

Efficiency Counts

Vaero

常州威欧工业设备有限公司

Vaero Co., Ltd.

Vaero China

办公地址：
NO. 1410, Block2, Fuchen Plaza, No. 177 Tongjiang Road
Xinbei District, 213022, Changzhou, PRC
中国常州新北区通江中路177号府琛商务广场2号楼1410号
Tel: 0086-519-81581365, 81581360, 81581363
Fax.: 0086-519-81581365
E-MAIL: sales@vaero.com.cn

工厂地址：
NO. 1 Luheng Road, Changzhou Economic Development
Zone, 213119, Changzhou, PRC
中国常州经济开发区潞横路1号

Vaero South America

(103)26 de Julio 5450/54, B1653IIP Villa Ballester,
San Martin-Buenos Aires, Argentina
Tel: +54-9-11-5900 2758
Fax.: +54 11 4768 7677

Vaero USA

1029 Peachtree Pkwy N Peachtree city,
GA 30269-4210, USA
Tel : +001-404 242 0305
Fax : +001-678 826 0773

Vaero France

23 ZAC del' Europe
F-59310 ORCHIES, France
Tel : 00.33.9.81.68.94.43
Fax : 00.33.3.20.52.94.43
E-MAIL: contact@accseurope.com



www.vaero.com.cn

关于威欧 About Vaero

专业
Professionalism



高效
Efficiency

■ **Vaero** is specialized in the equipments for both fruit and vegetable processing and beverages , and has been serving these industries since 2006. Our machines include conveyors, infeed hoppers,washers, sorting tables, automatic sorting machines, destoners, crushers, extractors, belt presses, preheaters, evaporators, UHT sterilizers, aseptic filling machines, mixing and homogenizing systems, CIP systems, pasteurizing systems, and etc. In one word, we offer different whole plant solutions to different production requirements to ensure that the products will meet your market's expectations.

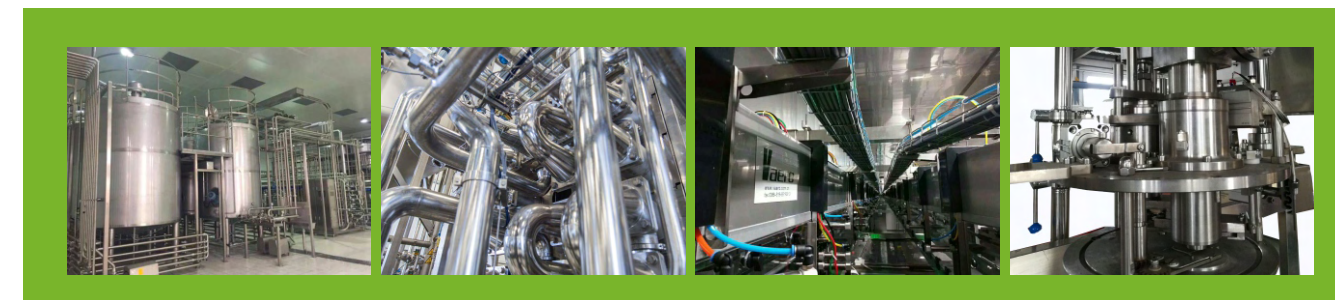
■ Focused on quality, efficiency and professionalism,our design is the result of our fully understanding both the customers' expectations on the site and the machines' characteristics.Both the whole production line and each of its pieces come from our unique concepts and professional fabrications. Our expertise is being shared in each of the machines runing without stop at your factories.Reliability, durability and value added are our design vision, and the complete set of assembly and installation procedures comes out of our accumulated experience.

■ We have an international team to serve every corner of our globe in Chinese, English and French.We have offices in USA, Canada, Argentina, France, Italy and South Africa to support customers' projects closely and effeciently.

■ **常州威欧**是果蔬、饮料加工设备的专业生产厂家。公司自2006年创建以来，一直致力于为果蔬、饮料工厂提供全面完善的整线解决方案。生产的产品有果蔬加工设备、饮料生产设备，主要包括提升输送机、清洗机、拣果机、破碎机、榨汁机、酶解系统、蒸发器、UHT杀菌机、无菌灌装机、调配系统、CIP清洗设备、巴氏杀菌等整套生产线设备。除此之外，我们也根据客户特殊要求提供富有创新性的非标定制设备。

■ 威欧一直秉承优质、高效、专业的服务理念，每项设计都充分了解了客户需求及现场情况，从整套设备到每个零件都来自专业的设计和制作，我们的专业经验直接分享在每一台您工厂里不断运行的威欧设备中。可靠、耐久、和给客户带来附加值是我们的设计基本准则。严格的装配及安装流程是我们在此专业领域经验不断总结的结果。

■ 我们拥有国际化的团队，能使我们轻松地为客户提供满意的服务。我们提供中文、英文、法文服务，并且在美国、加拿大、阿根廷、法国、意大利、南非等国驻有专业技术人员，可以提供及时、准确的专业服务。



