

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

## Fruit&Drink Processing



果汁果酱生产线成套设备

## Robot Packaging



机器人智能包装成套设备

## Pilot Plants



实验小试 / 中试成套设备

## Dairy Processing



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, Triowin Inc. have been reconstructed as a modern HI-Tech Candidate Public company, and continuously play an important role in MOST, National 863 team, STCSM, Outlook of 12th-5 years planning of Shanghai etc.

Triowin consist of 4 divisions: 1. Fruit & Veg. Propak, 2. Robot Packaging & 3. Pilot plants, 4. Dairy Processing

Triowin Fruit & Drink Processing (Fruit & Vegetable Propak) Division focus on manufacture machines for fruit & vegetable concentration; non concentrated fruit & vegetable juice; hot filling tea drinks; various juice. Take the turn key project. It has the integrated capability of total solution of design, manufacture; installation, commissioning, training, after sales service.

"Incorporating worldwide advanced technology, benefiting our national food industry" is our mission and responsibility. By absorbing and studying worldwide latest fruit & vegetable and drinks processing technology and machinery, cooperating with many companies in Germany, Italy, USA, UK and also present the world leading brand food processing equipment, Triowin has enhanced its compatibility and obtained a deep understanding processing technologies of tomato, mango, pineapple, orange, grape, blueberry, strawberry, peach, apricot, date, carrot, etc. Subsequently, we formed our own capability of total solutions for verified customer's requirement.

Triowin Dairy Processing Division focuses on manufacturing dairy equipment and turn key dairy project. By absorbing and studying worldwide latest dairy technology, we are able to offer the modern machines and total solution of customized production line, design, installation, commissioning, training, after

sales service with competitive price in the processing of pasteurized milk, ESL milk, UHT milk, yogurt & fermented products, milk based drinks, recombined milk, soymilk, vegetable protein milk, condensed milk, cream, non dairy cream, butter, butter oil, milk powder, infant milk powder, cheese, ice cream.

Triowin Robot Packing Division is the unique enterprise of large industrial manufacturing robot in China. New plant has the capacity of 2000 sets of palletizing robot, the turnover will be over 1 billion RMB in 5 years. Our main competitors are the worldwide leading companies in Japan, Germany and Sweden. Our robot products has got CE certificate, sold to many developing counties in European and North American. Triowin Robot is the only Chinese company which is competing in the world.

Triowin Pilot Plants Division has been devoted in digestion and absorb the worldwide advanced packaging and processing technology for a long time. Developed lab. & pilot processing line and instrument. Build a bridge from lab. test to pilot running until to production to fast convert R & D result to production. Associating with POWERPOINT in Japan, Triowin Pilot Plant has developed a moveable beverage UHT Sterilizer with in-line homogeneity and back filling system, the first mini production line at the capacity of 20-40L/H in China. Besides, we provide complete sets of pilot line (50-500L/H) and lab scale of equipment for the academic institutions and research centers, which can be widely applied to the Research & Development of the new products and sample preparation, such as milk, juice, tea, milk based beverage, vegetable protein beverage, tomato juice, spice, beer, cream, ice cream, egg products and powders.

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3600万元，在册员工331人。金山新工厂占地80.5亩，建筑面积33000平方米，总投资超过1.8亿元人民币。沃迪装备先后承担国家科技部、863国家重点装备攻关课题、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。

沃迪装备下设四大事业部：果蔬装备事业部、机器人包装事业部、实验设备事业部、乳品装备事业部。

其中，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造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、生产制造、安装调试、技术培训、售后服务诸多方面的综合能力。以“融合世界先进技术、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。

机器人包装事业部目前为国内唯一一家全面实现工业化批量生产机器人企业，新工厂产能设计年产量2000台套搬运机器人产品，5年时间内产值超过10亿元人民币。

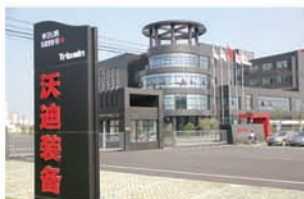
市。主要竞争对手为日本、德国及瑞典等国际行业巨头。机器人取得CE认证、产品远销欧洲及北美等发达国家，为唯一一家参与国际竞争的中国企业。

实验设备事业部致力于消化、吸收并掌握国际先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（保鲜奶），ESL奶（延长保质期牛奶），UHT奶（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。



