

RV-2-3DH RV-2-3DHL

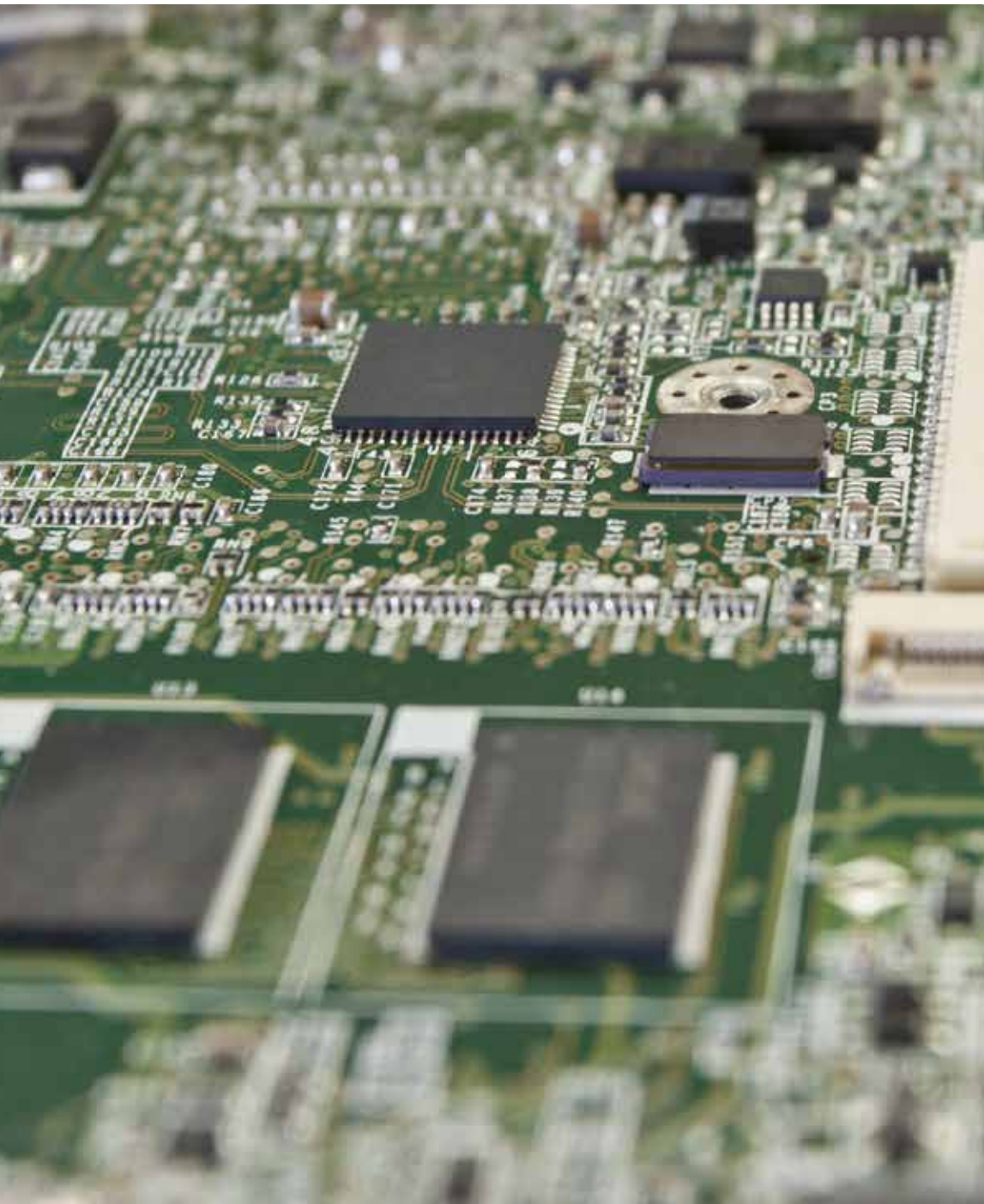
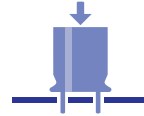
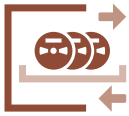
JUKI

JUKI Smart Solutions



PWB Visual inspection Machine (3D AOI/SPI)

High-speed and high-precision board inspection



The new outstanding high-speed and high-precision board inspection RV-2-3DH is equipped with a new 12 Megapixel camera achieving the highest throughput. It has an inspection capability of 0.4x0.2mm size SMDs with its standard resolution lens of 12μm and down to 0.2x0.1mm size SMDs with its new optional 5 μm resolution lens.



