



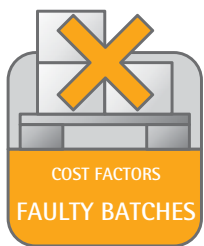
**sartorius**  
mechatronics

Nothing Can Escape  
Your Quality Control!



turning science **into solutions**

The use of X-ray inspection systems not only allows for increased process reliability and long-term customer loyalty, but can also guarantee maximum utilization of equipment and avoid idle performance. Sartorius X-ray inspection systems detect contaminated products and discharge them safely. Both processes are carried out automatically and are documented so that the data is available in the long term for the statistical evaluation of the control process. This ensures compliance with various quality standards such as HACCP, IFS, BRC, etc.



## Increased Process Reliability through Detection of the Smallest Contaminants

Sartorius X-ray inspection systems work to a very high level of accuracy and can detect the following contaminants:

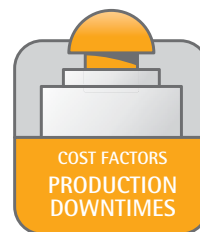
- Metals
- Glass
- Stones
- High density plastics
- Bones with high calcium content
- Ceramic
- Other contaminants with a significantly higher density than the product

By detecting and discharging contaminated products in time, faulty batches can be avoided.

Rejection monitoring systems ensure that contaminated products are removed. The system provides complete, automatically recorded process data at any time.

X-ray inspection systems also enable the following:

- Monitoring of form, volume, and dimensions
- Fill level monitoring
- Completeness checks
- Weight monitoring
- Detection of cavities and rips in products



## Maximum Utilization of Equipment through Effective Protection

Production downtimes are always associated with very high breakdown costs. These downtimes are often caused by undetected foreign bodies in the production process. These contaminants can originate from wear and tear, abraded particles from processing machines, inattentiveness on the part of a production employee (dirt, hair clips, etc.), or from inattentiveness during maintenance work (screws, bolts, etc.) The use of X-ray inspection systems protects not only users, but also downstream machines and processes.



## Long-Term Customer Loyalty through Avoidance of Complaints

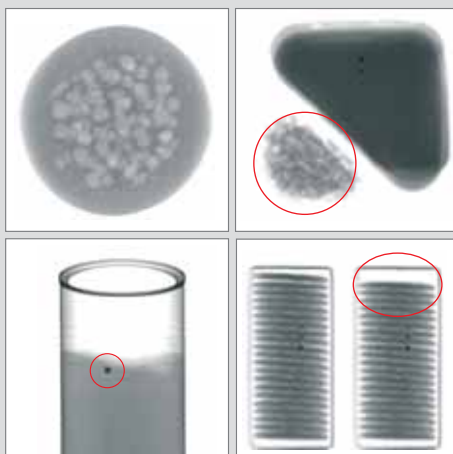
Contamination poses an incalculable liability risk for food manufacturers, as well as being dangerous to consumers. A single contaminated product can lead to health problems and cause long-term damage to a company's image. That is why product control using X-ray inspection systems is mandated more and more often.

X-ray inspection systems offer maximum protection against a number of contaminants in the end products and thus meet the requirements of modern production lines.



## Avoidance of Idle Performance through Incoming Goods Inspections

Are the raw materials supplied to your production line also truly contaminant-free? By checking 100% of incoming goods for foreign bodies when they first arrive, you can assess your suppliers and also avoid any resulting damage in the production process.



## Reasons for Using an X-ray Inspection System

Clockwise:

- Detection of cavities in cheese
- Weight calculation for individual areas
- Completeness check
- Metal detection even in metal packaging

# Dymond Series

The Dymond series is the new generation of X-ray inspection systems from Sartorius. With the Dymond series, Sartorius is setting new benchmarks in terms of user-friendliness and performance. Thanks to the entirely modular design and the use of top quality components, the Dymond series achieves an extremely high standard of detection reliability and flexibility.

