





## 企业简介 Company Profile

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### 领先的，不仅仅是技术.....

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合肥中辰轻工机械有限公司坐落于中国安徽合肥市国家级经济技术开发区，占地总面积近10万平方米。公司从1984年开始就专业从事饮料、啤酒灌装包装自动化生产线设备的设计开发与制造，是中国饮料装备行业的核心骨干企业。设计资质、加工手段、产品质量以及售后服务一直处于行业领先地位。中辰轻机现有员工近500人，具有高等教育背景的各类专业技术和销售人员300多人。

中辰轻机同时拥有ISO9000:2000质量管理体系认证、CE认证，并按ISO及现代企业管理机制长效流畅运营。公司具有制造一、二类压力容器的国家级资质，公司的主导产品连续获得多次专利技术认证、国家重点新产品、行业优秀供应商等殊荣。公司参与并起草了多部国家级饮料啤酒生产线行业标准规范。

中辰轻机在全球化的背景下，将奉行“忠诚、务实、高效、创新”的理念与世界先进同行在国际舞台上同场竞技，我们还愿意与一切有共同理念的企业合作，共同创造双赢，共同开创饮料、啤酒工业设备新的局面；为中外饮料、啤酒行业提供最好的解决方案和高品质的技术装备、售后服务，是中辰轻机永恒的宗旨和追求。

中辰轻机的产品系引进欧洲著名的一流公司的技术，同时结合自身多年的设计、生产及服务的经验，赢得了众多中高端著名的客户。经过多年稳步发展，中辰轻机早已成为中国首屈一指的专业研发和制造适合PET瓶、玻璃瓶、易拉罐等包装容器的饮料、啤酒等成套生产线设备和工程的高新技术企业。产品涵盖碳酸饮料生产线设备、水生产线设备、果汁茶饮料牛奶生产线设备、啤酒黄酒白酒生产线设备等以及成套整厂交钥匙工程设备。公司产品远销60多个国家和地区，在饮料行业成功地地为可口可乐、百事可乐、娃哈哈、健力宝等国内外知名企业提供了多条先进生产线设备；在酒行业成功进军嘉士伯、帝亚吉欧、燕京啤酒、青岛啤酒、华润雪花啤酒、百威英博等国内外知名企业。



### Company Profile

Hefei Zhongchen Light Industrial Machinery Co., Ltd., a first-class company in Chinese liquid-filling and packaging equipment industry, has been engaged in the design, R&D and manufacturing of complete equipment sets for beverage and beer automatic bottling line since 1984, and has taken the lead in the industry in terms of design qualification, processing capability, product quality, and after-sales service. It is located in National Economic and Technological Development Zone of Hefei City, in the Province of Anhui, which covers an area of 100,000 m<sup>2</sup>. It now has 500 employees, among which more than 300 are technical professionals and sales personnel with high education background.

With its initial technologies introduced from renowned European companies, Hefei Zhongchen Co. now manufactures high quality products based on the integration of years of experience in design, engineering, fabrication, installation, and service, which has won a number of famous high-end customers. After years of steady development, it has become a leading National High and New Tech Enterprise specialized in R&D and manufacturing of complete equipment sets for beverage and beer bottling lines and turnkey projects, including CSD / water / juice / tea drink / milk / beer / millet wine / liquor, etc. The products have been exported to more than 60 countries and regions. In the beverage industry, it has supplied complete beverage / water line equipments for Coca-Cola, Pepsi-Cola, Wahaha, Jianlibao, etc.; while in the beer industry, it has successfully provided hundreds of advanced bottling lines for Carlsberg, Diageo, Yanjing Beer, Qingdao Beer, China Resources Snow Breweries, AB InBev, etc.

Hefei Zhongchen Co. obtains the quality certifications of ISO9000:2000 and CE, and operates smoothly in accordance with ISO and modern enterprise management mechanisms. With national qualifications for designing and manufacturing first-class and second-class pressure vessels, it has received honors of patent technology certification, National Key New Products, Excellent Industrial Supplier, etc. for several times consecutively. It has participated in drafting a number of national industry standards in beverage / beer bottling lines.

In the context of globalization, Hefei Zhongchen Co. will abide by the concept of "Loyalty, Practice, Efficiency, Innovation", and compete with advanced counterparts on the global market. We are willing to cooperate with any enterprise with a common philosophy as ours to create new partnerships. Its foremost objective is to provide the best solutions, high-quality equipments and after-sales service for beverage and beer industry domestically and internationally.





# 技术 / 工程 / 制造 / 检验

Design / Engineering / Manufacturing / Inspection

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## 技术、工程 Design/Engineering



- 锐意进取、勇于创新的精神有力地保证技术的领先；
- 竭诚服务用户、主动了解市场确定了技术研发方向的实用性；
- 丰富的从业经验、新知识的积极学习使科学的方法得到有效的运用。

- Our aggressive and innovative spirits guarantee advanced technology
- Sincere service and active knowledge of the market ensure practicality of our technology R&D
- Years of experience and thorough studies make the application of the scientific method efficient

## 制造、检验 Manufacturing/Inspection

- 高精度的数控机床和加工中心，先进的设备及检测仪器保证产品的精密度；
- 专业技术人才、严谨的工作态度能最大提高产品的稳定性和可靠性；
- 精良的工艺、完善的管理体系为产品品质的优良奠定了基础。

- High-accuracy CNC, high-tech devices and advanced detecting instruments guarantee the precision of our products
- Technical professionals and rigorous working attitude improve the stability and reliability of products
- Excellent technology and perfect management system lay the foundation for product quality



# 客户和市场

Customers & Market



公司产品远销国内外60多个国家和地区，在饮料行业为可口可乐、百事可乐、娃哈哈、健力宝等知名企业提供了数百条先进生产线设备；在啤酒行业进军嘉士伯、帝亚吉欧、燕京啤酒、青岛啤酒、华润雪花啤酒、百威英博等知名企业；在调味品行业与海神黄酒、王致和等知名企业取得合作，与国内外众多知名企业的合作是我们产品和服务实力的最好见证。

The products have been introduced to more than 60 countries and regions. In the beverage industry she has successfully provided hundreds of advanced beverage / water lines for Coca-Cola, PepsiCo, Wahaha, Jianlibao, etc.; in the beer industry, has supplied complete bottling line equipments for Carlsberg, Diageo, Yanjing Beer, Qingdao Beer, China Resources Snow Breweries, AB InBev, etc.; while in the seasoning industry, has cooperated with Hai Shen Millet Wine, Wang Zhi He, etc.. Successful cooperation with numerous well-known enterprises is the best witness of our products and service.



## 资质荣誉 Qualifications and Honors



公司不仅仅在技术上一直处于同行业的领跑者，得到各相关行业协会及国家各相关部门的认可与表彰。更坚持走质量效益型发展道路，规范推进国际化的先进管理体系。质量文化已经渗透到研发、生产、销售和服务的每个细节当中，成为一种自觉行为，并带领企业获得诸多荣誉和专利证书，得到广大客户的一致好评与推荐。

The company not only has been the leader in technology, and has obtained the approval and recognition of relevant industry associations and national departments, but it is also determined to improve its quality, and to normalize and promote its advanced international management system. Quality has become the culture in R&D, production, sales and service, and has led the enterprise to obtain many honors and patent certificates, high praised and recommended by most customers.

