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The company reserves the right to continuous improvement of product technology and design, product information data if there is a change without notice.

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## 食品机械一站式供应商

ONE-STOP SUPPLIER FOR FOOD MACHINERY



山东沃格尔机械有限公司  
SHANDONG WOGOAL MACHINERY CO., LTD



# Company Profile

## 公司简介



沃格尔机械有限公司的业务范围涵盖食品、乳品饮料杀菌设备，及“交钥匙”类大中型项目工程，以及提供工业自动化控制系统编程设计服务。覆盖食品、化工、制药等领域。主导产品包括食品杀菌设备（杀菌釜、杀菌锅、UHT杀菌机），不锈钢罐类（沉淀罐，提取罐，搅拌罐，乳化罐，发酵罐）、夹层锅、各种炒锅等。公司是一个集科研、开发、制造、生产、专业售后为一体的企业。

凭借多年丰富的经验和专业技术，不断满足市场需求的变化。

从单机到完整的加工线，我们努力提高食品的价值并捕捉食品的质量、营养和味道。

高品质是我们的目标，我们的产品配备了一流公司（SIEMENS、MITSUBISHI、SMC）制造的组件和人性化的人机界面。这一切都有助于我们的用户以最简单的操作获得最佳的杀菌效果。“快速反应”是我们最重要的服务理念，24小时服务热线为您提供最好的服务。

注重科学，引进先进的杀菌技术。新产品开发中心工程师10余人，根据不同用户研制新产品。我们的以F值控制灭菌的新发明获得专利。我们愿以精湛先进的科技改变我们的生活。

Wogoal Machinery Co., Ltd. The business scope covers food, dairy beverage sterilization on equipment, and "turn-key" type projects of large & medium ones, as well as the provision of industrial automation control system programming and design services. Covers food, chemical, pharmacy and other fields. The leading products include food sterilization equipment (sterilizers, retort autoclave, UHT sterilizers), stainless steel tanks (sediment, extraction mixing,) jacket cooker with various types such as palm, tuna precooking.

With many years of experience and expertise, we are constantly meeting changes in market demand.

From single machines to complete processing lines, we enhance value and capture quality, nutrition and taste in food products.

High quality is our goal, our product are equipped with components made by the top-class companies(SIEMENS、MITSUBISHI、SMC) and humanized human-machine interface. All of this helps our users get the best sterilization effects with the simplest operations. "Instant service" is our crucial service ideas, 24-Hours Service Hotline offers our best services.

Focusing on science, and introduce advanced sterilization technology. More than 10 engineers New Product Development Center researches the new products according to the various users. Our new invention which controls sterilization with F value was patented.

We would like to change our lives with our exquisite and advanced technology.



# Company honor

## 公司荣誉





# 喷淋式杀菌锅

## HOT WATER SPRAY RETORT STERILIZER

### 适用范围

#### SCOPE OF APPLICATION

- 马口铁罐、充氮气铝罐、玻璃瓶等。
- (间接加热) 适用于玻璃瓶的杀菌。
- 塑胶容器: PP 瓶、HDPE 瓶。
- 软袋包装: 铝箔袋、高温透明袋、高温真空袋等。
- Tinplate cans, nitrogen filled aluminum cans, glass bottles, etc.
- (indirect heating and cooling) suitable for sterilization of glass bottles.
- Plastic containers: PP bottles, HDPE bottles.
- Flexible packaging: aluminum foil bag, high temperature transparent bag, high temperature vacuum bag, etc.

### 精确的 F 值测量功能 (可选):

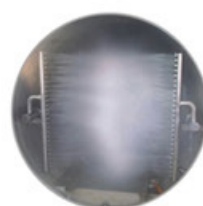
杀菌锅可配置测量 F 值的功能。所有灭菌数据, 包括灭菌条件、F 值、时间温度曲线、时间压力曲线等均可通过数据处理软件处理后予以保存或打印, 以便于生产管理。

**Precise F value measurement function (optional):**  
The retort sterilizer can be configured to measure F value. All sterilization data, including sterilization conditions, F values, time temperature curves and time pressure curves can be stored or printed after processing software to facilitate production management.

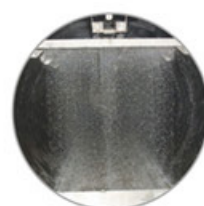


### \* 多种喷淋及换热方式可选, 满足不同产品要求

\* a variety of optional spray and heat transfer way, meet different product requirements



