华商机械
HUASHANG

# 日化液洗生产线成套设备
# DAILY CHEMICAL LIQUID WASHING PRODUCTION LINE COMPLETE SET OF EQUIPMENT


WENZHOU HUASHANG
MACHINERY TECHNOLOGY CO.,LTD
温州市华商机械科技有限公司

- 地址Add: 中国浙江省温州市经济技术开发区沙城街道沧宁西路1号
  No.1 Cangning west road, Shacheng Sub-street, Wenzhou Economic and Technological Development Zone, Zhejiang, China
- 电话Tel: +86-577-86996389
- 邮箱E-mail: hs@huashangmachinery.com
- 网址https://www.huashangtank.com

销售与服务热线
Sales and service hotline 15905773235



华商机械
HUASHANG

● 日化液洗生产线成套设备

# 企业简介
# COMPANY PROFILE

华商机械创建于2014年。超过12年的不断积累，
我们的业务范围遍及食品、饮料、日化及个人护理行业、精细化工、制药行业、
新能源电子半导体、新能源锂电反应釜等行业，并致力于制造、安装、自控、验证及服务于一体的整体解决方案。

为客户提供最具挑战和核心价值的工艺罐体及工艺模块系统解决方案。
华商始终坚持以稳定的产品质量，严谨的工程设计和完善的用户服务，赢得客户的长期信赖，助力全球客户实现高效生产与持续发展。

Huashang Machinery was founded in 2014.
More than 12 years of continuous accumulation, Our business scope covers industries such as food, beverage, daily chemicals and personal care, fine chemicals, pharmaceutical industry, new energy electronics and semiconductors, and new energy lithium battery reactors, and is committed to providing an integrated solution that combines manufacturing, installation, automation control, validation and service.

We offer the most challenging and core value process tank and process module system solutions for our customers. Huashang has always adhered to maintaining stable product quality,rigorous engineering design and comprehensive user service, Huashang has always won the long-term trust of customers and helped global customers achieve efficient production and sustainable development.
We warmly welcome your inquiries and we will do our best to build an ideal factory for you!

**企业愿景**
**CORPORATE VISION**
成为全球领先的工艺罐体及工艺模块系统解决提供商!
Become a leading global provider of process tanks and process module system solutions.

**企业使命**
**ENTERPRISE MISSION**
匠造健康未来，智领行业标准。
Crafting a healthy future, leading industry standards.

**企业精神**
**ENTREPRENEURIAL SPIRIT**
匠心、创新、责任。
Craftsmanship, Innovation, Responsibility.

**核心价值观**
**CORE VALUES**
效率成就品牌，诚信铸就未来！
Efficiency builds brands; integrity shapes the future!

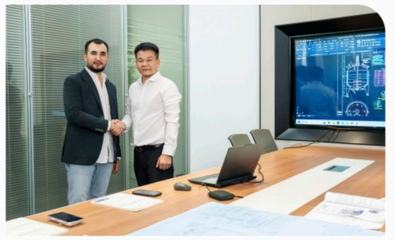
# 你有需求，
# 我们就有解决方案
# YOU HAVE NEEDS, WE HAVE THE SOLUTION

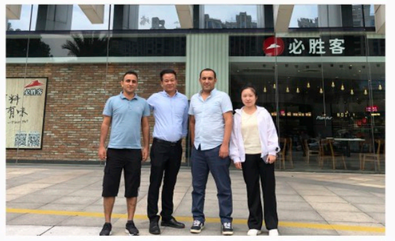
- 食品饮料 Food and beverage
- 果蔬加工 Fruit and vegetable processing
- 乳制品 Dairy products
- 日化液洗 Daily chemical wash

## 团队管理
## TEAM MANAGEMENT

科学优化的组织机构是企业运作的良好基础。在长期的磨合与实践过程中，我们铸就了一支优秀的设计、研发、经营销售的管理团队。完善的创新制度结构，高效、严谨的运行机制，是良好的管理决策和稳健的业务发展的坚实基础。

A scientifically optimized organizational structure is a good foundation for enterprise operations. In the long-term running-in and practice process, we have created an excellent management team in design, R&D, operation and sales. A complete innovation system structure and an efficient and rigorous operating mechanism are the solid foundation for good management decisions and steady business development.





## 合作与客户
## COOPERATION & CUSTOMER

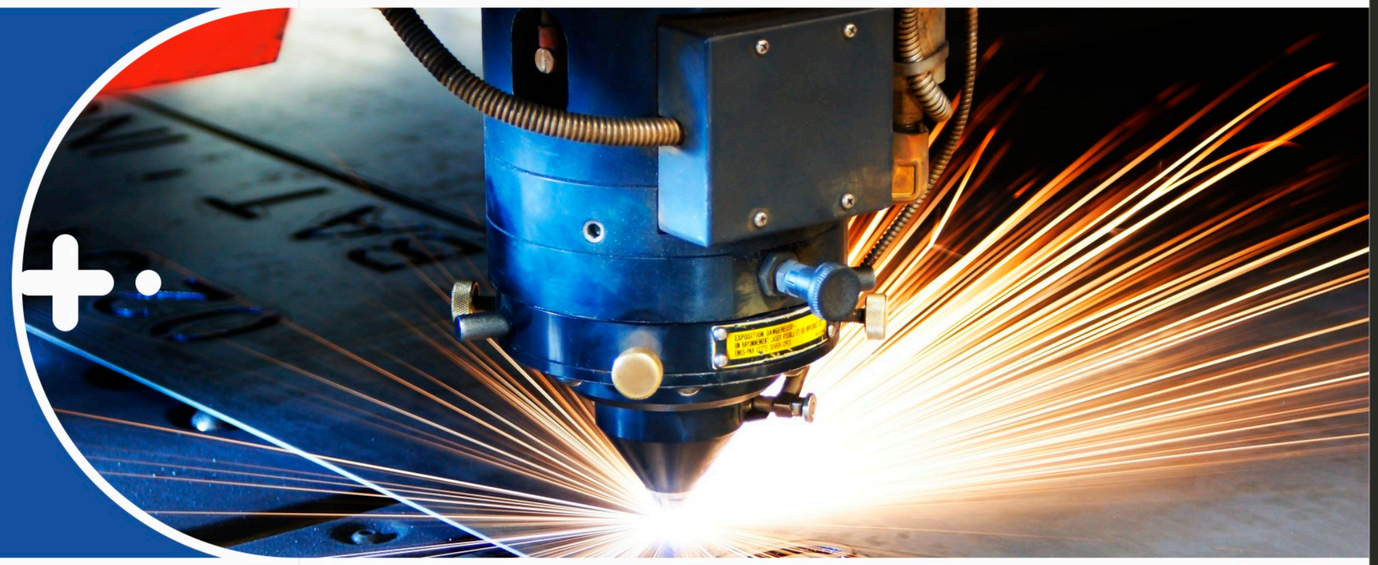
以客户需求为中心，以客户满意为标准，为我们的客户提供优质的服务。我们供应完美品质的同时，整合全球服务网络，提供全方位的售前、售中、售后服务，无论何时何地，我们将尽一切可能满足您的需求。

Customer demand as the center, customer satisfaction as the standard, to provide our customers with quality service. We supply perfect quality at the same time, integrated global service network, to provide a full range of pre-sale, sale, after-sales service, no matter when and where, we will do everything possible to meet your needs.

