

S7900 ODD FORM INSERT MACHINE

PRODUCT GUIDE
www.SMThelp.com



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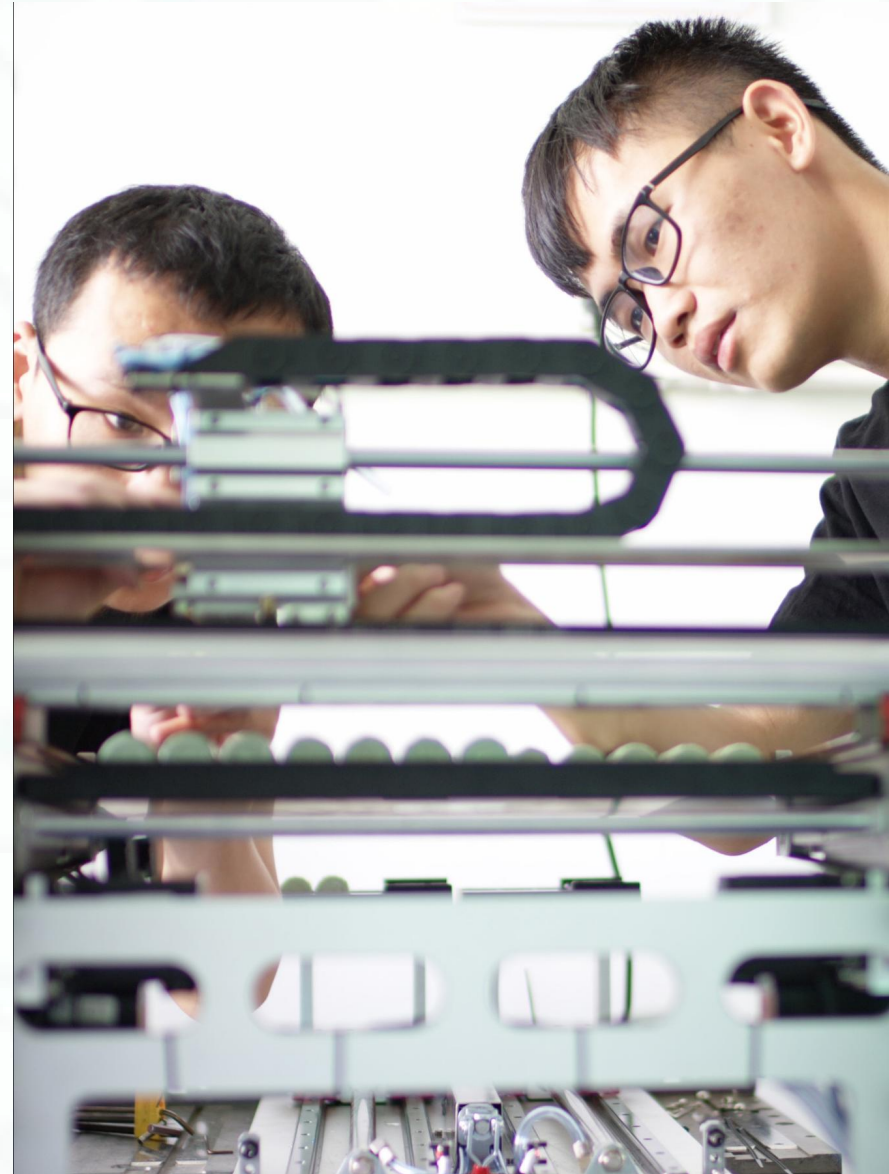
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Overview

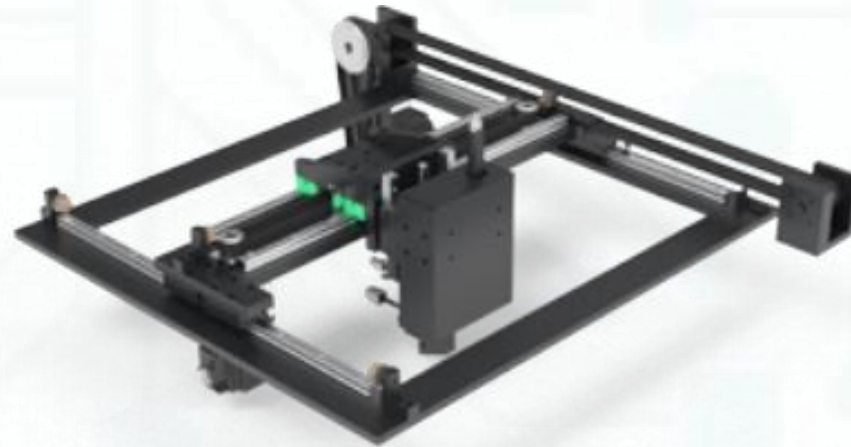
The S7900 Series Odd Form Insertion Machine is a high-speed, versatile solution for automatically inserting components like terminals, pins, eyelets, tact switches, and odd-form parts into PCBs. With customizable configurations to suit various components and feeding systems, it enhances efficiency in PCB assembly across industries such as home appliances, automotive electronics, and digital products.

