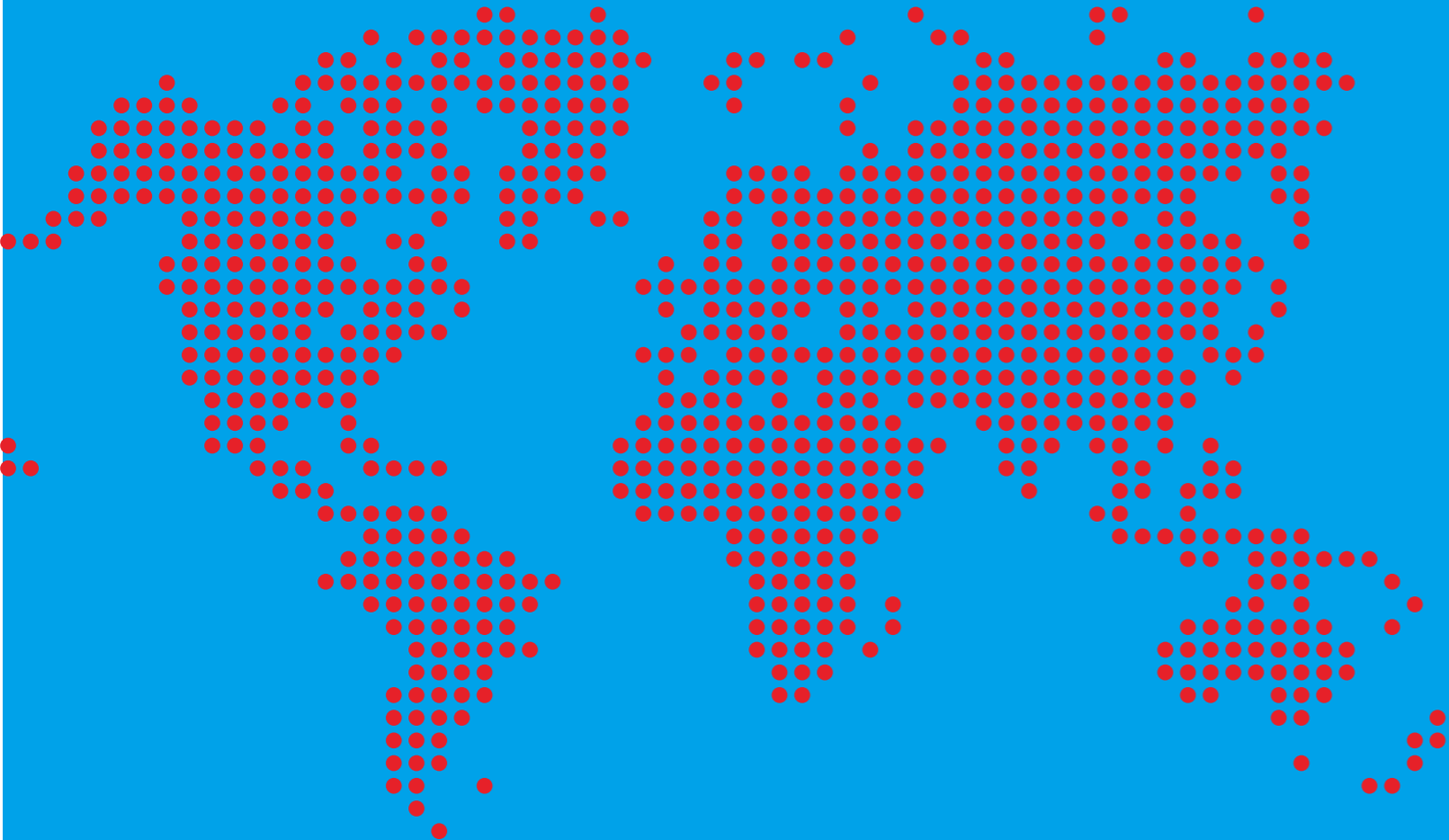




WUXING SHENG PETROCHEMICAL EQUIPMENT CO., LTD.
无锡兴盛药化装备有限公司

高新技术企业
A HIGH-TECH ENTERPRISE

化工
chemical industry equipment
生化
biochemistry equipment
能源
energy equipment
环保
environmental protection



无锡兴盛药化装备有限公司
WUXI XING SHENG PETROCHEMICAL EQUIPMENT CO., LTD.

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公司 简介



无锡兴盛药化装备有限公司位于太湖之滨江南名城无锡南郊，浩瀚的太湖北岸，风景秀丽，气候宜人，交通方便，紧靠沪宁铁路，沪宁高速公路，京杭大运河。具有国家安全标准压力容器三类制造许可证和压力容器的设计证、通过ISO9001质量管理体系认证。

公司致力于新能源新装备，甲醇替代天然气节能环保，MVR废水蒸发系统，塔器，换热器，反应釜，反应器等化工设备的研发制造。

设备材质分别为：碳钢、不锈钢、双相钢、钛材、镍基合金、哈氏合金、铜材等。广泛适用于食品饮料、制药、化工、石油、农药、城市污泥及环保行业。

“以质量求生存，以高科技求发展，以信誉拓市场”为宗旨，为每一位客户提供高标准、高技术、高质量的产品及售后服务，“优质量、优服务、优价格、优信誉”的经营宗旨和新产品的不断研发是我公司全体员工对每一位客户的承诺，我公司真诚的希望同广大客户精诚合作，共创辉煌。

About Us

Wuxi Xing sheng Petrochemical Equipment Co., Ltd. is located in the Taihu Lake in southern city of Wuxi in the southern suburbs, the north shore of Taihu Lake, the vast, beautiful scenery and pleasant weather, traffic is convenient, close to Shanghai Nanjing railway, Shanghai Nanjing Expressway, Beijing Hangzhou Grand Canal. Our company has the certificates of the III type pressure vessel production and design license, and ISO9001 quality management system and ISO14001 environment certification, etc.

Our company is committed to the new energy and new equipment, methanol instead of natural gas energy saving and environmental protection, MVR waste water evaporation system, tower, heat exchanger, reactor, reactor and other chemical equipment R & D and manufacturing.

The materials our company handling are carbon steel, stainless steel, duplex steel, titanium alloy, nickel based alloys, copper, composite materials and etc... Widely used in foodstuff, beverage, pharmaceuticals, chemical, petroleum, pesticide, city slurry and environmental protection industry.

As the tenet of “living by quality, development by credit, interest by brand”, our company provides high standard, high technology, high quality products and after sales services for every customers. And “high-quality, high-service, high-credit, low-cost” with the continuous research and development is the commitment of all the staff of our company to every customers. Our company sincerely hopes to cooperate with you to create a brilliant future.



REACTION STIRRING
EQUIPMENT

反应搅拌设备

不锈钢反应釜
 蒸汽加热、导热油加热反应釜
 多功能分散釜
 PS专用设备
 不饱和聚酯树脂，涂料设备
 红外加热反应釜
 Stainless steel reaction kettles
 Steam heating, conduction oil heating reaction kettles
 Multifunctional dispersion kettles
 PS special equipment
 Unsaturated polyester resin, paint equipment
 Infrared heating reaction kettles

HEAT-EXCHANGE
EQUIPMENT

换热设备

脱挥器
 管式换热器
 螺旋板换热器
 Devolatilizers
 Tube heat exchangers
 Spiral-plate heat exchangers

FERMENTATION, EXTRACTION
AND FILTRATION EQUIPMENT

发酵提取过滤设备

发酵罐系列
 多功能提取罐系列
 种子罐系列
 提取罐系列
 中药酒精沉淀罐
 浓缩罐系列
 IG型列管式过滤器
 Fermentation tank series
 Multifunctional extraction tank series
 Seeding tank series
 Extraction tank series
 Traditional Chinese medicine (TCM) alcohol precipitation tanks
 Concentration tank series
 IG tube filters

DRYING, DISPERSING AND
MIXING EQUIPMENT

干燥、分散、混合设备

干燥器系列
 ZJG真空干燥机
 薄膜蒸发器
 结晶切片机
 Dryer series
 ZJG vacuum dryers
 Thin-film evaporators
 Crystallization slicers

DISTILLATION AND
CONCENTRATION EQUIPMENT

蒸馏浓缩设备

I、III效蒸发器
 精馏回收塔
 酒精回收塔
 I, III-effect evaporators
 Rectification recovery towers
 Alcohol recovery towers

OTHER EQUIPMENT

其它设备

真空均质乳化设备
 储罐、槽车系列
 分汽包、水箱系列
 硫化罐、压力罐系列
 蒸汽发生器系列
 蒸汽蓄热器系列
 Vacuum homogenization and emulsification equipment
 Storage tank and tank car series
 Steam header and water tank series
 Vulcanizer and pressure tank series
 Steam generator series
 Steam heat accumulator series

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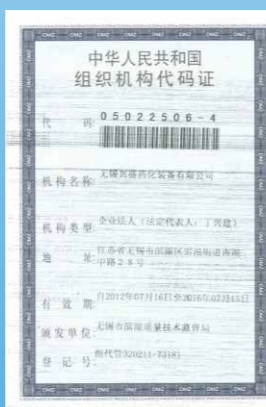
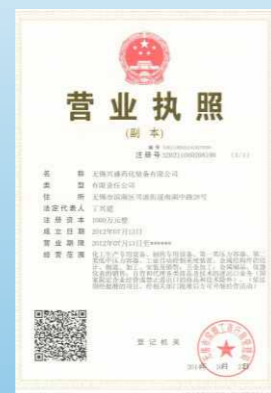
What's inside
Shuoyun Petrification

优质量、优服务、优价格、优信誉
High quality, excellent service, best price and good reputation

荣誉

Honors

公司资质 Certificates



反应搅拌设备

Reaction stirring equipment

质量为本



▶ 产品展示 Product display



▶ 主要技术参数参考表 Reference table of main technical parameters

规格(L) Specification	公称直径 (φmm) Nominal diameter	夹套公称直径 (φmm) Nominal diameter of jacket	电动机功率 (KW) Motor power	减速机型号 Reducer model	搅拌转速 (r.p.m) Stirring speed
30	400	500	0.6	BLD 0.6-1	60-100
50	500	600	0.8	BLD 0.8-1	60-100
100	550	650	1.1	BLD 1.1-1	60-100
150	600	700	2.2	BLD 2.2-2	60-100
200	650	750	2.2	BLD 2.2-2	60-100
300	800	900	3	BLD 3-2	60-100
500	900	1000	3	BLD 3-2	60-100
800	1100	1200	4	BLD 4-2	60-100
1000	1200	1300	4	BLD 4-3	60-100
1500	1300	1400	4	BLD 4-3	60-100
2000	1400	1500	5.5	BLD 5.5-3	60-100
2500	1400	1500	7.5	BLD 7.5-4	60-100
3000	1400	1500	7.5	BLD 7.5-4	60-100
3500	1400	1500	7.5	BLD 7.5-4	60-100
4000	1500	1600	7.5	BLD 7.5-4	60-100
5000	1600	1700	7.5	BLD 7.5-4	60-100
6000	1800	1900	15	BLD 15-5	60-100
18000	2000	2100	15	BLD 15-5	60-100
32000	3000	3200	37	BLD 37-56A	35-59
80000	4000	4200	55	BLD 55-56A	35-59

其它特殊规格可另行设计

▶ 产品展示 Product display

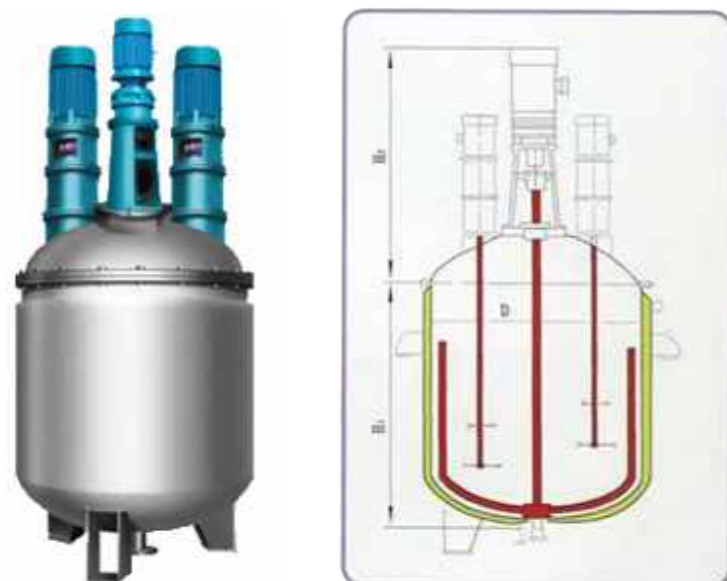


▶ 产品概述

多功能分散釜集低速强力搅拌和高速分散多功能于一体，对中高粘度及触变性物料具有很好的适应性。由于搅拌，分散可同时进行，能获得理想效果。该机适用于各种物料的搅拌，溶解分散和调漆，操作简单，适应性强，是理想的搅拌，分散设备。

▶ Product overview

Multifunctional dispersion kettles combine low-speed intense stirring and high-speed dispersion into one and have good adaptability regarding materials with medium and high viscosity and thixotropy. As stirring and dispersion can happen at the same time, these kettles can produce ideal effects. The kettles are applicable to the stirring, dispersion and paint mixing of all kinds of materials and are easy to operate and highly adaptable, making them ideal mixing and dispersing equipment.



