



CUSTOMER'S VOICE

RICOH
imagine. change.

Machine Vision Lens Success Case

Unit production of Multi Function Printer's core parts
~ accuracy became **TWICE** as high as before ~
Blanket Order: 100 units of 2 Mega-Pixel lenses



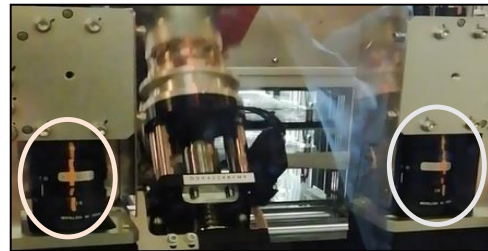
FL-CC2514A-2M, FL-CC3516-2M, and FL-CC5028-2M
was purchased for Unit Production of MFP core parts

Customer name : Ricoh Industry Inc. Optical Production Division
Business : Production of photoconductor units and toner cartridges
Inspection items : more than 150 points

The results of each of these checks depend on the skill of the worker, which can be a big burden on them. There is a limit to the accuracy in manual work even though positional accuracy is important.

They use RICOH lenses in the following way :

- Camera : Smart camera
- Sensor : 2 Mega-Pixel 1/1.8" format (CMOS)
- Application : Label Quality & Positioning
 - 2-4 units per line
 - Focus/iris lock screws secured with hot melt adhesive.
 - Visually check for label imperfections and position



Deployment Challenge -1

LOOKING FOR:

high-resolution lens capable of detecting printing defects and fine S/N label positioning

WHAT WAS IMPROVED:

stabilization of image processing.

Ricoh's precision adjustment technology kept lens performance deviations to the minimum, even across all 100 units.

Deployment Challenge -2

LOOKING FOR:

high-quality lenses with minimal variations in resolution performance across the entire installation of 150 units, to produce an extremely high-quality production line.

WHAT WAS IMPROVED:

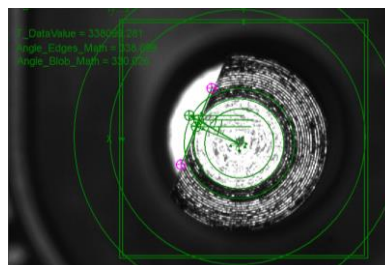
accuracy became twice as high as before.
Camera performance was maximized, because lens resolution is guaranteed from the center to the periphery.

Customer's Own Opinion

Work accuracy became TWICE as high as before deployment!

The tolerance improved from 1mm to 0.5mm, which surely promises a reliable quality improvement. This deployment can be a model case and is expected to be deployed at the Shenzhen plant in China in the future.

We are currently evaluating RICOH 5MX lenses as well, to be installed into our lines which require a higher precision because of their excellent performance and resolution.



Screw Positioning inspection ▶

▼ Detect label position deviation

