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# PROFESSIONAL PHARMACEUTICAL CHEMICALS / DAIRY FOODS / FLUID EOUIPMENT MACHINERY MANUFACTURERS

专业制药化工/乳食品/流体设备机械制造商



温州市大全轻工机械有限公司 WENZHOU DAQUAN LIGHT MACHINE CO.,LTD

### **COMPANY PROFILE**

### 企业概况



温州市大全轻工机械有限公司 健全的组织机构, 完善的质量保证 体系和高素质员工队伍,其前身为 温州华盛食品设备有限公司, 2002年改名为大全轻工机械有限公 司,有20年以上连续历史,有相当 丰富的管理及制作经验,现有单机 客户愈上干家,完成食品饮料、制 药、化工、食品添加剂工程项目 等,大全企业在2012年自创办了华 成封头制造有限公司,不锈钢设冲 压成型做配套。

经营理念: 锐意进取, 创造完美。 大全公司创立之初即秉承: 锐意进取, 创造完美, 用领先技术服务于客户。

进取是一种态度,完美是一种境界; 进取是一种精神, 完美是一种辉煌; 完美是大全锐意进取的目标,是理 想的寄托点。

服务理念:全心、全力、全时。

Wenzhou Daquan L ight Industry MachineryCo., Ltd. isa perfect organization, a perfect quality assurance systemand ahigh quality staff team. Its predecessor is WenzhouHuasheng Food EquipmentCo.. Ltd., which was renamedas a Daquanl ight Industry Machinery Co., Itd. in 2002. Ithas more than 20 years of continuous history andhas afairly rich experience in mmar1agerent and productior. Thereare thousands of clients to comp ete the project of food andbeverage, pharmaceutical, chemical, food additivesanc soon.In2C12, the enterprise set up the Huacheng hcadmanufacturingCo.,Ltd and the stainless steelis setup totorm a complete set.

Business philosophy: forge ahead. createperfection.
At the very beginning of its establishment,
Daquan wascommitted to forging ahead and creating perfection andserving customers withleading technology.Enterprising is an attitude, and perfectionis arealm.
Fnterprisingis A kindof spirit, and perfectionisa kindof brilliance .Perfection is the goal and the ideal sustenance.
Service concept: wholehearted, full time, all – time.



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### **CERTIFICATE OF QUALIFICATION**

资质证明

















### **PRODUCTION**

### 生产装备

先进的生产技术和设备 永远为客户提供高质量产品

Advanced production Technology And Equipments
Provide Clients With High Quality Products Continuously

质量是产品的生命,是企业发展的基础.先进的自动化生产设备,规范的生产管理。确保产品质量的稳定和可靠性,让大全产品尽显一流品质。

Quality is product lifeline and is the foundation of enter prise growth advanced automation production equipments and standar dized production management can ensure the stability and reliability of product quality and ensure first–rate quality of daquan products.





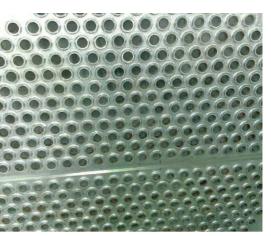




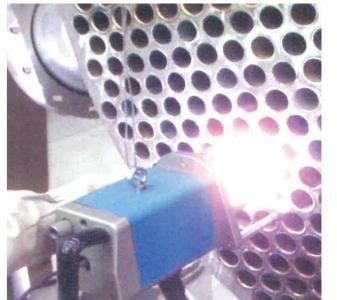
### THE STARTING POINT, AND THERE LSNO END TO SATISFACTION 质量始终是起点 满意永远无终点











FORGE AHEAD CREATE PERFECTION ━ 锐意进取 创造完美

### 工程案例











## PROVIDE PROCESS DESIGN, EQUIPMENT INSTALLATION AND OVERALL ENGINEERING SOLUTION. 提供工艺设计到设备安装试整体工程解决方案







### 工程案例











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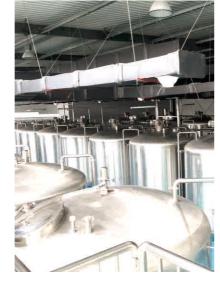


### 工程案例











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### 工程案例













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### 工程案例

















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### 工程案例



















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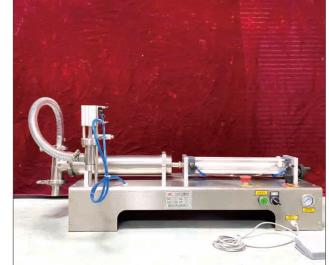
FORGE AHEAD CREATE PERFECTION --- 锐意进取 创造完美

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FORGE AHEAD CREATE PERFECTION **-----** 锐意进取 创造完美



### **EXTRACTION EQUIPMENT**

### 多功能提取罐



#### 倒锥型提取罐

外形上小下大,呈倒锥状。最突出的特点是 出渣非常方便,所占建筑空间较矮。

### Upside-down Taper Type Extracting Tank

The appearance is small at thetop and big at the bottom, with theshape of upside-down taper. The most prominent features are convenient residue discharging and lower construction space.



#### 正锥型提取罐(传统型)

所占建筑空间较小,为提取车间广泛使 用. 出渣门上设有底部加热,使药材提取更 加完全。

### Normal Taper Type Extracting Tank(traditional Type)

It takes smaller space, so it is widelyused in extracting workshops, Bottomheating is provided on the residuedischarging door, which makes the extraction of medicine materialsmore complete.



从纯天然产物中提取 出高固含量萃取液

Extracting ExtractionL iquid of High Solid Content From NaturalProduct

#### 蘑菇型提取罐

外型上大下小,呈磨菇状。上大、沸腾缓冲空间大,不易跑料;下小;药液受热传递快,加热时间短,提取效率较高。

#### Mushroom Type Extracting Tank

The appearance is big at the topand small at the bottom, with theshape of mushroom. The top is bigso that the boiling has large bufferingspace without running away ofmaterials The bottom is small sothat the heat transfer of medicineshort and the extraction efficiency is higher. liquid is rapid, the heating time is.



#### 直筒型提取罐

外形细长,所占建筑空间较大,对传热传质 均为有利,使浸取、加热时间缩短,提取效 率提高,适于醇提、渗漉系统。

#### Straight Cylindrical Type Extracting Tank

With long and thin appearance, ittakes larger space, which benefitsheat transfer and medium transfer,so that the leaching and heatingtime is shortened, and the extractionefficiency is enhanced. It is suitablefor alcohol extraction and percolationsystems.



#### 畜禽骨头高压抽提罐

上开盖结构,内设有加热直喷装置,对传热 传质均为有利,使浸取加热时间缩短,抽提 效率高,罐内耐压高,进料出料方便,自动 化程度高。

### Livestock and poultry high pressure extracting tank

With upper open cover structure, it is allocatedinside with heating and direct injection device, which is beneficial to heat transfer and mediumtransfer so as to shorten the leaching andheating time and achieve high extracting rate. The pressure withstanding ability in the tank ishigh, the feeding and discharging are convenient and the automatic degreeis high.

### **EXTRACTION EQUIPMENT**

### 多功能提取罐



### 快开保险式出渣门

可自动开闭罐盖,采用了三气缸控制,同时增设有保险装置,防止意外操作,安全系数较高。适合中小型出渣口使用。

#### Rapid open safety type residue discharging door

Rapid open safely type residue discharging doorThe tank cover can be automatically opened and closed. It adopts three cylinder control and is provided with safety device to avoid accidental operation and provide high safety factor. It is suitable for use in small and mediumsized reside discharging vent.

#### 旋转式出渣门

全自动开闭罐盖;可以实现高温高压提取,转环式可达3Bar以上,给提取工艺提供了更多的选择,也可以适应一些特殊的工艺要求,安全可靠,具有充分的安全保障功能、提取罐无泄漏。

#### Rotary type residue discharging door

Rapid type residue discharging door
The tank cover can be automatically opened
and closed. High temperature and high
pressure extraction can be realized, and more
than 3Bar can more selection for extraction
technology. It can also meet some special
technological requirements. With good safety
and reliability, it has sufficient safety guarantee
functions and the extracting tank has no
leakage.

#### 大口径出渣门

可全自动开闭罐盖;可以实现高温高压提取,给提取工艺提供了更多的选择,些出渣门适合大口径倒锥型提取罐的出渣方式,安全系数高。

#### Large-diameter residue discharging door

Large-dismeter residue discharging door The tank cover can be automatically opened and closed. High temperature and high pressure extraction can be realized to provide more selection for extracting technology. With high safety factor, the residue discharging door is suitable for residue discharging of large-diameter upside-down taper type extracting







底部夹套加热, 出液管,采用硬管连接,较以前软管,使用寿命长,不会泄漏。底部夹套蒸汽进口、冷凝水出口与出液口及备用口完全独立。与对外接管集中接在出液旋转三通处连接。接管美观。罐底部设有溶剂分配空间和导流部件,在循环提取时利于罐内药液的流动,药液不会走短路。

Bottom jacket heating, out of the liquid pipe, the use of hard pipe connection, compared with the previous hose, long service life, will not leak. The bottom jacket steam inlet, condensate water outlet and outlet port and spare port is completely independent. Connect with the outside of the three – way of the external connection. Take over. The bottom of the tank is provided with a solvent distribution space and a guide member, which is beneficial to the flow of the liquid in the tank, and the liquid can not go short.

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### **HEAT REFLUX EXTRACTING CONCENTRATOR**

### 热回流提取浓缩机组



本设备适用于植物草药、中药材、动物药食品添加剂等。 采用水、乙醇、甲醇、丙酮等的提取和有机溶剂的回收与浓缩。

#### Usage

The device serves for vegetable herbal medicineChina traditional drug animal drug food additional to extract with water ethanol carbinol and acet and to reclaim and concentrate the organic solvent.



#### TNH小型热回流提取浓缩机组设备特点

本机组是我厂在借鉴国内外同类产品的基础上研究开发的新产品,它集 多功能提取、真空浓缩与溶剂回收为一体,简化了操作程序。同时由于 整个提取浓缩与回收是在封闭的流路中进行.因而避免了"跑"、

"冒"、"漏"等现象,改善工作环境,降低了能耗。机组与物料接触部 份全部采用不锈钢制造,符合GMP要求。适用于医院、药厂、食品行 业对中草药液、

果汁等物质的提取、浓缩以用有机溶媒的回收。

#### Feature of equipment:

This machine group is a new product based on the research and development of the counterparts home and abroad. It integrates multifunction, vacuum condensing and recycling solvent as one, so to simplify the operation procedure. At the same time, distilling, condensing and recycling undergo in the enclosed condition, so to avoid the condition of leakage, and enhance work condition, reduce energy cost. The machine group

parts in touch with the material adopt stainless steel, up to GMP standard. It is suitable to distill and condense herbal liquid and juice, and recycle the organic solvent in hospital, pharmacy factory, and food industry.