▶ 主要技术参数参考表 Reference table of main technical parameters

参数 Parameter	型号 Model							
	FS-2	FS-3	FS-5	FS-6	FS-8	FS-10	FS-12	
容积(m ³) Volume	2	3	5	6	8	10	12	
搅拌功率(kw) Stirring power	5.5	5.5	7.5	7.5	11	13	14.3	
搅拌转速(r/min) Stirring speed	50	50	50	50	41	41	41	
搅拌器直径(mm) Stirrer diameter	1300	1500	1700	1700	1900	2100	2300	
分散转速(r/min) Dispersion speed	2800	2800	2800	2800	2800	2800	2800	
分散功率(kw) Decentralized power	13/16	13/16	22/24	22/28	22/28	26/34	30/42	
分散盘个数 Dispersion plate number	2	4	4	4	4	6	6	
外形尺寸(mm) Boundary dimension	D	1400	1600	1600	1800	2000	2200	2400
	M1	1650	1765	2040	2400	2400	2950	3100
	M2	1900	2000	2200	2500	2500	2570	2620

▶ 聚苯乙烯 (PS) 设备说明

聚苯乙烯 (PS) 世界上五大通用热塑性合成之一，是以苯乙烯 (SM) 为原料，采用本体法和悬浮法聚合生产。产品性能优异、用途广泛。它是透明和玻璃状坚硬聚合物、坚韧、耐化学性的产品，易于加工成型、制品多种多样、小到日常生活中的杯子、瓶子，大到工业生产中应用的电子器件、壳体以及建筑板材，绝缘和保温材料等，可以说PS是世界上应用最广泛的树脂之一。

我国聚苯乙烯产品质量和性能较差，除外资及合资企业产品外，国内厂商的产品多数不能满足电子行业等用户对产品性能和质量的要求，难以进入这个庞大的市场。在聚苯乙烯需求量最大的电子/电器行业中，进口产品占绝对优势，国产树脂只有少量应用，而且只能用于低档产品。国内知名电器制造商为了保证其产品质量，全部使用进口原料或外资合资企业的产品。

我公司设计生产聚苯乙烯 (PS) 的设备是以国际上最先进的生产工艺和技术为基础，产品性能和质量可达到国外同类高档设备指标，完全可替代进口设备，将可完全改变我国聚苯乙烯行业现状，高档产品市场被外资企业一统天下的局面被打破。

▶ Description of polystyrene (PS) equipment

Polystyrene (PS), as one of the five major common thermoplastic synthetic in the world, is obtained by styrene monomer (SM) through the bulk polymerization and suspension method. The product has excellent performance and extensive uses. As a transparent, glass-like, tough and chemical-resistant polymer, it can be easily shaped into a variety products ranging from cups and bottles in everyday life to electronic devices, shells, building plates, insulating and thermal insulation materials in industrial production. It can be said that PS is one of the most widely-used resins in the world.

The PS products in China have relatively poor quality and performance. Except those from foreign-funded enterprises and joint ventures, most of the products from Chinese manufacturers cannot meet the product performance and quality requirements of users in the electronic industry, etc. thus making them difficult to enter into this huge market. In the electronic/electrical appliance industry that has the biggest demand for PS, imported products have absolute advantage and only few resin made in China is used and it can only be used in low-end products. To ensure product quality, renowned Chinese electrical appliance manufacturers have adopted imported materials or products from foreign-funded enterprises and joint ventures.

Our PS equipment is designed and manufactured with the world's most advanced production process and technology. Its performance and quality can meet the indexes of foreign high-end equipment of the same type. It can completely replace imported equipment, which will definitely change the current situation of the PS industry in China that the high-end product market is dominated by foreign-funded enterprises.

▶ 油加热反应器

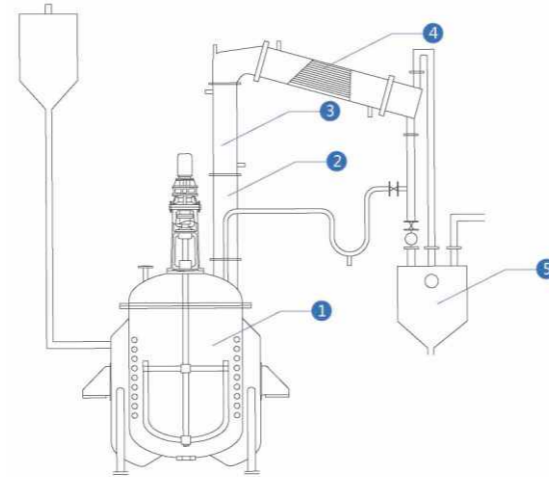
SY系列反应器是我公司在聚苯乙烯 (PS) 专用设备的基础上自行开发和设计，采用完全不同的加热导流系统及合理设计的搅拌系统，温度分布合理，热交换快，是原料在反应器中充分的利用热能，便原料在反应器中完全混合，规格有20立方~100立方，可以满足多种规模生产的需求。

▶ Oil heating reactors

The SY series reactors are a reasonably designed stirring system that is independently developed and designed by us on the basis of PS special equipment but has completely different heating and diversion systems from those of PS equipment. Featured by reasonable temperature distribution and fast heat exchange, the reactors ensures raw materials can make full use of the heat energy and are completely mixed. With specifications ranging from 20m³ to 100m³, it can meet the demand of a variety of scales of production.



▶ 产品展示 Product display



1. 反应锅 Reaction pot
2. 竖式分馏柱 Vertical fractionating column
3. 竖式冷凝器 Vertical condenser
4. 卧式冷凝器 Horizontal condenser



▶ 主要技术参数参考表 Reference table of main technical parameters

部件名称 Component name	容积及尺寸 Volume and size							
反应釜(L) Reaction kettle	50	100	300	500	1000	2000	3000	5000
竖式分馏柱 Vertical fractionating column	DN70×460	DN100×500	DN150×560	DN150×750	DN200×790	DN200×1000	DN250×1200	DN300×1200
竖式冷凝器(m ²) Vertical condenser	0.01	0.19	0.22	0.49	1	1.5	2.5	5
卧式冷凝器(m ²) Horizontal condenser	0.29	0.58	1.5	2.08	3.17	5	12	20
缩水灌(L) Shrink tank	8	30	50	60	100	120	198	300
稀释釜(L) Dilution kettle	100	200	500	800	1500	3000	4500	7500

▶ 产品概述

采用红外线温度加热，使用温度可达到300-600℃。使用稳定，温度可调，国内首创。

高效节能的红外技术早在70年代由国家能源部向全国作重点推广应用，我公司于2000年率先研制将红外技术精心设计，合理应用在：反应釜、蒸馏釜、搪瓷釜、聚合釜、干燥设备、管道等容器上加热和保温，深受用户的一致好评。

远红外电加热装置具有加热面积大，升温平稳而快，放热均匀，温度控制方便，可上、中、下分段控制，釜内釜壁温度易控制，对釜内物料无任何副作用，运行无噪音，无污染，使用寿命长（30000h以上），节能显著（28%以上）。加热器温度可在常温到800℃范围内任意设定。为满足用户需求我公司将加热设备又进行改造，使加热装置整体达到防爆要求，并通过“国家防爆电器产品质量检验中心鉴定”，从而彻底解决了用户一直担心且其它加热方法不能解决的防爆难题。

▶ Product overview

The operating temperature can reach 300-600℃ when infrared heating is adopted. The equipment is the first of such equipment in China with stable use and adjustable temperature.

The efficient, energy-saving infrared technology was promoted nationwide by the Ministry of Energy as early as in the 1970s. In 2000, we were the first in China to develop the infrared technology and reasonably apply it in the heating and thermal insulation of vessels like reaction kettles, distillation kettles, enamel kettles, polymerization kettles, drying equipment and pipes, which are well-received by users.

Far-infrared electrical heating devices are featured by large heating areas, stable and rapid temperature rise, even heating and easy-to-control temperatures (section-by-section control). The temperature in the kettle and of the kettle wall is also easy to control. In addition, they have no side effects to the materials in them and they are noiseless during operation, pollution-free, energy-saving (over 28%) and have a long service life (over 30,000h). The temperature of the heater can be set at any degree in the range from normal temperature to 800℃. To meet user demand, we have upgraded our heating equipment to make them explosion proof, for which we have passed the appraisal of the "China Quality Supervision and Inspection Center of Explosion-proof Electric Equipment", thus completely easing users' concerns and solving the explosion-proof problem that other heating methods cannot solve.