RV-2-3DH RV-2-3DHL

FEATURE 1: Overwhelming speed

Large improvement in takt time inspection with the new 12 Megapixel camera.

The use of a high-pixel camera has expanded the camera field of view by 192% compared to the previous models. This resulted in a world-class fastest inspection speed with 61.8cm²/sec. By speeding up inspection speeds, it can further accelerate production lines. In addition, by enlarging the angle of the image, the inspection is realized with a minimum number of blocks.

1. Inspection speed of 61.8 cm²/sec
2. Resolution 12 million pixels
3. Image angle 48mm × 36mm
4. Significant reduction of inspection blocks



Image with a reduced number of blocks



World's fastest!

High-speed inspection achieves the highest throughput



Significant improvement in productivity

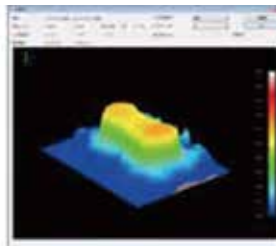
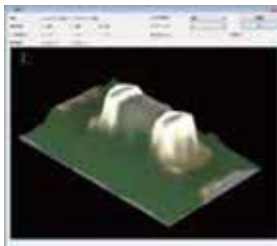
FEATURE 2: Remarkable accuracy

The high-resolution lens improves inspection accuracy for ultra-compact components.

The use of a 5 μm (optional) high-resolution lens enables more accurate inspections of microminiature parts such as the 0.2X0.1mm size parts. This system achieves high-precision inspections for ultra-small parts and high-precision products such as smartphones and precision equipment that require high-density production.



High density substrate image



5 μm inspection image

Support inspection of 0201 parts

FEATURE 3: Ease of use

Programming methods that are easy to use and create.

The “Template mode” is a quick programming method that automatically generates new packages using high-performance and pre-made inspection templates. In addition, the parameters white, black, color, and 3D thresholds are easy to adjust for tailored inspection conditions. Finally, the unique “Process mode” provides the flexibility to create customized algorithms for special requirements to further detection capability.

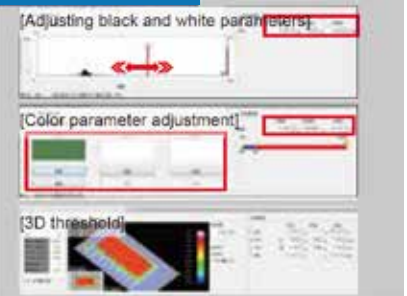
Preparation procedure



Inspection items*

- Parts search (3D) *IC
- Shortages (3D)
- Misalignment (3D)
- Body floating and slope (3D)
- Reverse front and back (2D)
- Polarity (2D+3D)
- Lead floating (3D)
- Bridge (2D)
- Unsoldered (2D)
- Fillet (2D+3D)

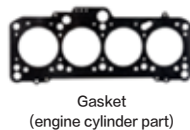
Adjustment for



FEATURE 4: Automated Visual Inspections

RV series support automatic measurements

The “Process Mode” feature allows the automation of visual inspections that have been performed manually in the past, such as clearance checks, hole diameters, pitch checks, geometry checks, color checks, and dirt checks of processed parts, press parts, ASSY parts, etc. It is ideal for measuring important precision components such as automotive, medical, and electronic devices.



(Before)



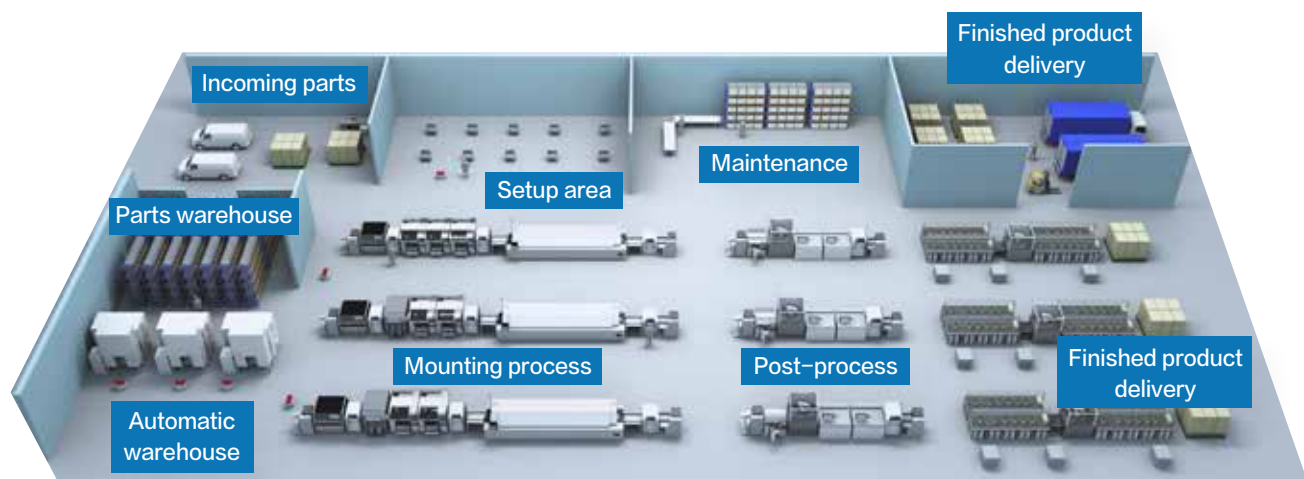
(After)