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

## Tomato Paste Processing Whole Line Turn-Key Solution



### 逆流式外循环蒸发器

MULTI-EFFECT FORCED CIRCULATION EVAPORATOR

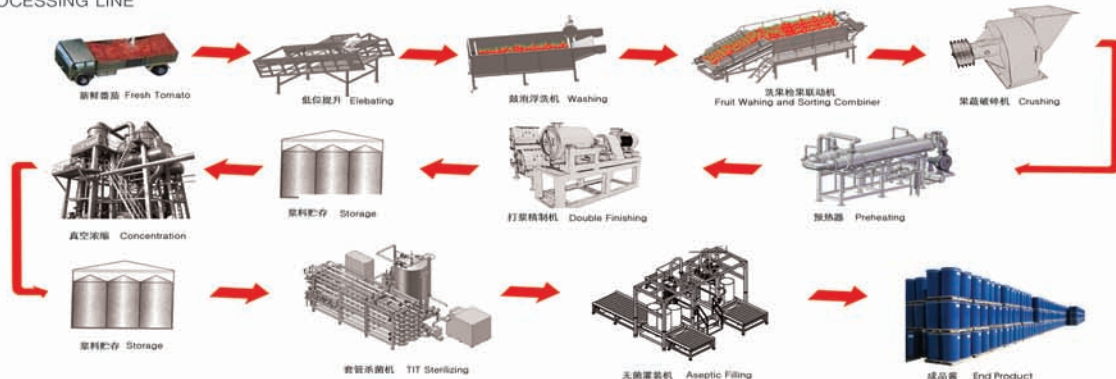


强制外循环逆流式蒸发器专为番茄酱生产过程中的浓缩工艺而设计，同时也主要用于一些高粘度或高固形物含量，且不适于在高温条件下浓缩的物料如果酱，糖浆，食用胶等。该设备由加热器、蒸发室和循环系统组成，得益于其独特的设计，此蒸发器具有极高的稳定性，并能保证最终产品浓度高，色泽好，品质优。根据产量要求及产品的特性，可选用单效、双效、三效或多效蒸发器。

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





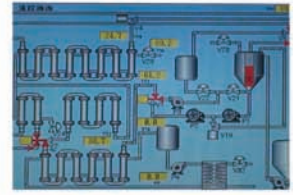


# 番茄酱成套生产线设备交钥匙工程

## Tomato Paste Processing Whole Line Turn-Key Solution

### 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

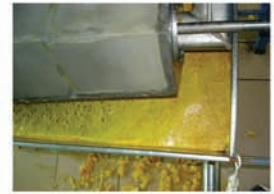
## Citrus Processing & Packaging Plants

### 全果榨汁机

JUICE EXTRACTION FOR CITRUS WHOLE FRUIT

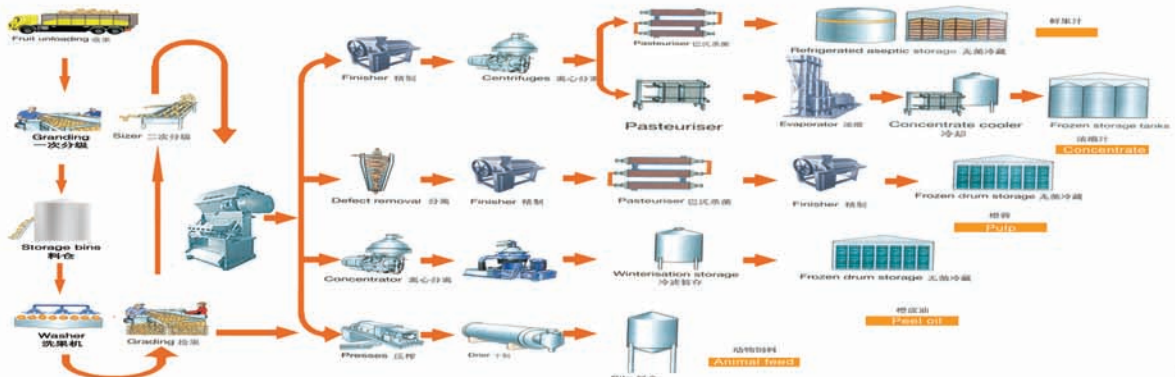
沃迪装备专业致力于生产制造橙汁加工的全线设备，通过与意大利柑橘加工设备专家SPECIALES、SEITALS公司进行全方位的技术合作，已成为国内首家具备承揽橙汁深加工整厂交钥匙工程的设备工程专家。橙汁生产线包括原果前处理、分级机、TCE系列全果榨汁机、TJF系列果汁精制机、TASTE橙汁浓缩设备、巴氏杀菌及UHT管式杀菌灌装和精油提取等工艺流程。在获得高质量浓缩橙汁（或NFC/原汁）的同时，得到高附加值副产品——精油。