红外线加热反应釜

INFRARED HEATING REACTION KETTLES

► 主要技术参数参考表 Reference table of main technical parameters

反应釜用导热油加热与远红外加热节能效果对照表 Comparison table of energy-saving effect of reaction kettles between conduction oil heating and far-infrared heating 以例举4000L反应釜用户使用情况为例： Take 4,000L reaction kettles for example (use conditions by users):				
序号 Serial No.	加热方式 Heating method 类别 Type	导热油加热 Conduction oil heating	远红外加热 Far-infrared heating	备注 Remarks
1	设计功率 Design power	168KW	120KW	
2	功率分布 Power distribution	分8组电热管加热 8 sets of electric heating tubes	分上、中、下三段加热 Three-section heating (upper, middle and lower section)	
3	热响应时间 Thermal response time	要将夹套内1T导热油加热到280°C 需1.5小时耗电量需250度 It takes 1.5h to heat the 1t conduction oil in the jacket to 280°C, and the power consumption is 250kWh.	反应釜外壁当通电30分钟时其温度 达到400°C、需耗电为42度 The outer wall of the reaction kettle reaches 400°C after it is charged with electricity for 30 minutes, and the power consumption is 42 kWh.	
4	实际使用功率 Actual power	160KW满负荷工作 160KW, full-load work	实际只用了中、下两组84KW就 满足工艺要求 84KW at the middle and lower sections only can meet process requirements	
5	一釜料耗电量 Power consumption of one kettle of raw materials	反应一釜料耗电1764度 1,764kWh for reaction of one kettle of raw materials	反应一釜料耗电814度 814kWh for reaction of one kettle of raw materials	节电53% Saving 53% of electricity
6	使用安全标准 Use safety standard	电热管加热不能防爆 Electric tube heating is not explosion-proof	加热装置整体结构全部达到防爆要求、 且具备相关的防爆证书 The whole structure of the heating device meets explosion-proof requirements and is provided with relevant explosion-proof certificate.	
7	卫生环境程度 Health and environment degree	因导热油内需添加联苯混合物、 当在高温下油气泄漏且有毒对人有害 As diphenyl mixture needs to be added in the conduction oil, there is oil gas leakage under high temperature and it is toxic and harmful to humans.	运行无污染、无噪音、对物料无碳化 或结焦等现象安装后不需再保温 It is pollution-free and noiseless during operation and it does not produce carbonized or coked materials. It doesn't need thermal insulation after installation.	
8	适合反应温度 Applicable reaction temperature	适合温度在300°C以内 Under 300°C	物料温度在700°C范围内都能加热， 温度可任意设定 It can heat materials within 700°C and the temperature is adjustable within the range.	
9	正常损耗 Normal loss	因导热油易碳化每年至少 更换一次油和电热管 As conduction oil can easily carbonize, the oil and electric heating tubes need to be replaced at least once a year	在三年内无需增加任何费用且 安装检修方便 There is no need to add any costs within three years and it is easy to install and maintain.	节约开支 10000元/年 Saving 10,000 Yuan a year of costs
10	导热原理 Heat conduction principle	是将夹套油加热后、通过油的热 量传到釜内让其物料吸热 It heats jacket oil and the heat energy of the oil is then transferred to the kettle in which the materials absorb the heat.	由电阻发热体通电产生热能通过碳化 硅远红外将热能均匀辐射到釜内物料 The resistance heater turns electricity to heat energy, which is evenly radiated to the materials in the kettle through carborundum far-infrared.	

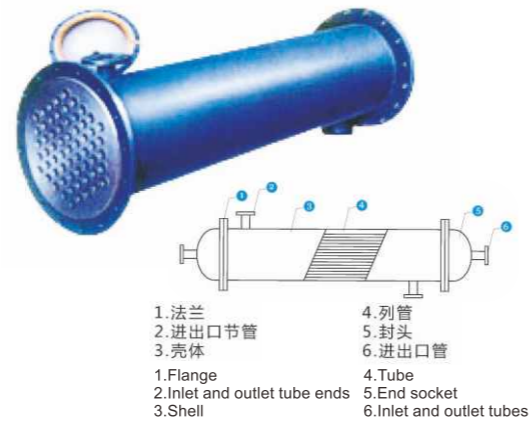


► 产品概述

换热器是一种实现物料之间热量传递的节能设备，是在石油化工、冶金、电力、轻工、食品、制药等行业普遍应用的一种换热设备。在炼油、化工装置中换热器占总设备数量的40%左右，占总投资的30%-45%。近年来随着节能技术的发展，应用领域不断扩大，利用换热器进行高温和低温热能回收带来了显著的经济效益。目前，在换热设备中，使用量最大的是管壳式换热器。20

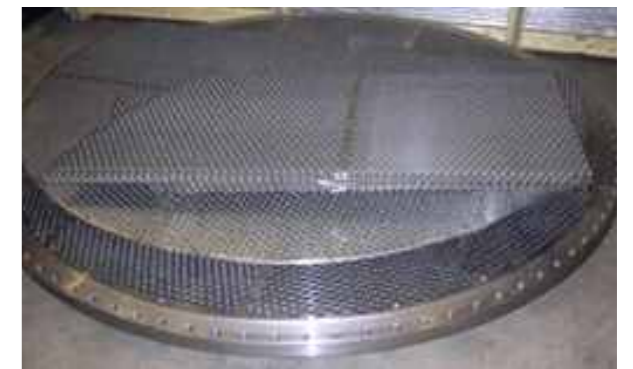
► Product overview

Heat exchangers are a kind of energy-saving equipment that can realize heat transfer between materials. They are commonly used in petrochemical, metallurgy, electric power, light, food and pharmaceutical industries. Among oil refining and chemical devices, the quantity of heat exchangers account for around 40%, and their investment accounts for 30-40% of the total investments. In recent years, with the development of energy-saving technology and the expansion of its application fields, using heat exchangers for high- and low-temperature heat energy recovery has brought significant economic benefits. Currently the most widely-used heat-exchanges are tube heat exchanger.



► 主要技术参数参考表 Reference table of main technical parameters

公称直径 Nominal diameter	管程数 Number of tube passes	管子数量 Number of tubes	换热面积 公称值/计算值 Nominal value/calculated value of heat exchange area					管程通道截面积 管程通道流速为0.5m/sec时的流量(m/hr) Cross-sectional area of tube passage/flow when the flow rate is 0.5m/sec		压力 (MPa) Pressure
			管子长度 (m) Tube length					φ25×2.5		
			1500	2000	3000	4000	6000	φ25×2		
159	1	14	1.5/1.62	2/2.17	3/3.27			0.0044/0.0049	7.92/8.82	0.25
219	1	26	3/3.00	4/4.02	6/6.06	8/8.1		0.0082/0.0090	14.76/16.20	0.6
273	1	44	5/5.08	7/5.18	10/10.26	14/13.72	21/20.63	0.0138/0.0152	24.84/27.36	1.6
	2	40	5/4.62	6/6.19	9/9.33	12/12.47	19/18.76	0.0063/0.0069	11.24/12.42	2.5
325	1	60	7/6.93	9/9.28	14/14.00	19/18.71	28/28.13	0.0188/0.0208	33.84/37.44	0.6
	2	56	6/6.47	9/8.66	13/13.05	17/17.46	36/26.26	0.0088/0.0097	15.84/17.46	1.0
400	1	119	14/13.47	18/18.41	28/27.76	37/37.10	55/55.8	0.0374/0.0412	67.32/74.16	1.6
	2	110	13/12.70	17/17.02	26/25.66	34/34.20	50/51.58	0.0173/0.0190	31.14/34.20	2.5
500	1	185			45/4.15	55/57.68	85/86.74	0.0581/0.0641	104.58/115.38	
	2	180			40/41.99	55/57.68	85/86.74	0.0283/0.0312	50.94/56.16	
600	1	269			60/62.7	85/83.88	125/126.13	0.0845/0.0932	152.10/167.76	
	2	266			60/32.05	80/82.94	125/14.72	0.0418/0.0461	75.24/83.98	
700	1	379			90/88.41	120/118.17	175/177.71	0.0091/0.1313	214.38/236.34	
	2	358			85/83.51	110/111.62	165/167.85	0.0562/0.0620	101.16/111.60	
800	1	511			120/119.20	160/159.16	240/239.60	0.1605/0.1770	288.90/318.60	
	2	488			115/113.83	150/152.16	230/228.81	0.0767/0.0845	138.06/152.10	
900	1	649			150/151.39	200/202.36	305/304.3	0.2039/0.2248	367.02/404.46	
	2	630			145/146.96	195/196.44	295/295.40	0.0990/0.1091	178.20/196.38	
1000	1	805			185/187.78	250/251.00	375/377.45	0.2529/0.2788	455.22/501.74	
	2	792			185/184.75	245/246.95	370/371.36	0.1244/0.1374	223.92/246.96	



换热器/脱挥器

HEAT EXCHANGER/DEVOLATILIZER

▶ 换热器系列

SY系列换热器是我公司采用优质的不锈钢材料、使用专用模具制造、经过合理的工艺设计、通过许多次实验定型，结合合理，使热换系统能够充分利用发挥，规格有100平方~2000平方，适合与各种规模的生产需求。

▶ Heat exchanger series

Our SY series heat exchangers are manufactured with quality stainless steel materials and reasonable process design and after multiple experiments. With reasonable integration, the heat exchange system of the heat exchanger can be fully used. The specifications of 100m²~2,000m² make them suitable for production of different scales.



卧式换热器
Horizontal heat exchanger



U型换热器
U-shaped heat exchanger

▶ 脱挥器系列

SY系列脱挥换热器及脱挥系统在我公司科研人员的攻关下，研制出了最适合脱挥系统使用的加热及脱挥器、使用专用模具制造，使设备能够充分快速地把最适合脱挥器有5立方~50立方，可根据各种生产重要任何条件配套使用。

▶ Devolatilizers series

For the SY series devolatilization and heat exchange equipment and devolatilization system, our scientific research team has developed the heating and devolatilization devices that are most suitable for the devolatilization system. The devices are manufactured with special moulds. With a volume ranging from 5m³ to 50m³, the devolatilizers can be used in various production conditions.



气-水换热器

GAS-WATER HEAT EXCHANGERS

▶ 产品概述

我厂生产的气-水热交换器，按材质分为碳钢列管交换器、不锈钢列管式交换器和碳钢与不锈钢混合列管式交换器三种，按形式分为固定管板式、浮头式、U型管式换热器，按结构分为单管程、双管程和多管程。传热面积0.5-1500m²，可根据用户需要定制。

气水热交换器主要指的是以气水为媒介的换热设备。气水热交换器又可以称作气水换热器或者气水换热设备，其次除了气水热交换器以外还有水水热交换器和油气热交换器。他们的应用范围非常的广，不仅在生产中得到了广泛的应用，而且在化工和生活中也不断地得到了认可和广大用户的青睐。

▶ Product overview

Based on materials, our gas-water heat exchangers are divided into three categories: carbon steel tube heat exchangers, stainless steel tube heat exchangers and carbon steel and stainless steel tube heat exchangers; based on form, we have fixed tube-sheet heat exchangers, floating heat exchangers and U-tube heat exchanges; based on structure, we have single tube pass, double tube pass and multiple tube pass heat exchangers. The heat transfer area ranges from 0.5m² to 1,500m² for users to choose from.

The gas-water heat exchangers mainly refer to the heat exchange equipment with gas and water as media. Besides gas-water heat exchangers, which are also known as gas-water heat transfer devices or equipment, there are also water-water heat exchangers and oil-gas heat exchangers. They are widely used in production, and they are now also gaining more recognition in chemical engineering and everyday life.



▶ 主要技术参数参考表 Reference table of main technical parameters

直径 (mm) Diameter	有效长度 (m) Effective length	传热面积 (m ²) Heat transfer area	工作温度(°C) Operating temperature	工作压力(MPa) Operating pressure
400	1.2-2.6	3.37-8.07	200	0.6
500	1.6-3.0	7.9-14.9	200	0.6
650	1.8-3.2	14.2-25.3	200	0.6
800	1.8-3.2	23.0-40.8	200	0.6

列管换热器系列 TUBE HEAT EXCHANGER SERIES



钛材换热器
Titanium heat exchanger



管壳式换热器
Shell-and-tube exchanger



U型管换热器
U-tube heat exchanger



SUS316L换热器
SUS316L heat exchanger



折流杆换热器
Baffle rod heat exchanger



容积式换热器
Displacement heat exchanger

容积式加热、浮头式换热器 DISPLACEMENT AND FLOATING HEAD HEAT EXCHANGERS

产品展示 Product display



主要技术参数参考表 Reference table of main technical parameters

规格 (m ²) Specification	有效长度 (mm) Effective length	外径 (mm) Outer diameter	重量 (kg) Weight
0.5	800	159	60
1	800	159	90
1.5	1200	208	138
2	1200	220	155
3	1400	300	236
5	1200	300	260
10	1600	400	390
15	2400	400	560
20	2600	400	800
30	3200	450	1005
40	3500	500	1310
50	4000	500	1620
60	4000	500	1850
70	4000	500	2080
80	3500	600	2320
90	4000	600	2600
100	3000	700	2950

螺旋板式换热器

SPIRAL-PLATE HEAT EXCHANGERS

▶ 产品概述

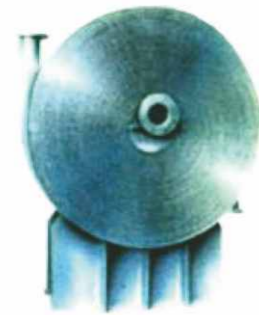
螺旋板式换热器是一种高效换热设备,适用汽-汽、汽-液、液-液的换热。它适用于化工、石油、医药、食品、轻工、纺织、冶金、轧钢、焦化等行业。按结构形式可分为不可拆式(I型)螺旋板式及可拆式(II型、III型)螺旋板式换热器。

▶ Product overview

Spiral-plate heat exchangers are efficient heat-exchange equipment, suitable for steam-steam, steam-liquid and liquid-liquid heat exchange. They are applicable to the chemical, oil, pharmaceuticals, food, light, textile, metallurgy, steel rolling and coking industries. According to their structural forms, they are classified into non-detachable (Type I) and detachable (Type II and III) spiral-plate heat exchangers.