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07	PET瓶碳酸饮料灌装包装生产线 Carbonated Soft Drink (CSD) PET Bottling Line
13	玻璃瓶碳酸饮料灌装包装生产线 Carbonated Soft Drink (CSD) Returnable Glass Bottle (RGB) Bottling line
15	PET瓶果汁、茶饮料等不含气饮料灌装包装生产线 Non-Carbonated Beverage (NCB) PET Bottling Line
17	玻璃瓶果汁、茶饮料等不含气饮料灌装包装生产线 Non-Carbonated Beverage (NCB) Glass Bottling Line
19	PET瓶饮料超洁净、无菌灌装包装生产线 PET Beverage Ultra-clean / Aseptic Bottling Line
21	水灌装包装生产线 Water Bottling Line
23	易拉罐灌装包装生产线 Beverage Canning Line
25	生产线通用设备 Common Equipments on Production Lines
27	整厂交钥匙工程 Equipment Turnkey Project for Beverage Plant





## PET瓶碳酸饮料灌装包装生产线 Carbonated Soft Drink (CSD) PET Bottling Line

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### 设备组成

包括自动吹瓶机、风力输送线、冲瓶灌装拧盖三联机、输盖机、混合机、温瓶机、OPP贴标机、喷码机、收缩膜包装机、码垛机、缠绕机、实瓶输瓶系统、输箱系统、电气控制系统等在内的一整套灌装包装生产线。

### 可选设备

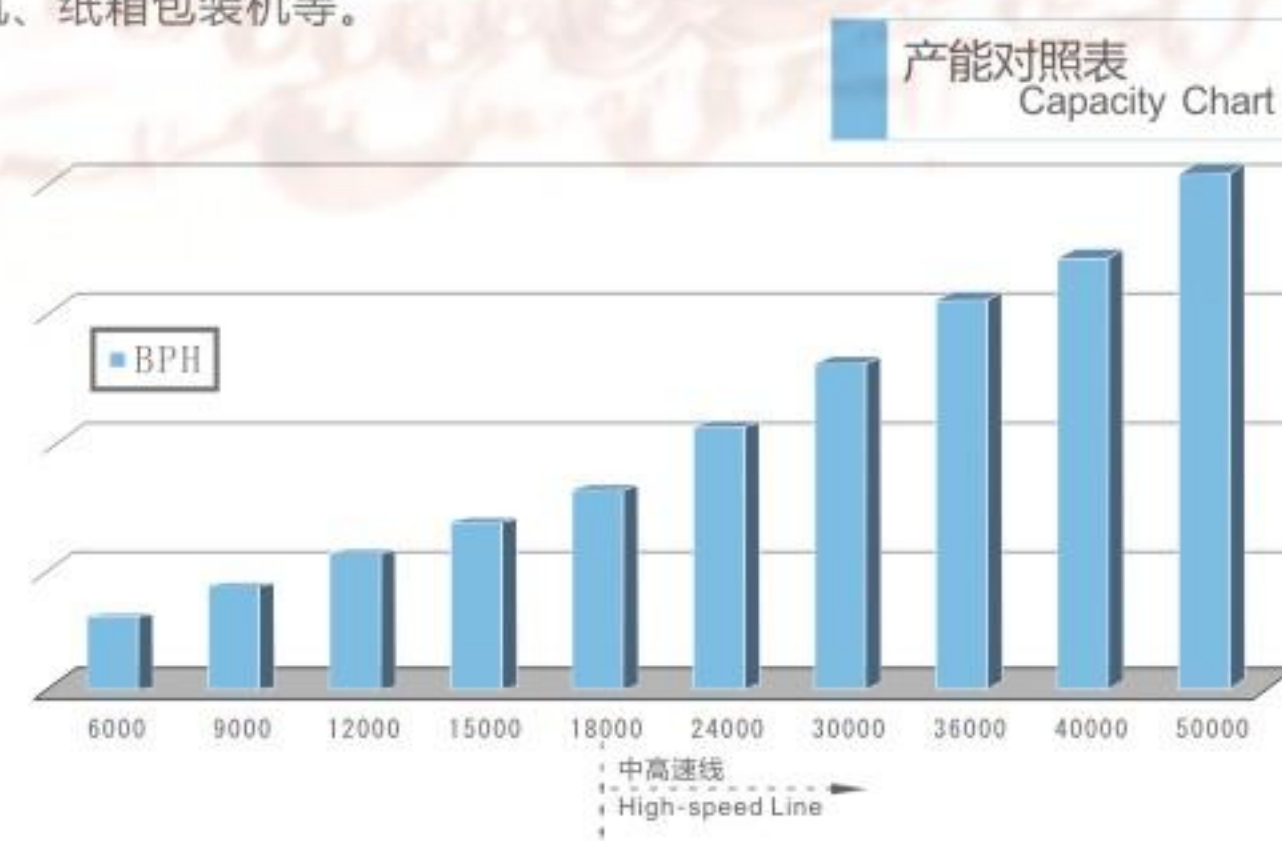
自动理瓶机或人工理瓶系统、瓶仓、全自动卸瓶机、套标机、纸箱包装机等。

### Scope of Supply

Blow moulder, air conveyor, rinser & filler & capper monobloc, cap feeder, mixer, bottle warmer, OPP labeler, ink jet coder, shrink film packer, palletizer, stretch wrapper, full bottle / pack conveyor, electrical control system, etc.

### Optional Equipments

Automatic / manual unscrambling system, bottle silo, full-automatic bottle depalletizer, sleeve labeler, carton packer, etc.



## PET瓶碳酸饮料灌装包装生产线 Carbonated Soft Drink (CSD) PET Bottling Line



外冷式混合机 Indirect Cooling Mixer

吹瓶机 Blow Moulder



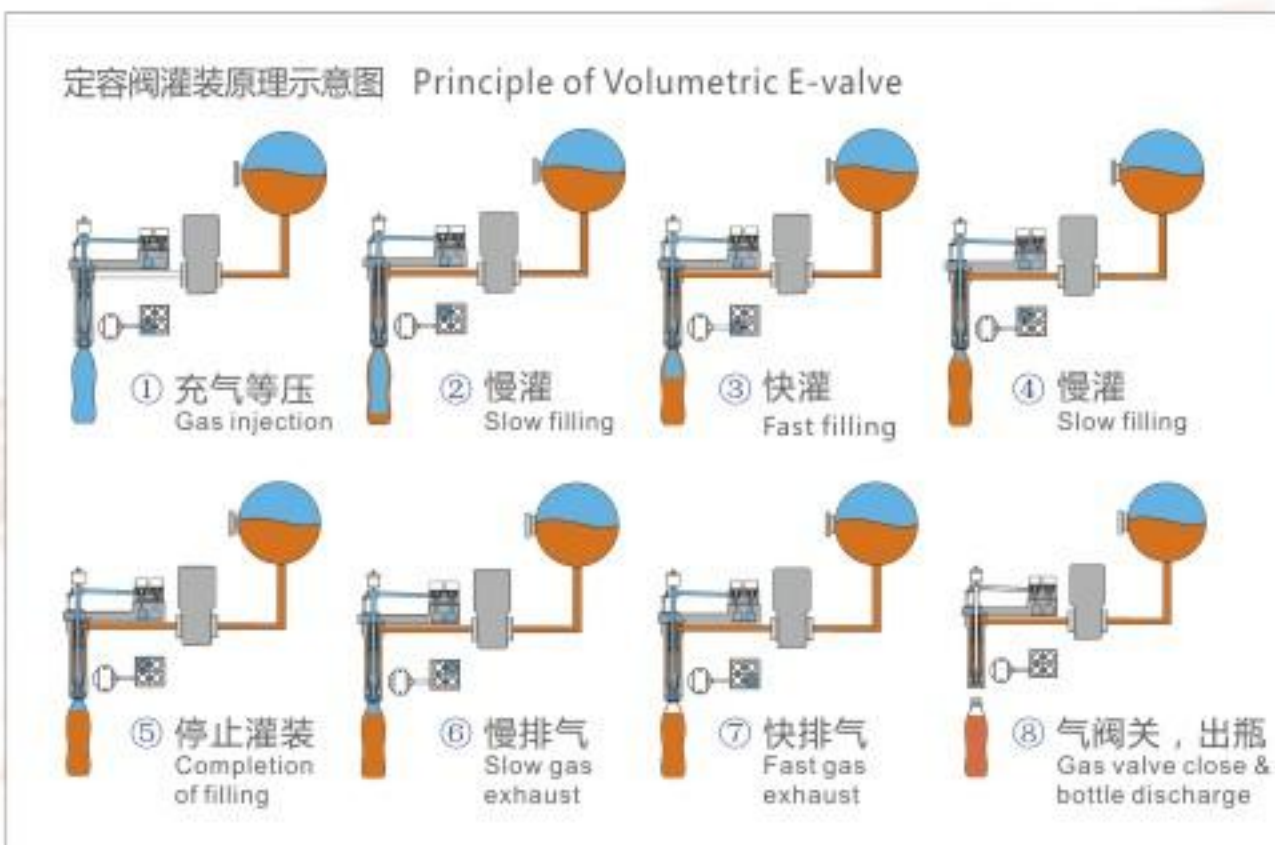
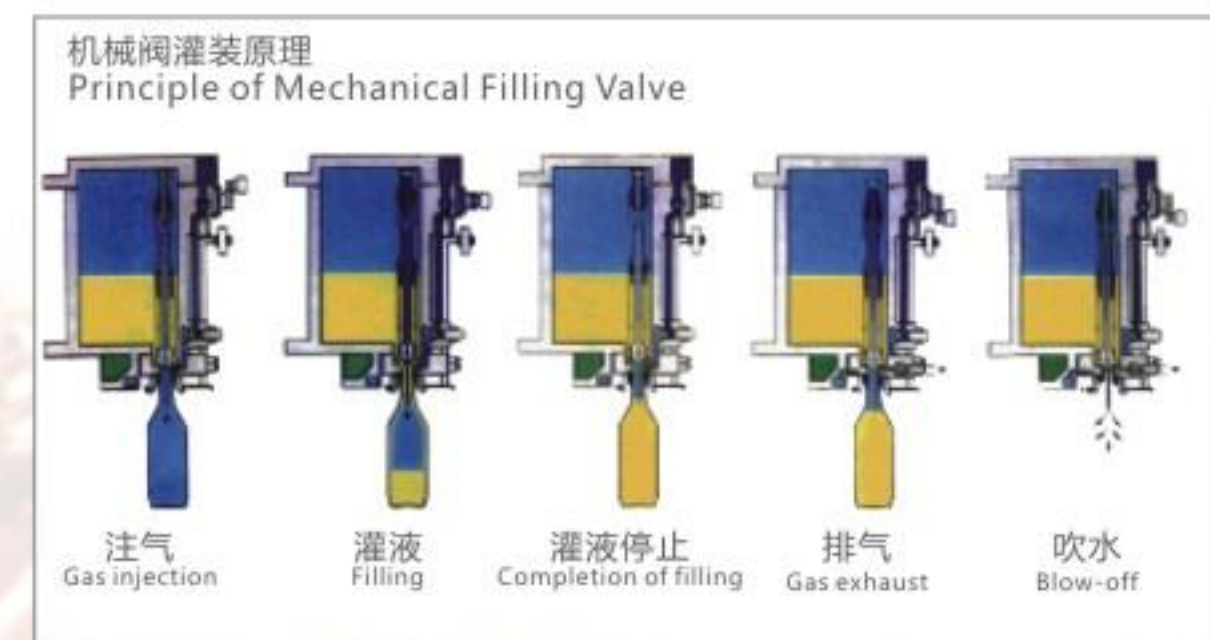


