Specification

Item			High -Speed Compact Modular Mounter RX-7R		
		Model	(P16S×P16S head)	(P16S×P8[*1] head)	(P8×P8[*1] head)
Board size	Single lane conveyer		50×50～510mm[*2*3] × 450mm		
	Dual lane conveyer	Single lane mode	50×50～510mm[*2*3] × 450mm		
		Dual lane mode	50×50～510mm[*2*3] × 250mm		
Component height			3mm	3㎜(P16S head),10.5㎜(P8 head)	10.5㎜
Component size			03015[*4]～□5mm	03015[*4]～□5mm(P16S head)	0603～□25mm
				0603～□25mm(P8 head)	
Placement speed (Optimum)		Chip	75,000 CPH	54,900 CPH	34,800CPH
		IC	-	6,400CPH[*5]	12,800CPH
Placement accuracy		Chip	±0.04 mm(Cpk≧1)		
		IC	-	±0.04 mm	
Feeder capacity			Up to 56[*6]		
Power supply			3 phase AC200V、220V-430V[*7]		
Apparent power			2.3kVA		
Operating air pressure			0.5±0.05MPa		
Air consumption (standard)			20L/ min ANR(during normal operation)		
Machine dimensions (W x D x H)[*9]			998×1,895×1,530mm [*8]		
Mass (approximately)			約 1,820kg [*10]		

*1 Contact sales for more details
*2 The BOC, BAD mark, and 2D code can be recognized when the board size X-axis is between 50 mm and 350 mm.
*3 In long board mode.(Two PCBs up to 420mm can be produced simultaneously)
*4 Contact sales for details
*5 Using P8 head
*6 Using RF04AS or RF08AS feeders
*7 Optional transformer required for 220V - 430V
*8 P8 head requires 123mm additional space on the front for the feeder bank
*9 Display and signal light not included
*10 Using P16S x P16S head configuration, dual lane with trolleys

Options

PCB conveyor	Support-pin / Support-sponge
Others	Dedicated nozzle /Spare nozzle cartridge / Joint cable / Offset placement after solder screen-printing Ground-fault interrupter / SSD/ Maintenance light
Component handling and feeders	Feeder Trolley / Electric tape feeder / Fixed feeder banks (RF/EF) /Tape reel mounting base Feeder stocker* / Splicing jig / Feeder Calibration Jig Electric Trolley Power Station

* Contact for availability of RF feeders

Software

JaNets*	User definition / Facility definition / Component DB / Creating production programs / Line optimization Line monitoring / CAD conversion* / Cluster optimization
Virus measurement software	White list (standard)

* Option

CM001 ISO 14001 JSAE389 089

JUKI CORPORATION HEAD OFFICE
An environmental management system to promote and conduct the following:
(1) Eco-friendly development of products and technologies
(2) Green procurement and green purchasing
(3) Energy conservation (reduction in carbon-dioxide emissions)
(4) Resource saving (reduction of papers purchased, etc.)
(5) Reduction and recycling of waste
in the activities of research, development, design, sales, distribution, and maintenance services of industrial sewing machines and industrial robots, etc., including sales and maintenance services of data entry systems.

MANUFACTURER : **JUKI CORPORATION**
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TEL.81-42-357-2293 FAX.81-42-357-2285

http://www.juki.co.jp

Aug-2018 / Rev.00

JUKI

High-Speed Compact Modular Mounter

RX-7R

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Innovative Production Efficiency Improvement for the Whole Factory

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Innovative Production Efficiency Improvement for the Whole Factory