# 生产装备
# PRODUCTION EQUIPMENT

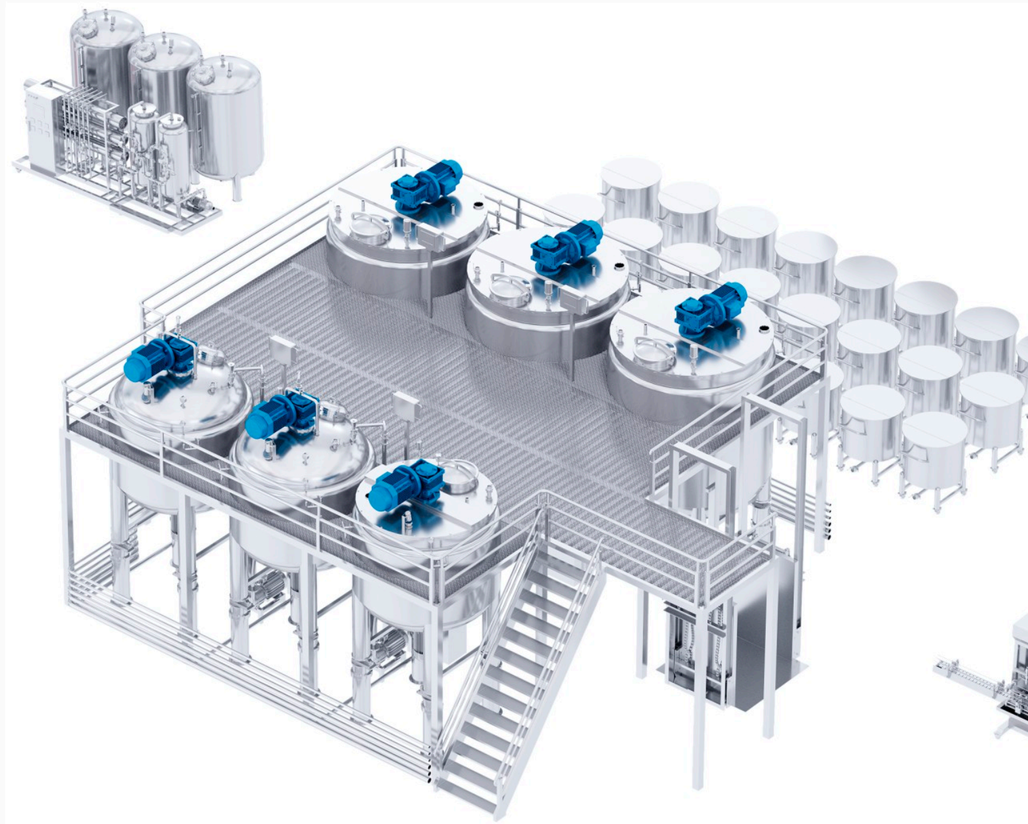
生产工具是生产力发展水平的标志，
先进的生产设备代表了先进的生产力。公司积极引进
先进的技术和生产设备，使产品内在品质与外在个性化紧密
结合，完全满足并引领工业现代化的需求。

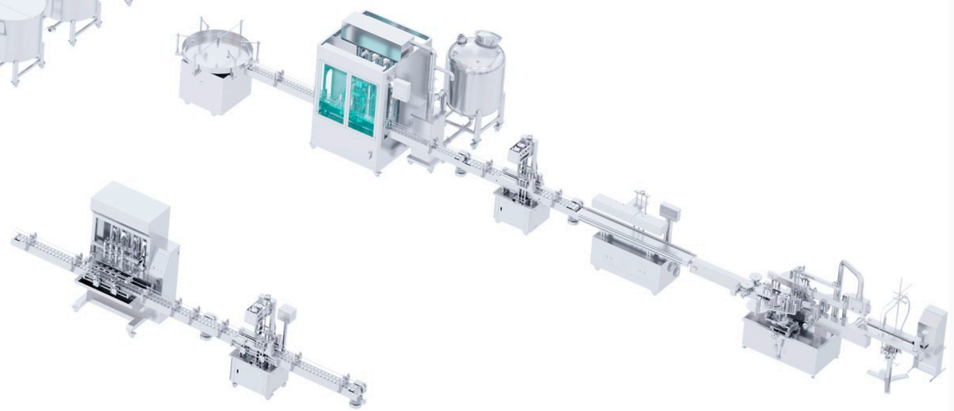
Production tools are an important sign of productivity level.
Sophisticated production facilities represent advanced
productivity. By introducing superior technology and production facilities
continuously, Company perfectly integrates the internal quality of
products and the external individual designs to cater for the
requirements of industrial modernization.



华商机械
HUASHANG

# 液洗生产线
# LIQUID WASHING PRODUCTION LINE





# 液洗均质搅拌锅
# LIQUID DETERGENT BLENDING MIXER

## 最新研制

自吸式AES溶解器，在液洗产品生产中，减轻工人投料时的劳动强度，缩短溶料时间。

## LATEST DEVELOPMENT

During the production of liquid washing products,the self–suction type AES dissolver can alleviate worker's labor intensity of feeding and shorten dissolving time.

