FUTURE ATT

Intelligent material storage Rack

Product Type： FUTUREATT-MSE170

Device Principle

The equipment is equipped with sensors to detect the presence of trays at each workstation. It continuously monitors whether a tray is present after being manually placed. If someone attempts to remove a tray without system authorization, an alarm will be triggered. When retrieving materials, the operator follows the indication lights above the rack to the corresponding aisle. The light below the retrieval position will illuminate (with multiple colors available) to indicate the correct location for material retrieval. The operator takes the materials, and the intelligent rack sensor detects the removal and uploads the information to the system.

Functional Features

- Suitable for 7-tray, bagged, and boxed trays
- Compatible with any WMS, ERP, MES system for integration
- Real-time monitoring of material in and out status for error prevention throughout the process
- Suitable for scenarios with a large number of SKUs and frequent material handling
- Light-guided operation for fast material receiving and dispatching
- Random placement capability to maximize space utilization
- Supports FIFO management and prioritizing end-of-stock materials
- Enables remote material management via PDAs for status checking, location finding, and multiple instructions
- Reduces the need for scanning labels during inbound and outbound processes, simplifying operations, improving efficiency, and supporting multi-operator retrieval
- Customizable materials, colors, and specifications based on customer requirements

Application

Used in electronic components, SMT factories, and line-side warehouses.

Workflow

● The operator follows the system prompts to store materials, without the need to select a specific location. They simply place the material tray into any available slot.

● The sensors on the intelligent rack detect the materials and upload their relevant information to the system, confirming successful storage. This process continues in a loop.

● When retrieving materials, the operator follows the system prompts to locate the corresponding rack (each rack has two tricolor lights, with illuminated lights indicating different aisles).

● The light below the retrieval position will illuminate (with multiple colors available) to indicate which material to retrieve, based on system instructions.

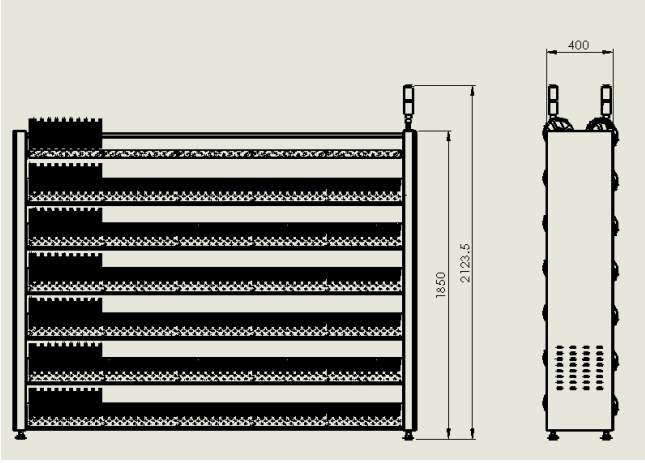
● When the operator takes the materials, the intelligent rack sensor detects the removal and uploads the relevant information to the system. This process continues in a loop.

Technical Specifications

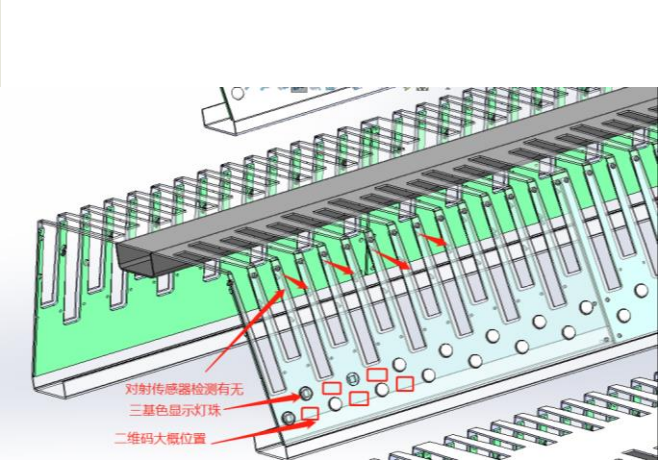
	Device Model	Parameters
Basic Parameters	Power Supply Voltage	Single-phase, 220V (3A) (For overseas users, customization is available based on the local power supply voltage)
	Frequency	50HZ
	Dimensions (Length x Width x Height)	2400mm×400mm×2000mm
	Error Prevention Mechanism	Inductive/QR code
	Storage Locations	Maximum of 1400, 7 layers with 200 locations per layer
	Compatible Tray	7-inch with 15mm slot width
	Tray Thickness	Customizable, ranging from 8mm to 70mm
	Environmental Requirements	Ambient temperature -15° C to 40° C
	Tray Thickness	＜14mm
	Strong Electric Components	Independent circuit breakers in the distribution cabinet for easy maintenance
		Distribution cabinet equipped with exhaust fans
		Neat wiring using plastic wire ducts

Others		
	Equipment Control Components	Include electrical control system, human-machine interface, visual software system, etc.
	Electrical Control System	Implements control functions for various equipment mechanisms
	Human-Machine Interface	Provides human-machine interaction functionality
	Visual Software System	Records tray information, detects labels, and tracks various statuses of products produced by the machine, interacts with WMS data
	Environmental Requirements	Measure 500mm from the operating position or outer wall of the equipment
	Safety Requirements	Equipment complies with relevant national standards for electromechanical devices and CCC standards
	Equipment Appearance	Upper and lower racks in light gray RAL7035 + medium gray.

*External Dimensions



*Rack Details



*Equipment Safety Requirements

1、Compliance with the current FUTUREATT standards or stricter local regulations. Specific requirements will be clarified during equipment design review.

2、 The appearance and structural methods of equipment protective devices need to be checked one by one during design review. Subsequent processing and installation should not cause mechanical interference, hinder maintenance, or pose safety concerns.

*Other Optional Models

Plate outer diameter	Storage slot width (mm	Lamp board Number	single/double-sided	Number of plates	per layer on one side	single-layer	storage	Dimensions	Model
7-inch	20	15 lights	double-sided	7 layers	5	75 piece	1050 piece	2400x400x2000	WLAT-MSE270
13-inch to 15-inch	20	15 lights	single-sided	4 layers	5	75 piece	300 piece		WLAT-MSE420
13-inch to 15-inch	40	9 lights	single-sided	4 layers	5	45 piece	180 piece		WLAT-MSE520
13-inch to 15-inch	60	6 lights	single-sided	4 layers	5	30 piece	120 piece		WLAT-MSE620
13-inch to 15-inch	30	11 lights	single-sided	4 layers	5	55 piece	220 piece		WLAT-MSE720