



0.4
mm

Detektor

1000
pcs. / min

Performance

100
Watt

X-ray source

X-RAY INSPECTION

RAYCON EX2

The entry-level model of intelligent X-ray inspection systems for packaged products

- Conformity & Accuracy
- Safety for people & product
- Simple operating concept
- Hygienic design concept
- Efficiency in all areas
- Reliable and fast service

YOUR PRIORITIES, OUR ANSWERS:

Optimum X-ray inspection with the 6P concept

Our X-ray systems have been specially developed for use in the food industry and reliably detect foreign bodies such as metals, glass, ceramics, stones, raw bones, PVC and many other product defects. Through this precise inspection, conformity with all important guidelines of the food industry such as IFS, BRC or FSSC 22000 are fulfilled and reliable protection against complaints and recalls can be ensured.

RAYCON exceeds international standards:



Compact & effective

Due to its compact overall length, the RAYCON EX2 fits into any production line. With output signal, the RAYCON EX2 has an overall length of 800 mm.

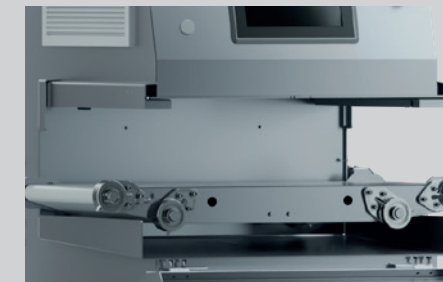
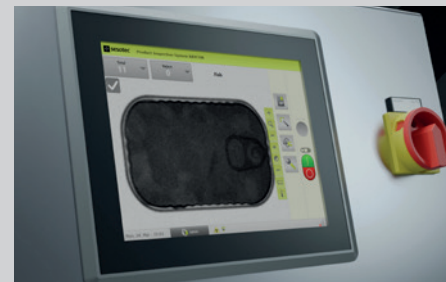
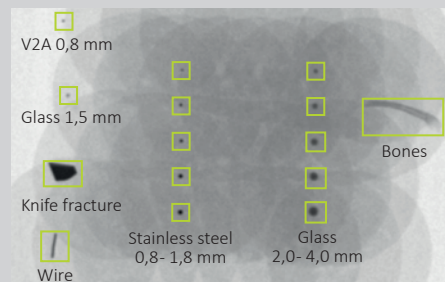
Auto-learn function

The Auto-Learn function makes the operation of the RAYCON EX2 very simple and intuitive. Thus, the setting of various filters is taken over by the device itself, which makes the user's work much easier. Getting to know new products takes less than 2 minutes – using just five sample products.



Detection of product defects

The RAYCON EX2 reliably detects reliably product defects such as missing, broken or deformed products.



P1 Conformity & Accuracy

Reliable detection of metallic and non-metallic foreign objects throughout the inspection area enables compliance with all current specifications and standards.

- RAYCON EX2 X-ray inspection equipment offers detection accuracy from 0.6 mm stainless steel, better than the 0.8 mm required by IFS
- Higher Level Compliance Package
- Audit Check: Guides through the audit routine and logs all steps (quality monitoring)
- Optimal traceability through complete logbook and optional image archiving (Insight.NET or INTERLINK)

P2 Safety for people & product

The Raycon EX2 uses low power soft x-rays to deliver high performance with all-round safe operation for people and products to international radiation standards.

- X-ray radiation for operators is less than 0.1 $\mu\text{Sv/h}$, which eliminates the need for documentation of operating times
- When a cover is opened, the X-ray radiation is switched off and the pneumatic system's air is de-energized
- The X-ray inspection equipment can be used without any concerns even for organic products

P3 Simple operating concept

Thanks to a large touchscreen, easy-to-understand user guidance and features such as the Auto-Learn function, the RAYCON EX2 offers particularly easy handling in everyday use.

- An auto-learn function makes operation very simple and intuitive. Specific knowledge of image processing or x-ray operation is not required
- Integrated function for blanking out packaging clips
- All operating and service functions can be performed from the front (operation, emptying the collection container, cleaning, etc.)

P4 Hygienic design concept

Open modular design with easy access to the conveyor product zone without the need for tools simplifies cleaning and maintenance.

- Radiation protection curtains are suspended on the machine to provide a sanitary work space for cleaning, thus reducing the risk for recontamination after sanitizing
- Complete construction in stainless steel and plastics with suitability for the food industry
- The materials are designed so that they can be cleaned repeatedly without abrasion. Water runs off automatically due to beveled surfaces.

P5 Efficiency in all areas

Thanks to a high belt speed of up to 1.4 m/sec, up to 1000 products can be inspected per minute in real time.

