPM)	0-200				
Motor power (Kw)	1.1	1.5	2.2	4.0	7.5

*Above model just for reference, we can do according to client's URS *

Solvent Recovery Tower



Solvent recovery tower is based on the principle that the boiling point of distilled solvent is lower than the boiling point of other liquids. With a temperature slightly higher than the boiling point of distilled solvent, the dilute raw material solution to be recovered is heated and volatilized. After the tower body ripple packing material is refined, pure distilled solvent gas is precipitated, and the concentration of distilled solution is increased to achieve the purpose of solvent recovery. So it is suitable for dilute alcohol

recovery in pharmaceutical, food, light industry, chemical industry and other industries. It is also suitable for distillation of methanol and other coal-soluble products.

Our solvent recovery tower can distill alcohol output reach to 93-95% ,the alcohol in waste residue less than 1%.

The equipment including the following unit: re-boiler, tower column, condenser, sub-cooler, solvent collection tank and pipeline.

- Technology data Specification -

Model	JH200	JH300	JH400	JH500	JH600	JH800
Tower column diameter (mm)	200	300	400	500	600	800
Tower height (mm)	7200	7200	7200	7200	7200	9000
Re-boiling tank volume (L)	600	1000	1500	2000	3000	4000
Feeding concentration for alcohol	30%-50%					
Output concentration for alcohol	93%-95%					
Output capacity for alcohol (kg/h)	60-80	90-100	120-150	200-300	350-400	550-600
Dimension L*W*H (m)	2.5*0.8*10	2.6*0.9*10	2.8*1.0*11	3.0*1.0*11	3.5*1.4*12	4.2*1.7*14

*According to the process ,the re-boiler we can choose the external single effect evaporator model and horizontal type tank model *
Above model just for reference, we can do according to client's URS

Gelatin melting Tank

Gelatin melting tank is the main equipment in the production process of capsulized glue, The agitator stirring mode adopts bidirectional multi-layer split-flow stirring, which has the advantages of uniform material stirring and accelerating sol dissolution.

The heating mode adopts water bath thermal resistance heating, which has fast heating speed and uniformity, stable temperature control, optimum gel temperature, which can be improved gel quality and shortened gel time.

It can be equipped with the condenser and vacuum pump system.



- Technology data Specification -

Model	HJG-500	HJG-800	HJG-1000	HJG-1500	HJG-2000
Volume (L)	500	800	1000	1500	2000
Motor Power (KW)	3+1.5	5.5+2.2	5.5+2.2	7.5+3	11+4
Mixer speed (RPM)	25/35 (can be adjustable)				
Material	304/316L				
Shell Work Pressure (MPa)	-0.09-0.1				
Jacket pressure (MPa)	According to URS				
Fittings	electric control panel; bottom discharge valve; vacuum gauges; temperature sensor, manhole, sight glass, sight light, vent filter etc.				
Dimension (mm)	Ø1100*1900	Ø1200*2250	Ø1300*2350	Ø1400*2700	Ø1600*2850

*Above model just for reference, we can do according to client's URS *

Vacuum Emulsifying Machine

- Vacuum emulsification Blende -

Vacuum Emulsifying Machine is a complete vacuum mixer system for the manufacturing of ointment and cream in the cosmetic, pharmaceutical, food and chemical industries.

- Machine structure -

The machine including vacuum emulsifying mixer tank, water phase tank, oil phase tank, vacuum pump, hydraulic system, tilting system, pipeline and electric control system.



- Technology data Specification -

Model	JSRHJ -20	JSRHJ -50	JSRHJ -100	JSRHJ -150	JSRHJ -200	JSRHJ -350	JSRHJ -500	JSRHJ -750	JSRHJ -1000	JSRHJ -1500	JSRHJ -2000
Capacity (L)	20	50	100	150	200	350	500	750	1000	1500	2000
Emulsify motor (Kw)	2.2	3	3	4	5.5	7.5	7.5	11	15	18.5	22
For emulsifying tank (Rpm)	0-3500										
Scraper /Frame (Kw)	0.37	0.75	1.5	1.5	1.5	2.2	2.2	4	4	7.5	7.5
Agitator motor (Rpm)	0-40										
Vacuum pump (Kw)	0.75	1.1	1.45	2.2	3.0	3.7	4.0	5.5	7.5	11	11
Oil/water tank motor (Kw)	0.37	0.37	0.75	0.75	0.75	1.1	1.1	2.2	2.2	3.0	3.0
Dimension (mm)	1800*1600	2700*2000	2920*2120	3110*2120	3150*2200	3650*2650	3700*2800	3780*3200	3900*3400	4000*4100	4850*4300
(LxWxH)	*1850	*2015	*2200	*2200	*2200	*2550	*2700	*3050	*3150	*3600	*3750

