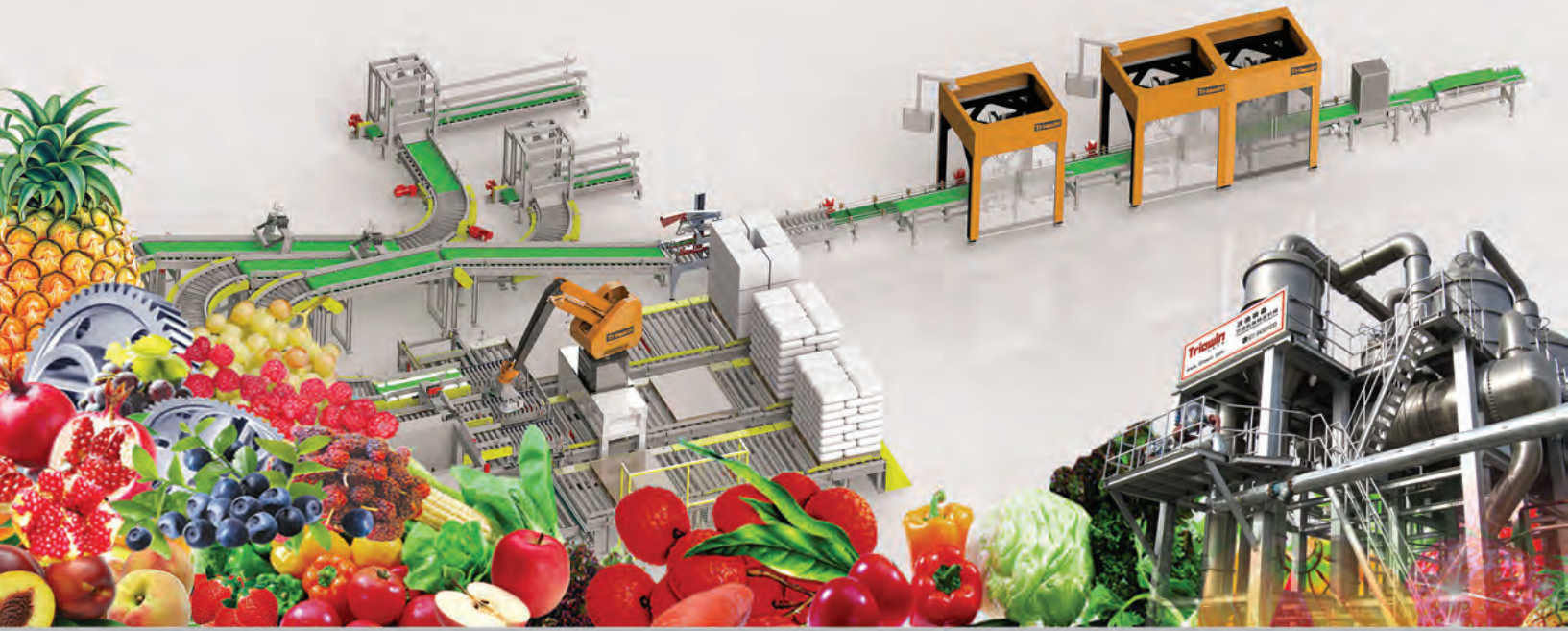


Fruit&Drink Processing*Robot Packaging*Pilot Plants*Dairy Processing
果汁果酱生产线成套设备*机器人智能包装成套设备*实验小试/中试成套设备*植物蛋白/乳制品成套设备



变·渐进·学习力 | Invent·Improve·Evolve

Company Profile/企业简介

Established in 1999 Shanghai Triowin Automation has played an important role in several National Chinese Programs. Today, our company is a Public leading company having reached a high level of expertise, know-how and Knowledge in processing technology and robotic systems.

Our Processing Division with the support of our R&D dept. to develop our technology and bring it to European levels is able to provide solutions in the food & Beverage Industry. We divided this division in 3 main families of solutions.

1. Fruit & tomato processing technology
2. Dairy processing
3. Pilot lines & lab equipment

Each family is composed by a team of persons, supported by a team of engineers, devoted to find the most suitable solution which will fulfil the requirements of our customers. Our people and Company use the most modern tools to design, manufacture every single machinery which will make the success of our customers' products.