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

Apple Processing Whole Line Turn-Key Solution

### 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

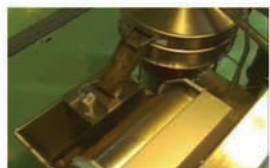
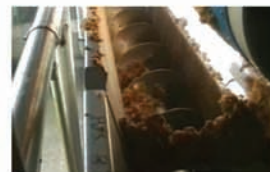
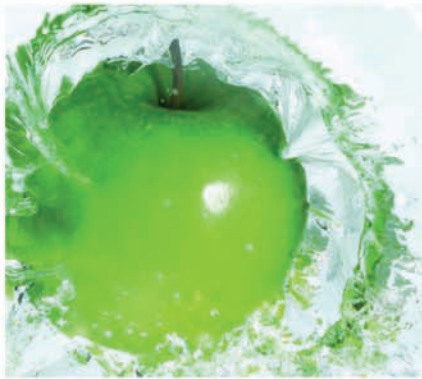


Since China ranks the biggest concentrated apple juice producer in the worldwide market, Triowin has created a processing segment that provides all of the necessary apple processing machinery for achieving quality products at controlled cost.

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.





5~60吨/小时 葡萄榨汁生产线成套设备  
5-60 TPH Grape Processing Whole Line



Advanced Technology/ 领先技术

Siprem international has decades of experience in the world's top wine producing regions. Now Siprem has developed the vacuum press – a positive innovation in pressing technology. The patented new vacuum pressing system extracts must of a quality quite unachievable by traditional systems. Siprem has abandoned the traditional idea of squeezing the must out grapes. Instead the new system uses a vacuum to extract the must and trough similar in appearance to traditional membrane presses, establishes new criteria for quality and processing efficiency which make other techniques obsolete.

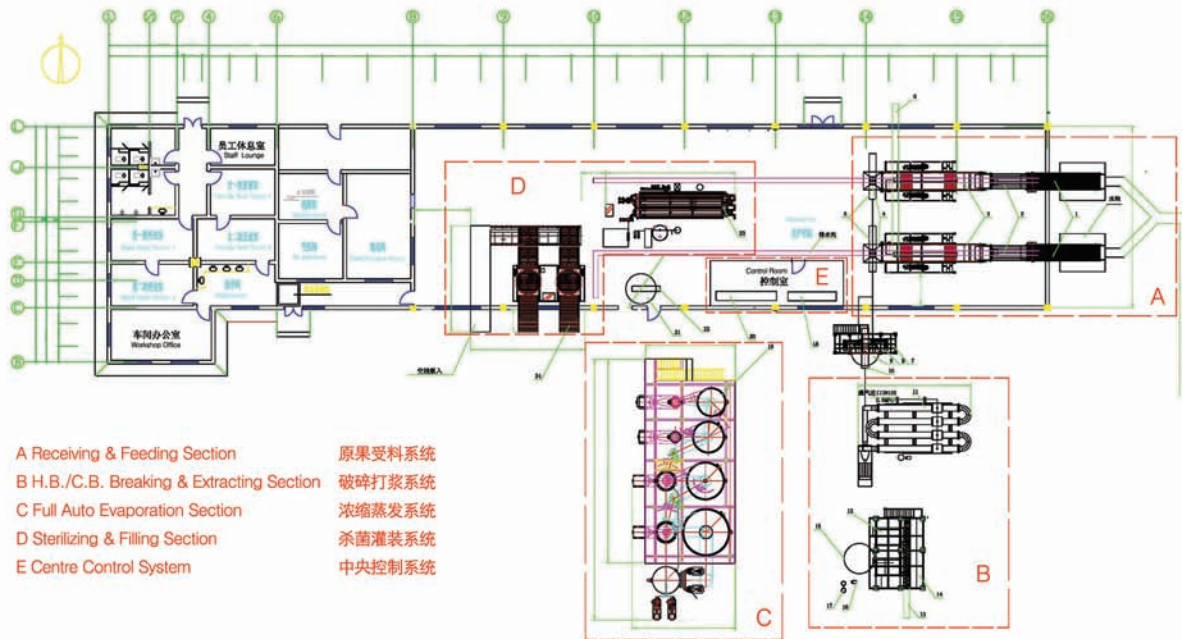
西柏梅在国际顶尖葡萄酒加工领域享有几十年的美誉。如今，西柏梅开发的真空气囊压榨机正引领榨汁领域的一场革命，通过其专利技术压榨的如：葡萄汁、石榴汁、桑椹汁等品质是传统的压榨系统无法比拟的。西柏梅摒弃了传统的葡萄榨汁理念，虽然设备榨腔外形与传统压榨机型相似，但其真空压榨技术已成为高效高质榨汁的新标准。