侧喷式  
Side spray



顶淋式  
Water cascading



顶淋加侧喷式  
C type top&side spray

### \* 开门方式可选

\* Optional door open



上开门  
Top open



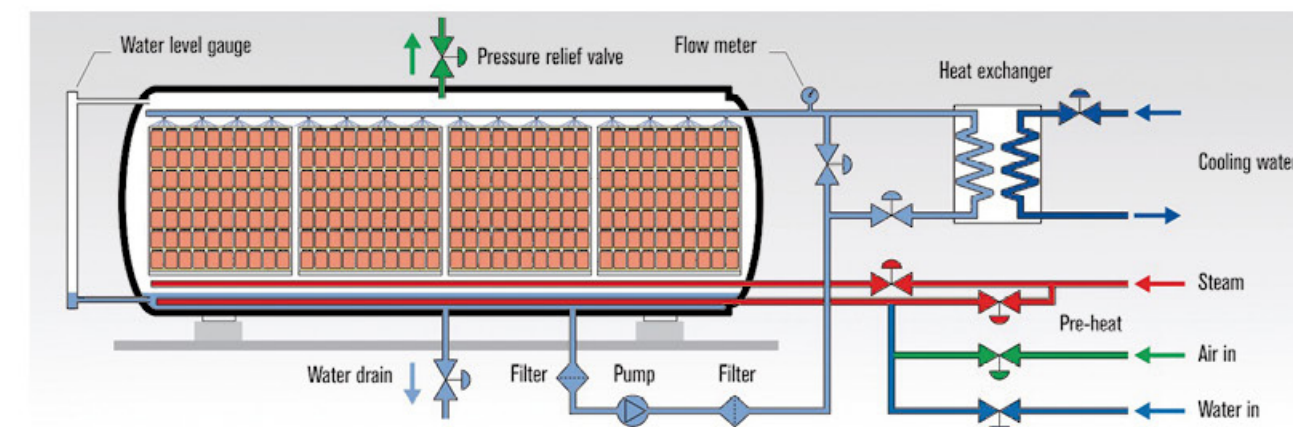
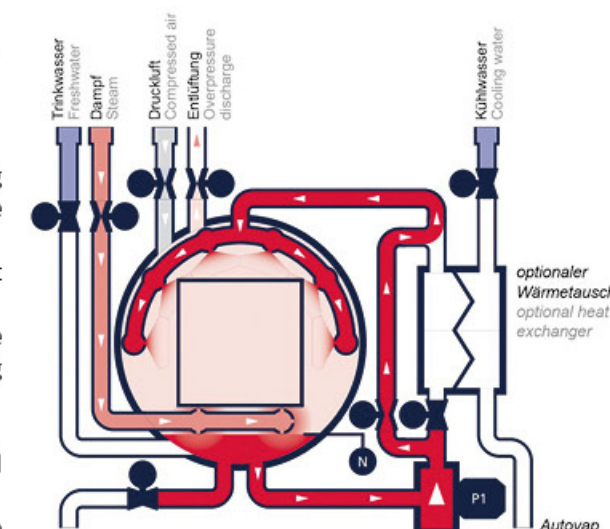
侧开门  
Side open

### 设备特点

#### EQUIPMENT CHARACTERISTICS

- 升温快, 缩短了整个杀菌时间。
- 间接加热, 蒸汽、冷却水不与产品直接接触, 避免了食品的二次污染。
- 少量的工艺用水 (热水), 快速循环, 快速达到杀菌温度。
- 杀菌水在循环泵的作用下, 经过多根喷淋管和喷淋隔板, 从上而下完全、均匀的覆盖需杀菌的产品, 形成完美的热量分布。
- 低噪音, 创造舒适的工作环境。
- 锅内根据用户要求, 可配置移动温度探头, 可随时监控食品中心的 F 值、热分布情况, 随时了解热穿透。
- 压力控制: 整个杀菌过程中, 压力随着温度的升高而增加, 反之而减小 (即压力跟踪温度), 特别适用于含气包装的产品。
- 杀菌采用软化水预热系统, 可确保热填充产品得到持续升温过程, 也避免了因水质问题造成外包装污染、结垢。
- 充氮气铝罐使用的软化水不可重复使用, 防止 PH 值的变化。
- (直升直冷)、(间接加热) 两种可选。

- Heat up quickly, shorten the sterilization time.
- Indirect heating and cooling through PHE, steam and cooling water is not direct contact with the product, to avoid the secondary pollution of the food.
- A small amount of process water (hot water), rapid cycling, fast achieve sterilization temperature.
- The location of spray nozzles and pipe are well organized to make the full cover of the production to ensure the uniformity of heating and cooling.
- Low noise, create a comfortable working environment.
- The retort can be configured temperature probe to monitor food center F value, heat distribution, heat penetration at any time.
- Pressure control: in the sterilization process, along with the temperature rises, the pressure increases, whereas decreased (pressure tracking temperature), especially suitable for gas packaging products.
- preheating system are available for the hot filled products; the water can heated to the temperature higher than filling temperature before circulating starts to prevent the product cooling down before sterilization.
- Sterilization water to process Nitrogen filled aluminum cans cannot be recycled, to prevent the changes of PH value.
- Indirect & direct heating cooling are optional.





