

KSMVISION

INSPECT 360+ CL **Cap Inspection**

FMCG and pharmaceutical industries





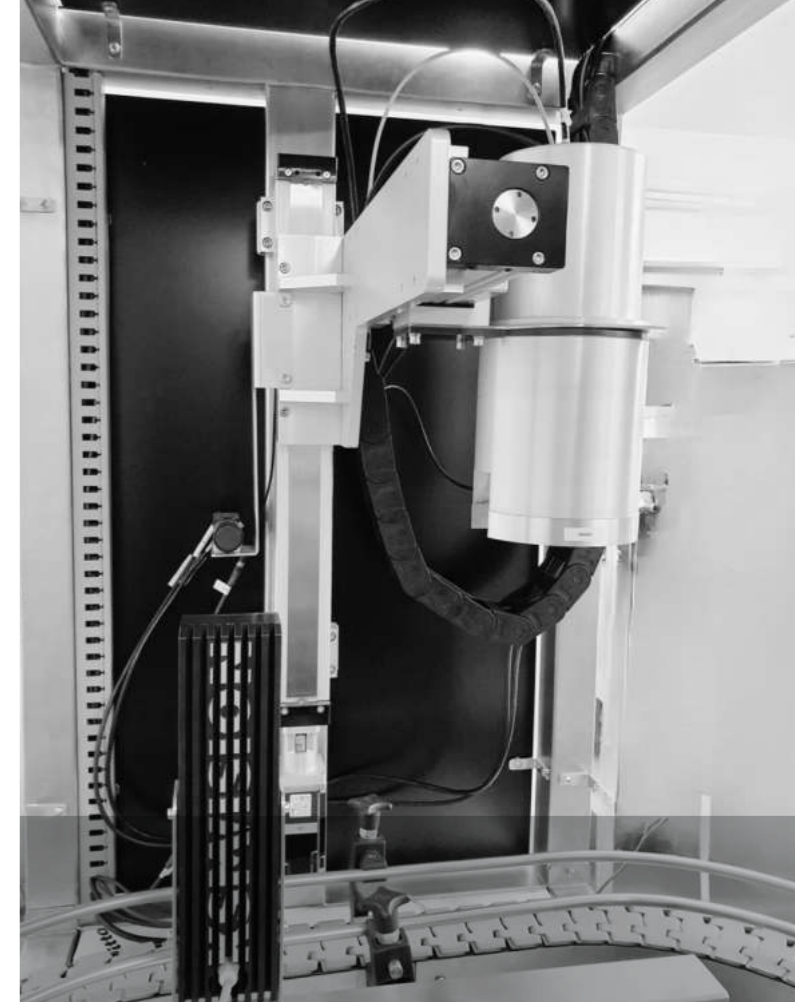
**Unique
360°
cap control
system,
without
dead angles**

Inspect 360+ CL is fully prepared for integration with the factory's IT systems, in terms of automatic order setting, including:

- COLOR
- BRAND
- REPORT GENERATION

The system ensures full inspection of the **cap and tamper-evident bands and labels**, including:

- ✓ quality and safety - presence, orientation, position, mechanical damage, curves, leakage, dirt, vacuum/lid deflection, tightening level, vertical or horizontal cracks, safety band/skirt integrity,
- ✓ color and imprints (expiry date, BATCH code, QR #, branding),
- ✓ fill level inspection (optional)



cap quality control
fill level inspection (optional)

**Fully
automated
IT system**

KSM Vision assures accuracy and efficiency with stand-alone systems and modules ready to be integrated with your packaging lines.

Flexibility of systems allows to adapt them to the needs of different types of packaging, including:

The head camera with a set of mirrors allows for circumferential inspection of the cap in 360° range.

AI-powered software tracks the efficiency of your production line.



**Only a few of possible cap defects
Inspect 360+ CL can detect:**

- tear in skirt
- open/ loose cap
- mixed color variants
- wrong BATCH #
- tear in bridge
- cocked cap
- vacuum lid deflection
- tear in safety band

Unique 360° cap control by **KSM Vision**



With just one camera and a set of mirrors, the inspection is carried out from all angles - the top, bottom and side surfaces (in 360° range).

(KSM Vision patent PL No. 229618)

Automatic position change of the measuring head on the axis (X,Y) enables inspection of different product formats.



Advantages:

- ✓ 100% control of production ensures that only flawless products leave your production
- ✓ Traceability of all products - extensive statistical functions provide in-depth insights into your production quality
- ✓ Smart design enables easy integration into your production line
- ✓ Immediate rejection of defected products from production line
- ✓ User-friendly interface enables quick product adding and creating new order (including reference images)
- ✓ Training the system for new caps takes less than 5 min. Reformatting is fully automated.

Turnkey quality vision inspection system

KSM Vision AI-driven software enables the distinction of defect type, localization and analysis:

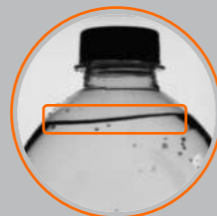


Logo detection and color identification



Recognition and analysis of prints

Optional but useful:



Fill level control module enables the operator setting the required parameters and the permissible margin of error via intuitive touch panel. Based on the given data, the system detects differences in the liquid fill level.

One software, different products.

User friendly interface allows adding new product formats. Machine learning algorithms enable training the system for new caps in <5 min.

Reformatting is fully automated with the head height adjustment system, operated via interface.



Options:

- ✓ Separation system (wedge conveyor)
- ✓ Soft rejection unit (multi-segment rejector)
- ✓ Fill level inspection to reject under or overfilled bottles
- ✓ Defined trend values and set alarms enable the line crew to take action at an earlier stage
- ✓ Detailed inspection reports providing information about the delivery quality at any time
- ✓ Automatic reformatting of the measuring head (X,Y axis)

Flexible & reliable

Configure Inspect 360+ CL to your production process & line. With our help, customize hardware, interface, or analyzed data.

Configurable interface and database

Based on the production specification system interface can be adjusted, including automatic system set-up with data upload by higher-order system (e.g. MES) and additional data upload by line operator.

Data collected by the system can be automatically uploaded to higher-order system.



At KSM Vision, we've positioned ourselves as a trusted partner of the quality control industry.

Serving a diverse range of sectors – including woodworking, pharmaceuticals, cosmetics, and food – we bring the reliability and precision you need.

By fusing advanced machine learning algorithms with customized hardware, our solution isn't just an alternative to manual inspection; it's a superior approach.

We have made quality inspection systems:

- ✓ compact - easy to implement in limited space and on existing production lines,
- ✓ AI-powered with neural network architecture - enabling adaptations to the changed requirements, or product formats,
- ✓ optimized with real-world data from production lines resulting in better accuracy,
- ✓ hardware-agnostic - offering flexibility in choosing hardware components.

since
2012

Trusted by European EIT Manufacturing and backed by Intel's oneAPI for Startups, our solution is built on a foundation of reliability.

We're ISO9001 compliant, ensuring our standards meet global benchmarks for quality and trust.



Ask for details

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At **KSM** Vision, we strongly believe in the power of connecting scientific minds to run the constant change.

As an official partner of Intel's OneAPI for Startups program we are engaged in the R&D on the neural network potential. In partnership with EIT Food - Europe's leading food innovation initiative - we are co-making the food industry more sustainable, healthy and trusted, involving the quality inspection tools.



Co-funded by the
European Union



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