上海沃迪自动化装备股份有限公司成立于1999年，现注册资本4160万元，在册员工近400人。金山工厂占地80.5亩，建筑面积33000平方米。沃迪装备视“科技创新”为核心竞争力，在立足自主创新的基础上，同时通过整合吸收欧美先进的机械设计理念以及自动化控制技术，拥有一支以硕士、博士和高级工程师为核心的研发团队，并积极联合上海交通大学、同济大学、上海理工大学、上海海洋大学、江南大学、华中农业大学等多所国内著名高校共建硕博研究生培养点及博士后工作流动站。经过多年积累，沃迪已拥有各类专利超过120项，先后承担国家科技部、工信部的多项国家重点装备攻关课题及上海市科委、上海市机器人产业十二五规划纲要等重大项目。沃迪装备现在食品加工特别是果蔬加工包装整厂装备交钥匙工程输出以及机器人自动化搬运包装系统领域已经成为世界范围内的行业领导者之一。

沃迪装备下设立两大事业部：食品装备事业部，机器人装备事业部。

其中，食品装备事业部又包含三大块：果蔬装备事业部、实验设备事业部、乳品装备事业部；

果蔬装备事业部专业从事果蔬浓缩及非浓缩汁/浆，热灌装茶饮料、果汁饮料设备生产制作及整厂安装工程交钥匙系列服务，具备整体项目的开发设计、生产制作、安装调试、技术培训、售后服务诸多方面的综合能力。以“融合世界现金科技、造福民族饮料工业”为己任，致力于消化、吸收并掌握国际先进的果蔬深加工及饮料加工工艺的前沿科技，曾先后与德国、意大利、美国、英国等诸多公司联手合作，并代理国外著名的加工机械品牌，对番茄、芒果、菠萝、橙、葡萄、蓝莓、草莓、桃、杏、枣、胡萝卜等果蔬品种的加工有着丰富的认识和深刻了解，具备根据客户的不同要求提供个性化的精辟解决方案的能力。

实验设备事业部致力于消化、吸收并掌握国际新进的饮料加工工艺与包装机械的前沿科技，推出实验室小试与中试生产线及先进的仪器设备，架设由实验室通向工业化生产的桥梁，加速科研成果转化为生产力。与日本POWERPOINT公司联合

Our Robotic Division, fruit of many years of research to create an automation with a high level of efficiency, has become the First in China with a very high capacity of production, competing with the most famous European and Japanese brands.

Since our inception we have been increasing our market shares all around the world by taking part in some very important projects, such as National 863 Program, Intelligent manufacture equipment special projects of National Development and Reform Commission and robot's key technology research projects of Shanghai Scientific and Technological Committee. All has been possible because "Invention, Improvement & adaptation" are the key words which lead our company to the success.

开发，建立了国内首条产能20~40升/小时的饮料超高温杀菌(UHT)、在线均质及充填系统实验室微型移动生产线。与此同时沃迪装备提供各种研究院所及企业研发中心成套中试生产线设备（50升/小时~500升/小时）及先进的实验室设备，广泛应用于牛奶、果汁、茶饮料、含乳饮料、植物蛋白饮料、番茄酱、调味品、啤酒、奶油、冰淇淋、蛋制品、固体粉末等产品的新品研发与样品制作。

乳品装备事业部致力于乳品生产设备的制造和乳品生产交钥匙工程的实施。通过消化吸收世界最新的乳品技术，我们能生产现代的乳品加工设备，并能提供个性化的乳品项目的整体方案，包括设计、安装、调试、培训以及售后服务等。提供的生产线项目包括消毒奶（保险奶），ESL奶（延长保质期牛奶），UHT（常温奶），酸奶和发酵奶，含乳饮料，再制奶，豆奶，植物蛋白奶，炼乳，稀奶油，植物奶油，奶油，无水奶油，奶粉，婴儿奶粉，奶酪，冰淇淋等。

沃迪机器人智能装备事业部源于智能食品装备发展趋势的推动，专注于国产工业搬运机器人的研发及产业化。沃迪金山新厂搬运机器人设计年产能2000台套，为目前拥有自主知识产权的、国内最具规模的国产码垛机器人工业化生产企业，主要竞争对手为日本、德国及瑞典等国际行业巨头。

沃迪装备于2014年4月引进了中国装备制造巨头上海电气集团为战略投资者，2014年7月在全国中小企业股份转让系统挂牌。沃迪装备产品远销欧、美、亚、非等各大洲，倡导提升打造中国装备在世界舞台上的全新形象。

“变。渐进、学习力”，完美诠释了沃迪装备积极进取、锐意创新、“不以一日造罗马、矢志百年铸沃迪”的企业精神。“日式管理、德国式技术、中国式人文”体现了沃迪人集众家之长，以人为本，力求在国际舞台发出中国声音的匠心文化。全体沃迪人秉持尽心尽力、尽善尽美，精益求精造精机的理念，争做精品民族机械的领导者。