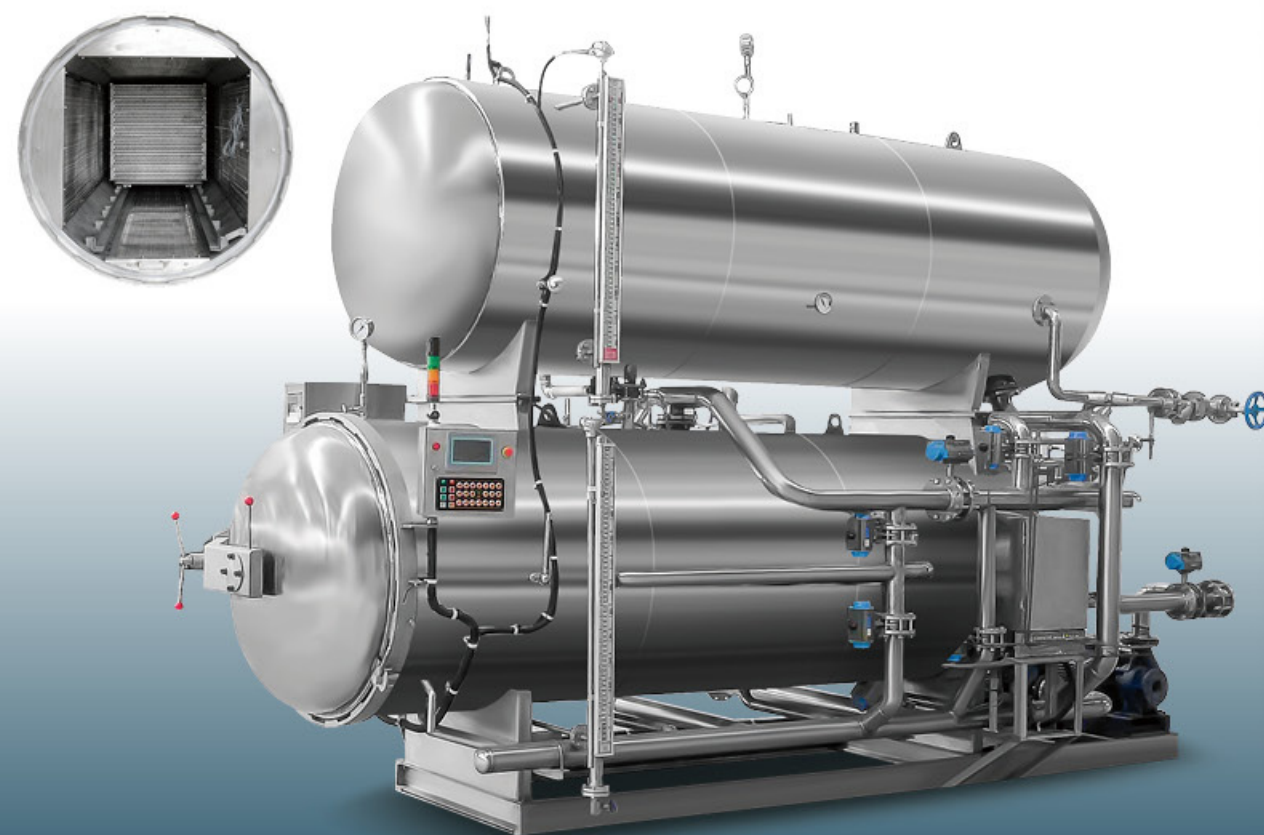
# 双层水浸式杀菌锅

## DOUBLE-TANK WATER IMMERSION RETORT STERILIZER

### 适用范围

#### SCOPE OF APPLICATION

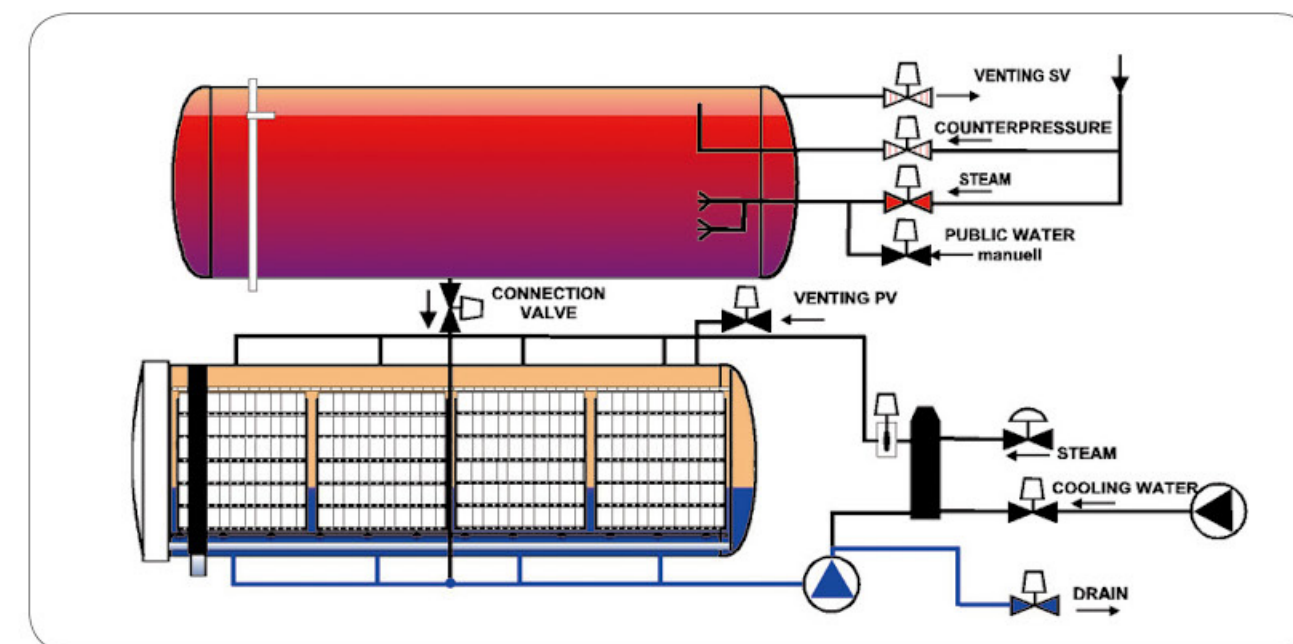
- 塑胶容器：PP 瓶、HDPE 瓶。
- 软袋包装：铝箔袋、高温透明袋、高温真空袋等。
- Plastic containers: PP bottles, HDPE bottles.
- Soft bag packaging: aluminum foil bag, high temperature transparent bag, high temperature vacuum bag, etc.



