

AI collaborative robot palletizing machine

Model: XZ-MDA50

(Individual stacker without roller conveyor line)



V-1.2 版

**No programming required****Precise positioning****Safety and stability****Efficient work****Manufacturing**

Introduction

The AI-powered intelligent voice-controlled collaborative palletizer features a local offline industrial AI voice large-scale interactive system with an independent voice interaction architecture, emphasizing touchless, conversational control. The equipment retains all the advantages of a standard model, including lightweight portability, programming-free visual pallet configuration, 2-hour rapid deployment, CE safety certification, and a 30kg heavy load capacity. New additions include an industrial noise-canceling array microphone, local semantic analysis, voice broadcast feedback, voice recipe retrieval, and voice fault inquiry functions. Workers can start/stop, change pallet configurations, adjust speed, and check equipment status simply by speaking, without touching the touchscreen, while holding materials with both hands and wearing gloves. The machine is compatible with palletizing in various industries such as cardboard boxes, food and beverage, pharmaceuticals, daily chemicals, and metal parts. It can operate as a standalone machine or be integrated with palletizers and conveyor lines to build a fully automated production line. Operating purely offline, it requires no internet connection, and its voice function remains unaffected even in environments with network outages or no broadband access. Balancing production safety and ease of operation, it is suitable for factories with busy staff, frequent production changes, and operators unfamiliar with touchscreen operation...



Characteristics

Local offline AI voice model Equipped with an industrial-grade offline voice algorithm and a built-in multi-microphone noise reduction array, it filters workshop noise from fans, conveyor belts, and air compressors; it supports Mandarin, performs all calculations locally without uploading production data, ensuring data security and no leakage; and can use all voice functions without a network.

IHigh compatibility and customizable design , The flexible operation capability is strong, allowing for immediate switching and configuration based on production needs and site requirements; it can meet the demands for different-sized cartons and variations in stacking structures.

IOne-click voice start without programming Automatic stacking pattern, visualized stacking pattern, capable of multi-box and consecutive-box stacking, and new paths can be set within 5 minutes.

I Compact and powerful, lightweight model , Light in weight and large in capacity, with a maximum load at the end reaching 50KG and a floor area of 6 square meters (including double stacking).

IFlexible deployment Integrated design, lightweight and flexible, with simple and quick setup, can adapt to different production environments and tasks.

ISafety and stabilityInternational safety CE certification. Optional laser radar protection electronic fence or grating protection fence can be equipped. It has high reliability and security.

I Excellent performance It provides 16 I/O interfaces, and even in the case of a single failure, the security will not be compromised. •

I Efficient work Improve production efficiency, complete the installation and debugging of the new line within 2 hours, enable the use of one machine on multiple production lines, and save the cost of 4 workers.



Product details

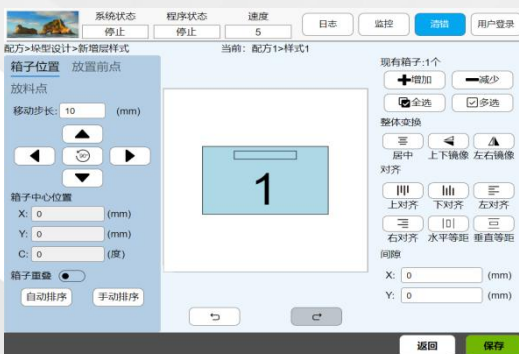
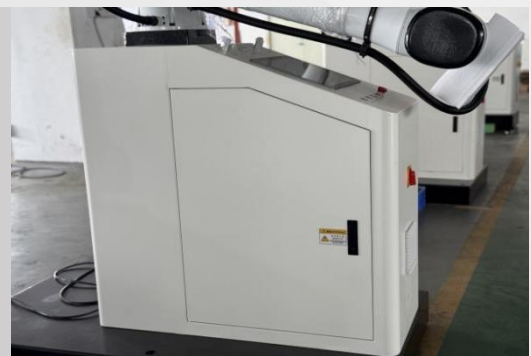


No programming required, visual operation

A 15-inch high-sensitivity capacitive touch screen, a collaborative palletizing machine robot system, can automatically generate a palletizing plan based on the input of box dimensions, pallet sizes, etc., and the operation process does not require programming.

Cost controllable

Develop our own core operating system independently. No additional sensor devices need to be added by users. The overall solution has controllable costs. Develop our own core operating system independently. No additional sensor devices need to be added by users. The overall solution has controllable costs.



Visualized stack pattern

Visualized stack pattern helps operators better observe the effect and rationality of the stack pattern, facilitating real-time control and adjustment. It can set a new path within 5 minutes.

Low consumption, high configuration

Servo control, with fast operation speed and precise positioning. Low energy consumption and high configuration.





Product details



Highly applicable, meeting the needs of various production environments

It is made of magnesium-aluminum alloy, which can adapt to complex production environments such as corrosion and oxidation.

End effector

The silicone vacuum suction cup is more sturdy, has a longer service life, lower maintenance costs, is economical, and is suitable for use on various surfaces. It can be customized to connect with peripheral equipment such as fixtures and suction cups, and is easy to disassemble and replace.



Highly integrated, easy to deploy

A palletizing platform integrating collaborative robots, power supply, pneumatic systems, and lifting columns. After installation, it can be deployed and put into production within 2 hours.

Portable

The manual trailer can be easily moved by dragging, and it can be moved at any time. It can be used upstairs and has a wider range of applications and greater flexibility.





Parameters

机械臂/Mechanical arm							
Model	Project	Lifting axis	J1	J2	J3	J4	J5
Collaborative palletizing robot	Scope	500°	360°	± 180° /(可调)	± 180° /(可调)	± 180° /(可调)	360°
	Maximum speed	210° /s	180° /s	120° /s	150° /s	210° /s	210° /s
Power	30KG	1KW	1KW	1KW	750w	400w	400w
	50KG	1KW	1KW	2KW	1KW	400w	400w
Packing speed		8-10pcs/min					
Terminal load		50KG					
Activity radius		1900MM					
Stacking height		2400-2600MM (Height including tray)					
Adapt to the tray specifications		1200*1200*140MM					
Equipment weight		≈475-500KG					
Rated voltage		220V 50HZ					
Equipment power		6700W					
Load positioning, positioning accuracy		±0.1					
Protection level		IP54					
Compatible surface		The surfaces of ordinary cardboard boxes, including all smooth surfaces and various metal surfaces					
Communication method		tcp/ip、io、modbus Communication					
Safety function		Optional: grating / radar / fence					



Parameters

Type	Brand
Motion controller	China Nabott
Servo motor	China Jiu Tong
Reducer	China Sakuragi
Switch button	Domestic
Emergency stop switch	Domestic
Indicator light	Domestic
Switching power supply	Taiwan Mingwei
Breaker	Zhongguo Zhitang
Display screen	China Huaxiu
Lifting motor	China Huaxiu
Vacuum suction cup / Sponge suction cup	China Huaxiu
Photoelectric sensor	China Jingjiake
Electromagnetic valve	Taiwan Yadeke