Vidio Link:

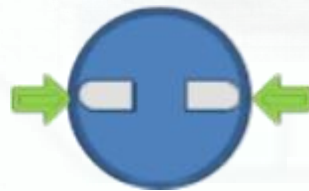
<https://www.youtube.com/watch?v=KMk6hHi3V-8>



OPTIONS FEATURE : Lead Clinching Unit



**Outward
bend**



**Inner
bend**



**Circular
(no direction, angle)**



①

②

**2 Turns(with specified
angle)**

As shown in the figure, there are 4 types of outward bending, inner bending, circular bending and 2 turns bending.

Some models are applicable. Please confirm with the local sales representative before purchasing.



Specification Model	Model				
	S7900-II	S7900-IV	S7900-IV-P	S7900-VI	S7900-VI-P
Size (LxWxH)	1050×1680×1870mm	1300×1700×2000mm	1550×1900×2100mm	1300×1700×2000mm	1550×1900×2100mm
Weight	1250 kg	1650 kg	1750 kg	1730 kg	1800 kg
Operation System	Single Side		Windows		
No. Of Door			DoubleSide	Single Side	
Safety Grating (Door)	Standard Configuration				
Air Supply	0.5-0.65 MPa(ANR)				
Max Power	4.5 KW	5.4 KW	6.6 KW	5.2KW	6.3KW
Run Power	2 KW	3.3 KW		3.5 KW	
No. of Insertion Heads	2	4	4	6	6
Max Component Size	φ 50 (35×35)mm			φ 30 (17×17)mm	φ 50 (35×35)mm
Component Height	≤25mm	≤30mm	≤25mm	≤20mm	≤30mm
Component Feeding Type	Nozzle/Clamp				
Speed /each Component	0.8 S	0.7 S	2S (with lead clinching)	0.6 S	0.6 S
Placement Accuracy CPK≥	±0.06mm	±0.06mm	±0.05mm	±0.06mm	±0.05mm
Insert Power	≤29.4N	≤98N	≤29.4N	≤29.4N	≤29.4N
Insertion Direction	0-360°				
Insert Component Object	Connector, Switch, Socket Transformer Coils, Ports, Capacitors, Resistors, IC, Etc				
PCB Size (LxW)	70×70~300×500 mm	70×70~410×500 mm	70×70~450×400 mm	70×70~410×350 mm	70×70~410×360 mm
Carrier Size (LxW)	Max 350×500mm	Max 500×500mm	Max 500×550mm	Max410×350mm	Max 410×360mm
PCB thickness	0.6-2.0mm				
Conveyor Space	25 mm/20 mm	30 mm/20 mm	25 mm/20 mm	20 mm/20 mm	30 mm/20 mm
Max. PCB Weight	5 Kg			2 Kg	5 Kg
PCB included side width	≥5mm				
PCB Fixed Type	Sero/Cylinder clamping				
Conveyor Type	Chain			Belt	Chain
PCB Direction	Rto L/Lto R				
Conveyor Section	3				
Conveyor Adjusting	Auto				
Conveyor Height	750±20mm			900±20mm	
Lead Clinching Unit	/	/	Standard	/	Option
MES Connection	Standard Configuration				
Vision System	Mark CCD (Top) Component CCD (Bottom)		1		
	2	4	4	2	6
Max Stations	201 Radial Tape Feeder				
	218 Radial Tape Feeder	4	6	6	10
	207 Radial Tape 90° Feeder				
	259 Radial Tape Feeder	6	12	12	20
	254 Radial Tape Feeder				
	202 Axial Tape Feeder	4	6	6	10
	222 Tube Feeder	6	12	12	20
	203 Tube Feeder	4	6	6	10
	205 Bowl Feeder	4	4	4	8
Tray Feeder	1	1	1	2	

Remark: If different types feeders mixed using, the num. of feeders are depended on combination.