## 其它果蔬加工成套生产线设备交钥匙工程

Other Fruits Processing Whole Line Turn-Key Solution



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.





**贴标机**  
Labeling Machine



意大利B.R.B.是欧洲独立专业生产贴标机的制造商，已有30多年的贴标技术研发及制造历史，是欧盟四大贴标机品牌之一。

为了更好的开拓和服务中国市场，意大利B.R.B公司于上海沃迪科技有限公司于2003年成立中国区域销售及技术服务中心，目前在国内已有40多台设备在运转，合作客户包括益海嘉里集团，中粮集团，洋河酒业等。

沃迪公司始终相信：服务赢得信赖，专业成就未来，尽心尽力，尽善尽美。

BRB Italy is the sole manufacturer exclusively for labeling machine in Europe which has over 30 years history to manufacturing and technical developing. It is admitted one of the top 4 makers in Europe.

For the sake of offering a better development and service for Chinese market, BRB began its cooperation with Shanghai Triowin Technology Company Limited in 2003. there are more than 40 sets of labelers working in home market and our customers consists of Wilmar International、COFCO、YangHe and so on.

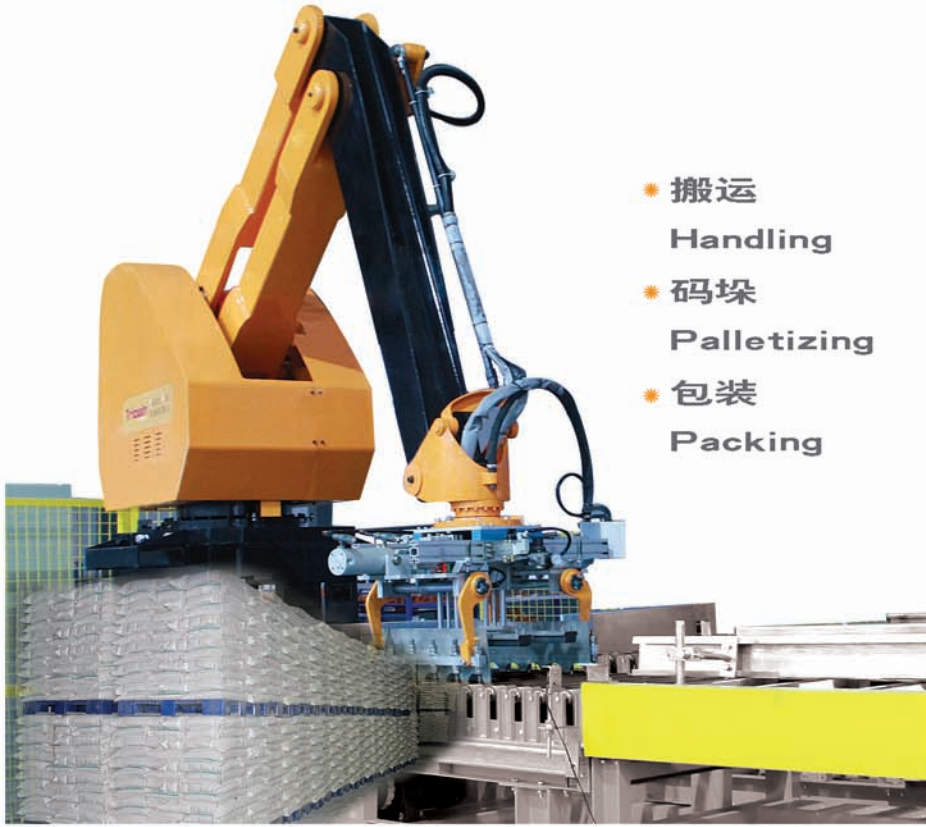
We always believe in: service wins trust, professional makes the future, and approaching perfection





# 码垛机器人

Palletizing Robot



- ★ 搬运  
Handling
- ★ 码垛  
Palletizing
- ★ 包装  
Packing



丰富多样的抓手形式，可广泛应用于饲料、化肥、石化、饮料、食品、药品、啤酒、日化等行业。  
Various methods of holding hands, and suitable for feed, fertilizer, food, beverage, beer, petro, pharmacy, cosmetics etc.