### SINGLE EFFECT CYCLE VACUUM CONCENTRATOR

### 单效外循环真空浓缩器



本设备适应用于中药、西药、葡萄糖、酿酒、淀粉、口服液、化工、食 品、味精、乳品等的热敏性低温真空浓缩。

#### Usage

The equipment is applicable for the concentration and recovery of industrialorganic solvent (Such as alcohol) of traditional Chinese medicine, Westernmedicine, glucose, starch sugar, oral liquid, chemical industry, food, monosodium glutamate and dairy products, it can be used in the low temperature vacuum concentration of heat sensitive substances with small batches and large varieties.

### **DOUBLE EFFECT ENERGY SAVING EXTERNAL CIRCULATION CONCENTRATOR**

双效节能外循环浓缩器

#### 特点与效益

- 1.节能效益,按SIN-1000B型计算,一年节约蒸气约3500吨,节约 冷却水9万吨左右,节约电8万度左右,折合人民币10-15万元。
- 2.本浓缩器采用外加热自然型循环式与负压蒸发方式,各有蒸发速 度快,浓缩比重大,可达1.2-1.35(一般中药浸膏),不需敞口锅 收膏。
- 3.本浓缩器采用二效同时蒸发,二次蒸汽得到使用,贵厂既节省了 锅炉的投资, 节约能源消耗, 耗能时与单效浓缩器相比降低50%, 不到一年可用节能费中收回本浓缩器的全部投资。
- 4.多功能操作特点: (1)可回收酒精浓度能达到80%; (2)单 效、二效可以反复并锅收膏; (3)可以间歇连续进料
- 5.本浓缩器有特殊构造,浓缩出来的物料具有味道浓,膏质均匀。 使物料在密封中无泡沫状态下进行浓缩,不易跑料,减少污染,当 天物料当天浓缩完毕,不易结焦,清洗方便,打开加热器上下盖即可 清洗,并节约劳力,一人可以操作。
- 6.本浓缩器与物料接触部位均采用AIAS304不锈钢制造,加热器、 蒸发器外面设有保温层,保温采用聚胺脂发泡,外表面磨砂亚光处 理,符合GMP医药标准。





### SERIES DUAL-EFFECT CONCENTRATOR 双效节能浓缩器

#### 用途

本浓缩器适应于中药、西药、淀粉糖、食乳品等 液料的浓缩,尤其适用于热敏性物料的低温真空 浓缩。

#### **Production**

The concentrator is suitable for the concentration of Chinese medicine, western medicine, starch sugar, dairy products and other liquid materials, and is especially suitable for low temperature vacuum concentration of heat sensitive materials.



### SERIES TRIPLE-EFFECT CONCENTRATOR

### 三效节能浓缩器



#### 设备说明

单效外循环真空浓缩器,由加热器、蒸发器、 除沫器、冷凝器、冷 却器、受液罐等组成,凡与物料接触部件均采用不锈钢制作,本装置 适用于制药、食品、化工、轻工等行业液体物料的蒸发浓缩。本设备 浓缩时间短,蒸发速度快,能较好地保持热敏性物料不致破坏。

#### **Equipment descriptions**

The single effect external circulation vacuum concentrator iscomposed of heater, evaporator, defoamer, condenser, cooler and liquid receiving tank. The parts that contact materials are all made lof stainless steel. The equipment is applicable to evaporation and concentration of liquid materials in pharmacy, food, chemicalindustry and light industry etc. industries. The concentrating time isshort and the evaporating speed is high, which can better protect he heat sensitive materials from being damaged.

### RH DUAL HEAT REFLUX EXTRACTINGCONCENTRATOR RH对偶式热回流提取浓缩机组

#### 用途

本装置适用于制药、食品、轻工、化工等行业的酒精回收,以利于降 低生产成本,提高经济效益,本装置可将30°-70°的稀酒精蒸馏到 90°-95°,成品酒精度要求高,可加大回流比,但相应成品产量降 低,残液排放含醇 < 3%,本装置采用高效不锈钢波纹填料,凡接触酒精 部位,如塔体、冷凝器、稳压罐、冷却蛇管等均采用SUS304用不锈 钢,以确保成品酒精不被污染,塔釜采用可拆式U型管加热,便于对加热 外壁及蒸馏釜内壁进行清洗。

#### Usage

The device is suitable for alcohol recovery in the pharmaceutical, food, light industry, chemical and other industries, in order to help reduce production costs and increase economic efficiency. The device can dilute 30° -70° dilute alcohol to 90° -95°, finished alcohol High degree of demand, can increase the reflux ratio, but the corresponding finished product output is reduced, the residue discharge contains alcohol ≤ 3%, the device uses high-performance stainless steel corrugated packing, where contact with alcohol parts, such as the tower body, condenser, regulator tank, cooling The coils are made of SUS304 stainless steel to ensure that the finished alcohol is not contaminated. The tower kettle is heated by a removable U-tube to facilitate the cleaning of the heated outer wall and the inner wall of the still.



### **SERIES ALCOHOL RECOVERY**

### 系列酒精回收塔

#### Jh酒精回收塔

适用于制药、食品、轻工、化工、等行业的稀酒精回收, 具有节能、环保、降低生产成本、提高效率的优点。 本装置可将30度~50度的稀酒精蒸馏到90度~95度残液排 放含醇度底符合环保要求。

本装置采用高效不锈钢波纹填料,接触物料部分全部采用 SUS304不锈钢符合GMP标准。设备亚光。

#### JH alcohol recovery tower

JH-series Alcohol recovery tower uses for recovering the thin alcohol on pharmacy, food ,light industry and chemical etc, with the merits of energy-saving, environment protection, cost reducing and high efficiency etc. This device can distill the thin alcohol with 30~50 up 93~95. The residual liquid discharged content contains low alcohol volume, which meets the environment protection requirement. This device adopts the high effective stainless steel corrugated filler and the parts touched with the materials all adopt the SUS 304 stainless steel in accordance with GMP standard.



### **AUTOMATIC MACROPOROUS RESIN ABSORBING UNIT**

### 全自动大孔树脂吸收装置



#### 大孔树脂吸附分离机组特点

大孔树脂吸附分离技术是采用特殊的吸附剂,从中药复方煎液中选择性地吸附其中的有效部分,去除无效成分的一种分离纯化新工艺。可以解决中药生产中所面临的剂量大、产品吸潮和重金属残留等实际问题。经大孔树脂吸附技术处理后所得到的精制物,可使药效成分高度富集,杂质少,提取得率仅为原生药的2~5%,而一般水煮法为30%左右,醇沉法为15%左右;可有效地去除吸潮成分,有利于多种中药剂型的生产,并增强产品的稳定性;可有效地去除重金属。大孔树脂吸附分离工艺所得提取物体积小,不吸潮,容易制成外型美观的各种剂型,尤其适用于颗粒剂、胶囊剂、片剂等的生产,使中药的粗、大、黑制剂升级换代为现代制剂。该技术将是对中药提取工艺影响最大、带动面最广的技术进步之一。

在分离过程里引入计算机自动监控技术,实现生产程控化、检测自动化、输送管道化,提高装备的可靠性和重复性。

#### (1)自动化控制系统

系统实现对泵、阀门和各种在线检测器(流量变送、压力变送)的 控制和数据采集,能够方便完成四柱串联、并联操作,保证工艺 的稳定性和准确性。

#### (1) automatic control system

System of pumps, valves and various online detector (send, variable flow pressure transmission) control and data acquisition, can facilitate the completion of four series and parallel operation process, ensure the stability and accuracy.

#### (2)树脂柱结构

该树脂柱结构的设计良好,合理的高径比,精密的进出口流体分布装置,配备自动装填系统和空气压缩气接口,保证了大孔树脂柱装填效果和填料再生效果,为高效分离提供了保障。

#### (2) resin column structure

The design of the resin column structure, the reasonable ratio of height to diameter, the precision of the import and export of fluid distribution device, equipped with automatic loading system and the compressed air interface, the macroporous resin column filling effect and filling regeneration effect, provide a guarantee for the efficient separation.

#### 系统组成及其特点

(自动化控制系统)基于先进的DCS分布式控制策略编写的工作站,实现对泵、阀门和各种在线检测器的控制和数据采集,能够方便完成多柱串联、并联操作,保证工艺的稳定和准确性。

### Characteristics of macroporous resin adsorption and separation unit

Macroporous resin adsorption separation technology is the use of special adsorbent, the effective part of compound traditional Chinese medicine decoction from the selective adsorption of them, a new purification process to remove the invalid components. It can solve practical problems such as large dosage, moisture absorption and heavy metal residue in Chinese medicine production. The refined substances obtained by macroporous resin adsorption technology can enrich the effective ingredients and have few impurities, the extraction yield is only 2~5% of the original raw medicine, while the general boiling method is about 30% and the alcohol precipitation method is about 15%; it can effectively remove the moisture absorption components, which is beneficial to the production of various kinds of traditional Chinese medicine and enhance the stability of the products. It can effectively remove heavy metals. Adsorption process of extracts from small volume macroporous resin, moisture, various forms of easily made appearance, especially suitable for granules, capsules, tablets and other production, the traditional Chinese medicine of coarse, large and black upgrades for the preparation of modern preparation. This technology will be one of the most important technological advances in the extraction of traditional Chinese medicine and the most extensive surface.

The introduction of the computer in the separation process in the automatic monitoring technology, realize the production program and test automation, pipelines, improve equipment reliability and repeatability.

#### **System composition and its characteristics**

(automation control system) based on the advanced DCS distributed control strategy, the control and data acquisition of the pump, valve and various on-line detectors can be realized, and the series and parallel operation of multi columns can be completed conveniently, and the stability and accuracy of the process can be ensured.

### CX AUTOMATIC CHROMATO-GRAPHY SEPARATING UNITT

### CX全自动层析分离机组



#### 功能、特色

广泛应用于废水处理,蛋白质、酶、单糖、多糖和植物有效成分等的 提取和精制。层析分离的特点是:操作条件温和(常温,一般为常 压);混合物一次通过即可同时得到多个纯组分;可精密分离,得到 高纯度的产物。本机组溶入现代计算机自动化控制技术、工艺参数在 线检测技术,对传统的手动层析设备进行升级改造,提高装备的可靠 性和重复性,该设备易于层析工艺的放大,解决工业化生产问题。

#### **Functions and characteristics**

It is widely used for extraction and refining of effective components in waste water treatment, protein, enzyme, monosaccharide, amylose and plant. The characteristics of chromatography separation are as follows: the operation condition is moderate (normal temperature, and normal pressure generally); the mixture can obtain multiple pure components at one time; precise separation is available so as to obtain products of high purity. Combining modern computer automatic control technology and technical parameter online detection technology, the unit has upgraded and reformed the traditional manual chromatography equipment to enhance the reliability and repetition. The equipment is easy for magnifying the chromatography technology to solve the problem of industrialized production.