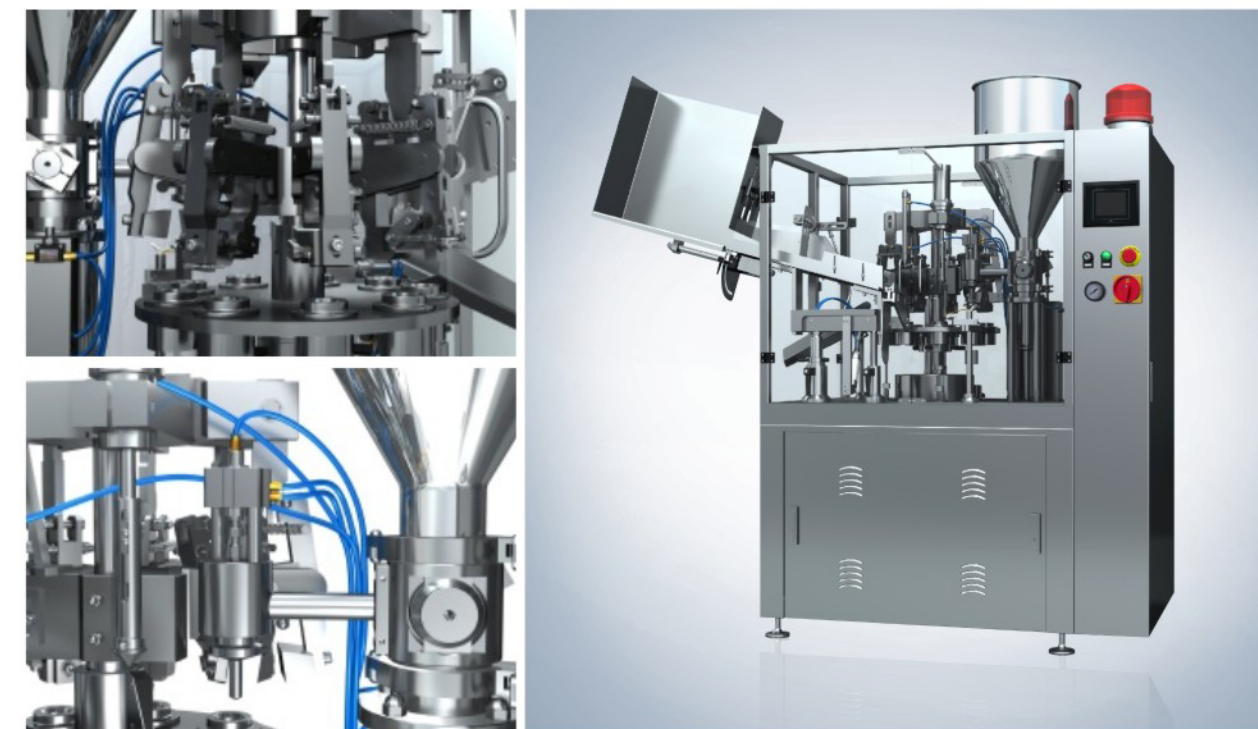
*Above model just for reference, we can do according to client's URS *

Automatic Tube Filling and Sealing Machine

The automatic tube filling and sealing machine is mainly used to filling ointment or viscous fluid materials into Aluminum tube, plastic tube or composite tube. And then seal the tubes tail. Which machine adopts a new type dosing pump with stainless steel butterfly valve which matches with screw tiny adjustment outfit. Measure exactitude also in compliance with the standard of GMP requirement. Adopt PLC program-able control as well as Photoelectricity identify outfit, orientation accurately and reliably, change frequency to control the machine speed.

- Technical Parameters -

- Suitable for: Aluminum/Plastic tube and composite tube
- operating speed: 20-120/min
- Filling volume: 2-300ml
- Filling accuracy: $\leq \pm 1\%$
- Suitable for hose diameter: $\Phi 10-50\text{mm}$
- Feeding tube system: Inclined entire column feeding tube positions
- Optional: external system Chiller
- Optional: Mezzanine barrel insulation device
- Optional: barrel internal mixing device
- Optional: automatic control feeding device (pump)
- Optional: finished tube output conveyer



Brewhouse System

Brewhouse system is widely used in the brewpub, bar and restaurant to brew beer. The equipment including the following: Mash tank, Lauter tank, kettle, whirlpool tank and pipeline etc.

- Brewhouse Can Be In Various Combination -

- Two vessels: Mash/lauter tank, Kettle/whirlpool tank.
- Three vessels: Mash/lauter tank,whirlpool, Kettle; or Mash tun, Lauter tank, Kettle/whirlpool tank.
- Four vessels: Mash tun, lauter tank, kettle, whirlpool tank.

