

无菌冷灌装系统 ASEPTIC COLD FILLING SYTEM



无菌冷灌装生产线是将清洗与杀菌技术、密封隔离技术、微生物检测与控制技术、空气净化技术、灌装封口技术、自动化控制技术等多方面技术优化，应用于酸性饮料、中性非蛋白饮料及部分中性蛋白饮料生产的先进设备。该设备可以最大限度的拓展饮料灌装工艺并可良好保持饮料产品营养成分、风味、色泽，特别是对于一些热敏性饮料更佳。对产品外观多样化设计及降低PET瓶成本等方面提供广泛的空间。

主要结构特点

- 整机采用模块化设计，将各功能模块组合为易于操作的一体机。
- 整机采用隔离罩密封、高效风机及无菌过滤系统来保证内部空间的正压、无菌状态。
- 全自动的过程检测、控制、记录系统，可实时监控并记录生产线各环节的相关流程。
- 整机内含消毒液跟踪式喷冲，保持杀菌，灭菌彻底。
- 采用进口高效喷嘴全方位无菌水冲瓶，有效保证消毒液残留达标。
- 非接触式灌装阀，避免交叉感染，保证安全。
- 电磁感应流量计或称重传感器精确定量灌装量。
- 自动CIP清洗假杯机构，保证清洗高效、洁净、方便。
- 瓶盖采用浸泡杀菌，隧道式无菌水冲洗，杀菌彻底。
- 采用AROL恒扭矩磁力封口头，保证封口合格率。
- 封口传动部分的采用蒸汽热屏蔽技术，有效保证无菌区域与污染区域的隔离。
- 整机的运动部件与旋转机构采用液体密封技术，保证无菌区域不受污染。
- 整机采用外部集中润滑系统，安全、方便，保证长期、稳定的润滑效果。
- 整机内外的CIP、SIP、COP、SOP等清洗灭菌过程采用全自动控制，高效、方便、快捷。

Aseptic cold filling production line consists of the cleaning and sterilization technology, sealing isolation technology, microbial detection and control technology, air purification, filling sealing technology, automation control technology, applied to acidic beverages, neutral non protein drinks and some neutral protein beverage production of advanced equipment. The Equipment can maximize expand beverage filling process and can keep good beverage product nutrients, flavor, color, especially for some thermal sensitivity drinks is better. The diversification of product appearance design and reduce the cost of PET bottle offers a wide range of space.

Main structural features

- The whole machine adopts modular design, each function module combination for all-in-one computer for easy operation.
- The whole machine adopts the isolation cover seal, high efficiency fan and aseptic filtration system to ensure that the internal space of positive pressure, sterile state.
- Automatic detection, control and record the process of the system, can real time monitor and record the related processes of each link in production line.
- The disinfectant solution is rinsed in a tracking manner, keep sterilization, sterilization thoroughly.
- Imported high efficiency nozzle omni-directional sterile water bottles, effectively guarantee the disinfectant residual standard.
- Non-contact filling valve, avoid crossing infection and can ensure safety.
- Electromagnetic induction meter or weighing transducer accurate quantitative filling quantity.
- Automatic CIP cleaning off cup structure to ensure the efficient, clean and convenient cleaning.
- Cap by soaking sterilization, tunnel sterile water washing, sterilizing thoroughly.
- Using AROL constant torque magnetic sealing head, The constant torque, to ensure sealing qualification rate.
- The sealing transmission part USES the steam heat shield technology, effectively guarantee the sterile isolation of the region and the contaminated area.
- The moving parts of the machine and rotating mechanism adopts the liquid seal technology, guarantee the sterile area is not contaminated.
- The whole machine adopts the external lubrication system, safety, convenience, guarantee the lubrication effect of long-term and stable.
- The machine inside and outside of CIP and SIP, COP, SOP and other cleaning sterilization process adopts fully automatic control, efficient, convenient, fast.