# PET瓶碳酸饮料灌装包装生产线 Carbonated Soft Drink (CSD) PET Bottling Line

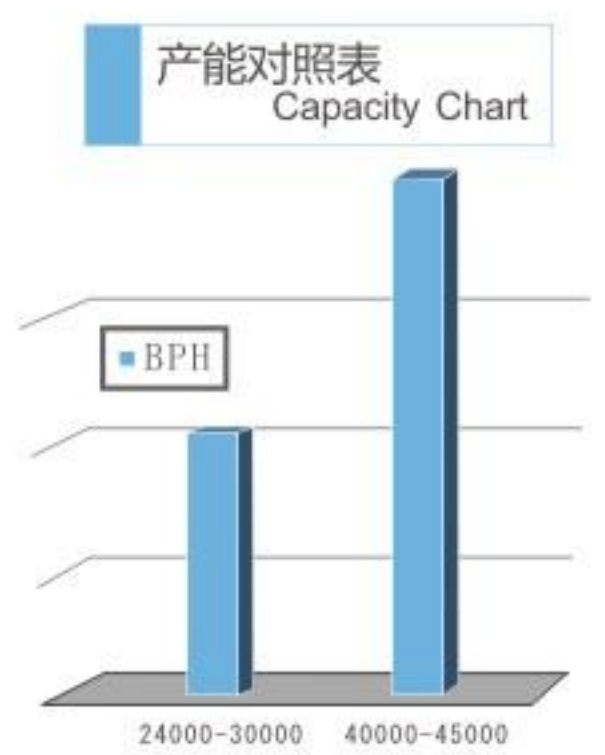
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## FCGN系列中高速定容式流量计灌装组合机



- 灌装精度: 与传统机械阀相比,灌装精度可提高5-6倍。
- 控制单元: 独立控制每个灌装阀的快慢灌注、快慢排气,各控制单元经总线连接至中央工业控制计算机,采用DCS系统/CPU/PLC控制,控制精准,灌装精确。
- 实现分段排气、快慢排气,抑制泡沫,实现16-18摄氏度灌装,节约能源。
- 阀内通道简洁,无弹簧设计,可彻底清洁卫生。全自动型CIP清洗杯,不需要人工拆卸,提高工作效率。



# PET瓶碳酸饮料灌装包装生产线 Carbonated Soft Drink (CSD) PET Bottling Line

## FCGN Series Middle & High Speed Volumetric Filler Monobloc



- Filling accuracy-The filling accuracy can be 5-6 times higher compared to mechanical valves.
- Control Unit-Individually filling valve control for fast & slow filling and snifing. Each control unit is connected to central industrial computer via Control Bus. Adopt DCS system/CPU/PLC control, guaranteeing control precision and filling accuracy.
- Periodical gas exhaust and fast and slow snifing prevent product foaming, satisfy 16-18°C filling requirements and save energy.
- Simple internal filling valve chamber without springs ensure thorough cleaning & sanitation. Automatic CIP cups are highly efficient.





# PET瓶碳酸饮料灌装包装生产线

## Carbonated Soft Drink (CSD) PET Bottling Line

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### DBF系列在线流量计式混合机



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本机主要由真空脱气装置、CO<sub>2</sub>注入装置、板式换热器、成品罐、在线CO<sub>2</sub>和糖度检测装置（可选）、机架、电气柜等几大部分组成。全自动控制系统包含系统压力、液位、温度自动控制系统，以及整机运行和操作自动控制系统。

- 高效脱氧系统**  
 在水进入脱氧罐之前，用CO<sub>2</sub>气体将脱氧罐内的空气置换。水进入脱氧罐是通过特制的喷嘴高速喷出，呈现雾状，使水具有较大的表面积，脱氧罐真空度可达到-0.94bar以上。
- 高精度糖水混合系统**  
 由水泵、水质流量计、糖浆泵、糖浆质量流量计、糖浆调节阀以及工控机构成的定量配给系统，在线可调，混合精度极高，成品糖度偏差达到设定值±0.05，甚至更低。
- 高效碳化系统和稳定的碳化精度**  
 饮料含气倍数可以在线调整，在给范围内无级调节。碳化倍数偏差可稳定控制在设定值的±0.10GV，甚至更低（根据CO<sub>2</sub>体积倍数设定为4.2GV时检验）。
- 物料消耗少**  
 采用了在线配比混合技术，可以最大限度地减少开机时或转换品种时，糖浆的损耗。