#### 色谱分离技术在天然产物分离纯化中的作用

在中药分离纯化中应用较多的色谱分离技术主要有吸附色谱和离子交换色谱。吸附色谱包括反相色谱技术(C18反相填料)和正相硅胶色谱技术;离子交换色谱主要用于带电荷的化合物的分离纯化。目前色谱分离技术在黄酮类、生物碱、苷类、有机酸类、多糖类等中药有效成分的精制中发挥着越来越重要的作用。

### Application of chromatographic separation technology in the separation and purification of natural products

The chromatographic separation technology mostly applied in the traditional Chinese medicine separation and purification can be mainly divided into absorption chromatography and ion exchange chromatography. The absorption chromatography includes reversed—phase chromatography (C18 filler) and normal phase silica gel chromatography. The ion exchange chromatography is mainly used for separation and purification of compound with electric charge. Currently, the chromatographic separation technology has played more and more functions in the refining of effective components of traditional Chinese medicine such as flavone, alkaloid, glycoside, organic acid and amylose etc.

#### 天然产物分离纯化的应用

小试工艺的开发,中试工艺的放大研究,植化标准品、对照品的制备等。广泛用于分离酚类、醛类、生物碱、氨基酸、甾体、萜类、黄酮类、醌类、有机酸、苷类、糖类、核苷类等纯品。如:紫杉醇、茶多酚、银杏黄酮、竹叶黄酮、维生素E等。

### Application of separation and purification of natural products

Development of small—scale test technology, magnifying research of pilotscale test technology, preparation of phytochemical standard products and contrasting products. Widely suitable for separatingphenol, aldehyde, alkaloid, aminoacid, steroid, terpene, flavone, quinine, organic acid, glycoside, glucide, nucleotide etc. pure products, such as: paclitaxel, tea polyphenol, ginkgo flavone, bamboo leave and witamin ect.



### **TUBULAR PLATE TYPE STERILIZATION SYSTEM**

### 管式板式杀菌系统

#### 技术

管式杀菌机可用来对各种液态食品、饮料进行热处理,与其他种类 的杀菌机相比有如下优点:

- 1. 热效率高,可达90%的热回收效率;
- 2. 加热介质与物料温差小,换热管采用了波纹管,换热效率高,结垢少,增 长了杀菌机的工作时间。
- 3. 自动化程度高,从设备的CIP清洗、设备自杀菌到物料杀菌整个过程 可实现自动控制、记录。
- 4. 杀菌温度控制精确可靠,蒸汽压力、流量,物料流量等都严格自
- 5. 物料管内壁采用先进技术抛光和自动焊,管道设计实现完全自动 清洗,设备全过程自杀菌,确保系统无菌性。
- 6. 系统安全性强,系统配件皆选用性能好可靠性高的产品,蒸汽, 热水,物料等都有压力保护措施和报警系统。
- 7. 系统可靠性高, 主要部件如物料泵, 热水泵, 各类阀门, 控制系 统的电气元件和执行都是世界名牌。
- 8. 自身SIP系统。



#### **Technical:**

Tubular sterilizer performs the hot processing on the liquid foods and beverage. Compared to the other model, it has the following characteristics:

- 1. High heat efficiency.90% of heat can be reused after the product be processed:
- 2. Temperature difference between the product and the heating medium is small,so the heating is gentle;
- 3. It is of high degree automatic,can automatically control the CIP cleaning,self sterilizing,and the whole procedures steps;all the procedures are recorded and controllable;
- 4. It is of precise and reliable sterilizing temperature control; all the affecting factors such as steam pressure, steam flow rate, product flow rate are all controllable;
- 5. The inside of the tubular adopts advanced polish procedure, all tubes can perform fully cleaning, self sterilizing ensures the
- 6. The system is strong safety, the fittings all adopts reliable materials;
- 7. The system is of high reliable, main parts such as preduct pump, hot water pump, all kinds of valves, elements of the electrics are all of world known brands
- 8. With self SIP.



#### 工艺参数 The process parameters

- 1)5℃→65℃(均质)→137℃(3-5S)→20℃-25℃,适用于无菌包装; 2)5℃→65℃(均质)→115℃/125℃(5-15S)→88℃-90℃,适用于热灌装;
- 3)5℃→65℃(均质)→115℃/125℃(5-15S)→75℃-78℃,适用于中温灌装;
- 1)  $5^{\circ}$ C $\rightarrow$ 65 $^{\circ}$ C (homogenizer)  $\rightarrow$ 137 $^{\circ}$ C (3–5S)  $\rightarrow$ 20 $^{\circ}$ C-25 $^{\circ}$ C, for aseptic filling; 2)  $5^{\circ}\text{C} \rightarrow 65^{\circ}\text{C}$  (homogenizer)  $\rightarrow 115^{\circ}\text{C}/125^{\circ}\text{C}$  (5–15S)  $\rightarrow 88^{\circ}\text{C}-90^{\circ}\text{C}$ , for hot filling;
- 3)  $5^{\circ}\text{C}\rightarrow65^{\circ}\text{C}$  (homogenizer)  $\rightarrow115^{\circ}\text{C}/125^{\circ}\text{C}$  (5-15S)  $\rightarrow75^{\circ}\text{C}-78^{\circ}\text{C}$ , for middle temperature filling:

### **ULTRA HIGH TEMPERATURE STERILIZATION SERIES**

### 超高温杀菌



#### 用途

全自动 (手动) 盘管式超高温瞬时灭菌机是专为乳品、果汁饮料设 计的全自动杀菌设备,具有加热、杀菌、冷却、热回收一体化和各 种安全保护措施(高温报警、低温回流、停电冷却等多种功能), 配备高精度自控系统和PLC合理的工艺编程使你使用更方便。

#### Usage

The fully automatic (manual) sterilizer is specially designed for dairy product and juice beverage production, which has integration performance of heating, sterilizing, cooling and heat recovering, and different kinds of safe profection methods (higher temperature alarm, lower temperature reflow, power cut cooling, etc.), High-precision self-control system and reasonable PLC programming offer you more convenience in operation.

#### 设备特性

UHT超高温瞬时灭菌机适用于鲜奶,果汁,饮料,果冻和冰淇淋 酱,酱油,豆浆,炼乳,酒类和其他适用于瞬时杀菌液体物料。物 料一般是由离心泵进入杀菌机并被迅速加热并保持灭菌温度3秒钟, 微生物和酶被迅速杀死。杀菌后物料与进料相接触冷却,使出料温 度低于65℃。

#### Description

UHT ultra-high temperature instantaneous sterilization machine is suitable for the fresh milk, juice, beverage, frozen sucker, and ice cream paste, sov sauce, sovbean milk, condensed milk, wine and other liquid materials of instantaneous sterilization. Material generally by the centrifugal pump into the sterilization machine was rapidly heated and the sterilization time

keeps about 3 seconds, the microbes and enzymes were quickly killed. Material will contact with cold material and the average temperature will be below 65 °





### **SEED TANK SERIES**

### 菌种罐系列

#### 使用范围

- 1.常用来培养酸奶的工作发酵剂。
- 2.适用于食品、乳制品、果汁饮料、医药化工及生物工程等领域。 结构特征
- 1.采用内简体、夹套加外包的结构,中间填充保温材料。
- 2.材料均为卫生级不锈钢。
- 3.结构设计极具人性化,可操作性强。
- 4.简体内壁过渡段采用圆弧过渡,保证卫生无死角。
- 5.顶部封头采用旋转开盖方式,400L以上容量采用全封闭结构。
- 罐体配置:
- 1.无菌呼吸器。
- 2.温度计(根据客户要求配置)。
- 3.CIP清洗器。
- 4.菌种接入口。
- 5.可调式三角支腿。
- 6.搅拌器。
- 7.夹套(根据客户要求配置米勒板或空心夹套)。
- 8.灯孔视镜(根据客户要求配置)。
- 9.取样阀。

#### **Applicable range:**

- 1.Commonly applicable for incubating work fermentation agent for acidophilus milk.
- 2.Ideal in fields such as foods,dairy products,fruit juice beverages, pharmacy,chemical industry and biological engineering etc.

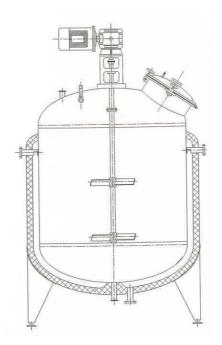
#### Structure characteristics:

- 1. Adopt structure of internal tank and external package, with heat preservation materials inside.
- 2. Materials are all sanitary stainless steel.
- 3. Humanized structure desige and easy to operate.
- 4. Transition area of interior wall on tank adopts arc for transition to ensure no dead corner of sanitation.
- 5. Top head sealing adopts rotary opening type.For tank with 400L volume,adopts hermetic structure.

#### **Configuration of tank:**

- 1. Sterile respirator.
- 2. Thermometr(According to customer requirements).
- 3. CIP cleaning device.
- 4. Inet of seed.
- 5. Adjustable triangular bracket.
- 6. Blender.
- 7. Jacket(Miller board or hollow jacket are available according to customer requirements).
- 8. View lamp (According to customer requirements).
- 9. Sampling valve





### **VACUUM DEGASSER**

### 真空脱气机



#### 概认

脱气机又叫脱气罐,通常用来对果汁进行真空脱气,以抑制果汁的氧化和褐变。经过脱气可以同时去除悬浮微粒上附着的气体,防止微粒上浮,改善产品外观;减少高温灭菌和灌装时起泡,改善杀菌效果,减少容器内部的腐蚀。生产液体奶或含乳饮料也经常进行脱气。一般真空脱气是在均质后进行,有时也在灌装前脱气。

#### Summary

Degassing machine called the degassing tank, usually used for vacuum degassing of fruit juice, fruit juice to oxidation and browning inhibition. After degassing can simultaneously remove suspended particles attached to the gas, to prevent the floating particles to improve the appearance of the product; reduce the bubbling high temperature sterilization and filling, improve the sterilization effect, reduce corrosion inside the container. The production of liquid milk or milk beverage are often degassing. Vacuum degassing is usually carried out in homogeneous, sometimes before filling and degassing.