### 设备特点

#### EQUIPMENT CHARACTERISTICS

- 杀菌水经过预热，杀菌温度起点高，缩短了杀菌时间，保护了产品品质。
- 杀菌结束后的热水回收至热水罐，节约蒸汽、能耗和杀菌时间。
- 针对软包装产品，特别是大块头包装，热穿透速度快，杀菌效果好。
- PLC 程序控制，杀菌实现标准化。
- 可配备 FO 值控制系统，使杀菌更科学。
- 热分布均一，产品品质轻松控制。
- The sterilizing water is preheated in the top tank, sterilization starts with high temp, which shortens the sterilization time and protects the product quality.
- After the sterilization, the hot water is recycled to the hot water tank, saving steam, energy consumption and sterilization time.
- For flexible packaging products, especially big size packaging, the heat penetration speed is fast and the sterilization effect is good.
- PLC program control, sterilization realizes standardization.
- It can be equipped with FO value control system to make sterilization more scientific.
- Uniform heat distribution, easy control of product quality.



### 技术参数

#### TECHNICAL PARAMETERS

型号 Model	WGSC-09	WGSC-10				WGSC-12			WGSC-13	
筒长 Chamber length(mm)	1800	2200	2400	2700	2700	3600	4000	3600	4500	
容积 Volume(m³/ 单锅)	1.35	2.06	2.16	2.40	3.70	4.60	5.00	5.20	6.50	
锅体厚度 Body thickness(mm)	4	4	4	4	5	5	5	5	5	
装机功率 Installed power(Kw)	7	8.5	8.5	8.5	11	11	11	11	15	
设计压力 Design pressure(Mpa)	0.35	0.35	0.35	0.35	0.35	0.35	0.35	0.35	0.35	
设计温度 Design temperature(°C)	147	147	147	147	147	147	147	147	147	



## 实验锅 PILOT RETORT STERILIZER

用于小批量产品试制，以及包装物的品质验证，提供灵活多功能组合，减少生产损失，提高产品开发速度。

Can be used for all kinds of packages, applicable to R&D new products as well as verification of the new packages, multiple function combinations can be available, small batch loading, minimize the R&D cost and speed up the R&D.



## 蒸鱼锅 TUNA PRE-COOKER AND OTHER COOKERS



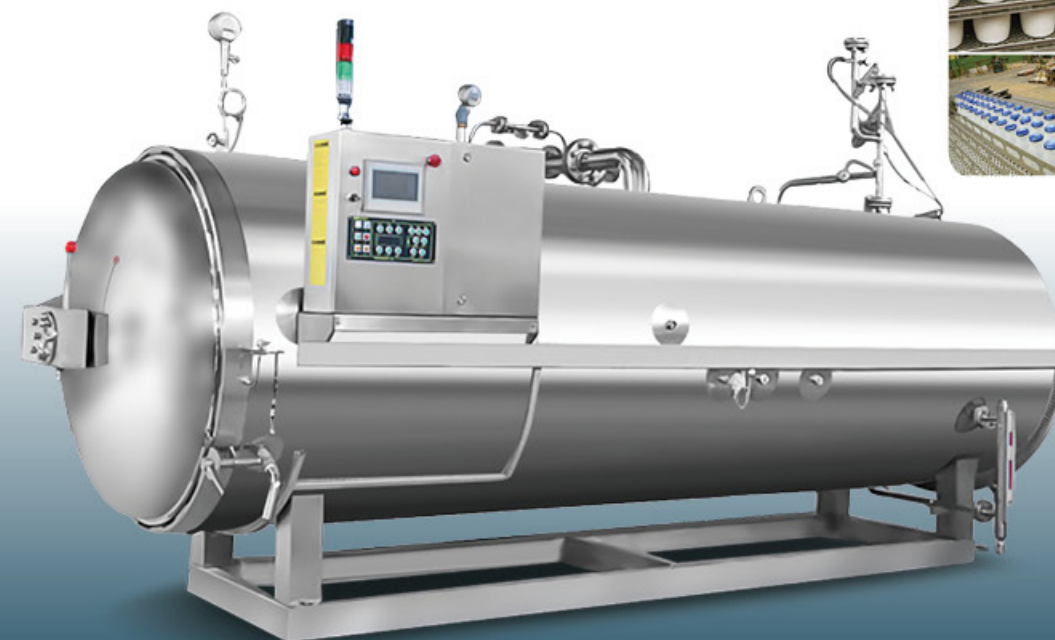
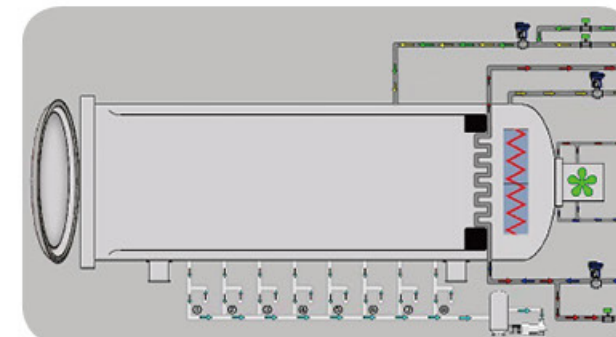
- 为了最大限度地减少过程中的损失，在蒸煮过程中减少氧化、干燥和水分控制，这将大大节省经济成本。
- 通过简单的操作，可调整真空参数、温度和湿度的有效组合。
- 去除了锅中存在的氧气，显著减少了鱼的氧化。
- 在以适当方式安装并分布在整个腔室中的喷雾器，可以有效地自动控制腔室中的湿度。
- 通过创建配方和几乎无限的存储可能性轻松管理预先建立的热过程。

