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## 制药、食品、化妆品 及精细化工行业 成套设备制造商

For Cosmetic, Pharmaceutical,  
Food and Fine Chemical Industries

均质、乳化、分散  
搅拌、灌装  
真空、清洗、灭菌  
For the mixing,  
dispersion and  
emulsification of  
liquid and semi-solid  
products





## WHY CHOOSE US

### 选择意凯的三大理由

#### 品牌实力出众 Excellent Brand

自1998年创建以来，意凯始终坚持将品质作为企业的立信之本、壮大之匙。正是这执着的坚持让意凯在2016年成为央视《品质》栏目的上榜企业。现在，意凯已经成为全球知名的混合和包装设备制造商，值得您信赖。

Since it was founded in 1998, Yekey has always regarded quality as the foundation to increase customer's trust and as the key to the growth of the enterprise. It is exactly this persistence that makes Yekey one of the publicizing enterprises of CCTV's Quality program in 2016. Now, Yekey has become a world famous manufacturer of mixing and packaging equipment, which is worthy of your trust.

#### 研发实力雄厚 Strong R&D

意凯年均正常研发投入占销售利润的10%，累计获得了专利授权50余项，并于2022年被认定为“专精特新中小企业”。为了更贴近客户的使用场景，意凯在2019年与江南大学共同建立教学实践基地，并在此基础上修建了十万级净化实验室。实验室的成立为意凯探索行业前沿技术提供研发保障。

Yekey's annual research and development investment takes up 10% of the sales profit and has obtained more than 50 patents. It was recognized as a "Specialized, refined, innovative, and technology-oriented small and medium-sized enterprise" in 2022. In order to be closer to the customer's application environment, Yekey and Jiangnan University jointly built a teaching practice base in 2019, and built a 100000 level purification laboratory on this basis. The laboratory provides research and development guarantee for Yekey to explore the cutting-edge technology in the industry.

#### 品质全球认同 Global Recognition of the Quality

意凯通过了ISO9001质量体系认证，并有多款产品通过了欧盟CE安全认证。如今，意凯制造的乳化设备、搅拌设备、灌装设备及整厂方案已应用在包括美国、德国、瑞士在内的全球70多个国家和地区，并获得了客户的广泛好评。

Yekey has passed the ISO9001 quality system authentication, and many products of Yekey have passed the CE safety certification of European Union. At present, the emulsification equipment, mixing equipment, filling equipment and the whole factory plan produced by Yekey have been applied in more than 70 countries and regions in the world, including the United States, Germany and Switzerland, and have been well recognized by customers.

# About YeKeey

## 关于意凯

Wuxi YK Automation Technology Co.,Ltd (Also known as YeKeey) specializes in fine chemical equipment, pharmaceutical equipment and high-end processing equipment with research & development, design, manufacture and technical service into oneness. Since its inception, YeKeey have been adhering to the principle of customer first, service foremost, wishing for reaching a win-win result with our clients from all over the world by promoting technological progress and industrial development.

Since its establishment in 1998 for more than 20 years, YeKeey has always been committed to technology research and development and product upgrading, adhere to the annual sales profit of 10% into research and development, with undergraduates, graduate students and foreign experts as the core of the research team. As of 2023, YeKeey has obtained a total of 55 patents and 3 software programs, including "vacuum homogenizing and emulsifying machine" and "high viscosity material mixing paddle" technology has been recognized as high-tech products, YeKeey also passed the "high-tech enterprise" certification in 2018.

The relentless pursuit of reliable quality is the foundation of YeKeey and the key to YeKeey's growth. Since 2003 YeKeey fully implemented the ISO9001 quality system, the company's products have passed the EU CE safety certification, and in 2018 entered the shortlisted CCTV"QUALITY"column made in China Top Ten quality selection. Today, YeKeey's mixing equipment, emulsifying equipment, filling equipment and the whole plant output scheme has been applied in more than 70 countries and regions of more than 4000 enterprises and institutions, and well recognised by the customers.

In the future, YeKeey will, as always, adhere to the "professional, focused, dedicated service" business philosophy, and strive to build long-term partnership with customers. No matter where you are, no matter what problems you face, our products and services will help you solve problems easily and create extraordinary value.

无锡意凯自动化技术有限公司（简称意凯，英文YeKeey）主要致力于精细化工装备、制药装备及高端食品加工装备的开发、设计、制造及技术服务。自建立以来，意凯始终坚持以客户为中心，通过创新的产品为客户创造价值；始终坚持以奋斗者为本，让有贡献者得到合理回报；始终坚持与供应商、合作伙伴、行业组织、大学、研究机构等构建共赢的生态圈，推动技术进步与产业发展。

1998年建立至今的20余年间，意凯始终致力于技术研发与产品升级，坚持每年将销售利润的10%投入研发之中，组件了一支由本科生、研究生及外籍专家为核心的科研团队。截至2023年，意凯已累计获得专利授权55件、软件著作权3件，其中“真空均质乳化机”、“高黏性物料搅拌桨”技术获得了高新技术产品认定，意凯也于2018年通过了“高新技术企业”的认证，并于2022年被认定为“专精特新中小企业”。

对可靠品质的不懈追求，是意凯的立信之本，也是意凯的发展壮大之钥。自2003年意凯全面推行ISO9001质量体系以来，公司的多款产品通过了欧盟CE安全认证，并于2016年入围央视“品质”栏目中国制造十佳品质评选。如今，意凯制造的搅拌设备、乳化设备、灌装设备及整厂输出方案已应用在70多个国家及地区的4000余家企业及机构中，并获得了客户的广泛赞誉。

未来，意凯将会一如既往地坚持“专业、专注、全心服务”的企业理念，倾力打造与客户的长期伙伴关系。无论您身在何处，无论您面对何种难题，我们的产品与服务，都将助您轻松化解难题，创造非凡价值。

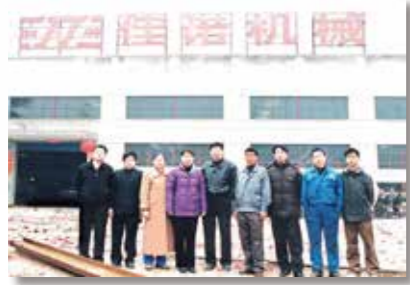


# Development course

## 发展历程

**1998**

成立无锡市佳诺精细化工设备厂  
Company founded as Wuxi Jianuo Fine Chemical Equipment Factory in Wuxi, China.



**2002**

第一台 PLC 控制的真空均质乳化机试制成功  
Successfully developed vacuum emulsifying mixer with PLC control.

**2005**

自主研制的 SXJ-1300 和 YLS-1300 的硅胶生产线出口西班牙  
Independent research and development the SXJ-1300 and YLS-1300 Silicon production line and export to Spain.

自主研制的 ZJR-1300 真空均质乳化机出口美国  
Independent research and development the ZJR-1300 vacuum emulsifying mixer and export to the USA.



**2008**

占地二万平方米现代化生产基地竣工  
20,000 square meters modern production base are established.

**2016**

被评为江苏省科技型中小企业  
Company was rated as a Jiangsu science and technology SME.



意凯成为央视《品质》栏目上榜企业  
Company became a listed company in CCTV's "Quality" column.



**2018**

获得高新技术企业荣誉称号  
Company won the honorary title of high-tech enterprise.



SPA/C 系列标准化乳化系统研制成功  
SPA / C series standardized emulsifying plant was successfully developed.



**2022**

被认定为专精特新中小企业  
Be recognized as a specialized, refined, and innovative small and medium-sized enterprise.



**2020**

荣获江苏省“工业设计中心”认定  
Recognized as "Industrial Design Center" of Jiangsu Province.

**1999**

首台瞬间胶软管灌装封尾机研制成功  
Successfully developed the glue soft tube filling and sealing machine.



**2003**

顺利通过 ISO9001 质量体系认证  
Successfully obtained ISO9001 quality system certification.



**2000**

首台丙烯酸 A、B 胶灌封机下线  
Successfully developed the A,B glue filling and sealing machine.

**2006**

顺利通过欧盟 CE 认证  
Successfully obtained the international European CE certification.



与加拿大合作成立无锡意凯自动化技术有限公司  
Jianuo cooperated with Canada and established Wuxi YK Automation Technology Co., Ltd. (YeKeey)

**2012**

首台六头平行反应釜研制成功并在航天某研究所正式投入使用  
The first six-head parallel reactor was successfully developed and officially put into use in an aerospace research institute.



**2015**

意凯生产的乳化机被评为江苏省优质产品  
The emulsifying mixer was rated as high-quality product in Jiangsu Province.

Mixcore 再循环乳化机研制成功并投产  
The Mixcore recirculating emulsifier developed and put into production



**2017**

成功获得《无菌乳化机》发明专利  
Patent pending "Sterile Emulsifying Machine".



**2019**

150Kw 屋顶光伏发电项目落成  
150Kw rooftop photovoltaic power generation project completed.

获得压力容器制造许可资质  
Obtained pressure vessel manufacturing license.

十万级净化的工艺验证实验室落成  
100,000-level purification process verification laboratory was completed.



**2021**

荣获制药装备协会“科技创新奖”  
Received the "Science and Technology Innovation Award" from the Pharmaceutical Equipment Association



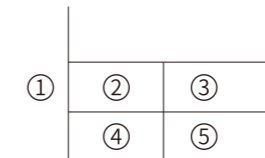
**2025**

ZJR-Plus 高洁净乳化机发布  
The ZJR-Plus High-Purity Emulsifier is released.



# Large - Scale Production

规模化生产



- ① 乳化设备生产车间  
Manufacturing workshop of emulsifying mixers.
- ② 灌装设备生产车间  
④ Manufacturing workshop of filling machines.
- ③ 搅拌设备生产车间  
⑤ Manufacturing workshop of mixing machines.



# Quality Assurance Program

## 品质管理流程

意凯的品质管理理念贯穿在产品的全制造周期中。  
Yekey's quality management runs through the product's entire manufacturing cycle.

### 设计 Design

Yekey has an experienced technical team. Professional engineers and technicians will make suitable selection recommendations according to different needs of customers, and provide customized design for special needs. Proper selection can improve the production efficiency and quality of customers' products.