- Brewhouse Has Three Kinds Of Heating Method -

1. Electric heating
2. Steam heating
3. Direct fire heating

- Standard Configuration -

- Available capacity from 1 to 60 BBL (HL).
- Equipment use 100% Tig welding and sanitary polish surface.
- Inside shell use SS304 material (SS316L material is optional).
- Out side cladding shell use SS304 material (copper material cladding is optional).
- Platform material is SS304.
- Top mounted agitator system (bottom mounted is optional).
- Plate heat exchanger , Wort pumps, flow meter, valves and pipeline are all SS304 material.
- PLC automatic control or semi-automatic control or manual control.



Fermentation Tank

Fermentation tank is used to fermented the cold wort solution which removing the solidified substance by filter with the yeast together.

- Standard Configuration -

- Material is SS304.
- Working volume from 1-250BBL.
- Vertical type (horizontal type is Optional).
- Top head with 25% extra capacity space.
- Dish top, cylinder shell body, 60-70 degree con type bottom.
- Shell Side manhole (top manhole is optional).
- Double jacketed construction (single layer is optional).
- Internal surface is 2B finish, outside shell surface is #4 finish.
- Dimple type jacket for Glycol cooling, with50-80mm PUF insulation layer.
- With hop port at top head.

- Machine structure -

Accessories: Sample Valve, Pressure relief/vacuum valve, temp. Sensor/thermometer, rotating racking arm with butterfly valve, Bottom outlet with butterfly valve, CIP rotary spray ball and process pipe.



- Technology data Specification -

Capacity	Cylinder(ODxH)	OAH	Inner Thicknes
7BBL	1000 x 1250mm	2530mm	3mm
10BBL	1150 x 1250mm	2670mm	3mm
15BBL	1250 x 1680mm	3250mm	3mm
20BBL	1400 x 1700mm	3400mm	3mm
30BBL	1650 x 1850mm	3740mm	3mm
40BBL	1750 x 2050mm	4040mm	3mm
50BBL	1750 x 2750mm	4770mm	3mm
60BBL	1150 x 1250mm	2670mm	3mm
80BBL	2100 x 2900mm	5300mm	3mm
100BBL	2200 x 3350mm	5850mm	3mm

*Above model just for reference, we can do according to client's URS *

Distill Plant

it is designed and built for distillery usage. which can achieve about 96% A.B.V. to produce neutral spirit and Vodka easily. Also the still is equipped with copper helmet, gin basket. That can also use it to produce low degree A.B.V., such as gin, whiskey, brandy, rum etc.

Still pot: jacketed tank which can be heated by steam or electrical. Also can equipped with agitator as optional/with the necessary accessory fittings.

Helmet/goose neck: it is an expansion chamber sitting on the top of the still pot. Vapor gas goes through a comparatively narrow channel, then goes into a big space of helmet. This process causes a sudden reduction of pressure, can make the high boiling temperature compound back to still pot, but the essential will be vapor out. This is very important for making alcohol with excellent taste.

Reflux column: the bubble cap plates trays are used for reflux continuous distilling in order to get higher concentration of alcohol.

Dephlegmator: the dephlegmator is the key to the whole still, without the dephlegmator it's very difficult to create reflux. This unit allows the cool water to condense your alcohol vapor as it passes through the multiple internal cooling tubes, allowing it to fall back to your column. Then the bubble cap plates can do their job which allows you to purify your ethanol to very high proof. It has inlet and outlet of cooling water.

Gin basket: the gin basket is for loading the spicy that produce flavor spirit that people like.

Condenser: the vapor passing through the cooling tubes gets in touch with the cold water and exchange heat with each other. Then the vapor is condensed to liquid spirit



Pot Distiller



- Technology data Specification

Type	Volumn	Compenent
Whisky Distiller	50-5000L	Still pot, helmet, Condenser, Cip, Pipe system.
Vodka Distiller	50-5000L	Still pot, helmet, Column, Dephlegmator, Condenser, Pipe system.
Brandy Distiller	50-5000L	Still pot, helmet, Column, Dephlegmator, Condenser, Pipe system.
Rum Distiller	50-5000L	Still pot, Column, Condenser, Cip, Pipe system.
Gin Distiller	50-5000L	Still pot, Column, Gin basket, Condenser, Cip, Pipe system.
Multi-Function Distiller	50-5000L	Still pot, Column, helmet, Dephlegmator, Gin basket, Condenser, Cip, Pipe system, Collecting tank.

Item	Material	Function	Type
Still Pot	SS304, SS316Land red copper	Material/mash distilling	Tank/pot
Helmet	SS304, SS316L and Full red copper	Improve high quality	Ellipse/round type
Gin Basket	Glass/red copper	Flavour spirits, making Gin	Basket, glass
Distilling Column 16 Plate	SS304, SS316L and Full red copper	Distilling alcohol	Column
Dephlegmator	SS304 and SS316L	Partial condenser	Column
Condenser	SS304	Condensing to alcohol	Column

*Above model just for reference, we can do according to client's URS *

CIP machine



CIP (clean in place) machine is widely used to washing the production equipment and pipeline in pharmaceutical, dairy, juice, food, beer, wine etc filed.

