

Specification

		JM-100		JM-20	
		Standard specification (L size PCB)	Clinch specification (L size PCB) When using/not using the clinch unit	L size PCB	XL size PCB
Board size	Single clumping	50×50mm~410×360mm	80×100mm~410×360mm	410×360mm	410×560mm
	Double clumping	50×50mm~800×360mm	80×100mm~800×360mm	800×360mm	800×560mm
PCB weight		Max. 4kg			
Component height		Max. 30mm		Max. 55mm	
Component size	Laser recognition	0603~□50mm			
	Vision recognition	□3mm~78×48mm or 85×25mm		□3mm~□50 *7, 1005~□24mm *8	
Insertion speed (Insertion components) *Optimum	Vacuum nozzle	0.6 sec / part **4*5		0.8 sec / part *3	
	Gripper nozzle	0.8 sec / part **4*5		1.3 sec / part *2*4*5	
Placement accuracy (SMT)	Laser recognition	±0.05mm (3σ)			
	Vision recognition	±0.04mm			
Power supply		200 to 415V AC 3-phase			
Apparent power		2.2kVA		2.0kVA	
Circuit breaker		Standard			
Operation air pressure		0.5±0.05MPa			
Air consumption (standard)		82L / min		50L / min	
Conveyor height		900mm ±20mm			
Machine dimension (W×D×H) *6		1,500×1,500×1,450mm		1,500×1,657×1,550mm	
Mass (approximately)		1,300kg		1,760kg	

*1 Using following conditions (Applicable part: Aluminum electrolytic capacitor (φ 8 mm), Feeder: two MRF-S, Placement conditions: Simultaneous pick, sequential insertions using 2 nozzles)
 *2 Using following conditions (Applicable part: Connector (4 pin), Insertion conditions: 2 sequential picks and insertions using 2 nozzles)
 *3 Using following conditions (Applicable parts aluminum electrolytic capacitor (φ8 mm) When the component height is 28 mm, board transport and BOC mark recognition time are not included.)
 *4 Board transport and fiducial recognition not included *5 For 16mm head height. *6 For 900mm conveyor. *7 Using 54mm FOV camera *8 Using 27mm FOV camera

Option

	JM-100		JM-20	
	Standard specification (L size PCB)	Clinch specification (L size PCB)	L size PCB	XL size PCB
Check nozzle base*	Custom		Custom	
Automatic board width adjustment	•	Standard	•	
Rear side operation unit	•		•	
Conveyor extension 250mm	•		•	
Conveyor height 950mm	•		•	
3D-VCS	•		Custom	
Lead correction jig	•		•	
Spare trolley	•		•	
Main line filter	•		•	
JaNets / IFS-NX	•		•	
Keyboard	•		Standard	
Conveyor cover	•		-	
OuterRing lights	•		-	
Super foot	•		•	
Feeder float sensor (for SMT)	•		•	
Drive cylinders	•		•	
Management data output	•		•	
Traceability multi-code reader	•		•	

*Custom based on component

Feeder capacity**1

	Tape feeder in case of 8mm tape	Radial feeder		Axial feeder		Stacked stick feeder	General purpose bulk feeder MVF	Tray**2*3	
		MRF-S	MRF-L	MAF-S	MAF-L			Tray Holder (full)	MTS
JM-100	56	18	14	14	10	10	6	1	1
JM-20	80	26	20	22	16	16	8	2	1

*1 Max applicable number of same feeders (Front & Rear total).
 *2 Please contact our sales person for tray specification detail.
 *3 Rear side only

*Please refer to the product specifications for details.
 **JUKI Specifications and appearance may be changed without notice.



JUKI CORPORATION HEAD OFFICE
 The activities of research, development, design, sales, distribution, and maintenance services of industrial sewing machines, household sewing machines and industrial robots, etc., including sales and maintenance services of data entry systems.