客户分布 Our Customers

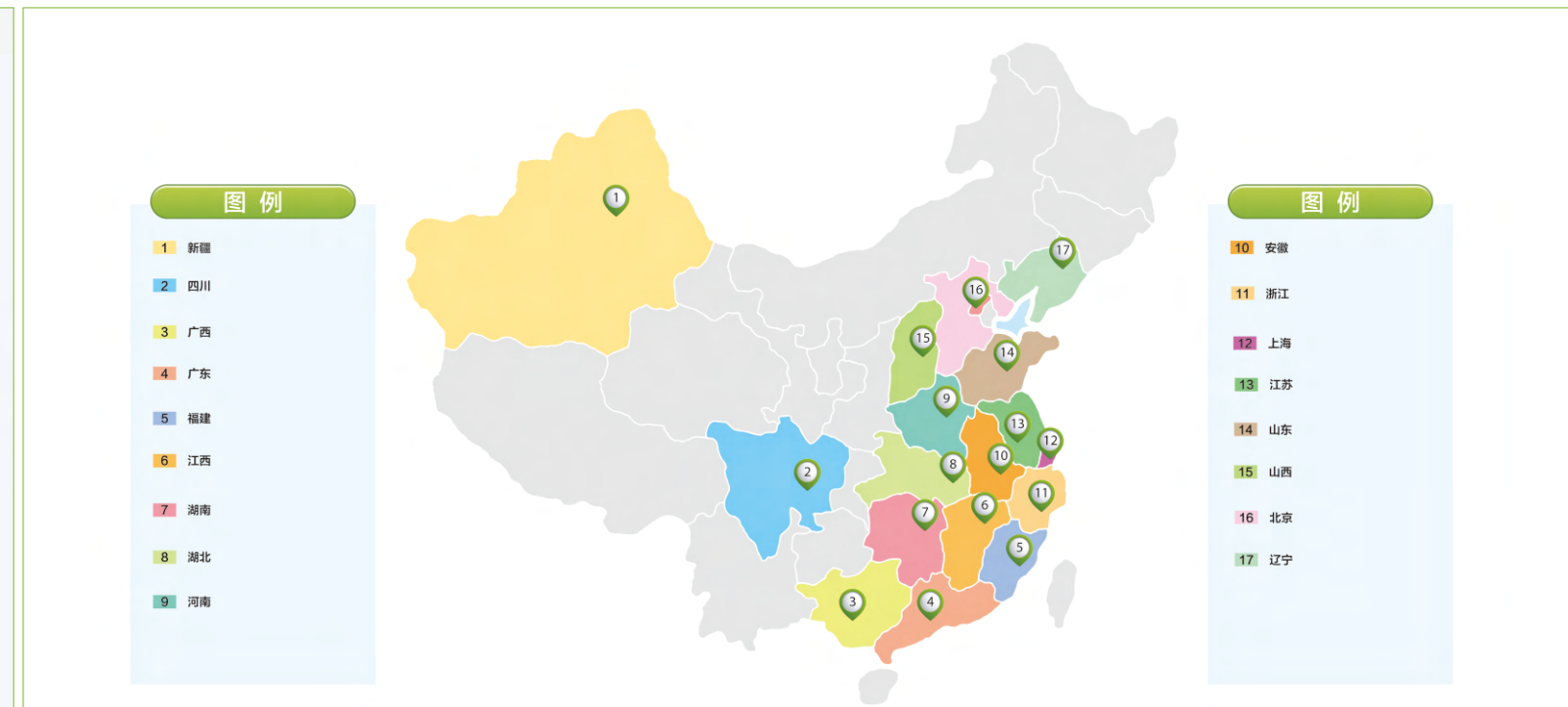
国际客户分布

Vaero in the world



国内客户分布

Vaero in China



整线系统

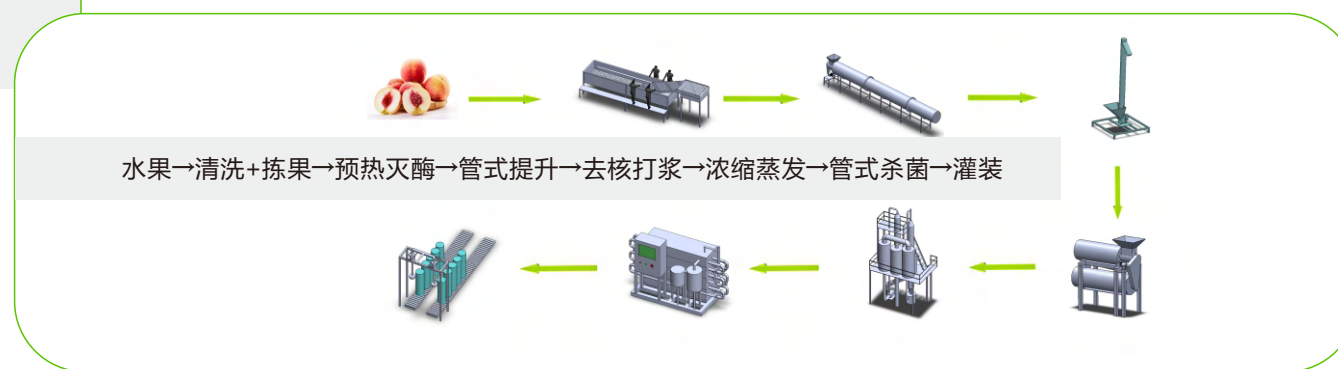
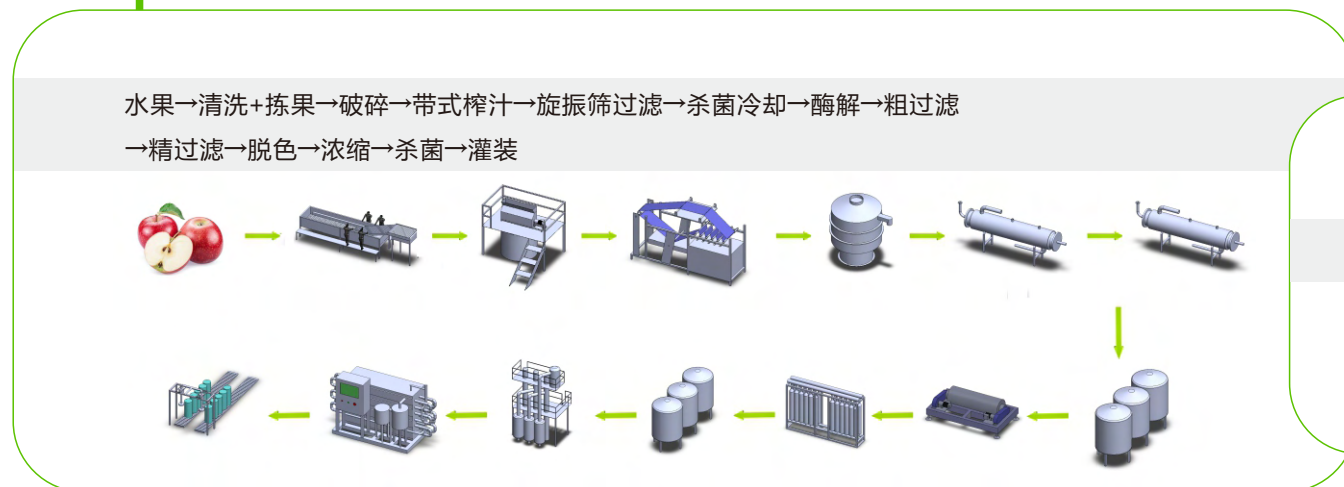
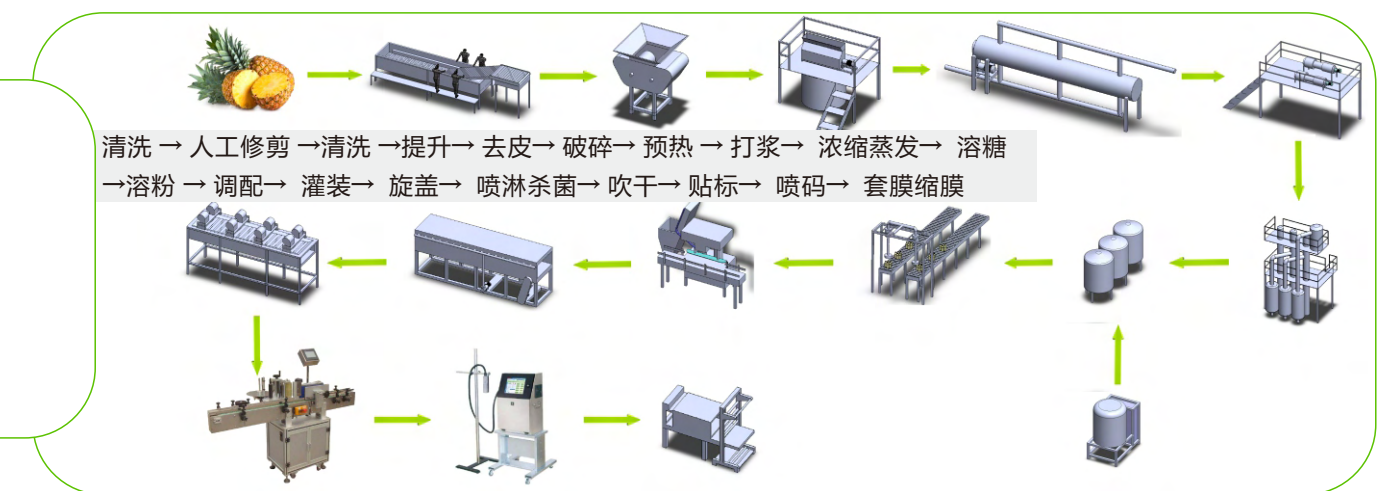
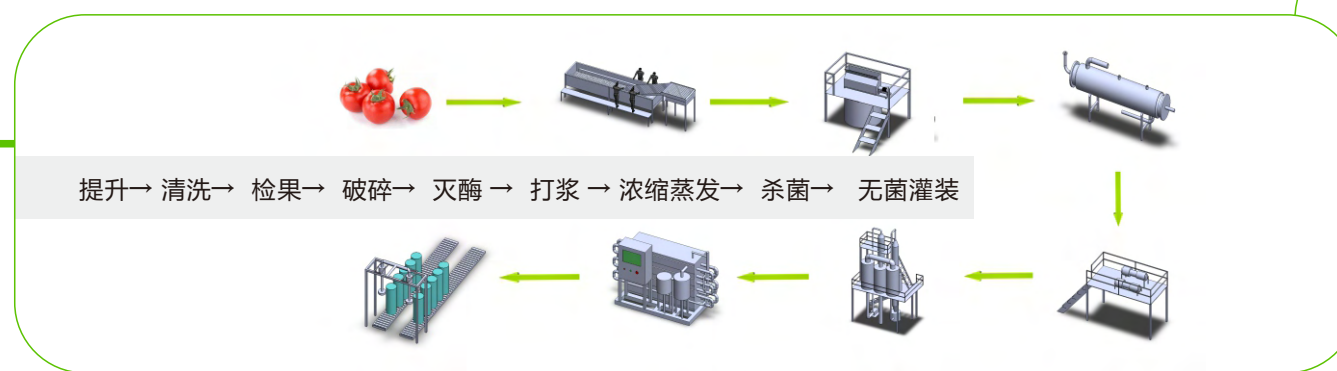
Whole plant solutions

■ We take into account both the features of the fruits or the vegetables and the specific requirements from the customers before optimizing the layouts, designing the production lines and manufacturing the equipments. Our know-how has been a great support for customers' competitiveness on their markets, their innovative differentiations and their pursuits in quality. The maximum output of concentrated pulp per line can be 1000T/day, that of concentrated juice can be higher.

■ We have been contributing solutions to countless fruits and vegetables from both China and abroad since more than 10 years. Any production line or machine running at our customers' plants, is exactly a perfect interpretation by our know-how of their specific requirements, where we align well our expertise with customers' success.

