

Single station SMT component counter (semi-automatic)

Product Type: FUTUREATT-XMT450

Device Principle

The equipment requires an operator to handle the loading and unloading of products. It features a single-workstation tray fixture, where the tray fixture enters the working area for X-ray imaging. After component placement is completed, the fixture is automatically sent out for sorting and a new tray is placed for the next component placement process.



Functional Features

- Supports 7-15 inch components with heights ranging from 8mm to 70mm.
- The system can be integrated with any WMS, ERP, MES, or other systems.
- Configured with a single-workstation fixture capable of holding 4 trays for 7-inch components or 1 tray for 13-inch components.
- Fully compatible with online component placement functionality, with the option to connect a printer and support offline printing.
- Achieves high placement accuracy of up to 99.99%, ensuring accurate inventory reconciliation and lean management of material usage and waste.
- Easy operation, requiring only one operator.

Application Scope

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

Workflow

This equipment is compatible with tray sizes ranging from 7 to 15 inches. Four trays can be loaded simultaneously for 7-inch trays, while for trays larger than 7 inches, only one tray can be loaded at a time.

- The operator places 7-inch trays in the designated loading area, while larger trays are directly placed in the middle of the loading area.
- The operator simultaneously presses two buttons on the tabletop, and the equipment automatically sends the tray fixture into the component placement area with X-ray counting.



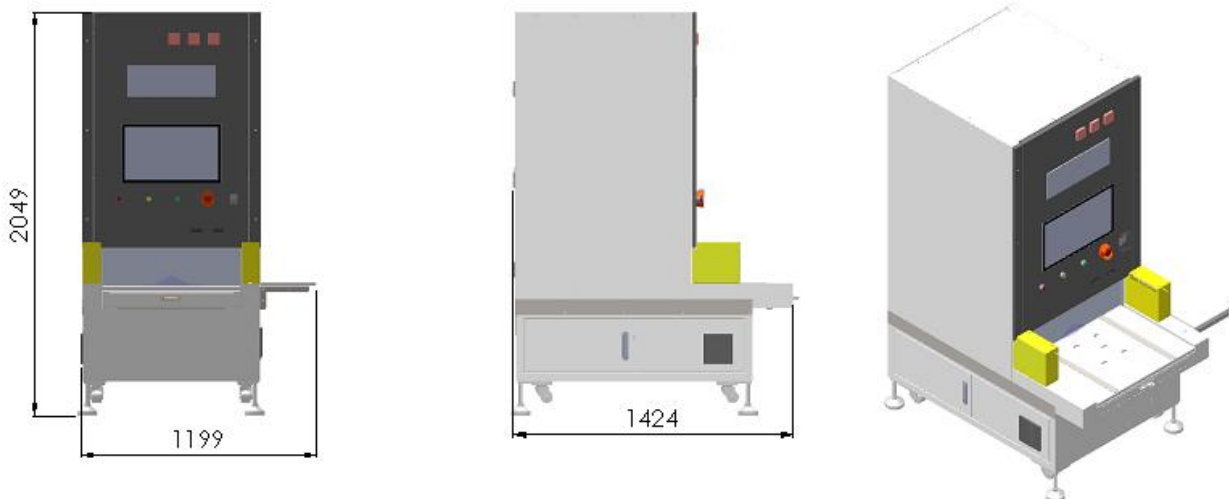
- At the same time, the previously counted tray fixture is sent out, and after successful counting, a customer label is printed. The employee manually applies the label. If the wrong tray is used during labeling, the system automatically generates an alert. This process continues in a cycle.

Technical Specifications

	Equipment Model	Parameters
Basic Parameters	Power Supply Voltage	Single-phase, 220V (can be customized for overseas users based on local power supply voltage)
	Frequency	50HZ
	Compressed Air	Air pressure of 0.5-0.7Mpa, flow rate of 45L/min
	Dimensions (Length x Width x Height)	1424mm x 1199mm x 2050mm
	Component Placement Efficiency	480 trays/hour (7" SMD)
	Applicable Tray Sizes	7-15 inches
	System Integration	Compatible with any WMS/ERP/MES systems
	Weight	1000kg
	Total Power	2000W
	X-ray Source	Tube voltage of 30-100KV, maximum power of 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
	High Voltage Electrical Part	
		The distribution cabinet is equipped with exhaust fans.
		Neat wiring using plastic cable ducts.

Other	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	4525	99.9%	MOS	2N7000	99.9%
	0201	99.9%	Capacitor	6640	99.9%		2N7002	99.9%
	0402	100%	SMD Inductor	7343	99.9%	IC	BGA	100%
	0603	100%		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 Placement Machine	Model	Dimensions (L*W*Hmm)	Efficiency	Type
Intelligent Moisture-Sensitive Component Warehouse	FUTUREATT-XMT 960	910×1586×1991	1200 trays/hour (7” SMD)	Dual station
	FUTUREATT-XAT 500	4378×1599×2054	780 trays/hour (7” SMD)	Fully automatic

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