意凯拥有一支经验丰富的技术团队，专业的工程技术人员会依据客户的不同需求而做出合理的选型推荐，并为特殊的需求提供量身定制的设计。合理的选型可以提高客户的生产效率和产品质量。



### 制造 Manufacture

Yekey's quality management starts from the warehouse entry inspection of raw materials. Only quality checked raw materials can be cut, formed, welded and polished. Automatic high-precision manufacturing equipment can guarantee of the functionality and interchangeability of the parts.

Quality parts will be assembled and checked by our assembly engineers with precise tools according to the drawings and technical requirements. We take the assembly of every set of equipment seriously.



意凯的品质管理始于原材料入库验收，只有验收合格的原材料才会进入切削、成型、焊接和抛光等工序。自动化的高精度制造设备可确保所产零件的性能和可互换性。

高品质的零部件将由我们的组装工程师使用精密的工具，按照图纸和技术要求来组装并调试。每一套设备的组装我们都认真对待。



### 质检 Quality inspection

The whole equipment inspection before delivery is very important. The most experienced professional engineer will carefully check and test the internal and external surfaces of the equipment and various performance parameters according to the technical requirements. Only the machine that passes all the quality inspection processes will be finally delivered to customers.

设备出厂前的全机检验至关重要。最有经验的专业工程师会依据技术要求对设备的内外表面和各项性能参数进行仔细核对和测试，只有通过全部质检流程并全部合格的设备才会最终交付到客户手中。



分贝 Sound Level meter



超声波测厚 Ultrasonic thickness gauge



管道内窥镜 Pipeline endoscope



粗糙度 Surface roughness tester



红外测温 Laser thermometer



合金分析仪 XRF analyzer

# Honors & Qualifications

## 企业荣誉与资质

高新技术企业  
High-tech Enterprise



专精特新  
Specialized, Refined, Characteristic  
and Innovative Enterprise



压力容器制造许可  
Pressure Vessel  
Manufacturing License



ISO9001质量体系认证  
ISO9001 Quality Management  
System Certification



央视《品质》栏目入围  
Shortlisted for the  
CCTV Program "Quality"



药机行业科技创新奖  
Science and Technology Innovation Award  
in the Pharmaceutical Machinery Industry



食品行业协会理事单位  
Member of the Food Industry Association



乳化机CE认证  
CE Certification for  
Emulsifying Machines



灌装机CE认证  
CE Certification for  
Filling Machines



企业技术中心  
Enterprise Technology Center



工业设计中心  
Industrial Design Center



江南大学教学实习基地  
Teaching Practice Base of Jiangnan University



南京航空航天大学  
教学实习基地  
Teaching Practice Base of NUA



产品信得过企业  
Enterprise with Trustworthy Products



高质量发展民营企业  
Private Enterprise with  
High-quality Development



优秀产品  
Excellent Product



重点推荐名牌企业  
Key Recommended Famous Brand Enterprise



## Green & Clean

### 绿色供能

2019 年, 150KW 屋顶分布式光伏系统建成投产; 2025 年, 230kWh 储能系统顺利落成。意凯始终以绿色供能核心理念, 持续推进“零碳工厂”建设目标, 用清洁能源实践勾勒工业可持续发展的未来图景。

In 2019, the 150kW rooftop distributed photovoltaic system was completed and put into operation; in 2025, the 230kWh energy storage system was successfully completed. YeKeey has always held green energy supply as its core philosophy, continues to advance the goal of building a "Zero-Carbon Factory" and paints a future vision of sustainable industrial development through clean energy practices.



## Social Responsibility

### 社会责任

意凯以回馈社会、共生共享的精神为指引, 不断深化企业社会责任的践行, 将可持续发展理念融入到业务运营的方方面面, 坚守企业责任之道, 在获得丰硕成果的同时, 为社会的可持续发展蓄积动力。

Guided by the spirit of contribute to the society and sharing, Yekeey continuously deepens its practice of social responsibility, and integrates the concept of sustainable development into all aspects of business operation, and at the same time of achieving fruitful results, the company also contributes for the sustainable development of the society.



2018无锡非公经济人士好榜样  
2018 Non public economic good person



组织为白血病学生捐款送温暖  
Organizing donations for leukaemia students



江南大学企业家辅导员  
Instructor of Entrepreneur of Jiangnan University

## Value Co-Creation

### 价值共创

为了让客户拥有更好的使用体验, 意凯正在与国内外的数百家企业合作, 通过材料、工艺、工业物联网等技术的研发与创新, 为客户提供高附加性能的产品。在与客户的合作过程中, 我们为客户提供其所需的支持, 针对客户购买、使用过程中可能提出的任何要求、疑问, 提供全方位的解决方案, 使客户的购买、使用更加便捷。

多年来我们注重企业的知识产权布局, 获得多项发明专利与实用新型专利, 并将专利技术深度应用于自身的经营当中, 促进行业专利技术的应用和转化。

To give customers better using experience, Yekeey is cooperating with hundreds of enterprises in China and abroad to provide customers with high performance products through the research, development and innovation of materials, processing techniques, industrial internet of things and other technologies. We provide customers with the support they need, and provide all-round solutions for any requirements and questions that may be asked when they purchase and use our products, to make customers Purchasing and using more conveniently.

For many years, we have paid attention to the intellectual property arrangement of our company. We got a number of patent for invention and utility models, and deeply applied these patent technologies into our business, and transformed the patent technologies into this industry.



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## 乳化及搅拌设备 Emulsifying & Mixing Equipment

# Emulsifying Machine Series

## 乳化机系列

乳化机是日化、食品、制药等行业常见的一种操作单元，用于将两种不相溶的液体（其中之一几乎总是水，另一相为不溶于水的“油”）转变成均匀分布的液液分散体系（乳液）的设备。依据乳状液稳定性理论，要使形成的分散体系长期保持相对稳定状态，液滴应尽可能小，通常需要小于 10um。意凯所生产的乳化机都是基于这一原理设计，通过高速旋转的高剪切定转子系统及相应的刮壁搅拌系统所提供的机械能，使一相混入到另一相之中，通过粗液滴的变形和破裂，使粗液滴的直径不断减小以至最终完成均匀的乳化过程。

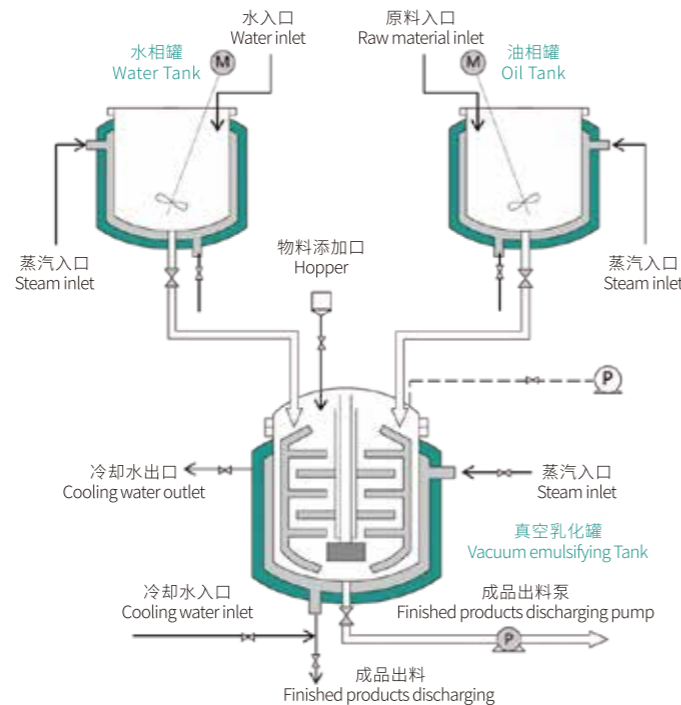
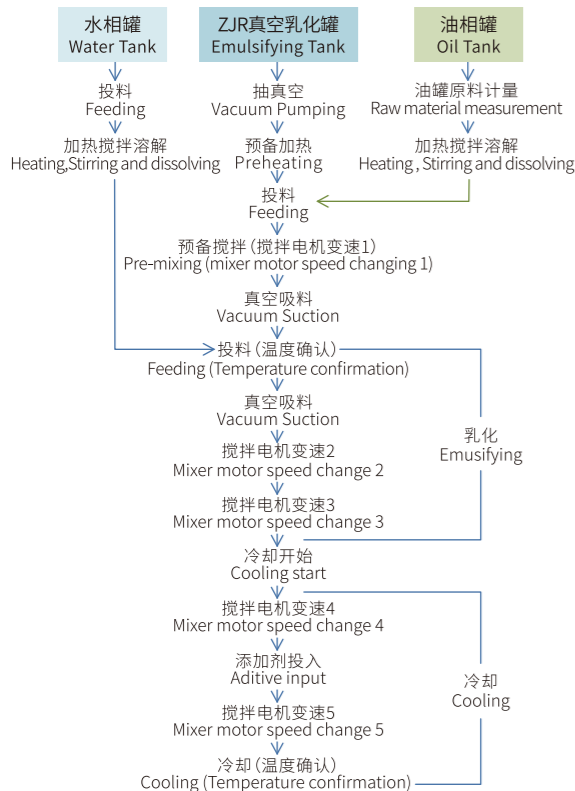
Emulsifying machine is a common operation unit in daily chemical, food, pharmaceutical and other industries. It is used to transform two immiscible liquids (one of which is almost always water and the other is an insoluble "oil"), equipment to form a uniformly distributed liquid-liquid dispersion system (emulsion). According to the emulsion stability theory, in order to keep the formed dispersion system relatively stable for a long time, the droplets should be as small as possible, usually less than 10um. Emulsifiers produced by YeKey are designed based on this principle. One phase is mixed into the other phase through the mechanical energy provided by the high-speed rotating high-shear stationary rotor system and the corresponding scraped wall stirring system. The deformation and rupture of the liquid droplets make the diameter of the coarse liquid droplets continuously decrease, so that the uniform emulsification process is finally completed.



