sesotec

RAYCON 130/240
Product inspection system
for slim and tall piece goods

- ■ Especially suitable for slim and tall products

- ■ Detection of filling levels

- ■ Detection of many other product defects

- ■ Real-time operating system for high-speed inspection up to 600 pcs./min
 (with slim plastic bottles, 50 mm x 140 mm (D x H))

Made in Germany

RAYCON 130/240
Performance features

The RAYCON 130/240 product inspection system detects all contaminants that due to their density, chemical composition, or mechanical dimensions absorb X-rays better than the surrounding product. For example this applies to metal, glass, ceramic, and stone contaminants in food materials. The RAYCON system also detects some types of plastics (e.g. PVC, rubber) as well as other product defects (e.g. trapped air, filling level).
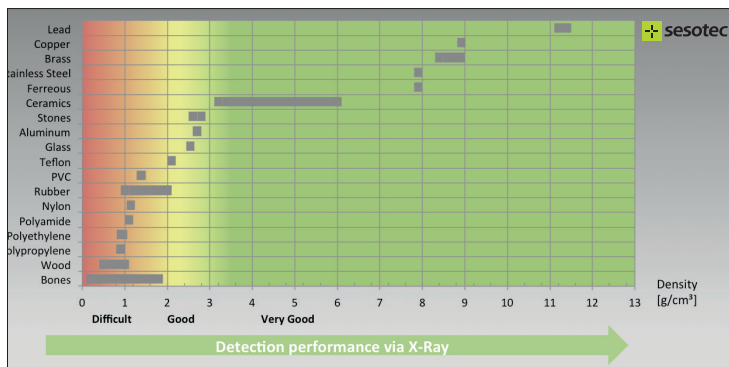

Detectability of different materials depending on their density

The RAYCON 130/240 product inspection system is characterised by the following performance features:

- High-performance, long-life X-ray tube with integrated high-voltage power supply unit
- Automatic adaptation of the X-ray source position to the desired product height on product change
- High-resolution detection unit
- Outstanding radiation protection acc. to German X-ray ordinance (< 1 mSv/a)
- Guide rails for optimal product guidance
- Easy-to-clean and easy-to-maintain design
- No maintenance-intensive radiation protection curtains
- Can be flexibly combined with various reject systems

Function
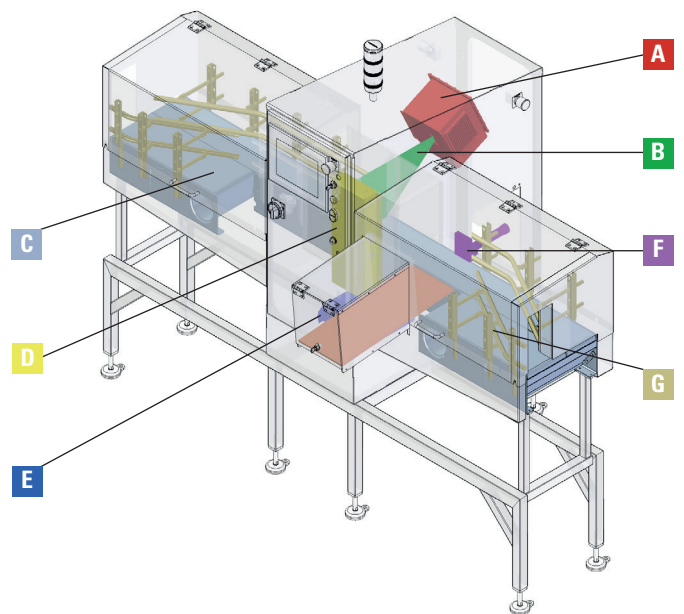
The system comprises the following main components:

A X-ray tube
This is where X-rays are electrically generated. The X-rays are emitted from the tube through a narrow slot and as a fan-shaped beam pass through the product to be inspected from back to front. Depending on the product height and density a part of the X-rays is absorbed by the product.