## 性能特点

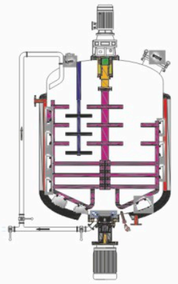
- 全方位的刮壁搅拌采用了变频器调速，可根据客户要求生产不同工艺的高品质产品；
- 多样化的高速均质机，强力混合固体及液体原料在液洗生产中能快速溶解AES、AESA、LSA等难溶物料，节约了能耗、大大缩短了生产周期；
- 锅体采用了三层不锈钢进口板材焊接组成，罐体及管道为镜面抛光，完全符合GMP要求；
- 根据工艺要求，罐体可加热并冷却物料，加热方式主要有蒸汽及电加热两种；出料方便，可直接出料，也可配置输送泵出料。

## PERFORMANCES FEATURES

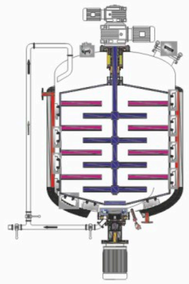
- The wall scraping mixer adopts frequency converter to adjust the mixing speed which would make various kinds of products according to the customers' requirements.
- The diversified high speed homogenizer can powerfully mix solid liquid products and dissolve the material like AES, AESA, LSA etc. it save energy consumption and shorten the production time.
- The pot body is welded with three layers imported stainless steel. The whole machine and pipes are mirror polished which is definitely satisfied with the GMP standard.
- According to different processing, the main pot can be heated and cooled down. steam heating or electric heating. Discharge from the bottom by the homogenizer or by a transfer pump.



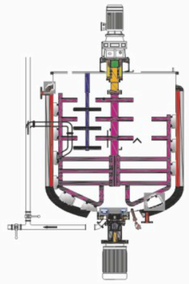
华商机械
HUASHANG



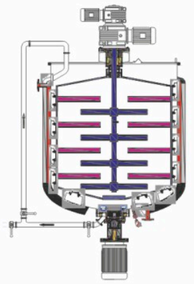
单搅拌外循环
Single Way Mixing & External Circulation



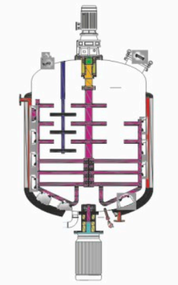
双搅拌外循环
Double Way Mixing & External Circulation



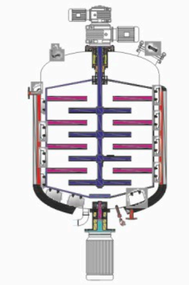
单搅拌外循环
Single Way Mixing & External Circulation



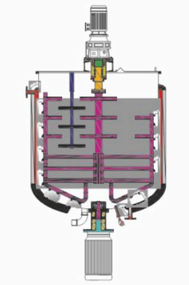
双搅拌外循环
Double Way Mixing & External Circulation



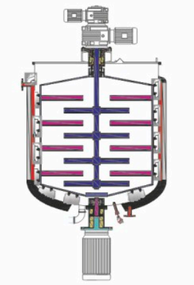
单搅拌内循环
Single Way Mixing & Internal Circulation



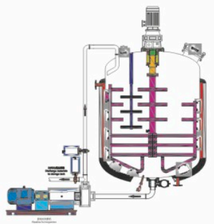
双搅拌内循环
Double Way Mixing & Internal Circulation



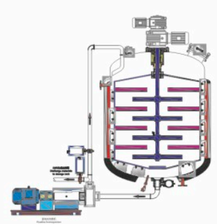
单搅拌内循环
Single Way Mixing & Internal Circulation



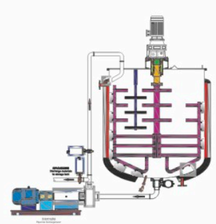
双搅拌内循环
Double Way Mixing & Internal Circulation



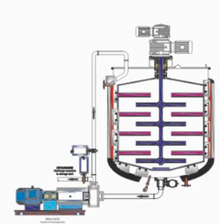
单搅拌外置均质机
Single Way Mixing & External Homogenizer



双搅拌外置均质机
Double Way Mixing & External Homogenizer



单搅拌外置均质机
Single Way Mixing & External Homogenizer



双搅拌外置均质机
Double Way Mixing & External Homogenizer

# 液洗均质搅拌锅(单罐)
# LIQUID DETERGENT BLENDING MIXER (SINGLE TANK)

**性能特点**

- 本机组专为中小型企业设计，班生产能力可达三次，机组分主锅、副锅、不锈钢输送泵、支架平台、控制系统。
- 只需在主锅锅内投料、溶解、搅拌、均质，再由输送泵输入副锅进行冷却、添加香精等。
- 出料时亦可放料，亦可用泵出料。
- 适用于电加热的工作环境，主锅用于加热均质，副锅直接用于冷却、乳化、速度快、效益高。

**PERFORMANCES FEATURES**

- The system is specially designed for small and medium–sized enterprises. It can work for three batches every day. The system is consists of main pot, ancillary pot, stainless steel suction pump, platform and controlling system.
- We shall pour materials into the main pot to dissolve, mix, homogenize. Then the material pump will transfer the material into the second pot to cool down or mix with perfume essence.
- It can be discharged by both the homogenizer and pump.
- It is better for electric heating condition. The main pot is used for heating and homogenizing, the second pot is used for cooling and emulsion. This makes it fast and efficient.

# 液洗均质搅拌锅(组合罐)
# LIQUID DETERGENT BLENDING MIXER (COMBINED TANK)

**技术参数 TECHNICAL PARAMETERS**

| 序号 Serial No. | 规格 Specification | 容积 Volume | 搅拌功率 Blending power | 搅拌转速 Blending rotation speed | 均质功率 Homogenizing power | 均质转速 Homogenizing rotation speed | 加热方式 Heating Method |
|---|---|---|---|---|---|---|---|
| | | L | kw | r/min | kw | r/min | |
| 1 | SJB-Z-200 | 200 | 1.5 | 0~65 | 3 | 3000 | 蒸汽加热 或电加热 Steam heating Or electric heating |
| 2 | SJB-Z-500 | 500 | 2.2 | 0~65 | 4 | 3000 | |
| 3 | SJB-Z-1000 | 1000 | 2.2~4 | 0~65 | 7.5 | 3000 | |
| 4 | SJB-Z-1500 | 1500 | 4~5.5 | 0~65 | 11 | 3000 | |
| 5 | SJB-Z-2000 | 2000 | 5.5 | 0~53 | 11 | 3000 | |
| 6 | SJB-Z-3000 | 3000 | 7.5 | 0~53 | 15 | 1500 | |
| 7 | SJB-Z-5000 | 5000 | 11 | 0~53 | 22 | 1500 | |



华商机械 HUASHANG

**用途**

本公司生产的液洗均质搅拌机主要适用于液体洗涤剂(如洗洁精、香波、沐浴露等)产品的配置，搅拌机集搅拌、分散、加热、冷却、泵出料、脱泡(可选型)等功能于一体，是国内外目前厂家配置洗涤的理想设备。

**USAGE**

This unit is available for manufacturing liquid products (such as detergent, shampoo, shower gel, etc.) it integrates mixing, homogenizing, heating, cooling, pump discharge finished products and defoaming (optional) functions. It is the ideal equipment for liquid products in domestic and international factories.

