



Food Industry



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Eriez® Xtreme® Metal Detector Keeps Popular Line of Hot Dogs and Sausages Free of Contaminants for Smith Provision Company

Attention to foreign contamination prevention continues to be a mainstay at Smith Provision Company, a manufacturer of premium quality hot dogs, sausages, deli meats, bacon and award-winning hams. Smith's is a fourth generation, family-run business that began in 1927 as a small, two-person retail outlet. Today, the Erie-PA based company has 50 employees and serves retail outlets as far south as Pittsburgh and as far north as Buffalo, NY.

Because requests for Smith's product now comes from all over the country, the company offers a direct shipping service for those loyal Smith's fans who do not live near a Smith's retailer. Those who attend Pittsburgh Penguins NHL games munch on Smith's foods, while other regional sports venues are also realizing the popularity of the brand.

Erie is also home to Eriez®, a worldwide manufacturer of separation technologies. Smith's became one of the first food manufacturers to test and install an Eriez Xtreme® Metal Detector in its 27,000 square foot production plant in the spring of 2013. During that year

alone, Smith's ran approximately 359,500 units of various products through the new Eriez metal detector before shipping to regional outlets.

Using metal detection for food safety

Smith's production facility is part of a 73,660 square foot complex located in the heart of Erie. The company outgrew its former location before moving into the newer plant in early 2012. Now, Smith's has the capacity to run five packaging lines for its assortment of natural casing and skinless hot dogs, kielbasa, Cajun sausage, Ring Bologna, Ox Roast and

many other food products.

The Eriez Xtreme® Metal Detector is positioned at the end of one packaging line, dedicated mainly to Smith's hot dogs and sausages, since those food items might have the chance to incur metal contamination during the processing stage, according to Emily Weber, Smith's Plant Manager.

"We looked at products with the possible risk of metal contamination," she observes. "The sausages go through a coarser grind process, so there's always a chance that metal fragments can get into the final product after sealing. By default,

the hot dogs are on the same production line, so we have our two highest-selling products inspected by the Eriez Xtreme Metal Detector before shipment.”

Weber adds, “Smith’s has a wonderful safety record of quality assurance and we know that large retail chains and even mom and pop stores are looking at food manufacturers more and more for safety-related processes. When Eriez approached us about testing their new metal detector, we could not say no. It was the perfect opportunity to work with a company that we respect and Eriez is in our own hometown. We wanted to add yet another layer of protection for our customers—so we jumped at the chance to bring in the newest model of metal detector from Eriez.”

The Xtreme Metal Detector was installed in April 2013 with design specifications that integrate with Smith’s existing 18” wide conveyor belt. The tunnel opening of the metal detector is 20” wide x 10” high, providing enough space for larger food items, such as hams. After a brief testing period, the Xtreme went online full-time on Smith’s busiest production line for the remainder of 2013.

Packages inspected before shipment

“We receive all raw materials from USDA inspected plants and everything we produce is fully cooked,” notes Weber. “We chill all products down to about 40 degrees and at that point, we can package individual items before they

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are conveyed through the metal detector.”

The number of items in each vacuum pack varies. A three-pound package of skinless hot dogs contains 24 links, while a 2 ½-pound package of natural casing hot dogs contains 18 links. Another example is the Cajun sausage, where a 12-ounce package contains four links. The Xtreme Metal Detector scans up to 10,000 pounds per week of the natural casing hot dogs with similar quantities for the skinless hot dogs and sausages, according to Weber.

Eriez designed the Xtreme with enhanced features, improved sensitivity, intuitive operation and exceptional reliability compared to other metal detectors on the market. The ultra-sleek unit blends

simplicity and sophistication with its easy-to-navigate control with extra large color interface.

Components of the new metal detector include full QWERTY keyboard, robust auto set-up, dedicated reject log and vivid display. The Xtreme offers greater sensitivity with its multiple frequency range and vibration immunity. An integrated beacon and configurable inputs and outputs enable easy installation. Maintenance is trouble-free with the Xtreme’s large control opening for easy access to wiring.

Long-term investment for Smith’s

Because of the portability of the Xtreme Metal Detector, the unit can be easily wheeled onto a different processing line at the Smith’s production plant. Weber says the short-term goal is to keep the Xtreme on the hot dogs and sausages production line, but transport it to other production lines on an as-needed basis.

“When the hot dogs and sausages leave our processing plant, we know they are free from metal contamination and that we have a record covering their inspection. We can rest easy knowing that our reputation for high quality foods remains intact,” she says. “We constantly evaluate our operation with regard to continuous improvement and ongoing product inspection. Installing the Xtreme Metal Detector was another step in that process because our trusted relationship with our customers is everything to us.”



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Eriez is recognized as the world authority in separation technologies. The company’s magnetic separation, metal detection, material handling, fluid recycling and advanced flotation technologies have application in the mining, processing, packaging, food, recycling, aggregate, plastics and metalworking industries. Eriez designs, manufactures and markets these products through 13 international subsidiaries located on six continents. For more information, visit www.eriez.com or contact Eriez World Headquarters, 2200 Asbury Road, Erie, PA 16506 USA at +1 814 835-6000 or eriez@eriez.com.

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