# PET瓶碳酸饮料灌装包装生产线

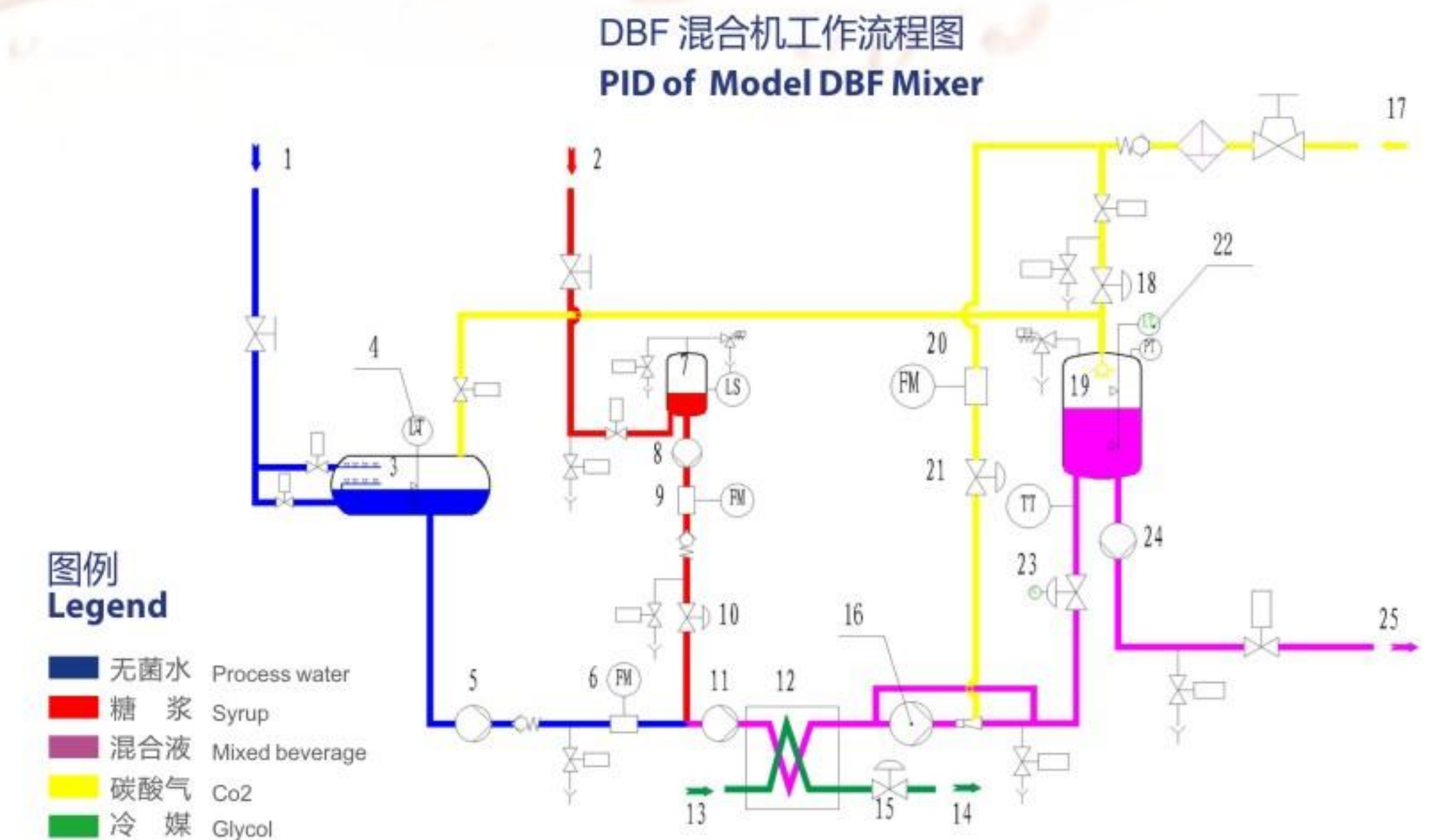
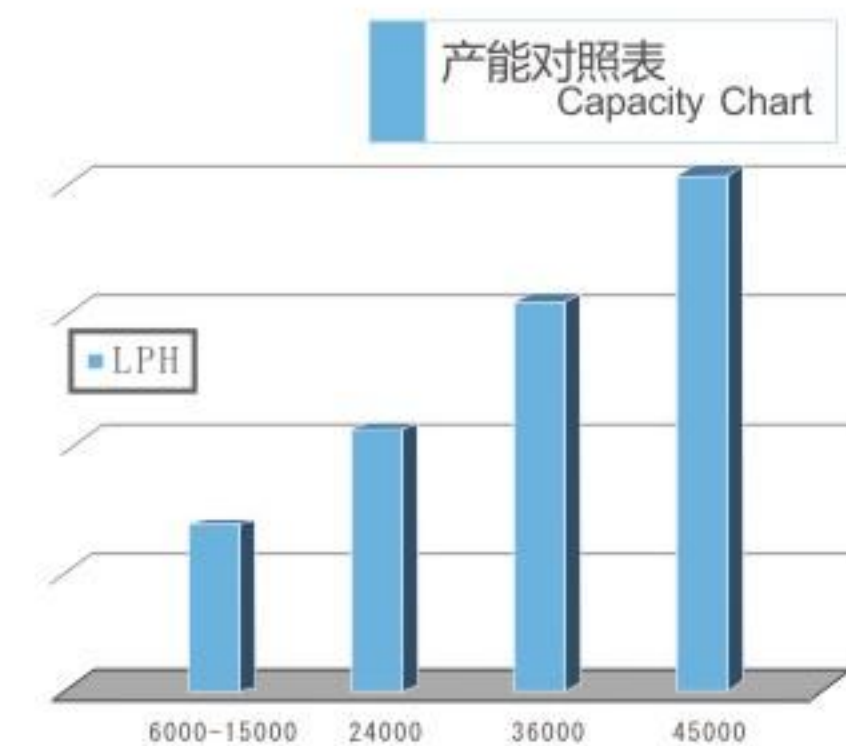
## Carbonated Soft Drink (CSD) PET Bottling Line

### DBF Series Online Flow Meter Type Mixer



The mixer is composed of a vacuum deaerator, a CO<sub>2</sub> injector, a plate heat exchanger, a finished product tank, an inline CO<sub>2</sub> and Brix detector (optional), machine frame, electric cabinet, and other parts. The fully automatic control system consists of individual systems to control pressure, liquid level, temperature and other machine operation parameters such as Brix and gas volume.

- High efficiency deaeration system**  
 Use CO<sub>2</sub> to replace air before the water enters the deaeration tank. Special nozzles spout out high-speed water mist for a large water surface area, guaranteeing the deaeration result to reach -0.94bar or above.
- High-accuracy Brix control**  
 The in-line adjustable water & syrup mixing system is made up of water pump, water mass flow meter, syrup pump, syrup mass flow meter, syrup regulation valve, and the control system. High Brix control accuracy is ±0.05Brix deviation or even better.
- Stable and accurate carbonation**  
 Beverage Gas Volume online adjustable, accuracy achieves ±0.10GV, or even better (As per the pre-set GV=4.2).
- Lowest wastage**  
 Maximum reduction of syrup wastage in production beginning or product changeover.

