

## **Product Purity.**

## Leading Contaminant Detection Technologies for the Food Industry

- Metal DetectionX-ray InspectionMagnetic Separation
  - Sesotec Metal Separator



## Systematic metal and contaminant detection.

# Solutions for all process stages and conveying types



### Effective and reliable detection and removal of

- magnetic metals
- non-magnetic metals (copper, brass, stainless steel etc)
- contaminants (glass, stones, ...)faulty products

#### **Highest benefit**

- consumer protection
- quality assurance

#### Seamless integration

- into every stage of the processinto every type of conveying system
- plug and play board replacement
- customised design

#### Highly developed technology

- product effect compensation
- digital signal processing
- automatic teach-in
- multi-product memory
- simple to operate

#### Total project support

- project consultation and analysis
- product trials and test machinery
- training and seminars
- worldwide after-sales service

## pure.

Consumer protection in the food industry: Sesotec is a global leader in the development and manufacturing of detection and separation systems with significant expertise in a wide spectrum of technology and a product range that is unrivalled in versatility and quality.

Sesotec supplies systems for all process stages, product types, and conveying types, as well as for all the critical control points of the production process from one source: Magnet Separation, Metal Detection and X-Ray Inspection.

Sesotec systems combine exceptional ease of operation with the highest reliability. Sesotec contaminant detection and separation systems meet all the requirements concerning full traceability and complete documentation of all quality-relevant data.

### For bulk materials

Systems with reject flap or swivel funnel are used for the rejection of metal contaminants from bulk materials in free fall applications. Using available standard connections such systems can be easily integrated into existing pipes. Our sophisticated design prevents backjamming, clogging, the formation of material deposits, allows thorough and timesaving inside cleaning. All the system components are designed to meet the stringent hygiene requirements in the food industry.

Metal detectors for bulk materials also can be integrated in horizontal, vertical, or inclined vacuum and pressure conveying pipes. These devices are fully automatic in operation, and remove any magnetic and non-magnetic metal particles from bulk materials such as granulate, powder, or flour. With their modular design these metal detectors can be adapted to the respective conveying conditions.

For the removal of ferrous metals from bulk materials Sesotec provides magnet separators that are designed for the high requirements in the food industry. The exceptional ease of integration in the production line (e.g. pipes, free-fall sections, or material funnels) and easy cleaning are a some of the features.

#### **RAPID 4000**

Metal detector for low hygiene free-fall applications. Metal contaminants are rejected by way of a reject flap ("Quick Flap System") without interrupting the flow of conveyed material.



#### **RAPID 5000**

Metal detector for high hygiene free-fall applications with reject flap ("Quick Flap System"). This rejection principle is especially suitable for powder and fine-grained bulk materials.



#### **GF 4000**

GF 4000 metal detector for pneumatically conveyed bulk materials, e.g. granulate, powder, or flour, with eject flap ("Quick Flap System"), suitable for high conveying speeds.



#### MAGBOX FOOD

The MAGBOX pipe magnet for free-fall applications primarily is used in the food industry, the pharmaceutical industry, and in similar applications.





#### RAPID 6000 and RAPID 8000

Metal detectors for free-fall applications with swivel funnel. This reject device has proved to be especially suitable for coarse-grained, flaky, light, fibrous, brittle, and moist bulk materials. RAPID 8000 series is designed for very high throughput rates.



## For individually packed materials

Metal detectors that are integrated in conveyor belt lines primarily are used for the incoming and outgoing inspection of un-packaged bulk materials and of individually packed materials. They can be combined with many types of customer-specific reject devices (such as air blast, pusher or slide retract). Complete systems — comprising application specific metal detector conveyor designs with product specific reject systems — guarantee highest operating reliability and detection accuracy.

#### **C-SCAN GHF**

Our latest Metal Detector is primarily used in the food industry mounted to conveyor systems or other product transport systems. It is designed to provide the highest detection capability, especially in regards to stainless steel contaminate detection.





#### **SANICON**

High performance metal detection conveyor systems that incorporate many features related to Food Safety and Sanitary design requirements.



**RAPICON with C-Scan GHF metal detector** Standard range with quick delivery to meet strict food safety standards.

Sesotec RAYCON X-ray product inspection system provides highly accurate inline detection of contaminants (magnetic and non-magnetic metals, glass, ceramics, stones, raw bones, PVC, and rubber). Other product defects such as broken, malformed, or missing products, clumping, and trapped air can also be detected.

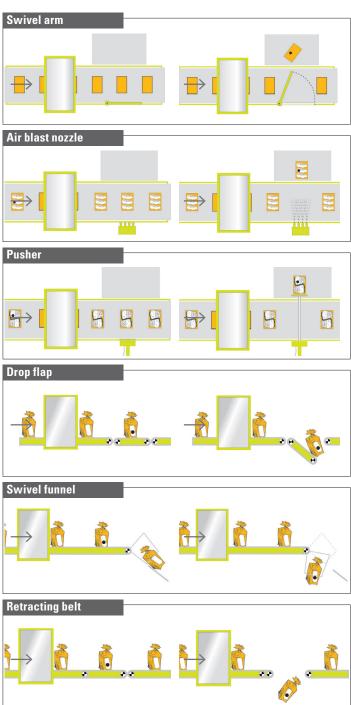
The Raycon comes complete with checkweighing capabilities to reject products that are either over or under weight. Reliable detection is even guaranteed in metallic or metallised packaging materials. For rejection, standard and customer-specific systems can be integrated.