- The high-quality, air-cooled X-ray tubes of the Dymond series create a very small focal point and therefore allow for significantly improved detection sensitivity.
- The newest generation of detectors produces clear images with low interference, even at very high speeds (adjustable belt speeds from 5 m/min. up to 100 m/min.)
- Thanks to the slanted contours of the stainless steel housing (which means there are no planar surfaces), the device's protection class of IP65 (IP 69k optionally), and the ability to remove the belt without tools, cleaning is extremely easy while also saving time and money.



Intuitive menu with self-explanatory icons

## Maximum Safety and Easy Operation

The Dymond series' Lynceus software ensures the highest level of contaminant detection:

1. Lynceus filters interference out of the X-ray image, which allows for improved detection of various contaminants.
2. Lynceus accelerates inspection and detection by simultaneously processing multiple data.
3. The new F.A.S.T. technology guides the user through the menu, which allows for quick familiarization with the products.
4. Lynceus uses "multi-level image processing" and very complex algorithms to carry out completeness checks on packaging with multiple layers.
5. Lynceus can inspect products on up to eight conveyor belt tracks simultaneously.



Belt can be changed without tools, which saves time and guarantees hygienic conditions.

Sartorius has incorporated its 60+ years of experience as a supplier of contaminant detection systems into the development of its newest generation of X-ray inspection systems. The result is as simple as it is brilliant:

Thanks to the entirely modular design and the use of top quality components, the Dymond series achieves an extremely high standard of detection reliability and flexibility. Maximum performance is achieved thanks to an impressive list of software options, which play a key role in the productivity of X-ray inspection systems. The Dymond series provides the optimal balance between the requirements of a modern X-ray inspection system and those of the most current industry standards regulating quality control in the food and pharmaceutical industries.

With its international sales and service network, Sartorius offers customer support from the first point of contact through to the commissioning of the machine for the customer on site.

# Dyxim FB Series

The Dyxim FB series of X-ray inspection systems is used to inspect products in cartons, plastic bags, and metallized film, as well as loose goods. Belt speeds of up to 70 m/min. and a detector resolution of 0.4–0.8 mm ensure rapid, high-precision detection of contaminants. Various versions of the Dyxim FB series are available, depending on product-specific characteristics and individual customer requirements.



**Dyxim FB 40**  
The most compact model in the Dyxim FB series. For inspection of very small packages.



**Dyxim FB 80 | 120**  
For inspection of medium to large products such as bags, (tubular) pouches, cups, cartons, small cans, and unpackaged products.



**Dyxim FB 60**  
For inspection of small packages at high belt speeds.



**Dyxim FB 160**  
The biggest unit in the Dyxim FB series. Suitable for inspection of large packages and unpackaged products.

## Advantages of the Dyxim D Series Double Scanner System

Shadows in X-ray images make detecting foreign contaminants much harder. A double scanner system provides two views at right angles to each other. This significantly improves detection power in particularly critical areas.

# Dyxim S and D Series

The Dyxim series single and double scanners are especially suitable for detecting foreign bodies in food products stored in upright packaging and drinks stored in glasses, metal cans, and bottles. Contaminants located directly under the lid, in curved areas, or on the sides of a container are a real challenge for any X-ray inspection system.



## Dyxim S Series

With a single X-ray sensor for inspecting glasses, metal cans, and bottles.

Dyxim S and D series X-ray inspection systems are designed with such tasks in mind. The Dyxim S series is designed for particularly tall containers and uses a single X-ray sensor, while the patented core of the Dyxim D series comprises two X-ray sensors, installed at right angles to each other. The Dyxim D series is particularly suitable for glass-in-glass applications.



## Dyxim D series

High-performance model with patented core (consisting of two X-ray sensors) for inspecting glasses, metal cans, and bottles.



### View 1

Contamination can hide behind the curved area at the bottom of the glass.

### View 2

Contamination is detectable when viewed from a right angle.



### View 1

Foreign body is large but thin, and does not appear dark enough in the image to form a detectable contrast.

### View 2

By illuminating and observing the product from an extra angle, more material is penetrated to form a sufficient contrast.



### View 1

Depending on the container alignment, contaminants may be hiding behind the shadows caused by the walls of the container.

### View 2

Contamination is clearly visible in the center of the image.

Ask us about the best solution for  
contaminant detection in your processes.

We're here to help.

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