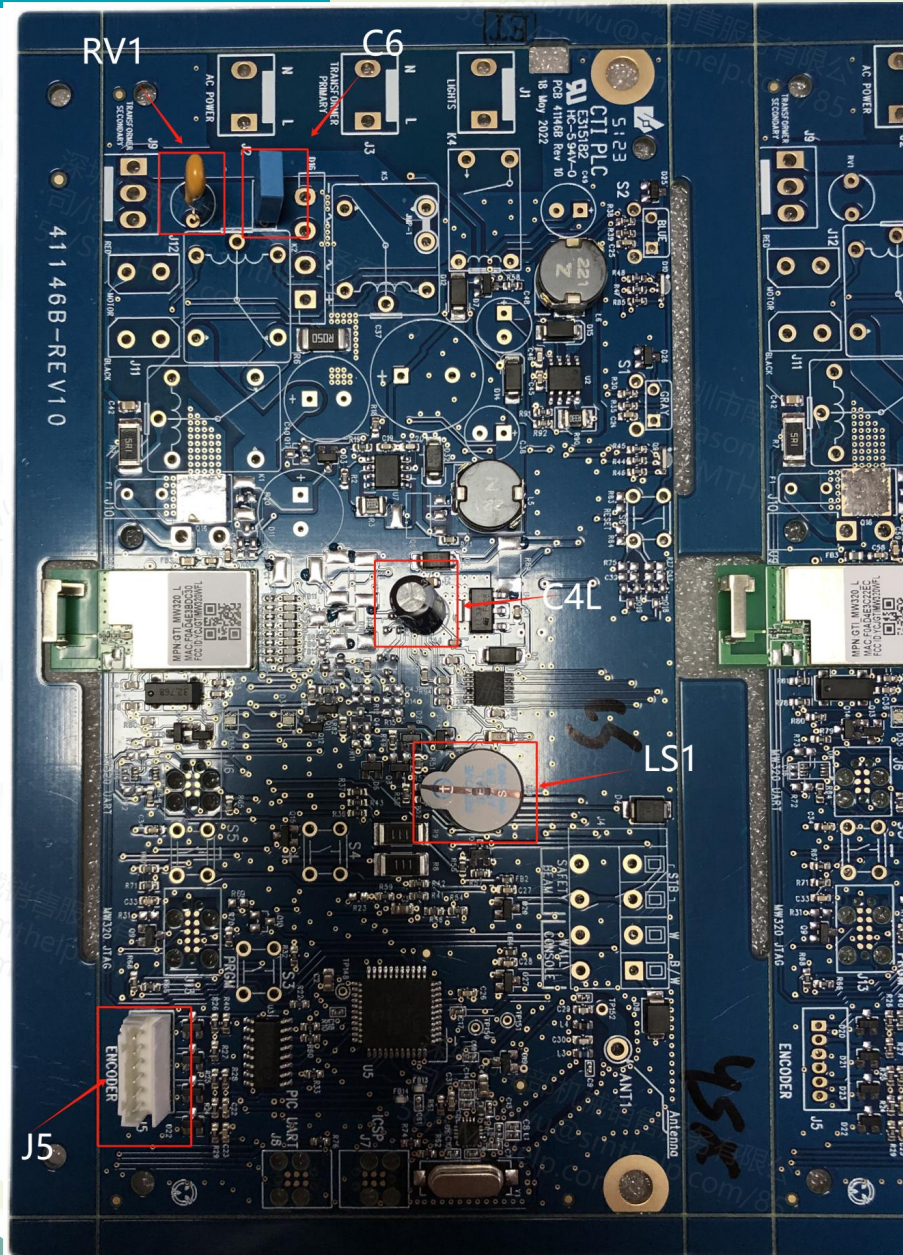




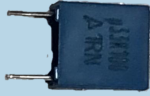



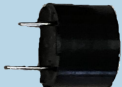



# ODD FORM INSERT MACHINE

## S7900 IV Solution Configuration



# Customer request:THT BOM



No.location	Picture	Feeder	Package method	Gripper	Bend foot treatment
RV1		Tape feeder	Tape		YES
C6		Tape feeder	Tape		YES
C4L		Tape feeder	Tape		YES
LS1		Belt feeder	Bulk		NO
J5		Belt feeder	Bulk		NO