■ 我们可以根据不同的水果或蔬菜特性以及客户要求，对整个工厂的生产线进行规划，设计和制造，专业配置对应的功能单机以充分满足客户日益增长的市场创新需求和对产品品质的极致追求。我们现有浓缩果酱生产单线最大产能可达1000吨/天，浓缩果汁单线产能更大。

■ 十多年来，我们对无数水果和蔬菜做过数不尽的方案，任何一个成功方案都是我们的专业知识对客户具体需求的诠释，为客户产品的成功保驾护航。聆听客户，定制化制造，方能为客户的梦想插上翅膀。



前处理系统

Pre-treatment system

输送

Conveying



It is widely applied to transport or elevate all kinds of fruits and vegetables. The specifications are set in conformity with products' features and required output capacity in order to support the following production process. Bucket, roller, mesh chain or top chain conveyors are all standard ones in our designs according to different requirements, with all structures in SS. All our conveyors run with high efficiency and low noise.

用于各类水果、蔬菜等加工物料的输送提升。可以根据生产需要设定输送的输送方式与输送能力，以满足后道工序的生产需要。设备框架全部采用不锈钢制作，根据不同物料可选用刮刀式、辊筒式、网格式等。输送运行稳定，噪音低。

Employed to wash the surface of fruits and vegetables and remove all foreign dirt, the washing process can be bubble water, brush roller, steel roller, pressured water spray and etc., according to different products.

用于水果、蔬菜等物料的表面清洗，以达到消除表面附着物和各种残留。根据果蔬的种类和外形特点可以设计成鼓泡清洗、浮洗鼓泡清洗、毛刷清洗、辊筒清洗等。

清洗

Washing



To ensure no foreign objects, neither undesirable products in the infeed, a sorting or a grading process is set in the line. In the manual option, the table size and post numbers are designed to production needs. The roller conveyor for better checking and the separate conveyor for the waste can be added to enhance the production efficiency.

对于水果或蔬菜中夹着的异物或残、次果，且经过清洗仍无法去除的，我们配置了挑选工序。根据产能需要，确定设备尺寸和挑选工位数量。为了防止漏检和卫生死角，某些挑拣困难的水果、蔬菜我们在输送的同时设置其同步自转。为了提高工人生产效率，还可配备剔除物料输送通道。

挑选

Sorting



前处理系统

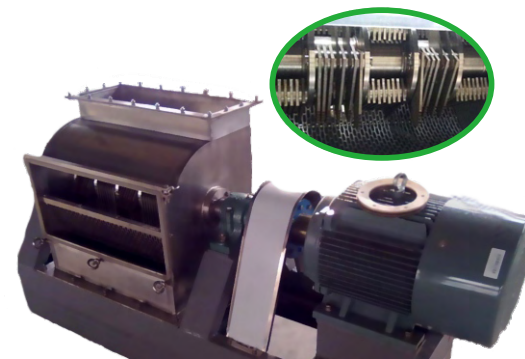
Pre-treatment system

破碎取汁

Crusher

■ To enhance efficiency of juice extraction, we design the crusher before further extractions, to crush the materials into pulp. It is not appropriate for the fruits with hard kernels. The production capacity per unit can be designed from 1 to 30 T/H and we can parallel a number of these machines to augment the output.

■ 为了提升水果、蔬菜取汁的生产效率和取汁率，对于无核类水果，我们设计破碎取汁预处理工序，将水果、蔬菜等无核类原料破碎挤压成微小颗粒或浆，方便后续提纯。我们设计的单机产能1-30 T/H，如需更大产能可以多机并联。



齿辊去皮

Toothed roller crusher

■ It is particularly used for the fruits or melons that don't have hard kernels but thick peels, such as pineapples, oranges, avocados, passion fruit. It has 2 symmetric toothed rollers to carry out cutting the products in 2 and immediately crush them against the mesh screen. It is not necessary to grade the infeed products in advance and it is suitable for mass production with its high output. It can be followed by belt pressing to enhance the extraction rate and juice purity, or by pulpers to refine the pulp. Its production capacity is 0.2- 3 T/H and the machine is designed according to the specific fruit.

■ 适用于橙，菠萝，百香果，牛油果等不带硬核但果皮厚的水果与瓜类的取汁。它通过齿辊的挤压完成物料的切开以及与筛网的挤压实现破碎去皮目的。加工的物料不需要预先分级，产量大，适合大规模工业化生产。可以后序再加以带式榨汁以进一步提高出汁率和榨汁纯度，或加打浆机把果浆变的更精细。产能可为 0.2- 3 T/H，可单独设计。

