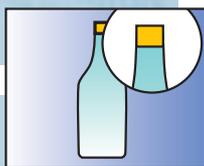


LOGICCLOSURE



Closure inspection

This camera system checks correct closure of both plastic and glass containers. It inspects actual container closure and the correct position of both the cap and guarantee ring with great precision.

It can also be used to inspect the fill level, seals, labels or details such as the batch code. It can be completed to become a LOGIFILLER having the function of troubleshooting filling valves and capping heads as well as inspecting bottle bursting.

A compact system that can easily be assembled to any new or existing line, this product has all the necessary features to check correct operation of filling and capping systems.

Functions:

- camera inspection of cap and guarantee ring for presence and integrity;
- measurement of cap position and angle values to be compared with "accept" or "reject" parameters;
- inspection of guarantee ring position with respect to the cap to check that it is not detached;
- inspection of guarantee ring sides to identify any folding.

Inspection technology:

- specially backlight closure area through high efficiency, very long life LEDs;
- lighting with high intensity light pulses for optimised image quality;
- special light unit specifically manufactured by our company for this application which enables inspection of the required area through parallel light beams. Perspective



distortion of standard commercial lenses is fully avoided;

- extremely precise measurements at any point of the image thanks to our light unit and high-resolution camera.

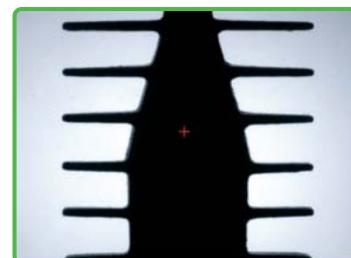
Technical specifications:

- self-supporting frame;
- stainless steel frame and casing;
- adjustable height through a handwheel with a numerical height indicator;
- compact in size;
- extremely quick changeover: enter the bottle code and no mechanical part changeover is required;
- easy and user-friendly operator interface thanks to the supplied touch screen where several languages can be selected;
- high-end industrial computer built according to our specifications: no hard disk and UPS needed;
- no special maintenance required in the system;
- possibility to supply motor-driven changeover equipment to automate the process.



Standard optical systems

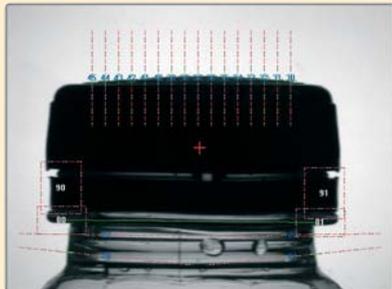
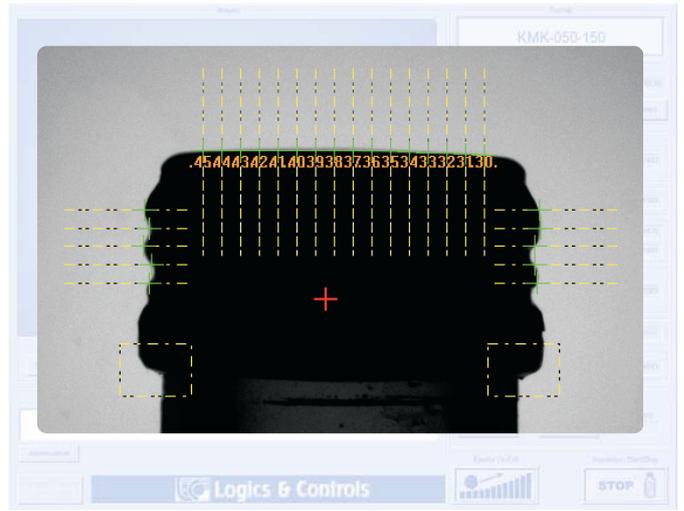
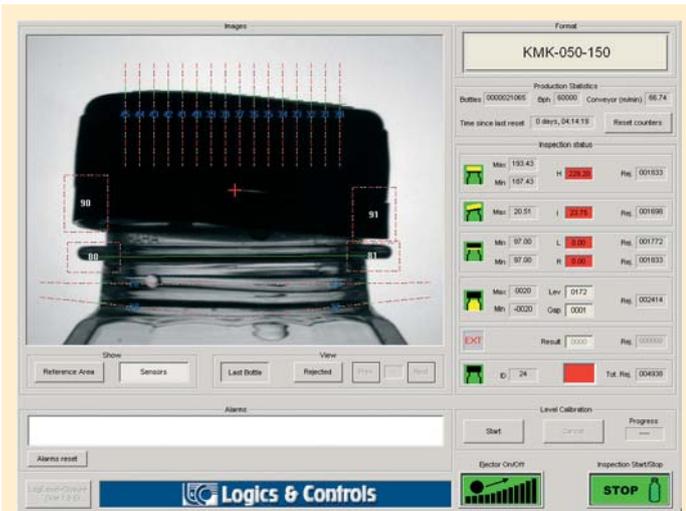
Vision of a diffuser with a standard optical system: the perspective effect is present. Consequently, measurements cannot be accurate.



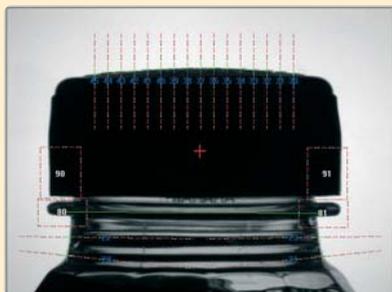
Logics & Controls optical system

The diffuser described above featuring a Logics & Controls optical group with parallel light beams avoids the problem of perspective. Accurate measurements are possible at all points of the image.

LOGICCLOSURE



Thanks to our exclusive optical groups that eliminate the problem of perspective, and consequently the parallax error which standard optical systems present, the LOGICCLOSURE can be used for extremely precise measurements at any point of the image.



The system immediately detects any cap or screw capsule slightly lifted or tilted, or presenting problems with the guarantee ring.

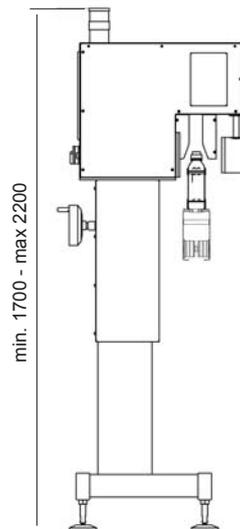
Closure quality control can be performed with all kinds of caps: plastics, cork and metal. With aluminium screw caps the system can also inspect the rolling depth.

Technical specifications:

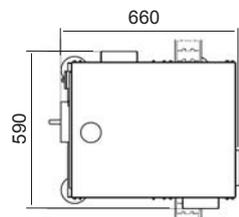
Max. output speed	60,000 containers per hour
Power supply	230 Vac 50/60 Hz PH+N+PE
Absorbed power	300 W
Weight	150 Kg
Operating temperature	0 – 40° C

The system can be implemented to:

- inspect closure from different angles using a camera;
- check the fill level both with high frequency devices or a camera;
- inspect details such as texts, batch codes, seals;
- troubleshoot filling valves and capping heads;
- check possible glass bottle bursting;
- inspect labels by means of sensors or a camera.



The line automation must feed slightly spaced containers to the Logicclosure system in any operating condition.



the inspection systems for bottling lines
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