View of Factory 厂区办公区一瞥



番茄酱成套生产线设备交钥匙工程

Turnkey Solution for Tomato Paste Processing Whole Line



逆流式外循环蒸发器

MULTI-EFFECT FORCED CIRCULATION EVAPORATOR

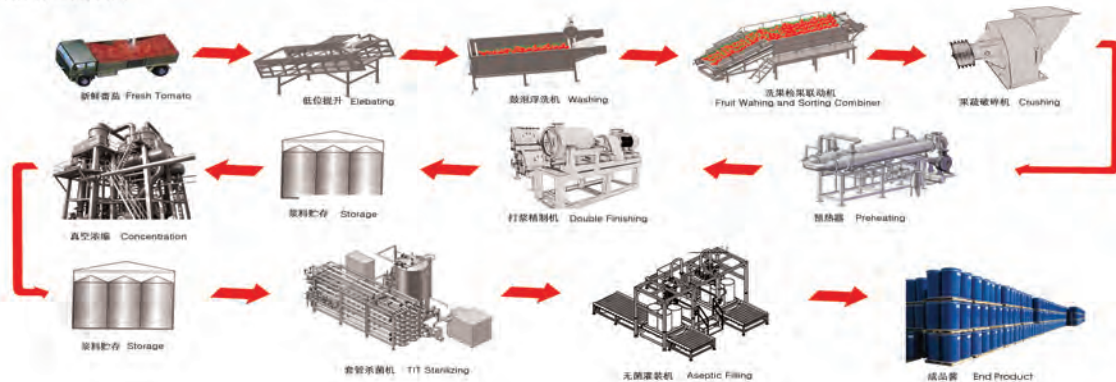


强制外循环逆流式蒸发器专为番茄酱生产过程中的浓缩工艺而设计，同时也主要用于一些高粘度或高固形物含量，且不适于在高温条件下浓缩的物料如果酱，糖浆，食用胶等。该设备由加热器、蒸发室和循环系统组成，得益于其独特的设计，此蒸发器具有极高的稳定性，并能保证最终产品浓度高，色泽好，品质优。根据产量要求及产品的特性，可选用单效、双效、三效或多效蒸发器。

All of the Triowin's technologies bring us the worldwide praise, the most typical example is the reorganization of our Forced Circulation Evaporator, which turns out to be a perfect express of competitiveness and reliability. Designed originally for tomato paste, the evaporators are also widely utilized in viscous liquid concentrating such as peach, plum etc, and can guarantee a final product with high concentration values as well as ideal organoleptic characteristics. Single effect, twin effects, triple effects or multi-effect forced circulation evaporators are delivered to fulfill the capacity and energy saving requirements for the different products.

工艺流程图

PROCESSING LINE



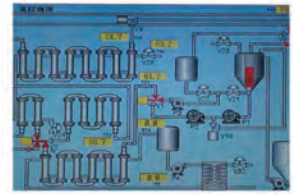


番茄酱成套生产线设备交钥匙工程

Turnkey Solution for Tomato Paste Processing Whole Line

套管式杀菌机

MULTI-TUBE COAXIAL HEAT EXCHANGER



TW-10D 系列无菌型套管式杀菌机为沃迪公司专利产品，专业适用于高黏度热敏物料的超高温杀菌。

Take steam, superheated water and cooling water as a diathermanous medium, it is applicable to various liquid material such as paste, juice concentrate, milk, and even high-viscosity material.

无菌灌装机

ASEPTIC FILLER



TW8FS 系列单头 / 双头无菌大袋灌装机整合欧洲最新机型之结构设计与程序控制特点，全自动一键式操作，智能化纠错程序，技术上在国内遥遥领先。
TW8FS Series aseptic filling machines has merged technologies of latest European design & control, full automation, single-button to start, programmable process correction etc. make Triowin in a very leading position technologically in China.