# S7900IV Machine Feeder

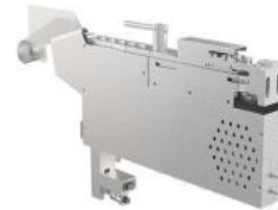
Parameter	S7900 IV	S7900IV-W
Radial Tape Feeders	6	6
Vertical Taping (90°)	12	12
Horizontal Tape Feeders	6	6
Tube Feeders	12	12
Bowl Feeders	4	4
Tray Feeders	1	1



Belt feeder



Bowl feeder



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207



201



202






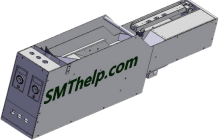


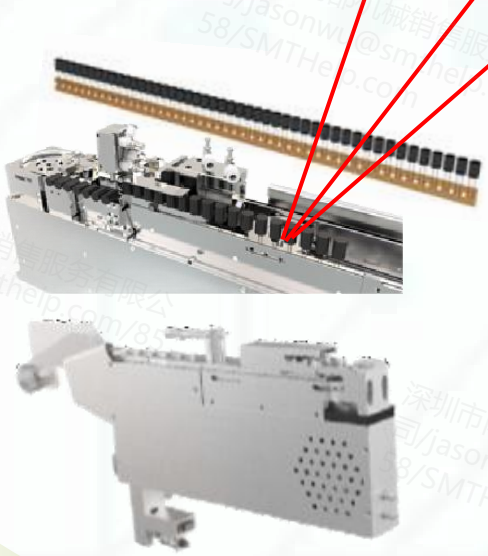
222



Tray Feeder

# Feeder configuration

Component No / Head	Feeder 1	Feeder 2	Feeder3	Feeder 4	Feeder 5	Cycle time(Clinch +1.5S/each point)
Components pictures						
Insertion 1s, bending 2.5s	2.5S	2.5S	2.5S	1S	1S	
Round 1	Head 1		Head 2	Head3	Head 4	7S
Round 2		Head 1				2.5S