I型
Type I



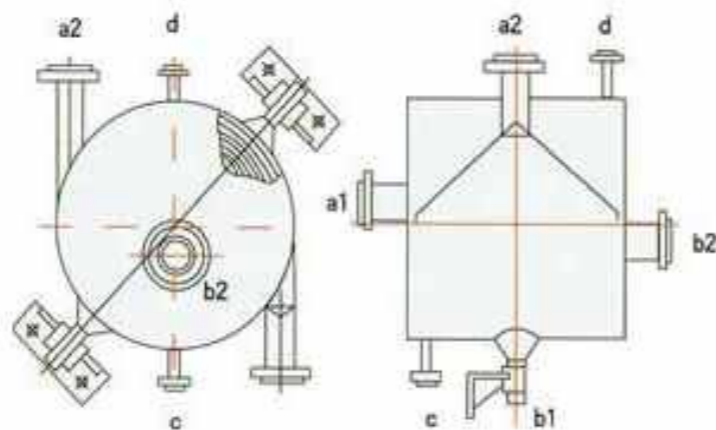
I型
Type I



II型
Type II



III型
Type III



螺旋板式换热器

SPIRAL-PLATE HEAT EXCHANGERS

▶ 主要技术参数参考表 Reference table of main technical parameters

换热面积(m ²) Heat exchange area	通道间距(mm) Channel spacing	计算换热面积(m ²) Calculated heat exchange area	处理量(m ³ /h) Handling capacity	接管公称直径(Dg) Nominal diameter of adapter tube	型号 Model	参考重量(Kg) Reference weight	
						I 6B型 Type I 6B	I 16B型 Type I 16B
1	6	1.0	3.89	40	I 6, I 16B1-0.2/300-6	44	50
2	6	2.1	3.89	40	I 6, I 16B2-0.2/400-6	78	85
4	6	4.4	8.2	50	I 6, I 16B4-0.4/400-6	131	135
	10	4.5	17.3	80	I 6, I 16B4-0.5/500-10	129	133
8	10	4.8	13.7	70	I 6, I 16B4-0.4/500-10	161	205
	6	7.3	8.21	50	I 6, I 16B8-0.4/500-6	212	215
10	10	7.85	17.3	80	I 6, I 16B8-0.5/550-10	235	273
	10	7.3	20.90	80	I 6, I 16BB8-0.5/500-10	237	275
15	6	11.1	8.21	50	I 6, I 16B10-0.5/550-6	295	355
	10	11.5	17.3	80	I 6, I 16B10-0.5/650-10	315	405
20	10	11.2	20.90	80	I 6, I 16B10-0.6/600-10	305	395
	6	16.9	12.54	70	I 6, I 16B15-0.6/600-6	415	490
25	10	14.72	17.3	80	I 6, I 16B15-0.5/760-10	405	575
	10	15.0	28.1	80	I 6, I 16B15-0.75/650-10	400	570
30	14	15.6	39.3	100	I 6, I 16B15-0.75/750-14	505	680
	6	21.7	8.21	50	I 6, I 16B20-0.6/700-6	540	710
40	10	21.0	20.90	80	I 6, I 16B20-0.6/800-10	555	735
	14	20.9	39.30	100	I 6, I 16B20-0.75/850-14	660	830
50	10	26.6	29.90	80	I 6, I 16B25-0.6/900-10	610	950
	14	26.9	39.20	100	I 6, I 16B25-1.0/850-14	720	1060
60	10	28.2	28.10	100	I 6, I 16B30-1.0/800-10	750	1180
	14	32.2	39.20	100	I 6, I 16B30-1.0/900-14	980	1370
80	10	45.4	35.30	100	I 6, I 16B40-1.0/900-10	1130	1515
	14	40.2	19.4	125	I 6, I 16B40-1.0/1000-14	1200	1630
100	10	53.9	35.3	100	I 6, I 16B50-1.0/1000-14	1360	1755
	14	61.05	35.3	100	I 6, I 16B60-1.0/1100-10	1920	2112
120	10	60.08	49.40	125	I 6, I 16B60-1.0/1200-14	2000	2200
	14	81.83	35.3	100	I 6, I 16B80-1.0/1200-10	2560	2816
130	14	80.9	49.40	125	I 6, I 16B80-1.0/1400-14	2667	1934
	10	101.9	35.3	100	I 6, I 16B100-1.0/1300-10	3200	3520
150	14	100.06	49.40	125	I 6, I 16B100-1.0/1500-14	3333	3666
	10	115.5	35.3	100	I 6, I 16B120-1.0/1500-10	3870	4257
170	14	119.0	49.40	125	I 6, I 16B120-1.0/1700-14	4020	4422
	14	128.8	49.4	125	I 6, I 16B130-1.5/1500-14	4241	4665
180	18	129.09	63.5	150	I 6, I 16B130-1.5/1630-18	4462	4908



发酵提取过滤设备

Fermentation, extraction and filtration equipment

▶ 产品概述

我厂设计的发酵罐为标准式罐型，这种罐型当公称容积在 6m^3 以下时罐采用夹套式。发酵气的冷却或加热，均由夹套来完成。公称容积为 6m^3 以上时，发酵气的冷却由立式盘管来担负，在罐内盘管的连接方面我们作了改进。这主要避免在罐体上多开孔，开成死角。这种连续方式在实际使用中得到满意的效果。

▶ Product overview

Our fermentation tanks adopt the standard tank type, which uses jacket when its nominal volume is under 6m^3 . In that case, both the cooling and heating of fermentation gas is completed by the jacket. When its nominal volume is over 6m^3 , the cooling of fermentation gas is taken on by vertical coiled tubes. We have improved the connection of the coiled tubes inside tanks to avoid drilling too many holes on tanks. Such connection has produced satisfactory effects in actual use.



▶ 主要技术参数参考表 Reference table of main technical parameters

公称容积 (m ³) Nominal volume	筒体直径Dg(mm) Cylinder diameter	筒体高度 H(mm) Cylinder height	换热面积 (m ²) Heat exchange area	搅拌轴转速 (r.p.m) Speed of stirring shaft	搅拌轴功率 (KW) Power of stirring shaft
10	1800	3800	14	160-260	17-22
15	2000	4800	18	166-260	22-30
20	2200	5000	22	180-260	30-37
30	2400	6600	34	150-250	45-55
40	2600	7500	45	150-250	55-75
50	2800	8000	58	150-250	55-90
60	3000	8300	65	150-250	60-115
75	3200	8800	84	150-250	90-145
100	3600	9400	114	150-250	120-125
150	4200	10800	165	150-250	165-275
200	4600	11500	220	140-240	215-360

多功能提取罐系列

MULTIFUNCTIONAL EXTRACTION TANK SERIES

► 产品概述

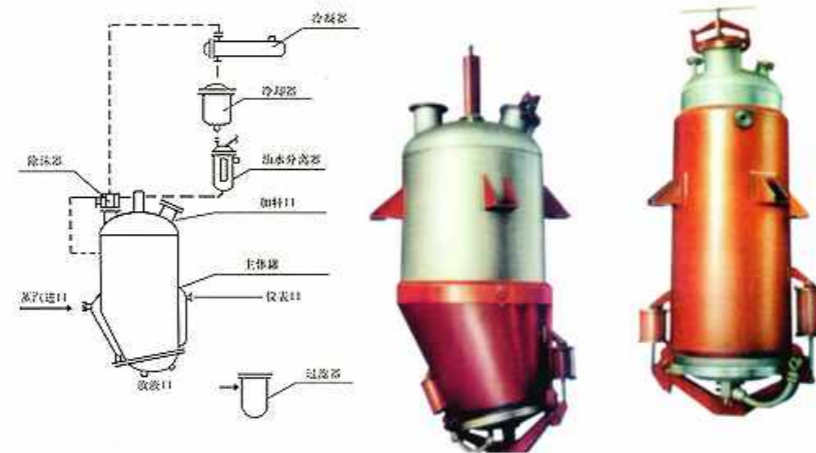
【TQ 系列多功能提取罐】

本设备可以用于制药、食品、化工行业的水煎、湿浸、热回流、强制循环渗透、芳香油提取及有机溶剂回收等多种工艺操作。具效率高，操作方便等优点。机组装置选材优良，广泛应用制药、食品、化工等行业溶剂的提取。

► Product overview

[TQ series multifunctional extraction tanks]

The equipment can be used in various processes in pharmaceutical, food and chemical industries such as water decoction, wet leaching, hot reflux, forced circulation permeation, aromatic oil extraction and organic solvent recovery. It is efficient and easy to operate. Made of quality materials, the equipment is widely used for solvent extraction in pharmaceutical, food and chemical industries.



► 主要技术参数参考表 Reference table of main technical parameters

	0.5	1.0	2.0	3.0	6.0
全容积(L) Full volume	500	1200	2500	1200	1200
罐内设计压力(MPa) Design pressure in tank	0.09				
夹套内设计压力(MPa) Design pressure in jacket	0.3				
罐内允许真空度(MPa) Allowable vacuum degree in tank	-0.095				
压缩空气压力(MPa) Compressed air pressure	0.6-0.7				
投料门直径(mm) Diameter of feeding port	300	300	400	300	300
加热面积(m ²) Heating area	2.4	3.1	4.2	3.1	3.0
冷凝面积(m ²) Condensation area	3	5	5	5	5
冷却面积(m ²) Cooling area	1	1	1	1	1
过滤面积(m ²) Filter area	0.25	0.25	0.25	0.25	0.25
设备重量(kg) Equipment weight	1000	1500	1800	1500	1500
外形尺寸(mm) Overall dimension	φ1400×φ2300	φ1700×φ2900	φ1800×φ3700	φ1700×φ2900	φ1700×φ2900

种子罐系列

SEEDING TANK SERIES

► 产品概述

我厂生产的种子罐有碳钢、不锈钢两种。主要用于生化发酵行业，如生产味精、柠檬酸、酶制剂、甘油、制药、食品等行业。规格参数见下表。注：冷却加热形式有夹套式、内盘管式，外半圆管式，供用户选用。

► Product overview

We offer two types of seeding tanks: carbon steel and stainless steel seeding tanks. They are mainly used in the biochemical fermentation industry, such as producing monosodium glutamate, citric acid, enzymic preparations, glycerinum, pharmaceuticals and food. See the specification parameters in the table below. Note: Cooling and heating methods include jacket type, internal coiled tube type and external semicircle tube type for users to choose from.