MANUFACTURER: JUKI CORPORATION

INQUIRY: JUKI AUTOMATION SYSTEMS CORPORATION

2-11-1, Tsurumaki, Tama-shi, Tokyo 206-8551, JAPAN
 TEL.81-42-357-2293 FAX.81-42-357-2285

JUKI

www.juki.co.jp

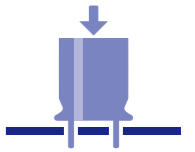
JUKI AUTOMATION SYSTEMS GMBH. www.juki-smt.com | JUKI AUTOMATION SYSTEMS INC. www.jukiamericas.com | TOKYO JUKI INTERNATIONAL TRADING (SHANGHAI) CO.,LTD. www.jukichina.com | JUKI INDIA PVT. LTD. www.smtjukiindia.com | JUKI SMT ASIA CO.,LTD. | Sep-2020/Rev.01

Multi Task Platform

JM-Series

JUKI

JUKISmart Solutions



Advanced MI solution



SOFTWARE



STORAGE



PRINTING



INSPECTION



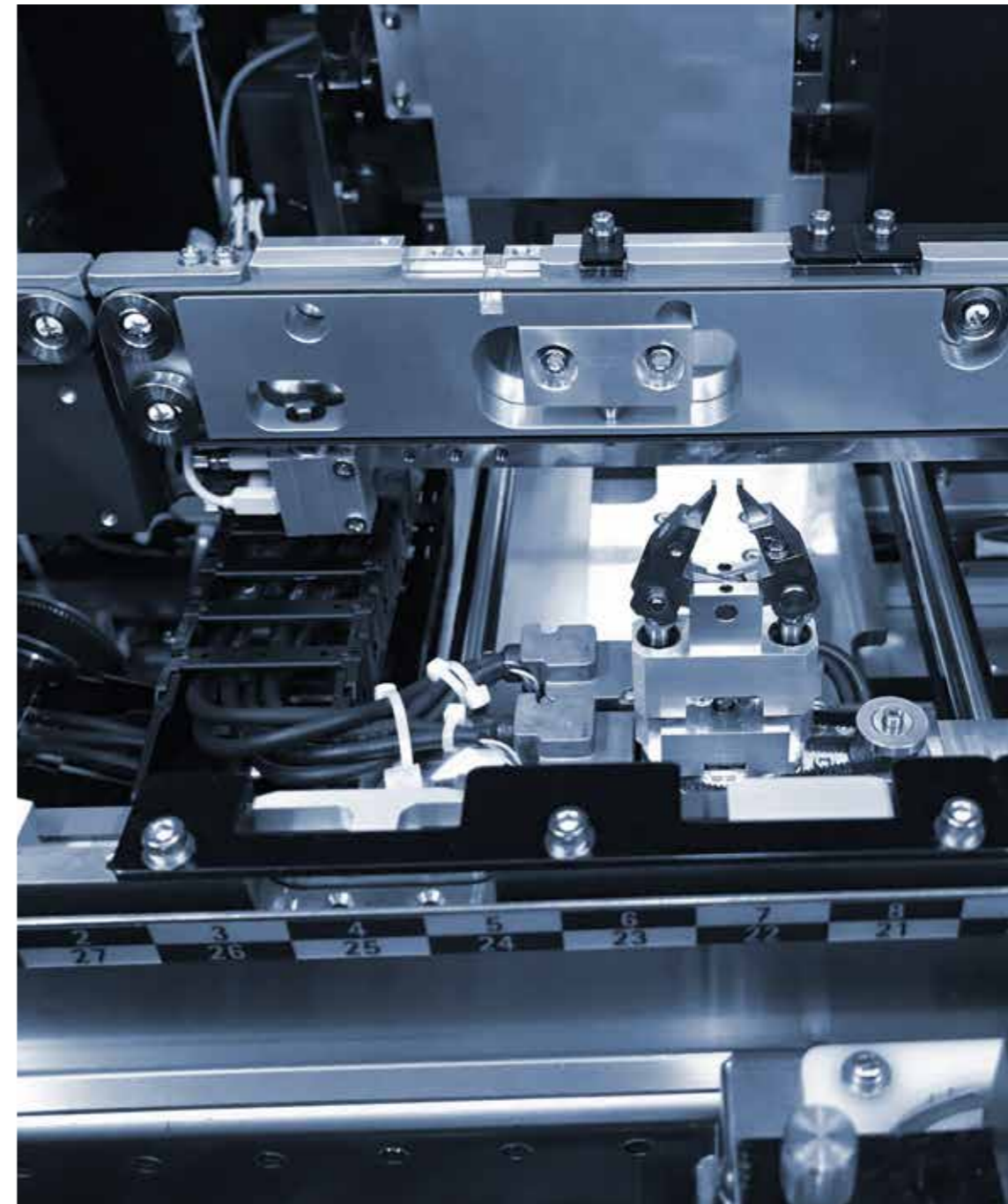
PLACEMENT



INSERTION



SOLDERING



High speed insertion



JM-100

Large Boards/ Odd Shape Components

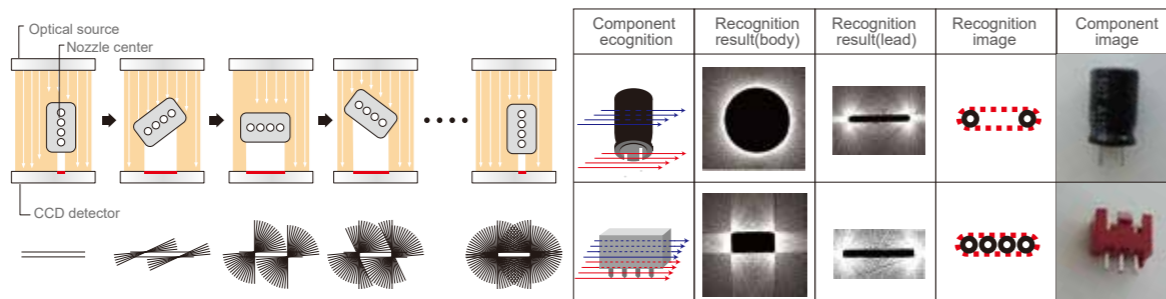


JM-20

FEATURE 1: Laser sensor for lead detection

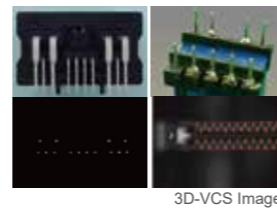
■ Laser centering