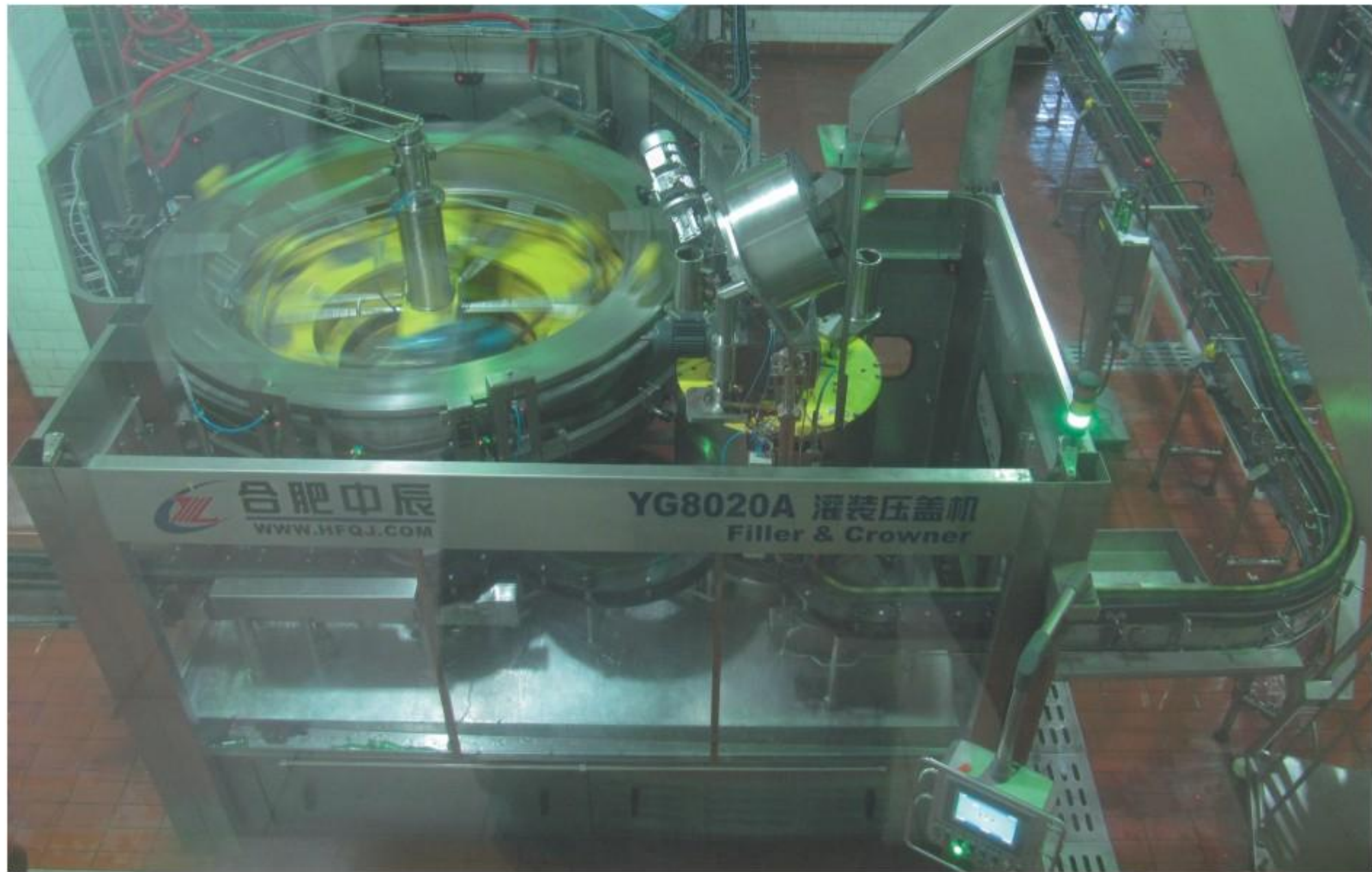




## 玻璃瓶碳酸饮料灌装包装生产线

### Carbonated Soft Drink (CSD) Returnable Glass Bottle (RGB) Bottling Line

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#### 设备组成

包括卸箱垛机、卸箱机、洗箱机、洗瓶机、混合机、灌装压盖机、输盖机、喷码机、装箱机、码垛机、实瓶输瓶系统、输箱系统、电气控制系统等在内的一整套灌装包装生产线。

#### 可选设备

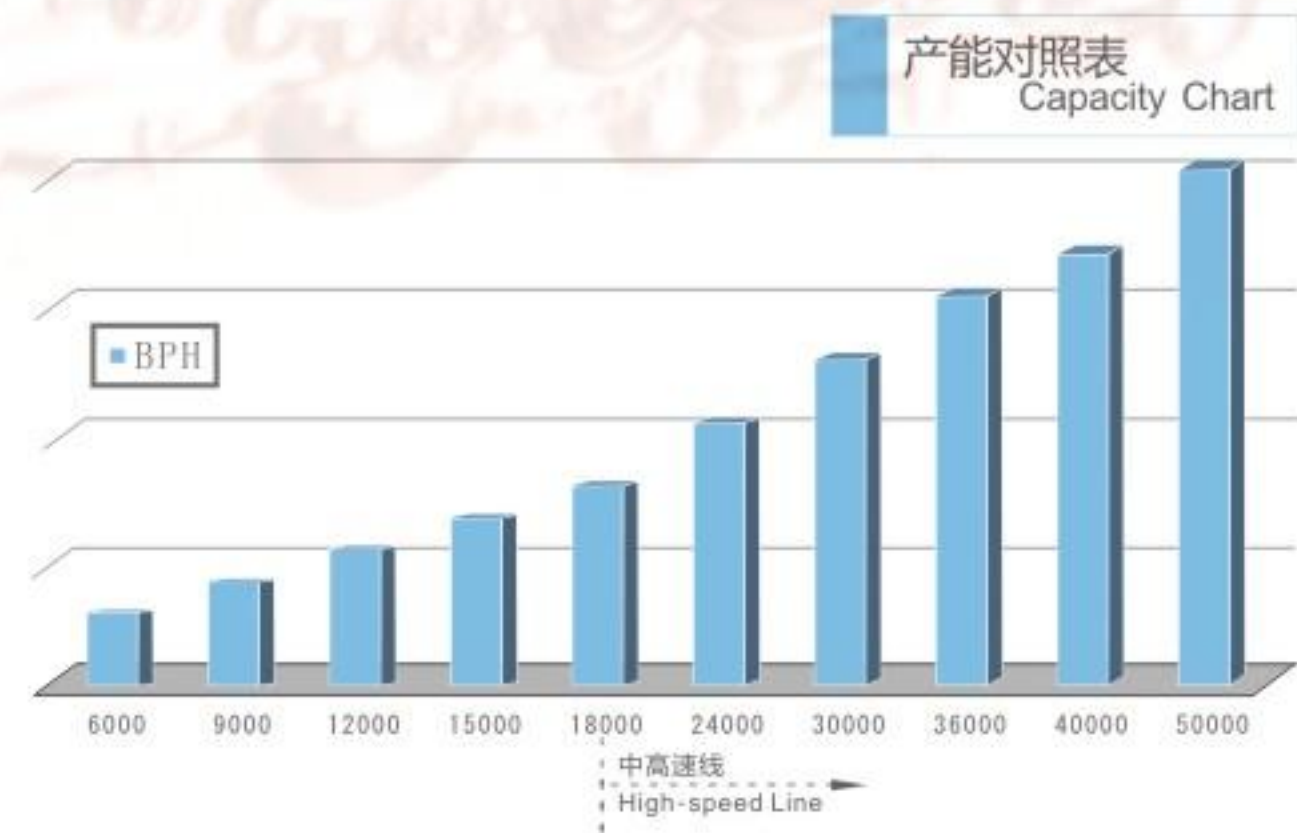
温瓶机、贴标机、收缩膜包装机、纸箱包装机等。

#### Scope of Supply

Crate depalletizer, decrater, crate washer, bottle washer, mixer, filler & capper monobloc, cap feeder, ink jet coder, crater, palletizer, bottle / pack conveyor, electrical control system, etc.

#### Optional Equipments

Bottle warmer, labeler, shrink film packer, carton packer, etc.



## 玻璃瓶碳酸饮料灌装包装生产线

### Carbonated Soft Drink (CSD) Returnable Glass Bottle (RGB) Bottling Line



内冷式氨制冷混合机  
Direct Ammonia Cooling Mixer



洗箱机 Crate Washer







PET瓶果汁、茶饮料等不含气饮料灌装包装生产线  
Non-Carbonated Beverage (NCB) PET Bottling Line

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设备组成

包括自动吹瓶机、风力输送线、UHT超高温灭菌机、输盖灭菌机、理盖清洗机、冲瓶灌装封盖三联机、倒瓶杀菌机、冷瓶机、吹干机、套标机、喷码机、收缩膜包装机、码垛机、缠绕机、实瓶输瓶系统、输箱系统、电气控制系统等在内的一整套灌装包装生产线。

可选设备

均质机、自动理瓶机或人工理瓶系统、全自动卸瓶机、瓶仓、贴标机、纸箱包装机等。

Scope of Supply

Blow moulder, air conveyor, UHT, cap sterilizing-elevating-unscrambling unit, rinser & filler & capper monobloc, tilting bottle sterilizer, bottle cooler, drier, sleeve labeler, ink jet coder, shrink film packer, palletizer, stretch wrapper, full bottle / pack conveyor, electrical control system, etc.

Optional Equipments

Homogenizer, automatic / manual unscrambling system, full-automatic bottle depalletizer, bottle silo, OPP labeler, carton packer, etc.