# 搅拌罐
# MIXING TANK

搅拌罐严格遵循《药品生产质量管理规范》GMP总则(2010年修订)第三十一、三十二条要求，并按《压力容器》(GB150–2011)、《钢制焊接常压容器(附标准释义)》(NB/T 47003.1–2009)要求进行设计、制造及验收。

搅拌罐一般是立式混料罐，主要是通过配料罐的搅拌操作将物料混合达到工艺生产的要求。

搅拌罐采用立式圆罐体，罐体可设有夹套、盘管、保温(可加热、冷却、保温)；不锈钢的材质采用316L或304制作，内壁采用电解镜面抛光或机械抛光，外壁采用304全焊接保温结构，外表面采用镜面或亚光处理；各进出管口工艺开孔与内罐体焊接处均采用翻边工艺圆弧过渡，光滑易清洗，且无死角，外表美观。

Mixing Tank is designed, manufactured and inspected in accordance with the pressure vessel standard (GB150–2011) and the steel welded atmospheric pressure vessel standard (NB/T 47003.1–2009), strictly meeting GMP certificate requirements.

The Mixing tank is a vertical tank in which the agitator mixes the material to meet to the technical standard.

The mixing tank adopts vertical circular tanks, both of top and bottom are standard oval and torispherical head. Transition section in tank uses circular arc transition, without dead corner, easy to clean. Single layer, double layer(insulation for tank and bottom head) or Jacket(tank and bottom head have jacket and insulation) is equipped with mechanical stirring according to customers' requirement.

## 产品特色

- 容积有100L～5000L等多种规格，可根据客户实际需求进行设计、制造。
- 接口采用快装卡盘式(卡接)，罐体内胆选用304或316L，内表面镜面抛光Ra≤0.28μm～0.6μm，外表面可根据客户要求进行抛光、拉丝、喷砂等。
- 根据生产及工艺的要求，可设计有加热、冷却、低高速搅拌系统，密封承压系统，真空系统，计量系统等。
- 针对不同的搅拌物料及要求达到的搅拌效果对搅拌桨的结构可以调整设计涡轮式、桨式、锚式、框式、螺带式等等。

## FEATURE

- Volume:100L~5000L and multiple specification, also can design and manufacture according to customers' requirement.
- The connection adopts Tri–clamp, and the tanks' inner layer use 304 or 316L. The inner surface mirror polishing Ra≤ 0.28μm～0.6μm. Outer surface can be polished, wire drawn and sand blasted according to customers' requirement.
- According to the requirements of production and processing, it can be designed with low heating, cooling, high–speed mixing system, sealing pressure system, vacuum system, measuring system and so on.
- According to different mixing materials and requirements to the mixing effect, the structure of impeller can be the turbine type, paddle, anchor type, frame type, screw conveyor and so on.

## 典型的应用

可作储液罐、混料罐、暂存罐、调配罐等，用于中药、食品、果汁饮料、乳制品、佐料、酿造、啤酒、制药、化工及生物工程等行业的液体物料搅拌贮存。

## APPLICATION

Can be used as Storage Tank, mixing tank, temporary Storage Tank, mixing tank, etc., Used in liquid materials' mixing and storage such as medicine, food, fruit juice beverage, dairy products, seasoning, brewing, beer, pharmaceutical, chemical and biological engineering.



华商机械 HUASHANG

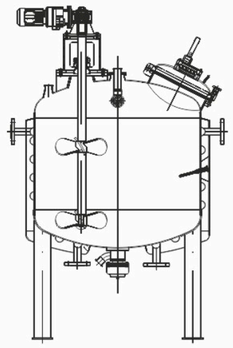
## 罐体可选配置

搅拌罐的罐体可选配置无菌空气过滤器、温度计(数显式或表盘式)、PH计、压力表、蒸汽灭菌口、视镜、卫生级人孔、进出液孔、CIP万向旋转清洗球、液位计及液位自控系统(承重模块、无触点超声波、静压变送式器)等，或根据客户要求进行配置。

## TANK OPTIONAL CONFIGURATION

Mixing tank can configure aseptic air filter, thermometer(Digital display or Dial type), PH meter, pressure gauge, steam sterilization hole, sight glasses, sanitary manhole, liquid in–outlet, CIP cleaning ball, liquidometer and Liquid level control system(Bearing module, non–contact ultrasonic, static pressure transmitting device) and so on, also can be configured as customers' requirement.

## 常规结构 STRUCTURE



## 常规设计参数 DESIGN PARAMETER

| | |
|---|---|
| 设计压力 Design pressure | 罐体按客户要求(–0.1MPa～1.0MPa)<br>夹套按客户要求(ATM～0.5MPa) |
| 设计温度 Design temperature | 罐体、夹套按客户要求(0℃～160℃) |

## 连接 CONNECTION

| | |
|---|---|
| 进出口 In–outlet | 快装卡接、法兰、螺纹<br>Tri–clamp, Flange, Thread |

## 材料 MATERIAL

| | |
|---|---|
| 内胆 Inner shell | 304、316L、双相钢、钛材、哈氏合金<br>304, 316L, Duplex SS, Titanium, Hastelloy |
| 夹套 Jacket | 304 |
| 保温层 Insulation | 岩棉或聚氨酯 Rock wool or PU |
| 支腿等 Legs | 304 |

## 表面处理 SURFACE FINISH

| | |
|---|---|
| 处理类型 Finish type | 机械抛光、电解抛光、喷砂、酸洗<br>Mechanical/electrolytic polishing, sand blasting, pickling |
| 抛光精度 Polishing precision | 内壁0.4μm, 外壁0.6μm<br>Inner surface Ra≤ 0.4μm,<br>Outside surface Ra≤ 0.6μm |

