

Time Performance

3D Measurement & Inspection with Hassle-Free Integration



Problem

Let's **reduce** testing
time on site.

Upgrading production lines and introducing improvements are common to increase efficiency, improve quality, and meet new standards. Adding these improvements shouldn't come at the cost of lengthy equipment selection, elaborate installations, or complicated operation.

Let's prevent and overcome these challenges.

Lengthy
Equipment
Selection

Elaborate
Installations

Complicated
Operation

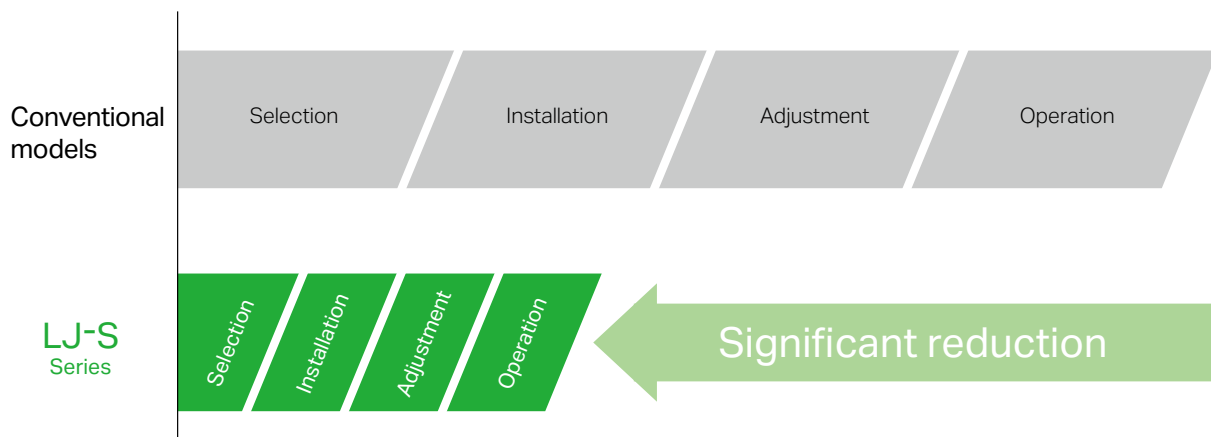


Solution

To resolve these issues,
we introduced a 3D measurement &
inspection device that offers outstanding
improvements in
time performance.



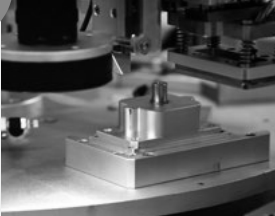
With its built-in scanning mechanism, the LJ-S Series can significantly reduce the time it takes from selection to starting operation.



01. Selection

Select products by testing various combinations in the actual environment, which can impact actual production

Conventional models



Need on-site testing before selecting and introducing peripheral equipment

With numerous possible combinations of lights and lenses, it takes time to pick out the best combination for each application. Reliable testing may be hindered by the material or environment, so on-site testing is essential prior to actual installation.

LJ-S Series



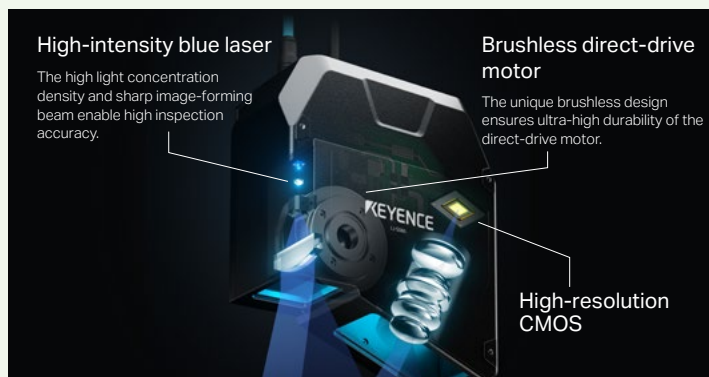
Maximum XYZ measurement range

Significantly reduces selection time

Simply select a sensor head that can accommodate the target's size



What's the secret?



High-intensity blue laser

The high light concentration density and sharp image-forming beam enable high inspection accuracy.

Brushless direct-drive motor

The unique brushless design ensures ultra-high durability of the direct-drive motor.

High-resolution CMOS

Highly accurate, stable inspection with no need for troublesome adjustments

The LJ-S Series performs automatic feedback control with its integrated lighting and camera structure. Light intensity and sensitivity are automatically adjusted according to changes in the reflection from the target. The system responds to conditional changes for each production line, as well as changes in the colour and gloss of the testing target, making it possible to test many different types of workpieces without fine adjustments.



Milky white resin

Metal mirror-finished surface

Multiple reflective surfaces

Black rubber

02. Installation

Conventional models produce different test results depending on the installation environment, so they can only be installed in specified locations.

