PRODUCT OVERVIEW

QUAT²RO

QUAT²RO® MatEx Check

Material Leakage Detection
powered by AI

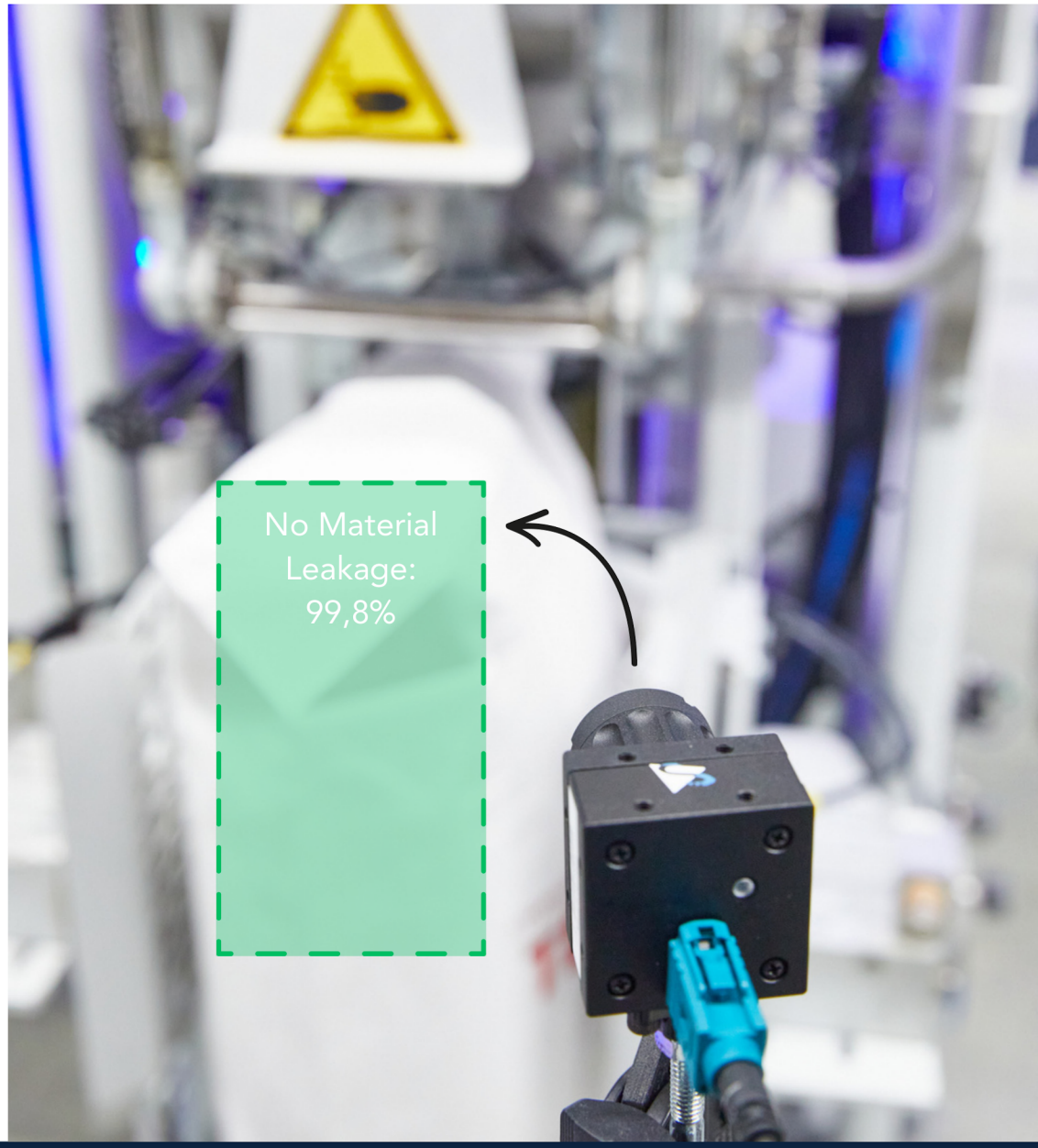
RETHINKING EFFICIENCY

QUAT²RO® MatEx Check

Experience the future of valve bag filling with QUAT²RO® MatEx Check. Our pioneering technology combines decades of expertise in valve bag filling with state-of-the-art camera technology and advanced AI-based image processing algorithms to reliably detect unusual material leakages and bag bursts in real time during the filling process.

The system continuously monitors the filling spouts during the filling process and is specifically designed to detect unusual product leakages in small and large quantities. In the event of such occurrences, QUAT²RO® MatEx Check responds promptly by stopping the filling process to prevent further product losses.

This intelligent intervention not only minimizes product loss but also significantly reduces cleaning time. The result is a production environment that operates not only more efficiently and safely but also more cost-effectively.



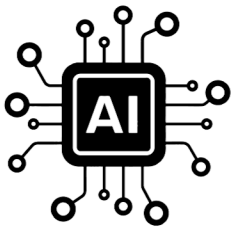
YOUR INTELLIGENT SOLUTION

QUAT²RO® MatEx Check

In today's era of mechanical engineering, the integration of artificial intelligence (AI) into your production environment offers transformative advantages for your company. By utilizing AI-driven visual inspection, you can significantly increase efficiency, optimize production processes, and reduce costs.

