

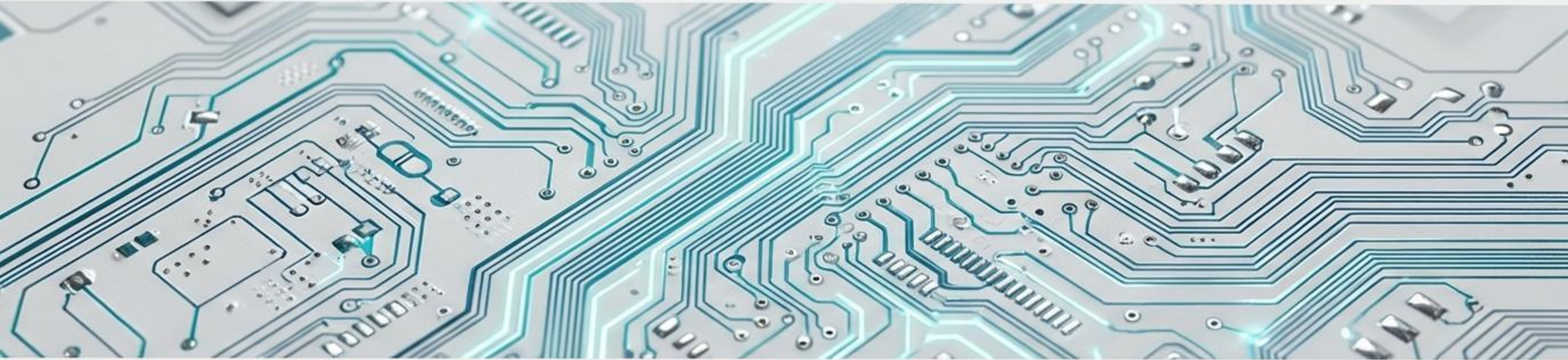


Redefining THT Automation

The S7900 Series: Your Partner for the Smart EMS Factory



The Modern EMS Challenge: Complexity is the New Standard



Increasing Component Diversity

From standard ICs to complex, non-standard "odd-form" components, the range of parts per board is expanding.



Pressure for Higher Throughput

Market demands require faster production cycles and quicker time-to-market, straining existing assembly lines.



Uncompromising Quality Standards

Sectors like automotive and industrial electronics demand near-perfect quality and reliability, making every insertion critical.

Is manual insertion compromising your factory's efficiency and future-readiness?

The True Cost of the Manual Insertion Bottleneck



Low Efficiency

Manual processes are inherently slow and tedious, creating significant delays and limiting overall production output.



Poor Quality

High defective rates and scrap rates due to human error lead to costly rework and compromise the final product's reliability.



Difficult Processing

Complex or delicate odd-form components are challenging to handle manually, increasing the risk of damage and incorrect placement.



High Manufacturing Costs

Heavy reliance on manual labor inflates operational expenses and exposes your production to workforce volatility.

The Solution: Automate Your Most Challenging Insertion Tasks

The Southern Machinery S7900 Odd Form Series is engineered to master the complexities of modern PCB assembly. It simulates and replaces laborious manual operations, delivering unparalleled precision and efficiency when handling non standard, odd form electronic components.



The S7900 Series: Speed, Flexibility, and Precision



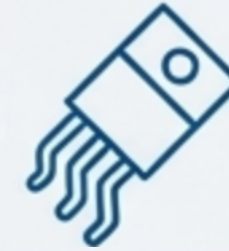
Multi-Head Precision

High-speed servo-driven heads. Achieves placement accuracy of $\pm 0.06\text{mm}$.



Versatile Feeding Ecosystem

All-in-one platform for Tape, Tube, Tray, and Bowl feeders. Handles diverse, complex odd-form components with ease.



Active Clinching Technology

Optional bottom active clinching unit performs multiple lead bending types (e.g., Inward/Outward) to ensure component stability and prevent floating during welding.