安装现场

INSTALLATION





橙汁/（柑橘加工）之整厂设备

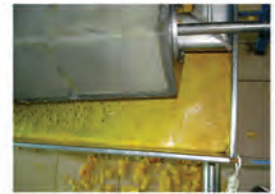
Citrus Processing & Packaging Plants

全果榨汁机

JUICE EXTRACTION FOR CITRUS WHOLE FRUIT

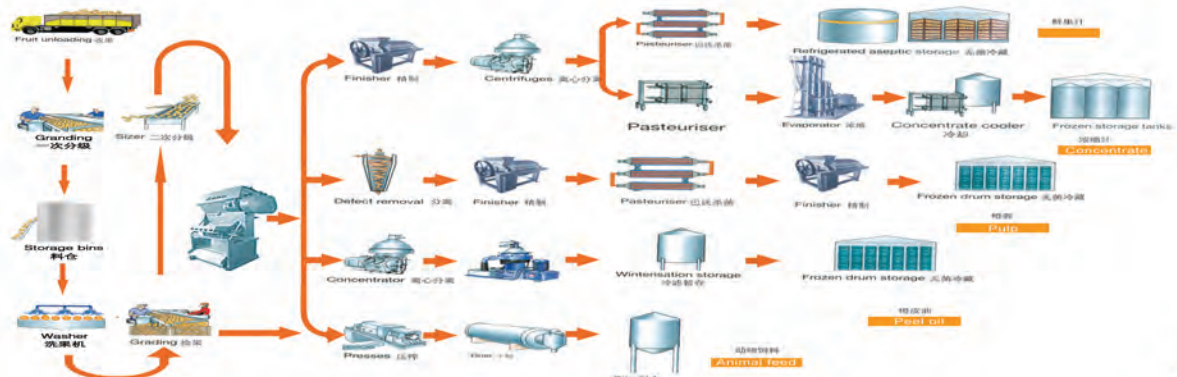
沃迪装备专业致力于生产制造橙汁加工的全线设备，通过与意大利柑橘加工设备专家SPECIALES、SEITALS公司进行全方位的技术合作，已成为国内首家具备承揽橙汁深加工整厂交钥匙工程的设备工程专家。橙汁生产线包括原果前处理、分级机、TCE系列全果榨汁机、TJF系列果汁精制机、TASTE橙汁浓缩设备、巴氏杀菌及UHT管式杀菌灌装和精油提取等工艺流程。在获得高质量浓缩橙汁（或NFC/原汁）的同时，得到高附加值副产品——精油。

Through studying and adopting newly-developed process and packaging technologies, and cooperating with some Italian companies such as SPECIALES and SEITALS, Shanghai Triowin is specialized in providing complete lines of machinery and processing technologies for NFC-OJ and FCOJ. The OJ processing line is composed of fruit pre-treatment, TCE series juice extractors, TJF juice Finishers, TASTE type concentrators, sterilizer & packaging system, recovery of essential oil etc.



工艺流程图

PROCESSING LINE





苹果加工成套生产线设备交钥匙工程

Turnkey Solution for Apple Processing Whole Line

系统说明

苹果汁分为清汁和浓缩汁，苹果加工整厂设备是将新鲜苹果经过浮洗、破碎、榨汁、酶解、超滤、浓缩、杀菌等过程。其整个生产过程自动完全自动化，包括自动控制 and 故障保护，自动清洗等功能。

系统特点

- * 处理量从60吨/天到1500吨/天。
- * 可以处理特征相似的水果，如梨。
- * 利用带式榨汁机提高榨汁效率和出汁率。
- * 生产过程全程PLC控制，电器元件全部是进口产品，节省劳动力并大大降低操作技术难度。
- * 低温真空浓缩，保证风味物质与营养素，并大大节约能源。
- * 管式杀菌与无菌灌装，保证产品的无菌状态。
- * 自带自动清洗系统。
- * 系统物料接触部分全为304不锈钢材质，完全符合食品卫生安全要求



Since China ranks the biggest concentrated apple juice producer in the worldwide market, Triowin has created a processing segment that provides all of the necessary apple processing machinery for achieving quality products at controlled cost.

High quality products and services have positioned Triowin as the Chinese market leader in apple juice processing equipment.

Triowin's fruit reception lines are designed to satisfy the most rigorous standards of hygiene in cleaning the raw material. Then highly sophisticated mills ensure optimized mash preparation. Featuring a unique drainage system, the Triowin Belt Press with an optimizing control system gives a maximum yield of top quality juices with very low sediment content. Equipped with ultrafiltration system, membrane filtration systems produce clear and stable juices. Adsorption and ion exchange systems allow further purification of liquid foods, while Triowin's multistage vacuum evaporators come with sterilization and aseptic filling unit.

