



Processing



Eriez® Feeders and Metal Detectors Improve Efficiency and Purity in Almond and Nut Processing

With more than 75 years of innovation, Valley Welding and Machine Works (VWMworks) is at the forefront of food processing equipment, processing lines and material handling. The Fresno, California-based company works directly with food processing customers located across multiple continents to design and manufacture innovative systems.

VWMworks machinery is housed in a 50,000 square foot facility in the heart of California's San Joaquin Valley. Their system designs are used in facilities that process dried fruit, nuts, and fresh fruit and vegetables. Installation locations range from the main process areas to bulk filling and packaging areas. With such a diverse range of processing applications, custom designs are often necessary.

According to VWMworks Vice President Blake Garabedian, the company got its start in 1946 designing different food processing machinery to help farmers in the valley. "Our equipment is now used all over the world, including South Africa, Mexico, Turkey, South America and Australia," Garabedian says. "The focus now is primarily on almonds, pistachios and dried fruit," he adds.

The company's dedication to delivering superior solutions to customers requires that all system components be of the highest quality. VWMworks often calls on Eriez® to supply vibratory feeders and metal detectors to integrate into equipment they provide like the VI-Pro vibratory conveyors, particularly for its advanced almond and nut processing lines where the ability to increase and enhance product flows is paramount.

Mike Emerzian, Sales and Product Development Team Leader, explains. "We give customers the best available technology for pre-cleaning, sorting and sizing solutions. This enables us to achieve throughputs unmatched prior to this technology hitting the industry."

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Sales and Product Development
Team Leader, VWMworks

Emerzian, who has 25 years of industry experience, says the products and service delivered by Eriez and its sales representatives at Phenix Equipment are "a good fit" for VWMworks. "We look at certain points in the line or system where we can plug in strategic components from Eriez because we know their equipment will improve the overall process."

Emerzian says efficiency and consistency are at the center of all they do. “We recognize that Eriez equipment will produce the same high efficiency every time.” He adds, “Using Eriez feeders and metal detectors gives us another technological dimension for more efficient food handling applications.”

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According to VWMworks, customers often turn to their team of experts to point them in the right direction for their processing needs. Emerzian explains, “They tell us their objective, the specs and what they want to accomplish. Since we have built custom order equipment so many times, we know what Eriez products are compatible and how to integrate them with the entire system.”

Integrating Eriez Feeders and Metal Detectors

Customized almond and nut processing lines manufactured at VWMworks typically use several Eriez electromagnetic feeders, according to Emerzian. “We use the Eriez 66C feeder underneath our bin dumper, which is the first piece of equipment in the line. The 66C is big

enough and it can handle enough product coming in,” he says. “This line does 40,000 pounds an hour. We know the Eriez feeder can get the product through, meter the line flow and equally distribute the product.”

Each system features a company-designed SuperVac, an air-aspirating cleaning system designed to provide continuous in-line separation and removal of impurities and defects. The purified product flows into a bulk filler that has another Eriez 66C electromagnetic feeder located underneath.

An Eriez metal detector is placed toward the end of the line to pick up any stray metal that hand sorters do not detect. “Once the product gets past the visual inspection, it goes through the Eriez metal detector,” Emerzian explains. “We built an inspection conveyor where we incorporate the Eriez metal detector with the reject mechanism; it’s like two in one with manual/visual inspection and metal detection.”



Emerzian says some of the VWMworks custom units also feature strategically placed Eriez grate magnets to help pull out tramp metal. “This helps take pressure off the metal detector and creates a pure product.”



VWMworks uses Eriez’ metal detectors, magnetic separators and electromagnetic feeders to improve efficiency and purity.

Emerzian notes that some applications call for more magnets than others. “There is a particularly high percentage of dirt, dust and small metallic particles that get in with the product in raisin processing,” he says. “We understand custom processes and determine the right equipment mix for each unique situation.”

VWMworks is revolutionizing the industry with the help of Eriez and its other strategic partners, according to Emerzian. “We are able to make our equipment better and faster by increasing line speed and conveying more pounds per hour along the line and through the systems,” he says. “We are changing and enhancing this equipment, leading to better ROI and increased worker safety.”

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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.

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