

Double station SMT component counter(semi-automatic) Product Type: FUTUREATT-XMT960

Device Principle

The device requires one operator to handle the loading and unloading of products. It is equipped with a dual-station tray fixture, where one tray enters the working area for X-ray imaging, while the other tray (previously scanned tray) is sent out for sorting. At the same time, a new tray is placed in position for imaging, thus improving work efficiency.



Features

- Supports 7-15 inch materials with a height range of 8mm-70mm.
- The system can integrate with any WMS, ERP, MES, and other systems.
- Configured with a dual-station fixture, allowing for alternating operations. Four trays can be placed for 7-inch materials, while one tray can be placed for 13-inch materials.
- Fully compatible with online pick and place functionality, can connect to printers, and supports offline printing.
- High pick and place accuracy of up to 99.99%, ensuring accurate inventory of materials and lean management of material usage and loss.
- Simple operation, requiring only one operator.

Applications

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

Workflow

This equipment is compatible with trays ranging from 7 to 15 inches. For 7-inch trays, four trays can be placed at once, while for trays larger than 7 inches, only one tray can be placed at a time.

- The operator places 7-inch trays in the designated loading area, and trays larger than 7 inches are directly placed in the middle of the loading area.
- The operator simultaneously presses the two buttons on the desktop, and the device automatically sends the tray fixture into the X-ray imaging area for pick and place.



- Automatic pick and place process takes place, and the idle fixture is simultaneously sent out. The operator can continue to manually load materials. After pressing the button again, the previously imaged fixture is sent out. Upon successful pick and place, the printer prints customer labels, which are manually applied. If the wrong tray is used during labeling, the system will automatically raise an alarm. The process continues in this manner.

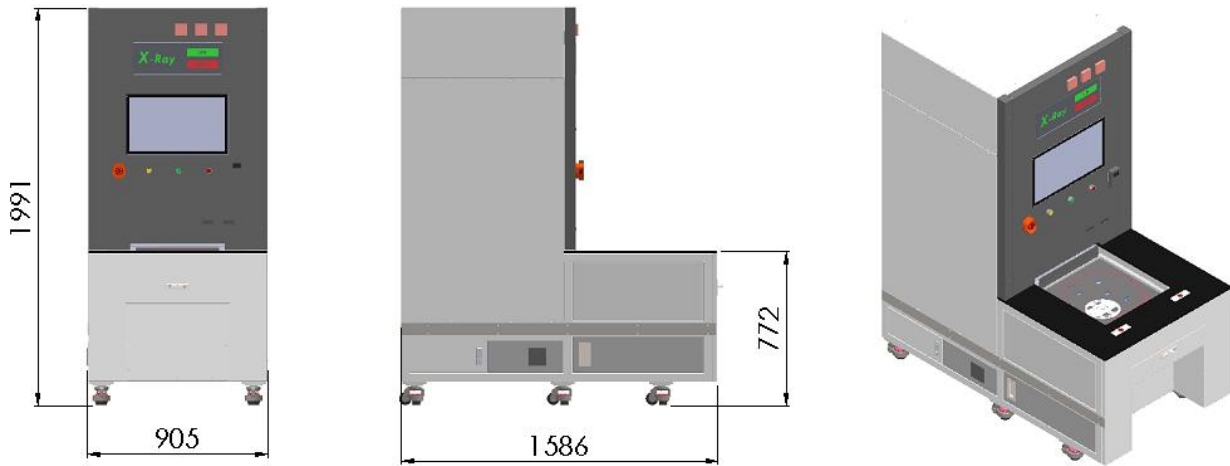
Technical Specifications

	Device Model	Parameters
Basic Parameters	Power Supply Voltage	Single phase, 220V (Can be customized based on local power supply voltage for overseas users)
	Frequency	50HZ
	Compressed Air	Air pressure 0.5-0.7Mpa, flow rate 45L/min
	Dimensions (Length x Width x Height)	910mm x 1586mm x 1991mm
	Pick and Place Efficiency	1200 trays/hour (7" SMD)
	Applicable Tray Size	7-15 inch trays
	Integration System	Compatible with any WMS/EMP/MES systems
	Weight	1000kg
	Total Power	2000w
	X-ray Source	Tube voltage 30-100KV, maximum power 150W
	Detector	Effective size: 427mm x 427mm, resolution: 3072 x 3072, accuracy: 140 μm
	Compatible Materials	Diameter: 7-15 inches or equivalent flat materials; height: 5mm-70mm
	Safety	Radiation leakage <1 μSv/hour, equipped with safety doors

Others

High Voltage Electrical Part	Independent circuit breakers in the distribution cabinet for easy maintenance.
	The distribution cabinet is equipped with exhaust fans.
	Neat wiring using plastic cable ducts.
Equipment Control Components	Includes electronic control system, human-machine interface, and visual software system.
Electronic control system	Implements control functions for various functional mechanisms of the equipment.
Human-machine interface	Enables interaction between humans and the machine.
Visual software system	Records tray information, detects labels, and traces various statuses of products produced by the machine. Interacts with WMS data.
Environmental Requirements	Measurement should be 500mm away from the operating position or the equipment's outer wall.
Safety Requirements	The equipment complies with relevant national safety standards for electromechanical equipment and CCC standards.
Equipment Appearance	Upper and lower frames are in a light gray color, RAL7035.

*External Dimensions



*Placement Accuracy

Component	Dimensions	Accuracy	Component	Dimensions	Accuracy	Component	Dimensions	Accuracy
Resistor	01005	99.9%	Tantalum Capacitor	4525	99.9%	MOS	2N7000	99.9%
	0201	99.9%		6640	99.9%		2N7002	99.9%
	0402	100%		7343	99.9%	IC	BGA	100%
	0603	100%	SMD Inductor	CD32	99.9%		QFN	100%
	0805	100%		CD43	99.9%		QFP	100%
	1206	100%		CD52	99.9%	Crystal Oscillator	4025B	99.9%
	1210	99.9%		CD54	99.9%		2016B	99.9%
	1812	99.9%		CD73	99.9%		1612B	99.9%
	2010	99.9%		CD75	99.9%		HC-49	99.9%
	2512	99.9%		CD104	99.9%			
Jumper	99.9%	CD105	99.9%					
Capacitor	0201	99.9%	Diode	M1	99.9%			
	0402	100%		M2	99.9%			
	0603	100%		M4	99.9%			
	0805	100%		M5	99.9%			
	1206	100%		4148	99.9%			
	1210	100%	Transistor	SOT-23	99.9%			
	1608	99.9%		SOT-89	99.9%			
	3612	99.9%		SOT-323	99.9%			

*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.

*Randomly Equipped Items

Item	Quantity	Remarks
Tool Bag	1 set	
Electric Screwdriver	1 piece	
Small Adjustable Wrench	1 piece	
Hex Key Set	1 set	
Micro Screwdriver Set	1 piece	

*Other Optional Models

Component	Model	Dimensions (L*W*Hmm)	Efficiency	Type
X-ray Intelligent Component Placement Machine	FUTUREATT-XMT450	1424 × 1199 × 2050	480 trays/hour (7" SMD)	Single workstation
	FUTUREATT-XAT500	4378 × 1599 × 2054	780 trays/hour (7" SMD)	Fully automatic

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