



ADVANCED DETECTION SYSTEMS

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High speed cheese converting is no problem for a customized Advanced Detection Systems ProScan

A truly unique approach to a custom designed solution for inspecting cheese products in high speed converting.

When it comes to converting cheese in large volume, the “need for speed” is necessary for every piece of machinery in the plant. When Peter Marsing of Sartori Foods was sourcing metal detectors for his cheese converting line, he had many critical needs for the company that he was going to team up with. The first need was the importance of the metal detector to find the smallest piece of metal without the compromising effects of false positives typically found with metal detectors. His second need was the capability of the company to customize the metal detector system and reject device to accommodate the high-speed throughput of his converting line.

Custom designed system fits Sartori’s needs

Since its founding over 70 years ago, Sartori Foods has prided itself with bringing “tradition and value” to the marketplace. During the years, its traditional cheesemaking skills have earned the company numerous awards. Innovation and creative thinking are key to their success and that is evident in all their cheese products. Peter approached Advanced Detection Systems with the application and soon the two companies were working together to find the optimal design that met Sartori’s stringent requirements. “The crucial concern for them was the assurance that we would be able to custom design the conveyor and reject system to meet their sensitivity specification and facilitate the speed and spacing of their products,” said Dave Smith, Sales Manager at Advanced Detection Systems, a manufacturer of metal detection systems out of Milwaukee, WI. The Sartori application was “truly unique and one of a kind application” he further noted.

For over 20 years, Advanced Detection Systems has been custom designing systems to the customers’ exact requirements. Accomplishing this task involves the use of highly sophisticated electronics that involve precise accuracy in the internal software of the metal detector. The powerful software program serves two purposes, finding the smallest contaminate in a highly conductive product and then rejecting only that contaminated product. “It is these type applications that differentiate us from our competitors,” said Dave. In today’s fast-paced environment, most companies want to ship an “off the shelf” unit and try to fit it into the customer’s application. “A custom designed metal detector system with guaranteed results gives producers the results they need when considering a metal detector for inspecting their products,” said Dave.

Soon it became apparent with Peter that Advanced Detection Systems was going to provide the right solution for their need. “They first listened to our needs, gathered the important details of our production line and then designed the machine that exceeded our needs,” Peter said.

Guaranteed results is what put Sartori’s mind at ease

One critical aspect of Sartori's production is the capability of producing an assorted range of cheese types and sizes produced at their Plymouth, WI facility. Production changeover had to be quick, easy and problem free. Having flexibility built into their converting allows them to take their production and quality control efforts to new heights. For Advanced Detection Systems that meant a machine that was capable of inspecting products from 1lb to 25lbs in various packaging sizes, while achieving the result of maximum sensitivity and pinpoint rejection.

During the design phase, Advanced Detection Systems configures the internal software for optimum detection based on the exact product effect signature as determined during product testing. It is during this phase of development that Advanced Detection Systems makes a quantum step toward achieving the best sensitivity. As in the case with cheese, most conductive products have a unique product signature that is equal to the non-ferrous and stainless steel metal signal. The ProScan's software is capable of precisely "reading" the product signature, in this case the cheese, and automatically adjusting the software so the detection envelope is precisely aligned over the product signature. With the product signature inside the detection envelope, the cheese is considered "product compensated" allowing no residual product signal to affect the metal detector performance. The result is maximum sensitivity and problem free production as only a metal signal is "seen" during the course of production.

In outlining the company's unique approach to solving inspection requirements, Dave stated, "during the design phase, we focus 100% on the products the customer is producing and design the electronics and conveyors to meet their needs. To the customer, running their products is all that matters." In the case of Sartori, they are converting cheese, so "we focused on their products with the goal of achieving the optimum sensitivity." In the end, Advanced Detection Systems is so confident in their design that they put a guaranteed sensitivity statement with each system that undergoes a product test.

The guaranteed sensitivity, custom engineered machines, and the fact that all the systems are made in the USA made all the difference to Sartori. "If I need support on this project or future projects, I know I can count on a local company to come to me with results," Peter said. "Advanced Detection Systems proved themselves and that is all the evidence I need to make a decision."

For more information about Sartori Foods, visit www.sartorifoods.com. For more information about Advanced Detection Systems, visit www.adsdetection.com.