

LYKXGF2-30型西林瓶水针洗烘灌装加塞联动生产线

Lykxgf 2-30ml vial compact line for washing, drying, filling and plugging



introduction

The production line is composed of lyqcl series vertical ultrasonic bottle washing machine, lyasmr series tunnel hot air circulation sterilization oven, lykxgf series filling and stoppering machine, lyzgf series capping machine, etc. the production line is simple and beautiful in appearance, small in floor space and convenient in cleaning. It is suitable for the injection product of 2-30ml vial, which can complete the water pouring and super filling of Chinese and Western bottles in drug production. More than 20 process steps such as sonic cleaning, water flushing, air flushing, drying and sterilization, cooling, nitrogen flushing pre-and after filling, plug trimming, plug pressing, cover trimming, cover rolling, etc. The design concept of the compact line is advanced, the structure is reasonable, and the performance is stable. It provides equipment and technical support for the aseptic production of drugs in pharmaceutical plants, and conforms to the relevant requirements of the current national GMP.

主要用途

本联动线由LYQCL系列立式超声波洗瓶机、LYASMR系列隧道式热风循环灭菌烘箱、LYKGF系列灌装加塞机、LYZGF系列轧盖机等组成，本联动生产线外型简约美观，占地面积少清洁方便，适合于2-30ml的西林瓶小容量注射剂灌装加塞的生产，可完成对药品生产中西林瓶淋水、超声波清洗、冲水、冲气、烘干灭菌、冷却、(前冲氮)、灌装、(后冲氮)、理塞、压塞、理盖、轧盖等二十多个工艺步骤的联动运行。联动线设计理念先进，结构合理，性能稳定，为制药厂药品的无菌生产提供设备技术保障，符合现行国家药品生产质量管理规范(GMP)的相关要求。

性能特点

- ◆立式超声波洗瓶机采用超声波在线清洗与水、气独立分开交替喷射清洗相结合的方式，是目前国际上最流行、清洗效果、可见异物检测效果最好的清洗设备，并且适应范围广破瓶率低，在整个清洗过程中，水、气均采用独立喷针，每一根喷针只固定一种清洗介质，完成一种冲洗、清洗工序，避免了交叉污染且无死角，符合新版GMP的要求。
- ◆隧道式热风循环灭菌烘箱采用层流原理和热空气高速灭菌工艺，可使容器在密封隧道内达到A级标准层流环境下完成预热、烘干灭菌、冷却到出瓶的全套生产过程，是目前国际最流行、灭菌效果最好的烘干灭菌设备，其热分布均匀，去热原效果好，并且设有网带超声波在线清洗，断电保护及风压自动调节系统。
- ◆灌装加塞机采用阳台式设计结构，拨盘同步带方式交接送瓶可自动完成分离送瓶，往复跟踪灌装、直线连续式上塞、旋转式水平真空压塞，是目前国际最流行、最稳定收率最高的灌装加塞设备。
- ◆轧盖机采用小刀旁置随动滚压式轧盖原理、刀片在上下、圆周方向均可进行微调，更适应于国产包材，适应性好轧口平滑无伤盖。
- ◆整线采用先进智能电控技术、简洁直观的人机界面，实现了机电一体化设计，能够前后联动控制和单机操作，保证了整条线的正常运行，并可显示机器运行状态和故障显示，故障自我诊断和故障分析及排除方法，使整个生产过程达到自动化控制。

Performance characteristics

- ◆The vertical ultrasonic washing machine is the most popular cleaning equipment in the world, with the best cleaning effect and the best detection effect of visible foreign matters. It has a wide range of application and a low rate of bottle breaking. In the whole cleaning process, the water and gas are all used independent spray needles, each spray needle only fixed with one cleaning medium, a washing and cleaning process is completed to avoid cross contamination and dead angle, which meets the requirements of the new GMP.
- ◆The tunnel type hot air circulation sterilization oven adopts the laminar flow principle and hot air high-speed sterilization process, which can make the container complete the whole production process of preheating, drying and sterilization, cooling to the bottle out under the condition of Class-A laminar flow in the sealed tunnel. It is the most popular drying and sterilization equipment with the best sterilization effect in the world at present, with uniform heat distribution, good pyrogen removal effect, and equipped with mesh belt ultrasonic on-line cleaning, power-off protection and air pressure automatic regulation system.
- ◆The filling and stoppering machine adopts a positive table design structure, and can automatically complete the separation and delivery of the bottle by means of the transfer and delivery of the disk synchronous belt. It is the most popular and the most stable filling and stoppering equipment in the world at present.
- ◆The capping machine adopts the principle of small knife side follow-up rolling capping. The blade can be slightly adjusted in the up and down, and the circumference direction. It is more suitable for domestic packaging materials, and has good adaptability and smooth rolling mouth without damage.
- ◆The whole line adopts advanced intelligent electronic control technology, simple and intuitive human-machine interface, realizes the mechanical and electrical integration design, can be front and back linkage control and single machine operation, ensures the normal operation of the whole line, and can display the machine operation status and fault display, fault self diagnosis, fault analysis and troubleshooting methods, so that the whole production process can achieve automatic control.

设备参数 technical parameters

产品型号 model	LYQCL80+LYASMR620/48+LYKGF8	LYQCL100+LYASMR620/48+LYKGF10	LYQCL120+LYASMR620/55+LYKGF12
适应规格 Adaptive specification	2-30ml国标西林瓶 national standard vials	2-30ml国标西林瓶 national standard vials	2-30ml国标西林瓶 national standard vials
产量 Capacity	16000-12000支/小时 pcs/h	6000-18000支/小时 pcs/h	6000-26000支/小时 pcs/h
澄明度 Clarity	>99%	>99%	>99%
破损率 Breakage rate	≤0.5%(整条线)	≤0.5%(the whole line)	≤0.5%(the whole line)
装量误差 Loading error	±0.5-2%(按药典标准)	±0.5-2%(according to pharmacopoeia standard)	±0.5-2%(according to pharmacopoeia standard)
新鲜水耗量及压力 Fresh water consumption	0.2-0.4Mpa / 0.6-1.0 m ³ /h	0.2-0.4Mpa / 0.6-1.0 m ³ /h	0.2-0.4Mpa / 0.6-1.0 m ³ /h
洁净压缩空气耗量及压力 Clean compressed air consumption and pressure	0.3-0.6Mpa / 35-80 m ³ /h	0.3-0.6Mpa / 35-80 m ³ /h	0.3-0.6Mpa / 35-80 m ³ /h
加塞合格率 And pressure	≥99%	More than 99%	More than 99%
轧盖合格率 Pass rate of capping	≥99%	More than 99%	More than 99%
真空抽速 Vacuum pumping speed	60 m ³ /h (外配)	60 m ³ /h (external distribution)	60 m ³ /h (external distribution)
排风量 Exhaust volume	3500-4800 m ³ /h	3500-4800 m ³ /h	3500-4800 m ³ /h
净重量 Net weight	9000 (kg)	9000(kg)	9000(kg)
总功率 Total power	About 90kw 380V 50Hz	About 93kw 380V 50Hz	About 110KW 380V 50Hz
外形尺寸 Outline size	About 12600 × 2260 × 2445mm	About 12600 × 2260 × 2445mm	About 13200 × 2260 × 2445mm