This machine including the following unit: acid solution tank, alkali solution tank, hot water tank (pure water tank), heat exchanger, CIP washing pump, CIP circulation pump and pipeline. The machine can be control automatic, semi-automatic and manual according to the production requirement.

Automatic type CIP machine can control automatic for the following parameter.

- Acid solution and alkali solution dosing by diaphragm pump according to the PH sensor data automatic.
- Washing solution temperature can adjustable automatic.
- Washing solution can automatic set.
- Washing solution pressure can automatic set.

- Technology data Specification -

Model	CIP50	CIP200	CIP500	CIP1000	CIP2000	CIP10000
Tank working volume (L)	50	200	500	1000	2000	10000
Circulation pump capacity (T/h)	1	1	3	3	5	20
CIP washing pump capacity (T/h)	1	3	3	5	10	20
Heat exchanger (m ²)	1	2	3	5	7	15

*Above model just for reference, we can do according to client's URS *

Milk Cooling Tank

Milk Cooling Tank is Mainly used for cool and storage for fresh milk, also can be used to keep other liquid product. The temperature can keep as 4 degree for long time.

- Features -

- Working capacity from 50L to 20000L -.
- Material: Stainless steel 304 (SS316L is Optional).
- Heat preservation material: PUF -thickness is 50mm.
- Refrigeration unit brand: MANEUROP compressor.
- Refrigerants is R22 (R404A).
- Control system (PLC/HMI is optional).

Accessories: CIP clean ball/manhole/vent filter/Mixer device.



- Technology data Specification -

Model	ZLG-500	ZLG-1000	ZLG-2000	ZLG-3000	ZLG-5000
Tank volume (L)	500	1000	2000	3000	5000
Thermal insulation	18h/≤2°C	18h/≤2°C	18h/≤2°C	18h/≤2°C	18h/≤1.5°C
Rotating speed for agitator	36rpm	36rpm	36rpm	36rpm	36rpm
Voltage	2×220V	3×380V	3×380V	3×380V	3×380V 50HZ
Compressor power (KW)	2.2	3.75	5.5	5.5	5.5x2
Refrigerating capacity (W)	8020	15500	17700	17700	31000
Compressor brand	Danfoss Maneurop	Danfoss Maneurop	Danfoss Maneurop	Danfoss Maneurop	Danfoss Maneurop
Compressor model	MT-36	MT-50	MT-80	MT-80	MT-80x2

*Above model just for reference, we can do according to client's URS *

Sterilizer Machine



Sterilizing system process many kinds of liquid products, like fruit juice, jam, concentration juice, milk, beverage etc, the temperature can be adjustable according to the production process.

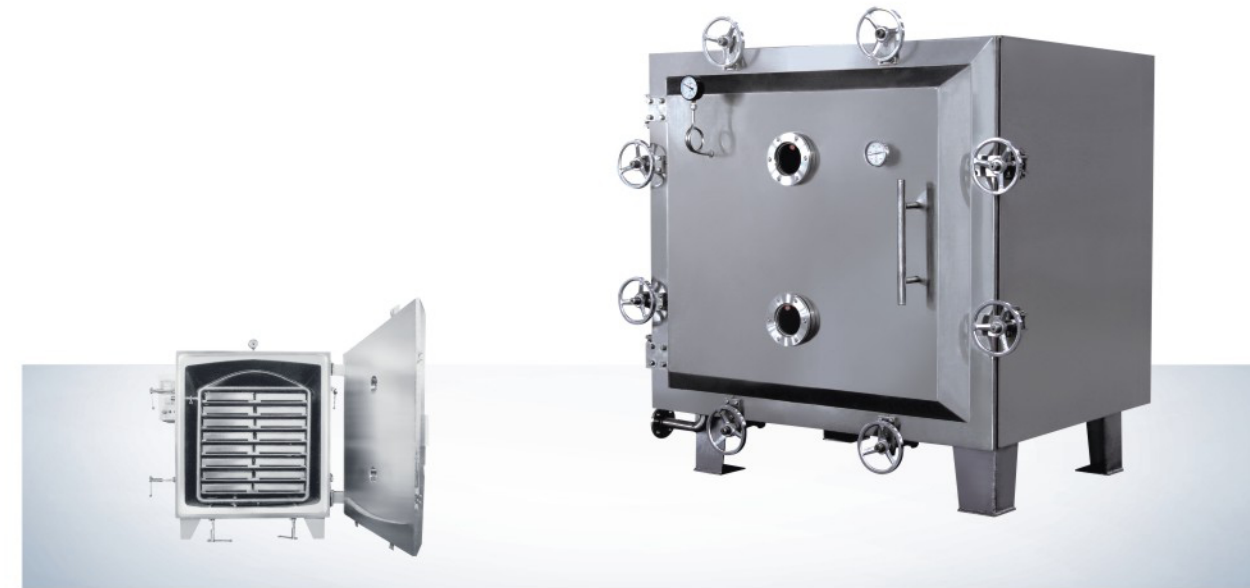
According to the sterilizer temperature, it can be classified as below.