Components are rotated 360 degrees in the laser. The entire outline of the component is measured accurately by a high resolution CCD sensor. The exact component position and angle are obtained in a fraction of a second without a side trip to a camera. After measuring the component body, the lead tips are measured to ensure accurate insertion.



■ Vision centering

JUKI'S proprietary 3D Vision Centering System (3D-VCS) is used for centering larger or more complicated lead patterns. 3D-VCS can recognize a variety of lead tip shapes including round, square, and semi-circular. It can also detect difference in lead length for accurate insertions.



FEATURE 2: Fast insertion

JM-100

Best in class speed. Significant speed increase over previous generation. Component insertion time down to 0.6 seconds for vacuum nozzle and 0.8 seconds for gripper nozzle. Best in class speed.

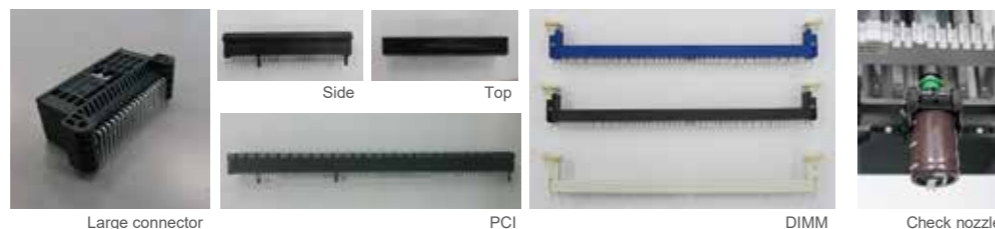
0.6 sec
per part for
vacuum nozzles

0.8 sec
per part for
gripper nozzles

FEATURE 3: Large and Odd-Shape Components

JM-20

The JM-20 supports larger nozzles and larger, odd shape components such as DIMM and PCI connectors and large capacitors or transformers.