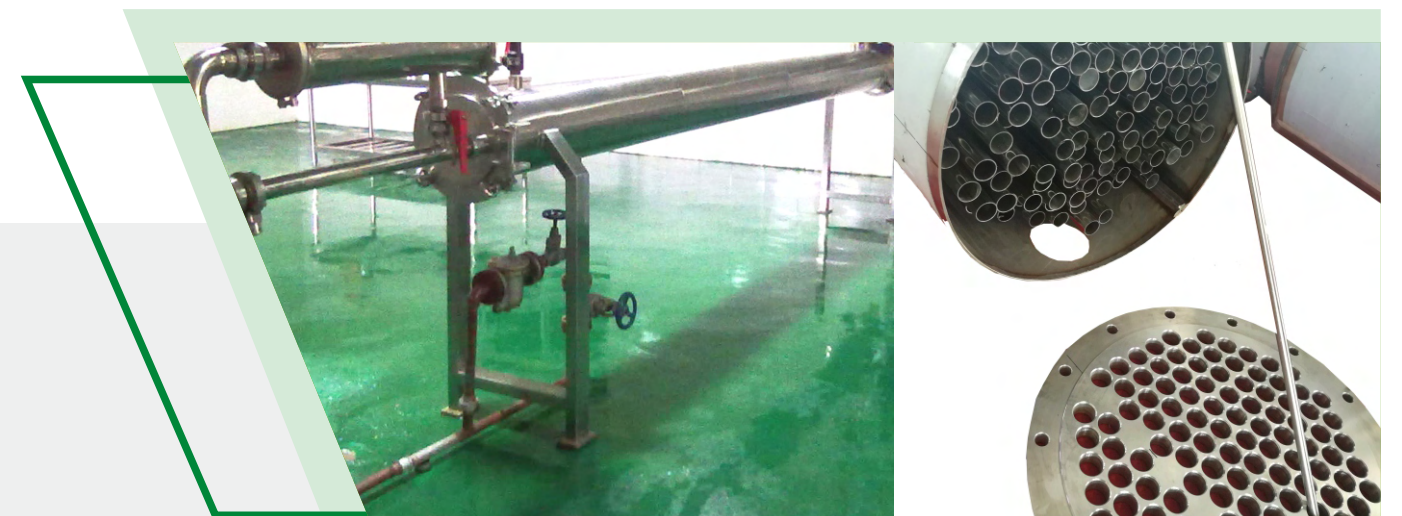


预热灭酶

Pre-heating/ enzymatic treatment

■ After being crushed, the pulp degrades in colour shortly because of enzymatic effect. By pre-heating the pulp to kill enzymes, the pulp can keep its fresh colour, as well as to improve its texture and viscosity.
 ■ As different products have different temperatures to kill the enzyme, the temperature is easily adjustable on our equipment. And the heaters can be designed differently, such as in screw tube, in tubular heater, according to the product's features.
 ■ The output can be 1000T/D.

■ 水果经破碎加工后，由于果肉中酶的存在，随着时间的推移，果肉将产生褐变。通过预热灭酶可有效起到护色作用，此工序也是关系到产品组织形态、粘度和色泽的重要环节。
 ■ 由于每种物料对灭酶的温度要求不一致，我们将灭酶温度设计成可调节模式，满足不同物料生产工艺要求。根据物料外形和尺寸，我们设计不同方式灭酶设备，如列管式，螺杆式等。
 ■ 我们设计过的最大产能为1000T/天。



前处理系统

Pre-treatment system

螺旋预煮

spiral pre-heater

- With spiral infeed, adjustable temperature, and thermal insulation, this machine can be used to soften the products to augment the extraction rate or/and to kill the enzyme before the extraction.
- Output capacity is 1-5T/H.

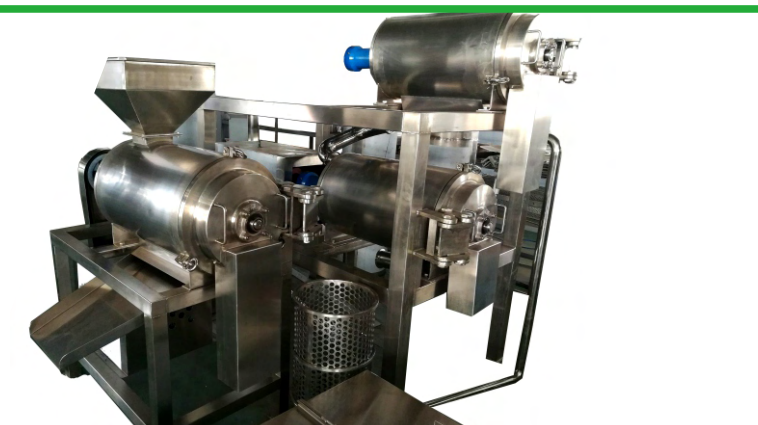
- 螺旋送料，可控温加热与恒温保温控制，可以软化果蔬物料，提升出汁率，也可以作为榨汁前的灭酶设备。
- 产能为 1- 5T/H。



去核打浆

Destoner

- It is often used to pulp fruits and vegetables and separate their peel and kernels in the same time. So it is suitable for mangos, peaches, apricots and all other fruits with kernels. Output Capacity is 1-30T/H.
- 适用于果蔬类物料的打浆、去皮、去核一次完成的工艺；特别适用于芒果、杏、桃等核果类水果的加工。设计产能为1 - 30T/H。



精制打浆

Pulping & extracting

- This machine is mainly used to further separate the juice from the dregs(peels,seeds).The size of the holes in the mesh screen is designed according to the specific product. Output capacity is 1-50 T/H.
- 打浆精制主要用于经破碎后的含籽类果蔬或经预煮软化含核类果蔬的进一步汁渣分离。内部筛网孔尺寸根据需加工产品要求进行定制设计，以满足不同的加工要求。单机处理能力为1 - 50T/H。