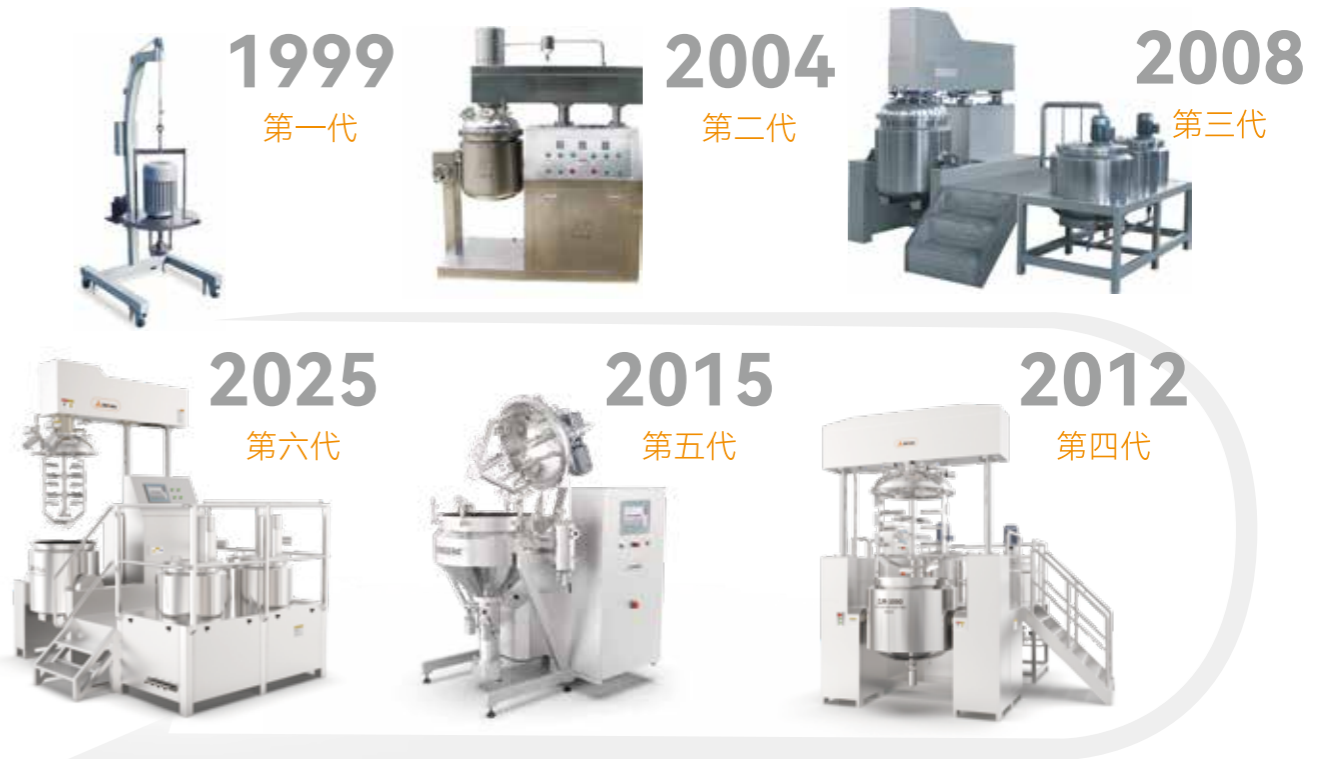
ZJR乳化机对转式搅拌桨及高剪切均质器

### 乳化机工艺流程图

### Technological process of emulsifying machine

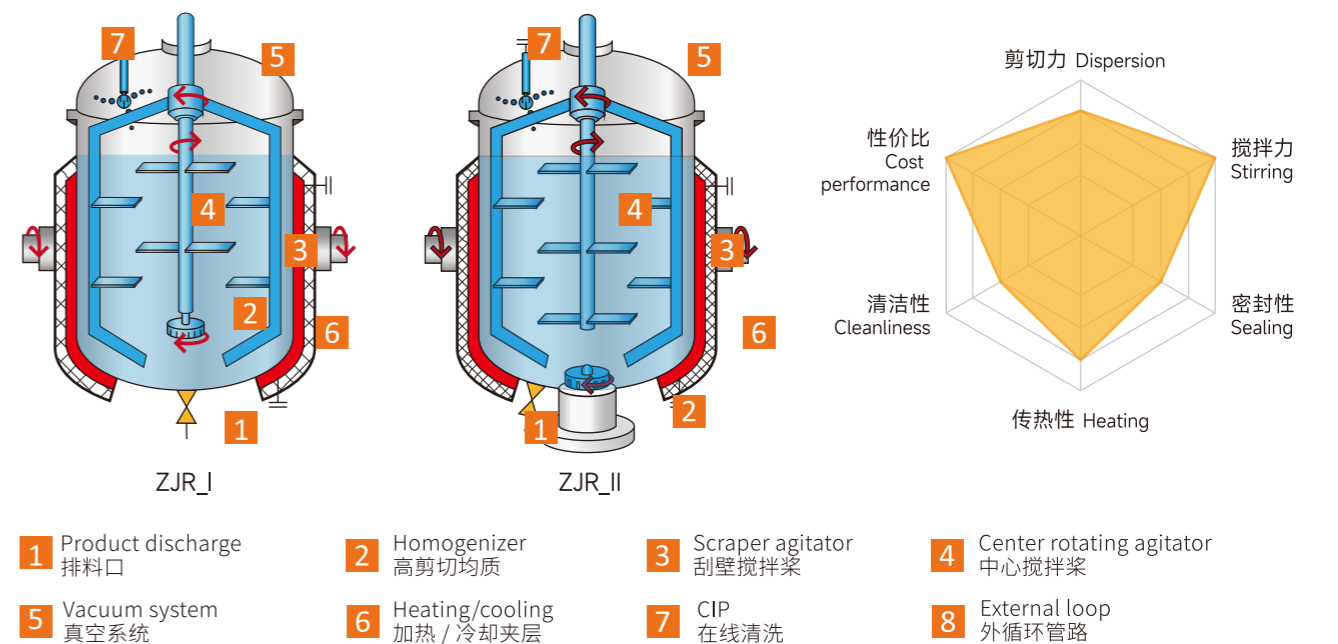


### 乳化机进化族谱 Evolution Genealogy of Emulsifying Machine



### 基本结构说明图

### Illustration of basic structure



# ZJR Series Full Function Vacuum Emulsifying Machine

ZJR 系列全功能真空乳化机

## 基础配置 Basic Configuration

- 乳化罐罐盖为自动升降式，主罐可翻转倾倒。
  - 乳化罐内配有高剪切均质器和对转式刮壁按路4mm Y: 1939.08mm
  - 配有水相罐和油相罐两个预处理罐。
  - 预处理罐内装有高速分散系统。
  - 系统配有真空系统，预处理罐内物料可通过负压吸入乳化罐。
  - 罐体内外表面镜面抛光，符合卫生级要求。
  - 采用夹层电加热的加热方式，传热均匀，控温精度高，系统也接入冷却水进行冷却。
  - 采用按钮或PLC的控制方式，简单、明了，易上手。
- It is an automatic lifting type for the lid of emulsification tank with the main tank invertible and dumpable.
  - The emulsification tank comes with a high shear homogenizer and a counter-rotating scraper.
  - It includes 2 pre-treatment tanks. One is the water phase tank, the other is the oil phase tank.
  - A high speed dispersion system exists inside the pre-treatment tank.
  - There is a vacuum system inside the emulsifying equipment with the working materials in the pre-treatment pot able to be sucked into the emulsification tank using the negative pressure.
  - They are mirror polished for both inner and outer surfaces of the tank to meet the sanitary requirements.
  - It adopts the electric heating method through the jacket layer, resulting in uniform heat transfer and high accuracy of temperature control. Moreover, the system can be connected to the water supply for cooling.
  - Customers can select the control mode alternatively using the PLC or button.

## 优势 Key Benefits

- 适应高粘度料体，最高粘度可达80,000MPas.\*
  - 乳化效果好，所形成乳液稳定，微液滴粒径通常小于5um。
  - 主罐可采用倾倒或通过罐底阀的出料方式。
  - 所配真空系统可使乳化罐内形成-0.093MPa真空度。
  - 与物料直接接触部位采用优质316不锈钢材质。\*\*
  - 加热温度采用PID控制，加热迅速、控温精度高。
  - 加热夹层外设置有隔热保温层，防止操作人员烫伤。
  - 全系列配置LED罐内照明及带刮壁的观察手孔。
  - 结构便于清洁及养护。
  - 设备内设置有大量防呆及其他保护机构，尽可能的避免人员伤害及设备的意外损坏。
  - 可接受其他的功能定制。
- Suitable for high viscosity materials with the highest viscosity up to 80,000MPas.\*
  - Good emulsification effect & stable emulsion form, the particle size of the micro-droplets is usually less than 5um.
  - The main tank can be dumped and discharged through the bottom valve.
  - Includes a vacuum system that can form a high vacuum value above -0.093MPa in the emulsification tank.
  - The parts in direct contact with the working material are made of high quality stainless steel 316.\*\*
  - The heating temperature is controlled by PID with the features of fast heating and high accuracy of temperature control.
  - A heat insulation layer is provided outside the heating jacket to prevent the operator from being burned.
  - It comes with LED lighting inside tank and sight glass with scraper.
  - It is easy to clean and maintain for the machine structure.
  - A lot of anti-daze and other protection mechanisms are set inside the equipment to avoid personnel injury and accidental damage to the equipment as much as possible.
  - Other functions can be customized.