Conventional models



Modular and auxiliary equipment increase the complexity of installation. Adjustments may be needed during testing.

Encoders and stages need to be added to positions to ensure sufficient accuracy, which necessitates additional testing processes with specific installation positions.

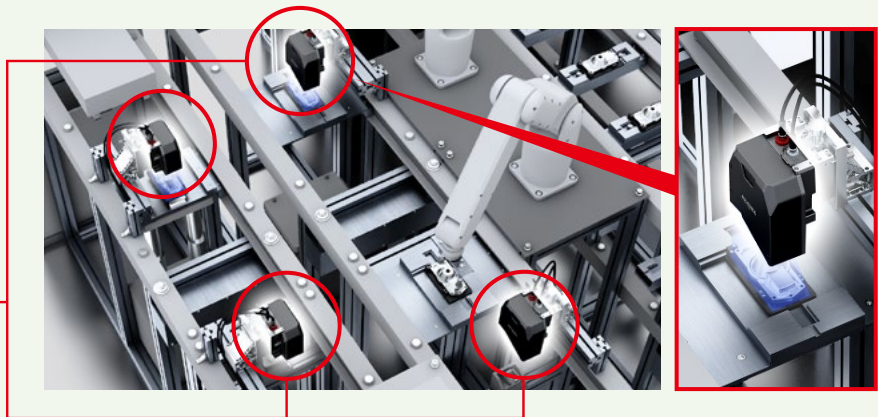
LJ-S Series



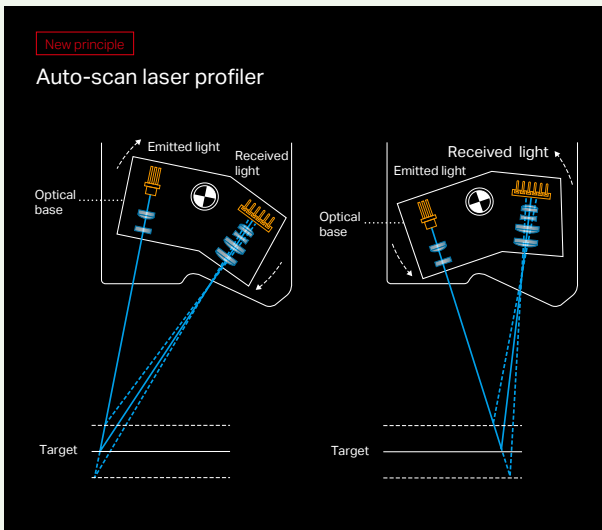
All-in-one system design saves time by eliminating the need for system alterations

Easy to add to existing equipment

Easily installable in small spaces



What's the secret?



No lighting required



No stage required



No encoder required

Built-in scanning mechanism makes auxiliary parts unnecessary

Thanks to its world's first profiler with built-in scanning mechanism, the LJ-S Series can perform 3D testing without additional parts such as a stage or encoder. The LJ-S can be installed simply in minimal space, keeping the equipment as simple as possible.

03. Startup/Adjustment

Conventional models often take more time for their initial setup and may produce less stable results.

Conventional models



Need to adjust camera and lighting conditions for each production line and product type

Focus, lighting, and parameters must be set for each workpiece and detection location.

Programming

Fine tuning programming is required once equipment is in its final configuration.

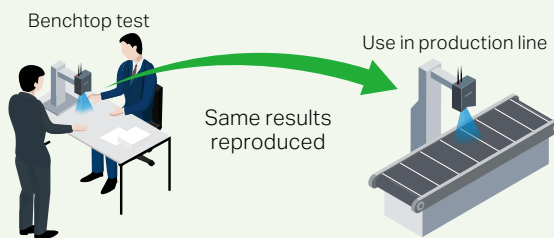
LJ-S Series



Significantly reduces start-up time

Results of benchtop tests are reproduced on the actual production line

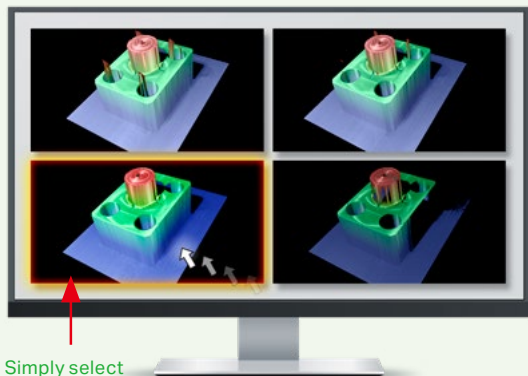
Benchtop verification results can be immediately reproduced inline. Since there is no need to verify stage accuracy or to adjust the lighting, the LJ-S Series can be installed and put to use immediately with no concerns about accuracy or stability.