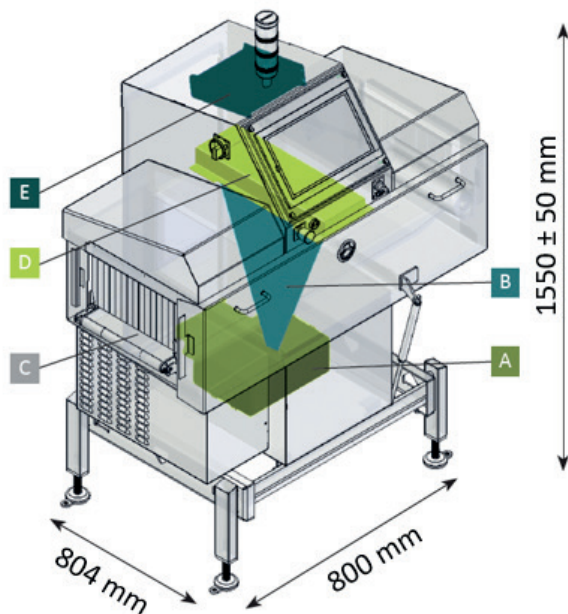
- Durable and sophisticated core components with 100 W X-ray source and 0.4 mm detector
- Detection of the lifetime of the X-ray source (early warning system for source replacement)
- Tool-free belt and curtain change possible in just a few minutes
- Reliable detection of other product defects such as missing, broken or deformed products

P6 Reliable and fast service

With warranty services, a combined on-site and remote service and targeted training, you have optimal support for smooth operation.

- Spare parts packages including wear parts ensure maximum up-time
- Customer-specific training for operation, radiation protection and service/maintenance
- High overall system efficiency and stable operation

Functional diagram



The system consists of the following main components:

A X-ray tube: Here the X-rays are generated electrically. They exit the tube through a narrow slit and penetrate the products to be inspected/examined from the bottom to the top as a fan-shaped beam.

B X-ray beam

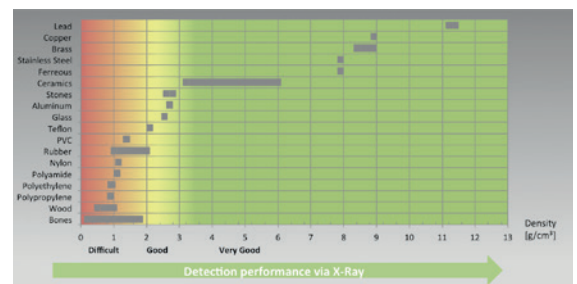
C Transport system: A PE flat belt (self-guiding) transports the product to be examined evenly through the X-ray beam. This makes it possible to scan the product line by line.

D Detector unit: The linear detector installed above the inspection aperture converts the incoming X-ray beams into an electrical signal from which a digital X-ray image is generated.

E Industrial PC: This is where image evaluation and precise control of the reject systems take place.

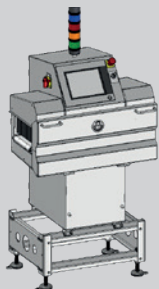
Detection performance

The detectability of foreign bodies in X-ray systems with single-energy technology depends primarily on the density of the foreign body. All foreign bodies with a density significantly higher than the product density are very well detectable. These include, for example, metals, glass, stones, ceramics in products such as sausage, cheese, meat, etc. However, thanks to the high-resolution detector and the sophisticated software evaluation using a large number of filters in the RAYCON EX2, bones, rubber, Teflon, PVC, etc. can also be reliably detected. A free test with your product provides you with a meaningful basis for decision-making.



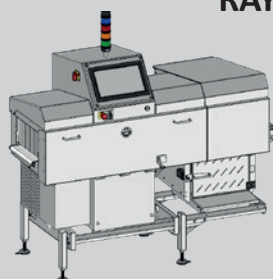
The RAYCON Family

RAYCON EX1



The RAYCON typical accuracy for simpler applications

RAYCON D+ MX



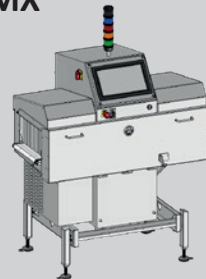
Belt width: 360 mm

X-ray source:
40 - 50 KV / 2.0 - 2.5 mA (100W)

Detector: 0.8 mm (0.4 mm optional)

Max. Inspection area (W x H):
330 x 200 mm

Variations: Signal only, integrated or separated reject system only



Belt width: 660 mm

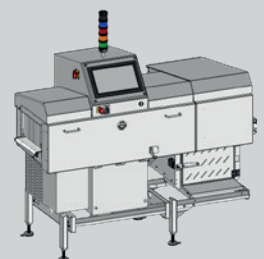
X-ray source:
40 - 50 KV / 2.0 - 2.5 mA (100W)

Detector: 0.8 mm (0.4 mm optional)

Max. Inspection area (W x H):
450 x 250 mm
600 x 120 mm

Variations: Signal only, integrated or separated reject system only

RAYCON D+ HX



The top device of the RAYCON family for highest detection precision from 0.3 mm