Through the combination of advanced algorithms and sophisticated image processing technologies, the artificial intelligence of our digital product QUAT²RO® MatEx Check can precisely detect and analyze unwanted material discharge as well as bag bursts.

With remarkable detection accuracy for unusual material discharge, the system identifies and immediately stops the filling process. This allows these bags to be quickly removed from the filling process. Therefore, this procedure minimizes the complete filling of a damaged bag and the associated cleaning effort.



QUAT²RO® MatEx Check identifies unwanted material leakage at a very early stage using state-of-the-art AI image analysis, resulting in minimized material losses and optimized efficiency in the filling process.

Detection principle of unwanted material discharge through AI-supported image analysis:

YOUR BENEFITS
QUAT²RO® MatEx Check

- Significantly faster, more accurate, and earlier detection of unusual material leakages during the filling process than with conventional sensor technology
- Increased cleanliness within the packaging machine
- Reduced downtime due to avoided cleaning efforts
- Lower product loss
- Very high detection rate which is also achieved under demanding conditions

„The early detection of unusual material leaks is key to minimizing product losses during the valve bag filling process. Efficient action in this area not only reduces material costs but also increases resource efficiency and opens up economic advantages."

Jan Rassenhövel, Product Manager AI

YOUR SAVINGS - A CALCULATION EXAMPLE

QUAT²RO® MatEx Check

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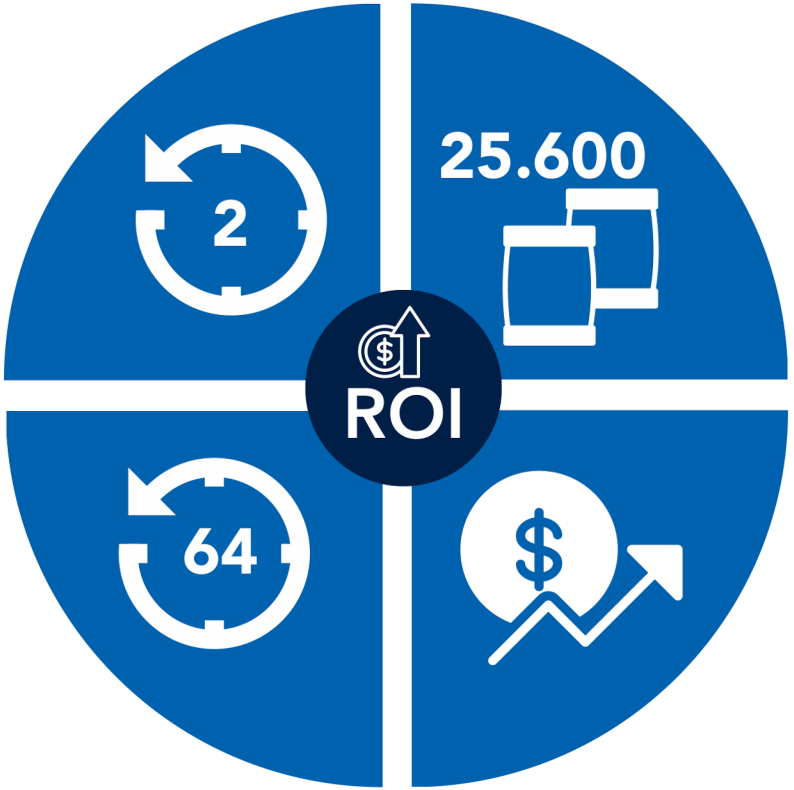
2H LESS CLEANING EFFORT / BAG

Depending on the industry, cleaning the filling system due to a defective bag typically takes around 4 hours. With the faster detection of defective bags and the shutdown of the system, cleaning now only takes 2 hours per defective bag.

64H MORE FILLING TIME / YEAR

There are approximately 32 defective bags per year. Normally, the system is cleaned for 4 hours per defective bag.

(32 bags * 4h = 128h)
This allows half of the cleaning time to be saved.
(32 * 2h = 64h)



25.600 BAGS MORE / YEAR

As a result, the system runs for an additional 64 hours per year. With a production rate of 400 bags per hour, this means that additional 25,600 bags can be produced per year.
(400 bags * 64h = 25,600 bags more produced)

SAVE MORE

As a result, machine efficiency is improved, leading to higher production output.

Additionally, the reduced cleaning effort results in further savings on personnel costs.

TECHNICAL INFORMATION

QUAT²RO® MatEx Check

QUAT²RO

Industries:

- All industries in which valve bags are used for filling

Application Area:

Stationary valve bag machines:

- INTEGRA®
- ELEMENTRA® (with applicator)

Technical Details:

- Retrofitting possible
- Operating temperature of IPC: -25°C to +85°C
- Voltage: 24 VDC
- Fanless design
- Cameras with IP67 protection class (explosion-proof housing available)

Scope of Delivery:

- Industrial PC
- Industrial-grade camera(s) including pre-assembled cables
- Software with integrated AI
- Electronic components
- Installation in the machine cabinet or separate housing

CONTACT

QUAT²RO GmbH & Co. KG

www.quat2ro.com

+49 251 208 163 58

info@quat2ro.com

Robert-Bosch-Straße 6, 48153 Münster

QUAT²RO

digitalize 2 optimize