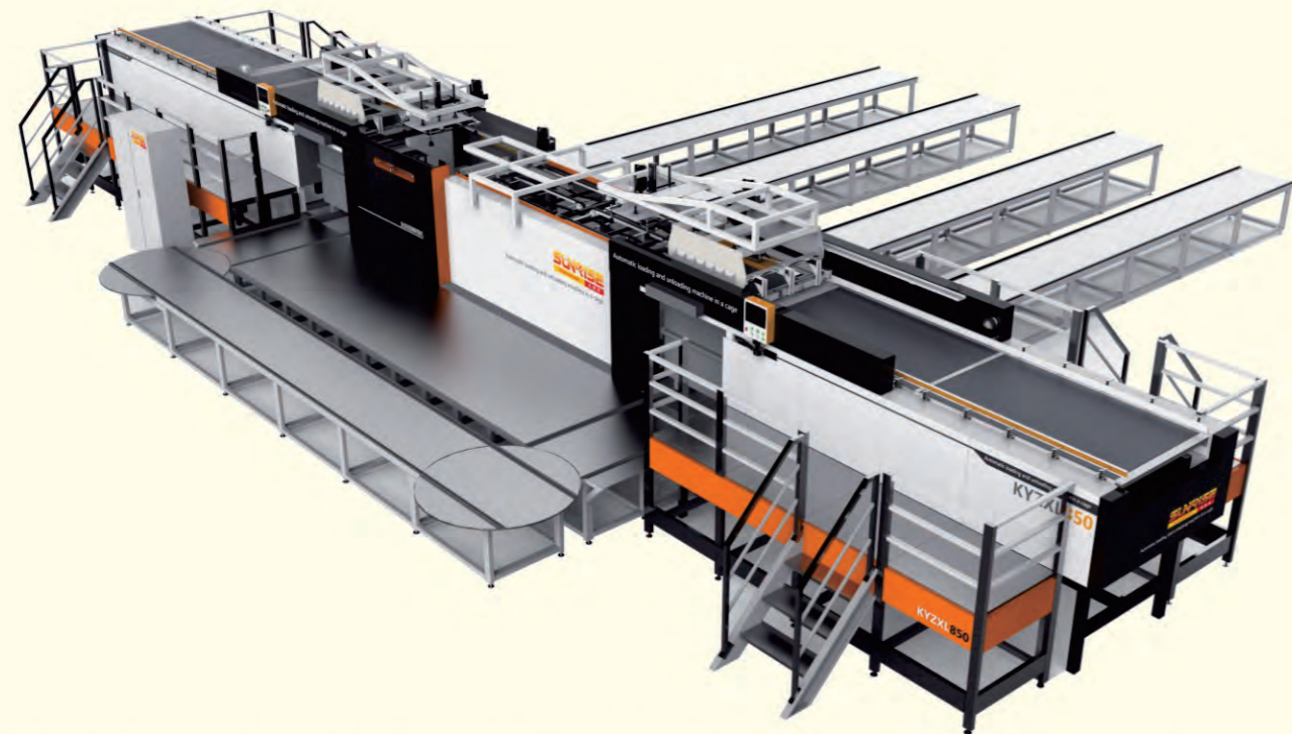


# 装卸笼系统

## CAGE LOADING AND UNLOADING SYSTEM



自动装卸笼系统是实现整个后杀菌系统连续高效工作的保障，主要是由自动装笼系统、台车系统以及自动卸笼系统组成。本系统主要应用于对易拉罐、PE瓶及玻璃瓶装饮料在杀菌前后进行自动装卸笼作业，简略步骤可分为装笼动作、台车行进及进出釜动作、卸笼动作。全过程动作均以自动化实现，如：自动推罐入筐、自动升降、自动取放隔板，自动笼筐周转，自动进出釜等。整套动作可实现自动化流水线作业，节省人力，大大提高生产效率。