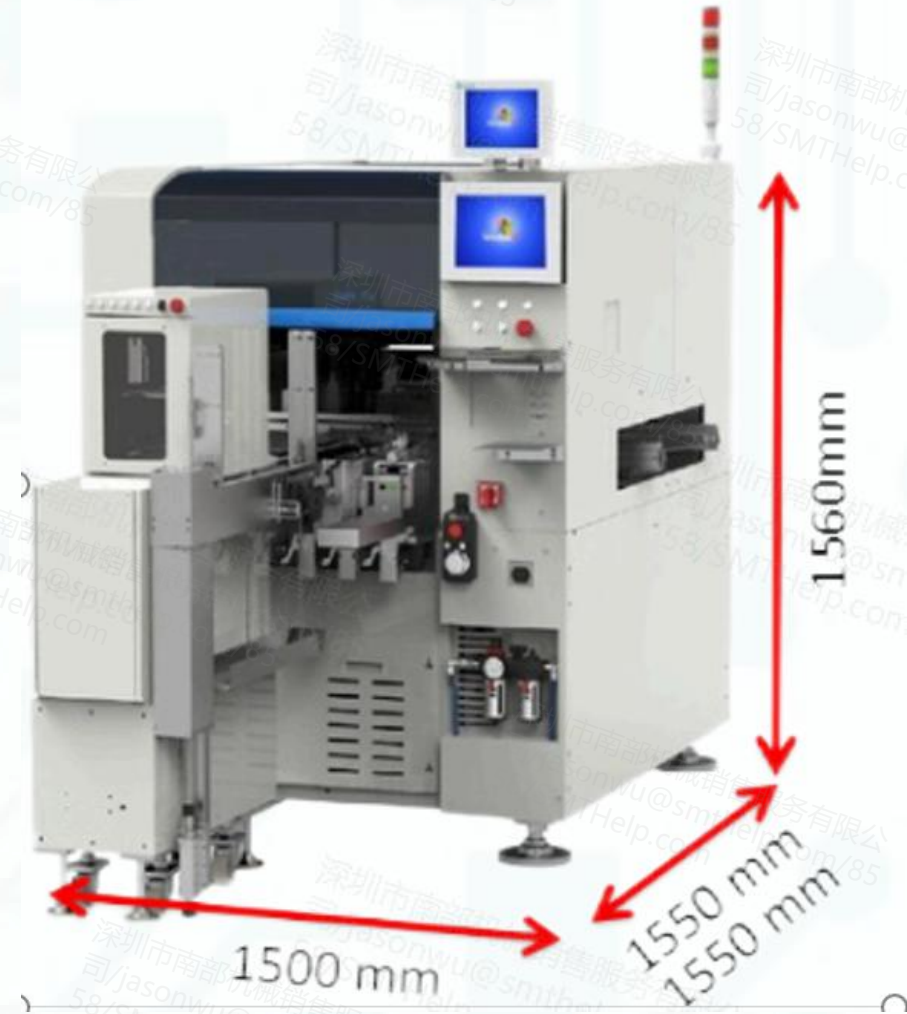


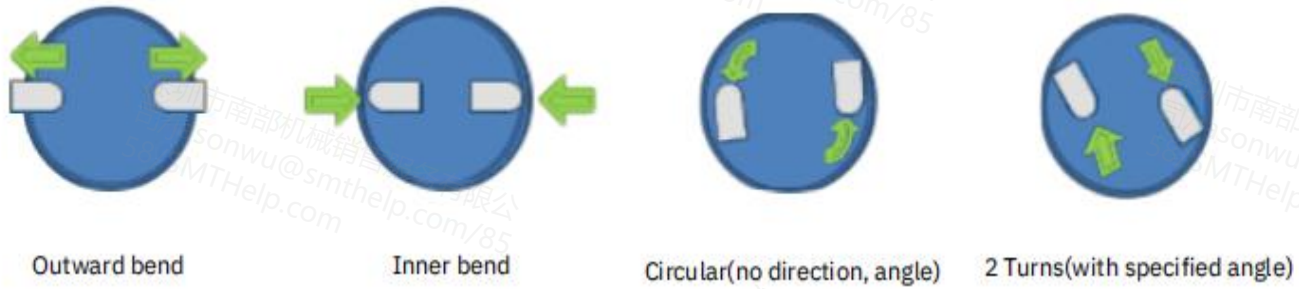
# Sample test



# Machine comparison bending foot parameters S7900IV

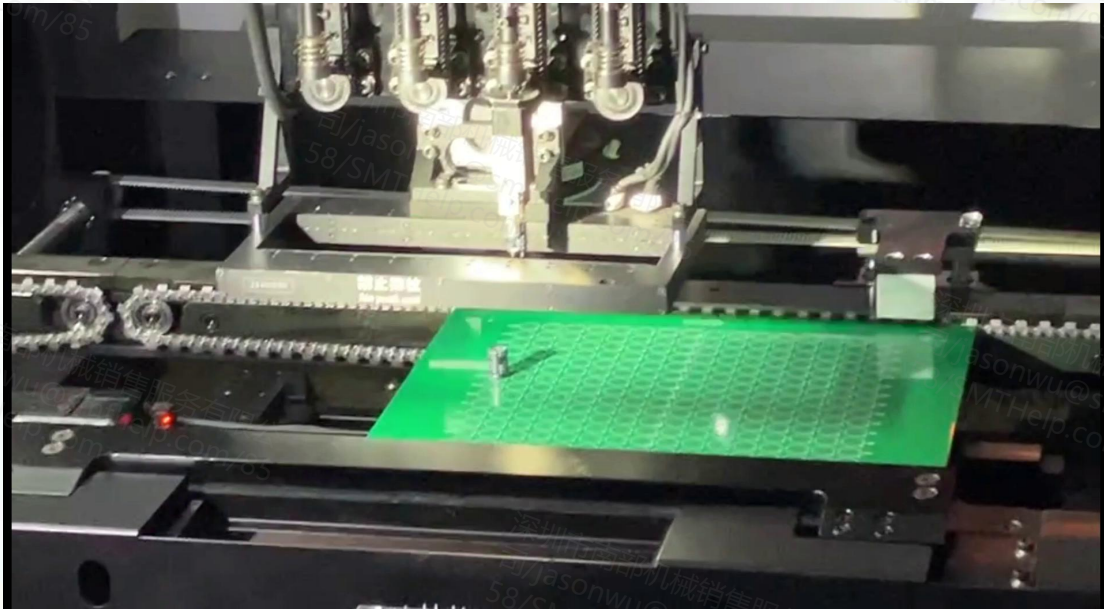
Equipment Specifications (4 Insertion Heads)		
Specification	S7900IV	S7900IV-W
Size (L×W×H)	1300×1700×2000 mm	1550×1900×2100 mm
Weight	1650 kg	1750 kg
Operating System	Windows	Windows
Door Type	Double-Sided Unilateral	Single-Sided
Safety Grating (Door)	Standard	Standard
Air Supply	0.5-0.65 MPa (ANR)	0.5-0.65 MPa (ANR)
Max Power	5.4 kW	6.6 kW
Running Power	3.3 kW	3.5 kW
Number of Insertion Heads	4	4
Max Component Size	φ30 (17×17) mm	φ50 (35×35) mm
Component Height	≤30 mm	≤25 mm
Component Feeding Type	Nozzle / Clamp	Nozzle / Clamp
Speed per Component	0.7 s	2 s (with bent feet)
Placement Accuracy	±0.06 mm (CPK≥1.0)	±0.05 mm (CPK≥1.0)
Insertion Force	≤98 N	≤29.4 N
Insertion Direction	0-360°	0-360°
PCB Size (L×W)	70×70 - 410×500 mm	70×70 - 450×400 mm
Carrier Size (L×W)	Max 500×500 mm	Max 500×550 mm
PCB Thickness	0.6-2.0 mm	0.6-2.0 mm
Conveyor Space (Upper/Lower)	30/20 mm	25/20 mm
Max PCB Weight	2 kg	5 kg