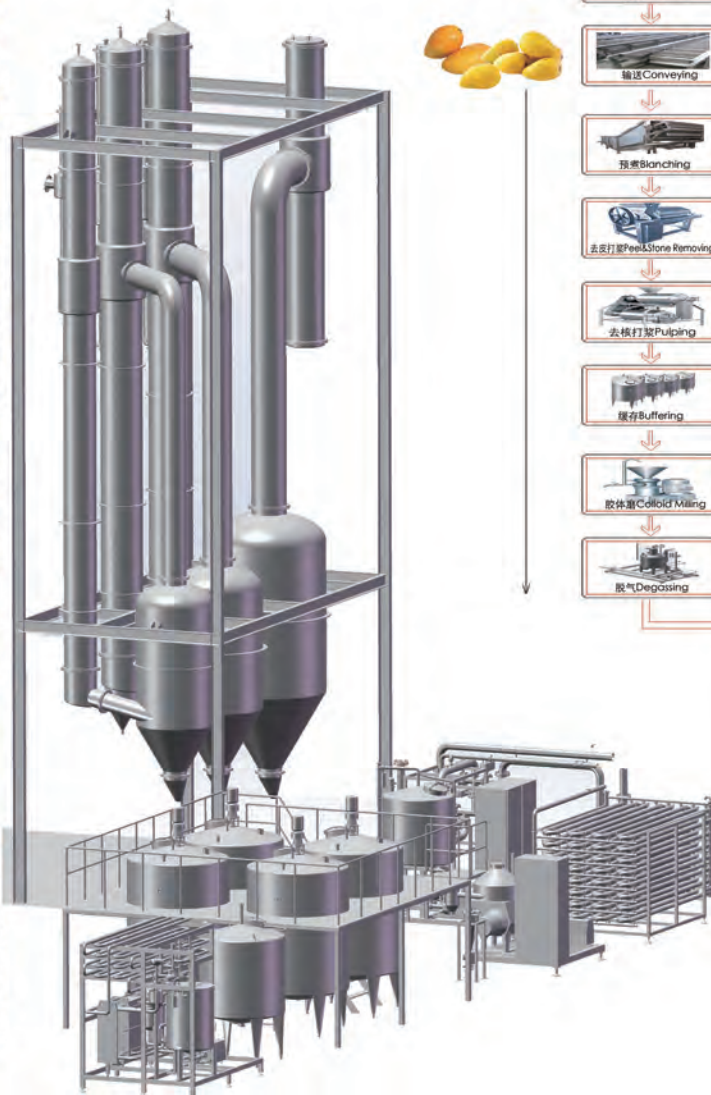
To assure outstanding ease and reliability of operation, we also provide an electronic monitoring and control system. And to round off the range of high-tech machines, we offer comprehensive engineering services, installation supervision, commissioning support and operator training.





芒果菠萝加工成套生产线设备交钥匙工程

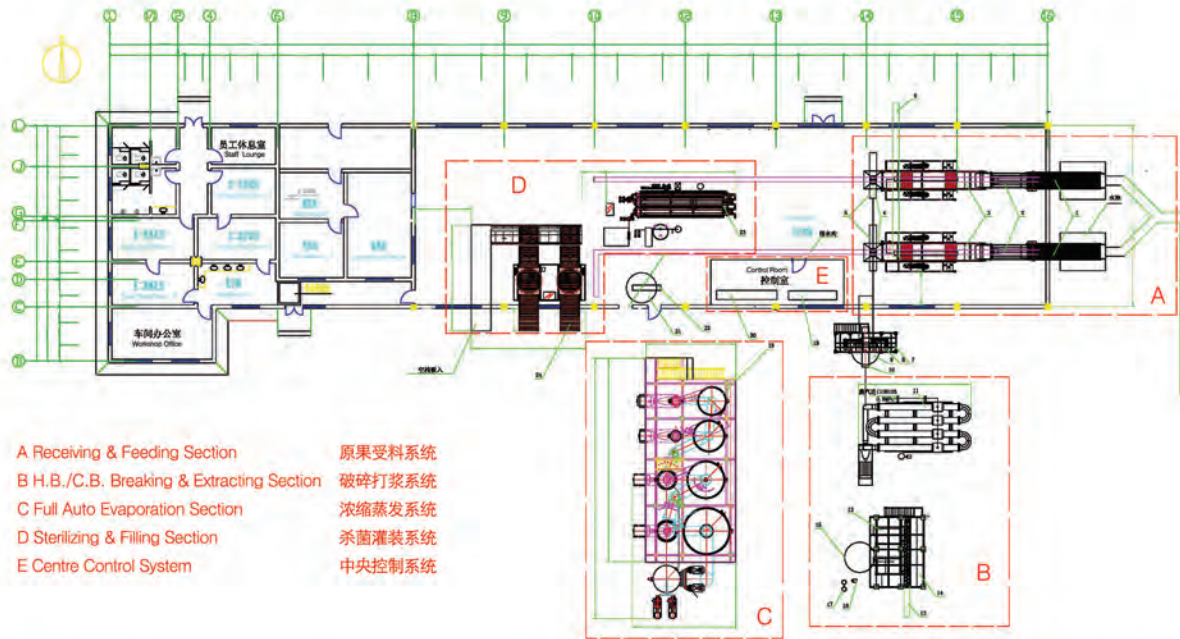
Turnkey Solution for Mango, Pineapple Processing Line





