

## **Global Health Industries Relies on Metal Detectors from Eriez® to Uncover Tramp Metal in Packaged Nutraceuticals Before Shipment**

When it comes to producing private label vitamins and supplements for its network of distributors, Global Health Industries does not cut corners on quality control measures. In fact, the family-owned business in Ogden, Utah has established numerous product safety checkpoints, starting with the receiving of raw materials and ending with final packaging prior to shipment.

All manufacturing, formulating, microbial testing, packaging and research and development are done on-site. Global Health Industries' facility currently holds a Certificate of Manufacturing from the Therapeutics Goods Administration (TGA), which is the Australian Government Department of Health and Aging, one of the most active regulatory agencies in the world for dietary supplements.

Global Health Industries offers a range of supplement manufacturing services for capsules (gelatin, vegetable and pullulon), tablets and powder blends, including multivitamins, herbal products, tea-cup drink mixes and flavored drink mixes. The company dispenses supplements in bottles and powder fillings, while also creating unit dose packaging. Products can be shrink-wrapped in bulk, pack or box form based on client requirements.

According to Lead Operator Kim Wybrow, the quality control process includes the use of two Eriez® Metal Detectors that detect tramp metal contamination before product is sent to their customers. "We handle subcontracting for multi-million dollar supplement companies, so it's very important to have equipment like the metal detectors on-site for final inspection of product before shipment," Wybrow says.

Global Health Industries has been using Eriez Metal Detectors for at least 15 years, according to Wybrow. The metal detectors serve as one of several check points during the packaging and inspection phase. The Inspection Department closely examines each capsule and tablet by hand to ensure that only the highest-quality product makes it into a packaged form. Products are either packaged by Inspection personnel or are forwarded to the packaging department for specialized finished product packaging.

According to Wybrow, one Eriez Metal Detector is used to inspect bottled powdered food supplements while the other scans packaged capsules and tablets. Though finding metal particulates is rare, it is essential that contamination is detected. Once the contaminant is found, the products are quickly diverted to an automatic reject system, ensuring total quality control.

Wybrow states, "You never know how clean the raw material will be once it comes in from our suppliers or if any small metal works its way into the processing end. Metal slivers can come off a stainless steel mixing vat or a capsule machine. Sometimes a screw or small washer falls off during the production process. These pieces are quite small and can be picked up by the Eriez Metal Detectors. Once the metal is detected, a light comes on and the product goes through the reject system. It does add another level of safety for our customers."

## How the Eriez Metal Detector Works

Eriez' Metal Detectors use three coils wound around the aperture to sense metal moving through it. The center coil emits an electromagnetic field throughout the space within the metal detector housing. Two receiver coils, spaced equidistant on both sides of the center coil, are connected in series. The energy coupled from the center coil to either of the receiver coils exactly cancels; the net output of this pair is zero.

Metal passing through this set of coils creates an imbalance which, if the signal's amplitude is great enough, will result in detection. The Metal Detector can be set for a certain degree of sensitivity. Many factors influence the sensitivity, including characteristics of the product being screened, type and shape of metal to be detected, aperture dimensions, and the position of the metal particle within the aperture.

The Eriez Metal Detectors installed at Global Health Industries are supplied with an integrated belt conveyor and specified reject mechanism. The Metal Detector has a 1/4 Video Graphics Array (VGA) Touch Screen interface, automatic balance, reject confirmation, consolidated power supply and control with four electronic boards, all housed in a NEMA 4X enclosure.

The Metal Detectors complement an already stringent quality assurance program at Global Health Industries, which includes a comprehensive procedure that assures identity, potency and purity of raw materials, plus an in-process testing and inspection policy that ensures finished goods meet all specifications.

"We've had very good luck with the Eriez Metal Detectors; they are always running...no matter what," Wybrow says. "Our customers are very demanding and we are in an industry that requires product purity. Eriez helps us meet that purity expectation."

*Eriez is recognized as world authority in separation technologies. The company's magnetic separation, metal detection, materials feeding, screening, conveying and controlling equipment have application in the process, plastics, rubber, metalworking, packaging, 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](http://www.eriez.com) or send e-mail to [eriez@eriez.com](mailto:eriez@eriez.com). Eriez World Headquarters is located at 2200 Asbury Road, Erie, PA 16506.*

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