PCB Fixing Type	Servo Top Plate / Cylinder Clamping	Servo Top Plate / Cylinder Clamping
Conveyor Type	Chain	Belt
Conveyor Direction	Left→Right / Right→Left	Left→Right / Right→Left
Conveyor Height	900 ± 20 mm	750 ± 20 mm
Lead Clinching Unit	Not Applicable	Standard Configuration
Vision System	Top Mark CCD (1 unit), Bottom Component CCD (4 units)	





Bend foot mechanism range of motion:  
380mm×380mm

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



Increase insertion rate by 5 %  
Reduction of production losses by 5 %



The diameter of the bent wire is less than 1.0mm and the leaking wire length is not less than 2mm (the specific size is subject to the final design).

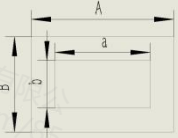
## PCB board holes

### 1) Round pin components:



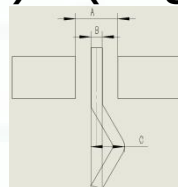
Hole diameter  $\text{ØD} = (\text{nominal pin diameter } \text{Ød} + 0.5\text{mm}) \pm 0.05\text{mm}$

### 2) Square pin (rectangular pin) components:



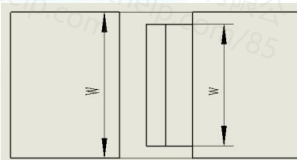
Hole size = [long and short sides of square pin (rectangular pin) + 0.5mm]  $\pm 0.05\text{mm}$