PET瓶果汁、茶饮料等不含气饮料灌装包装生产线  
Non-Carbonated Beverage (NCB) PET Bottling Line



04

中辰轻机  
HEFEI ZHONGCHEN

玻璃瓶果汁、茶饮料等不含气饮料灌装包装生产线  
Non-Carbonated Beverage (NCB) Glass Bottling Line

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设备组成

包括卸箱垛机、卸箱机、洗箱机、洗瓶机、瓶预热机、UHT超高温灭菌机、输盖灭菌机、灌装压盖机、倒瓶杀菌机、冷瓶机、贴标机、喷码机、装箱机、码垛机、缠绕机、实瓶输瓶系统、输箱系统、电气控制系统等在内的一整套灌装包装生产线。

可选设备

均质机、新瓶可加选全自动卸瓶垛机等。

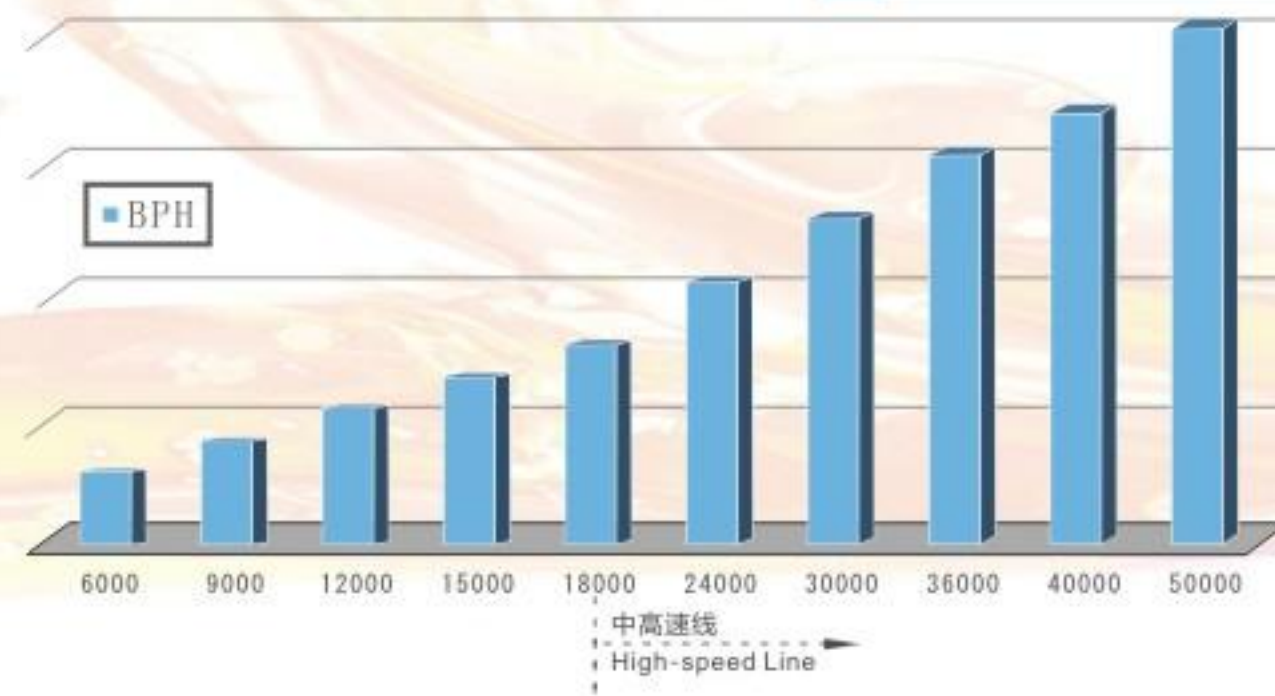
Scope of Supply

Crate depalletizer, decrater, crate washer, bottle washer, bottle pre-heater, UHT, cap sterilizing-elevating-unscrambling unit, filler & crowner monobloc, tilting bottle sterilizer, bottle cooler, labeler, ink jet coder, crate packer, crate palletizer, stretch wrapper, bottle / crate conveyor, electrical control system, etc.

Optional Equipments

Homogenizer, full-automatic bottle depalletizer for new bottles, etc.

产能对照表  
Capacity Chart



04

中辰轻机  
HEFEI ZHONGCHEN

玻璃瓶果汁、茶饮料等不含气饮料灌装包装生产线  
Non-Carbonated Beverage (NCB) Glass Bottling Line

果肉、果汁二次灌注机  
Pulp-Juice Filler Block



翻倒杀菌机 Tilting bottle sterilizer

储瓶台 Buffle table





# PET瓶饮料超洁净、无菌灌装包装生产线 PET Beverage Ultra-clean / Aseptic Bottling Line

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## 超洁净、无菌灌装组合机



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- 1.对于灌注用瓶的传送和消毒：空瓶输送采用带高效过滤器的风力输送，确保瓶子在输送过程中的卫生和免受二次污染；灌装前配置多道冲瓶消毒系统，使瓶子处于高度洁净状态。同时，灌注时可采用非接触式灌装。
- 2.对瓶盖的消毒和输送：瓶盖采用消毒液浸泡消毒，然后经无菌水和无菌空气吹干，处理后的盖子经一密闭无菌通道输送到拧盖机，使瓶盖保持在高度洁净状态。
- 3.对灌注物料的杀菌和输送：灌装物料经超高温瞬时杀菌后进入无菌罐后输送到灌装机进行灌装。输送管道采用镜面

- 抛光，管接头采用无菌型管接头，选用卫生型/无菌型阀门和仪表，并在设计和施工中避免管道卫生死角，从而确保物料在输送过程的无菌。
- 4.对灌装环境的隔离、净化和保持：全封闭的灌装系统，设有上下水环密封，将灌装区域与外界可靠的隔离开来；采用经过优化的FFU配置，并在合适的回风口设有抽风系统；冲瓶区域和灌装区域用隔板隔开，确保灌装室净化等级达百级；洁净室采用喷球和喷嘴两套喷淋系统交替喷淋，工作台板采用屋顶式台板，无积水，确保灌装环境的无菌。



# PET瓶饮料超洁净、无菌灌装包装生产线 PET Beverage Ultra-clean / Aseptic Bottling Line

## Ultra-clean /Aseptic Filler Monobloc



- 1. Bottle conveying and sterilization: Empty bottles are conveyed via aseptic air conveyor with HEPA filters to ensure sanitation, and multiple bottle sterilizing / rinsing system keeps bottles extremely clean. No contact between filling valve and bottles.
- 2. Cap sterilization and conveying: After disinfectant soaking, and then dried by sterile water & air, eventually caps are conveyed to screwer via aseptic channel to keep extremely clean.
- 3. Beverage sterilization and conveying: Beverage treated by UHT sterilization and received by aseptic tank, then filled in filler block. To ensure the aseptic condition by means of internal & external mirror polished piping, aseptic pipe ties, sanitary / aseptic valves & meters, and no dead angle.
- 4. Filling environment isolation, purification & preservation: Full-closed isolators on filling system with water seal. FFU and exhaust fan installed at proper air exhaust place. Rinsing area and filling area are isolated by partition board to ensure filling area achieving 100-grade air purification. Environment spouting alternately by spraying balls and nozzles. Roof-type sanitary filler platform to ensure aseptic filling environment.





水灌装包装生产线  
Water Bottling Line

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PET瓶包装水生产线 PET Water Bottling Line



设备组成

包括吹瓶机、风力输送线、输盖机、冲瓶灌装封盖三联机、OPP贴标机、喷码机、收缩膜包装机、码垛机、缠绕机、实瓶输瓶系统、输箱系统、电气控制系统等在内的一整套灌装包装生产线。