## Pilot type full function emulsifier 中试型全功能乳化机



型号 Model	设计容积 Design volume(L)	最大工作容积 Max. useful volume (L)	最小工作容积 Min. Useful volume (L)	外形尺寸 Dimensions (L x W x H mm)	
				主罐 main tank	水油罐 W/O tank
ZJR-30	30	25	10	1400x600x1900(2400)	1000x510x1350
ZJR-50	50	40	15	1400x600x1950(2500)	1000x550x1400
ZJR-100	100	80	30	1750x650x2150(2850)	1500x700x1400
ZJR-150	150	120	45	1900x780x2380(3000)	1500x780x1700

## Production type full function emulsifier ZJR生产型全功能乳化机



型号 Model	设计容积 Design volume(L)	最大工作容积 Max. useful volume (L)	最小工作容积 Min. Useful volume (L)	外形尺寸 Dimensions (L x W x H mm)	
ZJR-250	250	200	75	2600 x 1900 x 2500(3500)	
ZJR-350	350	280	100	3000 x 2750 x 2750(3850)	
ZJR-650	650	500	200	3650 x 3400 x 3300(4560)	
ZJR-850	850	700	250	3750 x 3550 x 3350(4800)	
ZJR-1300	1300	1000	400	4900 x 3300 x 3000(4600)	
ZJR-2500	2500	2000	750	4800 x 4400 x 3300(4800)	



Type A (多功能型)

Type B (超细型)

Type C (高粘型)

Type D (分散型)

\* 需定制高粘度均质器及搅拌桨。 Need to customize high viscosity homogenizer and stirring paddle  
\*\* 可选配304材质。 SS304 is for option

# ZJR-Plus Series High-Cleanliness Vacuum Emulsifying Machine

ZJR-Plus 系列高洁净全功能乳化机



## 优势 Key Benefits

- **更洁净，严守品质防线：**ZJR-Plus 通过优化搅拌结构，减少缝隙，搭配卫生型螺栓与特殊密封圈，有效阻挡异物残留。创新的刮板设计\*，可轻松洗净残留料液，为药品质量安全筑牢根基。
- **更精准，成就卓越品质：**采用先进伺服技术\*，实现转速闭环实时控制，一转不差，精准反馈物料状态。自研专利测温传感器，毫秒级响应，快速精准测温。
- **更智能，引领科技潮流：**底层搭载 SMATIC WinCC\*，操作记录完整、不可篡改，电子签名可追溯，满足 FDA 21CFR Part11 合规要求。设备可用性自检专利技术，定期检测，提前排查故障隐患。支持手动、半自动、全自动\*多种操作模式，可根据不同物料和工艺顺序精准执行，生产高效又智能。
- **更弹性，满足多元需求：**工作容积从 5L 实验室机型到 8000L 大型生产线全覆盖，适用于乳膏、软膏、脂质体等多种剂型生产。模块化设计，可快速切换均质器、搅拌桨组件，满足个性化生产需求。

\* 为定制项功能。This is a customized function.

- **Cleaner and Stricter Quality Assurance :** ZJR Plus reduces gaps by optimizing the mixing structure with hygienic bolts and special seals to block foreign substance residues effectively. The innovative scraper design allows for easy cleaning of residual liquids, building a solid foundation for pharmaceutical quality and safety.
- **More accurate with a view to achieving excellent quality:** With the application of advanced servo technologies, we realize closed-loop real-time control of rotational speed and precise feedback of material status, featuring self-developed patented temperature sensor, millisecond response, fast and accurate temperature measurement.
- **More intelligent to lead the trend of science and technology:** The bottom layer is equipped with SMATIC WinCC with the features of complete and unmodifiable operation records, electronic signature traceability, meeting the FDA 21CFR Part11 compliance requirements, highlighting the importance of patented self-checking technology for equipment availability, regular testing, and early detection of potential malfunctions, which also supports manual, semi-automatic and fully-automatic operation modes and can be accurately executed according to different materials and process sequences in a bid to achieve the purpose of efficient and intelligent production.
- **More flexible to meet diversified needs:** The working volume ranges from 5L lab scale to 8000L large-scale production line, which is suitable for production of creams, ointments, liposomes and other dosage forms. The modular design allows for quick switching of homogenizer and mixing paddle components to meet individual production needs.

# ZJR-Lab Laboratory Emulsifying Machine

ZJR 系列全功能“实验型”真空乳化机



## 优势 Key Benefits

- 更多的设计余量，可适应各类物料的作料需求。
- 容积完全相等的两只预处理罐，可适应各种配料比例。
- 全系列采用PLC控制，智能控制，方便操作与维护。
- 超高转速的精密高剪切均质系统，可稳定运行于6000RPM。
- 带轮子的一体化机架设计，方便设备的使用和储藏要求。
- 全304不锈钢包壳，方便清理。
- 标配真空保护系统，保护真空泵的同时避免原料比例的破坏。

- More design margins can meet the needs of various materials.
- Two pretreatment tanks with completely equal volumes can be adapted to various proportions of ingredients.
- The entire series adopts PLC control and intelligent control for easy operation and maintenance.
- Ultra-high speed precision high-shear homogenizing system, stable operation at 6000RPM.
- The integrated rack design with wheels is convenient for equipment use and storage.
- All 304 stainless steel cladding, easy to clean.
- Equipped with a vacuum protection system as standard to protect the vacuum pump while avoiding damage to the proportion of raw materials.

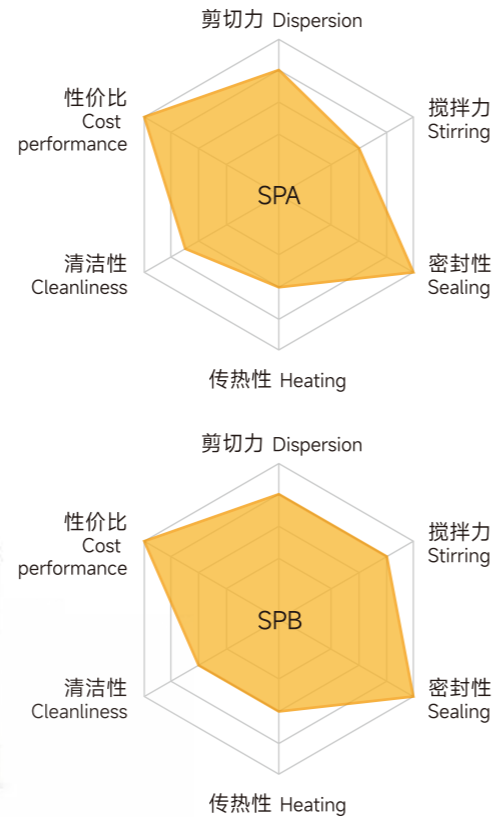
## 专利产品 Patented product 专利号

Patent No. ZL 2016 2 0741990.9

型号 Model	设计容积 Design volume(L)	最大工作容积 Max. useful volume (L)	最小工作容积 Min. Useful volume (L)	外形尺寸 Dimensions (L x W x H mm)
ZJR-5	6	4	2.5	1400 x 600 x 1700(2000)
ZJR-10	11	8	5	1500 x 600 x 1700(2000)

# SP Series Standard Vacuum Processing Unit

SP 系列标准型底装式真空乳化系统



内循环型  
Internal homogenizer



外循环型  
External homogenizer

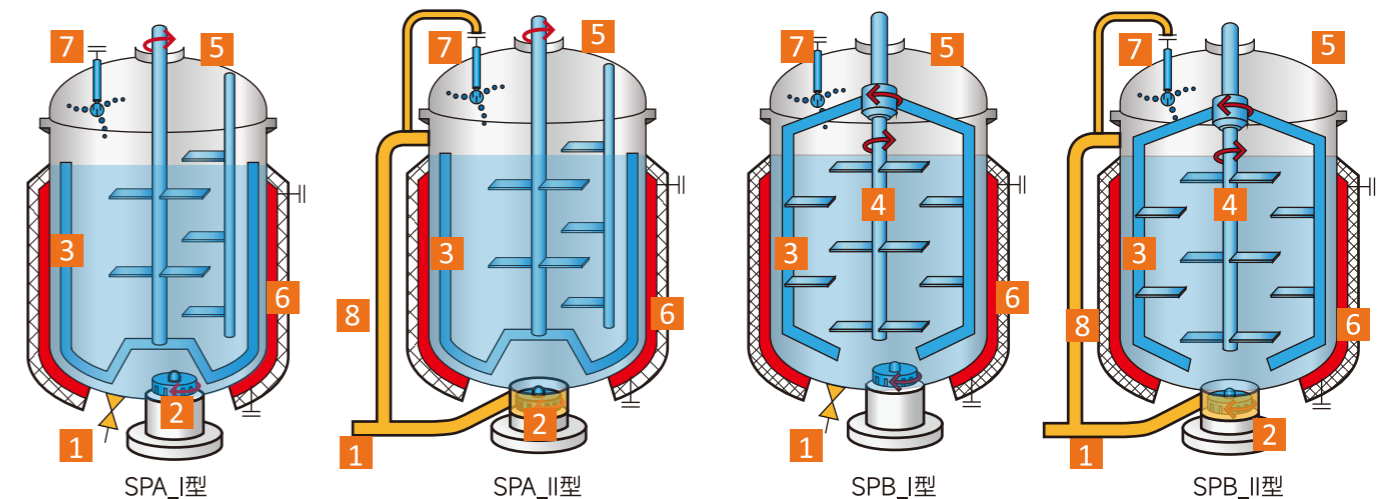
## 基础配置 Basic Configuration

- 分为SPA与SPB两大类，SPB为双向对转式搅拌，SPA为单向螺旋式搅拌。
- 设备配有底装的内循环或外循环高剪切均质器。
- 乳化罐内标配带有PTFE刮壁的搅拌桨。
- 与ZJR系列一致的乳化效果。
- It is divided into two major categories: SPA and SPB. SPB adopts bidirectional counter-rotating stirring, and SPA adopts unidirectional ribbon stirring.
- The equipment is fitted with a high shear homogenizer with an internal or external circulation system, featuring bottom-mounted.
- The emulsification tank is standardly equipped with a stirring paddle with PTFE scraper.
- Regarding the emulsifying effect, it can be the same as ZJR Series of multi-functional vacuum emulsifying machine .

## 优势 Key Benefits

- 可选配316不锈钢材质。
- 可选配各类操作方式。
- 罐内构造便于清洁和养护，可选装CIP清洗系统。
- 设备结构简单、可靠，性价比高。
- 各类功能均可定制。
- SS316 is optional.
- Various kinds of operation modes are optional.
- Easy to clean & maintain for the internal structure.
- Available to choose to mount CIP cleaning system.
- It is simple, reliable and cost-effective in equipment structure.
- Other functions can be customized as well.