### FLASH EVAPORATING EQUIPMENT UNIT

闪蒸机组



本设备主要用于液体奶生产的预处理工序,由于采用真空瞬间蒸发,使 鲜奶在不破坏有效营养成分的情况下得到浓缩,如原奶干物质含量为 11.5%-12%时,闪蒸后可达到12.5%-13%,使产品干物质含量得到提 高,同时能脱除原奶中的异味,使产品具有纯正的奶香味。本设备需要 与杀菌或其他加热设备配套使用。通常是串接在杀菌机的保持管后,进 料温度90℃左右,具体接法请参考工艺流程图。

This equipment is mainly used in the pretreatment process of liquid milk production. Due to the instantaneous evaporation of vacuum, the milk is concentrated without destroying the effective nutrient components. For example, when the dry matter content of the raw milk is 11.5%–12%, the flash It can reach 12.5%–13% afterwards, and the dry matter content of the product can be improved. At the same time, the odor in the raw milk can be removed, so that the product has a pure milk flavor. This equipment needs to be used with sterilization or other heating equipment. It is usually connected in series with the holding pipe of the sterilizer. The feed temperature is about 90° C. Please refer to the process flow chart for the specific connection method.

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### **SUPER-HIGH TEMPERATURE STERILIZER**

### 系列高温灭菌机



超高温瞬时灭菌机



卧式杀菌锅



热水回转式杀菌釜

本机运用当今最先进的焊接技术,选用进口优质抛光不锈钢管制造,适用于鲜奶、果汁、饮料和酒类等流体物料的灭菌,如与高压均质机配套,还可适用于粘稠物料,可选手动型或温度自控型,还有与无菌包装配套使用的全自动型。

卧式杀菌锅系间歇式静置蒸汽、高温水杀菌设备。 适用于软袋装食品、罐装食品、肉制品、饮料、豆奶、杏仁露、花生奶、椰子奶等食品的杀菌工作。可装置自动记录仪,装置有压缩空气管,以压缩空气作反压,有效的保证不发生破袋、涨罐,保证杀菌物的固有风味。

规格有效容量:

工作压力≤0.3MPa 工作温度≤143℃

Using the most advanced welding technology, this machine is made of imported high quality polished stainless steel tube. It is suitable for the sterilization of fresh milk, juice, drink and wine, such as the high pressure homogenizer, the viscous material, the dynamic type or temperature self control type, and the complete use of the aseptic packaging. Dynamic type.

The horizontal sterilizing pot is a batch type static steam and high temperature water sterilization equipment. It is suitable for sterilization of soft bagged food, canned food, meat products, beverages, soymilk, almond, peanut milk, coconut milk and other foods. The device can be equipped with an automatic recorder with compressed air tube and compressed air for reverse pressure. It can guarantee the inherent flavor of the disinfectant without breaking the bag and raising the tank. Specification effective capacity: Working pressure is less than 0.3MPa and the working temperature is less than 143 degrees C

### **PLATE HEAT EXCHANGER**

### 板式换热器





#### 概述

板式换热器由一组波纹状金属板片构成,金属板上有孔,通过这些孔的两股流体之间发生。板组合装在一块框架板和一块压力板之间,用拧紧螺栓压紧。板上装有密封垫圈,用以密封通道并将流体交替引导到通道中。板片数量由流速流体的物理属性、压降和温度程序决定。板的折皱促进了流体的紊流,并对板的压差起到支撑作用。用于制药和其它液体食品产品、原位清洗液体和水的冷却和加热。以及某些应用中的巴氏消毒。

规格: 0.5m2-200m2

#### Summary

The plate heat exchanger is composed of a group of group of corrugated metal sheets. There are holes on the metal sheets. The heat transmission will take place between the two fluids passing these holes. The plate combination is installed between a frame plate and a pressure plate, which are fastened by tightening bolts. The seal ring installed on the plate is used to seal the passage and guide the fluid alternately into the passage. The quantity of plate depends on the physical property, pressure drop and temperature program of fluid. The corrugation of plate improves the eddy flow of fluid and plays supporting action to the different pressure of plate. It is applicable for the cooling and heating of liquid products in pharmacy and food, CIP cleaning liquid, and also applicable for the pasteurized sterilization in some applications.

Specification: 0.5m2-200m2

# HOT WATER PRESSURE STERILIZER 热水压力杀菌机

#### 适用范围

主要适用于罐头(如肉类、禽类、鱼类、蛋类、蔬菜类等罐头)及需要高温 杀菌的蛋白饮料(如:牛奶、豆奶、杏仁、椰奶、花生奶、核桃奶等)。包装 物可适用于硬罐头(如:马口铁三片罐、玻璃瓶罐头HDPE),蒸煮袋。特 别适合软罐头类(如:火腿肠、蒸煮袋装鸡、扒鸡、纯牛奶等)。

#### **Purpose**

Mainly applicable to cans (such as canned meat, poultry, fish, eggs, vegetables and so on), and the need for high-temperature sterilization protein drinks (such as: milk, soy milk, almond, coconut milk, peanut milk, walnut milk, etc.). The package can be applied to hard canned (such as: Maguchi Tetsumi tablet, glass bottle HDPE), and cooking bag. Especially suitable for soft canned foods (such as: ham sausage, chicken, chicken, cooking bags of pure milk etc.).



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### **HIGH SHEAR EMULSIFYING TANK**

### 高剪切乳化罐



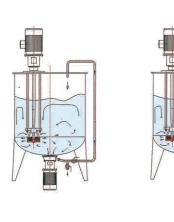




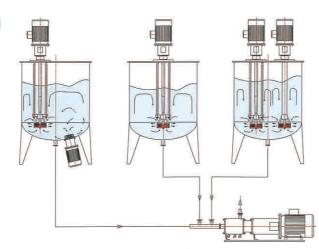
高剪切乳化罐是目前国内乳品、饮料果汁、食品行业最先进的混合设备。高剪切乳化头工作时将转子中心的物料高速抛向定子,通过定子的齿间隙,在转子和定子之间通过剪切、碰撞、粉碎而达到乳化的目的。是集混合、乳化、均质、溶解、粉碎等功能于一体的设备。

High shear emulsion tank is the most advanced mixed equipment in domestic dairy, beverage juice and food industry. High shear emulsification head of the rotor center of the material high–speed stator, through the stator of the tooth gap, in the rotor and stator through shear, collision, crushing and achieve the purpose of emulsification. Is a set of mixing, emulsification, homogenization, dissolution, crushing and other functions in one of the equipment.

#### 工艺应用Technical process







### **HIGH-SPEED EMULSIFICATION MACHINE SERIES**

### 高速乳化机系列



ZRJ真空乳化成套设备





高剪切乳化搅拌

ZRJ真空乳化机是引进德国先进技术,根据化妆品、药膏类产品的制膏工艺而专门设计的,本机组由预处理锅、真空乳化搅拌锅、真空泵、液压系统、倒料系统、电器控制系统、工作平面等部分组成。

ZRJ vacuum emulsifying equipment, adopting Germany technology, is designed on the base of cream making process of cosmetic and cream products. This group pre-treating pot, vacuum emulsifying agitating pot, vacuum pump, liquid pressure system, material imputing system, electric controlling system, and work platform.

#### 优点

本机组采用上部同轴三重型搅拌器,液压升降开盖,快速均质搅拌器转速: 0-3500r/min(变频调速)、慢速刮壁搅拌器转速: 10-100r/min(变频调速)、均质头采用高剪切涡流式乳化搅拌机,慢速刮壁搅拌自动紧贴锅底及锅壁。采用真空吸料、特别对粉体物料利用真空吸入避免粉尘飞扬。整个工序在真空条件下进行,防止物料在高速搅拌后产生气泡,能达到卫生无菌要求。本系统配有CIP清洗系统、容器与物料接触部分采用SUS316L材料制造、内表面镜面抛光300EMSH(卫生级)为了确保控制部分的稳定、电器控制部分采用德国西门子公司产品、按钮采用日本富士公司产品、变频器采用日本松下电工、真空泵采用西门子公司产品。本机组完全符合GMP要求制造,是目前国内最先进、最理想的膏、

#### **Advantages**

霜生产设备。

This machine adopts upper coaxial tri agitator, liquid power to lift and down to open cover, fast homogenizing agitator rotary speed:0-3500r/min(frequency control), slow scrapping agitator rotary speed:10-100r/min(infinite speed variation), the homogenizing head adopts high cut eddy emulsifying agitating machine, slow scrapping agitator automatic tightly oppressed to the pot bottom and pot inner surface. In the agitating process, rotary pump outer recycle the material to completely emulsify the material. Vacuum absorbing material, especially absorbing powder is adopted to avoid powder and tiny dust fly. The whole process undergoes in vacuum condition to avoid material to produce bubbles in the high speed agitating, up to sanitary standard. The material allotted is auto transferred by liquid level auto control to packaging container. This system is fixed with CIP cleaning system, and the part in touch with the material adopts SUS316L sainless steel, inner surface mirror polish 300EMSH(sanitary class). In order to control part stableness, the electric control adopts Germany SIMENSE products. This machine completely accords with GMP standard, and is the most advanced and ideal cream producing equipment.

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### **SINGLE-LAYER STORACE TANK**

### 单层储罐

#### 使用范围

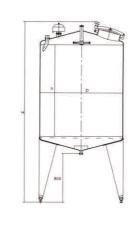
1.可作储液罐、混料罐、暂存罐、储水罐等。 2.适用于食品、乳制品、果汁饮料、医药化工及生物工程

#### **Applicable range**

engineering etc.

1.Used as liquid storage tank, liquidcomposing,tank,temporary storageTank and water storage tank etc 2.Ideal in fields such as foods dairy products, fruit juice





### **JACKET TANK**

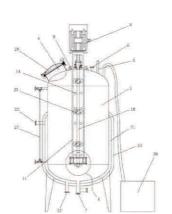
### 夹套罐

#### 简介

广泛应用于涂料、医药、建材、化工、颜料、树脂、食品、科研等行业。中热机械可根据用 户产品的工艺要求选用碳钢、不锈钢等材料制作,以及设置加热、冷却装置,以满足不同的 工艺和生产需要。加热形式有夹套电加热、盘管加热,该设备结构设计合理、工艺先进、经 久耐用,并具有操作简单、使用方便等特点,是理想的投资少、投产快、收益高的化工设

#### **Brief introduction**

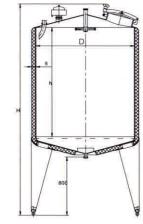
Widely used in coatings, medicine, building materials, chemical industry, pigment, resin, food, scientific research and other industries. The medium heat machinery can be made of carbon steel and stainless steel according to the technical requirements of the user's products, and the heating and cooling equipment can be set up to meet the different process and production needs. It has the characteristics of reasonable design, advanced technology and durable, easy to operate and easy to use, and is an ideal chemical equipment with less investment, faster production and higher income.



