
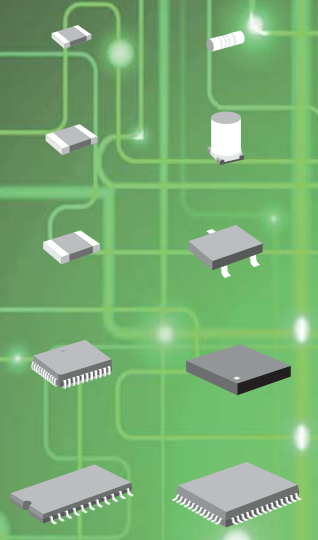
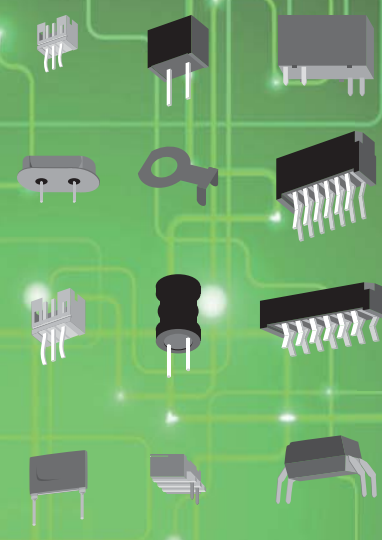



# JM-10 Multitask Platform

# JM-20 Multitask Platform

Auto Insertion (AI)	Surface Mount Technology (SMT)	Manual Insertion (MI)	
			



## JM-10



## JM-20



leads to **LOWEST COST OF OWNERSHIP**



# Higher quality and labor savings by automating manual insertion

Multitask Platform

## JM-10



Compact model for applications with smaller components

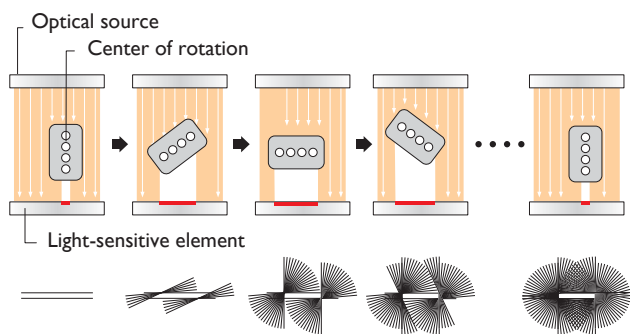
## JM-20



Advanced model for larger/heavier components and larger boards

### Laser sensor for lead detection

The laser sensor is ideal for lead tip detection to improve the insertion process.



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.



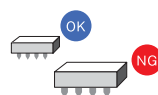
Laser sensor integrated into placement head

Recognizing component	Recognition result (body)	Recognition result (lead)	Recognition image

Improved placement quality with component detection function.

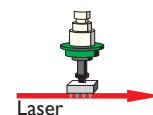
Laser detects component presence from pick to placement, reducing defects.

Component dimension check



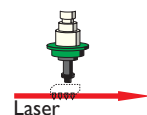
Compares the dimensions of the picked part to the component data to ensure the right part is picked.

Component fall check



Laser checks if the component falls before placement.

Release check



Laser checks if the component is properly released on the board after placement.

## Wide variety of feeder types

Feeders for tape, stick, radial, axial, tray, and bulk components. A wide variety of custom feeders is also available.

### Tape feeder types



Radial Feeder  
(MRF-S/MRD-L)



Radial Feeder for  
snap-in MRF-L



Axial Feeder  
MAF-S

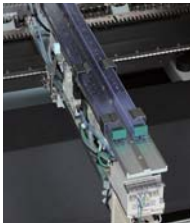


Axial Feeder  
MAF-L



Tape Feeder (SMT)  
CTFR

### Stick feeder

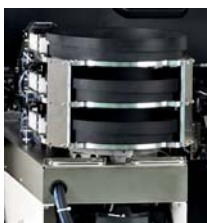


Stick Feeder

### Bulk and tray feeders



Bowl Feeder  
MBF (trolley)  
MBF-C (fixed)



Bowl Feeder for large  
components MBF-L (trolley)



Tray Holder



Matrix Tray server

### Feeder capacity<sup>\*3</sup>

	Tape feeder in case of 8mm tape	Radial feeder		Axial feeder		Stick feeder	Bowl feeder			Tray <sup>*2,*6</sup>	
		MRF-S	MRF-L	MAF-S	MAF-L		MBF <sup>*5</sup>	MBF-C <sup>*5</sup>	MBF-L	Tray Holder (full)	MTS
JM-10	60	20	14	16	12	12	1-2 <sup>*4</sup>	1	2	1	1
JM-20	80	26	20	22	16	16	2	2	2	2	1

\*1 Customization possible.