## 配液罐常规型号及主要技术参数 NORMAL MODEL AND MAIN TECHNICAL PARAMETERS

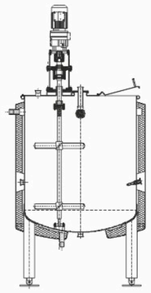
| 参数 Parameters / 型号 Model | | HSRPG–100 | HSRPG–300 | HSRPG–600 | HSRPG–1000 | HSRPG–2000 |
|---|---|---|---|---|---|---|
| 有效容积 Effective volume (L) | | 100 | 300 | 600 | 600 | 2000 |
| 罐体 Tank | 直径 Diameter (mm) | Φ500 | Φ800 | Φ900 | Φ1100 | Φ1300 |
| | 高度 Height (mm) | 500 | 700 | 900 | 1000 | 1500 |
| 搅拌 Mixing | 电机功率 Power (kW) | 0.37 | 0.75 | 1.1 | 1.5 | 2.2 |
| | 搅拌工作转速 RPM (r/min) | 36～53(锚叶开启涡轮式)或200(推进式)(可根据客户使用情况进行调整设计)<br>36～53(Special open turbine impellers)/200(propeller)(Can adjust the design according to the customer's usage) | | | | |

| 参数 Parameters / 型号 Model | | HSRPG–3000 | HSRPG–4000 | HSRPG–5000 | HSRPG–8000 | HSRPG–10000 |
|---|---|---|---|---|---|---|
| 有效容积 Effective volume (L) | | 3000 | 4000 | 5000 | 8000 | 10000 |
| 罐体 Tank | 直径 Diameter (mm) | Φ1800 | Φ1700 | Φ1800 | Φ2000 | Φ2200 |
| | 高度 Height (mm) | 1800 | 1800 | 1800 | 2000 | 2400 |
| 搅拌 Mixing | 电机功率 Power (kW) | 3 | 4 | 5 | 7.5 | 9.2 |
| | 搅拌工作转速 RPM (r/min) | 36～53(锚叶开启涡轮式)或200(推进式)(可根据客户使用情况进行调整设计)<br>36～53(Special open turbine impellers)/200(propeller)(Can adjust the design according to the customer's usage) | | | | |

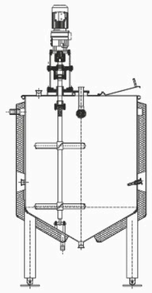
上表数据为标准型，仅供参考，可根据客户要求定制。The above–mentioned data is the standard, it can customize according to customer's requirements.

# 搅拌罐
# MIXING TANK

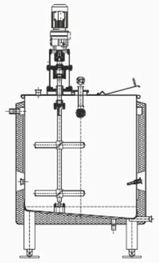
## 搅拌罐常规结构MIXING TANK STRUCTION



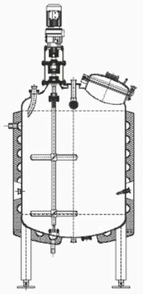
上立式碟形底搅拌储罐(夹套)
Vertical type mixing Storage Tank–Dish Bottom (jacket type)



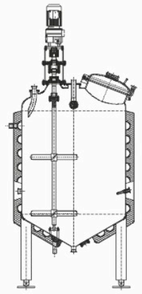
上立式锥底搅拌储罐(夹套)
Vertical type mixing Storage Tank–Conical Bottom (jacket type)



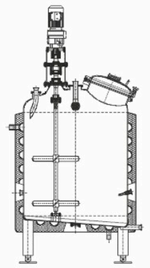
上立式平斜底搅拌储罐(夹套)
Vertical type mixing Storage Tank–Tilting Bottom (jacket type)



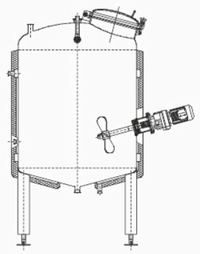
碟形底搅拌储罐(夹套)
Vertical type mixing Storage Tank–Dish Bottom (Jacket type)



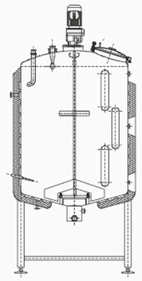
锥底搅拌储罐(夹套)
Vertical type mixing Storage Tank–Conical Bottom (jacket type)



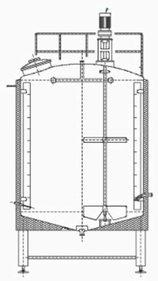
平斜底搅拌储罐(夹套)
Vertical type mixing Storage Tank–Tilting Bottom (jacket type)



锥底侧搅拌储罐(夹套)
Conical Bottom Agitator Storage Tankv (Jacket type)



带视窗锥底搅拌储罐(夹套)
Conical Bottom Agitator Storage Tank with window (Jacket type)

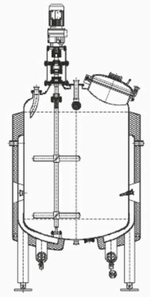


带挡流板锥底搅拌储罐(夹套)
Conical Bottom Agitator Storage Tank with baffle (Jacket type)

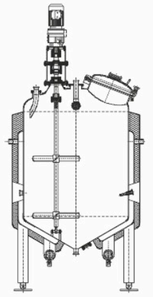


华商机械
HUASHANG

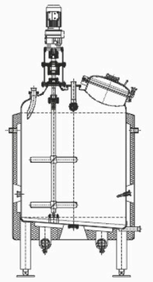
## 电加热搅拌罐常规结构ELECTRICAL HEAT MIXING TANK STRUCTION



电加热碟形底搅拌储罐(夹套)
Electric heating Vertical Type Storage Tank
–Dish Bottom (Jacket type)



电加热锥底搅拌储罐(夹套)
Electric heating Vertical Type Storage Tank
–Conical Bottom (Jacket type)



电加热平斜底搅拌储罐(夹套)
Electric heating Vertical Type Storage Tank
–Tilting Bottom (Jacket type)

## 常规设计参数 DESIGN PARAMETER

| | |
|---|---|
| 设计压力 Design pressure | 罐体按客户要求(ATM～1.0MPa)<br>夹套按客户要求(ATM～0.5MPa) |
| 设计温度 Design temperature | 罐体、夹套按客户要求(0℃～160℃) |

## 连接 CONNECTION

| | |
|---|---|
| 进出口 In–outlet | 快装卡接、法兰、螺纹<br>Tri–clamp, Flange, Thread |

## 材料 MATERIAL

| | |
|---|---|
| 内胆 Inner shell | 304、316L、双相钢、钛材、哈氏合金<br>304, 316L, Duplex SS, Titanium, Hastelloy |
| 夹套 Jacket | 304 |
| 保温层 Insulation | 岩棉或聚氨酯 Rock wool or PU |
| 支腿等 Legs | 304 |

## 表面处理 SURFACE FINISH

| | |
|---|---|
| 处理类型 Finish type | 机械抛光、电解抛光、喷砂、酸洗<br>Mechanical/electrolytic polishing, sand blasting, pickling |
| 抛光精度 Polishing precision | 内壁0.4μm, 外壁0.6μm<br>Inner surface Ra≤ 0.4μm,<br>Outside surface Ra≤ 0.6μm |