Intelligent Vision System

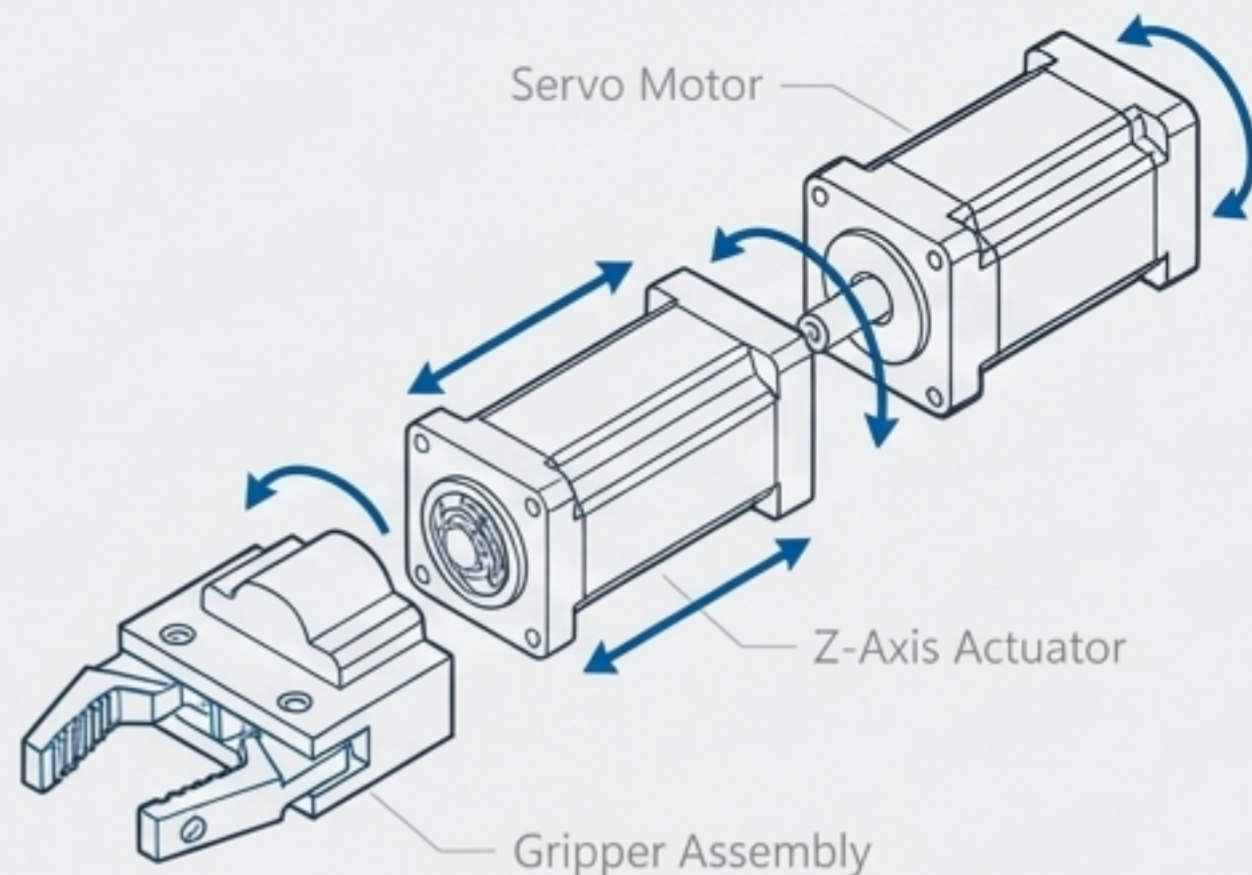
AI-powered algorithms and bottom vision alignment accurately identify components and MARK points for precise, error-free placement and smart correction.