- Minimize the lost and oxidation in the precooking will allow the significant economic saving.
- The simple operation can adjust the parameter of vacuum temp and humidity combination.
- The cooker removes the oxygen existing in the chamber, significantly reducing the oxidation of the fish
- During cooking, the humidity in the chamber can be efficiently controlled automatically through the sprayers installed and distributed in an appropriate way throughout the chamber.
- Easy management of pre-established thermal processes through the creation of recipes and almost unlimited storage possibilities.

## 循环蒸汽式杀菌釜 STEAM-AIR RETORT STERILIZER

### 适用范围 SCOPE OF APPLICATION

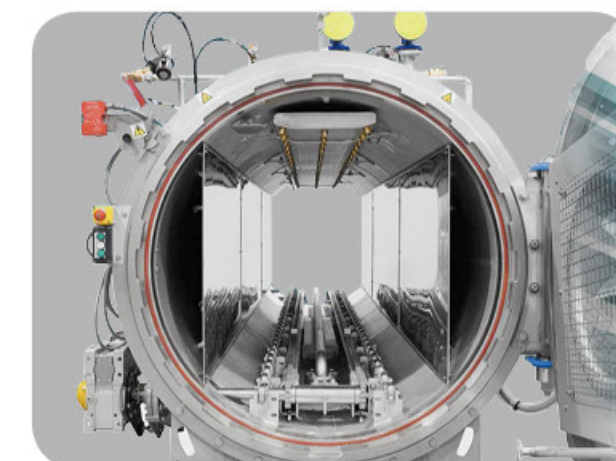
- 适用于玻璃容器：玻璃罐；
- 金属容器：马口铁罐；
- 铝罐塑胶容器：PP瓶、HDPE瓶；
- 软袋包装：铝箔袋、透明袋、真空袋、高温蒸煮袋等。
- Suitable for glass containers: glass jars;
- Metal container: tinplate can;
- Aluminum cans and plastic containers: PP bottles, HDPE bottles;
- Soft bag packaging: aluminum foil bag, transparent bag, vacuum bag, high temperature cooking bag, etc.



### 设备特点 EQUIPMENT CHARACTERISTICS

循环蒸汽式杀菌釜：采用线性控制系统将蒸汽进入釜内，并利用釜内的风扇循环釜内蒸汽，让蒸汽随风道循环，打破釜内冷空气，以达到釜内无冷空气团，让热分布更均匀，使产品达到商业无菌！减少蒸汽损耗，节约能源。

Steam direct inject into retort chamber : by PID control system to control the quality of steam injection , use the high speed fan to agitate the steam in the chamber to break the cold air point through the air flow guide plate to achieve no cold point chamber, make the heat distribution more uniform, and make the product commercially sterile! Reduce steam loss and save energy.





# 动态杀菌锅

## DYNAMIC RETORT STERILIZERS

### 适用范围

#### SCOPE OF APPLICATION

- 适金属容器：马口铁罐。
- 塑胶容器：塑胶碗式。
- 流体和粘稠质物料。
- Metal containers: tin cans.
- Plastic container: plastic bowl.
- Viscous and liquid product.