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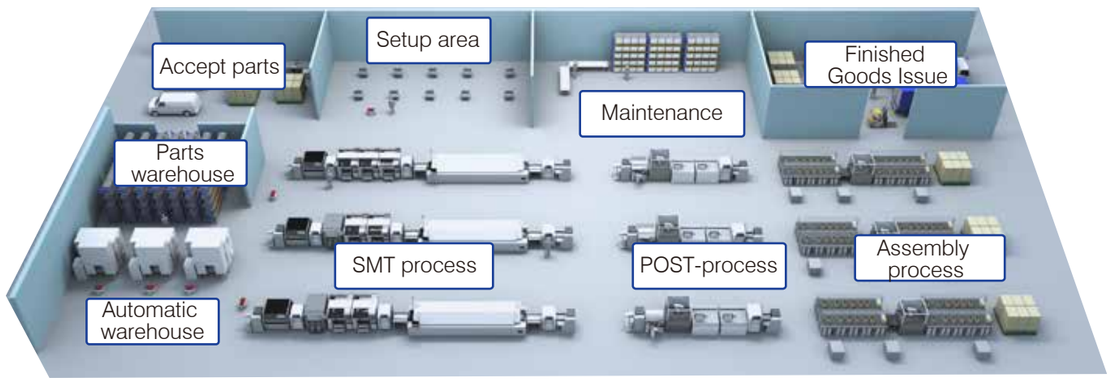
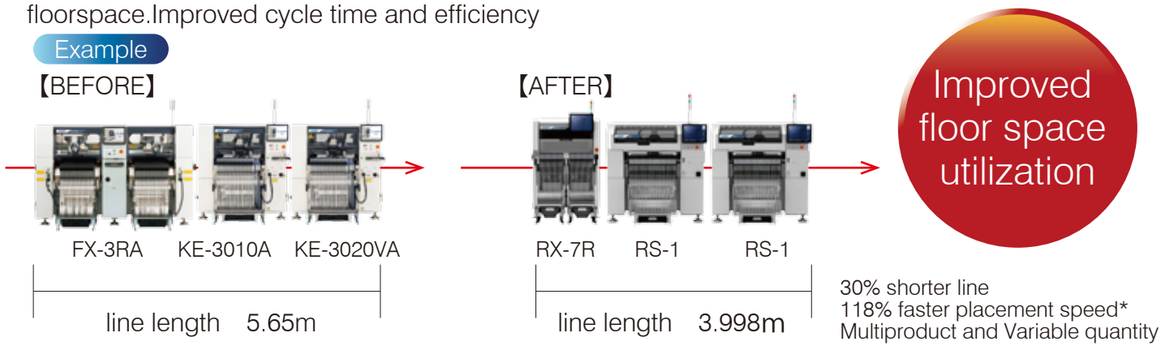


Linking to other machines for improved productivity

New function

By combining the high speed RX-7R using a rotary head, with the flexibility of the RS-1 using an inline head, the widest range of parts at the best cycle time is possible.This line also uses less floorspace.Improved cycle time and efficiency

Example



RX-7R + RS-1 combination greatly improves cycle time

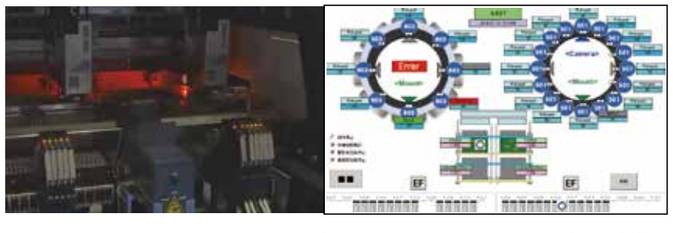
* Optimal conditions

Graphical system visualization

New function*

*Contact sales for more details

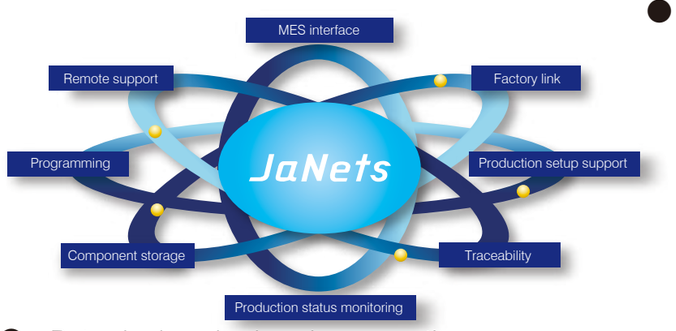
A real-time display of RX-7R production status is designed for process improvement.By monitoring pick errors, the machine can automatically suggest corrective actions such as nozzle replacement to improve quality.