The automatic cage loading and unloading system is the guarantee for the realization of continuous and efficient work in the entire post-sterilization system. It is mainly composed of the automatic cage loading system, trolley system and automatic cage unloading system. The system is mainly used for automatic cage loading and unloading operations before sterilization of beverages in pop cans, PE bottles and glass bottles. The brief steps include cage loading action, trolley movement and kettle entering and exiting actions, and cage unloading action. All actions in the whole process are realized automatically, such as automatic pushing of cans into baskets, automatic lifting and lowering, automatic taking and placing of partition boards, automatic transferring of cages and baskets, automatic kettle entering and exiting, etc. The actions can realize automatic flow line operations, saving manpower and greatly improving production efficiency.

### 主要结构特点

- 装卸笼机头主体支撑部分采用优质碳钢管材80\*80焊接而成，外表面喷塑烤漆工艺。
- 筐笼导向结构以及罐导向和护板部分全部采用不锈钢材质且导向可调节。筐笼定位采用气缸环抱固定，结构稳固，定位准确，保证卸笼动作顺畅。
- 升降平台采用液压支撑交叉臂升降，无需地面开孔，升降动作平稳。承载能力达1T。顶部安装有光电传感器以检测定位，提升高度控制精准。筐笼底板下落自动检测位置，有下落层数计数功能。
- 装卸笼链网进口POM材质，DMM品牌，耐磨耐高温承载力强。宽排输送与卸笼动作联动起停。
- 装卸笼动作由环抱式结构完成，该结构动作时将整层罐体外尺寸限制，再由变频控制的自制动电机带动同步带传送，以确保罐体在线性自由度移动时不会出现挤压变形或倾倒卡顿。
- 输罐网带侧板采用2.5mm厚SUS304材质，网链为节距12.7mm，网带采用进口POM材质，运行平稳，耐磨性高，磨损率为其他同类产品的60%。

### Main structural features

- The main supporting part of the cage loading and unloading machine head is made of 80\*80 high quality carbon steel pipe through welding. The outer surfaces are subject to plastic spraying and baking finish.
- The basket and cage guiding structure and can guiding and guarding board are all made of stainless steel and the guiding is adjustable. The cage and basket are positioned by cylinder through encircling. With solid structure and accurate positioning, the cage unloading action is ensured to be smooth.
- The lifting platform is lifted or lowered by the hydraulic supporting transposition arm without the need of hole opening on the ground. The lifting and lowering actions are stable. The carrying capacity reaches 1T. Its top is mounted with the photoelectric sensor to detect positioning and realize precise control of lifting height. Automatic position detection is carried out when the basket and cage bottom board drops. It is provided with the dropping layer counting function.
- The cage loading and unloading chain net is made of imported POM under the brand of DMM with high anti-wear performance, high temperature resistance, and good carrying capacity. The wide-row conveying and cage unloading actions realize linked start and stop.
- The cage loading and unloading action is completed through the encircling structure. During the action, the structure limits the size outside the whole layer of cans, and then the self-braking motor adopting variable frequency control drives the synchronous belt for conveying, so as to ensure that there is no deformation due to extrusion or tilting and blocking when the can makes linear free movement.
- The side board of the can conveying mesh belt is made of 2.5mm thick SUS304. The pitch of mesh chain is 12.7 mm. The mesh belt is made of imported POM. Featured by stable running and high anti-wear performance, its wear rate is only 60% of that of other similar products.



### 技术参数 Technical parameters

型号 Model	KYZXL850	KYZXL460
生产能力 Production capacity	600罐/分 Can/min	400罐/分 Can/min
总功率 Total power	13.5kw	4.5kw
总重量 Total weight	11t	2000kg
动力电源 Power supply	3X380VX50Hz	3X380VX50Hz
控制电源 Control power supply	DC24V/AC24V	DC24V/AC24V
压缩空气源 Compressed air supply	0.7Mpa	0.8Mpa
气源消耗量 Air supply consumption	1.2m <sup>3</sup> /min	0.2m <sup>3</sup> /min