空气搅拌种子罐 Air stirring seeding tanks
机械搅拌种子罐 Mechanical stirring seeding tanks

► 主要技术参数参考表 Reference table of main technical parameters

公称容积 (m ³) Nominal volume	公称直径DN (mm) Nominal diameter DN	内筒体高度 (H) Internal cylinder height	夹套直径 (Dg) Jacket diameter	搅拌轴转速 (r.p.m) Speed of stirring shaft	搅拌轴功率 (KW) Power of stirring shaft
0.05	300	700	400	300-350	0.55
0.1	400	800	500	300-350	0.75-1.1
0.2	500	1000	600	280-340	0.75-1.5
0.3	550	1200	550	280-320	1.1-1.5
0.5	600	1650	700	200-280	1.5-2.2
0.7	700	1700	800	200-280	2.2-3
0.8	800	1600	900	200-280	2.2-5.5
1.0	800	1900	900	200-280	2.2-5.5
1.2	900	1800	1000	200-280	3-7.5
1.5	900	2200	1000	200-280	3-7.5

F型提取罐系列

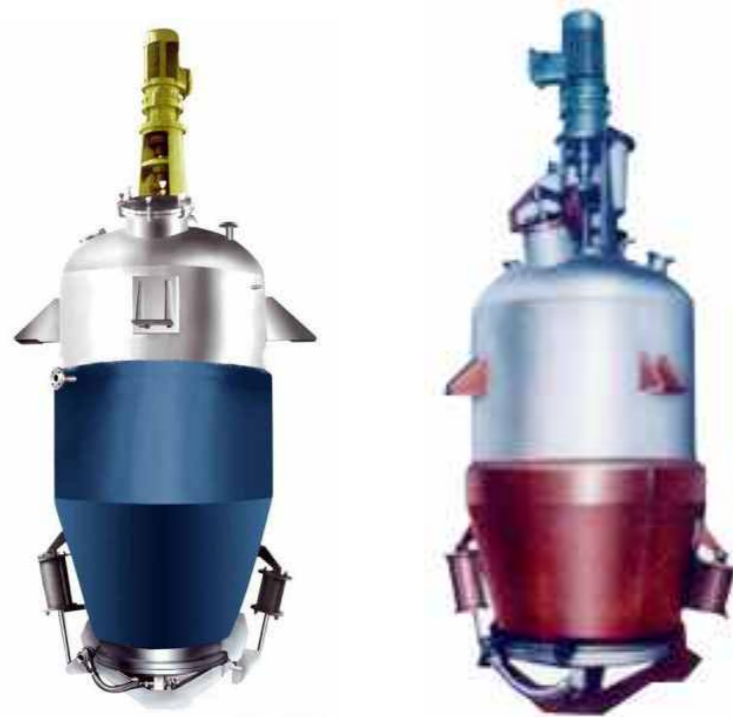
F-TYPE EXTRACTION TANK SERIES

▶ 产品概述

本装置可用于中药以及食品、化工等行业的水煎、温浸、热回流、芳香成分提取、有机溶剂回收及强制循环提取、罐组式逆流提取等多种工艺、工序操作。本装置也可在真空情况下操作。CD型为直筒式，A型为斜锥式，F型为动态式。

▶ Product overview

The device can be used in various processes and procedures in traditional Chinese medicine, food and chemical industries such as water decoction, warm infusion, hot reflux, extraction of aroma constituents, recovery of organic solvents, forced circulation extraction and multi-stage countercurrent extraction and so on. The device can also be operated in vacuum conditions. CD-type are vertical tanks, A-type are oblique cone tanks and F-type are dynamic tanks.



▶ 主要技术参数参考表 Reference table of main technical parameters

项目\数据\规格 Item/Data/Specification	0.5m ³	1.0m ³	1.5m ³	2m ³	3m ³	5m ³
设备设计压力 (MPa) Design pressure of equipment	-0.1-0.6					
夹套设计压力 (MPa) Design pressures of jacket	-0.3					
设备允许真空度 (KPa) Allowable vacuum degree of equipment	-0.095					
投料门直径 (mm) Diameter of feeding port	150	200	300	300	300	400
加热面积 (m ²) Heating area	2	3.4	3.5	3.3	4.2	5
冷凝器面积 (m ²) Condenser area	3	4	4	4	5	6
冷却器面积 (m ²) Cooler area	1	1	1	1	1	1
设备净重 (kg) Net weight of equipment	-1100	-1600	-1750	-1900	-2000	-3000
管通过滤器面积 (m ²) Tube through filter area	0.24	0.24	0.24	0.24	0.24	0.24

中药酒精沉淀罐

TRADITIONAL CHINESE MEDICINE (TCM) ALCOHOL PRECIPITATION TANKS

▶ 产品概述

中药酒精沉淀罐系列是我厂为中药厂醇沉工艺新开发的专用设备，系国内首创。主要用于中药水煎液经浓缩后的溶液进行冷冻或常温酒精沉淀的操作。也可用于中药醇提后浓缩进行水沉淀的操作。共分两个型号：A型为气动出渣，B型为球阀出渣。

▶ Product overview

The traditional Chinese medicine (TCM) alcohol precipitation tank series are specialized equipment that we have especially developed for the alcohol precipitation process of TCM factories and are the first of its kind in China. The tanks are mainly used for the refrigeration or normal temperature alcohol precipitation of condensed TCM water decoction. They can also be used for water sedimentation of condensed TCM after alcohol extraction. We have two types of such tanks: A-type are pneumatic deslagging tanks and B-type are ball valve deslagging tanks.



▶ 主要技术参数参考表 Reference table of main technical parameters

项目 Item	JC-300	JC-500	JC-1000	JC-1500	JC-2000	JC-3000
容积 (m ³) Volume	0.3	0.5	1.0	1.5	2.0	3.0
换热面积 (m ²) Heat exchange area	1.8	3.0	4.5	6.5	7.0	9.5
工作温度 (°C) Operating temperature	-15~normal temperature	-15~normal temperature	-15~normal temperature	-15~normal temperature	-15~normal temperature	-15~normal temperature
换热介质最高工作压力 (MPa) Max. operating pressure of heat exchange medium	0.25	0.25	0.25	0.25	0.25	0.25
工作压力 (MPa) Operating pressure	0.2	0.2	0.2	0.2	0.2	0.2
传热系数 (KJ/m ² .h.°C) Heat transfer coefficient	150-200	150-200	150-200	150-200	150-200	150-200
搅拌功率 (KW) Stirring power	0.75	0.75	1.5	2.2	2.2	2.2
搅拌转速 (r/min) Stirring speed	250	250	160	160	160	140
总重量 (kg) Total weight	612	1260	1480	1750	1670	2135



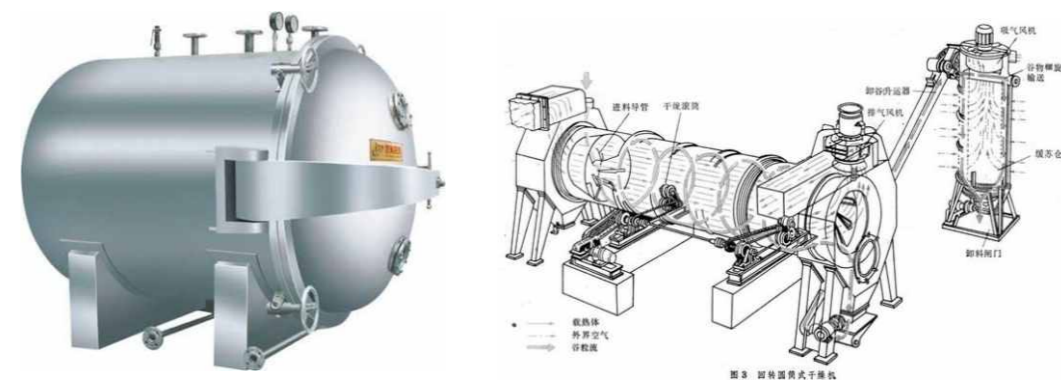
干燥、分散、混合设备
Drying, dispersing and mixing equipment

► 产品概述

YZG型是圆筒形系列管式真空干燥器，它是我厂在国内外同类产品分析研究的基础上，并在上海、江苏等地科研、设计单位的协助下，创制的新型、先进的通用性干燥设备，它以高效节能、安全可靠、结构精巧、使用方便等优点而优于国内同类干燥设备。YZG型真空干燥器可广泛用于医药、食品、轻工、化工等行业的粉状、颗粒状、丸片状、膏糊状等物料的干燥，而且还可以使用于要求溶剂回收的物料干燥。

► Product overview

Model YZG are cylinder series tube vacuum dryer. YZG is a new-type, advanced universal drying equipment that we developed based on the analysis of domestic and overseas similar products and with the help of scientific research and design units in Shanghai and Jiangsu. It is better than other similar drying equipment in China with its advantages such as being efficient, energy-saving, safe, reliable, exquisite and easy to use. YZG can be widely used in the drying of powder, granular, pellet and paste materials in pharmaceutical, food, light and chemical industries.



► 主要技术参数参考表 Reference table of main technical parameters

型号指标 Model	YZG-2	YZG-5	YZG-9	YZG-13
干燥器内尺寸 (直径x长度x高度) (mm) Inside dimension of dryer (diameter x length x height)	Φ600x1200x1020	Φ1000x1900x1500	Φ1200x1900x1600	Φ1400x2600x2600
干燥温度 (°C) Drying temperature	35-150	35-150	35-150	35-150
空载时真空度(MPa) No-load vacuum degree	0.08-0.098	0.08-0.098	0.08-0.098	0.08-0.098
烘盘尺寸(mm) Baking tray size	310X600X45	250X410x45	350X 500X45	400X600X45
烘盘数 Number of baking trays	4	20	36	42
容积(m³) Volume	0.3	1.2	1.8	3.5
蒸汽压力(MPa) Steam pressure	0.05-0.3	0.05-0.3	0.05-0.3	0.05-0.3
干燥器重量(kg) Dryer weight	250	800	1000	1675
加热面积(m²) Heating area	2	5	9	13

真空耙式干燥器 VACUUM RAKE DRYERS

► 产品概述

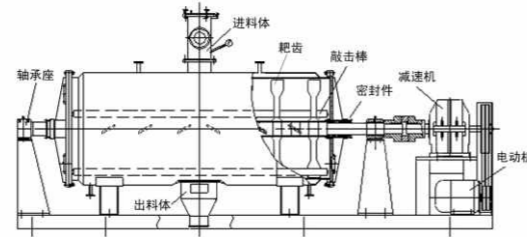
该设备结构简单，操作方便，使用周期长，性能稳定可靠，蒸汽耗量小，适用性能强，产品质量好，特别适用于不耐高温、易燃、常温下易氧化的膏状物料的干燥，该机经用户长期使用证明是一良好的干燥设备。

原理：被干燥物料从壳体上方正中间加入，在不断正反转动的耙齿的搅拌下，物料轴向来回走动，与壳体内壁接触的表面不断更新，受到蒸汽的间接加热，耙齿的均匀搅拌，粉碎棒的粉碎，使物料表面水分更有利的排出，气化的水分经除尘器、冷凝器，从真空泵出口处回收。

► Product overview

The equipment has a simple structure, a long life cycle, stable and reliable performance, small steam consumption, great applicability and good quality and is easy to operate. It is especially applicable to the drying of paste materials that are not resistant to high temperature, inflammable and easy to oxidize under normal temperature. The equipment is proved a good drying equipment after long-term use by users.

Principle: Dried materials are fed in from the very center on the shell. The material shaft moves back and forth as the rotating rake teeth stir the materials. In the process, the surface contacting the inner wall of the shell is constantly renewed. With the indirect heating of steam, the even stirring of the rake teeth and the grinding of the grinding rod, the water content in materials is extracted. Gasified water goes through the dust remover and the condenser and is recovered at the outlet of the vacuum pump.