技术参数 Technical parameters

产品型号 Product model	KYWJF3510A	KYWJF6518A
产能 Capacity	15000bph	27600bph
模块配比 Module parts	消毒80; 冲瓶55; 灌装35; 封口10	消毒1:80; 消毒2:80; 冲瓶:70; 灌装:65; 旋盖:18
外形尺寸 Size	11650x9250x4500 mm	14460x11750x4500 mm
整机重量 Quality	17200kg	30700kg
适用瓶型 Bottle type	28, 38口瓶型互换, 28,38 bottle type interchange; 直径 Diameter60~110mm; 高度 Height 150~320mm; 容量 Volume 330~2000ml	
适用饮料类型 Beverage type	可添加果粒的果汁、茶饮料、苏打水、乳饮料等 Fruit particle Juice,Tea,Soda water,milk beverage etc	
杀菌能力 Sterilization	≥6D	
瓶内杀菌液残留 Inside the bottle sterilization liquid residue	≤0.5mg/L	
无菌周期 Aseptic period	72小时 Hours(视产品而定 Depending on the product) 中间无小清洗, nosmall cleaning in the middle	

渐开线式盖消毒系统 INVOLUTE CAP STERILIZATION



瓶盖经瀑布式盖提升系统将瓶盖提升送至盖消毒清洗槽，经无菌水浸泡及无菌水喷射后经送盖滑道送入无菌主机进行旋盖包装。

主要结构特点

- 采用瀑布式盖提升系统，自动理盖、送盖，减少盖损。
- 采用旋转式盖消毒浸泡槽，有效节省设备占地空间并保证杀菌时间。
- 采用消毒液浸泡+在线无菌水喷射，对瓶盖全方位消毒，保证瓶盖有效灭菌。
- 设有消毒液回收系统，可实现回收循环使用。



Caps lift to the disinfect and washing tunnel by the waterfall cap lifting system. After the soaking and jetting of sterile water, the caps was sent to the aseptic main filling machine for capping through the cap slide.

Main structural features

- By the waterfall cap lifting system, automatic sorting and sending to avoid damage of the caps.
- By rotary cap soaking and disinfect tunnel can save space for equipment and ensure the sterilization time.
- Disinfectant soak and jetting type sterile realize the all-around sterilization and ensure the aseptic of the caps.
- With disinfectant recovery device to realize the cycle use of the disinfectant.

无菌辅机单元 ASEPTIC AUXILIARY UNIT



无菌辅机单元是无菌生产线的必要外围设备，是实现及保证实现灌装过程中的灌装物料、生产环境、包装材料（空瓶、瓶盖）等的无菌处理的必要条件，最终确保产品达到商业无菌。

The aseptic auxiliary unit is the necessary equipment of aseptic filling production line. It is the requirement of the asepsis for filling material, producing environment, packing material (empty bottle/caps), which ensures the commercial sterilization of the products.

设备配置

- 无菌物料UHT、脱气、均质单元
- 无菌物料储存单元
- 无菌恒压单元
- 无菌水制备系统
- 双回路全自动CIP制备系统
- 消毒液调配单元
- 无菌压缩气体制备单元
- 无菌蒸汽过滤单元
- 无菌进料阀阵单元
- COP\SOP单元
- 泡沫清洗单元
- 废气处理单元
- 液槽密封系统
- 无菌冷灌装主机单元
- 空气净化隔离单元
- 瓶盖理盖、杀菌、输送系统
- 空瓶杀菌单元
- 中央电控单元

Configuration

- Aseptic UHT, degassing, homogeneous unit
- Aseptic material storage unit
- Aseptic constant pressure unit
- Aseptic water preparation system
- Double circuit automatic CIP preparation system
- Disinfectant mixing unit
- Aseptic compressed gas preparation unit
- Aseptic steam filtration unit
- Aseptic feed valve unit
- COP\SOP unit
- Bubble cleaning unit
- Waste gas processing unit
- Liquid tank sealing system
- Aseptic cold filling the host cell
- Air purification separation unit
- Cap lid, sterilization, conveying system
- Empty bottle sterilization unit
- Electronic control unit (ECU) for the central