



**SMT**  
S O L I D

**JUKI**  
JUKI AMERICA, INC.  
ELECTRONIC ASSEMBLY SYSTEMS

# JM-100

**INSERTION**

We offer complete SMT solutions with cutting-edge technology and specialized support.



MX 81-282-8092  
US 10-791-8343





# JM-100

## ADVANCED MI SOLUTION

Achieve higher quality and labor savings by automating manual insertion!

### Key Feature ACTIVE CLINCHING

The JM100 Multi Task Platform's clinch unit is a sophisticated and precise component designed to enhance the reliability and efficiency of electronic assemblies. This unit effectively bends the lead sections of inserted components, ensuring they remain securely attached to the board. It accommodates various lead pitches from 5 mm to 20 mm and supports lead diameters ranging from 0.45 mm to 1.0 mm.

The clinch method offers flexible options including inward from the outside, outward from the inside, counterclockwise (CCW) rotation, and clockwise (CW) rotation. The unit features a five-axis system: CX and CY axes for horizontal movements, and CZ, CT, and CC axes for vertical claw movements, claw rotation, and claw opening/closing, respectively. This configuration supports precise positioning and secure lead mounting, even for boards up to 410x360 mm in size.

### AUTOMATE INSERTION, ACCELERATE PRODUCTION



#### Takumi Head with Variable Height Laser

Effortless precision as the laser sensor adapts automatically to component height.

The JM-100 is a versatile hybrid solution designed to automate manual insertion processes while delivering precision and efficiency. Engineered with JUKI's innovative Takumi head featuring 8 nozzles and a dynamic laser sensor, the JM-100 adapts effortlessly to component heights up to 30mm, ensuring consistent accuracy and faster cycle times. With insertion speeds of 0.6 seconds per component, self-calibration capabilities, and automatic nozzle changes, this machine optimizes production lines for high-mix and large-format assembly while eliminating the labor-intensive nature of manual operations.

Capable of handling PCBs up to 800mm x 360mm in indexing mode, the JM-100 transforms manual insertion tasks into streamlined automated workflows. Its advanced design equips engineers with a reliable, adaptable platform to tackle diverse manufacturing challenges, ensuring high-quality output, improved productivity, and reduced operational costs.



### Revolutionary 3D Image Recognition

Measure every component bottom with unparalleled precision and accuracy.



### On-the-Fly Lead Straightening

Minimize waste and eliminate insertion errors with real-time lead alignment.



### Innovative 90-Degree Component Support

Form and insert components at the perfect angle with precision and ease.

## SPECIFICATION

ITEM		JM-100	
Model		Standard Specification (L size PCB)	Clinch specification (L size PCB) When using/not using the clinch unit
Board size	Single clamping	50 x 50 mm~410 x 360 mm	80 x 100 mm~410 x 360 mm
	Double clamping	50 x 50 mm~800 x 360 mm	80 x 100 mm~800 x 360 mm
PCB weight		Max. 4 kg	
Component height		Max. 30 mm	
Component size	Laser recognition	0603~ 50 mm	
	Vision recognition	3 mm 78 x 48 mm or 85 x 25 mm	
Insertion speed (Insertion components)	Vacuum nozzle	0.6 sec/part	
	Gripper nozzle	0.8 sec/part	
Placement accuracy (SMT)	Laser recognition	±0.05 mm (3σ)	
	Vision recognition	±0.04 mm	
Power supply		200 to 415V AC 3-phase	
Apparent power		1.8kVA	
Circuit breaker		Standard	
Operation air pressure		0.5±0.06MPa	
Air consumption (standard)		82L/min	
Conveyor height		900 mm ±20 mm	
Machine dimension (WxDxH)		1,500 x 1,500 x 1,45 mm	
Mass (approximately)		1,300 kg	

## Industrial solutions, innovation and precision.

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