Key Specifications	Value
Max Speed	4,700 CPH
Placement Accuracy	$\pm 0.06\text{mm}$
Max PCB Size	480mm x 390mm
PCB Thickness	0.76mm - 2.36mm
Power Supply	Single Phase 220VAC, 50/60HZ
Control System	Windows-based with English interface

The Technology of Flawless Placement

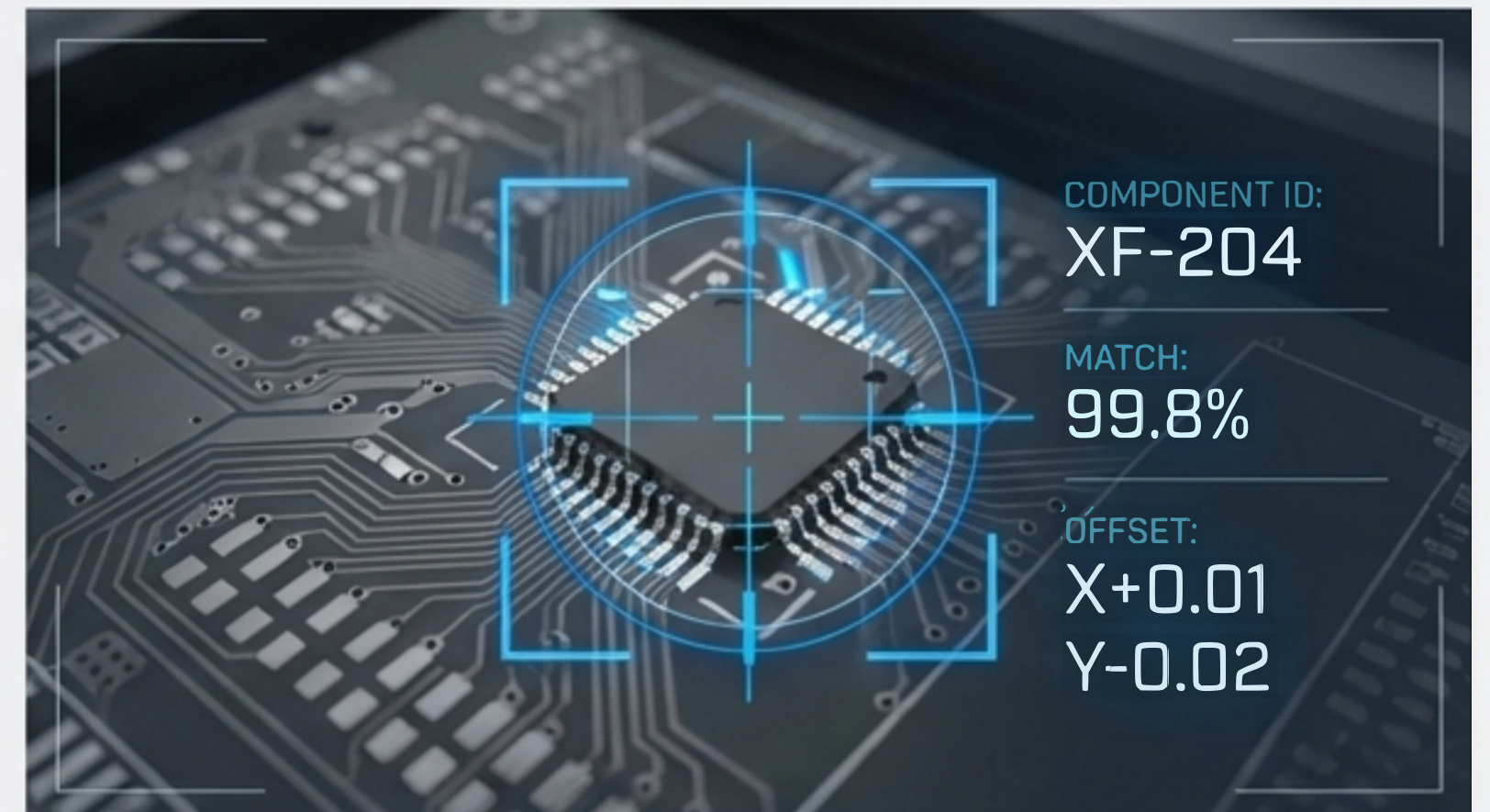
High-Speed Servo Control

The S7900's multi-axis motion system enables intricate and flexible handling of various components with superior accuracy. High-speed servo-driven heads ensure rapid, repeatable performance, cycle after cycle.