FEATURE 5: JUKI Advanced Network System

Improve the efficiency for the entire factory through system linkage

JaNets connects the entire manufacturing process through networks. It improves quality and productivity and allows to visualize management information. In addition, to the integrated control of the various types of data for each line, the external output function (OP) enables system linkage with the host MES.



Specification

| RV-2-3DH/RV-2-3DHL | | |
|--------------------------------------|---|---|
| RV-2-3DH | | RV-2-3DHL |
| Board size | Standard: 50mm×50mm-410mm×300mm Long board: 50mm×50mm-630mm×300mm*1 Marking unit: 50mm×50mm-330mm×250mm | Standard: 50mm×50mm-410mm×590mm Long board: 50mm×50mm-650mm×590mm*1 Marking unit: 50mm×50mm-330mm×590mm |
| Test resolution | 12 μm (standard resolution) / 5 μm (high resolution)*1 | |
| Image angle | Image angle 48.0×36.0mm, 20.0×15.0mm*1 | |
| Inspection items | Shorting, shear, polarity, side-reverse, unsoldered solder, bridge, solder quantity, insertion part omission, character recognition*1 | |
| Inspection speed (optimum condition) | 3D | 61.8cm ² / sec |
| Power supply | AC 3-phase 200-230V *2 | |
| Apparent power | 2.0kVA or less | |
| Air pressure | 0.5±0.05MPa | |
| Air consumption (standard condition) | 10L/min | |
| External Dimensions (W×D×H) | 940mm × 1,276 mm × 1,530 mm | 940 mm × 1,800 mm × 1,530 mm |
| Weight | approximately 1,000kg | approximately 1,250kg |

*1 This can be done with the optional.

*2 The optional external transformer can accommodate 240V AC 3-phase and 380V-430V


| Options | | | |
|---------------------------|-----|---------------------------------|---|
| Hardware options | | Software options | |
| Lens Resolution 5μm | • | Communication license | • |
| NG marking Unit | •*1 | Code reader silence | • |
| Dispenser Unit | △*2 | OCR silence | • |
| Emergency Pass Unit | • | TOPSS System license | • |
| UV light | • | Server software | • |
| Long board | •*3 | Remote judge (CCC) license | • |
| Board back up unit | • | Repair System license | • |
| Calibration plate | • | SPC license | • |
| Vibration control pad KIT | • | QT (Quarty trace) license | • |
| IF cable | • | Offline system software | • |
| OK, NG Cable | • | Offline basic module | • |
| Transformer | • | Offline code reader license | • |
| SSD 2TB | • | OCR license for off line system | • |
| Memory expansion unit*4 | • | Data shere system license | • |

*1 The option is possible except when selecting long model data.

*2 △ : Customized order

*3 Maximum size: RV-2-3DH: 630mm×300mm, RV-2-3DHL: 650mm×590mm

*4 Please contact for details.

| | |
|---|---|
| JUKI ECO PRODUCTS | <p>The RV-2-3DH is an eco-friendly product which complies with JUKI ECO PRODUCTS standards for protecting the environment.</p> |
|  <p>JUKI ECO PRODUCTS</p> | <ul style="list-style-type: none"> The machine complies with the "JUKI Group Green Procurement Guidelines" on the use of hazardous substances, which is stricter than other restrictions, such as those of the RoHS Directive. <p>For details of JUKI ECO PRODUCTS, refer to: http://www.JUKI.co.jp/eco_e/index.html</p> <p><small>*The RoHS Directive is an EU Directive limiting the use of 6 hazardous substances (lead, hexavalent chromium, mercury, cadmium, PBB and PBDE) in electrical and electronic equipment. The JUKI Green Procurement Guideline is the voluntarily established criteria to eliminate not only the aforementioned six substances, but also other ones which also adversely affect the environment.</small></p> |



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.

■JUKI Specifications and appearance may be changed without notice.

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