### 3) K (frog pin) components:



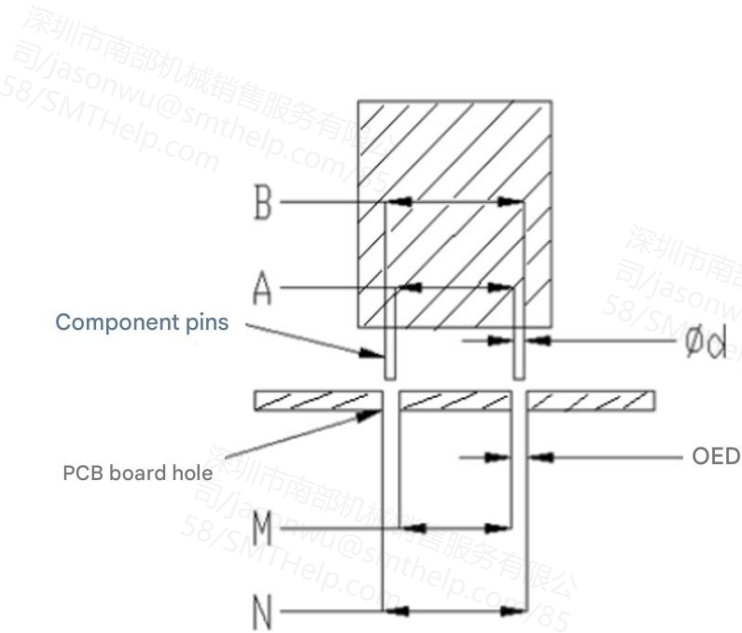
Hole size:  $(C < (A - B) \text{ and } A = B + 0.5\text{mm}; W = w + 0.5) \pm 0.05\text{mm}$

### 4) Oval pin components:



Hole outline size = (line foot outline size + 0.5mm)  $\pm 0.05\text{mm}$

Note: The hole pitch error is less than  $\pm 0.02$



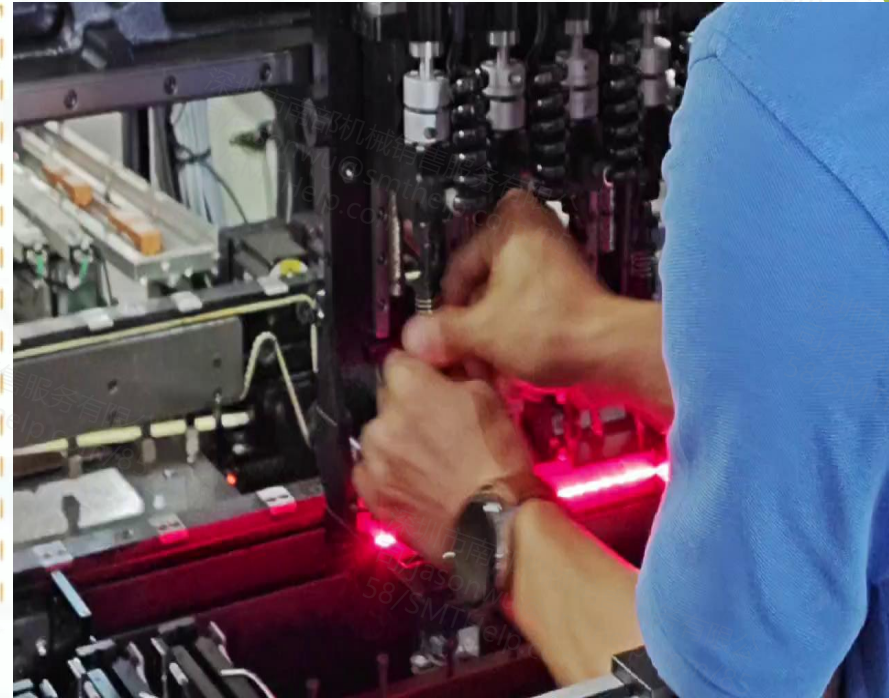
DFM must meet the necessary conditions:

1.  $A_{\min} \geq M_{\max} + 0.1\text{mm}$

2.  $B_{\max} \leq N_{\min} - 0.1\text{mm}$



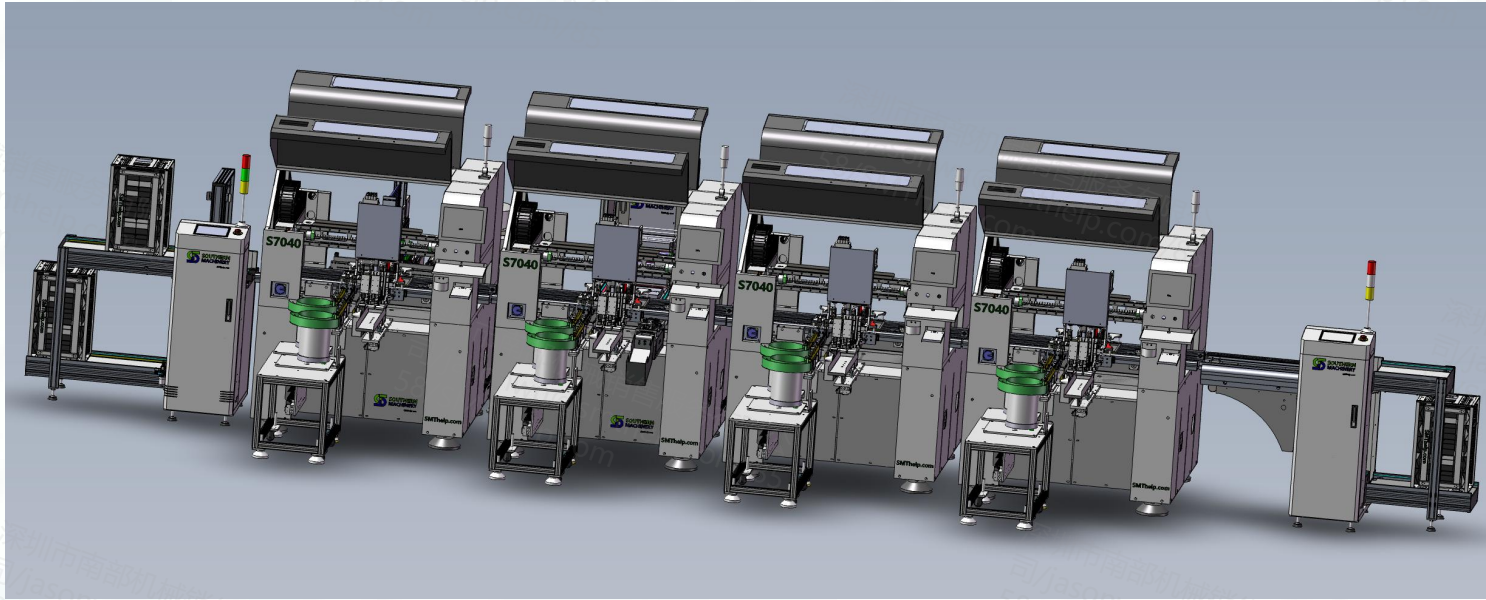
The clamp adopts quick-plug design, and it only takes 20 seconds to replace it! ! !



SLD-250

S7900 IV

SUD-250



1. Relay manual insertion are calculated at 1000/H, Odd Form Insertion Machine 4700/H, 1pcs machine equivalent to 5 workers.

2. Error-free machine insertion enhances product quality, ensures precise and reliable performance.

3. ROI < 2 years! One machine = 5 workers! Saving labor costs~ \$60K/year

— **7x24 Worldwide Support**

— **Free Installation/ Training**

— **1 day lead-time (spare parts)**

— **1 Month customize solution**



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