Significantly reduces setup time

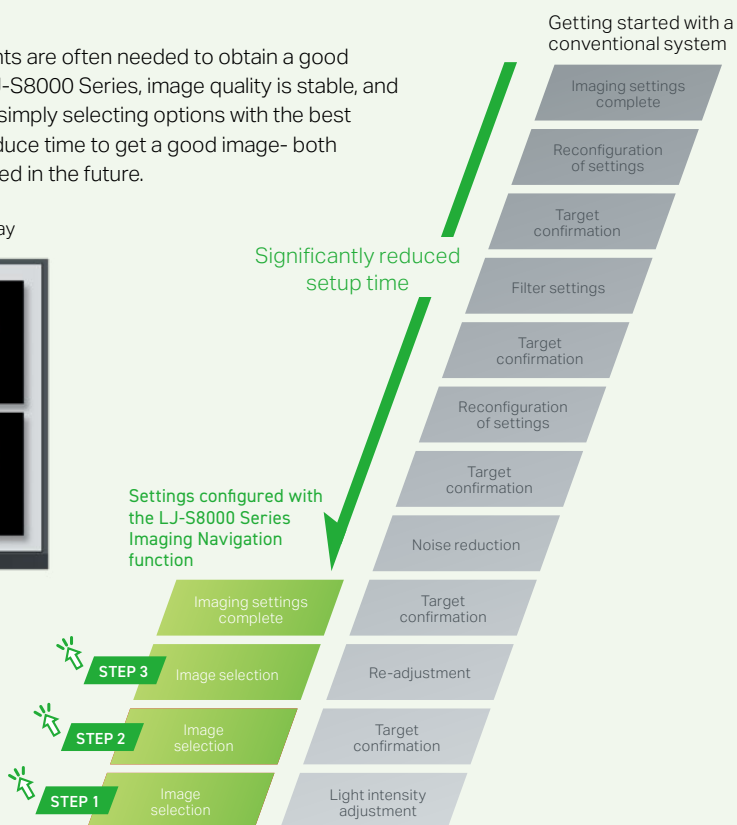
With conventional systems, tedious, fine adjustments are often needed to obtain a good image or replicate images from testing. With the LJ-S8000 Series, image quality is stable, and getting a good image is guided by the software by simply selecting options with the best image quality. Guided, simple steps significantly reduce time to get a good image- both during initial setup and if reconfigurations are needed in the future.

Imaging Navigation function with automatic image display



Simply select the best image

Automatically see different settings by choosing the best 3D image three times to complete the imaging settings.



04. Operation

Select products by testing various combinations in the actual environment while the production line is stopped

Conventional models



Adjustment is needed every time the surface condition or type of detection target changes

Detection is affected by the height, surface conditions, and colour of the workpiece. Focus, lighting, and parameter settings must be adjusted every time a product is added. Settings need to be changed while checking for any effect on the initial workpiece.

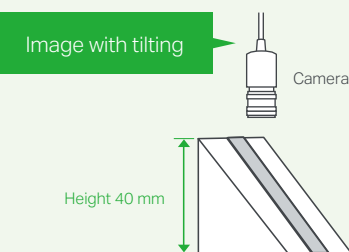
LJ-S Series



Significantly reduces adjustment time for commercial production

Consistent operation despite changes in workpiece position or height

If the distance between the camera and the target fluctuates, the camera will not be in focus and detection is unstable. The LJ-S offers a deep depth of field using dedicated optics. This exceptional depth of field leads to more stable detection. Additionally, fine adjustments are not required, eliminating work when new products are added.



Area camera

3DInspection



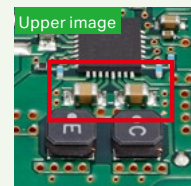
Out of focus



Image captured clearly

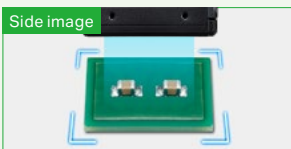
No positioning required

Any variation in part presentation, such as angle or tilt, is automatically corrected to produce stable profile measurements.



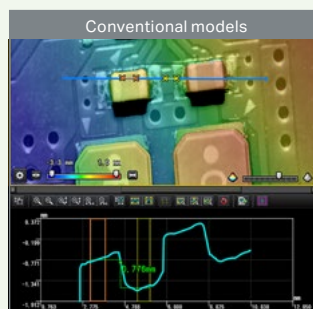
Height inspection of PCB-mounted parts

A target that did not become misaligned or tilted during transportation

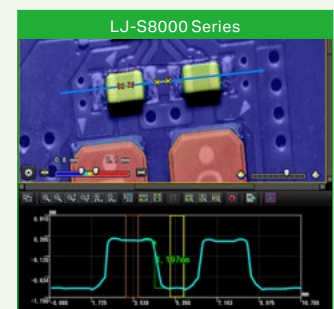


The profile can be accurately extracted.

A target that became misaligned and tilted during transportation



If a PCB is misaligned or tilted, measurements and inspection cannot be performed correctly.



The LJ-S8000 Series detects target position shifts and tilt, then automatically performs position corrections, ensuring stable inspection.

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