旋转式 Rotary Type



摆动式 Swing Type

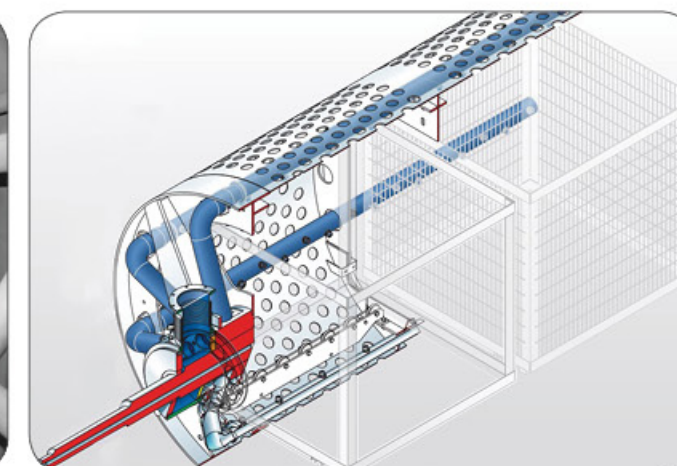
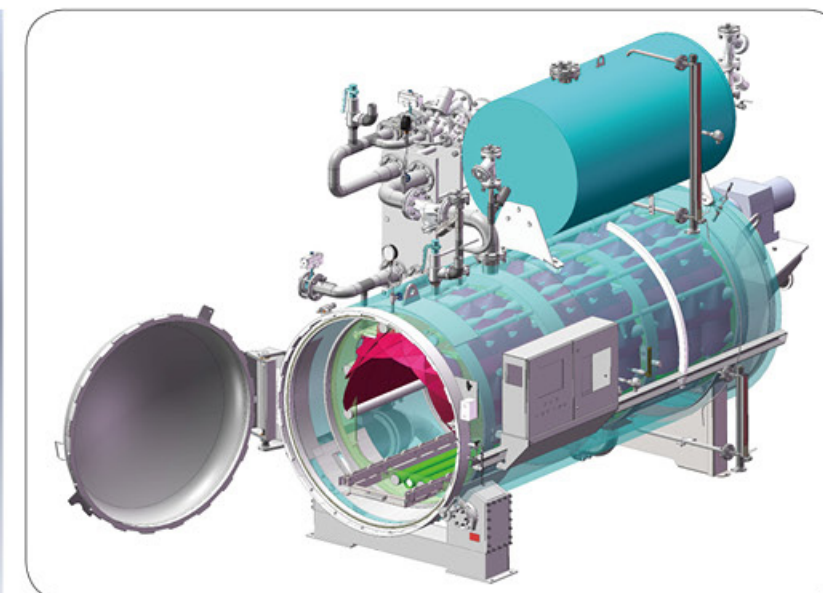
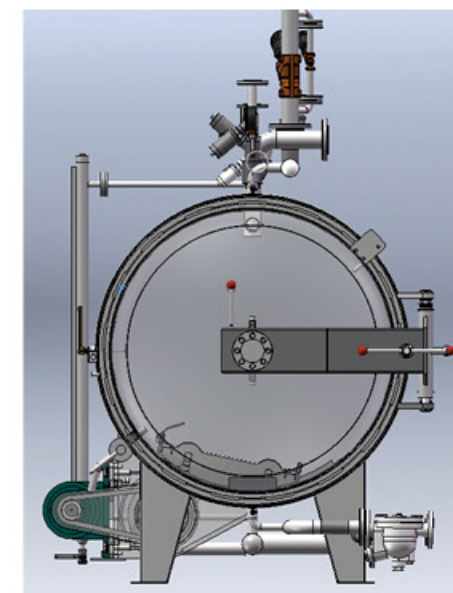


晃动式 Shaking Type

### 设备特点

#### EQUIPMENT CHARACTERISTICS

- 特别适用于包装物中固体比重比液体比重大，及各种浓度不同的粘性灌装食品，使其在杀菌过程中进行旋转，达到在保质期内不分层、不沉淀的目的（例如：八宝粥、马口铁罐头、塑料罐、易产生沉淀的软包装等产品）。
- 蒸汽直接进入，杀菌速度快，节约蒸汽和杀菌时间。
- 针对不同包装，采用不同的动态方式，包括前面晃动，左右摆动以及 360 度旋转。
- It is especially suitable for the solid proportion in the package which is larger than the liquid proportion, and the viscous filling food with different concentrations, so that it can be rotated during the sterilization process to achieve the purpose of no stratification and no precipitation during the shelf life (for example: eight-treasure porridge, Tinplate cans, plastic cans, flexible packaging that are prone to precipitation).
- The steam enters directly, the sterilization speed is fast, and the steam and sterilization time are saved.
- Shaking, Swing and Rotation can be available for different packages.





# 软包装清洗风干（烘干）流水线

## FLEXIBLE PACKAGING CLEANING AND AIR DRYING (DRYING) LINE



### 破袋挑选机 Broken bags sorting machine

产品导入槽体内使其气泡鼓浪，将破袋的产品表面漂浮，从而取出。

In the water tank, the air bubbles to float the broken bags for pick up.

### 去污清洗机 Cleaning machine

与破袋机配合使用，将产品表面的油污进行滚筒清洗。

Working with broken bags sorting machine, cleaning the package in the drum.