Real-time display of head operation status

JaNets Integraton

Production status monitoring, storage management, and remote operation using JaNets Line Control Software.The IFS-NX option verifies correct feeder setup prior to production start setup validation, inventory management, and feeder search improve overall quality.

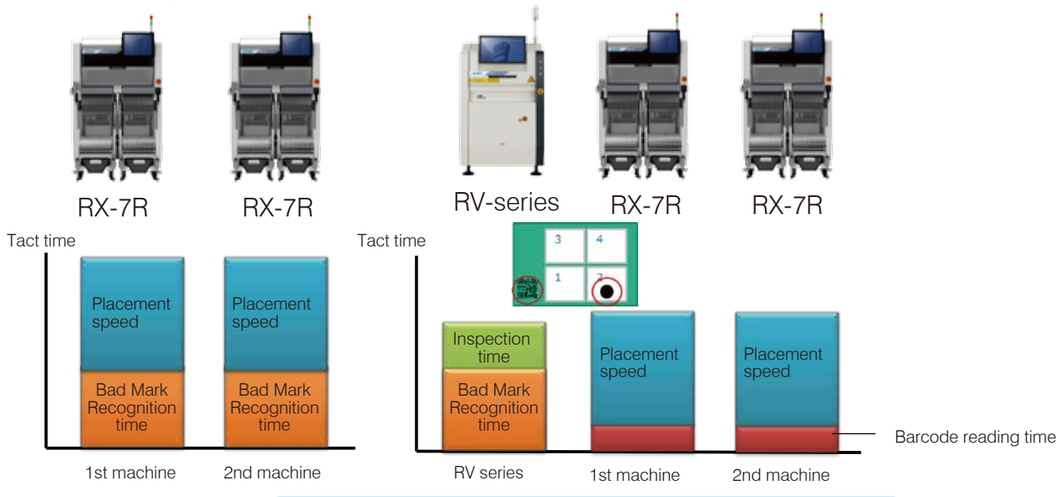


- Production status monitor

  Monitor production status against the plan on a graphical display

- Data sharing - bad mark propagation

Bad mark data can be read by a Juki SPI and passed to the following RX-7R machines to reduce recognition time and improve efficiency.



Shorten the tact time and Productivity improvement

- Interface with component storage

Reels required during production are automatically requested from the storage tower and delivered to the RX-7R.Partially used reels are returned to the storage tower after production.

Automatic delivery by AGV

RX-7R Highlights: High speed and High Accuracy

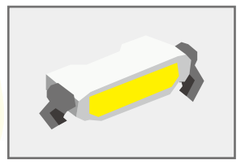
Feature1 New P16S head with improved accuracy

New function

The RX-7R uses a new dsign P16S placement head. The design has been improved to dramatically incease angular placement accuracy. It is ideal for the LED placement and backlights that require high precision using edge LED light(side view).

New P16S head

Side LEDs used for smartphone and tablet displays



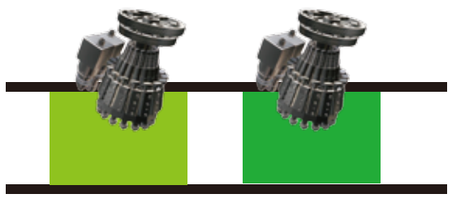
LED edge light (side view)

Improved angular accuracy

Feature2 Simultaneous production of PCBs

New function

Two PCBs up to 420x450mm can be produced simultaneously.
Productivity is dramatically increased in a small footprint.