FEATURE 4: New "Takumi head" with multiple recognition heights

JM-100

The new "Takumi head" has 8 nozzles and is equipped with a height adjusting laser to optimize speed. This head can handle a wide range of components while maintaining the maximum speed.

■ Variable height laser sensor changes automatically based on component height

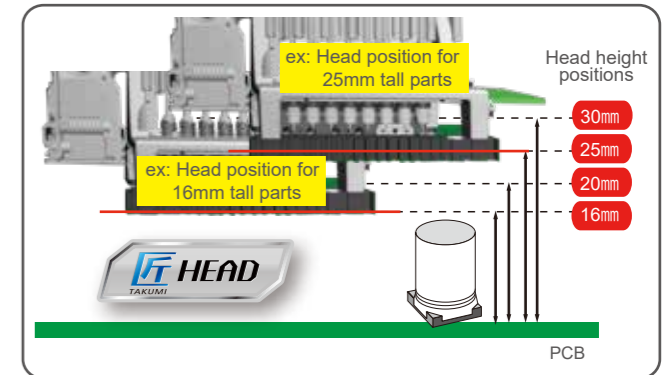
The laser sensor changes height automatically based on the the component height to minize the movement and optimize speed. Height can change randomly between 4 different settings.

■ Improved productivity with 8 nozzles

The JM-100 uses 8 nozzles vs. the previous generation's 6 nozzles. This increases the number of parts that can be picked on each cycle and reduces overall cycle time.

■ Wide component range from small to large and heavy

JM-100 and JM-20 can handle components from metric 0603 up to 50mm square with a weight of up to 200g. Maximum insertion force of up to 50N.



FEATURE 5 : Setup verification and traceability (option)

Intelligent feeders are supported to provide setup verification and also component traceability.

Feeders can be equipped with barcodes or RFID tags to verify the correct part number is loaded in the correct location. PCB barcodes are scanned at the start of production and all component data is recorded for traceability.

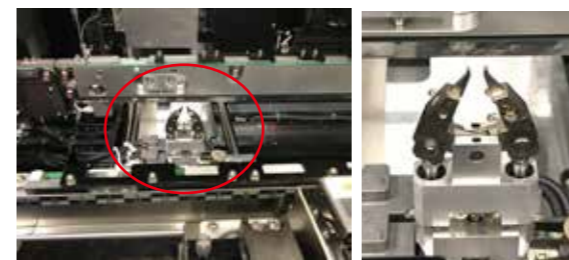
Intelligent Feeder System
IFS-NX



FEATURE 6 : Active clinching

*For clinch specifications

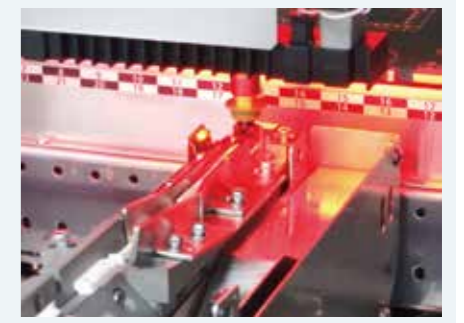
New active clinch unit supports bend in, bend out, and N bend to prevent components from lifting during reflow and make handling prior to reflow easier.



FEATURE 7 : Component feeders (option)

NEW General Purpose Bulk Feeder MVF

Bluk feeders typically are custom made for one particular part and require a lot of space. Our new Flexible Bulk Feeder is dramatically smaller than bowl feeders and can handle a range of part types. It mounts on our standard feeder bank and can be installed and removed quickly and easily.



Component feeders are available for a broad range of tape components, stick components, discrete components, and tray components. Custom feeders are also available.

