



GERMAN SNACK PRODUCER IMPROVES QUALITY WITH X-RAY INSPECTION & CHECKWEIGHER

Marsch Importhandel GmbH is a leading German snack food producer producing 230 tons a day of dried fruits and nuts into retail packaging. The company turns to Mekitec and implements Combi Meki integrated X-ray checkweigher systems.



The snack industry is a highly-competitive, brand- and reputation-driven market where products that taste the best and have a positive image guide consumer purchasing decisions. Snack foods often contain a wide range of different ingredients from various raw material suppliers. This — combined with attractive, but challenging packaging processes — poses a contamination risk, especially for conventional metal detectors. Snack producers need to increasingly evaluate more sophisticated solutions for foreign object detection. Märsch Importshandels-GmbH, a German nut and dried fruits packaging company, found the optimal solution for their process from the Finnish X-Ray inspection machine manufacturer Mekitec.

Founded in 1936, Märsch Importhandel-GmbH is a family-owned company specializing in the production of nuts and dried fruit. The company services European retail stores, as well as industrial clients in the candy industry. The plant produces around 35,000 tons of snack products in retail bags ranging in size from 50g to 1KG. Märsch Importhandels-GmbH's daily production can reach a capacity of 230 tons with the main focus of its business on private label, packed into pouch bags, doy-bags, and four-seal bags.

Finding the Right X-ray Partner

In 2014, Märsch Importhandels-GmbH started to implement X-Ray inspection systems to improve quality, prevent contamination, and track consumer com-

plaints back to the supply chain. The company found the best place to implement equipment to meet HACCP requirements is the end of the production line. Finished and packaged goods — in this case bags of nuts and dried fruits — are checked for contamination, such as metal pieces, stone fragments, and glass splinters. When the product is sealed, nothing unwanted can enter it before reaching the retailer, and, most importantly, the consumer. Every product is checked package by package and those with any risk of suspicious content are rejected immediately.

Food inspection, especially X-Ray, was not a new topic to the owners of the company. They had been evaluating different technology options and the market for X-Ray systems from several vendors all over the world to find the optimal solution for their purpose.

“I met personally with Mekitec representatives Mr. Lars Oehlandt and Mr. Jouni Kokki at a food tech exhibition. Prior to that, we had testing X-Ray systems from other suppliers. After meeting with these representatives several times, the positive personal contact and their

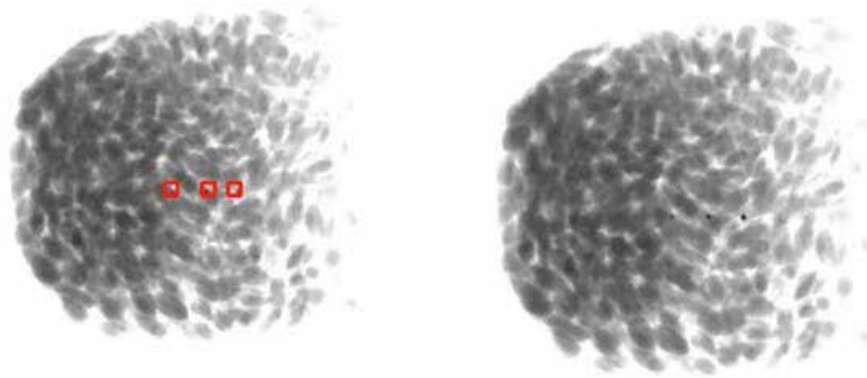
deep understanding of our special needs gave us a secure feeling of Mekitec being a future partner. They really listened to us,” says Mr. Markus Märsch, owner of Märsch Importshandels-GmbH.

COMBIMEKI X-Ray And Checkweighing Take Care Of Final Inspection

Märsch Märsch Importhandel-GmbH started by implementing one CombiMEKI system to one of its packaging lines — bagging a combination of nuts and dried fruits, such as raisins — to create a common German product called “Studentenfutter.” COMBIMEKI is a combination system that integrates X-Ray and checkweigher systems. Thus, in addition to finding foreign objects, the solution is able to sort out over- or under-weight products. “We started with equipping one production line. Until the end of 2015, most of our 21 lines will be checked with X-Ray. We intend to rely fully on X-Ray inspection by the end of 2016,” says Märsch.



One of the challenges in Märsch Importshandels-GmbH's production is the high speed of some of its packaging machines. A speed of 220 products per minute requires high performance and high integration between both points of inspection, X-Ray and checkweighing. Also, every product category is different: The wide range of different content mixtures (nuts, dried fruits, grain) cause challenges due to very heterogeneous densities. The MidMEKI systems measure and examine density variations and it requires very sophisticated algorithms to distinguish the smallest foreign objects in very heterogeneous goods.



CombiMEKI foreign object detection for glass and steel with almond product.

INFO: COMBIMEKI

Detection range with Märsch nuts and dried fruits: Stainless steel 0.8mm, Glass 3mm, Stone 3mm

MEKI combines the benefits of metal detector pricing with the X-Ray inspection performance for products up to 250mm width and 110mm height.

Example industries: bakery, dairy, meat & seafood, snack, fruits & vegetables, ready to eat food, frozen, confectionery, cereal and bulk.

Integrated COMBI-checkweigher.

About Mekitec



Mekitec has a combined experience of several decades in the development, industrialization and manufacturing of X-ray imaging systems, applied in medical, security and safety areas. This unique combination of in-depth knowledge of various industries has enabled the management to invest in long-term research and development especially for the food industry. The results of this focus and dedication are the state-of-the-art X-ray food safety systems that Mekitec supplies to its customers globally.

The product range is a high-performance, user-friendly and very space and cost competitive

X-ray technology system called MEKI. It is revolutionary as it provides 100% food quality control with high precision X-ray inspection that is designed to replace the simple metal detector with a similar investment. What's more, MEKI with its small and compact footprint, easily fits in every production line, thereby saving useful space in the factory.

With the MEKI range, food producers finally have the choice: To enjoy a fully automated, high precision and small yet cost-effective X-ray food inspection system. The ground-breaking MEKI systems provide food quality control without compromise!