### **DUAL-LAYER STORAGE TANK SERIES**

### 双层储罐系列





#### 使用范围

1.可作储液罐、混料罐、暂存罐、储水罐等。 2.适用于食品、乳制品、果汁饮料、医药化工及生物工程

#### Applicable range

1.Used as liquid storage tank, liquidcomposing,tank,temporary storageTank and water storage tank etc 2.Ideal in fields such as foods dairy products, fruit juice becerages, pharmacy, chemical industry and biological engineering etc.





#### 组成与应用

搅拌罐由搅拌罐体、搅拌罐盖、搅拌器、支承、传动装置、轴封装置 等组成,还可根据工艺要求配置加热装置或冷却装置。

搅拌罐体、搅拌罐盖、搅拌器、轴封等选用材料可根据不同的工艺要 求选用碳钢或不锈钢等材料来制作。

搅拌罐体与搅拌罐盖可采用法兰密封联结或焊接联结。搅拌罐体与搅 拌罐盖可根据工艺要求开进料、出料、观察、测温、测压、蒸汽分 馏、安全放空等工艺管孔。

#### **Composition and Application**

The mixing tank consists of the mixing tank body, the mixing tank cover, the agitator, the support, the transmission device, the shaft sealing device and so on. The heating device or the cooling device can be configured according to the technical requirements. The materials used for mixing tank, mixing tank lid, agitator and shaft seal can be made of carbon steel or stainless steel according to different technological requirements. The mixing tank and the mixing tank can be sealed or welded by flange. The mixing tank and mixing tank lid can be opened into feed, discharge, observation, temperature measurement, pressure measurement, steam fractionation and safe emptying.

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### **REACTION KETTLE**

### 反应釜





系列不锈钢反应罐是医药、化工、涂料等领域常用的反应设备之一,它是一种在一定的温度和压力下,借助搅拌器将一定体积的两种(或多种)液体与固体或液体进行混合,促进其化学反应的设备,通常伴随有热效应,由换热装置将所需热量输入或将生成热量移出。搅拌形式多用锚式或框式,确保物料在短时间内混合均匀。 搅拌转速多配以变频调速,设有温度显示或控制。

Stainless steel reaction tank series are one of the commonlyused reaction equipments in the fields of medicine, chemicalengineering and paining etc. It is a kind of equipment of mixing two ormany kinds of liquids with solid or liquid by means of stirrer undercertain temperature and pressure tO make chemical reactionhappen. Thermal effect usually occurs, heat exchanger inputsrequired heat or transfers the heat generated. Stirring mode mostlyadopts anchor type or frame type to ensure that materials can bemixed evenly within short time. Stirring rotary speed is installed withfrequency control speed regulating. T emperature indication orcontrol iS set.

### JJ CRYSTALLIZING TANK 结晶罐

结晶罐采用进口316L或304不锈钢制作,内壁采用电解镜面抛光或机械抛光,外壁采用304全焊接结构保温,外表面采用镜面或亚光处理。结晶罐上安装0.2um疏水性通气过滤器。结晶罐能承受121℃高温灭菌消毒,配备卫生级压力表。罐体对外连接口采用卫生快开接头。

结晶罐带有温度监控装置,2个视镜,清洗球及氮气进口。轴的密封采用特殊的卫生级机械密封,确保物料不受污染。结晶罐可采用变频调速装置,搅拌轴转速调节范围大。

Crystallization cans made of imported 316 or 304 I stainless steel wall using electrolytic mirror polishing or mechanical polishing, 304 all welded structure is adopted for the outer wall heat preservation, the outer surface using mirror or inferior smooth processing. Crystallizing tank installed on the 0.2 um hydrophobic vent filters. Crystallization tank can bear 121 °C high temperature sterilization disinfection, equipped with health level gauge. The foreign joint use health quick opening joint. Crystallization cans with temperature monitoring device, two sight glasses, cleaning ball and nitrogen gas imports. Shaft seal of the use of special health level mechanical seal, to ensure that the material from pollution. Crystallization cans can adopt variable frequency speed regulating device, stirring shaft speed adjusting range is big.



### **STAINLESS STEEL POT SERIES**

### 不锈钢夹层锅系列



#### 夹层配料锅

本设备是带有搅拌结构的配料与浓缩装置,应用广泛。本设备与物料接触部分均采用不锈钢制造,经久耐用,并符合GMP标准要求。

#### **Jacketed Dispensing Boiler**

Jacketed dispensing boiler The equipment is a device for preparation and concentration with mixing structure. It has wide application range. The parts of the equipment contacting with materials are all made of stainless steel, which is durable and is in accordance with GMP standard requirements.

# TILTING JACKETED KETTLE 可倾式夹层锅

可倾式夹层锅由锅体、支架、蜗轮、蜗杆等部件组成,锅体可作 180度以内的转动,本设备为敞口式浓缩,主要用于制药、食品、化 工、轻工等行业对料液的煎煮和浓缩,该设备与物料接触部分为不锈 钢SUS304,具有较好的腐蚀性能,经久耐用,符合GMP要求,同 时变可根据用户要求,可增加搅拌装置。

#### Series tilting jacketed kettles

Tilting jacketed kettle is composed of kettle, bracket, worm wheel and worm etc. The kettle can revolve within 180° the equipment is used for open concentration, mainly for decocting and concentration of liquids in industries of pharmaceutical industry, food industry, chemical industry and light industry etc. The parts of the equipment contacting with materials are made of stainless steel SUS 304. It has perfect corrosion-proof performance, and is highly durable according to GMP requirements. Blender also can be added according to customer requirements.



可倾式炒锅



可倾式夹层锅

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### **PURIFIED WATER PRODUCTION SYSTEM**

### 高纯水制备系统

二级反渗透+EDI+抛光混床可为电力、电子、HPI/CPI、食品和饮料行业、以及实验室提供高品质的高纯水,且不需要停机再生,出水水质达到18.2M ,符合美国ASTM标准,电子部超纯水水质标准。二级反渗透+EDI(CEDI)装置RO/热水型的CEDI组合对微生物,内毒素及热原有很好的去除能力、能够将这些指标严格控制在USP、JP、BP及欧盟药典所规定的标准之内(如果客户对细菌微生物有很高的要求指标,在产水端可以选择超滤除菌。可以在低温条件下保持水中无热原。我公司的超滤装置可提供在线清洗CIP系统,可以进行化学清洗和超滤消毒。)

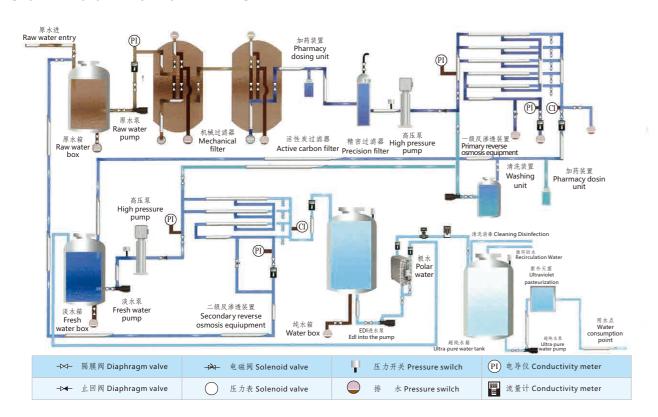
2 RO+EDI+polishing mixed for electrical, electronic, HPI / CPI, food and beverage industry, as well as laboratory providing high–quality high–water, and do not need to stop recycling, water quality can meet the 18.2M  $\Omega$ .cm, in line with the U.S.ASTM standards, electronic Department of ultra–pure water quality standard.

2 RO+EDI ( CEDI ) device RO / Water type CEDI combination of micro-organisms, endotoxin and heat removal of (the original good ability to strictly control these indicators in the USP, JP BP and the European Pharmacopoeia within the production of water-side can choose to ultrafiltration sterilization. you can keep the water at low temperature conditions, no heat source. my company can provide cleaning on-line ultrafiltration device CIP systems, chemical cleaning and ultrafiltration can be disinfected.)



#### 高纯水制备系统工艺流程图

High-pure water preparation system process flow diagram



### PROPORTIONING WEIGHING SYSTEM

### 配料称重系统



#### 应用

称重配料是一种用于石油、冶金、化工、食品、建材、粮油、饲料、塑料、农业等产品生产过程中的配料方式,主要以重量的方式进行按照配比进行配料,一般这种配料过程叫做称重配料。

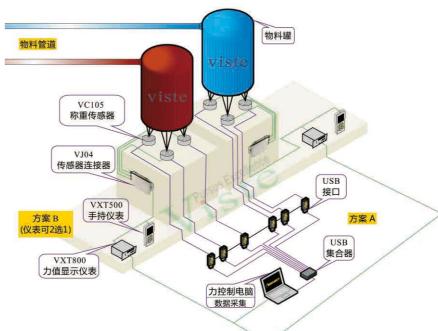
#### Application

Weighing ingredients are used in the production process of oil, metallurgy, chemical, food, building materials, grain and oil, feed, plastics, agriculture and other products. It is mainly proportioning according to the proportion in the way of weight, which is generally called weighing proportioning.

#### 注意事项

1.在化工、建材、冶金等行业经常要进行多种物料的连续配料,因此经常使用失重秤.由于失重秤秤体是基于斗式秤的结构,能直接进行砝码标定,通过对秤斗各瞬间 重量的测试计算出实际排料量,再进行闭环调整,从而可以达到较高的控制精度,一般而言累计精度为0.2%.由于是斗式结构,标定,这种系统维护也比皮带秤容易得多.

2..适合各种固体、液体、按流量控制的场合。可设定主料和辅料,辅料根据主料的流量自动调节,维持比例恒定,在连续生产中远隔保证配方进度,这种控制方式适合于微量添加:脱硫系统中活性炭的添加,塑料造粒行业的配料中。



### Matters needing attention

1. in the chemical, building materials, metallurgy and other industries, the weight loss scale is often used. Because the weigher scale is based on the structure of the bucket scale, the weights can be calibrated directly. The actual discharging amount is calculated by the test of the weight of each moment of the weighing bucket, and then the closed loop adjustment can be achieved. In general, the total accuracy is 0.2%.. Because of the bucket structure and calibration, this system is much easier to maintain than the belt scale.2.. Is suitable for various solid, liquid and flow control occasions. The main materials and auxiliary materials can be set, the auxiliary materials are automatically adjusted according to the flow of the main material, the maintenance ratio is constant, and the formula progress is ensured in the continuous production. This control method is suitable for the addition of activated carbon in the desulfurization system and the ingredients of the plastic granulation industry.

