

Eriez® Xtreme® Metal Detectors Help Mariani Packing Company Deliver Contaminant-Free Dried Fruit Snacks

Today's consumers, together with increased oversight from government agencies, are demanding safer, healthier foods. That demand moves down the chain with retailers and food service providers asking manufacturers to provide verifiable proof those food safety systems have been effectively implemented.

Mariani Packing Company, which began in 1906, has taken this global wide initiative to a high level with operational procedures and technologically innovative equipment specifically installed to meet rigid food safety guidelines, especially in the dried fruit snacks category where Mariani sells more than 125 million pounds of product annually.

To remain competitive in the demanding and highly-scrutinized food industry, Mariani has established critical control points (CCP) throughout its five processing facilities, one of which is located in Wisconsin Rapids, WI.

According to Director of Operations Jesse Urban, part of the CCP involves the use of two Eriez Xtreme® Metal Detectors positioned along different stages of the processing line which detect metal contamination in loose and packaged cranberries. With the two new Eriez Metal Detectors in place, Mariani has double protection against any sort of metal particulate reaching customers.

“When you are dealing with the finished product, you must have confidence that you find every bit of metal contamination along the line,” Urban says. “You can’t see minute metal fragments with the naked eye. Our critical control points are important to us and the Eriez metal detectors are a big part of that. We are confident in our ability to guarantee our products are of the highest quality.”

Four generations of Mariani quality

Paul Mariani, the immigrant son of a European farmer, began his company in 1906 after arriving in the lush Santa Clara valley in California. He planted fruit trees on four acres and the business began to grow. Mariani was the first to introduce moist, ready-to-eat dried fruit sold in a see-through package. Then resealable and gusseted pouches were introduced, enabling product to stay fresher longer and store easier on shelves.

Four generations of Mariani family members plus a dedicated employee work force and personal contact with fruit growers give the company a quality reputation in the industry. Today, more than 27,000 grocery stores in the United States sell Mariani dried fruits, which range from apricots to raisins.

“Mariani has always been into dried fruits and they are always looking to add the next category,” says Urban. “They saw the movement of dried cranberries and went into the market with a new packing line. We were using some older model metal detectors on the cranberry packing line, but we constantly needed to upgrade them because of component failures.”

That’s when Urban came into contact with Eriez sales rep Ron Kickert, who conducted an analysis of the faulty older units and recommended a switch-out to the Eriez Xtreme Metal Detectors.

Mariani installed one unit with a 24” wide x 3” high aperture opening in January 2014 for loose

cranberries, and then purchased another Xtreme with a 20" wide x 12" high aperture opening in April 2014 for packaged cranberries. To help guarantee quality, Mariani purchased a back-up Xtreme unit that same month, according to Urban. "Ron was able to send samples of dried cranberries back to the Eriez test lab. When we received the metal detectors, they were already pre-loaded with the cranberry settings. We were able to set up the metal detectors out of the box with a few minor adjustments," Urban says.

Components of the new metal detectors include full QWERTY keyboard, robust auto set-up, dedicated reject log and vivid display. The Xtreme metal detector 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 unit's large control opening for easy access to wiring.

Metal Detectors Bring Another Level of Product Purity

Once the cranberries have arrived at the Wisconsin Rapids plant, expert care is applied in the drying operation. Employees inspect, wash, dry and grade the fruit at the facility. Attention to foreign material prevention is a mainstay at Mariani and all incoming fruit is required to meet stringent company specifications, according to Urban.

"Basically, someone is stationed around the metal detectors and watching the product flow. We conduct a check every 30 minutes to make sure everything is in tolerance," Urban notes. "The metal detectors have always been spot on. We're running large volumes of loose cranberries per day through the first metal detector and bulk cases of packaged cranberries through the second detector."

The cranberries are sliced then dried upon arrival at the facility. The first CCP is a visual inspection for any metal shavings that might have come off the slicer. The second CCP is the 24" x 3" Xtreme metal detector which is positioned after the dryer. The Xtreme detects 1.1 mm ferrous and non-ferrous metals as well as 2 mm stainless steel in the loose cranberries, according to Urban.

"Cranberries are highly acidic, hot and sticky and contain a good amount of water, so it is difficult to detect metal when they are on the conveyor line," Urban observes. "The metal detector from Eriez weeds through all this and finds that one millimeter (mm) speck of metal that is travelling along with the cranberries on the conveyor line."

The third CCP is when packed cranberries are conveyed through the 20" x 12" Xtreme metal detector. The cranberries are packaged into pre-formed, poly-lined corrugated boxes after the product is settled. "At this stage, we are looking for larger pieces of metal," Urban observes. The Xtreme detects 3 mm ferrous and non-ferrous metals as well as 4 mm stainless steel in the packaged cranberries.

Another reason Mariani purchased the Xtreme Metal Detector was the low rate of false triggers, according to Urban. "We get very dry winters here in Wisconsin, so static electricity is a problem," he says. "Eriez worked with us to modify the metal detectors so they are not as affected by the static in the plant. And in the summer, it gets really humid and that also punishes the equipment. It's good to see a company like Eriez could eliminate our problems."

###

Eriez is recognized as world authority in separation technologies. The company's magnetic lift and separation, metal detection, materials feeding, screening, conveying and controlling equipment have application in the process, metalworking, packaging, plastics, rubber, recycling, mining, aggregate and textile industries. Eriez manufactures and markets these products through 12 international facilities located on six continents. For more information, call toll-free (888) 300-ERIEZ (3743) within the U.S. and Canada. For online users, visit www.eriez.com or send email to eriez@eriez.com. Eriez World Headquarters is located at 2200 Asbury Road, Erie, PA 16506.