型号 Model	设计容积 Design volume(L)	最小工作容积 Min. Useful volume (L)	最大工作容积 Max. useful volume (L)	外形尺寸 Dimensions (L x W x H mm)
SPA-650	650	110	520	1250 x 1250 x 2960
SPA-1300	1300	200	1000	1500 x 1500 x 3610
SPA-2000	2000	350	1500	1720 x 1720 x 3940
SPA-3000	3000	500	2500	1970 x 1970 x 4570
SPA-4000	4000	650	3000	2150 x 2150 x 4700
SPA-5000	5000	800	4000	2270 x 2270 x 5000
SPA-6000	6000	1000	5000	2270 x 2270 x 5220



- 1 Product discharge  
排料口
- 2 Homogenizer  
高剪切均质
- 3 Scraper agitator  
刮壁搅拌桨
- 4 Center rotating agitator  
中心搅拌桨
- 5 Vacuum system  
真空系统
- 6 Heating/cooling  
加热 / 冷却夹层
- 7 CIP  
在线清洗
- 8 External loop  
外循环管路

# MixCore Vacuum Homogenizing & Mixing Plant

## 高效再循环乳化机

Mixcore 是用于生产膏霜、乳液、软膏、凝胶、牙膏和食品酱料的理想设备。Mixcore乳化系统的核心是安装于罐体下方的定转子均质器。这种结构可以确保罐体内的所有原料在排出之前至少可以通过均质器两次，因为原料是通过运行中的均质器吸入的，并且出料也是通过均质器的输送能力泵出。均质器的输送能力也能为CIP清洗提供动力。

为了适应每个客户不同的需求，Mixcore又分为H和V两个不同的版本。H为横置安装的均质器，这种设计在提高粉体料吸入效率的同时，降低机器高度；V为垂直安装的均质器，这种设计洁净程度更高，适合有高卫生要求的应用场合。

Mixcore vacuum homogenizing emulsifying mixer machine is our top pick for production of chemicals & pharmaceuticals, such as cream, lotion, ointment, gel, toothpaste and other food sauce.

The major component of it is the rotor stator homogenizer installed at the bottom of the tank. The structure of it can ensure that all the materials pass through the homogenizer twice at least before being discharged for the simple reason that the materials can be sucked into the running homogenizer that helps the materials pump out by its conveying capacity.

Moreover, the conveying capacity of the homogenizer can also provide power for CIP cleaning.

Mixcore vacuum homogenizing emulsifying mixer machine is classified into two different designs that are H & V (H symbolizes a horizontally installed homogenizer, V stands for a vertically installed homogenizer). The horizontal design is conducive to improving both the suction efficiency of powder and lowering the height of equipment. The vertical design is comparatively clean and suitable for the application requirements of high hygiene.

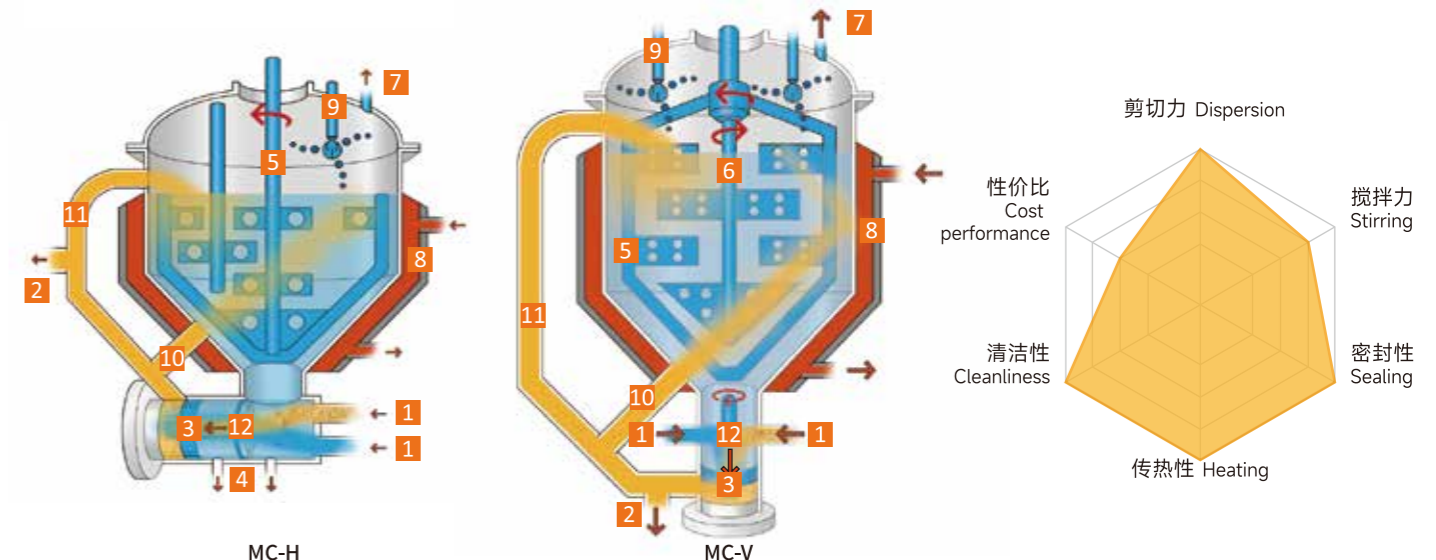


### 优势 Key Benefits

- 独特的高效混合和再循环均质系统。
  - 采用卫生级双端面机械密封。
  - 粉体物料可无尘吸入并快速分散。
  - 较 ZJR 系列乳化机再循环系统可减少 60% 的生产时间。
  - 均质系统自带泵效，可减短出料时间。
  - 系统自带 CIP 功能。
  - 可定制无菌乳化系统。
  - 最高处理粘度可达 100,000MPas
  - 更合理的操作界面及人机工程设计。
  - 最小生产量可至全容积的 20%。
- Unique and efficient mixing and recycling homogenization system
  - Adopt sanitary double face mechanical seal
  - Powder material can be inhaled without dust and quickly dispersed
  - Compared with ZJR series emulsifier, it can reduce 60% of the production time
  - The homogenization system has its own pump effect, which can shorten the discharging time
  - With CIP function
  - Sterile emulsification system can be customized
  - Highest viscosity up to 100000mpas
  - More reasonable operation interface and ergonomic design
  - The minimum production can reach 20% of the total volume

型号 Model	设计容积 Design volume(L)	最大工作容积 Max. useful volume (L)	最小工作容积 Min. Useful volume (L)	外形尺寸 Dimensions (L x W x H mm)
MC-H-15	15	12	3	1400 x 900 x 1600 (1650)
MC-H-50	50	40	10	1400 x 1500 x 1800 (2100)
MC-H-150	150	120	30	1600 x 1500 x 2100 (2250)
MC-H-350	350	280	70	2000 x 1750 x 2300 (2500)
MC-H-650	620	500	130	2300 x 1900 x 2700 (2900)
MC-H-1300	1300	1000	260	3000 x 2100 x 3100
MC-H-2500	2500	2000	500	3100 x 2300 x 3700

型号 Model	设计容积 Design volume(L)	最大工作容积 Max. useful volume (L)	最小工作容积 Min. Useful volume (L)	外形尺寸 Dimensions (L x W x H mm)
MC-V-30	30	25	6	1250 x 1050 x 1700 (2050)
MC-V-100	100	80	20	1400 x 1200 x 2200 (2700)
MC-V-250	250	200	50	1900 x 1500 x 2700 (3400)
MC-V-650	650	500	130	2400 x 1800 x 3000 (3900)
MC-V-1300	1300	1000	260	2500 x 2000 x 3600 (4800)
MC-V-2500	2500	2000	500	3000 x 2000 x 4000 (5000)



- 1 Raw materials infeed 原料进口
- 2 Product discharge 排料口
- 3 Homogenizer 高剪切均质
- 4 Residue discharge/CIP recirculation 清洗排污口
- 5 Scraper agitator 刮壁搅拌桨
- 6 Center rotating agitator 中心搅拌桨
- 7 Vacuum system 真空系统
- 8 Heating/cooling 加热/冷却夹层
- 9 CIP 在线清洗
- 10 Internal loop 内循环管路
- 11 External loop 外循环管路
- 12 Premix 预混合
- 13 HMI 人机界面

# ZGJ Toothpaste Making Machine

ZGJ 制膏机系列

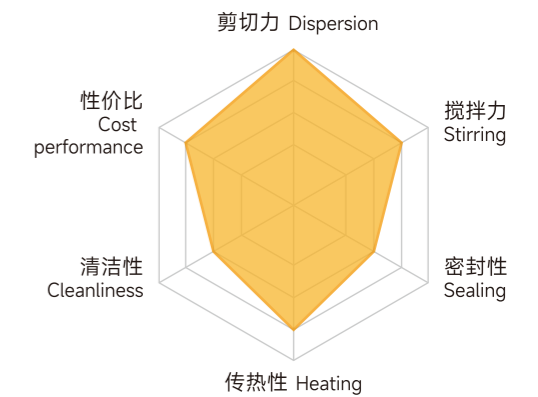


制膏机是牙膏生产的关键工序，该设备的工作原理就是按一定的生产工艺将各种原料依次投入制膏机内，通过强力搅拌、分散、研磨使各种原料充分分散和混合均匀，最后经真空脱气成为膏体。ZGJ 系列制膏机是我司在已有技术的基础上，优化了刮壁搅拌桨，高速分散系统、高剪切均质系统与真空系统，以提升整体设备的性能，保证生产能按设定的制膏工艺和配方制得质量合格和质量稳定的膏体。

The paste making machine is the key machine of the process of toothpaste production. The working principle of this equipment is to sequentially put various raw materials into the machine according to a certain production process, and making the all materials fully dispersed and mixed uniformly through strong stirring, dispersion, and grinding. Finally, after vacuum degassing, it becomes the paste. Based on our company's existing technology, we have optimized the scraper blades, high-speed dispersion system, high-shear homogenization system and vacuum system to improve the performance of the overall equipment and ensure that production can be set according to the settings, paste manufacturing process and formula to obtain qualified and stable paste.

