

Best Practice

Vistus brings better sensitivity and space-saving metal detection solution for dried and fresh fruits



Thermal fluctuations, changing humidity and a reduced space made metal detection for the Pacific Nut Company difficult. Then came the perfect solution with Vistus from Minebea Intec.

Key facts

Pacific Nut Company Chile S.A. produces dried fruits, raisins, prunes and nuts for an increasing demand. In order to be perfectly prepared for the export of its products, the manufacturer contracted Minebea Intec certified Partner Antalis Abitek to improve foreign object detection.

Application

Minebea Intec Vistus metal detector mounted on a thermoplastic conveyor system belt, with pneumatic end flap reject system.

Products

- Metal detector Vistus® (600 × 125 mm)

Customer benefits

Improved and stable sensitivity and operational precision due to state-of-the-art metal detection technology resulting in

- Improvements in quality assurance and food safety standards
- Easy calibration, operational comfort
- Better sensitivity
- Lower losses on rejected products
- Easy cleaning and sanitizing

The customer

Pacific Nut Company Chile S.A. connects nut and dried fruit growers with consumers from all over the world. Located in Chile the company runs four processing facilities and has more than 400 employees. Pacific Nut Company is part of Empresas Sutil, which is one of the most important agro-industrial groups in Chile.

Project goal and implementation

Due to an increased production volume, the Pacific Nut Company Chile S.A. expanded its production and packaging lines in terms of weighing, sealing and box packaging. In the process, also the critical point metal detection needed an improvement. The former metal detector, checking packed boxes of up to 10 kg dried raisins, had shown a lack of detection sensitivity. In addition, thermal fluctuations and changing humidity conditions had led to false rejections. Facing limited space due to the newly expanded production line the customer contacted the certified Minebea Intec Partner Antalis Abitek.

Antalis Abitek has developed a conveyor based metal detection solution. A custom metal detection system Vistus from Minebea Intec was designed and manufactured, and installed at the exit of two bulk product selection lines, prior to weighing and filling in boxes. Mounted on an inclined motorization system with variable speed, pneumatic two-way diverter flap rejection system, and thermoplastic conveyor belt, the metal detector offers fast and easy cleaning processes (IP65). Through the implementation of a low height multi-

frequency detector head, which allows adjusting the rejection times and product passage speeds depending on the production flow, a greater detection sensitivity and efficient contaminant discard now is achieved. The two-way diverter flap rejection system device is pneumatically operated on the detection of contaminated particles inside the product, the compressed air supply activates a flap made of UHWM-PE located at the outfeed of the conveyor. This diverts the contaminated products to a stainless-steel bin. The use of thermoplastic conveyor belt avoids incrustations of products and liquid sugars, allows easy and quick cleaning, requires small amounts of water for the cleaning and disinfection process and dries quickly.

All in all the unique system based on Vistus metal detection technology increases by 40% the detection sensitivity for metallic contaminants, ensuring a high quality assurance standard in the process of

raisins for export. "We are highly satisfied with both the performance of Minebea Intec technologies and Partner company," summarizes Lucio Cordon, Raisins Factory Manager at Pacific Nut about the project.

"As a Partner of Minebea Intec, I benefit from innovative technologies that I can rely on 100 percent. They help me ensure the perfect solution for my customers."

Claudio Guzmán Trivelli, Product Manager Antalis Abitek



Mounted on the inclined motorization system, the metal detector is a space saving solution



All ejected products are removed from the product stream by means of the two-way diverter flap



If you're interested, please email
sales.ac@minebea-intec.com

Minebea Intec GmbH | Meiendorfer Strasse 205 A | 22145 Hamburg, Germany
Phone +49.40.67960.303 | Email info@minebea-intec.com



www.minebea-intec.com



Minebea
intec
The true measure