\*2 Please contact our sales person for tray specification detail.

\*3 Max applicable number of same feeders (Front & Rear total).

\*4 Max. 2 units for MBF bank, max. 1 unit for mechanical bank.

\*5 Applicable only on front side.

\*6 Applicable only on rear side.

## Nozzle types

JUKI has many years of experience making speciality nozzles for a wide variety of applications.



# Specifications

		Multitask Platform <b>JM-10</b>	Multitask Platform <b>JM-20</b>	
		M-sized board	L-sized board	XL-sized board
Board size	Single Clamp	410 x 250 mm	410 x 360 mm	410 x 560 mm
	Double Clamp	-	800 x 360 mm <sup>※1</sup>	800 x 560 mm
PCB weight		Max. 2 kg	Max. 4 kg	
Component height	28 mm	○	○	
	55 mm	-	○	
Component size	Laser recognition	0201 to 33.5 x 33.5 mm	0201 to 50 x 64 mm	
	Vision recognition <sup>※2</sup>	54 mm view camera	3 mm to 33.5 x 33.5 mm	
		27 mm view camera	0402 to 24 x 24 mm	0402 to 24 x 24 mm
Insertion speed	Vacuum (opt. acc. JUKI conditions)	0.8 s/part	0.8 s/part <sup>※3</sup>	
	Gripper (opt. acc. JUKI conditions)	1.3 s/part	1.3 s/part <sup>※3</sup>	
Placement speed (SMT)	Chip (opt. acc. JUKI conditions)	17,500 cph	15,500 cph <sup>※3</sup>	
	IC (opt. acc. JUKI conditions)	4,100 cph	4,200 cph <sup>※3</sup>	
Placement accuracy (SMT)	Laser recognition	± 50 μm (Cpk ≥ 1)	± 50 μm (Cpk ≥ 1)	
	Vision recognition <sup>※2</sup>	± 40 μm	± 40 μm	
Residual number of components control <sup>※2</sup>		○	○	
Power supply		200 to 415 VAC 3-phase	200 to 415 VAC 3-phase	
Apparent power		1.8 kVA	2.0 kVA	
Circuit breaker <sup>※2</sup>		○	○	
Operation air pressure		0.5 ± 0.05 MPa	0.5 ± 0.05 MPa	
Air consumption		345 l/min 50 l/min in case with vacuum pump	50 l/min	
Vacuum pump		○ <sup>※2</sup>	○	
950 mm conveyor height <sup>※2</sup>		○	○	
Machine dimension (WxDxH) <sup>※4</sup>		1,445 × 1,295 × 1,510 mm	1,500 × 1,657 × 1,600 mm	1,500 × 1,892 × 1,600 mm
Mass (approximately)		1,000 kg	1,760 kg	1,985 kg

※1 Requires long PWB option (indexes PWB twice)  
 ※2 Optional specification.

※3 For component height 28 mm.  
 ※4 Dimensions of machine described are for conveyor height 950 mm.

# Options

		Multitask Platform <b>JM-10</b>	Multitask Platform <b>JM-20</b>	
		M-sized board	L-sized board	XL-sized board
ATC 6-6		●	-	
ATC 10-12		-	●	
Chuck nozzle base <sup>※</sup>		-	●	
C-ATC (ATC for chuck nozzle)		-	●	
Rear side operation unit		-	●	
Conveyor extension 150 mm		-	●	
Conveyor extension 250 mm		-	●	
Conveyor guide 100 mm		●	●	
Three-color signal light (with buzzer)		●	●	
Vacuum pump		●	(standard)	
Main line filter		●	●	
Circuit breaker		●	●	
Conveyor height 950 mm		●	●	
Placement force control <sup>※2</sup>		-	●	
Long board support		-	●	(standard)
Vision centering system(54 mm view camera)		●	●	
Vision centering system(27 mm view camera)		●	●	
MI line optimizer <sup>※2※3</sup>		●	●	
Residual number of components control		●	●	

※1 For using chuck nozzle, separate custom parts will be required  
 ※2 Please inquire for the release time  
 ※3 This option is available for line control optimization



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.

※Please refer to the product specifications for details.



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■ JUKI Specifications and appearance may be changed without notice.

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