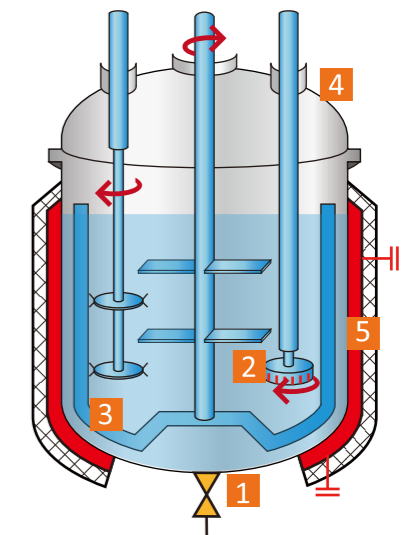
## 基础配置 Basic Configuration

- 制膏工艺在密闭的罐内在真空状态下操作。
- 罐体由优质不锈钢制造，配有夹套用于加热或冷却。
- 配有桨式搅拌和刮板，使物料不产生堆积和死角，同时活动的刮板能自动贴近内壁，将物料刮下，使温度传递均匀。
- 配有高速分散器或高剪切均质器，通过高速转动将粉料和液料混合，并在制膏锅内产生翻动，使物料均匀细腻。
- 配有双极真空泵，罐内极限真空度可达 -0.098MPa。
- 采用一步法工艺，在制膏机内完成所有的制膏操作，显著减少物料损失。
- 可配套原料输送系统、自动计量与控制系统，通过计算机操作，实现了制膏自动化。
- The paste is made in a airtight tank and operated under vacuum.
- The tank is made of high-quality stainless steel with a jacket for heating or cooling.
- Equipped with paddle-type stirring and scraper, so that the materials do not have accumulation and dead corners. At the same time, the movable scraper can automatically press close to the inner wall and scrape the material to make the temperature uniform.
- Equipped with a high-speed disperser or a high-shear homogenizer, which mixes powder and liquid materials through high-speed rotation, and generates a turn in the paste-making pot to make the material homogeneous and delicate.
- Equipped with a bipolar vacuum pump, the ultimate vacuum degree in the tank can reach -0.098MPa.
- Using a one-step process, all paste operations are completed in the paste machine, which significantly reduces material loss.
- It can be equipped with raw material conveying system, automatic metering and control system, and realizes automation of paste production through computer operation.



## 优势 Key Benefits

- 制膏机将制胶过程和研磨、搅拌、抽真空三个制膏过程在一个制膏锅内完成，显著减少物料损失，降低膏体污染，提高了生产的效率和清洁性。
- 一步法生产可避免由于原来敞开制膏设备所造成的脱气不完全、香精容易挥发的问题。
- 控制系统操作简单，性能稳定。
- 特别适合密度较小、触变性较好的二氧化硅型牙膏。
- The paste making machine completes the glue making process and the three paste making processes of grinding, stirring and vacuuming in one pot, which significantly reduces material loss, reduces paste pollution, and improves production efficiency and cleanliness.
- The one-step production can avoid the problems of incomplete degassing and the easy distribution of essence due to the original open paste manufacturing equipment.
- The control system is simple to operate and stable in performance.
- It is especially suitable for silica-based toothpaste with lower density and better thixotropy.

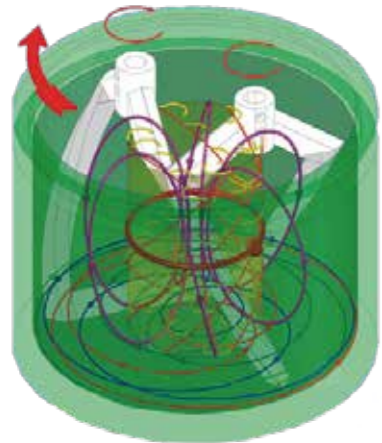


- 1 Product discharge 排料口
- 2 Homogenizer 高剪切均质
- 3 Scraper agitator 刮壁搅拌桨
- 4 Vacuum system 真空系统
- 5 Heating/cooling 加热/冷却夹层

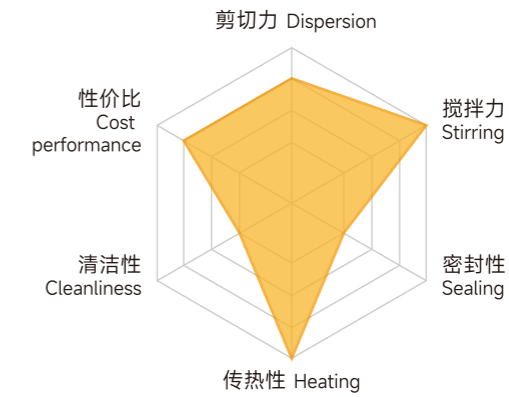
型号 Model	设计容积 Design volume(L)	最大工作容积 Max. useful volume (L)	最小工作容积 Min. Useful volume (L)	外形尺寸 Dimensions (L x W x H mm)
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ZGJ-50	50	40	15	3000 x 2750 x 2750(3850)
ZGJ-100	100	80	30	3650 x 3400 x 3300(4560)
ZGJ-350	350	280	100	3750 x 3550 x 3350(4800)
ZGJ-650	650	500	200	4900 x 3300 x 3000(4600)
ZGJ-1300	1300	1000	400	4800 x 4400 x 3300(4800)

# SXJ Planetary Dispersion Mixer

## SXJ 行星分散搅拌机



卫生型行星搅拌机  
Sanitary planetary mixer



实验室型行星搅拌机  
Laboratory planetary mixer

SXJ行星分散搅拌机是我司研发的一种新型高效无死点混合设备，它具有独特、新颖的搅拌形式，釜内有两个门式或麻花式搅拌器，一个高速分散器和一个自适应刮刀，搅拌器在绕釜体轴线公转的同时，又以不同的转速绕自身轴线高速自转，使物料在釜体内作复杂的运动，受到强烈的剪切和捏合。此外设备内的自适应壁刀绕釜体轴线转动，可将粘在壁上的物料刮下参与混合，提高换热效率，并提升混合效果。釜体采用特殊密封结构，可进行抽真空搅拌，具有良好的排气除泡效果。罐体夹套可根据用户需要进行加热、冷却。出料方式为压料式，设备釜盖可液压升降，釜体可自由移动，操作十分方便。而且搅拌浆及刮刀可随横梁上升而完全脱离釜体，便于清洗。

### 适用范围 Application

聚合物锂离子电池液及液态锂离子电池液、电子电极浆料、粘合剂、模具胶、硅酮密封胶、聚氨酯密封胶、厌氧胶、油墨、颜料、化妆品、药膏、电子、化工、食品、制药等。

SXJ planetary dispersion mixer is a new type of high-efficiency non-dead-point mixing equipment developed by our company. It has a unique and novel stirring form. There are two door type or twist type mixers in the kettle, a high-speed disperser and an adaptive scraper. When the agitator revolves around the axis of the kettle body, it rotates at high speeds around itself axis at different speeds, so that the material makes complex movements in the kettle body, subject to strong shearing and kneading. In addition, the self-adaptive wall knife in the equipment rotates around the axis of the kettle body, which can scrape the materials stuck on the wall to participate in mixing, improve the heat exchange efficiency, and improve the mixing effect. The kettle body adopts a special sealed structure, which can be evacuated and stirred, and has a good exhaust and defoaming effect. Tank jacket can be heated and cooled according to user needs. The discharging method is press type. The kettle lid of the equipment can be lifted hydraulically, and the kettle body can move freely, which is very convenient to operate. Moreover, the stirring slurry and scraper can be completely separated from the kettle body with the beam rising which is convenient for cleaning.

Polymer lithium-ion battery liquid and liquid lithium-ion battery liquid, electronic electrode slurry, adhesives, mold glue, silicone sealant, polyurethane sealant, anaerobic adhesive, ink, pigment, cosmetics, salve, electronics, chemical industry, Food, pharmaceutical, etc.

### 优势 Key Benefits

- 主机采用行星齿轮设计，低噪音，机械效率高，可节省动力使用及减少设备占用空间。
- 该设备适用于多组份固-固相、固-液相、液-液相物料的混合、反应、分散、溶解、调质等工艺，如油墨、颜料、粘胶剂、密封胶、封装胶软膏、糊状物料、润滑脂、油漆、膏状化妆品、添加剂等多种高粘稠物的制备。
- 设备使用粘度范围10,000-2,000,000MPas左右。
- 双行星混合机具有低转速大扭矩特点，高粘度和触变性物料可以得到充分彻底的混合分散而不产生过热现象。
- 搅拌器的形式可根据物料要求安装多层桨叶式、框式、蝴蝶式、外轮式等。
- 可选配防爆或防腐配置。

- The host adopts planetary gear design, low noise and high mechanical efficiency, which can save power usage and reduce equipment occupation space.
- This equipment is suitable for multi-component solid-solid phase, solid-liquid phase, liquid-liquid phase material mixing, reaction, dispersion, dissolution, and quenching and tempering processes, such as inks, pigments, adhesives, sealants, sealants preparation of ointments, paste materials, greases, paints, cream cosmetics, additives and other highly viscous materials.
- The viscosity range of the equipment is about 10,000-2,000,000MPas.
- The double planetary mixer has the characteristics of low speed and large torque. High viscosity and thixotropic materials can be fully and thoroughly mixed and dispersed without overheating.
- The type of agitator is installed with multi-layer paddle type, frame type, butterfly type, outer wheel type, etc. according to the requirements of the material.
- Optional explosion-proof or anti-corrosion configuration.

型号 Model	设计容积 Design volume(L)	最大工作容积 Max. useful volume (L)	最小工作容积 Min. Useful volume (L)	外形尺寸 Dimensions (L x W x H mm)
SXJ-10	10	8	1.5	990 x 910 x 2360
SXJ-50	57	40	5.5	1200 x 760 x 2100(2750)
SXJ-100	108	80	7.5	1550 x 800 x 2650(3350)
SXJ-200	200	160	11	1700 x 950 x 2760(3660)
SXJ-300	350	300	15	2000 x 1100 x 3160(4100)
SXJ-500	505	400	22	2150 x 1250 x 3380(4400)
SXJ-1000	1045	800	37	2450 x 1580 x 3860(5100)

# LR High Shear Homogenizer

## LR 高剪切均质器

LR系列高剪切均质机是我司依据乳状液稳定性理论研发而成。该设备通过高速旋转的高剪切定转子系统所提供的机械能，使一相混入到另一相之中，通过粗液滴的变形和破裂，使粗液滴迅速被破碎成120nm至5um的微液滴\*，最终完成均匀的乳化过程。

The LR series high-shear homogenizer was developed by our company based on the emulsion stability theory. This equipment uses the mechanical energy provided by the high-speed rotating high-shear stator and rotor system to mix one phase into the other. Through the deformation and rupture of the coarse droplets, the coarse droplets are quickly broken into micron 120nm to 2um. The liquid droplets finally complete a uniform emulsification process.