前处理系统

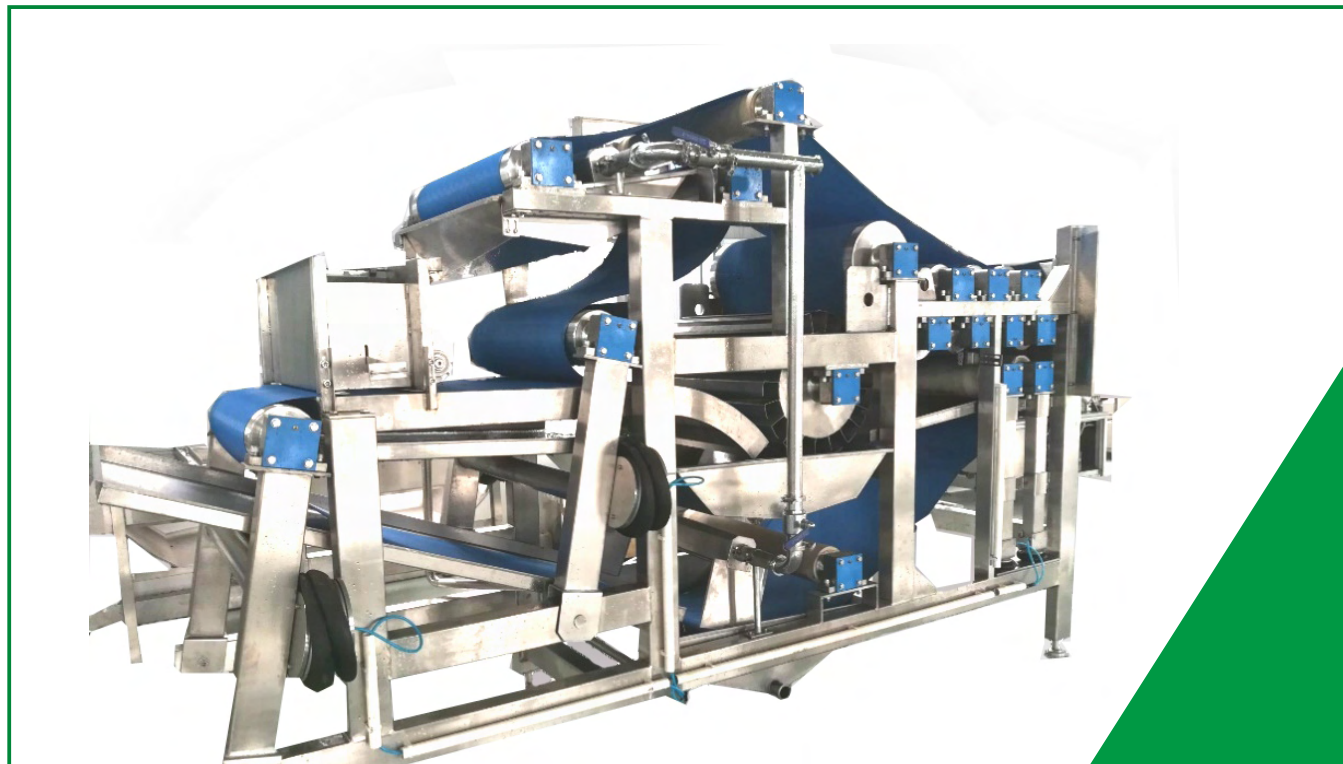
Pre-treatment system

带式榨汁

Belt press

■ This machine widely used as the further step of juice extraction after the crushers , as well as direct extraction of juicy fruits and fresh vegetables. It is featured with high rate of extraction and versatility with different kinds of products. Output capacity is 3- 25 T/H.

■ 可以作为破碎（去核）后的榨汁，也可用于浆果类果蔬的直接榨汁。带式榨汁产量可达 3 – 25 T/H，出汁率高，实用面广，为众多果蔬物料的首选榨汁工艺。对于褐变快的物料，须先预热灭酶，再冷却后进入带式榨汁机；对于褐变慢的，可以榨汁后再做灭酶处理。



螺旋榨汁

Spiral juice extractor

■ It is used to extract the juice from the fruits without kernels or vegetables with the help of a screw axis. It is featured with low cost of fabrication, but with lower rate of juice extraction than the belt press. Output capacity is 0.01-5 T/H.

■ 本设备适用于无核类水果或蔬菜的取汁，也可以作为精榨工序。由螺旋轴推进式挤压，具有破碎、榨汁、排渣功能。但出汁率比带式榨汁工艺低。产能为 0.01 – 5 T/H。



澄清、过滤系统 Filtration&purification

酶解系统

Jacketed tanks

■ These tanks have multi-layer bodies. They must be able to clean and sterilize themselves, receive and store liquid materials, control the temperature to heat or cool, and filter and drain the materials in an automatic and accurate way. One tank volume can be from 50L to 20T and several ones can be set in parallel.

■ 多层罐体设计，满足罐体的清洗、灭菌、原料的计量添加、升温控制、酶促反应、降温、过滤、出料等过程，全套系统全自动控制，实现高效精准控制。单罐容量根据需要可设计成50升 - 20吨，且可以多罐并联。



旋振筛，双联，卧式离心机，板框过滤器

Revolving vibration sieve, double filter, horizontal centrifuge filter, plate and frame filter

■ We equip different filters of different efficiencies in our line for different finished products, as well as for other different requirements from customers' sides. The optimal selection of these machines embodies our experience in ensuring the colour and the texture of the final liquid products the customers desire.

■ 全部采用SUS304优质不锈钢制造，我们根据不同的最终产品和不同的客户综合要求，选择不同过滤效率的过滤器。我们拥有丰富的经验来搭配最优化的过滤方案，每次确保满足客户对产品色泽与口感的要求。



澄清、过滤系统

Filtration & purification

转鼓过滤

Rotary vacuum drum filtration

■ One rotary cycle has both vacuum and pressure sections to separate the liquid from the dregs. And the accumulated dregs outside of the drum surface are scraped each cycle. It is also widely used in pharmaceutical, chemical and waste water treatment industries.

■ 转鼓过滤机具有外滤面转鼓和刮刀卸料，在真空作用下可以连续工作的特点。也广泛用于医药，化工及废水处理等行业。



膜过滤器

Membrane filtration

■ Membrane filtration is a filtration as fine as molecular level. It uses pressure difference between the 2 sides of the membrane to separate the big molecules from the small ones. We can change the filters during the production.

■ 膜过滤是一种精密分离技术，可以实现分子级过滤，它是利用膜孔隙的选择透过性进行两相分离的技术。以膜两侧的压力差为推动力，使溶剂、无机离子、小分子等透过膜，而截留微粒及大分子。全部采用SUS304优质不锈钢制造，可在不停机的情况下更换过滤网。



蝶式离心机

Disc centrifuge

■ It is normally used to separate solid impurities in the juice of juicy fruits and vegetables, such as tomatoes, lemons, oranges, mangos, carrot, kiwis.

■ 适用于番茄、柠檬、橙、芒果、胡萝卜、猕猴桃等含固量较低的果汁、蔬菜汁等液体的液固分离和清净处理。



真空低温浓缩系统 Vacuum evaporation

强制外循环蒸发器 Forced circulation evaporator

- It is particularly applied to concentrate the products of low fluidity and high viscosity.
- The evaporation is done in vacuum and at low temperatures to ensure minimum nutrition loss and keep the natural colour.
- It is mainly composed of tubular heater, vacuum evaporator, condenser, pumps and control system. It is compact, stable, efficient, and energy saving. In case of high requirements in output and density, multi-effect evaporator can be installed, with the evaporation capacity of 0.5-30 T/H.