► 主要技术参数参考表 Reference table of main technical parameters

型号 Model	有效容积 (L) Effective volume	工作容积 (L) Working volume	加热面积 (m ²) Heating area	耙齿转速 (rpm) Speed of rake teeth	传动功率 (KW) Transmission power
PZG-100	100	50	1	10	1.5
PZG-200	200	100	1.5	10	1.5
PZG-500	500	250	3	10	3
PZG-1000	1000	500	5	10	7.5
PZG-2000	2000	1000	8	8	11
PZG-3000	3000	1500	10	8	15
PZG-4000	4000	2000	12	8	15
PZG-6000	6000	3000	15	8	22
PZG-8000	8000	4000	19	8	30
PZG-10000	10000	5000	22	8	37

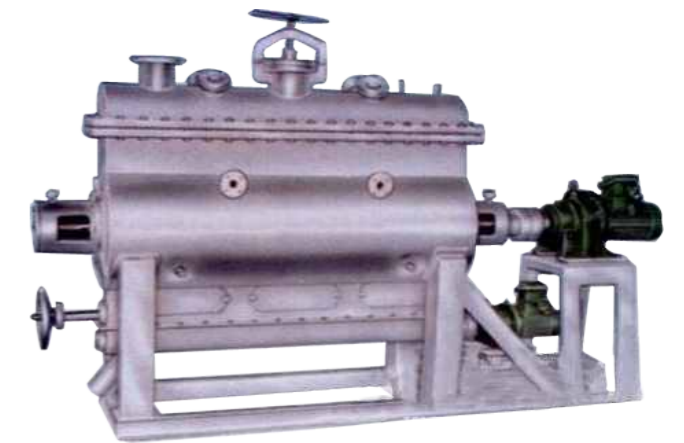
ZJG型内加热搅拌真空干燥机 ZJG INTERNAL HEATING AND STIRRING VACUUM DRYERS

► 产品概述

本干燥机适用于所有染料、染料中间体、颜料、无机及有机等各种化工产品，以及医药、农药、食品、矿业和环保性处理类产品等行业的各种粉状、颗粒状、晶体状、块状及滤饼等固体物料，以及膏稠状或液态物的常压干燥、真空干燥，包括有热敏性的物料和粘稠状物料的干燥。干燥温度范围在30度以上均可适用。根据不同的需要和条件，可采用蒸汽加热、电加热、油加热、热水加热、热风炉加热乃至锅炉烟道废气加热等，适应性特广。

► Product overview

The dryer is applicable to the normal pressure drying and vacuum drying of a variety of chemical products such as dye, dye intermediate, pigment and inorganic and organic products and so on, powder, granulates, crystal, lumps, filter cakes and other solid materials in pharmaceutical, pesticide, food, mineral and environmental protection industries, as well as paste or liquid materials, including heat-sensitive materials and thick materials. The drying temperature requirement is over 30°C. According to different needs and conditions, it can adopt steam heating, electric heating, oil heating, hot water heating, hot stove heating and even boiler waste fuel gas heating. It has excellent adaptability.



► 主要技术参数参考表 Reference table of main technical parameters

项目 Item	ZJG-5	ZJG-10	ZJG-15	ZJG-20	ZJG-30
加热面积 (m ²) Heating area	5	10	15	20	30
操作容积 (m ³) Operating volume	0.3	0.78	1.2	1.7	2.7
适用温度 (°C) Applicable temperature	40~150				
最高工作压力 (MPa) Max. operating pressure	≤0.5				
电机功率 (KW) Motor power	4	10	11	15	18
转速 (r/min) Rotating speed	5-20		5-20		
外形尺寸 长X宽X高 (mm) Overall dimension (length×width×height)	3673X640X1770	4180X920X2350	4600X1120X2500	5500X1120X2500	5500X1320X2700
重量 (kg) Weight	1800	4200	5100	7800	11000

LG系列离心式刮板薄膜蒸发器

LG SERIES CENTRIFUGAL SCRAPER THIN-FILM EVAPORATORS

▶ 产品概述

刮板式薄膜蒸发器是利用高速旋转将液体分布成均匀薄膜而进行蒸发或蒸馏的一种高效蒸发、蒸馏设备，也可进行脱臭、脱泡反应及加热、冷却等单元操作，可广泛适用于中、西制药、食品、轻工、石油、化工、环保等行业。

性能与特点：

- 1、传热系数高、蒸发能力大，蒸发强度可达到200kg/m²/h，热效率高。
- 2、物料加热时间短，约5秒至10秒之间，且在真空条件下工作，对热敏性物料更为有利，保持各种成份不产生任何分解，保证产品质量。
- 3、适应粘度变化范围广，高低粘度物料均可以处理，物料粘度可高达10万CP。
- 4、改变刮板沟槽旋转方向，可以调节物料在蒸发器的蒸发时间。
- 5、蒸发段筒体内壁经过精密镗削并抛光处理，表面不易产生结焦、结垢。

▶ Product overview

The scraper thin-film evaporator is an efficient evaporation and distillation unit that uses high-speed rotation to disperse liquid into even thin film for evaporation or distillation. It can also be used for deodorization and deaeration reaction and heating and cooling. It is widely used in traditional Chinese medicine and Western medicine manufacturing, food, light, oil, chemical and environmental protection industries and so on.

Properties and characteristics:

1. It has high heat transfer coefficient and strong evaporation capacity. Its evaporation strength can reach 200kg/m²/h and high heat efficiency.
2. The material heating time is short, which is between 5s and 10s. Moreover, under vacuum conditions, it is more favorable to heat-sensitive materials, keeping constituents from being decomposed and thus ensuring product quality.
3. It is applicable to a wide viscosity variation range. It can process both high- and low-viscosity materials, with the highest material viscosity being 100,000 CP.
4. By changing the scraper groove rotation direction, it can adjust the evaporation time of the materials in the evaporator.
5. The inner wall of the drum in the evaporation section has been subject to precision boring and polishing, so the surface cannot easily form coke or scale.



▶ 主要技术参数参考表 Reference table of main technical parameters

项目型号 Model	LG0.8	LG1.5	LG2.5	LG4	LG6	LG20
换热面积 (m ²) Heat exchange area	0.8	1.5	2.5	4	6	20
蒸汽压力 (MPa) Steam pressure	0.3	0.3	0.3	0.3	0.3	0.3
真空度 (KPa) Vacuum degree	70	70	70	70	70	70
蒸发量 (kg/n) Evaporation capacity	160	300	500	800	1200	2000
能耗 (kg/n) Energy loss	168	315	525	840	1260	2100
电机功率 (KW) Motor power	1.1	1.5	2.2	4	5.5	11
转速 (rpm) Rotating speed	300	300	280	134	134	88
设备高度 (mm) Equipment height	2500	3295	4100	5180	5800	7800

LG系列离心式刮板薄膜蒸发器

LG SERIES CENTRIFUGAL SCRAPER THIN-FILM EVAPORATORS

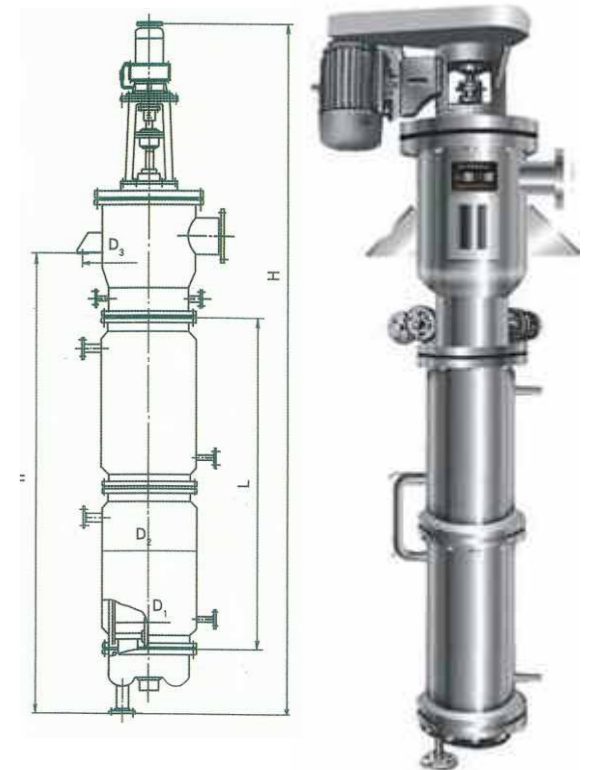
▶ 产品概述

离心式刮板薄膜蒸发器采用国外先进技术，在国内刮板式薄膜蒸发器领域内具有国际水平的领先地位。本设备曾作为“刮板式真空炼密机组”的主机，并荣获国家医药管理局科技进步三等奖。

▶ 性能与特点

本设备采用离心式滑动沟槽转子，是目前国外最新结构蒸发器，在流量很小的情况下也能形成薄膜，在筒体蒸发段内壁表面附着处理液中的淤积物可被活动刮板迅速移去，和固定间隙的刮板蒸发器相比，蒸发量可提高40%-69%，它具有下列性能与特点：

- 1、传热系数高，蒸发能力大，蒸发强度可达到200kg/m²·hr，热效率高。
- 2、物料加热时间短，约5秒至10秒之间，且在真空条件下工作，对热敏性物料更为有利，保持各种成份不产生任何分解，保证产品质量。
- 3、适应粘度变化范围广，高低粘度物均可以处理，物料粘度可高达10万厘泊（CP）
- 4、改变刮板沟槽旋转方向，可以调节物料在蒸发器的打理时间。
- 5、蒸发段筒体内壁经过精密镗削并抛光处理，表面不易产生结焦、结垢。
- 6、操作方便，产品指标调节容易，在密闭条件下，可以自控进行连续性生产。
- 7、设备占地面积小，结构简单，维修方便，清洗容易。



▶ 应用行业及操作单元示例

行业	典型物料	行业	典型物料	行业	典型物料
医药	维生素类VE、VC	无机	三氯化钛	有机	高浓度甲醛
	中草药类、茶多酚、银杏液		氧化锰		膻对苯二甲酸盐
	抗生素类		烧碱溶液		三羟甲基丙烷
	制药溶液		碳酸钾		有机酸
	医药中间体类		溴化钾、溴化钠		聚酯多元醇
	单膦胺		硫酸铝		橡胶防老剂
	咪唑、三唑啉		偏硅酸钠		聚丙烯酰胺、聚丙烯酸钠
	天然色素、番茄色素		硝酸钾		染料中间体
	乳酸、L-乳酸		高锰酸钾		三甲基氯硅
	卵磷脂、磷脂		硫化碱		环氧树脂
轻工日化	香精、香料	钨酸、钼酸盐类	双酚A	环保	碳酸甲酯、乙酯
	蜂蜜	吊白块、保险粉	碳蜡		羟基乙酸
	甘油	咪唑啉	除虫菊酯系列		硫酸钠废水
	饲料添加剂	乙草胺、丙草胺、扑草胺	甲胺磷		氯化钠废水
	淀粉糖	酶制剂	四氢呋喃		氯化铵废水
	烷基多糖苷	醇醚硫酸盐	除草剂类		硫酸铵废水
	山梨酸钾	山梨酸钾	沥青脱氢组份		涂料脱TDI、VOC
	右旋泛酸钙	PTA回收、己内酰胺脱溶	苯乙烯回收		月桂二酸、脂肪酸二元酸
	木糖醇多脂				油酸酰胺、油酸、亚油酸
					二聚酸、脂肪酸单甘油酯脂肪酸甲酯

结晶(加热)切片机

CRYSTALLIZATION (HEATING) SLICERS

► 产品概述

转鼓结晶机是一个冷却结晶过程，料盘中熔融料与冷却的转鼓接触，在转鼓表面形成料膜，通过料膜与鼓壁间的换热，使料膜冷却、结晶，结晶的料膜被刮刀刮下，成为片状产品。

转鼓干燥是通过转动的转鼓，以传热的方式，将附在转鼓外壁的物料或带状物料进行加热干燥的一种连续操作的过程。

► Product overview

The rotary drum flaker is a cooling crystallization process. The melting materials in the material tray contact with the cooling rotary drum and form a material film on the drum surface. Through the heat exchange between the material film and the drum wall, the material film is cooled and crystallized. The crystallized material film is scrapped by the scraper and becomes a sliced product.