### 冲浪清洗机 The surf cleaner

采用气浪鼓泡清洗，清洗完成后进行的后端清洗，提升处配有高压喷淋，使产品表面更洁净。

The air-wave bubbling cleaning is used, the rear-end cleaning is carried out after the cleaning is completed, and the lifting place is equipped with a high-pressure spray to make the surface of the product more clean.

### 振动沥水机 Vibrating mesh dryer

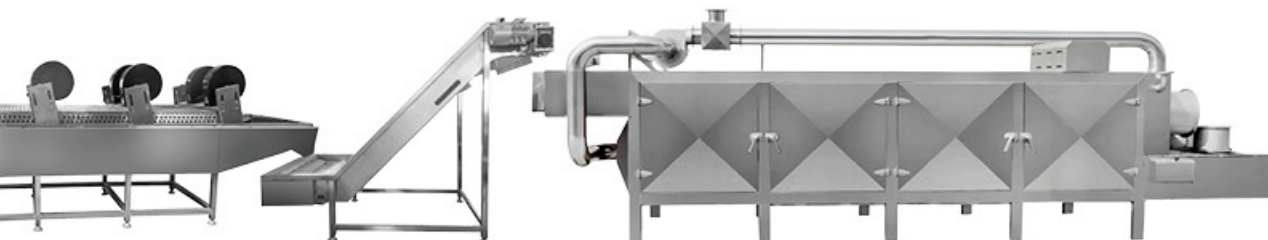
提升机将产品输送在平格网，上下起落以此起到振动沥水的作用，通过振动将产品分摊，便于接下来的风干与烘干。

The lifting conveyor delivers the product to the mesh and make the vibration on the mesh by high frequency motor to remove the water drip on the surface.

## 适用范围

### SCOPE OF APPLICATION

- 适用于食品行业中袋装食品包装完成或高温杀菌后表面油渍进行去污清洗，使袋装产品表面洁净光亮。
- It is suitable for decontamination and cleaning of the surface oil stains after the packaging of bagged food in the food industry or after high and low temperature sterilization, so that the surface of the bagged product is clean and bright.



### 风干机 Air dryer

风干机将袋装食品、肉制品、农副产品、水产品、中草药、饲料及化工原料等表面水分风干。

The air dryer can dry the surface of bagged food, meat products, agricultural and sideline products, aquatic products, Chinese herbal medicines, feed and chemical raw materials with high speed air flow.

### 提升机 Lift conveyer

提升机将产品输送至烘干机，便于接下来的烘干。

Delivers the product to the dryer for drying.

### 三层烘干机 Three layers dryer

产品均匀分摊后采用蒸汽加热进行烘干，烘干后的产品可直接装箱。

Dry the products in the tunnel with steam, the items can be packed directly after drying.

## 设备特点

### EQUIPMENT CHARACTERISTICS

- 整机采用优质不锈钢材料制作，安全卫生。
- 冲浪式清洗机采用自然循环水预冷，加冲浪设计，保证产品前处理清洁。
- 多级振动减震装置，缓冲振动，处理均匀。
- 采用大风量风机，有效去除物料表面水滴，保护物料本色的色泽和产品品质。
- 多层烘干机使产品快速干燥，进入下个工序，提高工作效率。
- 本流水线将洗涤段和清洗段进行分体式设计同步运行。
- 设备自动化程序高，操作维护简单方便。
- The machine is made of high quality stainless steel, it is safe and sanitary.
- Surfing washing machine using natural circulation water to pre-cooling, add surfing design to ensure that the product is clean before processing.
- Multi-stage anti-vibration design of entire line to ensure the working condition.
- Using large volume turbine to remove the water drips on the surface, protect the color and the quality of the product.
- Multi-layer drying machine to make the product dry fast, improve work efficiency.
- The washing and cleaning section are separated design but synchronous operation.
- Automatic operated machine, maintenance is simple and convenient.



# 全自动电磁 / 燃气加热多头搅拌炒锅

## FULLY AUTOMATIC ELECTROMAGNETIC/GAS HEATING MULTI-HEAD STIRRING WOK

### 适用范围

#### SCOPE OF APPLICATION

■ 适合各种蔬菜、鱼肉、调味品、药材等物料的熬煮炒制，广泛用于餐饮、食品加工、医药制造、卤制品、调味品加工、休闲食品、烘焙等行业，还可用于番茄酱、牛肉酱、火锅底料等高粘度产品的炒制，是食品加工提高质量、缩短时间，改善劳动条件的良好设备。

■ Suitable for cooking and frying of various vegetables, fish, condiments, medicinal materials, etc. It is widely used in catering, food processing, pharmaceutical manufacturing, halogen products, condiment processing, snack food, baking and other industries, and it can also be used in frying of high-viscosity products such as tomato sauce, beef sauce, and hot pot material to improve quality, shorten time, and improve working conditions.