Lsized PWB A Lsized PWB B

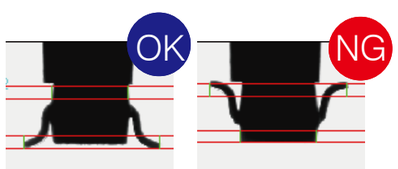
200% improvement in efficiency compared to other designs

Simultaneous produciton of 2 PCBs

Feature3 Top and Bottom Check of Leaded Parts

New function

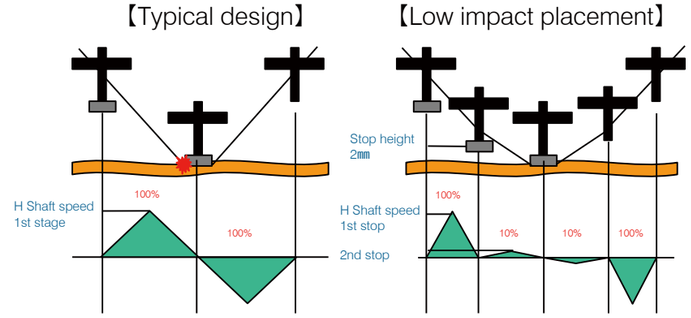
A height measurement camera checks the bottom and top of parts during centering to determine if the part is correct or inverted.
The width of the top and bottom surfaces are measured and compared to ensure proper orientation.



Feature4 Low impact placement force

New function

The H-axis changes speed to slow down just prior to/after placement to minimize impact on the PCB. This is especially helpful on flexible circuits.



Feature5 High speed of maximum cluster tact 75,000 CPH

Industry's best placement rate of 75,000 cph
Placement rate (optimim): 75,000 cph
Component size: 03015 to 5x5mm *1
0603 to 25x25mm*2

*1 P16S×P16S head layout
*2 P8×P8 head （Contact sales for more details）

Best in class 75,000 CPH (Optimim)

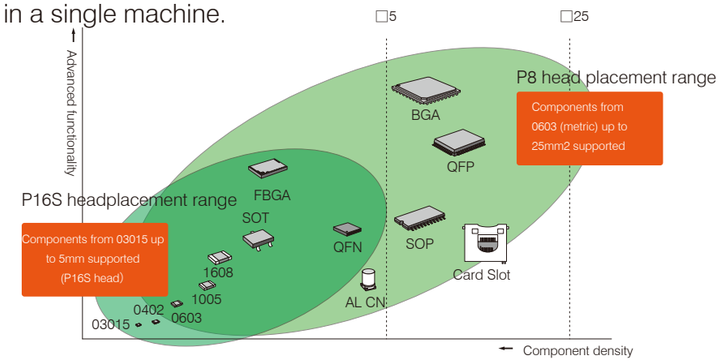
Feature6 Compact Design - 998mm width

Compact design with a width of 998 mm.
Very space efficient.

Compact design width 998 mm

Feature7 Wide Component Range

The P16S head supports parts from 03015 to 5x5mm and up to 3mm tall.
The P8 head supports components from 0603 (metric) to 25x25mm (10.5mm tall), including QFPs, BGAs, etc. P16S Head + P8 Head combination gives the best speed and flexibility in a single machine.



Compatible with 03015 small components*1*2

*1 P16S Head
*2 Contact us for details

High Productivity

Planet head technology realizes high speed and a high quality

Owing to a structure with two parallel heads that is free from mutual interference between mounted heads, the maximum throughput can be realized. For a placement head, users may select between the two types of planet head, namely, P16S and P8*. The original lightweight compact planet head technology provides high-speed, high-quality and high-accuracy placement.

Parallel head configuration

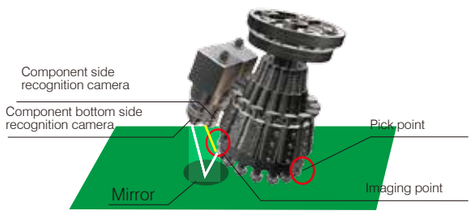
P16S head: Optimum for the placement of very small components.

P8 head*: Optimum for the placement of components ranging from very small components to 25 mm square components

*Contact sales for more details

P16S nozzle head that realizes high-speed high-density placement of very small components

Regarding the P16S head, the Z-axis stroke at component pick and component placement can be minimized by inclining the head's rotary axis. The two cameras incorporated in the head unit can recognize component thickness and weight with high accuracy. High-speed and high-accuracy placement at a placement speed of 75,000 CPH (optimum condition) and a component placement accuracy of ±0.04 mm (Cpk ≧ 1) is realized.