The rotary drum drying is a process that heats and dries the materials attached to the outer wall of the rotary drum or belt materials through the rotating drum and heat transfer.

► 产品特点 Product features

性能达到国际水平
World-class performance

设有侧刮刀，避免转鼓侧端积料
It is provided with a side scraper, which can avoid accumulation of materials on drum sides.

设备结构紧凑，占地面积小
The equipment has a compact structure and occupies a small area.

半管夹套式料盘，安全可靠
The half-pipe jacket tray is safe and reliable.

雾化冷却，冷却效果好
It has excellent atomizing and cooling effect.

无级变速，转鼓转速可调
It adopts infinitely variable speeds and the speed of the rotary drum is adjustable.

转鼓精度高
The rotary drum has high precision.

适应范围广，操作简便、灵活
It has a wide applicable scope and it is easy to operate.

采用多组刮刀，调节灵活
It adopts multiple scrapers, which can be adjusted flexibly.

多功能，既可结片又可干燥
It has multiple functions. It can make slices and also dry materials.



► 主要技术参数参考表 Reference table of main technical parameters

规格 Specification	转鼓规格 (mm) Specification of rotary drum	电机功率 (KW) Motor power	热轴转速 (r/min) Speed of thermal shaft	参考尺寸 (mm) Reference dimension		
				L	W	H
DZ-1	600×600	2.2-3	0.3-15	2400	1480	1410
DZ-2	800×1200	3-5.5	0.3-15	3360	2000	1600
DZ-4.5	1200×1200	5.5-7.5	0.3-15	3730	2250	2050
DZ-7.5	1400×1800	5.5-11	0.3-15	4460	2460	2350
DZ-9	1600×1800	7.5-15	0.3-15	4460	2600	2550
DZ-22	2300×3000	11-18.5	0.3-15	7200	3900	2350

BM系列薄膜蒸发器

BM SERIES THIN-FILM EVAPORATORS

► 产品概述

本薄膜蒸发器机组由蒸发器、汽液分离器、预热器三个部件和一只简易分离器组成，蒸发器为升膜式列管换热器。该蒸发器具有生产能力大、效率高、物料受热时间短等特点，适用于制药、食品、化工等行业的稀溶液浓缩，本设备与物料接触部分均采用不锈钢制造，具有良好的耐腐蚀性能，经久耐用，符合药品卫生要求。

► Product overview

The thin-film evaporator is composed of three components-evaporator, steam-liquid separator and preheater and one simple separator. The evaporator is a rising film tube heat exchanger. Featured by large production capacity, high efficiency and short material heating time, the evaporator is applicable to the concentration of dilute solutions in pharmaceutical, food and chemical industries. The materials contacting surfaces of the equipment are all made of stainless steel, which has excellent decay resistance and durability and complies with the sanitary requirement for medicines.



► 主要技术参数参考表 Reference table of main technical parameters

	2.2m ²	5.5m ²	8m ²	12m ²	16m ²	20m ²	30m ²	40m ²	60m ²
蒸发面积 (m ²) Evaporation area	2.2	5.5	8	12	2.2	20	30	40	60
预热面积 (m ²) Preheating area	1	2.17	4	6	1	10	15	20	30
蒸汽工作压力 (MPa) Operating pressure of steam	2.4	0.4	0.4	2.4	0.4	0.4	0.4	0.4	0.4
可用真空度(KPa) Available vacuum degree	60	60	60	60	60	60	60	60	60
蒸发量(L) Evaporation capacity	140	350	550	850	140	1500	2100	2800	4200
能耗(kg/h) Energy consumption	155	385	605	935	155	1650	2310	3080	4620
设备质量(kg) Equipment mass	300	520	750	1020	300	2300	2950	4500	5700
外形尺寸长×宽×高(mm) Overall dimension L×W×H	2000	2300	2700	2000	2900	2800	3800	1200	5000
	X850 X3500	×800 ×3500	×950 ×4500	×850 ×3500	×950 ×5200	×1400 ×5300	×1800 ×6050	×1800 ×5050	×2000 ×5700



蒸馏浓缩设备
Distillation and concentration equipment

► 产品概述

WZI 型外循环式真空蒸发器，是一种在真空系统下操作的自然循环型蒸发器。

WZI 型有一效、二效、三效系列规格，另有Q型为强制外循环蒸发器。本品可广泛用于医药、食品、化工、轻工等行业的水或有机溶剂的蒸发浓缩。特别适用于热敏性物料，（例如中药生产的水、醇提取液、抗生素发酵液、牛奶、果汁等），在真空条件下进行低温连续浓缩，可确保产品质量。

► Product overview

The WZI external circulation vacuum evaporator is a natural circulation evaporator operated under vacuum system.

WZI includes single-effect, double-effect and triple-effect evaporators. In addition, Model Q are forced external circulation evaporators. The product can be widely used in the evaporation and concentration of water and organic solvents in industries like pharmaceutical, food, chemical and light industries. It is especially applicable to heat-sensitive materials, such as water decoction and alcohol extract in traditional Chinese medicine manufacturing, antibiotic fermentation solution, milk, fruit juice, etc. Under vacuum conditions it can concentrate materials continuously at low temperature, ensuring product quality.



► 主要技术参数参考表 Reference table of main technical parameters

项目 Item	WZI-2000	WZI-1500	WZI-1000	WZI-750	WZI-500	WZI-250
蒸发量 (kgH ₂ O/h) Evaporation capacity	2000-2200	1500-1700	1000-1200	750-800	500-600	250-300
罐内真空度 (MPa) Vacuum degree in tank	0.9	0.9	0.9	0.9	0.9	0.9
加热面积 (m ²) Heating area	22	17.6	11	8	5.4	3.0
蒸汽压力 (MPa) Steam pressure	0.05-0.2	0.05-0.2	0.05-0.2	0.05-0.2	0.05-0.2	0.05-0.2
耗汽量 (kg/h) Steam consumption	2000-2200	1500-1700	1100-1200	700-800	550-600	300-350
冷却水压力 (MPa) Cooling water pressure	0.25-0.3	0.25-0.3	0.25-0.3	0.25-0.3	0.25-0.3	0.25-0.3
加热器直径 (mm) Heater diameter	Φ600	Φ500	Φ400	Φ400	Φ300	Φ200
蒸发罐直径 (mm) Diameter of evaporation tank	Φ1400	Φ1200	Φ1000	Φ950	Φ800	Φ500
捕液器直径 (mm) Diameter of liquid trap	Φ650	Φ550	Φ500	Φ400	Φ400	Φ300
加热器直径 (mm) Heater diameter	980	685	505	400	300	188
蒸发罐直径 (mm) Diameter of evaporation tank	1100	840	580	450	320	175
捕液器直径 (mm) Diameter of liquid trap	/	116	106	85	85	63
冷凝器直径 (mm) Diameter of condenser	/	/	/	Φ550	Φ400	Φ300
冷凝器直径 (mm) Diameter of condenser	/	/	/	1120	885	450

WZIII 500-5000系列三效节能 外循环真空浓缩器

WZIII 500-5000 SERIES TRIPLE-EFFECT ENERGY-SAVING
EXTERNAL CIRCULATION VACUUM CONCENTRATORS

▶ 产品概述

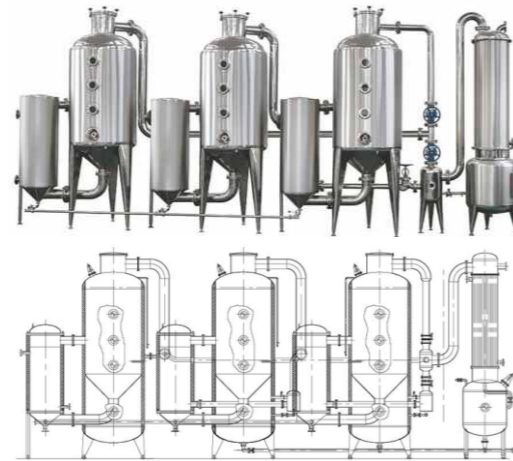
本浓缩器适用于中药、西药、葡萄糖、淀粉、味精、乳品、化工等溶液的浓缩，尤其适用于热敏物料的低温真空浓缩。用户可根据实际情况，来选用技术参数中系列浓缩器。

- 1.本浓缩器采用外加热式与负压蒸发方式，具有蒸发速度快，浓缩比重大，可达1.2-1.3；
- 2.本浓缩器采用三效同时蒸发，二次蒸汽得到反复作用，既节省了锅炉的投资，又节约能源消耗，耗能与单效浓缩器相比降低70%，不到一年用户可从节约能耗中收回本浓缩器的全部投资。
- 3.多功能操作特点：（1）可以回收酒精浓度80%左右。（2）一效、二效、三效可以反复收集。（3）可以间歇连续进料。

▶ Product overview

The concentrator is applicable to the concentration of solutions like traditional Chinese medicine, Western medicine, glucose, starch, monosodium glutamate, dairy products and chemicals, especially to the low-temperature vacuum concentration of heat-sensitive materials. Users may select the concentrator series based on the technical parameters.

1. Adopting external heating and negative pressure evaporation methods, the concentrator is featured by rapid evaporation and large concentration ratio, which is up to 1.2-1.3;
2. The concentrator adopts synchronous triple-effect evaporation. Secondary steam is repeatedly used, which can save boiler investment and also energy consumption. Compared to single-effect concentrators, its energy consumption has reduced by 70%. In less than a year users can recover all investment of the concentrator from saving the energy consumption.
3. Multifunctional operation: (1) It can recover about 80% of alcohol concentration. (2) Single-effect, double-effect and triple-effect can collect repeatedly. (3) The materials can be fed intermittently and continuously.



▶ 主要技术参数参考表 Reference table of main technical parameters

型号 Model	WZIII500	WZIII1000	WZIII1500	WZIII2000	WZIII3000	WZIII5000
蒸发量(kg/h清水) Evaporation capacity (clear water)	500	1000	1500	2000	3000	5000
耗汽量(kg/h) Steam consumption	<200	<400	<600	<800	<1200	<2000
外形尺寸长×宽×高(m) Overall dimension L×W×H	3×5×1.3	3.3×6.5×1.5	3.5×7×1.7	4×7.5×2	4.3×7.8×2	4.5×8×2
循环耗水量(T/h) Circulation water consumption	5	10	13	15	18	25
蒸发温度(°C) Evaporation temperature	一效 Single-effect	80-90		真空度(MPa) Vacuum degree	一效 Single-effect	0.02-0.04
	二效 Double-effect	55-70			二效 Double-effect	0.05-0.08
	三效 Triple-effect	55-65			三效 Triple-effect	0.08-0.09
蒸汽压力(MPa) Steam pressure	一效0.2 Single-effect		浓缩比重 Concentration ratio		1.2-1.3	

精馏回收塔

DISTILLATION RECOVERY TOWER

▶ 产品概述

我厂生产的精馏回收塔用于二甲基甲酰胺(DMF), 二甲基乙酰胺(DMAC), 甲苯等溶剂的回收。该设备可以根据用户物料处理量的不同，可分别采用连续式或间歇式蒸馏工艺，回收的成品浓度高、质量稳定、残留量低。本装置还具有能耗低、产能稳定的特点。

我厂可以根据物料成分的不同，设计有针对性的生产装置，并负责指导设备的安装和现场调试。

▶ Product overview

Our rectification recovery towers are used to recover solvents like dimethylformamide (DMF), dimethylacetamide (DMAC) and methylbenzene. The equipment has continuous and intermittent distillation process for users to choose from based on the amount of materials to be processed. The end products recovered by the equipment have high concentration, stable quality and low residual quantity. The equipment also has low energy consumption and stable production capacity.