其它果蔬加工成套生产线设备交钥匙工程

Turnkey Solution for Other Fruits Processing Whole Line



沃迪一直致力于果蔬汁、果蔬浓缩汁设备的生产制造及整厂安装工程交钥匙系列服务。充分吸收欧美先进的设计理念，我们具备从项目的设计开发、生产制造、安装调试到技术培训和售后服务一系列的综合实力。

Triowin solutions cover a number of fruits like grape, pineapple, pomegranate, mango and other stone fruits and tropical fruits processing to produce fresh cloudy or clear juice, juice concentrate and puree. From preparation to preservation, conveying and packaging, our comprehensive range of technologies captures the freshness, taste, texture, appearance and nutrition of fresh fruit and vegetable products.

The appropriate combination of processes and equipment depends on various raw materials, but some steps are common to different processes.



沃迪装备机器人智能包装系统解决方案

Intelligent Packaging Solution—Professional Provider

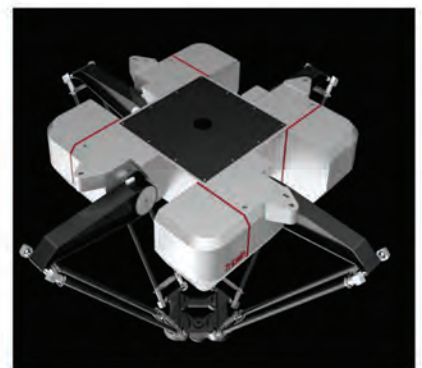
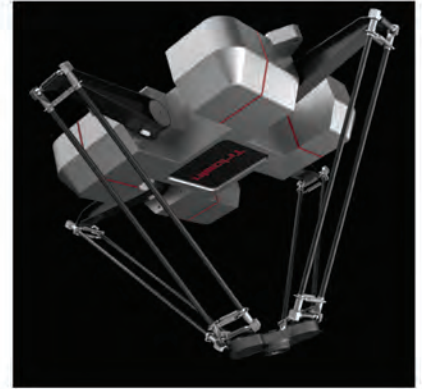


TPR系列码垛搬运机器人

沃迪装备码垛搬运机器人独特的线性执行机构、节能环保的手臂设计、简单的操作界面和首屈一指的定制化抓手，可为客户不同的生产线、物料量身定制专业的机器人系统解决方案，其卓越的精度和速度、高效稳定的性能使一台机器人能够同时完成多条生产线码垛要求。维护安全、方便，即提高企业效益又提升企业形象。

Triwin Palletizing Robots, applying special line-type executive device, low-energy and eco-friendly design, simple operating-screen, specialized hands, supply specialized Robot System Solution for customers with different lines and products. The outstanding speed, precision, stable performance, make the Robot achieve the requirement of multi-line palletization.

It is safe and convenient to maintain, good for customer's profit and impression.



沃迪装备TDR系列拾捡机器人是一种高速、轻载的并联机器人，可以实现工作空间内的XYZ方向的平移以及绕Z轴的旋转运动。

具有重量轻、运动速度快、效率高等特点，能够实现物料快速分拣、多样化智能拾取和装配，被广泛应用于食品、药品、电子、化妆品等行业。

沃迪装备拾捡机器人结合多角度视觉系统，随机抓取流动的混合产品，能够高效、低耗、精准地完成高速完成产品的整理、分类、拾捡、装箱，真正实现生产车间全过程的智能化、无人化、绿色化，安全防护装置设计周到，防护可靠。

Triwin TDR delta robot is light weight, high speed, high efficiency, etc. It can be carried out the translation movement and winding platform axis rotation movement along with the X, Y and Z. The robot is widely used in food, medicine, electronic industry, etc, which can realize fast sorting, intelligence diversification and assembling.

Triwin Picking Robots, using multi-angle vision system, pick moving multi-products, arrange, sort, pick, package them efficiently, low-energy, precisely, helping customers make the workshop intelligentized, unmanned, eco-friendly. The safety system is well-considered and stable.



实验设备及中试生产线专家

Professional Maker for Lab Equipments & Pilot Plants

全程模拟工业生产状态，数据在线生成并记录，是新品研制、小批量生产、教学演示、数据采集的理想方案。



UHT 微型生产线 (产能 5-40L/H)

生产线包括在线均质、杀菌、无菌灌装等过程。广泛应用于牛奶、果汁、茶饮料、含乳饮料、蛋白饮料、番茄酱、调味品、啤酒、奶油、冰淇淋、蛋制品等新产品开发与样品制作。

Associating with POWERPOINT in Japan, Triwin Lab has developed a Beverage UHT Sterilizer with on-line homogeneity and back filling system, the first mini production line at the capacity of 20L/ H in China.

