Machine width measure (D) does not include display. Machine height measure (H) does not include signal light and display.

Under the JUKI condition

- Only available for RX-6B 6 nozzle head.
- When using the single lane conveyor specification
- Placement speed of IC components is estimated value when placing 36 pieces QFP component (dimension 10mm square or smaller) on M size PWB overall, picking from both front and rear side with all nozzles simultaneously.
- Placement accuracy Laser recognition ±0.04 mm (1σ) ±0.04 mm (2σ)
- Laser recognition ±0.04 mm (1σ) ±0.04 mm (2σ)
- Component loading quantity Max. 160 in case of 8mm tape (on a Electric double tape feeder)
- Apparent power 3.5(A)
- Operation air pressure 0.5±0.05MPa
- Air consumption 100L/min
- Machine dimensions (W×D×H) (approximately)
  - Single lane conveyor 1,800kg
  - 1,800kg
  - Dual lane conveyor 1,800kg

- Single lane conveyor specification mode (max 360 × 450 mm)
  - Single lane conveyor specification mode (max 360 × 450 mm)
  - Single lane conveyor specification mode (max 360 × 450 mm)

- Options
  - High-resolution camera (3mm view camera) / Component recognition Camera(CS) (16mm view camera)
  - Rear-side operation unit
  - Component Verification System(CVS) / SOT detection check function
  - Conveyor correction
  - Ground fault interrupter
  - Force control
  - Other placement after solder screen-printing / Solder lighting / FCS calibration jig / Min signal light tower / Super fast Placement monitor
  - Placement accuracy Laser recognition ±0.04 mm (1σ) ±0.04 mm (2σ)
  - Laser recognition ±0.04 mm (1σ) ±0.04 mm (2σ)
  - Component handling and feeders

JUKI ECO PRODUCTS standards for protecting the environment.

The RX-6R/RX-6B is an eco-friendly product which complies with "Juki Group Green Procurement Guidelines" on the use of hazardous substances, which is stricter than other restrictions, such as those of the RoHS Directive.

For details of JUKI ECO PRODUCTS, refer to: http://www.juki.co.jp/eco_e/index.html

Please refer to the product specifications for details.
High-Speed Compact Modular Mounter

RX-6R
RX-6B

Improved Flexibility
- Machine heads can be configured for high volume or high mix production
With the new designed RX-6R placement speed is improved 24% from previous design.
Juki is committed to providing a high speed, high quality flexible solution

- Chip component Placement speed 52,000 CPH (Optimum)*
  Placement speed is increased by 24% compared with the existing model @RX-6R
- Compact footprint: the width is just 1.25 m
- Wide range of components and boards:
  tall components, large components and large boards.
1. High Quality

Prevent defective PWBs and support rapid cause analysis to provide corrective action

An ultra-miniature camera built into the head section captures component pick-and-place images in real time. An analysis is run for presence/absence and traceability information can be temporarily saved. This unique function prevents defective PWBs and reduces the time for root cause failure analysis.

 incorrect components from being placed. The new CVS unit can check six components simultaneously, reducing the check and changeover times.

The OPASS function uses the machine’s downward looking camera to check the location of solder paste vs. the pads and corrects the placement accordingly. This function reduces defects caused by misalignment of the paste on the pads.

Reduce errors due to solder paste alignment (Offset Placement After Solder printing)

The OPASS function uses the machine’s downward looking camera to check the location of solder paste vs. the pads and corrects the placement accordingly. This function reduces defects caused by misalignment of the paste on the pads.

A printing misalignment occurs.

[a printing misalignment occurs]

With OPASS function

Placement based on solder location

Without OPASS function

Placement based on pad location

Incorrect component prevention (Component Verification System (CVS))

By measuring the resistance, capacitance, or polarity before production starts, the machine can prevent incorrect components from being placed. The new CVS unit can check six components simultaneously, reducing the check and changeover times.

