

Best Practice

Servicing with no borders: full set-up of a metal detection system using AR technology



Because of access restrictions it was not possible for the Minebea Intec service technician to be present on site for setting up the new freefall metal detection system. The job could, however, be smoothly completed using remote control via the service tool miRemote.

Key facts

To optimally cope with the stringent requirements to ensure product quality, a food manufacturer chose to replace its existing detectors with the freefall metal detection system Vistus. Increased safety measures on site meant the set-up had to be carried out remotely.

Application

On its way to further processing stages, dry potato powder falling down by gravity passes the metal detection checkpoint to separate foreign objects from the product flow.

Products

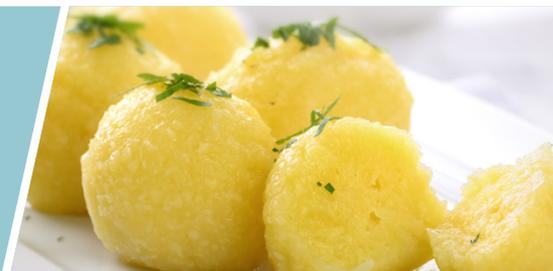
- Freefall metal detection system Vistus®
- True In-Process Validation
- Service tool miRemote

Customer benefits

- Flexible set-up via the service tool miRemote
- Reliable detection and elimination of foreign objects
- Authentic performance validation by True In-Process Validation

The customer

The customer is globally known as a manufacturer of top-quality potato products. In Germany, the company produces, among other things, dumplings, mashed potatoes and also a variety of crisps and snacks using potato powder as a basic ingredient.



Project goal and implementation

The freefall metal detection system Vistus provides ultimate detection performance for the food industry. The system reliably detects and ejects metallic foreign objects, irrespective of whether ferrous metals, non-ferrous metals or even non-magnetic stainless steels are concerned. To deliver on their own high quality expectations, a leading food manufacturer for potato products has decided to implement a metal detection system not only featuring Vistus, but also equipped with the patented True In-Process Validation by Minebea Intec.

As the company was subject to special measures due to a pandemic situation at the time the system was due to be set up, the necessary work was carried out via miRemote together with the customer. The service tool is based on digital AR (Augmented Reality) technology. miRemote allows direct access to Minebea Intec services anywhere and any time, via any smartphone or tablet. This eliminates waiting time and downtime but also travel costs and arrangements. The ability to demonstrate gestures, transfer useful documents or provide direct voice instructions enables technicians to explain to the customer what to do. All you need is an Internet connection and a web link through which the session is started - soon you will be able to communicate with the Minebea Intec service technician in absolute real time, just as if they were present at your premises.

“The tool miRemote by Minebea Intec has overcome all borders. Despite the difficult situation, we successfully managed to set up the metal detector via the live video chat and the customer was really impressed.”

Jan-Henrik Pahnke,
Service Technician at Minebea Intec

The customer provided optimum conditions for set-up. Sufficient connection speed was provided for the use of miRemote, system installation had been completed and the system had been connected to the power supply, meaning product teach-in could commence at short notice. For this, the customer has set up a tripod holding their smartphone whose camera was directed at the display of the detector. The product to be detected is potato powder which passes through the metal detector in an ESD pipe. All free-fall detectors Vistus are pre-set to maximum detection performance by default. Since dry potato powder itself is very unlikely to trigger false alarms, phase shifting could be adjusted remotely. For this purpose, the True In-Process Validation involved introducing test parts via the test part opening right into the middle of the product flow. Foreign objects that have been detected are removed via a flap, with non-detected foreign objects being intercepted using a test part stopper. miRemote allowed the service technician to monitor the tests and provide guidance in real time on the screen until the detection result was finally in line with quality assurance requirements. The entire job took around four hours, which is essentially the same as with on-site set-up work.



miRemote supports measures by allowing users to demonstrate gestures, transfer useful documents or provide direct voice instructions. Screenshots like those shown enable measurement results to be recorded



True In-Process Validation allows for authentic performance validation during production and right in the middle of the product flow. Non-detected foreign objects are intercepted by means of a grid



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