

# PICK&PLACE SYSTEM FOR LAMINATE FRAME

## 双玻自动取放框

### 功能描述

- 整体结构由取框组件、放框组件、顶框组件、回流传输单元、四边归正和上料缓存单元组成。
- 伺服电机和模组结合带动层压框Z轴升降，水平移栽采用伺服电机和同步带驱动，速度快，精度高。
- 顶框组件包括吸盘单元、顶框机构等，有效解决层压后EVA粘框的问题，确保高效取框。
- 回流传输单元采用两侧可调式5皮带输送，每隔3节设置归正，确保层压框平稳移动，且在层压机顶部设置平台，方便检修维护。
- 上料缓存单元采用多套先进后出堆栈机构，满足更多层压框的存储与进出，确保持续供料，实现高效放框。

### Features

- The overall structure consists of the frame taking, the frame placing, the frame lifting, the return transmission unit, the four-side normalization and the feeding buffer unit.
- The combination of servo motor and module drives the Z-axis of the lamination frame to rise and fall, and the horizontal transplanting is driven by servo motor and synchronous belt, with high speed and high precision.
- The frame lifting part includes suction cup unit, frame lifting mechanism, etc., which can effectively solve the problem of EVA sticking to the frame after lamination and ensure efficient frame removal.
- The backflow transmission unit adopts the adjustable 5 belt conveyor on both sides and sets the normalization every 3 sections to ensure the smooth movement of the laminated frames, and the platform is set on the top of the laminator for easy maintenance.
- The feeding and buffering unit adopts multiple sets of first-in-last-out stacking mechanisms to meet the storage and entry and exit of more laminated frames, ensure continuous material supply, and achieve efficient frame placement.



### 设备技术性能

- 上框归正准确，取放框定位精度 $\leq 2\text{mm}$
- 整体节拍： $\leq 22\text{s}$
- 不同板型切换时间： $\leq 20\text{min}/1\text{人}$
- 取放框效果：定位准确，无粘框，无隐裂
- 操作模式：手动+自动
- 噪音： $\leq 60\text{dB}$
- 人机界面：中英文模式
- 取放框良率： $> 98\%$



### Functionality

- The frame alignment is correct and accurate, and the positioning accuracy of the pick-and-place frame  $\leq 2\text{mm}$
- Cycle time:  $\leq 22\text{s}$
- Change time:  $\leq 20\text{min}/1\text{ person}$
- Pick and place frame effect: accurate positioning, no sticking frame, no cracking
- Operation mode: Auto+Manual
- Noise:  $\leq 60\text{dB}$
- HMI: Chinese and English mode
- Yield:  $> 98\%$



### 技术参数 Specifications

项目 Item	数值 Value
适用版型 Compatible module size	长 length: 1650-2520(mm); 宽 width: 990-1450(mm)
设计节拍 Cycle time	$\leq 22\text{s}$
归正方式 Alignment method	四边对中归正 Four-sided alignment
每套堆栈层数 The number of stacking layers per set	$\geq 10$
每套码垛层数 The number of palletizing layers per set	$\geq 60$
工作气压 Air pressure	0.5-0.7(MPa)
功率 Power	13kW
外形尺寸 Dimension(L×W×H)	54630*6000*5650(mm) (具体参照层压机规格) 54630*6000*5650(mm) (refer to laminator specifications)