### 优势 Key Benefits

- 采用吊架的形式，可方便推至任意地点使用。
  - 操作灵活，投资小，效率高。
  - 全系列标配电动升降，减轻工作强度。
  - 可以单独使用，也可与其他设备配套使用。
  - 与物料接触部位采用优质304/316不锈钢材料。
  - 可更换不同类型定转子，满足不同的作料需求。
- The form of hanger can be easily pushed to any place for use.
  - Flexible operation, small investment and high efficiency.
  - All series are equipped with electric lift as standard to reduce work intensity.
  - Can be used alone or in conjunction with other equipment.
  - The contact part with the material is made of high-quality 304/316 stainless steel.
  - Different types of stators and rotors can be replaced to meet different material requirements.



型号 Model	推荐处理量 Capacity (L)	功率 Power (kw)	转速 Speed (rpm)
LR-05	5-10	0.75	10000
LR-50	≤50	1.5	3000
LR-150	≤150	3	3000
LR-300	≤300	4	3000
LR-500	≤500	7.5	3000
LR-1000	≤1000	11	3000

\* 依据物料的特性不同，粒径会有所变化。



LR-05 实验室型高剪切均质机  
LR-05 Lab high shear homogenizer

# Colloid Mill

## 胶体磨

胶体磨由3级可调间隙的锥形定子和4级高速旋转的锥形转子形成研磨模块，根据生产要求，剪切研磨间隙可从0.01mm至2mm无级调节，定转子每一级上的凹槽一级比上一级精细。当物料经过的时候，形成强有力的挤压、剪切、乳化、粉碎、混合、分散均质及研磨作用。从而得到超微粒乳化的物料。锥形定子外围、出料腔及密封件部位有循环水冷却。



The colloid mill is composed of a 3-stage tapered stator with adjustable clearance and a 4-stage tapered rotor with high speed rotation. The shear grinding clearance can be adjusted from 0.01mm to 2mm steplessly according to the producing request. The flute of the rotor is more and more delicate by steps.

When the material goes through, it forms strong pressing, cutting, emulsifying, crushing, mixing, dispersing and grinding. Then get the delicate ultramicrosome. There is circulating water to cool surrounding of cone stator, discharging cavity and seals.

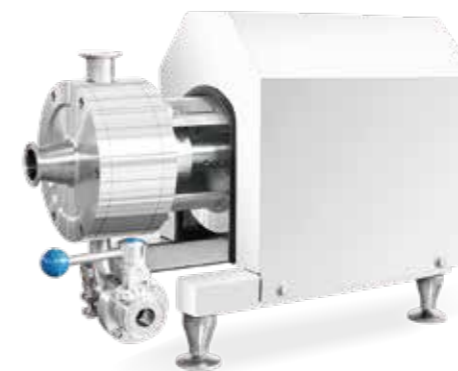


# Pipelined Emulsification Pump

## 管线式乳化泵

管线式乳化泵是用于连续生产或循环处理精细物料的高性能设备，在狭窄空间的腔体内装有多层定转子，转子在电机的驱动下高速旋转，产生强劲的轴向吸力将物料吸入腔体。物料通过转子、定子进行逐级分散、精细、乳化，在最短的时间内对物料进行分散、剪切、乳化处理。是一种集混合、分散、破碎、均质、乳化、输送为一体的高效均质器，适用于中、大批量在线连续生产或循环处理生产工艺。

The pipeline emulsification pump is a high-performance device for continuous production or cyclic processing of fine materials. A multi-layer stator and rotor are installed in the cavity of the narrow space. The rotor rotates at high speed under the drive of the motor to generate a strong axial suction to suck the material into cavity. The materials are dispersed, refined and emulsified by the rotor and stator step by step. The materials are dispersed, sheared and emulsified in the shortest time, and the particle size distribution range is significantly narrowed. It is a high-efficiency homogenizer that integrates mixing, dispersing, crushing, homogenizing, emulsifying, and conveying. It is suitable for medium and large batch online continuous production or cyclic processing production process.



粗齿型 Rough tooth type    中齿型 Middle tooth type    细齿型 Thin tooth type

# Feed Conveyance Technology

料体输送技术



卫生级转子泵  
Sanitary rotor pump

规格 Specifications:0.55KW-22KW  
材质 Material: SUS304,SUS316L  
转速 Rpm:200-900(rpm)



卫生级离心泵  
Sanitary centrifugal pump

规格 Specifications: 1T-500T, 0.55KW-75KW  
材质 Material:  
SUS304, SUS316L  
转速 RPM:2900r/min 45°  
出口带排放阀45°Outlet with drain valve



卫生级螺杆泵  
Sanitary screw pump

规格 Specification:  
0.5T-13T,0.37KW-5.5KW  
材质 Material:  
SUS304,SUS316L  
转速 RPM:960-1400(rpm)



定制设备

Customized Equipment

# Customized Emulsifying Machine

定制型乳化机

无菌型真空均质乳化系统  
Sterile vacuum homogenization emulsification system  
专利号 Patent No. ZL 2016 2 0741990.9



双联型真空乳化机  
Double vacuum emulsifying machine



全自动食品酱料配料与乳化系统  
Automatic Sauces Ingredients Blending and Emulsifying System



全自动真空乳化机  
Automatic vacuum emulsifying machine



# Customized Mixer

定制型搅拌机



无菌搅拌罐  
Sterile mixing vessel



移动储罐  
Removable storage tank



真空储罐  
Vacuum storage tank



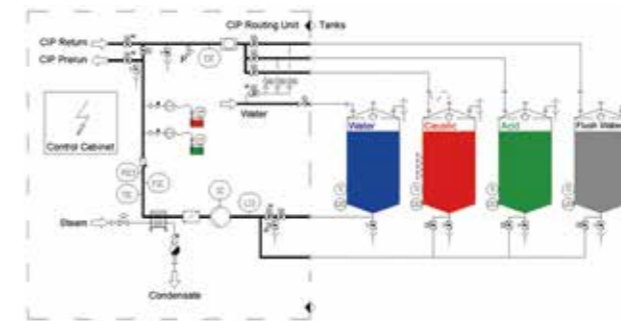
简易型可开盖真空乳化机  
Simple type open cover vacuum emulsifying machine



真空搅拌罐  
vacuum mixing vessel

# CIP Cleaning System

CIP清洗系统



工作原理图  
Working Principle

与传统的清洗方式相比，CIP清洗方式的优点主要有：

- 清洗效果可重复得到验证。
- 节约操作时间、提高效率。
- 节省劳动力，安全可靠。
- 节省制药用水。
- 模块化生产，可实现FAT。
- 环保节能，便于安装和操作。

Compared with traditional cleaning methods, the advantages of CIP cleaning methods are:

- The cleaning effect can be repeatedly verified.
- Save operation time and improve efficiency.
- Save labor and safety.
- Save pharmaceutical water.
- Modular production, and can realize FAT.
- Environmental protection and energy saving, easy to install and operate.



移动式cip清洗车  
Movable cip cleaning vehicle

# Some Projects

部分工程

制药中试生产线  
Pharmaceutical pilot production line



树脂生产线  
Resin production line



食品酱料生产线  
Food sauce production line



制水设备  
RO water making machine



高压反应生产线  
High pressure reaction line



液洗生产线  
Liquid washing production line



无菌配液系统  
Aseptic dosing system



制药凝胶生产线  
Pharmaceutical gel production line



膏霜生产线  
Cream production line



宠物食品生产线  
Pet food production line



## Manual Filling Series

手动灌装机系列



## 灌装设备 Filling Machine



GS-2 气动灌装机  
GS-2 Pneumatic Filling Machine

- 本机为膏液两用灌装机。主要用于水、油、乳液、膏体状物料的定量灌装。
- 全不锈钢机身，防腐耐磨，经久耐用，干净卫生。
- 灌装量分六个系列：A型：5-15ml、B型：10-75ml、C型：20-150ml、D型：50-300ml、E型：100-500ml、F型：200-1000ml。
- 进料方式：普通重力式/自动吸料式/加压机任选一种。
- 压缩空气：压力0.4-0.6Mpa耗气量：0.3m<sup>2</sup>/min
- 生产能力：10-80次/分
- 灌装精度误差：≤2%
- 工作台调节高度：100mm
- 料罐容积：20L、30L、40L、50L

- This machine is a dual-purpose filling machine. Mainly used for quantitative filling of water, oil, emulsion and paste-like materials.
- All stainless steel body, anti-corrosion and wear-resistant, durable and clean.
- Filling volume is divided into six series: Type A:5-15ml, Type B:10-75ml, Type C:20-150ml, Type D:50-300ml, Type E:100-500ml, Type F:200-1000ml.
- Feeding method: ordinary gravity type/automatic suction type/pressurized type.
- Compressed air: pressure 0.4-0.6Mpa Air consumption: 0.3m<sup>3</sup>/min
- Production capacity:10-80times/minute
- Filling accuracy error:≤2%
- Working height adjustment:100mm
- Tank volume:20L,30L,40L,50L

GS-3 气动灌装机  
GS-3 Pneumatic Filling Machine

- 灌装量分六个系列：A型：10-100ml、B型：30-300ml、C型：50-500ml、D型：100-1000ml、E型：250-2500ml、F型：500-5000ml。
- 其余参数与GS-2一致。
- The filling volume is divided into six series:Type A: 10-100ml、Type B: 30-300ml、Type C: 50-500ml、Type D: 100-1000ml、Type E: 250-2500ml、Type F: 500-5000ml.
- The remaining parameters are consistent with GS-2.