沃迪装备机器人包装事业部搬运机器人项目为国家科技部863工业机器人国家攻关课题主要承担单位。为上海市工业机器人十二五发展规划主要起草单位。目前为国内唯一一家全面实现工业化批量生产机器人企业，主要竞争对手为日本、德国及瑞典等国际行业巨头。机器人取得CE认证、产品远销欧洲及北美等发达国家，为唯一一家参与国际竞争的中国企业。

TRIOWIN ROBOT, one of the leading companies in food and beverage packaging industry, through the strategic collaboration with SJTU, targeting at branding No.1 national maker for palletizing robots, is honored to introduce you to the next generation TPR-120, TPR-200, TPR-300 series of Robots, the collection of goods has 3 ways: fork, clamp, vacuum gripper. Developed based on the latest technology in the world, TPR Robot was designed to provide optimized services to customers while taking consideration of their unique needs and diversified operating environments. TPR Robot can operate in the field of beverage, dairy, food, beer, petroleum and chemical industry, and pharmacy, with full capacity to meet the requirement of all sorts in the packaging assembly line.



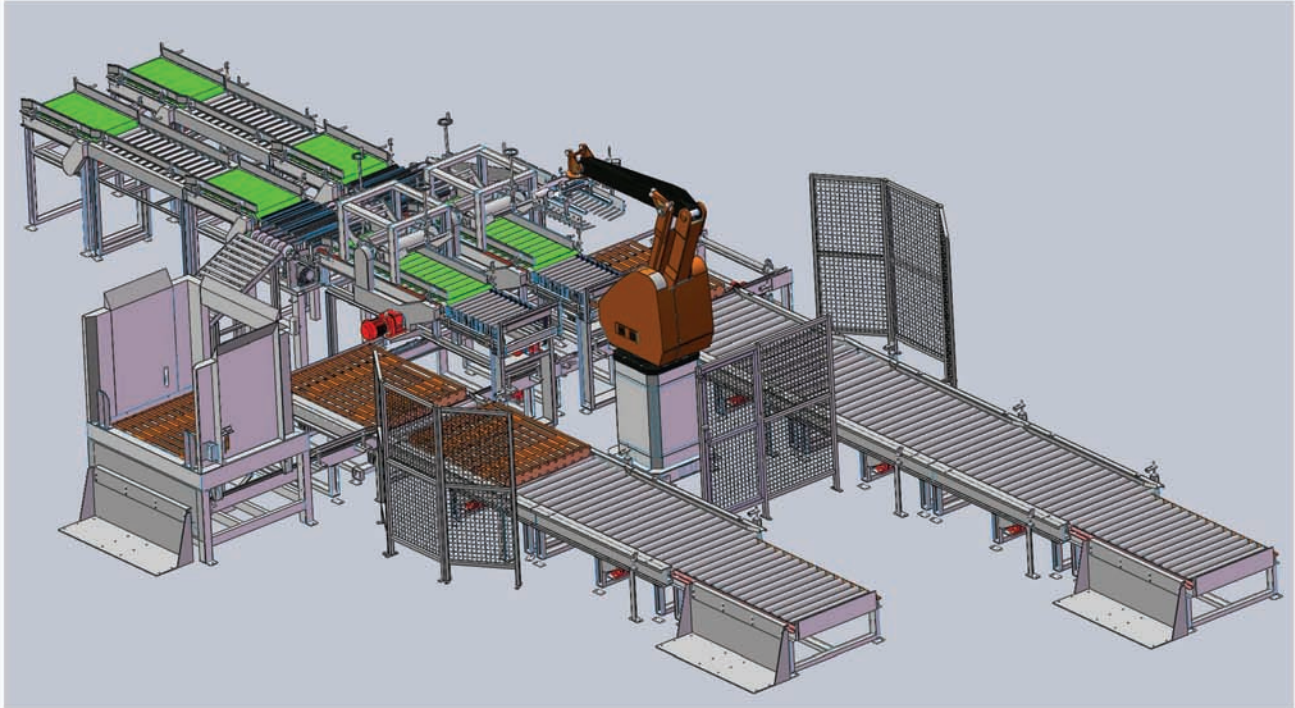


码垛机器人  
Palletizing Robot

**Triowin**  
沃迪装备

我们提供完整的码垛解决方案。

We provide customized palletizing solutions to our world-wide customers.