Also available for bulk material inspection, the RAYCON BULK and for upright products RAYCON 130/240 Side Shooter.



#### **RAYCON**

In addition to the detection of various kinds of contamination the RAYCON product inspection system allows the detection of other product defects or faults at the same time.



#### Reject Devices

To avoid the necessity of manual operator action in case of metal detection, the detectors can be combined with automatic reject systems. Since the design of such reject systems must consider a

variety of parameters (product distance, shape, size, nature, conveying speed, minimum ejection, function monitoring, etc.) Sesotec offers reject systems in various design versions to suit the application.



## For liquids, pastes and emulsified products

Metal detectors for the inspection of pumped products such as soups, sauces, sausage meat, or jam, can be easily integrated in existing pipes by way of standardised pipe connectors. Optimally matched to the respective product properties, arc valves, piston valves, or ball valves are used for the rejection of metal particles.

The LIQUISCAN VF+ pipeline metal detector is suitable for vacuum fillers manufactured by Handtmann, Vemag, Rex, and Frey (others available upon request). Models with a linking gear box extension for manual linking systems are available for some vacuum filling applications.

For the removal of ferrous metals from pumped products Sesotec provides the magnet separators from the LIQUIMAG series that are designed for the high requirements of the food industry. The exceptional ease of integration in the production line (e.g. pipes) and easy cleaning are integrated into the high quality of the design.



#### LIQUIMAG

LIQUIMAG Filter Magnets are specifically designed for the purpose of reliably eliminating the finest magnetic contaminants from a wide range of pumped products.



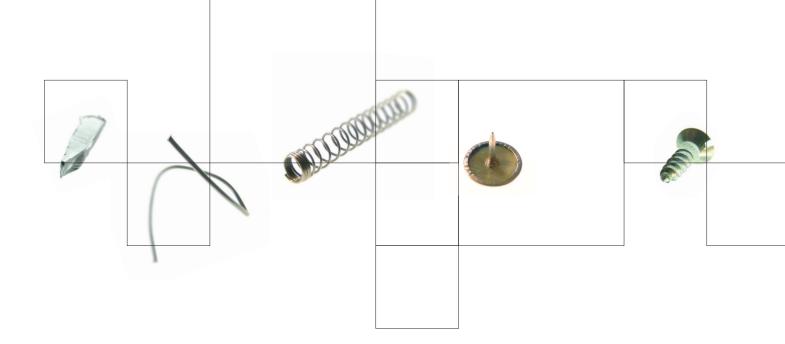
#### LIQUISCAN VF+

The LIQUISCAN VF+ metal detector for meat and sausage applications is installed after vacuum fillers or pumps. It is delivered on a mobile, height-adjustable stand. The low and well-balanced center of gravity makes the system highly stable especially when it needs to be moved.



#### **LIQUISCAN PL**

The LIQUISCAN PL metal detector for pumped products is integrated into existing pipelines. It comes with a stainless steel frame for table or wall mounting. As an option this metal detector also is available mounted on a mobile, height-adjustable stand.



### **Consumer protection.**

## Product purity. An imperative in the food industry

All food products must be pure, clean and free of any foreign contaminants. This is one of the most important principles of the food industry. The one decisive criteria, is that your products leave your factory without any metal contaminates and other foreign materials. This guarantees that consumers are safe from any health impairments and that your company is safe from a loss of confidence, product liability cases, and expensive product recalls.

### **Quality assurance.**

## IFS compliant production. Responsibility and economic success

The INTERNATIONAL FOOD STANDARD (IFS) defines the most important requirements for the quality management of food manufacturers. Retail grocers and food service suppliers demand that all of their suppliers are certified according to IFS Standards.

The inspection for metals as well as all foreign materials is a key element of IFS certification and responsible production. Chapter 5 states that food manufacturers must take all the necessary steps to prevent contamination with metal particles or other contaminants. The IFS rating system for example provides that when a gap in foreign body detection is found during auditing this will lead to points taken off, which will endanger certification.

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### Sesotec system world



## Detecting and separating contaminants:

Removing contaminants:

- metals
- plastics
- glass
- ceramics, porcelain, stones
- and many others

Removing from (good material):

- bulk materials
- liquids and pastes
- individually packaged product
- packed and loose items

Product types:

- end-products (food, textiles, plastics etc)
- industrial raw materials
- recycled materials

can be integrated into all types of conveyor systems

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Made in Germany

#### **Sorting Detecting and** separating sub-standard products: mixed materials into single fractions: Qualitative defects: Types of material: incorrect colour glass agglomerations plastics breakages metals air inclusions in packs and many others incorrect positioning / distribution Delivery flows: bulk materials Quantitative defects: individually packaged product incorrect weight count errors (incorrect number can be integrated into: of items in package) conveying systems bulk material flows Product types: end-products (food, textiles, plastics etc) industrial raw materials recycling materials

For further information or to discuss your particular application contact one of our specialists.

### www.sesotec.us



German Engineering with local application knowledge and locally produced material handling systems.