

Product Purity.

**Optimal contaminant detection
in the food industry**

- Metal Detectors/Separators
- X-Ray Systems
- Magnet Separators



Systematic metal and contaminant separation.

Solutions for all process stages and conveying types

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 almost 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 Systems, inductive Metal Detectors and Separators and X-Ray Scanners.

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 process
- into 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

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



For bulk materials

Systems with eject flap or swivel funnel are used for the separation of metal contaminants from bulk materials in free fall. Using easily 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 time-saving inside cleaning. All the system components are designed to meet the stringent hygiene requirements in the food industry.

Metal separators for bulk materials also can be integrated in horizontal, vertical, or inclined vacuum and pressure conveyor pipes. These separators 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 separators can be adapted to the respective conveying conditions.

For the separation 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 matter of course.

RAPID 4000

Metal separator for low hygiene free-fall applications. Metal contaminants are separated by way of an eject flap ("Quick Flap System") without interrupting the flow of conveyed material.



RAPID 5000

Metal separator for high hygiene free-fall applications with reject flap ("Quick Flap System"). This separation principle has proved to be especially suitable for powdery and fine-grained bulk materials.



GF 4000

GF 4000 metal separator 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 sensitive applications.



RAPID 6000 and RAPID 8000

Metal separators for free-fall applications with swivel funnel. This separation principle 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 packaged bulk materials and of individually packed materials. They can be combined with many types of customer-specific separating units (air blast nozzles, pusher, separating slides, ...). Complete systems – comprising conveyor belt, metal detector, and separating unit – guarantee highest operating reliability and detection accuracy.



INTUITY

Metal detector with highest metal detection performance and a high level of usability.



VARICON COMPACT

The short metal detection system with conveyor belt and GLS metal detector.



VARICON+ and UNICON+

Metal detection systems with conveyor belt for dry and wet areas. VARICON+ can be loaded with individually packed materials weighing up to 30 kg, and UNICON+ with individually packed materials weighing up to 130 kg.

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, clumping, trapped air and underweight or overweight of products can also be detected. Reliable detection is even guaranteed in metallic or metallised packaging materials.

For separating purposes standard and customer-specific separating units can be integrated.

The product inspection system RAYCON D+ combines highest detection capability with an industrial design with focus on usability (ease of operation & maintenance)

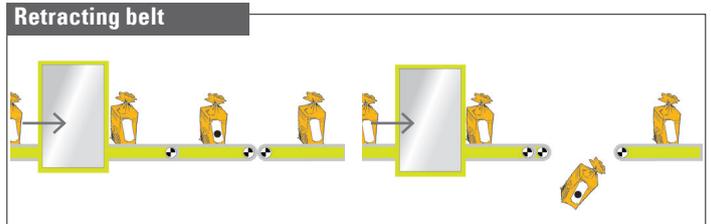
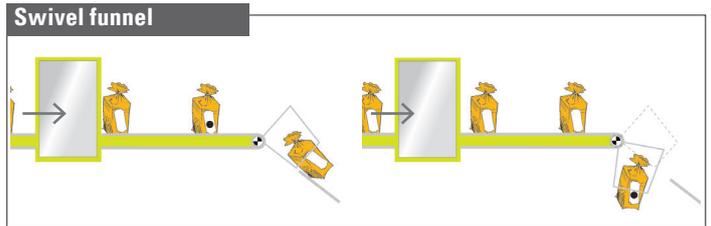
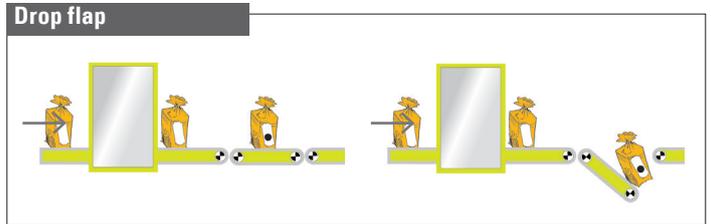
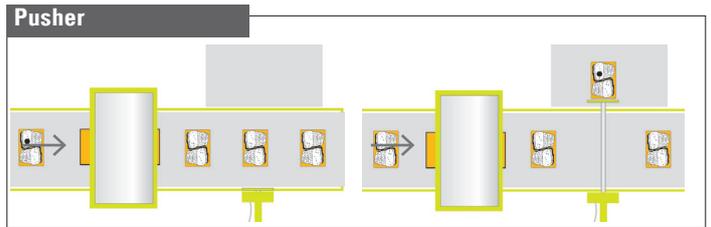
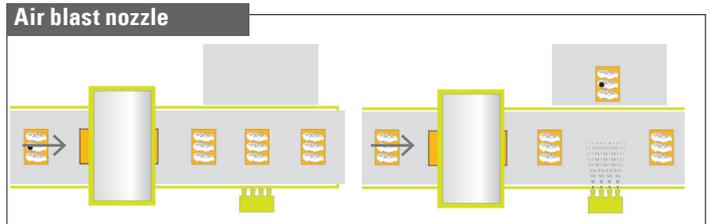
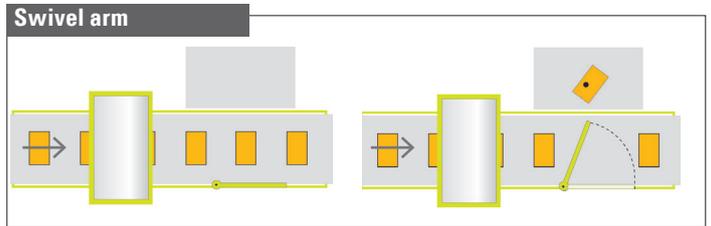
- Tool-less access and belt exchange within 2 minutes by one operator only
- Conveyor belt self guiding, no manual adjustment necessary
- Water jet cleaning within conveyor area
- Curtains tool-less removable