We can design targeted production devices based on the components of materials and install and debug the equipment on the site.





萃取塔
Extraction tower



蒸发塔
Evaporation tower



汽提塔
Stripping tower



脱水塔
Dehydrating tower



塔板
Tower plate



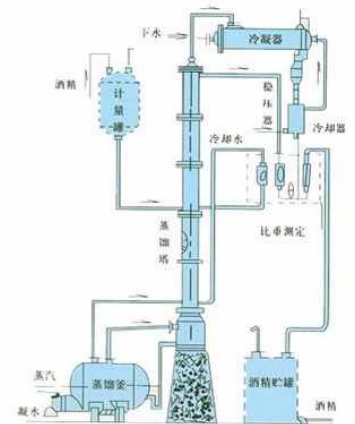
塔器
Tower

► 产品概述

本装置适用于制药、食品、轻工、化工等行业的酒精回收，也适用于甲醇等其他溶剂的蒸馏。本装置根据用户的需要，可将30度左右的稀酒精蒸馏至90 - 95度的酒精，成品酒精度数要求高，可以加大回流比，但产量就相应减少。本装置采用高效的金属不锈钢填料。蒸馏塔采用不锈钢制，从而防止了铁屑堵塔填料的现象，延长了装置的使用期限。蒸馏釜采用可拆U型加热管，在检修时可将U型加热管拉出釜外，便于对加热管外壁及蒸馏釜壁进行清洗。本装置可间歇生产，也可半连续、连续生产。

► Product overview

The unit is applicable to the alcohol recovery in pharmaceutical, food, light and chemical industries, as well as the distillation of other solvents like methyl alcohol. According to user needs, the unit can distill dilute alcohol of around 30° to alcohol of 90-95°. If users have high requirements on alcoholic strength, users may increase the reflux ratio, but the output will reduce accordingly. The unit adopts efficient stainless steel packing. The distillation tower is made of stainless steel, so it can effectively prevent scrap iron from blocking the tower, thus prolonging the service life of the unit. The distillation kettle adopts detachable U-shaped heating tubes. During maintenance, the U-shaped heating tubes can be pulled out of the kettle, making it easy to clean the external wall of the heating tubes and the wall of the distillation kettle. The unit allows batch production, continuous and semi-continuous production.



► 主要技术参数参考表 Reference table of main technical parameters

名称 / 规格 Name/Specification	Jh200	Jh300	Jh400	Jh500	Jh600	Jh800
塔容积(L) Tower volume	640	1220	1450	2300	2500	3200
塔身高度(mm) Tower height	6000	7000	7000	7500	8000	10000
高位罐容积(L) High-level tank volume	300	400	650	800	1000	1500
冷凝面积(m ²) Condensation area	5	9	11	22	25	40
冷却面积(m ²) Cooling area	1	1.5	2.2	6	8	15
换热面积(m ²) Heat exchange area	4	6	12	18	25	32
加收能力(kg/h) Recovery capacity	45-50	90-100	150-160	280-300	420-440	600-620
回收浓度(%) Recovery concentration	90-95					
填料形式 Packing form	不锈钢波纹填料 Stainless steel corrugated packing					
设备重量(Kg) Equipment weight	1100	1900	2300	3800	4500	7800
外形尺寸(m) Overall dimension	2.3×0.7×8	2.6×0.8×9	2.8×1×9	3×1.2×9	3.5×1.4×10	4.2×1.8×14

不锈钢(碳钢)储罐、槽车系列

STAINLESS STEEL (CARBON STEEL) STORAGE TANKS AND TANK CARS

▶ 产品概述

工业纯铝板制汽车运输槽车、卧式、立式贮罐、高位槽。(主要用于贮运浓硝酸、冰醋酸等腐蚀液体)不锈钢、碳钢制各种汽车运输槽车，卧式、立式贮槽，高位槽计量槽。特殊规格可按用户需求设计、制造。

▶ Product overview

We offer truck tank cars, horizontal and vertical storage tanks and head tanks made of pure industrial aluminum sheets, as well as stainless steel and carbon steel truck tank cars, horizontal and vertical storage tanks and head tanks gauge tanks (mainly used to transport and store corrosive liquid such as concentrated sulfuric acid and glacial acetic acid). We can also design and manufacture special specifications according to customer demand.



L2铝制运输槽车(0.5-50m³)
L2 aluminum tank car (0.5-50m³)



卧式储罐 (0.5 - 100m³)
Horizontal storage tank (0.5-100m³)



蓄热器(10-200m³)
Heat accumulator (10-200m³)

储罐

STORAGE TANKS

▶ 产品展示 / Product display



其它设备
OTHER EQUIPMENT

ZFQ、ZF型蒸汽发生器

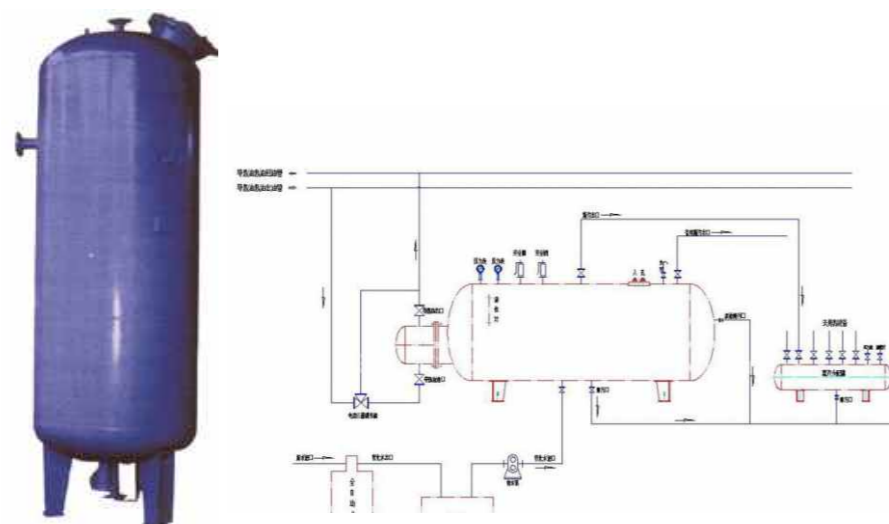
ZFQ, ZF STEAM GENERATORS

▶ 产品概述

本厂专业生产与有机载热体加热炉配套的ZF型蒸汽发生器。不仅可为用户提供高温介质，同时又能为用户提供需用的蒸汽，特别是轻纺中的织绒、喷条等行业，满足了生产，生活需要，扩大了使用领域。

▶ Product overview

Our ZF steam generators for organic heat-carrying agent heating boilers can not only provide high temperature medium but also steam for users, especially users in the weaving and strip spraying sectors in the light textile industry. They can meet production and everyday needs and can be used in a wide range.



立式高效节能蒸汽发生器 Efficient and energy-saving vertical steam generators

规格(t/h) Specification	直径(DN) Diameter	高度(m) Height	盘管重量(Kg) Coil weight	换热面积(m ²) Heat exchange	总重量(Kg) Heat exchange
0.1	800	1250	165	5	495
0.2	1200	1400	380	11.6	1060
0.1	1200	1800	516	17.5	1300
0.5	1200	2560	639	25	1805
1.0	1600	3200	1070	40	2974
1.5	1600	3200	1361	52	3265
2.0	1800	3600	1851	60	4012

卧式高效节能蒸汽发生器 Efficient and energy-saving horizontal steam generators

规格(t/h) Specification	直径(DN) Diameter	高度(m) Height	盘管重量(Kg) Coil weight	换热面积(m ²) Heat exchange area	总重量(Kg) Total weight
2	1200	3500	683	40	3100
2.5	1600	3600	1230	60	4105
3	1800	3500	3220	80	5112

注：0.1-10吨可根据客户要求而定 Note: We offer custom-made specifications from 0.1-10t to customers.

其它设备
OTHER EQUIPMENT

蒸汽蓄热器

STEAM ACCUMULATORS

▶ 产品概述

蒸汽蓄热器是利用水的蓄热能力把热能蓄存起来，且在需要时又能以饱和蒸汽的形态释放出来，以减少热负荷的波动，从而发挥其削峰填谷平衡吸收热负荷的独特功能的设备。在工业锅炉系统中如果用汽量经常发生大幅度的波动，不仅会引起锅炉气压、水位上下波动，使锅炉运行操作困难，还会导致锅炉燃烧效率降低。

▶ Product overview

The steam accumulator accumulates and stores heat energy by making use of the heat storage capacity of water and releases saturated steam when needed so as to reduce the fluctuation of thermal load and balance and absorb thermal load through peak clipping and valley filling. In industrial boiler systems, frequent drastic fluctuations of steam consumption can cause fluctuations of air pressure and water level in the boiler, making it difficult for boiler operation and reducing the combustion efficiency of the boiler.



▶ 主要技术参数参考表 Reference table of main technical parameters

型号 Model	公称容积(m ³) Nominal volume	直径(mm) Diameter	全长(mm) Full length	公称压力(MPa) Nominal pressure	总蓄热量(K cal) Total heat accumulation	最高蓄热量T(汽)周期 Max. heat accumulation T (steam) cycle
CV6-1.0	6	φ1400	4370	1.0	0.78×10 ⁶	0.72
CV8-1.0	8	φ1600	4670	1.0	1.04×10 ⁶	0.96
CV12-1.0	12	φ1800	5220	1.0	1.56×10 ⁶	1.4
CV16-1.0	16	φ1800	6820	1.0	2.08×10 ⁶	1.9
CV20-1.0	20	φ2000	7120	1.0	2.79×10 ⁶	2.5
CV25-1.0	25	φ2000	8300	1.0	3.48×10 ⁶	3.2
CV32-1.0	32	φ2200	9020	1.0	4.46×10 ⁶	4.1
CV40-1.0	40	φ2400	6520	1.0	5.94×10 ⁶	5.5
CV50-1.0	50	φ2600	10020	1.0	7.74×10 ⁶	6.9
CV65-1.0	65	φ2800	11360	1.0	9.66×10 ⁶	8.9
CV80-1.0	80	φ3000	12220	1.0	12.6×10 ⁶	11.6
CV100-1.0	100	φ3000	15600	1.0	14.8×10 ⁶	13.7
CV130-1.0	130	φ3200	17300	1.0	20.5×10 ⁶	18.9
CV150-1.4	150	φ3000	21670	1.0	34.5×10 ⁶	30.5
CV150-1.4	150	φ3400	17452	1.0	34.5×10 ⁶	30.5
CV180-1.0	180	φ3400	22340	1.0	28.4×10 ⁶	26.2
CV230-1.0	230	φ3600	23860	1.0	37.6×10 ⁶	34.7
CV300-1.0	300	φ3800	23520	1.0	49.0×10 ⁶	45.2
CV400-1.0	400	φ4000	33040	1.0	66.8×10 ⁶	61.7

注：压力等级分为：1.0Mpa、1.3Mpa、1.6Mpa、2.5Mpa、4.0Mpa等，本表为1.0Mpa系列及1.4Mpa系列
Note: Pressure classes include 1.0Mpa, 1.3Mpa, 1.6Mpa, 2.5Mpa, 4.0Mpa, etc. The table lists 1.0Mpa series and 1.4Mpa series.

P 工程案例 projects