Incorrect component prevention (Component Verification System (CVS))

By measuring the resistance, capacitance, or polarity before production starts, the machine can prevent incorrect components from being placed. The new CVS unit can check six components simultaneously, reducing the check and changeover times.

2. High Productivity

Machine construction for high-speed component placement and small-footprint design

High-speed component placement in a very compact footprint: 1.25-mm wide. Each machine is equipped with two heads, each with its own laser sensor. Components are centered in-flight between the pick and placement locations. Direct travel between the pick and placement positions enables high speed placement with great accuracy.

Vision recognition technology for high-speed component placement

Dual cameras enable high speed placement of large and odd-form components.

Dual centering technology. Each head includes a laser centering module. In addition, dual upward looking strobing cameras capture images in high speed for large, fine pitch, or odd-form components.

This is applicable to dual-lane production.

The PWB transport wait time is minimized, which can improve the effective takt for high-speed production. And users can create a high-speed, high-quality production line by combining RV-1 and RX-7.

Space saving design tray supply device TR8S

The space saving design tray server will allow the user to apply tape feeders also on the rear side of the machine. This design enables the rear side to supply both tray and tape components, and the improved component capability and productivity will realize more flexible and productive machine. Maximum number of tape feeder is 14 pieces for 8 mm tape. Wide type tape feeder is also available.
3. High Flexibility

Wide component range
RX-6R supports components from 0402 (01005) up to 100mm square connectors.
RX-6B 6 nozzle head configuration can support from 0402 (01005) chips up to 50mm square, 3 nozzle head supports from 0402 to 100mm or 50mm x 180 mm long connectors.
Furthermore, RX-6B supports component height 33mm, it can support tall components ex. aluminum electrolytic capacitors.
RX-6R is designed to handle a wide variety of components from ultra miniature resistors to large ICs or connectors.

Easy data creation
Component data can be created easily when you enter the following: outer dimensions, component type and packing style. The dimensions, number of leads and pitch can be auto-measured to reduce programming time and prevent errors.

General-purpose vision teaching greatly simplifies creation of data for odd-form components.

Flexibility by changing the head unit
The rear head can be changed between a 6 nozzle head and a 3 nozzle head, giving greater flexibility to configure the production line to according to the current requirements.

PoP (Package on Package) support
3D or Package-on-package (PoP) placement is possible using the optional fluxer units. Support for both flux or solder paste is available.

Easy load control
Precise placement force is available using precision designed nozzles along with a load cell. Placement force up to 50N is available for components requiring press-in.

Large PWB support
Board size up to 905mm x 590mm is standard. LED lights or LED back lights are easily handled with no special hardware.

4. JUKI Basic Technology

JUKI is proud to offer laser centering technology for high speed, accurate placement.

The machine can recognize components of various shapes: from an ultra miniature components such as 0402 (01005) chips up to 50mm square components such as PLCCs, SOPs, BGAs, and QFPs. When the machine recognizes a component with laser, variations such as shape, color, and reflection do not matter.

The component check function improves the quality of component placement. Component presence is monitored by the laser from pick to placement, reducing the chance for missing components.

New laser sensor
New generation laser sensor, LNC120
Each nozzle has independent Z and \( \theta \)-axes control

Independent Z and \( \theta \)-axes control
Each nozzle has independent Z and theta control for superior flexibility, accuracy, and redundancy. The height and angle of each nozzle can be controlled precisely.

Reliable, high-precision recognition
A non-contact laser sensor measures the height of the PWB to prevent excessive force on components and reduce the risk of damage. This sensor can also measure the pick height more accurately and faster than other methods.

Height measurement function
Flexible lighting improves fiducial measurement accuracy

Flexible lighting allows the machine to accurately recognize poor contrast fiducials, pattern recognition, and flexible printed circuits (FPC). It can also detect bad board marks to prevent waste of components.

HMS measuring the height

Poor contrast fiducial mark read by OCC
Bad board mark detection by OCC

5