可选设备

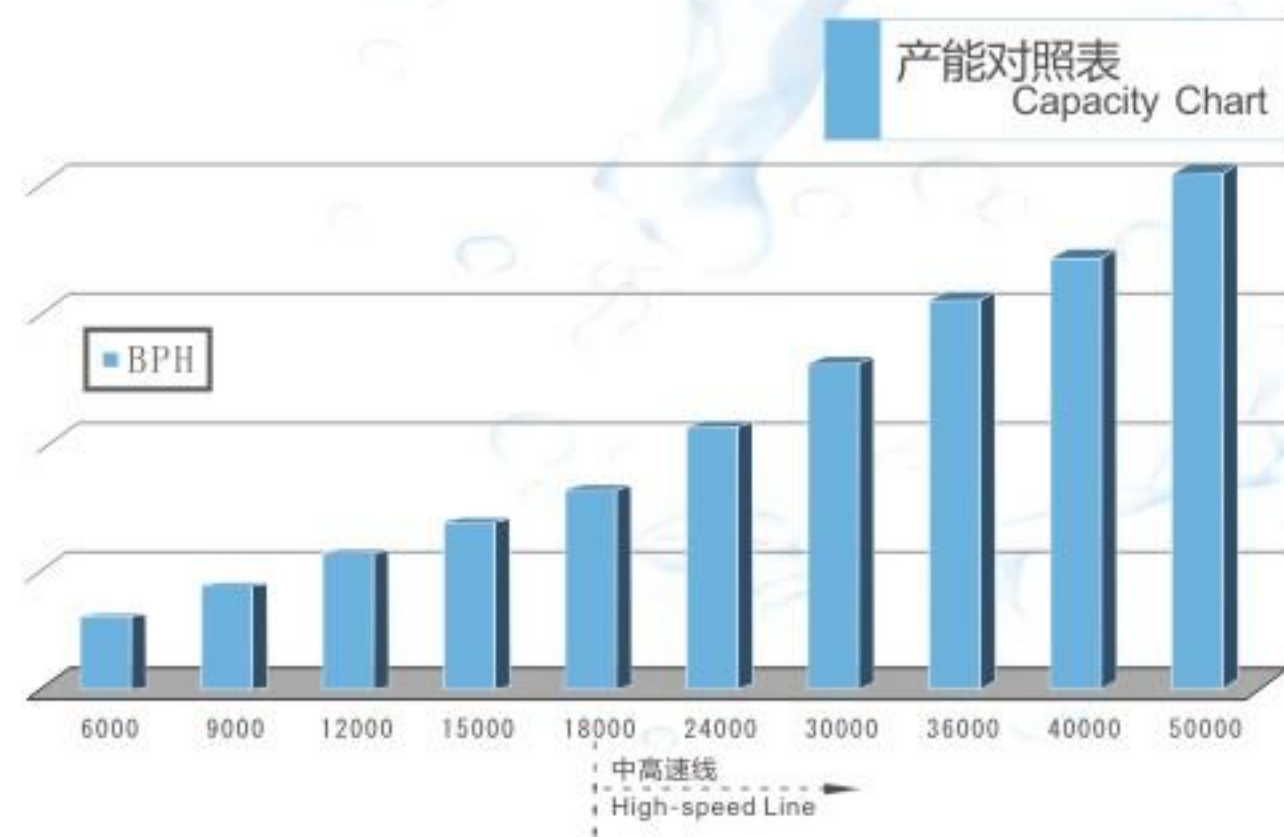
自动理瓶机或人工理瓶系统、全自动卸瓶机、套标机、纸箱包装机等。

Scope of Supply

Blow moulder, air conveyor, cap feeder, rinser & filler & capper monobloc, OPP labeler, ink jet coder, shrink film packer, palletizer, stretch wrapper, full bottle / pack conveyor, electrical control system, etc.

Optional Equipments

Automatic / manual unscrambling system, full-automatic bottle depalletizer, sleeve labeler, carton packer, etc.



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水灌装包装生产线  
Water Bottling Line



玻璃瓶包装水生产线  
Water Glass Bottling Line

大桶包装水生产线  
Water Barrel Packaging Line





# 易拉罐灌装包装生产线 Beverage Canning Line

WE FINDWAYS...

## 碳酸饮料易拉罐包装生产线 Carbonated Soft Drink (CSD) Canning Line



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### 设备组成

包括全自动卸罐机、冲罐机、灌装封盖机、混合机、温罐机、储罐台、喷码机、液位检测机、全自动纸箱包装机、输罐系统、输箱系统、电气控制系统等在内的一整套灌装包装生产线。

### 可选设备

空罐绳索输送、收缩膜包装机等。

### Scope of Supply

Automatic bulk can depalletizer, can rinser, filler & seamer monobloc, mixer, can warmer, buffer table, ink jet coder, level detector, full-automatic carton packer, can / pack conveyor, electrical control system, etc.

### Optional Equipments

Empty can rope conveyor, shrink film packer, etc.



# 易拉罐灌装包装生产线 Beverage Canning Line

## 不含气果汁、茶饮料易拉罐包装生产线 Non-Carbonated Beverage (NCB) Canning line



### 设备组成

是包括全自动卸罐机、冲罐机、灌装封盖机、UHT灭菌机、冷罐机、储罐台、喷码机、液位检测机、收缩膜包装机、实罐输罐输箱系统、电气控制系统等在内的一整套灌装包装生产线。

### 可选设备

纸箱包装机等。

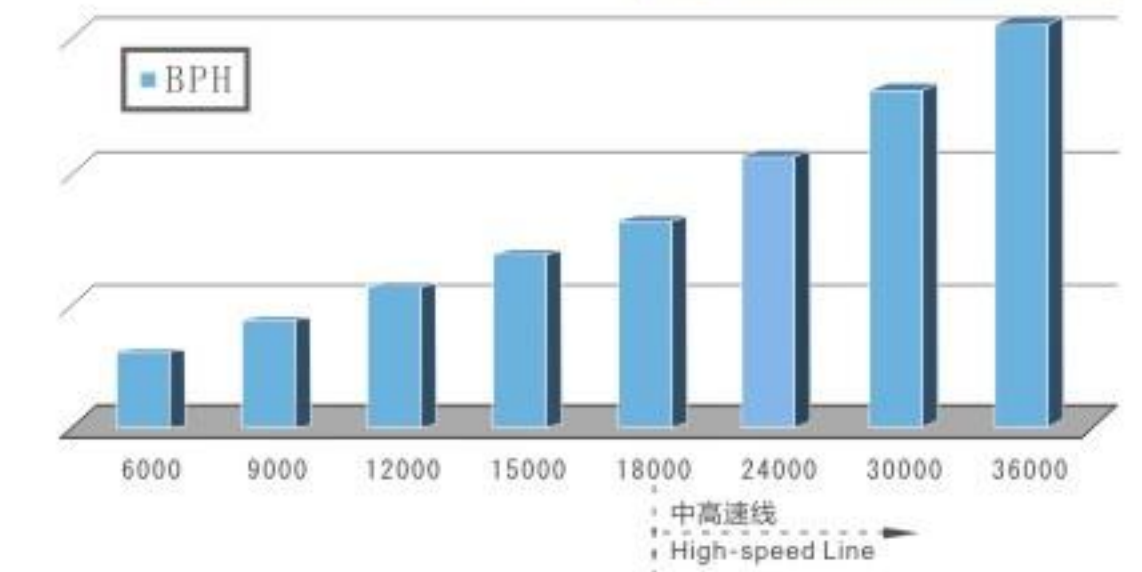
### Scope of Supply

Automatic bulk can depalletizer, can rinser, filler & seamer monobloc, UHT, can cooler, buffer table, ink jet coder, level detector, shrink film packer, full can / pack conveyor, electrical control system, etc.

### Optional Equipments

Carton packer, etc.

产能对照表  
Capacity Chart





## 生产线通用设备

Common Equipments on Production Lines

### 温瓶/冷瓶/巴氏杀菌隧道类设备

### Bottle Warming / Cooling / Pasteurizing Tunnel



温瓶机通常用于冷灌装生产线的饮料生产线之中，灌装后在保证饮料色、香、味以及营养成分不变的情况下用提高瓶温的方法减少饮料与室温环境的温差，消除瓶子外表面的冷凝水，便于贴标、装箱等工序。

Bottle Warmer is mainly used in beverage cold filling line. Based on the condition of no effect on beverage color, flavor, smell and nutrition after filling, the bottle warmer will eliminate condensate water on external surface of bottle for secondary packaging.

冷瓶机通常用于热灌装生产线中热灌装过程之后。先经保温杀菌，接着在短时间内降低瓶温，以极限降低产品因高温引起的营养成分以及色、香、味的变化，保证产品的质量。

Bottle cooler is mainly used after hot filling process. First heat preservation sterilization and then cool bottle in short time for secondary packaging, to maximally keep the beverage color, flavor, smell and nutrition.



饮料巴氏隧道杀菌机主要用于对含气果汁和茶饮料、麦芽饮料、牛奶、啤酒等进行连续式喷淋、升温、杀菌、冷却的杀菌设备，本机也可仅用于需要温瓶或冷瓶的场合。

Tunnel pasteurizer is mainly used for sparkling juice / tea, malt beverage, milk, beer, etc. after filling, which can continuously spout, warm up, pasteurize, and cool down the drinks. It can also act as bottle warming / cooling tunnel in combination lines.