 *1 Air source is atmospheric pressure Frost point: -17°C or less, particulate powder: particle size 5 μm or less, and Maximum oil concentration: 5mg/m³ or less, in addition to the machine installation requires an air source

*2Varies depending on the conditions of use

*3Depending on different components

*4The use of the plug-in foot bend module replaces the top plate mechanism.

*5Only provide the original factory setting information. Need to be customized to match the customer's system (optional items)

Key Features

Unified Design: Integrated structure and software for easy operation and maintenance.

Cost-Effective: Priced at one-third of comparable machines.

High Efficiency: Replaces three manual workers with faster speeds and lower maintenance costs.

User-Friendly: Simple operation, with one-day training.

Global Support: 24/7 service, free installation and training, and spare parts delivered within a day.



Achieve high productivity in any environment

- Consistently high performance
- Flexibility to handle any application

Streamline changeover for high-mix

- Versatile machine configurations
- Flexible hardware and software tools

Maximize ROI

- Designed to thrive in low-utilization environments
- Superior to manual assembly

Enjoy lowest cost of operation and ownership

- Economical and environmentally friendly
- Built to maintain investment protection

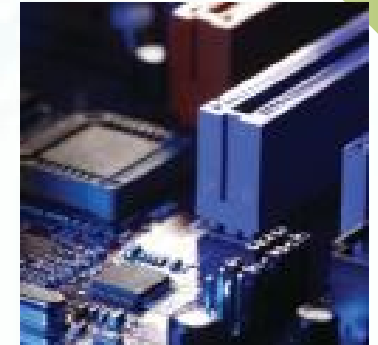
Advantages Of S7900 Odd Form Insertion Machines



Mainstreaming odd-form for enduring profitability

A Shift in Focus – Adapting with Flexible Automation

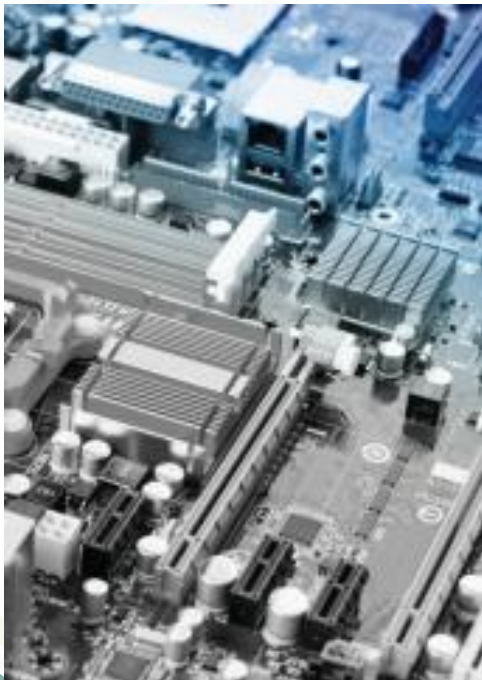
In today's market of volatile labor costs, tight time-to-market demands, and increasing product complexity, electronics manufacturers face pressure to maintain margins. While efforts often focus on optimizing upline efficiency, significant productivity gains can be achieved by improving end-of-line odd-form assembly processes.



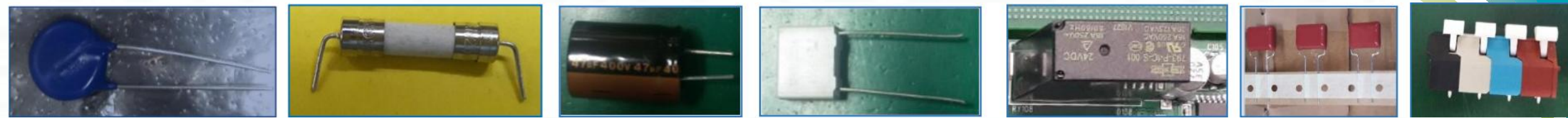
Comprehensive Odd-Form Automation Solutions

Southern Machinery offers flexible, customer-focused automation solutions, backed by over 20 years of expertise in odd-form assembly. Our flagship S7900 Platform delivers unmatched performance and versatility:

- Comprehensive solutions for all markets and applications.
- Industry-leading experience and knowledge base.
- High-speed platform for surface mount, odd-form, pin-in-paste, and semiconductor assembly.
- Compatibility with existing S7900 systems.
- Integrated through-hole and complex automation options for seamless single-vendor solutions.