各种垛型 VARIOUS PATTERNS



周边设备 SURROUNDING DEVICES



技术参数 TECHNICAL DATA

项目 Item	规格 Specification		
	TPR-120	TPR-200	TPR-300
轴数 Controlled axis	4轴 4 axes (A、B、C、D)		
安装方式 Installation	落地式 Floor mount		
动作范围 Motion Range	A(左右)	330°	330°
	B(上下)	2000mm	2300mm
	C(前后)	1300mm	1500mm
	D(抓手)	330°	330°
承重能力(含手部) Max. load Capacity	120 kg	200 kg	300 kg
动作能力 Handing Capacity 注1	1400回(cycles)/时(hour)	1600回(cycles)/时(hour)	1000回(cycles)/时(hour)
驱动方式 Drive method	AC伺服电机驱动 Electric servo drive by AC servo motor		
位置重复精度 Repeatability	± 0.5 mm		
消耗功率 Power Consumption	4KW	6.5KW	8KW
本体重量 Weight	750 kg	1100 kg	1500 kg
安装条件 Installation environment	周围温度：-10 ~ 45℃ 周围湿度：通常 85%RH以下 最高 95%RH（1个月内）		

注1) 在厂家开发条件下的最大能力，实际的码垛能力与距离、产品的重量等现场条件相关。