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# SPHERICAL CONCENTRATOR 球形浓缩器

#### 概述

球形浓缩罐主要由浓缩罐主体、冷凝器、汽液分离器、受液桶四个部分组成,可用于制药、食品、化工等行业对料液的浓缩、蒸馏及有机溶媒的回收工艺。由于采用减压浓缩,故浓缩时间短,且不会破坏热敏性物料的有效成分。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,并符合GMP标准。

#### Summary

The spherical concentrating tank consists of four parts, the main body of the concentrated tank, the condenser, the vapor–liquid separator and the liquid barrel, which can be used in the concentration, distillation and the recovery process of the organic solvent in the pharmaceutical, food and chemical industries. Because vacuum concentration is adopted, the concentration time is short, and the active ingredients of heat sensitive materials are not destroyed. The contact parts of the equipment and materials are made of stainless steel, with good corrosion resistance, durability and compliance with the GMP standard.

### **SCRAPER THICKENER**

### 刮板浓缩器



#### 概述

刮板蒸发器采用离心式滑动沟槽转子,是目前国内外最新结构蒸发器,在流量很小的情况下也能形成薄膜,在简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:传热系数值高,蒸发能力大,蒸发强度可达到200kg/m²hr,热效率高。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。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)改变刮板沟槽旋转方向,可以调节物料在蒸发器里的时间和物料的浓度。蒸发段简体内壁经过精密镗削并抛光处理,表面不易产生结焦、结垢。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。设备占地面积小,结构简单,维修方便。

#### **Summary**

The centrifugal sliding groove rotor is used in the scraper evaporator. It is the latest structural evaporator at home and abroad. The film can be formed under the condition of very small flow. The silt in the surface attachment treatment liquid on the inner wall of the tube evaporation section can be removed quickly by the movable scraper. Compared with the fixed clearance plate evaporator, the evaporation capacity can be increased by 40–69. %, it has the following properties and characteristics: high heat transfer system, high evaporation capacity, evaporation intensity can reach 200kg/ HR, and high thermal efficiency. The heating time of the material is short, about 5 to 10 seconds, and working in the vacuum condition, it is more advantageous to the heat sensitive material, keeping all kinds of ingredients without any decomposition and ensuring the quality of the product. The viscosity range is wide and the high and low viscosity can be treated. The viscosity of the material can be as high as 100 thousand CP (CP) to change the rotation direction of the scraper groove. It can adjust the time of the material in the evaporator and the concentration of the material. The inner wall of the evaporator segment is precisely boring and polishing, and the surface is not easy to produce coking and scaling. It is easy to operate, easy to adjust product indexes, and can be controlled continuously under closed conditions. The equipment has small footprint, simple structure and convenient maintenance.

### CIP AUTOMATIC ONLINE CLEANING SYSTEM

### CIP全自动在线清洗系统



#### 工作原理

通过设置程序(程序可调)由CIP清洗系统自动配制清洗液,经气动控制阀与送液泵、回液泵来完成清洗的输送及回流循环清洗、排放、回收整个清洗过程。通过电导率检测仪及PLC触摸屏组成的控制系统达到了自动在线清洗。

#### 系统组成

智能型CIP系统为一中央集成系统,包含注射水罐、CIP罐、板式换热器、管道过滤器、送液泵、回液泵、温度控制仪、液拉控制仪、电导率检测仪、PLC触摸屏、控制柜及系统管阀件等组成。

#### The working principle of

By setting program (adjustable) based on automatic CIP cleaning system, cleaning fluid, by the pneumatic control valve and pump, the liquid pump delivery to complete the cleaning and reflux circulation cleaning, discharge, recycling the whole cleaning process. Through conductivity detector consisting of PLC and touch screen control system achieved the automatic online cleaning.

#### **System composition**

Intelligent CIP system for the central integration system, including the injection water, CIP tank, plate heat exchanger, pipeline filter, pump, pump, liquid temperature control instrument, control instrument, electrical conductivity detector tube valve parts, PLC, touch screen, control cabinet and system, etc.



#### 应用领域

目前,智能型CIP就地清洗系统广泛应用于生物发酵、制药等对清洗要求较高的行业,以达到卫生无菌的效果。

At present, the intelligent CIP in–place cleaning system is widely applied in biological fermentation, pharmaceutical, and other higher requirements for cleaning industry, in order to achieve health sterile effect.

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## **CIP SYSTEM**

### CIP系统



#### 用途

系统可单独进行酸洗、碱洗、热水冲洗等工序,也可根据需要编制特定的清洗程序进行全自动的清洗;不仅能有效的将设备清洗干净,而且还能控制微生物生长;同时可根据客户要求配置半自动、和全自动控制系统。

#### **Usage**

The system can be used separately for pickling, alkali washing, hot water washing and so on. It can also work out a specific cleaning procedure for automatic cleaning according to the needs; it can not only clean the equipment effectively, but also control the growth of microorganism; at the same time, the semi-automatic and automatic control system can be configured according to the requirements of the customer.

### FIPST STAGE REVERSE OSMOSIS WATER TREATMENT EQUIPMENT

一级反渗透水处理设备



超滤膜是利用筛分原理进行分离,这对有机物截留分子量从 10000~100000 Dalton可选,适用于大分子物质与小分子物质的分 离,浓缩和纯化,与传统的板框式,中空纤维式等超滤设备相比具 有效率高,节能,环保等特点。应用领域:已广泛应用于食品加工, 乳品工业,饮料工业,医药工业,生物制剂,印染废水,食品工业 废水处理,环保工程等众多领域,本公司提供的超滤膜设备的超滤 膜元件采用世界著名公司新产品。

The ultrafiltration membrane is separated by the screening principle, which can be selected from 10000~100000 Dalton, which is suitable for the separation, concentration and purification of macromolecules and small molecules, and has the characteristics of high efficiency, energy saving and environmental protection compared with the traditional plate frame type, hollow fiber type and other ultrafiltration equipment. Application fields: it has been widely used in food processing, dairy industry, beverage industry, pharmaceutical industry, biological agents, printing and dyeing wastewater, food industry wastewater treatment, environmental protection engineering and so on. The ultrafiltration membrane components of ultrafiltration equipment used by our company adopt the new products of world famous companies.

### STORAGE TANK, SERIES STAINLESS STEEL CONTAINER

### 贮罐、不锈钢容器系列





- 1、容器保温材料采用耐高温、抗老化聚胺脂发泡或珍珠棉。
- 2、接口采用国际通用标准ISO快装卡盘式,内胆选用进口不锈钢 SUS316L或SUS304制造,内表面镜面抛光至Ra≤0.28μm,外 表面抛亚光,镜面、喷砂或冷轧原色亚光,符合GMP医药标准。
- 3、管口设有液位计口(静压式、电容式、无触点式、超声波式、玻璃管式)、空气呼吸器、温度计(数显式或表盘式)、CIP清洗口、SIP灭菌口、进出液口及卫生人孔等。
- 4、容积有1000L-30000L等规格,也可根据客户实际需要进行设计、制造。
- 5、随机附送有关GMP验证资料(含材质报告、外购件合格证、验证表格等)。

- 1.Heat preservation material of the vessel adopts high-temperature resistant and anti-aging polyurethane blister or pearl cotton.
- 2.Joints adopt international general ISO package chuck, inner container adopts imported stainless steel SUS316L or SUS304, internal surface is polished to Ra  $\! \leq \! 0.28\,\mu$  m, and external surface polishing, mirror polish, sand blasting or cold–rolled nature–color surface polishing. All is in accordance with GMP medical standards.
- 3.Orifice is set with level gauge(static-pressure type, capacitance type, non-contace type, ultrasonic type and glass tube type), air respirator, thermometer (digital display type or dial plate type), CIP cleaning mouth, SIP sterilizing mouth, liquid entrance-exit gate and sanitary inlet.
- 4.Volume Specification: 100L-30000L or to be designed and manufactured at customers, actual request.
- 5.Relevant GMP testing data are attached in the maching.(including material report, external components certificate of quality and verification Form)

#### 技术参数 Technology parameter

| 规格(L)         |      |      | 参考尺寸( | mm)Referenc | e size |      |    |
|---------------|------|------|-------|-------------|--------|------|----|
| Specification | D    | D1   | H1    | H2          | НЗ     | Н    | DN |
| 200           | 700  | 800  | 400   | 800         | 235    | 1085 | 32 |
| 250           | 800  | 900  | 400   | 850         | 235    | 1135 | 32 |
| 300           | 800  | 900  | 460   | 910         | 235    | 1195 | 32 |
| 500           | 900  | 1000 | 640   | 1140        | 270    | 1460 | 40 |
| 600           | 900  | 1000 | 830   | 1130        | 270    | 1450 | 40 |
| 800           | 1000 | 1100 | 880   | 1430        | 270    | 1750 | 40 |
| 1000          | 1100 | 1200 | 880   | 1480        | 270    | 1800 | 40 |
| 1200          | 1100 | 1200 | 1100  | 1700        | 270    | 2020 | 40 |
| 1500          | 1200 | 1300 | 1150  | 1800        | 270    | 2120 | 40 |
| 2000          | 1400 | 1500 | 1220  | 1970        | 280    | 2300 | 40 |
| 2500          | 1500 | 1600 | 1150  | 1980        | 280    | 2310 | 40 |
| 3000          | 1600 | 1700 | 1220  | 2120        | 280    | 2450 | 40 |
| 4000          | 1800 | 1900 | 1250  | 2250        | 280    | 2580 | 40 |
| 5000          | 1900 | 2000 | 1500  | 2550        | 320    | 2950 | 50 |
| 7000          | 2200 | 2300 | 1450  | 2650        | 320    | 3050 | 50 |
| 8000          | 2200 | 2300 | 1750  | 2950        | 320    | 3350 | 50 |