- Pasteurizing sterilizing: temperature range is 75-90°C.
- High temperature sterilizing: temperature range is 117-125°C.
- Ultra high temperature sterilizing: temperature range is 133-140°C.

- Features -

- working capacity from 500L/H to 20T/H.
- Material: Stainless steel 304 (SS316L is Optional).
- Tubular type sterilizer (Plate type is optional).
- Product inlet temperature from 4 degree to 60 degree.
- Sterilizer temperature from 75 degree to 140 degree.
- Sterilizer holding temperature from 5 seconds to 300 seconds.
- Outlet temperature for filling from 5 degree to 80 degree.
- Control system: semi-automatic control (PLC/HMI is optional).
- Accessories: product pump, water pump pressure gauge, temperature sensor, water tank product tank etc.

Vacuum Dryer



This equipment can be used for low temperature drying and organic solvent recovery. Heat source can be steam, hot water and thermal oil. It is specially suitable for drying materials that is easily oxygenated during drying.

In the drying chamber, material will be dried under vacuum condition. Under the vacuum condition, the boiling point of material solution will reduce. It will increase impetus for heat and mass exchange. Therefore for certain heat exchange amount, it can

save heat exchange area of evaporator.

Material is under static condition during operation of the equipment, which is benefit for keeping initial status of material. Intermittent operation can adjust process conditions at any time.

On the top of vacuum dryer, heating system is arranged to tackle the problem of return of condensed water, in addition, air suction is arranged at the side to improve drying efficiency.

- Technology data Specification -

Model	FZG-10	FZG-15	FZG-20
Item			
Layers of backing support	5	8	12
Interval(mm)	122	122	122
Quantity of baking tray	20	32	48
Size of baking tray(mm)	460x640x45	460x640x45	460x640x45
Working pressure inside the pipe of baking support(mpa)	≤0.784	≤0.784	≤0.784
Temperature inside the chamber(°c)	≤150	≤150	≤150
Degree of vacuum inside the chamber when operation in idle, mpa		≤30	
Under the vacuum condition of 30and110°c, evaporation rate of water(kg/m²,h)		7.2	
Model and power of vacuum pump when condenser is used(kw)	2X-70A 5.5	2X-70A 7.5	2X-70A 7.5
Outer size of drying chamber(mm)	1924x1720x1513	1513x1924x2060	1924x2500x1513

*Above model just for reference, we can do according to client's URS *

Spray Dryer

It's widely used in foodstuff, pharmaceutical and chemical industrial, such as egg powder, amino acid product, protein, blood, food flavor, food ingredients, pectin, carrageenan, spirulina, herbal extraction, pigment, cocoa, mushroom, PAC, malt dextrin, collagen, juice, yeast, Coffee, Creamer, coconut, milk, gelatin, gum and acacia etc.

- Working Principle -

After filtering and heating, the hot fresh air enter into the air distributor at the top of drying chamber, distributed in spiral way uniformly from up to down. At the same time, the feeding liquid is pumped to the top atomizer, then be sprayed to extremely fine mist liquid drop. Through the short time of direct contact with hot air, the moisture evaporated at once, the solid remains to be powder. The dry powder will be discharged continuously from the bottom of drying tower and cyclone collector, the exhaust air will be discharged after cleaning.



- Technology data Specification -

Model	LPG 5	LPG 25	LPG 50	LPG 100	LPG 150	LPG 200-5000
Evaporate capacity (kg/h)	5	25	50	100	150	200-5000
Inlet air temperature	≤ 350°C					
Outlet air temperature	80-90°C					
Atomizer type	Compressed Air drive	Mechanical drive				
Rotary speed	25000	22000	21500	18000	18000	15000
Diameter of atomizer disc (mm)	50	120	120	120	150	180-500
Heating source	Electricity	Electricity/LPG/ Natural gas/ Oil/Steam	Electricity/LPG/ Natural gas/ Oil/Steam	Electricity/LPG/ Natural gas/ Oil/Steam	Electricity/LPG/ Natural gas/ Oil/Steam	Electricity/LPG/ Natural gas/ Oil/Steam
Electric-heating power (kw)	9	-	-	-	-	-
Dry powder yield (%)	≥ 95	≥ 95	≥ 95	≥ 95	≥ 95	≥ 95

*Above model just for reference, we can do according to client's URS *

Mixing Machine



This machine can mix fine powder, caked or more two powder raw material, raw materials containing certain moisture. Particularly it can also mix raw material that needs to add small amount of additive.

Features: Unique structure of mixing tank, high mixing efficiency, free of dead corner and even mixing.

The mixer is made of stainless steel with inside and outside walls polished. The machine can also increase to mix blend the function compulsory. It can mix thin powder and more than two form powders including the materials that contain water.