AI-Powered Vision & Correction

The system accurately identifies and locates components and MARK points for precise placement. Features include barcode recognition and auto-learning capabilities to minimize setup time and maximize First Pass Yield (FPY).



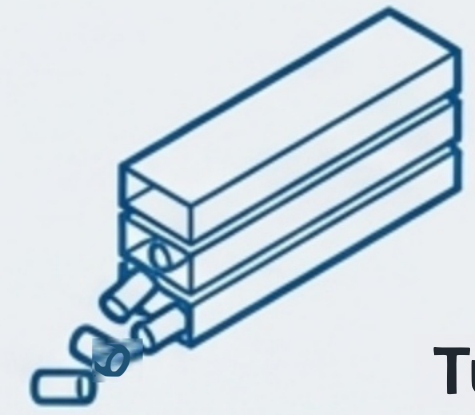
Engineered for Maximum Versatility and Reliability

A Complete Feeding Ecosystem

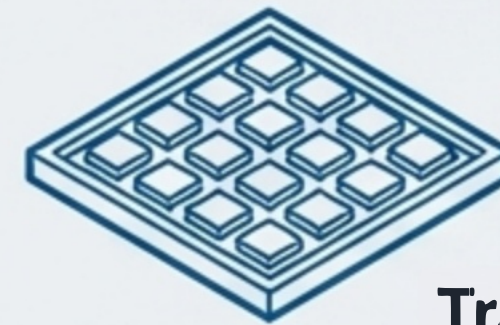
Eliminate manual processes for virtually any odd-form part. The S7900 platform seamlessly integrates feeders for components supplied on Tape, in Tubes, on Trays, or in Bowls.