### 理瓶机 Bottle Unscrambler

本产品为软饮料灌装配套设备，用于将杂乱无章的PET瓶排列整齐地输送到生产线上。It's used to unscramble the disordered PET bottles to the bottling line.



### 装箱机/卸箱机 Crater/Decrater

主要用于饮料、啤酒厂对玻璃瓶或PET瓶装进行装(卸)箱工序。Mainly used to crate/decrate glass/PET bottled beverage or beer.



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## 生产线通用设备

Common Equipments on Production Lines

气流输送系统 Air Conveyor



PET瓶输送线 PET Bottle Conveyor



玻璃瓶输送线 Glass Bottle Conveyor



纸箱输送 Carton Conveyor



膜包输送 Pack Conveyor



卸/码垛机 Depalletizer/Palletizer





## 整厂交钥匙工程 Equipment Turnkey Project for Beverage Plant

WE FINDWAYS...

### 水处理系统 Water Treatment



#### 主要设计范围

多介质过滤设备、活性炭过滤器、软化设备、精滤设备、RO设备、超滤设备、定量添加设备、臭氧杀菌设备、紫外线杀菌设备、储罐、泵和管道、自动控制系统等。

#### Main Scope of Supply

Multi-media filter, activated carbon filter, softener, polishing filter, RO unit 1 or 2 pass, ultrafilter, chemical dosing device, ozoner, ultraviolet disinfection device, storage tanks, pumps and pipes, automatic control system, etc.



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## 整厂交钥匙工程 Equipment Turnkey Project for Beverage Plant

### 饮料前处理系统 Processing and CIP



根据各种饮料工艺的特点，主要包含如下系统：

1. 前果处理设备，茶叶萃取设备等。
2. 溶糖设备，主要用于砂糖的溶解和过滤等。从工艺上又可分为常温溶糖和高温溶糖工艺。
3. 调配设备，用于批量调配饮品，调配好的饮品进入下一道工序。
4. 均质、脱气、瞬时杀菌设备，主要用于茶、果汁、牛奶等饮料的处理。
5. 完整的CIP清洗系统。

Mainly include following scope of supply:

1. Fruit crush/extrusion processing equipment, tea extraction equipment, etc.
2. Sugar dissolving equipment, mainly used to dissolve and filtrate the crystal sugar. The process can be selected as ambient temperature dissolving, or high temperature dissolving.
3. Blending equipment, used for batch preparing of beverages. Prepared beverages will enter the next process.
4. Homogenization, De-aeration, and Flash Pasteurization equipment mainly used to process tea, fruit juice, milk, etc.
5. Complete CIP system.



## 整厂交钥匙工程 Equipment Turnkey Project for Beverage Plant

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### 公用工程设备 Factory Utilities Equipment



#### 主要包含：

1. 蒸汽系统：锅炉房系统；
2. 制冷系统：氨制冷机组，乙二醇制冷机组，冰水机组，冷却塔等；
3. 压缩空气系统：高压、低压空压机以及空气处理设备；
4. CO2系统：用于生产碳酸饮料，可采用CO2制取、净化、储存、汽化、减压等；
5. 电力系统：包含高压配电、低压配电、发电机、整厂电缆和桥架系统设计；
6. 管道系统：主要包含产品管道、以及公用工程管道系统。

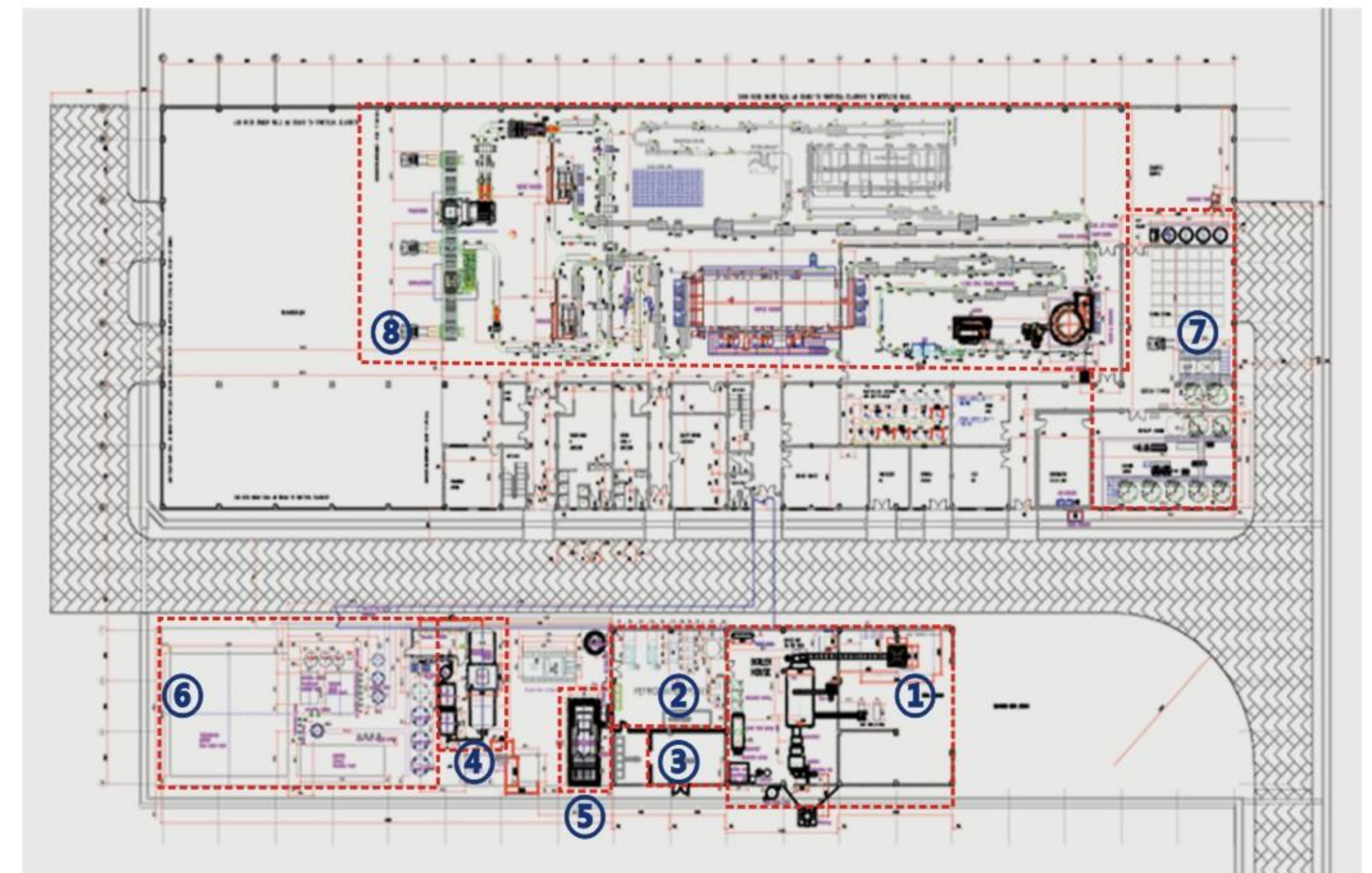
#### Mainly include:

1. Steam Supply System: Boiler room;
2. Refrigeration System: Ammonia chiller, glycol chiller, water chiller, cooling tower, etc.;
3. Compressed Air Supply System – HP / LP air compressors and air treatment equipment;
4. CO2 Generator and Purify System: Used to produce carbonated drinks with related CO2 generating / recovery, purification, storage, vaporization, and pressure reduction station, etc.;
5. Electricity Supply System: Including HV power distribution, LV power distribution, generators, whole plant cablings & wirings.
6. Piping System: Product piping and utility piping system.



## 整厂交钥匙工程 Equipment Turnkey Project for Beverage Plant

### 整厂工程平面示意图 Demostration Layout



- ① 锅炉系统 Boiler System
- ② 制冷系统 Refrigeration System
- ③ 压缩空气系统 Air Compressor
- ④ CO2系统 CO2 System
- ⑤ 发电系统 Generator
- ⑥ 水处理系统 Water treatment
- ⑦ 前处理和CIP系统 Processing and CIP
- ⑧ 灌装包装生产线 Bottling Line