## 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



开膜式浓缩蒸发器



SD-1500 微型喷雾干燥机



碳酸饮料灌装机



SE03V 型实验室离心机



RTC-2010D 型物性分析仪



TP-1400 实验型压片机



试验型真空气囊榨汁机



TE-MT 系列多功能提取罐



## 液态小包装生产线

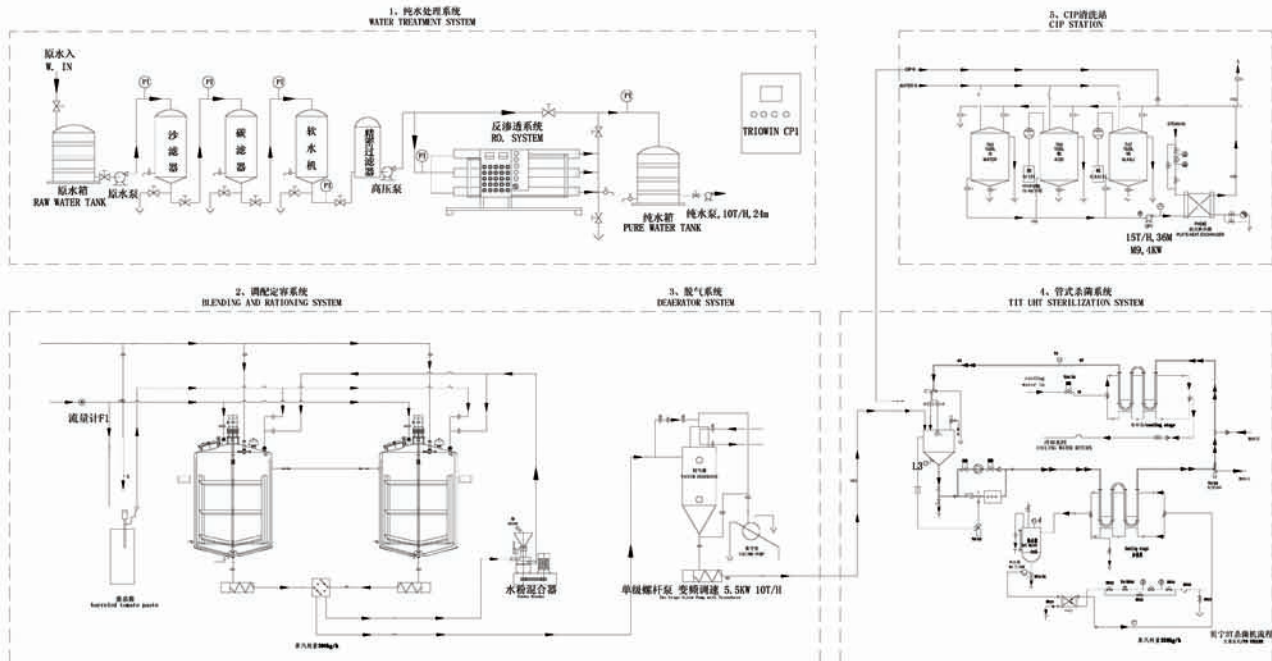
Fruits Processing & Bottling Line



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

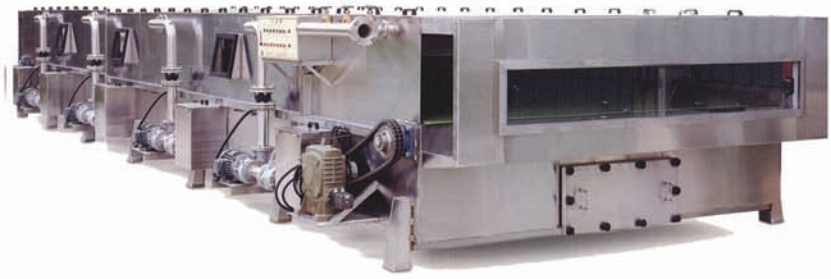
Fruits Processing & Bottling Line



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

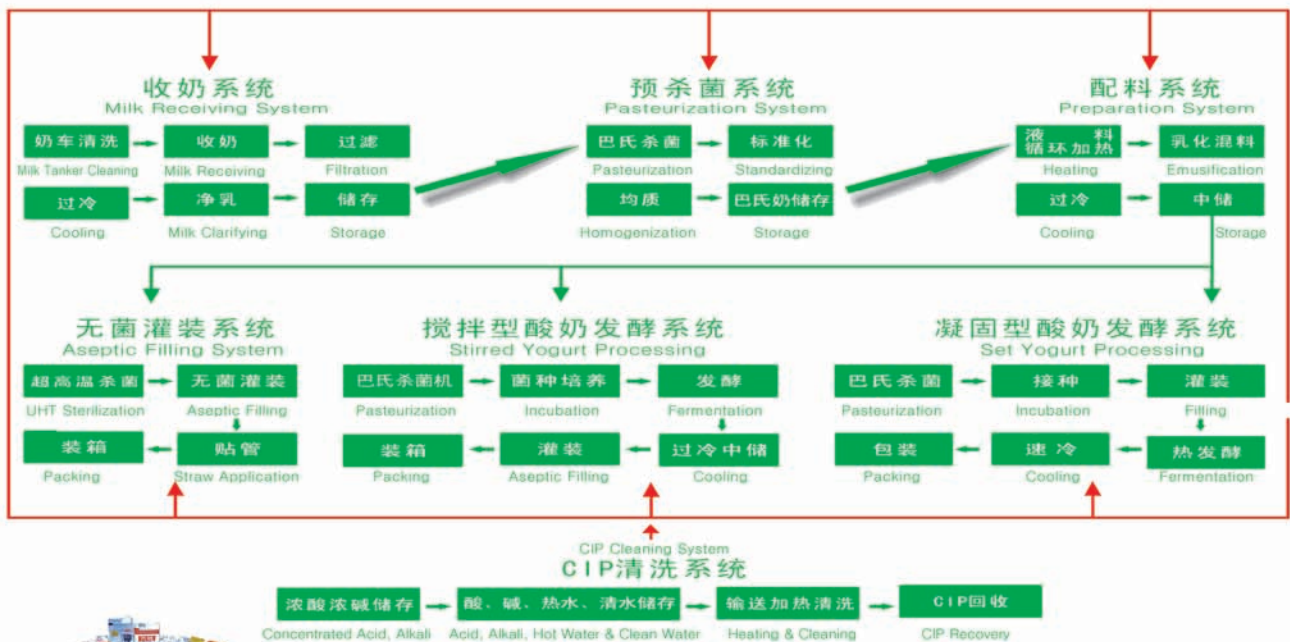


活塞式充填封罐机 Piston Filling Capping Machine



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

**乳品工业整体解决方案**  
Complete Solution for Dairy Industry





整合世界加工科技 打造民族精品机械  
Competent & Competitive Industry Leader in China



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