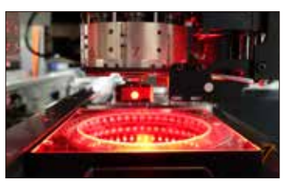


Component bottom side recognition camera

Component side recognition camera

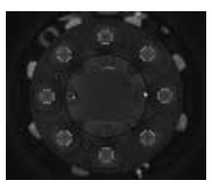
P8 head that realizes high-speed and high-accuracy placement of middle and small general-purpose components

The P8* head can place components ranging from very small chip components to small and medium general-purpose components.High-speed and high-accuracy placement can be realized with high-accuracy overall vision recognition using a VCS camera.This can also perform component reverse inspection and component existence/non-existence inspection in the same way as the P16S nozzle head.



VCS camera

Component side recognition camera



Component vision by VCS camera

Vision by side recognition camera

*1 Contact sales for more details

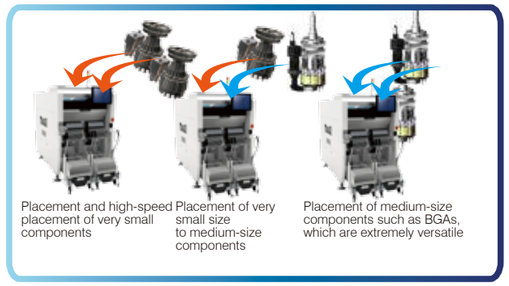
Bank Type and Conveyor Type

The RX-7R supports either fixed feeder banks or movable feeder trolleys. The conveyor is available single lane or dual lane production.The conveyor is designed to minimize waiting time in order to eliminate inefficiency.
The dual lane machine can also run in single lane mode.

High Quality

By combination of head, various production be available to flexible production line

Users may select an optimum head according to production items and components to be placed. A combination of the P16 and P8 nozzle heads and a production line configuration allow a mass production line for smart phones and a high-speed placement line for various production items. The performance of the machine itself and a line balance of the whole placement line is improved, thereby increasing productivity.

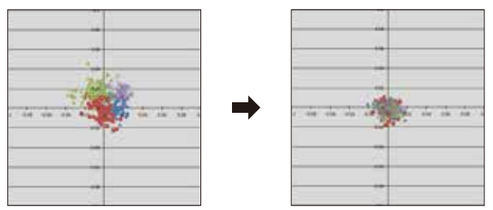


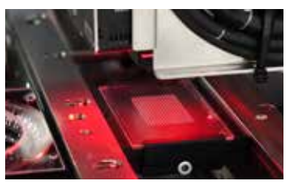
Contact sales for more details

FCS (Flex Calibration System)

Option

JUKI's highly regarded easy maintenance just got even easier! The optional FCS calibration jig is a simple to use system to re-calibrate placement accuracy. The machine automatically picks and places jig components, then measures the error and adjusts all necessary calibrations. (optional)

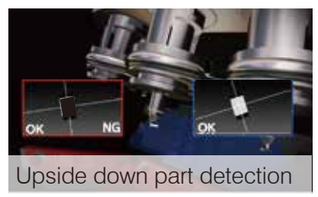




FCS (Flex Calibration System)

Enhanced Inspection Capabilities

The camera system is capable of detecting parts that are upside down and also checking for presence/absence.These functions improve the overall quality.The automatic pick position correction function will adjust the pick position to reduce mispicks and decrease dopped components.



Upside down part detection

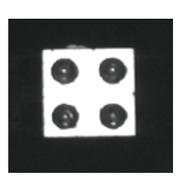
Tombstone Detection

High-accuracy placement using new-structure camera recognition

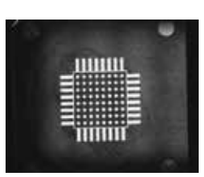
Clearer imaging can be performed with the recognizing technology using new-structure coaxial lighting. As a result, high-accuracy placement recognition can be realized.

0402 chip component

0603 chip component



small type BGA



Glass jig recognition