Unmatched Versatility - S7900 Odd Form Insertion Machines



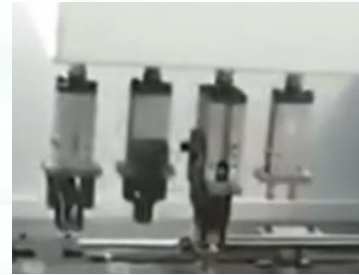
Electric Catch



Air Grab

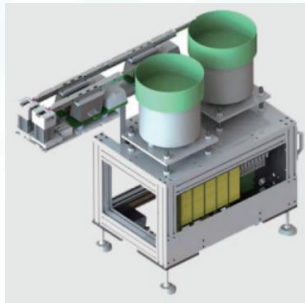


Nozzle



Four heads design

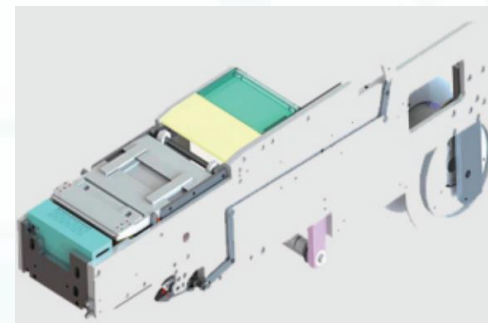
Supports multiple **grippers**
to grab multiple
odd form components



Bowl Feeder



Reel Feeder

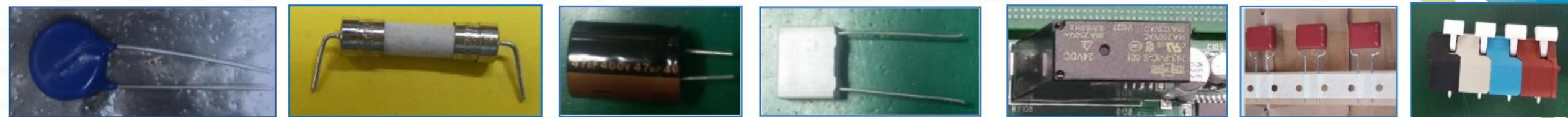


rell Feeder

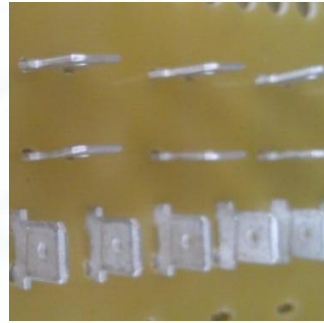
Support various types of feeders,
both bulk and braided
components are available

Four heads design, extreme
efficiency improvement

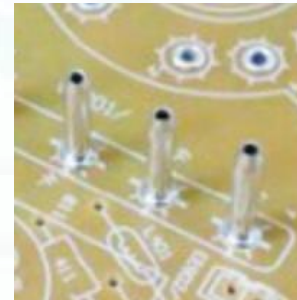
Efficiency=6500CPH(withCinch)≥7workers



Component
Range:



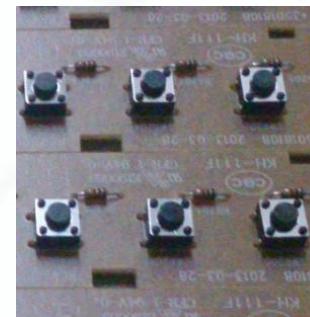
Terminal



Pin



Eyelet



Tack Switch

Wide range of applications, can insert 4 kinds of odd form components at the same time.

Dimension: 1400X1000X1
600mm PCB size:
350X300mm Four heads
design

Vedio Link:

<https://www.youtube.com/watch?v=KMk6hHi3V-8>

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ABOUT US

With more than 20 years of SMT experience, continuously improve product quality, product quality is outstanding



We have cooperated with many high-quality customers, and **the brand is trustworthy**



Has an independent manufacturing plant and design team, with independent production and research and development capabilities



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