- Technical Parameters -

Model	EYH -30	EYH -150	EYH -300	EYH -600	EYH -1000	EYH -1500	EYH -2000
Barrel volume (L)	30	150	300	600	1000	1500	2000
Loading capacity (L)	15	75	150	300	500	750	1000
Max loading weight (kg/batch)	7.5	37.5	75	150	250	375	500
No. of swing and rotation r/min	61	37	30	23.6	19.8	16.2	16.2
Total motor power (kw)	0.19	1.15	1.15	3	3	4.4	7.4
Total weight (kg)	60	190	340	1150	1700	2000	2600
Barrel weight (kg)	8.5	50	60	140	240	320	430
Overall dimension	5.4*5.8	8*10.5	9*13.5	11.7*16.4	13.6*20.4	15.8*24	17.4*26
X × Y × Z × Z1 (m)	*9*7	*14.5*13.4	*15.5*14	*20.5*19.1	*23*21.7	*25.5*23.3	*27.7*25.5

*Above model just for reference, we can do according to client's URS *

Lifter With Bin

This equipment mainly used for solid material transferring and charging, can work with bin blender, tablet machine and capsule filling machine, meanwhile, it is widely used in pharmaceutical, chemical and food stuff industries.

When the Bin is pushed into the lifting arm, the lifting arm ascends or descends under the control of the electric gear motor, so as to complete material ascension, transportation and charging.

The bin is made of high-quality stainless steel with inside and outside mirror polish and no dead angle, complying with GMP requirements.

Sealed drug transportation prevents pollution in the process of transportation, dust floating as well as cross contamination during production and transportation, in full compliance with GMP requirements.



- Technology data Specification -

Model	BN100	BN200	BN300	BN500	BN800	BN1000
Bin volume (L)	100	200	300	500	800	1000
Lift motor power (Kw)	0.75	1.5	2.2	2.2	3	4
Lift height	According to client's URS					
Total height	According to client's URS					

*Above model just for reference, we can do according to client's URS *

RO Water Treatment Machine



Reverse osmosis (RO) is a water purification technology that uses a semipermeable membrane to remove ions, molecules, and larger particles from drinking water. It could apply to both industrial processes and the production of potable water.

- Working Principle -

Feed water pump-Sand filter--Active carbon filter - Softener-Cartridge filter-High-pressure pump-RO system.

-Feed water pump: provide the pressure to sand filter/active carbon filter/ softener.

-Sand filter: Get rid of turbidity, suspended solids, organic impurities and colloid etc.

-Active Carbon filter: Remove the color, free chloride, organic matter and harmful matter etc.

-Softener: Get rid of calcium, magnesium and bicarbonate ions in original/source water, reduce water hardness.

-Cartridge filter: prevent any deposition of large Particles, most of the bacteria, and viruses into the RO membrane, The accuracy is 5um, for holding back any large particulates such as large iron, dust, suspended matter, impurity.

-High pressure pump: Provide the high pressure to RO membrane (at least 2.0 Mpa).

-RO system: main part of pure water treatment plant. The desalination rate up to 99%, capable of removing over 99% of ions, bacterias, particles and organics.

-RO water treatment machine can be divided to single stage RO water treatment and double stage RO water treatment according to the requirement.

-Output capacity: 100L/H to 50000L/H.

*** System capacity changes significantly with water temperature and feed TDS, for higher TDS, a water analysis must be provided and could result in modifications to the system.***

Multi-effect Water Distillation Machine



The Multi-effect distiller water machine is used to produce the WFI water in the pharmaceutical field.

- Working Principle -

Adopts rising film and multi-diversion form to evaporate. The industrial steam enters the evaporate shell pass through valves and interchange heat with the purified water rising film in tube pass. The purified water after heat exchange becomes vapour, then impure heat source will be removed from the vapour through diversion separation device in the machine to produce the secondary steam. The pure steam

after steam-water separation will become distilled water after being condensated as heating source in II effect. Then the distilled water will enter into the condenser under the pressure differential action and then enter the storage tank through the pipe for storage. The concentrated water without evaporation and separation shall enter the next effect for re-evaporation through concentrated water inlet

- Technology Data Specification -

Model	LD500-6	LD750-6	LD1000-6	LD1500-6	LD2000-6	LD3000-6	LD4000-6	LD5000-6	LD6000-6	LD8000-6	LD10000-6
Capacity(L/H)	≥500	≥750	≥1000	≥1500	≥2000	≥3000	≥4000	≥5000	≥6000	≥8000	≥10000
Industrial steam consumption(L/h)	≤120	≤180	≤240	≤360	≤480	≤720	≤960	≤1200	≤1400	≤1920	≤2400
Feed water consumption(L/h)	550	825	1100	1650	2200	3300	4400	5500	6600	8800	11000
Motor power(KW)	0.75	0.75	1.1	1.1	2.2	2.2	2.2	4.0	4.0	4.0	4.0
Dimension L*W*H (mm)	2190*950*2700	2360*1000*2850	2400*1140*2900	2800*1250*3000	2950*1250*3000	3600*1420*3500	3850*1480*3600	4160*1520*3600	4350*1700*3800	4750*1850*4000	5200*1850*4000