中试生产线交钥匙工程: (产能 50-500Kg/H)

- 1、果蔬汁复合生产线 (清汁 / 油汁 / 浓缩汁);
苹果、柑橘类、梨、桃、杏、芒果、菠萝、石榴、番木瓜、西番莲、番茄、胡萝卜、黄瓜等果蔬汁生产;
- 2、乳制品生产线: 纯牛奶 / 乳饮料 / 发酵乳饮料的生产;
- 3、茶饮料生产线 (茶汁 / 茶浓缩汁 / 茶饮料);
- 4、中草药 / 保健品及保健饮料生产线。

COMPLETE PILOT PROCESSING LINE: (CAPACITY 50-500KG/H)

- Comprehensive pilot line is specifically designed for fruit and vegetable processing (ClearJuice/ Raw juice/Concentrate), it is suitable for apple, citrus, pear, peach, apricot, pine-apple, passionflower, guava, tomato, carrot etc.
- Dairy product pilot line is desinged for blank milk, blended milk drink, UHT milk, yogurtetc. Also, including R & D for by-products such as cream, butter, cheese, ice cream.
- Drink tea pilot line is designed for tea extract, drink tea and drink tea mix.
Herbal pilot line is designed for nutritional and functional drinks, suitable for most oftraditional Chinese medicine, ginseng, medlar etc.



重点单机

KEY INDIVIDUAL MACHINES



升膜式浓缩蒸发器



SD-1500 微型喷雾干燥机



碳酸饮料灌装线



SE03V 型实验室离心机



RTC-2010D 型物性分析仪



TP-1400 实验型压片机



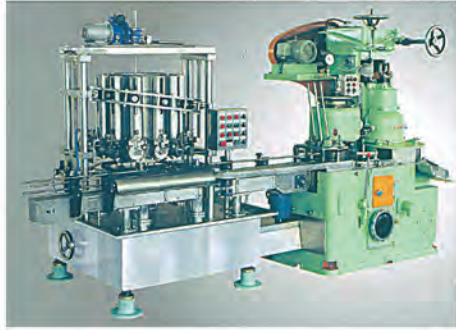
试验型真空空气榨汁机



TE-MT 系列多功能提取罐



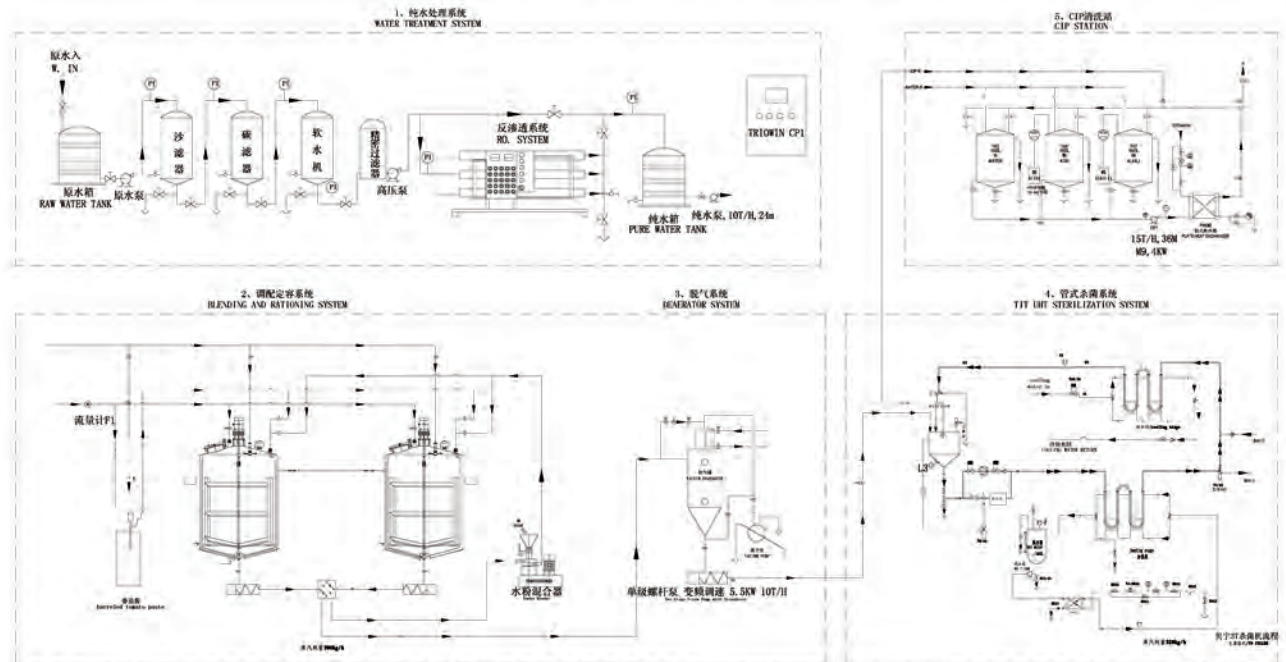
液态小包装生产线 Fruits Processing&Bottling Line