- 专门适用于流动性差的高粘度物料的浓缩。
 - 在真空条件下，连续低温浓缩，确保物料中有效成份的最少流失和物料天然色的保护。
 - 主体结构由管式加热器、真空蒸发室、多级冷凝器、泵管路（物料循环泵/进出料泵/真空泵/排水泵）、自动化控制系统，具有结构紧凑，运行稳定，生产效率高，节能等优点。
- 根据产能和加工浓度要求不一样，可以设计多效蒸发器，蒸发量可为0.5 -30 T/H。



降膜式蒸发器 Falling film evaporator

- It is applied to concentrate the products of good fluidity and low viscosity.
- The liquid is pumped into the top of the tank, then falls down by its gravity into the evaporator's tubes to form the falling films, which facilitates the evaporation. Then the liquid will be separated from the vapor. The vapor will be recycled by the condenser. High production output is its advantage. Multi-effect falling film evaporator is also remarkable in energy saving as its consumption is about 1/3 of single effect one and the evaporation capacity can be 0.5 -30 T/H.

- 适用于流动性好低粘度物料的浓缩，加热时间短，更有利于保护物料的颜色。
- 物料溶液从料泵进入到罐体顶部，利用自重向下流动，经过预热后进入蒸发器的进料室，接下来进入到降膜管形成薄膜状便于蒸发，蒸发后进入分离室，将蒸汽与液体物料分离开，溶液接下来会流入到泵的吸口处，进行循环利用法，蒸发出来的蒸汽与浓缩液进行分离，二次蒸汽则被冷凝器回收再利用。在设计多效装置的情况下，浓缩液的出料口应放在第一效，因为第一效的温度较高，会使溶液的粘度下降，便于得到更高浓度的浓缩液。生产效率高是多效降膜式蒸发器的特点，其蒸发量巨大；多效降膜式蒸发器的节能效果十分显著，能耗为一般降膜式蒸发器的三分之一左右，蒸发量可为0.5 -30 T/H。



调配、均质脱气系统 Mixing, homogenizing, deodorizing

不锈钢储罐、搅拌罐、溶糖罐、溶粉罐 Tanks & Vessels

It is mainly applied in dairy, juice, brewery, biotechnological and chemical industries, serving as sugar syrup preparation tank, juice mixing tank, conditioning tank, fermenting tank, brewery tank and etc.

设备主要适用于乳品、果汁饮料、啤酒酿造和化工、生物工程等各类液体物料的暂存、搅拌混合等。



胶体磨 Colloid Mill

It is applied to homogenize, emulsify, mix, pulverize, grind all kinds of jams, juices, syrups and milk products.

本设备适用于果酱、果汁、乳制品、糖浆等各类乳状液体的均质、乳化、分散、混合、粉碎、研磨，是湿式超微粒加工的新型设备。



全自动真空脱气机组 Vacuum Deodorizer

This machine is often used to deodorize milk or juice and to get rid of oxygen and other gases from inside them with the help of a vacuum system.

It is mainly composed of air-removing room, condenser, vacuum pump, and is widely used after the filtration process and before the sterilization.

本设备采用真空系统脱气，用于牛奶、果汁等去除异味及氧气。
主要由脱气室、冷凝器、真空泵等几部分组成，广泛用于牛奶、饮料等行业。一般用于过滤工艺后，杀菌工艺前。



高压均质机 High Pressure Homogenizer

It is widely used to homogenize and refine the liquid. Under the triple forces of high pressure, intense impact and depressurized dilation, the liquid become finer and easier to be homogenized and blended, which can greatly enhance its texture.

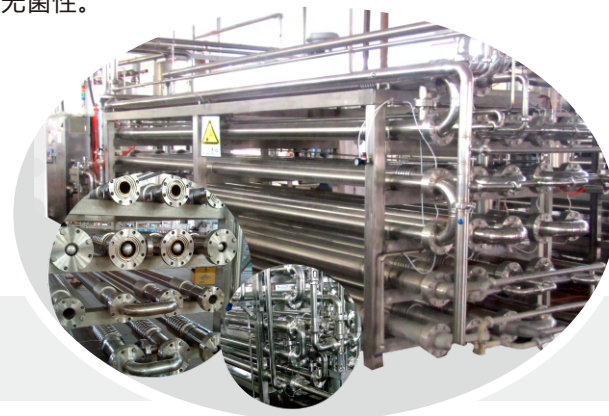
本设备利用压力广泛应用于液体物料均质细化的专用设备，利用强挤压，冲击与失压膨胀的三重作用下使物料更加细化，更加均匀混合。对于提升产品品质和口感具有明显效果。

杀菌系统 Sterilizing

UHT管式超高温杀菌 UHT tubular Sterilizers

- Sterilizer can handle all kinds of liquid food and drinks.
- To cope with the liquids of different fluidities, we have two types of sterilizer in terms of their structures: tube in tube sterilizer and tubular sterilizer.
- A UHT process is composed of heating, temperature keeping, cooling, return and heat recycling, automatic CIP cleaning, self-sterilization and product sterilization.
- Automatic and accurate control over sterilization temperature, steam pressure and flow volume, product's flow volume.
- All the pipeline is self-cleaning and self-sterilizing to meet the aseptic application.
- Security is ensured by all quality parts strictly selected, such as all pumps, valves, and actuating parts. The steam, the super-heated water, and the product itself are all monitored by pressure meters and equipped with alarm systems.

