

Ultra High Resolution Defect Inspection

Johnson Matthey reduces cost, simplifies workflow

VMV were commissioned by Johnson Matthey to develop a system to detect extremely small and subtle defects on highly reflective platinum strips – a task which had previously been done laboriously by hand.

Johnson Matthey manufactures strips of platinum that are used in the manufacture of tiny implanted medical devices.

CLIENT REQUIREMENTS

Every piece of platinum supplied by Johnson Matthey undergoes an incredibly strict quality assurance process. Quality must be close to perfect, and even tiny imperfections are unacceptable. Johnson Matthey wanted to automate this inspection to remove the ongoing cost of manual inspection and, equally importantly, to ensure that the inspection was objective.

CHALLENGES

To develop a system that:

- Inspects a highly reflective surface for defects as small as 8 micrometers.
- Perform with an extremely high level of accuracy and reliability.

SOLUTION

VMV designed a system tailored for this task, and customized the interface to suit Johnson Matthey's workflow.



Surface defects on precious metal.

"The system that VMV developed for us inspects a highly reflective surface for minute surface defects. Their system exceeded our already stringent defect specifications and the accuracy and reliability of this system has eliminated the need for manual inspections. The greatest benefit to us is that the system eliminates the subjectivity that was inherent in the manual inspection so we can be sure of the quality of the product we ship"

Chris Chadijilazarou,
General Manager,
Johnson Matthey Australia

BENEFITS

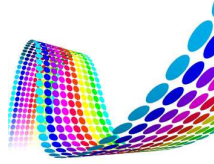
Johnson Matthey realized a number of benefits including:

- Elimination of manual inspection.
- Simplified workflow.
- Ability to reliably see defects previously too small to see by eye.
- Consistency of inspection.
- Ability to track and resolve manufacturing problems, resulting in improved product quality.
- Reduction in customer complaints.

VMV - COMPANY PROFILE

Web Inspection

(paper, metals, non-wovens, glass fiber mat)



Print Inspection

(fine print, newsprint, coated and uncoated)



Colour Sorters

High speed colour sorters for the food industry



Retortable plastic and aluminium packaging

(ready meals, baby food, Pet foods, pates, sauces, soups, fruits ...)



Retortable Pouches

(sauces, soups, fruits, ...)



Closures

(Plastic caps and closures)



At VMV, we believe in **thinking differently**. We believe in focusing on the simplicity, precision and ease of use of everything that we do. We combine **simplicity of form with complexity of function**. This approach has enabled us to successfully develop a range of high technology products that are incredibly reliable and yet simple to use.

Since our inception, VMV has set out to apply our core philosophy to the area of our technical expertise - the design of optical inspection systems. The end result is that we have become a leading developer and manufacturer of inspection systems that are successfully used around the globe in the printing, food and packaging industries.

With a high level of technical expertise, the ability to work closely with our clients, and a focus on support, we offer solutions that provide **consistent performance** and **objective standards**.

Our professional staff includes highly skilled and experienced software, electrical, and mechanical engineers, technical staff, and in-house design / drafting. We also have in-house manufacturing and prototyping facilities which allow us to rapidly develop unique solutions to complex problems.

Contact us to find out how we can help you.

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