## 储罐常规型号及主要技术参数 NORMAL MODEL AND MAIN TECHNICAL PARAMETERS

| 参数 Parameters / 型号 Model | | HSRCG–600 | HSRCG–1000 | HSRCG–2000 | HSRCG–3000 | HSRCG–4000 | HSRCG–5000 |
|---|---|---|---|---|---|---|---|
| 有效容积 Effective volume (L) | | 600 | 1000 | 2000 | 3000 | 4000 | 5000 |
| 罐体 Tank | 直径 Diameter (mm) | Φ900 | Φ1100 | Φ1300 | Φ1600 | Φ1700 | Φ1800 |
| | 高度/长度 Height/Length (mm) | 900 | 1000 | 1500 | 1500 | 1800 | 1800 |
| 搅拌 Mixing | 电机功率 Power (kW) | 1.1 | 1.5 | 2.2 | 2.2 | 3 | 4 |
| | 搅拌工作转速 RPM (r/min) | 60(斜叶桨式)(可根据客户使用情况进行调整设计)<br>60(Paddle impeller)(Can adjust the design according to the customer's usage) | | | | | |

| 参数 Parameters / 型号 Model | | HSRCG–000 | HSRCG–8000 | HSRCG–10000 | HSRCG–12000 | HSRCG–15000 | HSRCG–20000 |
|---|---|---|---|---|---|---|---|
| 有效容积 Effective volume (L) | | 6000 | 8000 | 10000 | 12000 | 15000 | 20000 |
| 罐体 Tank | 直径 Diameter (mm) | Φ1900 | Φ2000 | Φ2200 | Φ2400 | Φ2600 | Φ2800 |
| | 高度 Height (mm) | 2000 | 2200 | 2400 | 2500 | 2700 | 3000 |
| 搅拌 Mixing | 电机功率 Power (kW) | 4 | 5.5 | 7.5 | 7.5 | 11 | 11 |
| | 搅拌工作转速 RPM (r/min) | 60(斜叶桨式)(可根据客户使用情况进行调整设计)<br>60(Paddle impeller)(Can adjust the design according to the customer's usage) | | | | | |

上表数据为标准型，仅供参考，可根据客户要求定制。The above–mentioned data is the standard, it can customize according to customer's requirements.

# 储罐
# STORAGE TANK

储罐严格遵循《药品生产质量管理规范》GMP总则(2010年修订)第三十一、三十二条要求，并按《压力容器》(GB150–2011)、《钢制焊接常压容器(附标准释义)》(NB/T 47003.1–2009)要求进行设计、制造及验收。

储罐通常采用立式圆罐体，上均为标准的椭圆形或蝶形封头，下均为标准的锥形、蝶形或椭圆形等封头，罐体内壁过渡段均采用圆弧过渡，无卫生死角，易清洗；单层、双层(罐体和下封头设有保温层)或夹套形式(罐体和下封头设有夹套和保温层)，根据客户要求进行组合；罐体内镜面抛光处理，能够实现CIP和SIP，符合卫生规范要求。

储罐结构可采用立式结构或卧式结构，根据客户要求还可设计成方形、圆形等多种形状；配置机械式搅拌。

Storage Tank is designed, manufactured and inspected in accordance with the pressure vessel standard(GB150–2011) and the steel welded atmospheric pressure vessel standard(NB/T 47003.1–2009) , strictly meeting GMP certificate requirements.

Storage Tanks usually adopt vertical circular tank body. The top is standard elliptic or torispherical head, and the bottom is standard conical, torispherical or elliptic head. Inner wall of tank body transition section adopts circular arc transition, no dead corner, easy to clean. Single layer, double layer (tank body and the bottom head is equipped with insulation layer) or jacket type (tank body and the bottom head is equipped with the jacket and insulation layer) can be customized for customers. Tank inner surface mirror polished meets the CIP and SIP and the GMP standard.

Usually Storage Tank structure is vertical structure or horizontal structure, it also can be designed in square and circular shapes according to customers' requirements.

## 产品特色

- 容积有600L～20000L等多种规格，可根据客户实际需求进行设计、制造。
- 保温层的保温材料为岩棉或聚氨酯。
- 接口采用快装卡盘式(卡接)，罐体内胆选用304或316L，内表面镜面抛光Ra≤0.28μm～0.6μm，外表面可根据客户要求进行抛光、拉丝、喷砂等。

## FEATURE

- There are varieties of volume from 600L~20000L, also it can be designed and customized according to the customers' requirements.
- Jacket can be put into steam (or hot water), and jacket is divided into coil jacket,full jacket and dimple jacket. Jacketed outside is covered with insulation layer. Insulation material is rock wool (keep warm) or PU (keep cold).
- Connector uses fast installation chuck (clamp). Inner tank uses SS304 or SS316L. The inner surface mirror polishing Ra≤0.28μm～0.6μm. Outer surface can be polished, wiredrawn, sandblasted according to customer's requirement.

## 典型的应用

适用于制药行业的纯水贮存、注射水贮存、药液贮存、中间缓冲，也适用于食品、饮料行业牛奶、果汁等物料的常温及加温贮存。

## APPLICATION

Suitable for the pharmaceutical industry of pure water storage, injection water storage, liquid storage, intermediate buffer, also applies to normal temperature and warming storage of the food, milk, juice etc.



华商机械 HUASHANG

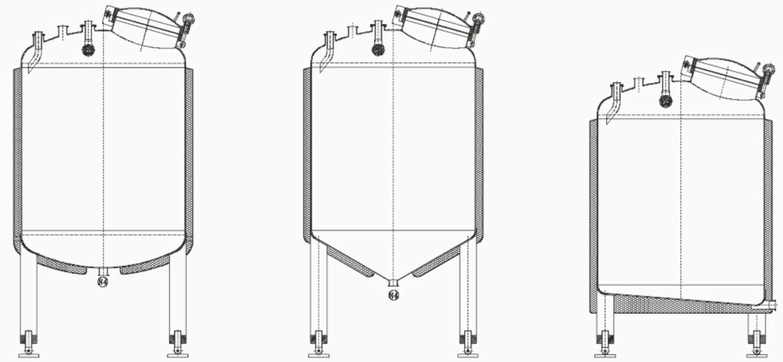
## 罐体可选配置

储罐的罐体可选配置无菌空气过滤器、温度计(数显式或表盘式)、压力表、视镜、卫生级人孔、进出液孔、CIP万向旋转清洗球、液位计等，或根据客户要求进行配置。

## TANK OPTIONAL CONFIGURATION

Storage Tank optional configuration: sterile air filter, thermometer (digital display type or dial), pressure gauge, sight glass, sanitary manhole, in–outlet, CIP universal rotating cleaning ball, liquid meter etc, Or configured according to customers' requirements.