- 管式杀菌机可用对各种液态食品，饮料进行加热杀菌处理。
- 管式杀菌机根据管的布置排列形式可分为套管式杀菌机和列管式杀菌机，以应对流动性不一样的物料。
- UHT管式杀菌机根据工艺顺序由加热段、保持段、冷却段、返回段和热回收段组成。
- 自动化程度高，从设备的CIP清洗，设备自杀菌到物料杀菌整个过程可实现自动化闭环控制。
- 杀菌温度控制精确可靠，蒸汽压力、流量、物料流量等都严格自动控制。
- 管道设计实现全自动清洗，设备全过程自杀菌，确保系统无菌性。
- 系统安全性强，系统配件皆选用性能好可靠性高的产品，蒸汽，热水，物料等都有压力保护措施和报警系统。
- 系统可靠性强，主要部件如物料泵，热水泵，各类阀门，控制系统的电气元件和执行元器件都经过严格挑选。



参考技术参数 Only for Reference

- 5°C-65°C(homogenization)-137°C(3-5S) -20°C-25°C, applicable to aseptic packing;
 - 5°C-65°C(homogenization)-115°C/125°C(5-15S)-88°C-90°C, applicable to hot filling;
 - 5°C-65°C(homogenization)-137°C/125°C(5-15S)-75°C-78°C, applicable to middle-temperature filling
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- 5°C-65°C (均质) -137°C (3-5S) -20°C-25°C，适用于无菌包装；
 - 5°C-65°C (均质) -115°C/125°C(5-15S)-88°C-90°C，适用于热灌装；
 - 5°C-65°C (均质) -137°C/125°C (5-15S)- 75°C-78°C，适用于中温灌装；

杀菌系统 Sterilizing

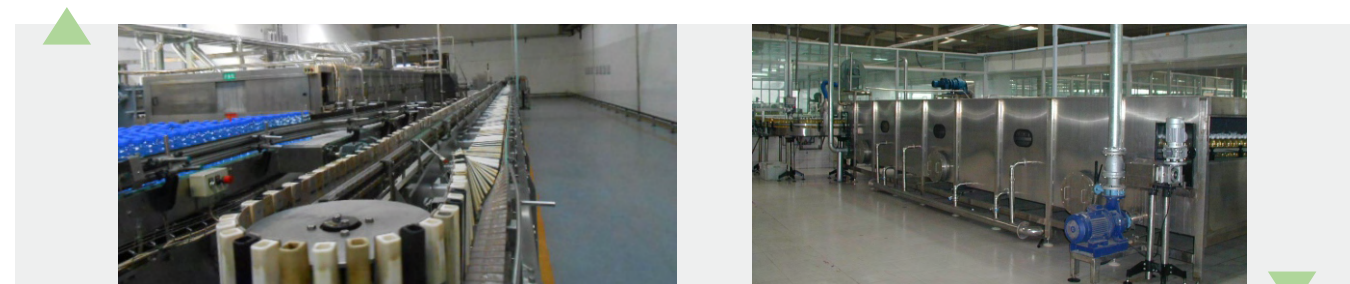
无菌灌装系统 Aseptic filling

倒瓶杀菌机

Bottle Inverting Sterilizer

- This machine is used specially to sterilize the caps after the bottles have been capped in a hot filling process. The conveyor system can upend the filled bottles for a given period (customized) of time during the transport in order to use the hot drink itself to sterilize the caps, and later the filled bottles are put back to their positions.
- It is designed according to the customers' specifications on the output and the sterilization time length.

- 倒瓶杀菌机为热灌装生产线后期瓶盖消毒而设计的专用设备。它是通过特殊的平面输送链，使包装容器在输送中实现在线倒瓶，达到工艺要求的杀菌时间，再自动直立，从而实现从倒瓶到杀菌再到直立的过程。
- 可根据客户要求的生产线产能或杀菌时间进行杀菌机的特殊设计及各参数的给定。



喷淋杀菌机

Continuous Spray Sterilizer

- This sterilizer used recycled warm water to pre-heat, recycled hot water to sterilize, recycled warm water to pre-cool and lastly the cold water to cool the products. All the concerned temperatures and processing times are adjustable to make your production more flexible.
- It is widely used in the industries of drinks, condiment products, and is designed according to the customers' specific demands.

- 喷淋式杀菌机是采用循环温水预热，循环热水杀菌、循环温水预冷、再用冷却水喷淋冷却，四段处理形式，具有杀菌温度自动控制，杀菌时间可调等优点。
- 能广泛应用于各种饮料、调味品等产品的杀菌冷却。本设备可根据用户提出的杀菌要件及产量要求进行设计。

无菌灌装机

Aseptic Filling Machines

- The filling capacity and the number of filling posts are designed according to the output requirement. The upstream sterilizer should match its output capacity.
- This equipment is mainly composed of aseptic filling system, measuring system, conveying system, control system and operation posts. The containers are often aluminium plastic multi-layer bags (1L-1000L) for aseptic application. The steam is used to sterilize the bags' openings and the filling cabinet, and the filling and bags' closing are done under the aseptic condition. The flow volume meter or in-line weighing system can be adopted to meet different requirements on filling accuracy.
- This machine can be used in an aseptic condition, to fill juices, pulps or their concentrated products, and dairy products, no matter what are their viscosities.

- 无菌灌装机灌装头数可以根据客户需要设计灌装头数，以满足不同产能需求和杀菌机的同步匹配。
- 本设备主要由无菌灌装系统、计量系统、输送系统、控制系统、操作平台等组成。包装袋采用铝塑复合无菌袋（1L-1000L）。使用蒸汽喷射方法对口袋和灌装室进行杀菌，确保灌装室始终是处于无菌状态的，无菌袋口杀菌、开启、灌装和封口都在无菌环境下完成。采用流量计量方式，在线称重等方法满足不同的灌装容积精度要求。
- 本设备主要用于果蔬汁、果酱或其浓缩产品，乳制品等其他黏稠性或非黏稠性流体的无菌充填灌装。