# GFJX-3A Metallic Tube Filling & Sealing Machine

## 金属软管灌装封尾机

GFJX-3A 型金属软管灌装封尾机，主要用于金属软管为包装容器的物料的定量灌装、封尾。广泛应用于医药、日化、食品、化工等行业中。如：软膏、胶黏剂、AB 胶、氯丁胶、环氧胶、皮肤膏、染发剂、鞋油、牙膏等液体或膏状物料的灌装与封尾。

This machine is mainly used to fill the material into metal tube with certain quantity and sealing the tube. It is widely used for the packing of chemical, cosmetic, food, and pharmaceuticals industries. For example: ointment, gooey, AB glue, super glue, epoxy adhesive, skin cream, hair dye, shoe polish, toothpaste and other liquids and paste materials.

### 工作流程 Working process

人工将金属软管插入分度盘管座内（16 个工位），利用机械传动自动转位。自动检测，确认有管并插放正确，灌装系统便开始自动计量灌装、然后进行三折或双向四折封尾、打印批号，成品退出。

Manually put the metal tube(max:16 tubes) into the tube-holding base and it will rotate with the help of automatic mechanical transmission, automatic detection to confirm if the tube base have tube and then automatic filling. The final step is execute the sealing with three-fold or four-fold. print item number, finished product exit.

### 优势 Key Benefits

灌装速度和计量精度方便可调，调整精度高，稳定性能好。更换底座可适用于各种规格的金属软管灌装封尾，封尾外形美观整齐，封合牢固。本机凡接触物料的部位，均采用优质不锈钢材料制造。该机可配各种不同规格的灌装头，满足不同黏度的灌装要求。

The filling volume and measurement accuracy is easy to adjust and convenient. The accuracy of adjustment is higher and stability is good. Replacement of the base makes it suitable for all kinds of metal tube filling and sealing and sealing figure is beautiful and trim. The sealing is tight. The materials of this machine are manufactured by high-quality stainless steel. The filling nozzles are in different specifications and are provided for materials in different viscosity.

### 主要技术参数

#### Main Technical Parameters

- 电源电压: 220V±10%50Hz
- 工作温度: 5~50°C
- 灌装量: 10-75ml/20-150ml
- 计量精度误差: <2%
- 电机功率: 1.1kw
- 生产能力: 30-50 支 / 分 (可调)
- 压缩空气: 压力 0.6-0.7Mpa
- 外形尺寸: 1000mm\*600mm\*1700mm
- Power: AC 220V±10% 50HZ
- Work Temp: 5~50°C
- Filling Quantity: 10-75ml 20-150ml
- Quantity Error: <2%
- Motor Power: 1.1kw
- Capacity: 30~50 tubes/min(adjustable)
- Compressed Air: pressure 0.6~0.7Mpa
- Dimension: 1000mm\*600mm\*1700mm



# FGF-50 Soft Tube Filling & Sealing Machine

## 软管灌装封尾机

控制部分采用最先进的智能型人机界面控制，大屏幕触摸屏显示 / 操作控制面板，包括温度设定，马达转速，生产速度等，直接在屏幕上显示，并可直接在屏幕上控制调整。与物料接触部分采用全不锈钢 SUS304、SUS316L 材质，机器附安全透明外罩，并附有安全开关，安全门打开，机器自动停止等功能。随机配有自动送管、上管装置，软管整理后自动插入定位模内，软管方向定位，采用光电及伺服电机控制，确保封尾准确，16-1-位自动回转，从软管供给、上管、灌装、封口至退出，全部自动化作业，同时有无管不填充设计。数字式高速灌装计量调整器装置在机器外前方，极为方便。灌装时灌嘴伸入料管底部，边灌装边退出，确保物料不会由于空气介入产生空段而溢出，影响精度。对于粘性特强易拉丝物料，另配有吹断剪切装置，确保封口不受影响。封位形式多样，客户可根据需要自行选配。

The control parts of the machine are composed of intelligent Man-computer interface, large touch screen display/operation control panel, including temperature setting, motor speed, filling speed, direct screen display and control. The components of the machine which touched the filling material are made of stainless steel SUS304 and SUS316L. Transparent cover is supplied with the machine. The machine is featured with safety switch and auto-stop function. It is equipped with automatic pipe feeding and loading device, and the hose is automatically inserted into the positioning after sorted, soft tube locate, photoelectric sealing control etc. 16-1-position automatic rotation. During the process of hose-feeding and setting, filling and sealing, the ejecting are all automatically controlled and no tube no tube no filling design. Digital count device is installed at the low front part of the machine. During filling process the filling head is put inside the material, blow-off device is installed to ensure a complete sealing. Many choices of sealing type are available to meet different need of clients.



### 优势 Key Benefits

- 全彩工业触摸屏，控制操作方便，机器工况一目了然。
- 可倾式管箱，装管方便，平稳可靠，更换产品时只需调整一个零件，避免产品更换麻烦。
- 机械式喂管，压管入杯，平稳可靠，更换产品时只需调整一个零件，避免产品更换麻烦。
- 随动式正压净管，负压吸尘，净管时间更长，管更清洁。
- 机械联动视觉检标，精准等级 0.2 毫米。
- 伺服调控，可在触摸屏上方便调整。
- 插入式随动注料，注料从管底部开始，排除管内空气，减小产品氧化，提高产品质量。
- 管内有三层瞬间加热器，无损管外壁纹胶膜，封尾美观。
- 快换式钳口可封直尾，圆尾，异形封尾；插入式文号更换方便。
- 快捷，可单双面打印文号。
- 光滑的机器表面，无清洁死角，物料与高质不锈钢 316L 全接触，严格符合 GMP 标准。
- Color touch screen is convenient to control and all the operation condition is clear at a glance.
- Tilted feeding box provide a convenient facility for tube filling. There is to adjust an accessory only when the product is changed for another size.
- Mechanical tube feeding, tube is pressed into the holes of working dishes. Which is stable and reliable. There is to adjust an accessory only when the product is changed for another size.
- Simultaneous positive pressure clean and negative pressure dust absorption system with longer cleaning time obtain an even through cleaning result.
- The precision rate of mechanical linking view correction system is within 0.2mm.
- Unique serve control, the filling can be adjusted freely by the touch screen.
- Plug-in type trailing feeding start from the bottom of the tube to prevent air form mixing with cream and reduce the possibility of product oxidation. Thus the quality of product can be ensured.
- It can rapid heating by three-layer jacket and film outside the tube.
- Quick-replace type multi-function nip may perform vertical, circular and abnormal end sealing. The number of batch can printing both single and double side and convenient to change.
- Fast key, single and double-sided printing of document number.
- The smooth surface of machine has no dead angle and easy for cleaning. The materials completely contact with stainless steel and comply with GMP standard.

# GS-6 Automatic Filling & Screw-cap Sealing Line

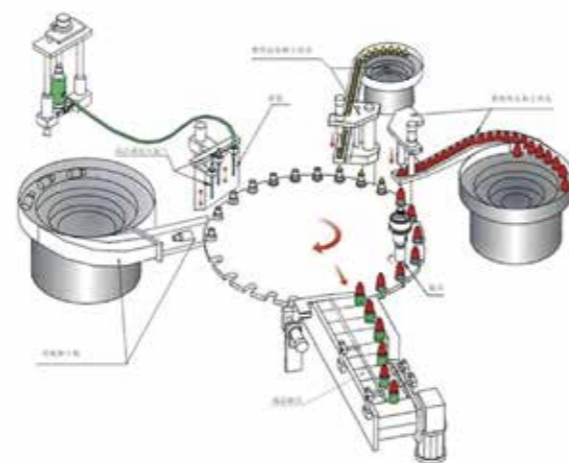
自动灌装旋转流水线



本机由理瓶送瓶机、多头灌装机、理盖上盖(塞)机、旋(封)盖机、输送机、自动控制系统组成。是具有自动理瓶、送瓶,自动定位,定量灌装,自动理盖、上盖(塞),旋(封)盖的高效率多功能灌装机。适用于医药、食品、日化、农药及精细化工等行业,是世界各地生产线上广泛使用的理想设备。

This machine is composed of bottle handling machine, multi head filling machine, capping machine, conveyor and automatic control system.

This machine have the function of automatic bottle handling, positioning, filling, capping and sealing with high efficiency, which is suitable for pharmaceutical, food, daily chemical, pesticide and fine chemical industries and other fields and is widely used in production lines all over the world.



## 结构及特点 Features

自动灌装机由星型盘进瓶定位,采用柱塞泵定量灌装,输送走线,进瓶,出瓶均有相应的传感器自动检测控制,当无瓶或瓶定位不准确时自动停灌并报警,以保证灌装机及成品的清洁和完好。

自动理盖上盖(塞)、旋(封)盖机为星型盘或输送机送瓶,由上盖机构自动上盖或由机械手取盖后送至封盖头,垂直于瓶口完成上盖、封盖。适用于旋盖、压盖等封盖形式。旋盖装置扭力可调整,以适应不同的瓶盖的松紧避免在旋封盖时对瓶盖的损伤。

操作简单易控。采用可编程控制(PLC)和人机界面(触摸屏)操作,可直接在触摸屏上设定灌装量、产量和速度。

检测智能可靠。采用智能检测系统和高品质的检测元件,能检测有瓶无瓶、输送堵塞和有盖(塞)倒瓶、定位不准确及其它错误的发生。保证无论在哪个环节出现错误均能可靠的停机和报警。

可按需选择组合。能单机使用也能与其它现有有机台做连机组合使用,如用户根据需要配置贴标机、喷码机,包装机等。

It uses the sensor for checking position automatically, which can realize no tube no filling and automatically stop filling, giving alarm to keep clean and efficient.

Automatic capping machine is suitable for forms like screwing and gland caps. The torque of the capping device can be adjusted to adapt to the tightness of different caps to avoid damage to the caps.

PLC and touch screen control system, operation and debugging is simple and convenient. The quantity, speed and output can be set on the touch screen directly.

The detection is intelligent and reliable, which adopts intelligent detect system and high quality detecting element so that it can find out all kinds of the errors and stop the working procession or give a alarm in a short time. Such as whether the bottle is at the position, whether conveying is normal etc.

This machine can be matched with the labeling, printing and packing machine and so on.