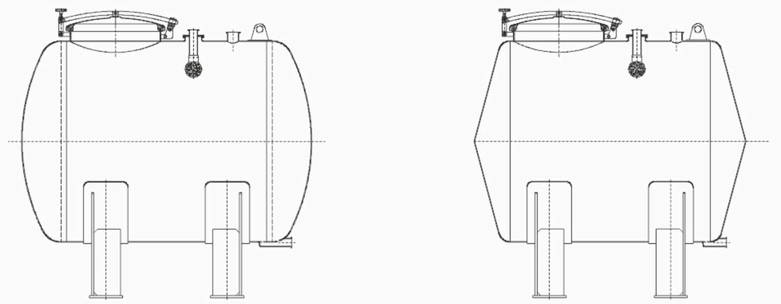
## 储罐常规结构 STORAGE TANK STRUCTION



碟形底立式储罐(双层)
Vertical Type Storage Tank–dish Bottom (double Layer)

锥底立式储罐(双层)
Vertical Type Storage Tan–conical Bottom (double Layer)

平斜底立式储罐(双层)
Vertical Type Storage Tank –tilting Bottom (double Layer)



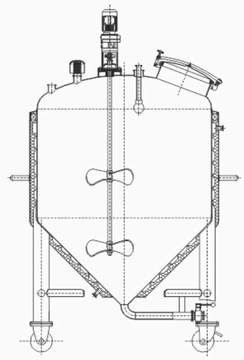
碟形端卧式储罐(单层)
Horizontal Type Storage Tank–dish Ends (single Layer)

锥形端卧式储罐(单层)
Horizontal Type Storage Tank–conical Ends (single Layer)

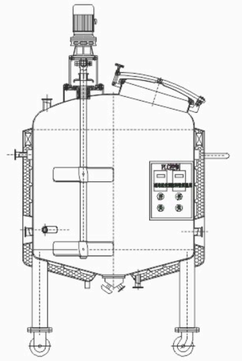
# 移动储罐
# MOBILE STORAGE TANK

华商机械 HUASHANG

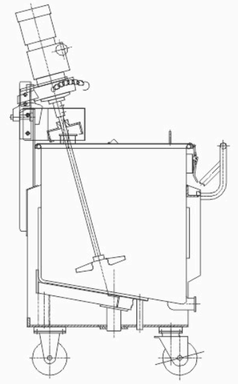
## 电加热搅拌罐常规结构ELECTRICAL HEAT MIXING TANK STRUCTION



全封闭锥底移动搅拌储罐(夹套)
Mobile mixing Storage Tank-Conical Bottom (single layer)



全封闭锥底移动搅拌储罐(夹套)
Mobile mixing Storage Tank-Dish Bottom (single layer)



斜插式平斜底移动搅拌储罐(夹套)
Mobile mixing Storage Tank-Tilting Bottom (Jacket type)

## 常规设计参数 DESIGN PARAMETER

| | |
|---|---|
| 设计压力 Design pressure | 罐体按客户要求(ATM～1.0MPa)<br>夹套按客户要求(ATM～0.5MPa) |
| 设计温度 Design temperature | 罐体、夹套按客户要求(0℃～160℃) |

## 连接 CONNECTION

| | |
|---|---|
| 进出口 In-outlet | 快装卡接、法兰、螺纹<br>Tri-clamp, Flange、Thread |

## 材料 MATERIAL

| | |
|---|---|
| 内胆 Liner | 304、316L |
| 夹套 Jacket | 304 |
| 保温层 Insulation | 岩棉或聚氨酯 Rock wool or PU |
| 支腿等 Legs | 304 |

## 表面处理 SURFACE FINISH

| | |
|---|---|
| 处理类型 Finish type | 机械抛光、电解抛光、喷砂、酸洗<br>Mechanical/electrolytic polishing, sand blasting, pickling |
| 抛光精度 Polishing precision | 内壁0.4μm, 外壁0.6μm<br>Inner surface Ra≤ 0.4μm,<br>Outside surface Ra≤ 0.6μm |

## 储罐常规型号及主要技术参数 NORMAL MODEL AND MAIN TECHNICAL PARAMETERS

| 参数 Parameters / 型号 Model | | HSRYG-75 | HSRYG-150 | HSRYG-300 | HSRYG-600 | HSRYG-1000 |
|---|---|---|---|---|---|---|
| 有效容积 Effective volume (L) | | 75 | 150 | 300 | 600 | 1000 |
| 罐体 Tank | 直径 Diameter (mm) | Φ450 | Φ600 | Φ800 | Φ1000 | Φ1100 |
| | 高度/长度 Height/Length (mm) | 460 | 550 | 600 | 800 | 1000 |
| 搅拌 Mixing | 电机功率 Power (kW) | 0.37 | 0.55 | 0.75 | 0.75 | 1.1 |
| | 搅拌工作转速 RPM (r/min) | 200(推进式)(可根据客户使用情况进行调整设计)<br>200(propeller) (Can adjust the design according to the customer's usage) | | | | |

上表数据为标准型，仅供参考，可根据客户要求定制；The above-mentioned data is the standard, it can customize according to customer's requirements.

# CIP 在线清洗系统
# CIP/SIP SYSTEM

CIP 在线清洗系统是一个中央集成系统，主要由单个或多个清洗液贮罐及管道、分布器、增压泵、回流泵、气动控制阀、酸碱计量泵、板式换热器、温度控制仪、电导率检测仪、液位控制仪、PLC触摸屏、控制柜及系统管阀件等组成。

CIP Systems is a central integration system, mainly composed of single or multiple cleaning fluid Storage Tank and pipe, distributor, booster pump, circumfluence pump, pneumatic control valve, acid–base metering pump, plate heat exchanger, temperature control instrument, electrical conductivity detector, liquid level controller, PLC, touch screen, control cabinet and system pipe valve parts, etc.