Example showing RAYCON D+ (pusher rejection) conform to Higher Level Compliance

RAYCON D+

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



Separating systems

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

great variety of parameters (product distance, shape, size, nature, conveying speed, minimum ejection, function monitoring, etc.) Sesotec offers separating systems in various design versions.

For liquid and pasty products



Metal separators for the inspection of liquid and pasty 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 separation of metal particles.

The metal separator LIQUISCAN VF+ is suitable for vacuum fillers manufactured by Handtmann, Vemag, Rex, Frey and so on. Models with linking gear box for manual linking systems are partly available.

For the separation of ferrous metals from liquid and pasty products Sesotec provides the magnet separators of 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 a matter of course.



LIQUIMAG

Filter magnets of type LIQUIMAG were specifically developed and designed for the purpose of reliably separating the finest magnetic contaminants from a wide range of pumped liquid and pasty products.



LIQUISCAN VF+

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



LIQUISCAN PL

The LIQUISCAN PL metal separator for pumped products is integrated in pipes. It comes in a special-steel frame for table or wall mounting. As an option this separator also is available mounted on a mobile, height-adjustable stand.



Consumer protection.

Product purity. An imperative in the food industry

All the food, people eat, must be absolutely pure and clean. This is one of the most important principles of the food industry. One decisive criterion here is that your products leave your factory without any metal contaminations and other contaminants. 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 FEATURED STANDARD (IFS) defines the most important requirements for the quality management of food manufacturers. All the renowned trade chains therefore demand that their suppliers are certified according to this IFS standard.

The detection and separation of metals and contaminants is a decisive criterion of IFS compliant 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



Detecting and separating sub-standard products:

- Qualitative defects:
- incorrect colour
 - agglomerations
 - breakages
 - air inclusions in packs
 - incorrect positioning / distribution
- Quantitative defects:
- incorrect weight
 - count errors (incorrect number of items in package)
- Product types:
- end-products (food, textiles, plastics etc)
 - industrial raw materials
 - recycling materials
- can be integrated into all types of conveyor systems



Sorting mixed materials into single fractions:

- Types of material:
- glass
 - plastics
 - metals
 - and many others
- Delivery flows:
- bulk materials
 - individually packaged product
- can be integrated into:
- conveying systems
 - bulk material flows

Operating Companies:



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