浓酱灌装封盖一体机 Paste Filling&Seaming Monobloc



浓酱灌装机 Paste Filler



沃迪装备可以提供番茄沙司、果汁果酱调配产线到马口铁罐、玻璃瓶、塑料瓶及小袋灌装交钥匙工程，产能1吨/时到10吨/时。根据客户要求，番茄酱、果汁果酱通过加盐、糖、醋、香精等调料进行调配、稀释及混合，然后预热、脱气、均质、杀菌灌装、后巴氏杀菌、包装成最终成品。

Triowin can provide turn-key solution for tomato sauce, ketchup, fruit juice, jam production and filling line with tin cans, glass bottles, PET bottles, pouches packing etc. Capacity is from 1ton/hour to 10tons/hour. Tomato paste or juice is mixed with salt, sugar, vinegar, spices and aromas according to customers requirements through dilution, mixing and blending at first, then through pre-heating, deaeration, homogenizing, filling& seaming, post-pasteurization and packaging system.



液态小包装生产线

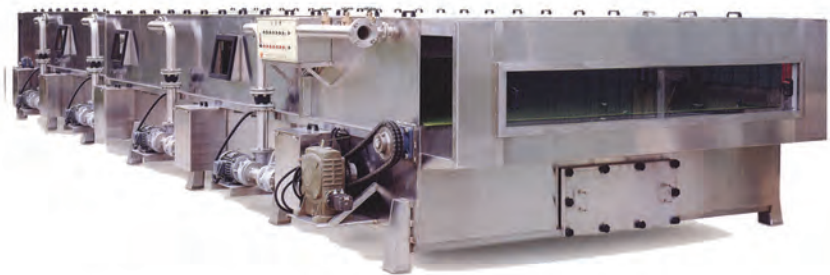
Fruits Processing&Bottling Line



萃取单元 Extraction Unit



管式杀菌机 Tube-type Pasteurizer



连续式隧道杀菌冷却机 Continues Pasteurising— Tunnel Cooler



三位一体机 Riser/Filler/Capper

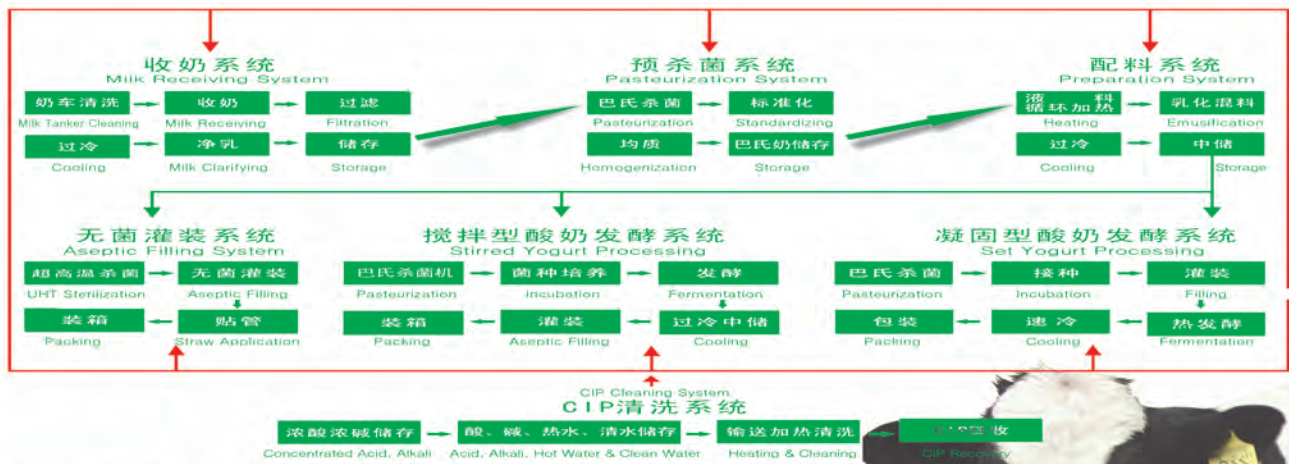


活塞式充填封罐机 Piston Filling Capping Machine



重力式自动充填封罐机 Gravity Auto Filling Capping Machine

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