## 产品特色

- 就地清洗、操作简便、工作安全、劳动强度低、工作效率高。
- 清洗彻底，并能同时达到消毒灭菌目的，保证卫生要求，有利于制品质量提高。
- 清洗采用管道化，可减少占用车间面积。
- 洗涤剂可循环使用、利用率高，蒸汽和水也比较节省。
- 易损件少，设备使用寿命长。
- 适合于大、中、小型各类设备清洗。
- 清洗工作可实现程序化和自动化。

## FEATURE

- In–place cleaning, easy to operate, safe, low labor intensity, high work efficiency.
- Clean thoroughly, achieving disinfection sterilization, and guaranteeing the sanitary requirements, is helpful to improve product quality.
- Pipelining type cleaning to reduce the occupying room.
- Detergent can be recycled, high utilization ratio saving steam and water.
- Less wearing parts, equipment, long service life.
- Suitable for large, medium and small equipment cleaning.
- Cleaning can be programmed and automated.

## 典型的应用

广泛应用于饮料、乳品、果汁、啤酒、制糖、生物制药等自动化程度较高的生产企业中。

小型移动式CIP 在线清洗系统主要应用于生物发酵、制药行业。

## APPLICATION

Widely used in the beverage, dairy, juice, beer, sugar, biological pharmaceutical automatic production process. The small portable CIP online cleaning system mainly used in biological fermentation, the pharmaceutical industry.

## 常规的清洗程序USUAL CLEANING PROCESS

| 程序 Procedure | 时间 Time | 温度 Temperature |
|---|---|---|
| 水预洗过程 Water prewash | 3min ~ 5min | 40℃ ~ 50℃ |
| 碱洗过程 Alkali wash | 5min ~ 15min | 60℃ ~ 80℃ |
| 中间水洗过程 Intermediate washing | 3min ~ 5min | 40℃ ~ 50℃ |
| 酸洗过程 Acid pickling | 5min ~ 10min | 60℃ ~ 80℃ |
| 最终水洗过程 Finally water washed | 3min ~ 5min | 40℃ ~ 50℃ |

## 储罐常规型号及主要技术参数 NORMAL MODEL AND MAIN TECHNICAL PARAMETERS

| 参数 Parameters \ 型号 Model | | JTCIP–0.5 | JTCIP–1 | JTCIP–2 | JTCIP–3 | JTCIP–4 |
|---|---|---|---|---|---|---|
| 酸罐容积 Acid tank Volume (L) | | 500 | 1000 | 2000 | 3000 | 4000 |
| 碱罐容积 Alkali tank Volume (L) | | 500 | 1000 | 2000 | 3000 | 4000 |
| 热水罐容积 Hot water tank Volume (L) | | 500 | 1000 | 2000 | 3000 | 4000 |
| 加热方式 Heating method | | 盘管、板式、管式加热、电热管加热 Coil, plate, tube heating, electric heat pipe heating | | | | |
| CIP泵 Pump | 流量 Follow Rate ($m^3/h$) | 10 | 10 | 20 | 20 | 30 |
| | 扬程 pump head (m) | 24 | 24 | 36 | 36 | 36 |
| | 功率 Power (kw) | 2.2 | 2.2 | 4.0 | 4.0 | 5.5 |

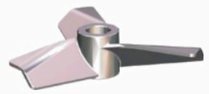
上表数据为标准型，可以根据客户特定要求定做。CIP清洗系统选型需提供的工艺参数：酸、碱、水罐容积，自动化程度，加热方式，特殊要求等。
The above–mentioned data is the standard, for reference only. It can customize according to customer's requirements. CIP cleaning system selection should provide technology Parameter：Acid, alkali, tank volume, degree of automation, heating mode, special requirements, etc

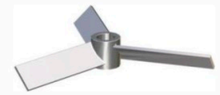


华商机械 HUASHANG

# 搅拌器常用类型
# AGITATOR MODEL

推进式搅拌桨
Propeller


旋桨式搅拌桨
High Efficiency Axial Flow Impellers


斜叶开启涡轮式搅拌桨
Special Open Turbine Impellers

锥圆底框式搅拌桨
Anchor And Frame Type Impeller

斜叶桨式搅拌桨
Paddle Impeller

螺带式搅拌桨
Helical Ribbon And Screw Impeller

半圆弧圆盘涡轮式搅拌桨
Disc Turbine Impeller With Arc Type Blades

锚框式搅拌桨
Special Anchor And Frame Type Impeller

布尔马金式搅拌桨
Bulmarking Impeller

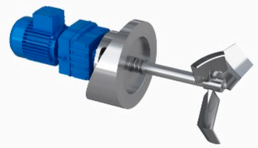
平直叶开启涡轮式搅拌桨
Flat Blade Open Turbine Impeller

曲边叶桨式搅拌桨
Curved Blade Open Turbine Impeller

分散盘
Paddle Impeller With Curved Blades

磁力搅拌器
Magnetic Agitator

机械排渣搅拌器(红酒发酵罐)
Mechanical Slagging Agitator

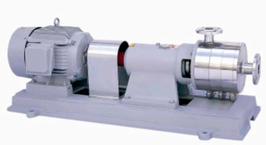

(侧入式)机械搅拌器
(side Entry) Mechanical Agitator

## 卫生级泵系列
## SANITARY PUMPS SERIES

回程泵
Return stroke pump

离心泵
Centrifugal pump

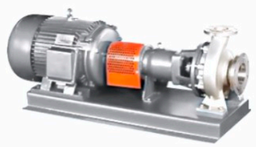
三足离心泵
Three feet centrifugal pump



均质乳化泵
Emusifier pump

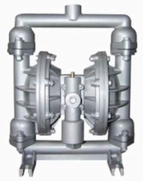
凸轮转子泵
Cam rotor pump

单螺杆泵
Screw pump



食品生化流程泵
Food and biochemical process pump

正弦泵
Sinusoidal pump



气动隔膜泵
Pneumatic diaphragm pump

卫生级离心泵广泛应用于食品、制药、化工和其它工业领域，根据液体性质，离心泵要采用不同的不锈钢材质制作。
材质为：SUS304、SUS316L
密封方式：机械密封
接口方式：螺纹、焊接、快装

Sanitary centrifugal pumps are widely used in food, pharmaceutical, chemical and other industrial fields. Depending on the properties of the liquid, centrifugal pumps are made of different stainless steel materials.
Material: SUS304, SUS316L
Sealing method: mechanical seal
Interface method: thread, welding, quick installation





## 不锈钢管阀件系列
## STAINLESS STEEL PIPE VALVE SERIES

使用SUS304或SUS316L不锈钢制成，内部镜面抛光、外表面经抛光喷砂、钝化处理、表面光滑平整。

Use SUS304/SUS316L stainless steel, the internal mirror face carries out the polish and out the surface also carries out the polish, sand spray, passivation treatment. The surface is smooth and flat.