*Above model just for reference, we can do according to client's URS *

Filter Series

- Microporous Membrane Filter -

- Flow capacity : 0.5t/h-30t/h
- Filter house length : 5" , 10" , 15" , 20" , 30" etc
- Filter cartridge quantity in filter : 1core ,3core ,5core ,7 core,9core ,11core etc
- Filter house material : 304/316L
- Filter cartridge material : PTFE , PP, PVDF, N66, PES
- Filter precision : 0.22um, 0.4um, 1um, 3um, 5um, 10um, 20um, 50um etc
- Cartridge connection model : 222, 226 etc



- Duplex Filter -

- Filter area : 0.1m²- 0.50m²
- Flow capacity : 1t/h-20t/h
- Aperture of filter screen : 40-400mesh
- Filter material : 304/316L



- Titanium Stick Filter -

Titanium stick filter has the characteristics of high pressure, strong acid, strong alkali, corrosion resistance and recyclable filter element. It is a hollow filter tube made by powder metallurgy without sintering titanium powder at high temperature. It is widely used in liquid-solid separation in food, beverage, medicine and chemical industries. It is especially suitable for large infusion and injection production lines in pharmaceutical industry. Decarbonization filtration.



- Stainless Steel Press Filter -

Model	YL150	YL200	YL300	YL400
Filter Plate Diameter (mm)	150	200	300	400
Plate Number	10			
Pump Flow Capacity (T/h)	1	3	5	8
Pump Motor Power (Kw)	0.75	1.1	1.5	2.2
Dimension L*W*H (mm)	800*600*500	900*650*500	1050*650*500	1200*700*600

*Above model just for reference, we can do according to client's URS *



Sanitary Pump Series



- Sanitary Centrifuge Pump -

Sanitary Centrifugal pump suitable for transferring milk, beverage, wine and pharmaceutical liquids etc.

Model	Flow capacity (t/h)	Lift Head (m)	Motor power (kw)	inlet/outlet (mm)
JSL-0.55-3-14	3	14	0.55	38/32
JSL-0.75-3-16	3	16	0.75	38/32
JSL-1.1-4-18	4	18	1.1	38/38
JSL-1.5-5-18	5	24	1.5	38/38
JSL-2.2-10-24	10	24	2.2	51/38
JSL-3-15-24	15	24	3	51/51
JSL-4-20-24	20	24	4	51/51
JSL-5.5-20-36	20	36	5.5	51/51
JSL-7.5-30-36	30	36	7.5	63/51
JSL-11-50-40	50	40	11	76/63
JSL-15-60-40	60	40	15	89/76

- Rotor Pump -

Rotor Pump depends on two synchronic rotators. The two rotators are driven by a pair of outer-set synchronic gear boxes and the transmission shaft. They move synchronically in counter-clockwise directions. Which consequently, builds up high vacuum capacity and emission pressure.



Model	Flow Capacity (m³/h)	Speed (rpm)	Max Pressure (Mpa)	Viscosity (cp)	Power (kw)	Connection
RP1	0~1	40~700	1.0	1~500000	0.25~1.5	DN20
RP2	0.2~2	40~700	1.2	1~500000	0.55~2.2	DN25
RP3	0.4~3	40~500	1.2	1~1000000	0.75~3.0	DN32
RP5	0.6~5	40~500	1.5	1~1000000	1.5~5.5	DN40
RP8	1~8	40~450	1.5	1~1000000	2.2~11	DN50
RP12	1.6~12	40~450	1.5	1~1000000	3.0~15	DN50 OR DN65
RP20	2.8~20	40~400	1.5	1~1000000	4.0~18.5	DN65 OR DN80
RP35	5~35	40~400	1.5	1~1000000	7.5~30	DN100
RP55	10~55	40~350	1.5	1~1000000	11~45	DN125
RP80	16~80	40~350	1.5	1~1000000	15~75	DN125 OR DN150
RP120	26~120	40~300	1.5	1~1000000	22~90	DN150

- Emulsify Pump -

Online homogenizer pump is used for treatment of fine materials. In the small chamber, there are 1~3 sets of paired and clutched stators and rotors. Driven by motor, the rotor revolve quickly and produces a strong axial suction force which intakes the material to the chamber. The machine disperses, shears and emulsifies the materials in shortest time, and the diameter range of the particles gets smaller.



Material		Flow range	Speed range	Power
Contact with the product parts	Non contact product parts	0~140m³/h	1440/2900rpm	4~185kw
316L, 304	304			

*Above model just for reference, we can do according to client's URS *

Heat Exchanger Series

- Plate Heat Exchanger -

Plate heat exchanger is a kind of high efficiency heat exchanger, which is made up of a series of metal sheets with certain corrugated shape. A thin rectangular channel is formed between various plates, and heat is exchanged through the plates. Plate heat exchanger is an ideal equipment for liquid-liquid and liquid-vapor heat exchange.



