

Smart Foreign Object Detection in Continuous Processing

With this solution, you benefit from a powerful, cost-efficient, and hygienic technology for automated foreign object detection in sensitive food processing environments. The system has been developed for the reliable detection of a wide range of contaminants in continuous product flows and **can be used across various applications, including meat, potato products, fresh salads, fruit, nuts, coffee beans, grains, and confectionery products.**

Using state-of-the-art high-speed camera technology, inspection is performed 100% inline and in real time directly on the conveyor belt. Production interruptions and product recalls can be minimized while ensuring continuous quality control throughout the process. Advanced machine vision and intelligent object detection enable the system to reliably identify foreign objects and trigger immediate responses within the production line.



The hygienic design with IP69K protection rating meets the highest standards of the food industry and ensures reliable operation even under demanding cleaning conditions. Direct communication with the conveyor system allows seamless integration into existing production lines and enables the automated rejection of defective products.



The solution significantly increases production reliability by detecting and removing foreign objects at an early stage. At the same time, it considerably reduces waste, customer complaints, and consequential costs. Automated visual inspection also relieves personnel workload and minimizes the risk of human error.

Compared to costly hyperspectral camera systems, this solution offers a highly economical alternative without compromising on speed or detection performance.

The result is an efficient, scalable, and future-proof quality control system that optimizes production processes while sustainably protecting product and brand quality.

Technische Highlights & Benefits

- **Hygienic Setup Design:** All components feature IP69K protection for demanding food production
- **Reduces Personell Workload:** Minimizes manual effort required for visual inspections
- **Less Waste and Fewer Complaints:** Continuous quality assurance through automated inspection process
- **Enhanced Product Safety:** Early detection of foreign objects in sensitive production processes
- **High-Speed Camera Technology:** Designed for continous inline inspection on conveyor belts and within production lines
- **Cost-Effective Alternative:** More economical than hyperspectral camera systems while maintaining high performance

We will show you how to improve quality while reducing costs.
Request your consultation today: sales@ait.de