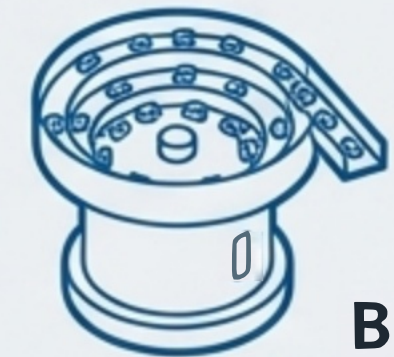
Tape



Tube



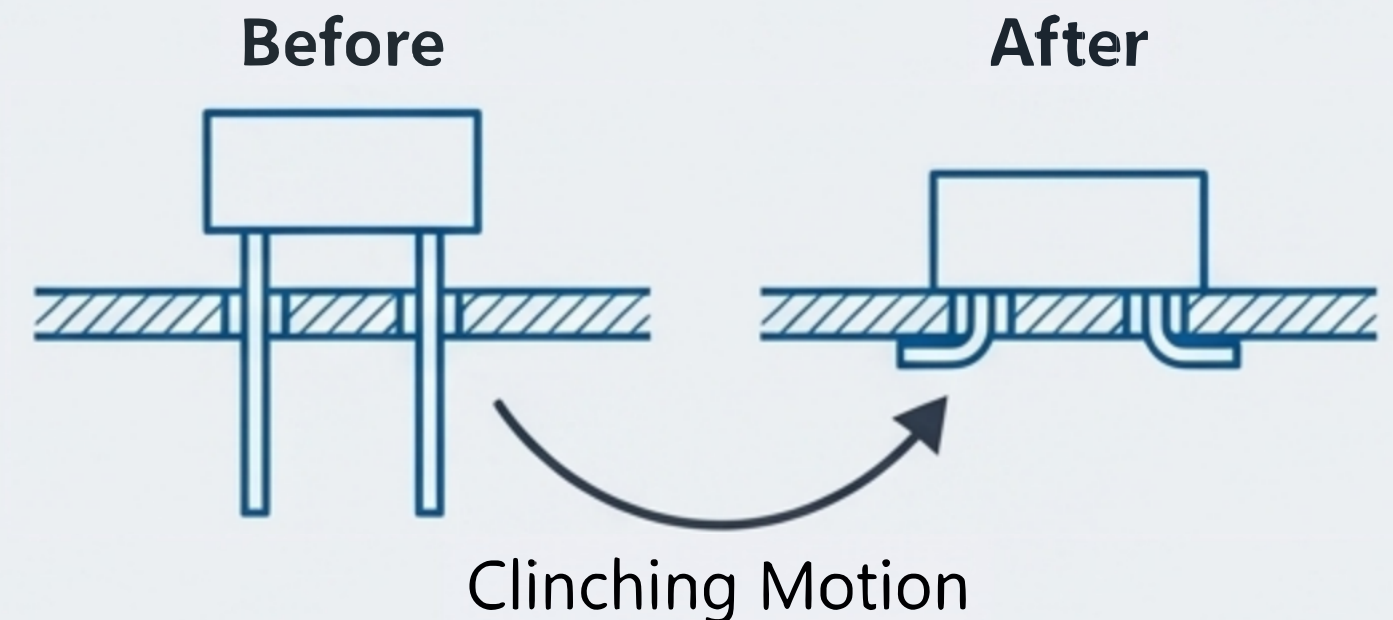
Tray



Bowl

Advanced Clinching for Superior Quality

The optional automatic lead bending unit (clinching) secures components post-insertion. With 4 types of lead bending available, it prevents parts from floating during wave soldering, ensuring high-quality, reliable connections.



Powerful Performance, Simplified Operation



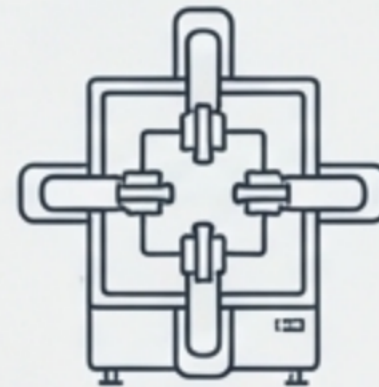
Intuitive Software Interface

Simplifies program creation, parameter adjustments, and real-time monitoring. Features include automatic learning to quickly define insertion data for new components.



Simplified Maintenance

Designed for straightforward routine lubrication and cleaning to minimize downtime and ensure long-term reliability.



S7900 HUB



Seamless MES Integration

MES communication capabilities allow for seamless data exchange and process control within your smart factory.



Adaptive Tooling

Customizable, tool-free replacement of grippers and nozzles adapts to a wide range of component shapes and sizes with minimal downtime.

Transforming Your Bottom Line: The Business Case for Automation



Replace 5-10 Manual Operators

Free up skilled labor for higher-value tasks and reduce dependency on a volatile workforce.



ROI in Under 2 Years

An estimated annual savings of \$60,000 per machine ensures a swift payback period.



Accelerate Your Time-to-Market

Boost productivity and overall throughput by automating the slowest and most tedious part of your THT assembly process.

The Advantage of Uncompromising Quality



Minimize Defects and Rework: Error-free machine insertion ensures precise, reliable component placement, dramatically reducing defects and the associated costs of rework and scrap.

- ✓ **Enhance Product Consistency:** Automation eliminates human variability, delivering consistently high-quality PCB assemblies batch after batch.
- ✓ **Meet Demanding Industry Standards:** Achieve the reliability and traceability required for demanding sectors, including automotive and medical electronics, ensuring compliance with standards like IPC-610.

Your Partner in Manufacturing Excellence



Manufacturing Expertise

Leverage over a decade of Shenzhen-based manufacturing excellence (Founded 2011) in SMT and THT automation.

Designed for Reliability

Our machines are engineered for robust, 24/7 continuous operation in the most demanding industrial environments.

Proven Global Trust

Join a network of **237+** EMS clients globally who rely on our solutions for their smart factories.

Global Service & Support

Benefit from worldwide technical support and spare parts availability, ensuring your production never stops.

Ready to Upgrade Your Assembly Line?

Contact us today for a personalized consultation, detailed specifications, or a quote. Our team of expert **B2B Sales Engineers** is ready to help you **design the perfect** automation solution for your specific challenges.



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