

Spectrovision

INSPECTION solutions



filtec[®]

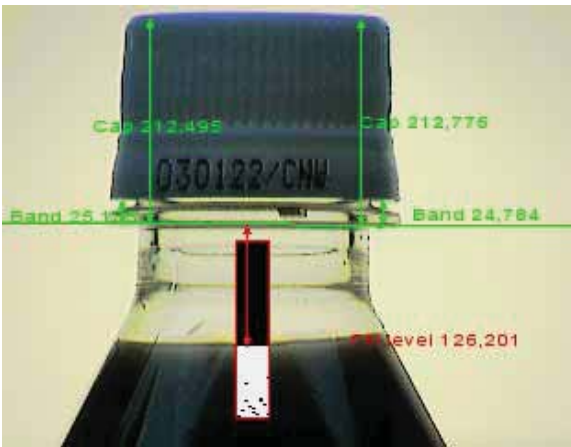
INDUSTRIAL DYNAMICS/filtec



Spectrovision

Industrial vision systems today are more powerful than ever and present a large contribution to all quality control aspects in different industries and applications. Mostly associated with higher line efficiencies and substantial reduction of production costs, many installations provide a return on investment after only a few months of operation.

With the Spectrovision system, Industrial Dynamics/filtec has successfully introduced an industrial vision system for the quality control in diverse areas. With its modular design and powerful and flexible vision system, the Spectrovision does not only qualify for applications in the Beverage and Packaging Industries, but for almost any application in the field of optical quality control.




Powerful industrial processors, robust electronics hardware, high-resolution camera systems, and variable software tools were combined in the Spectrovision to present a total vision package. Depending on the inspection task, different specially designed illumination and optical systems, as well as individual mechanical solutions, are being utilized. The user-friendly graphical operator interface is adapted to match the inspection task.

While we tailor our systems to the individual application as well as the customers requirements, our main objective is the long-term customer satisfaction. We achieve this objective by providing the “ready-to-use” solution, covering all critical aspects of such an investment.

Systems with one or several cameras which can be monochrome or color depending on inspection criterias, reflective light or transillumination the inspection task, the application, and the customer requirements will define the individual solution. The implemented firewire bus technology will support the parallel use of multiple cameras.

Due to its high flexibility and versatility, the Spectrovision can be used for almost any inspection requirement in numerous industries and applications. Packaged for industrial environments (IP 65), the system can also be operated in rough production conditions. To eliminate faulty containers or packages from the production line, a number of different types of reject systems are available.

Benefits

- Easy to integrate, ready-to-use system
 - Greatly reduces downtime and increases efficiency of the line
 - User-friendly operator interface with color display
 - Low cost of operation over the total time of usage
 - Solid stainless steel construction suitable for rough production environments
 - Modular, expandable design with flexibility
 - Modern processors and camera systems with firewire bus technology
 - High inspection reliability due to powerful electronics and high resolution cameras
 - Extensive number of software tools to realize a wide range of applications
 - Excellent price / performance ratio
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Applications

The following examples show a variety of different applications for the Spectrovision and provide an overview regarding the flexible use of the system:

With only one camera system, different criteria can be checked online at the same time. In this particular application, filled and closed PET bottles are checked for the presence and correctly applied closure (height of closure and/or possible cocked cap). In addition, the correct fill level is being checked.

A reject system to eliminate faulty containers without tipping over (avoiding possible product spill) can be integrated downstream of the vision system.

In many production processes, the correct orientation of a container or product is a requirement to assure an undisturbed manufacturing flow.

To control the correct orientation, color shape and/or contour of the object are being used. A downstream rotation device can be used to provide correct orientation, considerably reducing not only downtime, but also possible damage of equipment.

Online sorting of empty bottles depending on different criteria (color, height, contour, varying glass logos, different types of ACL labels, etc) at line speeds up to 72,000 bottles per hour. With this system, various types of contours and packages can be inspected and sorted online at high speeds.

1-D barcodes and 2-D matrix codes can be verified for the correct product info or a verification according to DIN standards (actual applied code vs. expected code) can be performed in the production process. The verification results are readily available in plain language and can be transmitted via a data interface to host a computer.



Optical Character Recognition (OCR) allows the online reading and verification of production codes, batch registration numbers, "best before" dates, and other important product information or symbols. In order to realize Optical Character Recognition on different products and surfaces, the proper illumination requirements are tailored to the different applications.

Labels on bottles, cans, cartons, containers and packages, closures, and caps can be controlled for a wide variety of different distinctive features:

Label presence

Correct label type

Correct label position

Damaged label

Correct type of package

Correct type of closure

Missing tamper-evidence band

Quality of print

Prior to packing and subsequent distribution to the consumer, products and packages need to be controlled for completeness, correct position, and the presence of certain attributes.

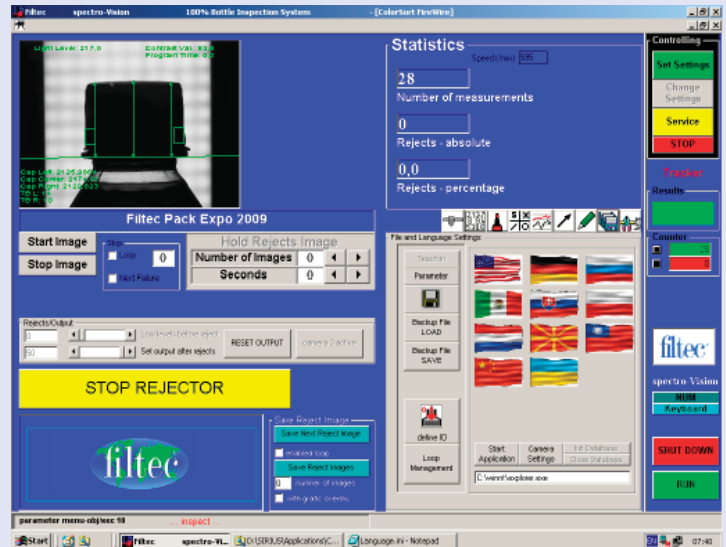
The Spectrovision system can cover a wide variety of different inspection tasks for trays, crates, and cartons.



Features

Operator Interface

- 15" TFT color display
- Easy operation
- Clear screen structure
- Virtual Keyboard
- Password protection
- 'Picture-in-picture' function
- Windows-based interface
- Parameter storage function



Stainless Steel Construction

- High-resolution CCD cameras
- Sturdy, powerful industrial processors
- Firewire bus technology
- USB / LAN (ethernet)
- LED lighting available
- Remote access - online support



Remote Camera Option

- Up to 8 cameras and 4 computers depending on the application and production speed
- Electronics and monitor in the same small enclosure
- Camera and LED strobe lighting can be placed where other systems cannot be placed
- Perfect for custom applications
- Remote/external camera can be added to standard or XXL housings



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