### **VACUUM EMULSIFYING MIXER**

液压升降真空上均质乳化机



技术参数 Technology parameter

| TH. D. T  | 有效容积                  | 乳化马达 Emulsify |        | 搅拌马达 Agitator |       | 真空泵<br>Vacuum pump |                         | 加热功率<br>Heating power      |                          |
|-----------|-----------------------|---------------|--------|---------------|-------|--------------------|-------------------------|----------------------------|--------------------------|
| 型号 Type   | Effective<br>Capacity | KW            | r/min  | KW            | r/min | KW                 | 极限真空<br>Limit<br>vacuum | 电加热<br>Electric<br>heating | 蒸汽加热<br>Steam<br>heating |
| JME-C5L   | 5L                    | 0.37          | 0~3600 | 0.18          | 0~63  | 0.18               | -0.09                   | 5                          | 2                        |
| JME-C10L  | 10L                   | 0.55          | 0~3600 | 0.37          | 0~63  | 0.25               | -0.09                   | 6                          | 3                        |
| JME-C50L  | 50L                   | 3             | 0~3600 | 0.75          | 0~63  | 0.81               | -0.09                   | 18                         | 9                        |
| JME-C100L | 100L                  | 4             | 0~3600 | 1.5           | 0~63  | 1.5                | -0.09                   | 30                         | 12                       |
| JME-C200L | 200L                  | 5.5           | 0~3600 | 2.2           | 0~63  | 2.2                | -0.09                   | 45                         | 16                       |
| JME-C300L | 300L                  | 7.5           | 0~3600 | 2.2           | 0~63  | 2.2                | -0.09                   | 48                         | 18                       |
| JME-C500L | 500L                  | 11            | 0~3600 | 4             | 0~63  | 3.85               | -0.09                   | 60                         | 24                       |

### **VACUUM EMULSIFYING MIXER**

液压升降真空下均质乳化机



技术参数 Technology parameter

| ⊒I □ Tvo o | 有效容积                  | 乳化马达 | Emulsify | 搅拌马过 | Agitator |      | 空泵<br>m pump            |                            | 功率<br>g power            |
|------------|-----------------------|------|----------|------|----------|------|-------------------------|----------------------------|--------------------------|
| 型号 Type    | Effective<br>Capacity | KW   | r/min    | KW   | r/min    | KW   | 极限真空<br>Limit<br>vacuum | 电加热<br>Electric<br>heating | 蒸汽加热<br>Steam<br>heating |
| JME-AC100L | 100L                  | 4    | 0~3600   | 1.5  | 0~63     | 1.5  | -0.09                   | 30                         | 12                       |
| JME-AC200L | 200L                  | 5.5  | 0~3600   | 2.2  | 0~63     | 2.2  | -0.09                   | 45                         | 16                       |
| JME-AC300L | 300L                  | 7.5  | 0~3600   | 2.2  | 0~63     | 2.2  | -0.09                   | 48                         | 18                       |
| JME-AC500L | 500L                  | 11   | 0~3600   | 4    | 0~63     | 3.85 | -0.09                   | 60                         | 24                       |

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### SL SERIES SIMPLEX/DUAL FILTER/KKSERIES RAPID OPEN FILTER

### SL系列单/双联过滤器/KK系列快开型过滤器

#### 用途

本设备用于中药、西药、果汁、糖汁、牛奶、饮料等液体中的各种固体或胶体杂物过滤,两个过滤器交替使用,可不停机清洗滤网连续使用。

#### 特点

- 1、本机具有快开、快闭、快拆、快清洗,多层的快速过滤,占地面积小,使用效果好。
- 2、本机使用时可选用泵压过滤,也可采用真空抽滤。
- 3、本机的过滤框是水平型,滤层的脱落和龟裂状况少,过滤残液
- 小,与卧室压滤机对比提高效率50%。

#### 使用材料

- 1、整套设备采用不锈钢制造。
- 2、选用筛网: (1)不锈钢筛网(2)滤布(3)滤纸经过本机过滤 悬分离悬浮液,可获得需要的澄清液体或固体材料符合食品卫生法, 达到医药GMP标准。



### **Used Material**

**Feature** 

1. The whole set of equipment is made of stainless steel.2, selection screen: (1) stainless steel screen net (2) filter cloth (3) filter paper filter suspension suspension through this machine, can obtain the required clarified liquid or solid materials to meet the food hygiene law, to meet the medical GMP standard.

This equipment is used for filtration of various solid or colloidal

substances in Chinese traditional medicine, western medicine,

juice, sugar juice, milk, beverage and so on. Two filters are used

1, the machine has quick opening, quick closing, quick dismantling,

and good use effect.2. When the machine is used, pump pressure

can be used for filtration and vacuum filtration can also be used.3,

cracked, and the filtration residue is small, which is 50% higher

than that of the bedroom filter press.

the filter frame of this machine is horizontal, the filter layer is off and

quick cleaning, multi-layer quick filtration, small occupation area

alternately. The cleaning filter can be used continuously without



#### 技术参数 Technology parameter

| 型号 Model<br>规格 Specification | SL-0.15       | SL-0.25       | SL-0.35       |
|------------------------------|---------------|---------------|---------------|
| 流量 Flow                      | 2T/h          | 5T/h          | 10T/h         |
| 外型Outline                    | 1050x420x1087 | 1300x500x1100 | 1520x550x1200 |
|                              |               |               |               |
|                              |               |               |               |
|                              |               |               |               |
|                              |               |               |               |

| 型号 Model<br>规格 Specification | KK-300  | KK-500  | KK-650  |
|------------------------------|---------|---------|---------|
| 使用压力 Working pressure        | 0.3MPa  | 0.3MPa  | 0.3MPa  |
| 使用温度 Working temperature(℃)  | 100     | 100     | 100     |
| 过滤面积 Filtration area         | 0.8m²   | 1.5m²   | 2,5m²   |
| 过滤层数 No. of filtration layer | 7层      | 8层      | 8层      |
| 外形尺寸 Outline dimension(mm)   | 500x600 | 350x800 | 700x900 |
| 重量 Weight                    | 185kg   | 285kg   | 400kg   |

滤网规格80-160目根据用户要求定配。

Filter screen specifications 80-160 orders according to user requirements.

### **DL SERIESSTAINLESS STEEL FRAME FILTER**

### DI系列不锈钢板框过滤器

#### 特点

本机除配用电机外,其它机件均采用不锈钢SUS304或SUS316L制造,适用于过滤各种PH值酸碱溶液,本机应用加压密闭过滤,滤液损耗少,过滤质量好,效率高。过滤部分由十层滤板组成,过滤面积大,流通量大;且可根据被滤溶液之不同生产工艺(初滤、半精滤、精滤)要求,更换不同滤膜、及根据用户生产流量之大小可适当减少或增加滤板层数,使之适合生产之需要,因此本机具有一机多用适用范围广之特点;滤板采用平面螺纹网状形,结构先进,不变形,容易清洗,能有效地增长各种滤膜的使用寿命,从而降低和节约生产成本,本机配备之不锈钢输液泵,其配用电机小,耗电省。机座下装有胶轮,操作方便,移动灵活,可供移动使用。

This machine is equipped with a motor, the other parts are made of stainless steel SUS304 or SUS316L, suitable for filtering a variety of PH acid-base solution, the local application of pressure closed filter, the filtrate loss, filtration quality, high efficiency. The filter part is composed of ten layers of filter plates, and has a large filtration area and a large circulation volume; and according to the requirements of different production processes (primary, semi-fine, and fine) of the filtered solution, different filter membranes can be replaced, and the flow rate according to the user's production. The size can be appropriately reduced or increased the number of filter plate layers, making it suitable for production needs, so the machine has a wide range of applications with a wide range of features; filter plate using a flat mesh shape, advanced structure, no deformation, easy to clean, Can effectively increase the life of various membranes, thereby reducing and saving production costs, the machine is equipped with a stainless steel infusion pump, equipped with a small motor, power consumption. Rubber wheels are installed under the base, which is easy to operate, flexible and



#### 技术参数 Technology parameter

| 规格Specification                  | 型号Model<br>N格Specification |      | DL-200 | DL-300 | DL-400 |
|----------------------------------|----------------------------|------|--------|--------|--------|
| 滤板直径 Diameter of filtration boar | rd(mm)                     | 150  | 200    | 300    | 400    |
| 层数 Layer No.                     | 10                         | 10   | 10     | 10     |        |
| 流量Flow                           | 1.5T/h                     | 3T/h | 5T/h   | 8T/h   |        |
| 功率(Kw)                           |                            | 0.75 | 1.1    | 1.5    | 2.2    |
| 设备重理 Equipment weight(kg)        |                            | 156  | 175    | 226    | 257    |
| 宽 Width                          |                            | 600  | 650    | 650    | 700    |
| 外型尺寸(mm)Outline dimension        | 高 Height                   | 500  | 500    | 500    | 600    |
|                                  | 长 Length                   | 800  | 900    | 1050   | 1200   |

### RING BAG 吊环带式

### 操作条件

最大操作压力 0.6MPa、1.0MPa 最大操作温度 90℃

### 材料

过滤器壳体 304、316L 吊环螺栓 304 支服 304

密封圈、垫片 三元乙丙橡胶、氟橡胶、硅橡胶

#### 表面处理

处理类型 机械抛光、电解抛光、喷砂

#### 连接

売体连接 吊环法兰 进出口N1、N2 法兰、快装、螺纹 压力表/排气阀 M14x1.5/1/4" 排污口N4 1/2"



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### MICROPOROUS MEMBRANE BARREL TYPE FILTER

### 微孔膜筒式过滤器







#### 概述

我公司引进国外先进技术,按FDA和GMP标准制造,过滤器材质为优质进口不锈钢 (304、316L)。其特点是体积小、重量轻、使用方便、过滤面积大、堵塞率低、过滤速 度快、无污染、热稳定性及化学稳定性好。此过滤器能滤除大部分微粒,所以广泛应用 于精滤和除菌工艺。

- 1、过滤筒有1芯、3芯、5芯、7芯、9芯、11芯、13芯、15芯。 2、折叠式滤芯长度有10°、20"、30"、40°
- 3、滤芯材质有聚四氟乙烯、聚砜、尼龙、聚丙烯、醋酸纤维。
- 4、过滤孔有0.1μm、0.22μm、0.45μm、1μm、3 μ m、5μm、10μm、30μm、 60µm,分疏水性(适用于气体)和亲水性(适用于液体)滤芯,可根据需要选用。

#### **Summary**

Our company introduces advanced foreign technology, manufactured according to FDA and GMP standards, and the filter material is made of high quality imported stainless steel (304, 316L). Its characteristics are small size, light weight, easy to use, large filtration area, low plugging rate, fast filtration speed, no pollution, good thermal stability and chemical stability. This filter can filter out most of the particulates, so it is widely used in fine filtration and sterilization.1, filter cartridge has 1 cores, 3 cores, 5 cores, 7 cores, 9 cores, 11 cores, 13 cores, 15 cores.2. The length of the folding filter core is 10 degrees, 20 ", 30", 40 degrees.3, the filter material is made of polytetrafluoroethylene, polysulfone, nylon, polypropylene and acetate fiber.4, the filter has 0.1 M, 0.22 mu m, 0.45 mu m, 1 mu m, 3 m, 5, m, 10, m, 30, and 60 micron. It is hydrophobic (suitable for gas) and hydrophilic (suitable for liquid) filter core, which can be selected according to the needs.