Plate Heat Exchanger

- Tubular Type Heat Exchanger -

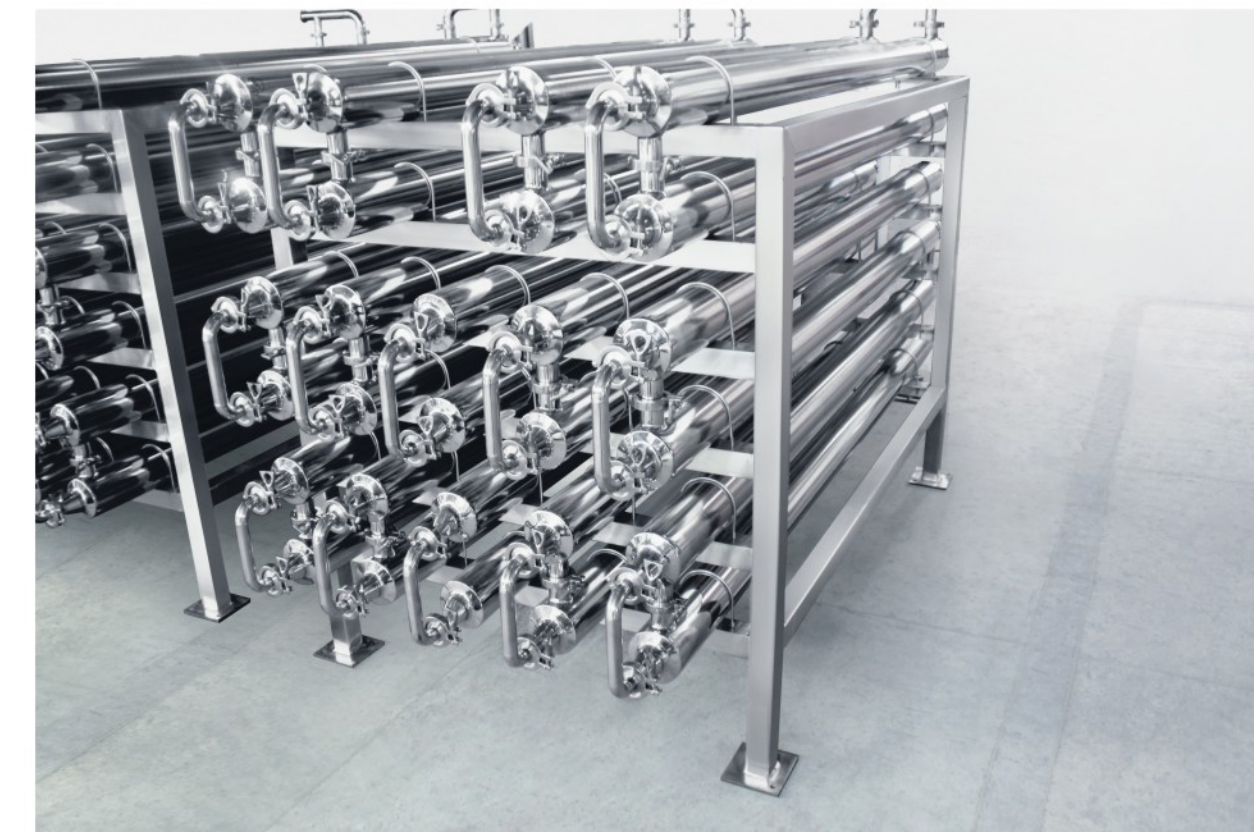
Tubular type Heat exchanger is mainly composed of shell, tube plate, heat exchange tube, baffle and so on. During heat transfer, one kind of liquid fluid enters from the connecting pipe of the head, flows in the pipe and flows out from the outlet pipe at the other end of the head, which is called the pipe process; the other kind of fluid enters from the nozzle of the shell and flows out from the other nozzle on the shell, which is called the shell process. These two kinds of liquid fluid have the heat exchange.



Tubular Type Heat Exchanger

- Double Tube Heat Exchanger -

It is a type of tubular type heat exchanger. Double tube heat exchanger is a concentric tube connected by two standard different sizes tubes. The outer tube is called shell side, and the inner tube side is called tube side. Two different media can flow (or be in the same direction) in the shell side and tube side to achieve the effect of heat transfer.



Sanitary Pipe Fittings

Sanitary pipe fittings are widely used in the pharmaceutical field, beverage field, dairy field, beer field and water treatment field etc. Sanitary pipe fittings are used in the process pipeline connection and pipeline flow control system. It is using SS304 or SS316L material, the inside surface is mirror polish, outside surface is mat polish which can reach FDA and GMP requirement.