### 设备特点

#### EQUIPMENT CHARACTERISTICS

■ 本设备带有六只搅拌头，搅拌片采用高强度的聚四氟乙烯制成，耐磨耐高温、无毒，锅体可倾斜，无需人工炒制，液压控制高位出料，非常方便。

■ 采用燃气、电磁等加热方式，具有受热面积大、升温速度快，热效率高、加热均匀等特点。采用背面集中排废气，作业安全舒适。

■ 内外锅体及表面接触部分均采用优质不锈钢制造，易于清洗，刮板与锅体的贴合度高，刮底更彻底，不易产生糊锅现象。可调整搅拌速度，并且自转与公转同步按比率运行，能增强独特的炒制效果。全自动液压倾翻锅体，实现搅拌器与锅体分离后进行液压倾斜倒料，倒料无死角，易于清洗，节省人力，降低劳动强度。

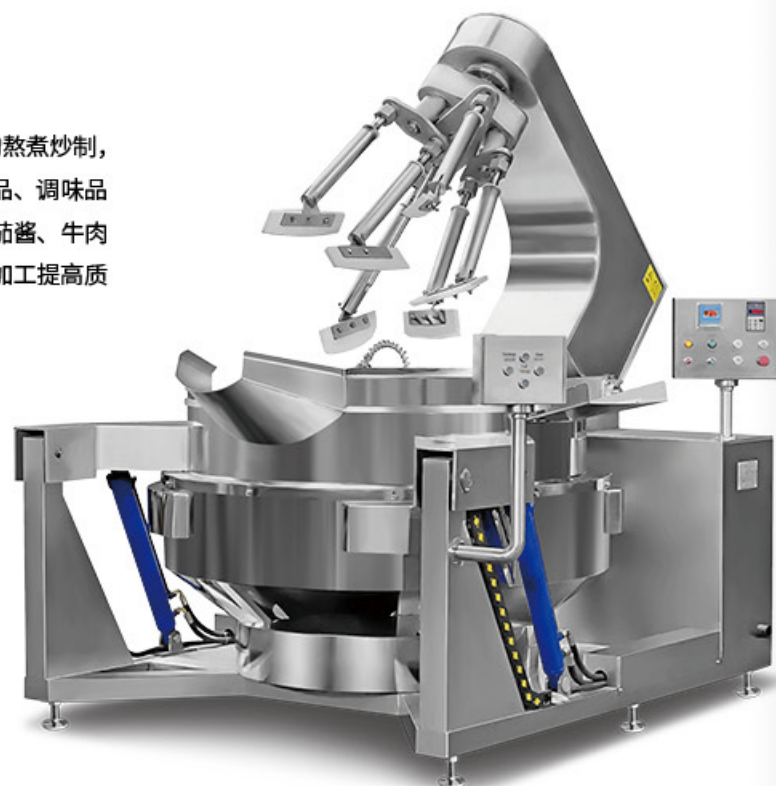
■ 采用变频调速动力，转速可以从零到最高速任意调节，运行更平稳。电机、机械部件有效联动，机器不会因为人为操作的失误出现损坏，安全系数高，采用环节互锁设计，每个动作顺序进行，保护了出厂的机器始终处于有序工作状态，使用户放心、厂家安心。

■ Equipped with 6 pcs durable made mixing devices, no pollution, cooker can be tiltable.

■ Mutual heating recourse can be available, can be heated by Steam gas or electromagnetic

■ The cooker are entirely made by high quality stainless steel

■ The mixing speed are frequency adjustable the speed can be adjusted stepless, the running are more stable, The machine are interlocked design to ensure the safety.



# 实罐清洗机

## TIN CAN CLEANING MACHINE



### 设备简介

#### EQUIPMENT INTRODUCTION

■ 实罐清洗机又称罐头清洗机（隧道式清洗机）应用于各种水果罐头，肉类罐头，瓶装酱类及各种饮料的外表面清洗吹干（罐头或饮料封口后粘附在罐外的糖水及粘附物），适用马口铁罐，玻璃瓶，塑料瓶。

■ The cans cleaning machine is also called tunnel cleaning machine, which is used to clean and blow dry the surface of various cans suitable for tinplate cans, glass bottles, plastic bottles.



### 设备特点

#### EQUIPMENT CHARACTERISTICS

■ 整机采用 SUS304 不锈钢制造，减少污染，确保产品卫生。

■ 自动化程度高，自动控制温度，实罐洗洁度好。

■ 采用亚克力机罩，整个清洗过程可视。

■ 两次清洗设计，水可循环使用。

■ 整机易清洗设计结构，水箱大口径排污孔。

■ The whole machine is made of SUS304 stainless steel to reduce pollution and ensure product hygiene.

■ High automation, automatic temperature control, good appearance.

■ With acrylic hood, the whole cleaning process is visible.

■ Two step cleaning design, water can be recycled.

■ The whole machine is easy to clean and has a large-diameter drain hole.

### 技术参数

#### TECHNICAL PARAMETERS

生产能力 Production capacity	50-300 罐 /min, 无级调速
输罐线速度 Line speed	6-30m/min
适用范围 Application	罐直径 Can Dia 40-180mm 高度 H 40-200mm
外形尺寸 Dimensions	4600×800×1400mm
电动机 Electric motor	0.75kw, 10-50r/min
卫生泵 Sanitary pump	0.75kw*2 12.5T/h
风机 Fan	7.5kw