B X-ray beam

C Transport system
A PE linked belt uniformly transports the product to be inspected through the X-ray beam, which makes it possible to scan the product line-by-line.

D Detector unit
The linear detector line that is installed beside the conveyor belt converts the arriving X-rays into an electrical signal from which a digital X-ray image is created.

E Industry-type PC
The PC is used to evaluate the images and to accurately control the reject systems.

F Reject system
A pusher moves the contaminated products onto a deposit table, where the separated products can then be removed manually.

G Guide rails
The guide rails ensue that the product is correctly transported through the inspection tunnel. They can be individually adapted to the product.

Software advantages

Evaluation software

The product inspection system is equipped with a high-performance industry-type PC with real-time operating system and sophisticated visualisation software, user management, multi-product memory, etc..

The system is operated by way of a 10" – LCD monitor with touchscreen (IP65).

X-ray images are evaluated by means of a product-specific visualisation software. Contaminated or defective products are detected and separated.

With the easy-to-use auto-train function a new product can be learned in no time at all.

Software advantages

The RAYCON 130/240 product inspection system offers many software advantages:

Due to the use of a real-time operating system with flash card

- there are no fault-prone hard disks or external drives,
- the full processor power is exclusively used for product inspection,
- no UPS is needed to protect the system.

Additional advantages:

- Ethernet port for data transmission and remote maintenance
- USB port for saving images, product backup, and software update
- Various inputs and outputs for connecting light barriers, reject systems, etc. allow a flexible integration in the production line.
- Data backup on the customer's network, and remote maintenance through the internet.

Cleaning:

For easy cleaning the top covers can be opened and are held in this open position by cylinders. The covers have safety switches that immediately turn off the X-rays when a cover is opened.
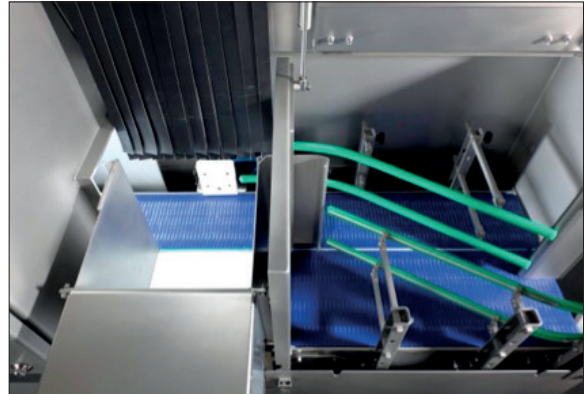
Automatic positioning of the X-ray source to match the product height:

The product height for every product can be saved in the respective application. In case of a product change the X-ray source automatically moves to the saved position again, which makes operation considerably easier – and long set-up times are a thing of the past.
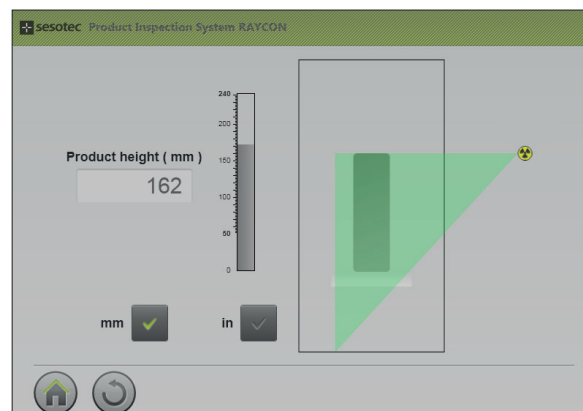
Important information:

X-radiation is classified as ionising radiation. However, X-radiation is no radioactive radiation! In accordance with EU directive 1999/2/EC, Sesotec X-ray systems due to the minimum radiation energy can be used for the contaminant inspection of food materials even with organic products. The RAYCON product inspection system is subject to the German X-ray ordinance and requires certification. Please observe any country-specific regulations!

For detailed information please request our technical data sheet.

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

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

www.sesotec.com

**Choose the Original
Choose Success!**