钛棒过滤器, 其滤件由钛合金粉末烧结制成 的,过滤精度为0.45-100um, 工作温度≤ 230℃,工作压力≤0.4mpa,产品具有耐腐蚀 性强、滤层无脱落,不吸附主药成份等物点,主 要用于药液脱碳过滤及气体过滤,可替代大输液 生产线中的常用的砂棒过滤器,各项技术指标符 合药典规定和GMP要求。

Titanium rod filter is made of titanium alloy powder. The filtration precision is 0.45-100um, the working temperature is less than 230 and the working pressure is less than 0.4MPa. The product has strong corrosion resistance, the filter layer is not shedding, and the main ingredient is not adsorbed. It is mainly used for the decarburization filtration and gas filtration of the liquid, which can replace the production line of the infusion. Commonly used sand bar filters, the technical indicators meet the requirements of Pharmacopoeia and GMP.

### SERIES MULTIFUNCTIONAL EXTRACTING TANKS

### 系列卫生泵



卫生泵系列物料接触部位均采用SUS304或SUS316L不锈钢制造,在 医药、饮料、化工、酿造等行业广泛应用,符合医药行业GMP要 求,深受药厂欢迎。泵体、叶轮用SUS304或SUS316L锖密铸造或锻 压制成。泵内光洁度经抛光后达到Ra0.28um~0.4um进出口采用国 际标准SO、DN标准流量:3T/h-30T/h扬程:20m-~36m

The contact parts of the health pump series are SUS304 or SUS316L stainless steel. It is widely used in pharmaceutical, beverage, chemical, brewing and other industries. Industry GMP requirements, well received by the pharmaceutical factory. SUS304 or SUS316L for pump and impellerIt is made by casting or forging. The finish of the pump reaches Ra0.28um~0.4um after polishingImport and export adoption of international standard SO and DN standardsFlow: 3T/h-30T/h lift: 20m-~36m

#### 离心泵主要技术参数 Main technical parameters of centrifugal pump

| 型号<br>type  | 流量(吨/小时)<br>Flow(ton/h) | 扬程(米水柱)<br>Lift (rice column) | 电机功率<br>Motor powe | 进出口径<br>Entrance and<br>exit path |          |
|-------------|-------------------------|-------------------------------|--------------------|-----------------------------------|----------|
| TLW-1.5-14  | 1.5                     | 14                            | 0.55               | 40/25                             | 32/25    |
| TLW-3-14    | 3                       | 14                            | 1.1                | 40/32                             | 38/38    |
| TWL-5-24    | 5                       | 24                            | 1.5                | 50/40                             | 51/38    |
| TWL-5-32    | 5                       | 32                            | 2.2                | 50/40                             | 51/38    |
| TLW-10-24   | 10                      | 24                            | 2.2                | 50/40                             | 51/38    |
| TLW-10-36   | 10                      | 36                            | 3                  | 50/40                             | 51/38    |
| TLW-15-24   | 15                      | 24                            | 3                  | 50                                | 51       |
| TLW-20-24   | 20                      | 24                            | 4                  | 50                                | 51       |
| TLW-20-36   | 20                      | 36                            | 5.5                | 50                                | 51       |
| TLW-25-24   | 25                      | 24                            | 4                  | 50/50                             | 51/51    |
| TLW-30-24   | 30                      | 24                            | 5.5                | 65/50                             | 63/51    |
| TLW-30-36   | 30                      | 36                            | 7.5                | 65/50                             | 63/51    |
| TLW-30-60   | 30                      | 60                            | 11                 | 65/50                             | 63/51    |
| TLW-35-36   | 35                      | 36                            | 11                 | 65/50                             | 76/63    |
| TLW-40-36   | 40                      | 36                            | 11                 | 80/65                             | 76/63    |
| TLW-40-45   | 40                      | 45                            | 11                 | 80/65                             | 101.6/76 |
| TLW-50-36   | 50                      | 36                            | 11                 | 80/65                             | 101.6/76 |
| TLW-80-30   | 80                      | 30                            | 15                 | 100/80                            |          |
| TLW-80-40   | 80                      | 40                            | 18.5               | 100/80                            |          |
| TLW-100T-40 | 100                     | 40                            | 22                 | 125/100                           |          |
| TLW-100T-70 | 1000                    | 70                            | 33                 | 125/100                           |          |

|                | 2th 1/1/4   | _1   | in ro | W = = /2 |      |
|----------------|-------------|------|-------|----------|------|
| 型号             | 建议选用        | 功率   | 扬程    | 进口口径     | 出口口径 |
|                | 流量范围 ( t/h) | (Kw) | ( m)  | (mm)     | (mm) |
| TLCLP1-100(B)  | 0.5-1.5     | 0.37 | 8-4   | 25       | 25   |
| TLCLP1-120(B)  | 0.5-1.5     | 0.55 | 15-10 | 25       | 25   |
| TLCLP3-110(B)  | 2-4         | 0.55 | 11-7  | 38       | 25   |
| TLCLP3-120(B)  | 2-4         | 0.75 | 15-9  | 38       | 25   |
| TLCLP3-140(B)  | 2-5         | 1.1  | 24-12 | 38       | 25   |
| TLCLP5-140(B)  | 4-8         | 1.1  | 22-12 | 50.8     | 32   |
| TLCLP5-150(B)  | 4-8         | 1.5  | 27-19 | 50.8     | 32   |
| TLCLP5-165(B)  | 4-8         | 2.2  | 33-27 | 50.8     | 32   |
| TLCLP5-180(B)  | 4-8         | 3    | 42-35 | 50.8     | 32   |
| TLCLP10-150(B) | 7-14        | 2.2  | 24-13 | 50.8     | 38   |
| TLCLP10-165(B) | 7-14        | 3    | 32-23 | 50.8     | 38   |
| TLCLP10-175(B) | 7-14        | 4    | 37-31 | 50.8     | 38   |
| TLCLP10-182(B) | 7-14        | 4    | 42-37 | 50.8     | 38   |
| TLCLP20-165(B) | 16-25       | 4    | 29-21 | 50.8     | 50.8 |
| TLCLP20-180(B) | 16-25       | 5.5  | 36-28 | 50.8     | 50.8 |
| TLCLP20-192(B) | 16-25       | 7.5  | 44-36 | 50.8     | 50.8 |
| TLCLP20-210(B) | 16-25       | 7.5  | 52-46 | 50.8     | 50.8 |
| TLCLP30-165(B) | 22-40       | 5.5  | 29-18 | 63.5     | 50.8 |
| TLCLP30-180(B) | 22-40       | 7.5  | 38-28 | 63.5     | 50.8 |
| TLCLP30-192(B) | 22-40       | 7.5  | 45-36 | 63.5     | 50.8 |
| TLCLP30-210(B) | 22-40       | 11   | 51-45 | 63.5     | 50.8 |
| TLCLP50-165(B) | 42-60       | 7.5  | 29-21 | 76       | 63.5 |
| TLCLP50-180(B) | 42-60       | 11   | 37-29 | 76       | 63.5 |
| TLCLP50-192(B) | 42-60       | 11   | 43-36 | 76       | 63.5 |
| TLCLP50-210(B) | 42-60       | 15   | 51-46 | 76       | 63.5 |

#### 自吸泵主要技术参数 Main technical parameters of self priming pump

| 主要技术参数 Main technical parameters |
|----------------------------------|
| 10-20m/h                         |
| 18-20m                           |
| 5-6m                             |
| Ф 189mm                          |
| Ф 51mm                           |
| Y112-4                           |
| 4kw(380V.50HZ)                   |
| 1420r/min                        |
| 600x350x420                      |
| 55kg                             |
|                                  |

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## **FOOD EQUIPMENT SINGLE MACHINE SERIES**

### 食品设备单机系列



### **PUMP FILTER**

### 混合粉碎系列



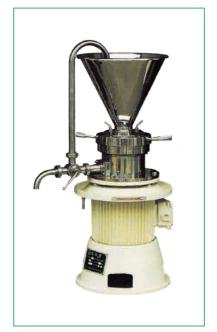


水粉混合机









胶体磨

## **SANITARY FITTINGS, VALVES**

卫生级管件、阀门









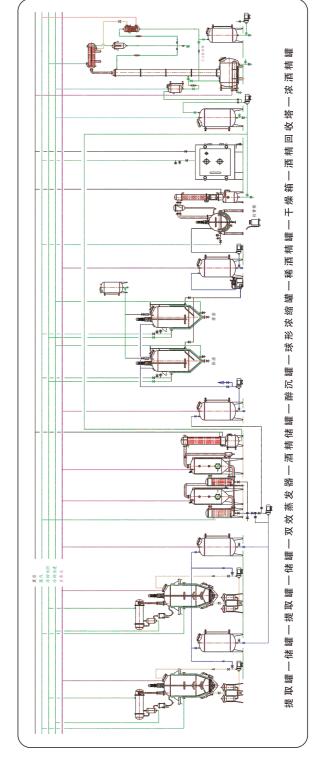




### **PROCESSFIOW DIAGRAM**

### 工艺流程图

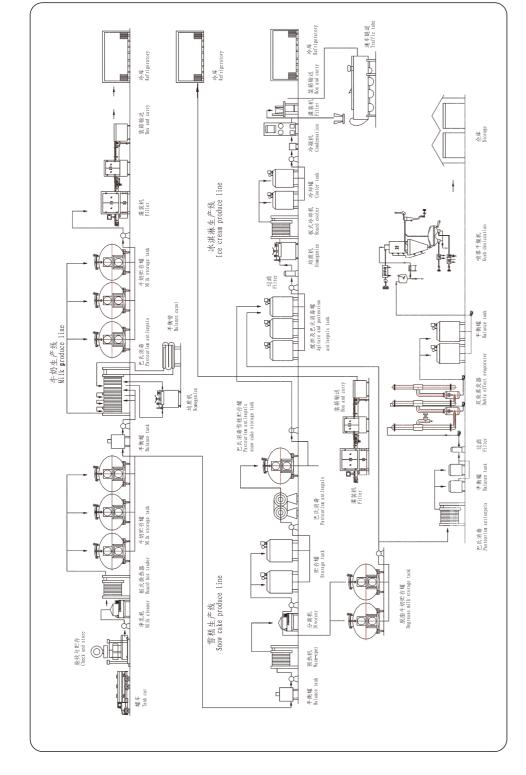
中药生产线流程图 The process of traditional Chinese medicine production line



### **PROCESSFIOW DIAGRAM**

### 工艺流程图

牛奶生产线流程图 Flow chart of milk production line



### **PROCESSFIOW DIAGRAM**

### 工艺流程图

酸性饮料生产线 Acid beverage production line

