

Metal Detectable O-Rings Help Meet Government Regulations Regarding Foreign Material Contamination



The Sanitary Seal Division of PTI, Inc. offers the SEALDETECT® line of metal detectable o-rings in AS568 and metric standard sizes. SEALDETECT O-Rings and Sanitary gaskets are state of the art metal detectable and X-Ray inspectable sealing components.

Contact us today to speak with us about the optimum SEALDETECT products for your applications. TEL 610-603-7546

Statements and recommendations in this publication are based on our experience and knowledge of typical applications of this product and shall not constitute a guarantee of performance nor modify or alter our standard warranty for this product.

Prior to actual use it is highly recommended that suitable tests be run to determine this product's suitability in a specific application. This is critical where failure could result in injury or damage.

Viton® is a registered trademark of The Chemours Company.

Sanifluor® and SealDetect® are registered trademarks of Process Technologies, Inc.

Government regulations protect consumers with regard to food safety by stipulating that food, beverage and pharmaceutical manufacturers must keep foreign material out of their products. Regardless of government regulations it is important that production processes are designed to keep foreign materials from entering the process stream and critical that a system is in place to detect contaminated product and prevent it from leaving the production facility.

O-rings and gaskets used in food, beverage and pharmaceutical processing equipment are a potential source of contamination. Damaging contamination can be created when rubber fragments from an o-ring or gasket that has been damaged while in service. Damage to o-rings and gaskets occur for a variety of reasons ranging from faulty installation or over time from extreme temperatures, continuous vibration and corrosive clean-in-place (CIP) chemicals. Once created, rubber fragments can migrate into the product stream.

When rubber particles do find their way into the product, operators have no alternative than to shut down equipment to visually inspect for the contaminant. This method of detection can be very difficult and expensive. Also, it can contribute to significant down time. If the contaminant can't be found, product recall is a real possibility.

To confront this issue, many processors utilize a HACCP (Hazard Analyses Critical Control Point) program that requires that all parts be metal detectable and x-ray inspectable.

The use of metal detectable and X-Ray inspectable o-rings is a very effective method for locating rubber fragments of seals and gaskets that have migrated into the process stream. Metal detectable o-rings are rubber o-rings (Nitrile, EPDM, Silicone, Viton® and Sanifluor®) that have been compounded with a very fine metal powder and additives that allows them to be detected by in-line metal detection equipment and also by x-ray machines. Particles as small as 2mm can be detected with standard in-line x-ray inspection and metal detection systems. Once detected, the contaminating particle can be removed with magnetic equipment or manually.

Metal detectable o-rings are designed to be drop in replacements for standard conventional o-rings and perform as well as standard Nitrile, EPDM, Silicone, Viton and Sanifluor O-Rings.