XRAY SHARK® XS-GIG-Series
X-ray inspection for vials, bottles and jars

CASSEL XRAY SHARK® XS26-H2-GIG

Highlights

- Side-view x-ray inspection machine typically used for upright bottles, cans, jars, and vials

- Detects high density materials like metal, ceramic, stone, some plastics and even glass particles in glass containers

- Easy operation with autocalibration and clearly arranged functions on 17" touchscreen

- XIA software provides instant analysis and detection with high accuracy and reliability

- High speed transversal pusher reject device included

Features

- Real time detection with color coded contamination analysis

- Masking functions to prevent false rejects

- Auto-storing of inspection data with time and date stamp

- USB and Ethernet for data transfer to PC or memory stick

- High speed reject system

- Easy maintenance and cleaning

- User-friendly menus for easy operation

- Built-in remote maintenance

- 24 hours non-stop operation

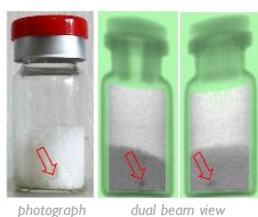- TÜV-approved: reliable German safety standard (optional TÜV certificate)

XRAY SHARK® XS-GIG-Series
X-ray inspection for vials, bottles and jars

Overview

The XS GIG X-ray inspection system is specially designed for the complex detection of glass particles in vials, bottles and jars. It also detects unwanted foreign objects such as metal, stones, ceramics or plastic with high density in the product.
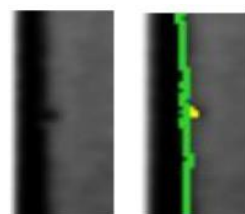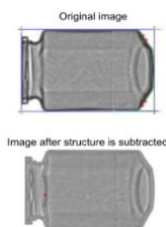

photograph   *dual beam view*

Dual-beams for precise inspection of vials from various angles.

The masking feature excludes certain areas of the image from foreign object detection, e.g. the very dense jar bottom. This improves the detection performance in the remaining product.

The adaptive software learns the structures of thousands of jars. In milliseconds the software recognizes which structure fits best to the current image, and subtracts that structure. As a result, glass pieces are detected even in the lid area.

Original image

Image after structure is subtracted

CASSEL Inspection's AutoEdge function finds the edge between jar wall and product, even though the wall thickness varies due to production tolerances. As a result, glass pieces are detected even at the wall edge or bottom bulge.

The SuperContrast function enhances small dense (dark) structures in the image. This improves detection of small foreign bodies, which then become visible.

Application

- Inspection of packaged food and non-food products in vials, bottles, and jars.

Industries

- Pharmaceuticals
- Food and non-food
- Hygiene and cosmetics

Included

- X-ray scanner with XIA image processing software
- Complete protection from radiation utilizing safety circuits on all openings.
- Certified test cards with soda lime glass, ceramics, steel spheres in various diameters

Accessories & Extras

- Radiation counter
- 21 CFR Part 11 compliance
- BRC (British Retail Consortium) compliance optionally available.

XRAY SHARK® XS-GIG-Series

X-ray inspection for vials, bottles and jars

Specifications

Model	XS25-L1-GIG	XS25-H1-GIG	XS26-H1-GIG	XS26-H2-GIG
X-ray generator	Single beam, max. 60kV (50W)	Single beam, max. 80kV (480W)	Single beam, max. 80kV (480W)	Dual beam, max. 80kV (2 x 480W)
	Variable in voltage + current			
Radiation leakage	1 µSv/h or less	1 µSv/h or less	1 µSv/h or less	1 µSv/h or less
	at 10 cm outside cabinet surfaces			
Safety	Special product tunnel, magnetic safety switches at cabinet doors and tunnel hatches, emergency stop push button, emergency stop in/out interfaces to safety circuits of production line, X-ray off key switch			
X-ray detector	510 mm low noise line scan CCD, diode pitch 0.8 mm or 0.4 mm (optional)	510 mm low noise line scan CCD, diode pitch 0.8 mm or 0.4 mm (optional)	510 mm low noise line scan CCD, diode pitch 0.8 mm or 0.4 mm (optional)	510 mm low noise line scan CCD, diode pitch 0.8 mm or 0.4 mm (optional)
X-ray view	1x sideways (sideup)	1x sideways (sideup)	1x sideways (sideup)	2x sideways (sideup)
Cooling	Highly efficient, silent DC filter fans			
Housing finish	Stainless steel grade AISI 304 / DIN EN 1.4301 (X5CrNi18-10)			
Degree of protection	IP54 (according to IEC 60529), including touch panel and fans; product tunnel itself IP66			
Conveyor type	Metal or plastic chain			
Belt width	114 mm	114 mm	152 mm	152 mm
Scanning height	250 mm	250 mm	265 mm	265 mm
Conveyor speed	max. 0,5 m/sec	max. 0,5 m/sec	max. 1 m/sec	max. 1 m/sec
Max. product dimensions (diameter x height)	150 x 250 mm	150 x 250 mm	150 x 265 mm	150 x 265 mm
Max. product weight	25 kg	25 kg	50 kg	50 kg
Available reject method	High speed transversal pusher for vials			
Product memory	255 different product set-ups			
Display	17" Color-TFT capacitive touchscreen			
Inspection features	Auto-calibration, auto-adaption to density distribution, Density, Hard Contrast, Soft Contrast, Masking Technology, SuperContrast, SizeFilter, AutoEdge masking, Images AutoSave/Load, Multi Segment Inspection, Metal can and Foil inspection, Fill Quantity, Generator Energy by Product, Password protection			
In-/Outputs	Programmable outputs (contamination, ready, emergency OFF), programmable inputs (emergency OFF, wake up, optional control signals)			
Data transfer and reporting	Ethernet for remote support via internet, USB for external keyboard/ mouse/ memory stick			
Max. weight	0,85 ton	0,9 ton	1.5 ton	1.5 ton
Power supply	1 ph, 230 VAC +/- 10%, 50/60 Hz, max. 1,5 kW	1 ph, 230 VAC +/- 10%, 50/60 Hz, max. 2,5 kW	3 ph, 400 VAC +/- 10%, 50/60 Hz, max. 3.0 kW	3 ph, 400 VAC +/- 10%, 50/60 Hz, max. 3.0 kW
Compressed air supply	Without reject system 0 MPa (0 bar/ 0 psi), with optional reject system minimum 0.4 MPa (4 bar / 58 psi)			
Environmental conditions	10°C to +25°C 50°F to 77°F	10°C to +30°C 50°F to 86°F	10°C to +20°C 50°F to 68°F	10°C to +40°C 50°F to 104°F
	with relative humidity max 90%, non-condensing, external cooling device recommended/needed			
Compliance	CE, compliant to German x-ray regulations, specific adaptation for other countries			

Variations in specifications may be experienced with customized system. Your CASSEL representative can provide details.
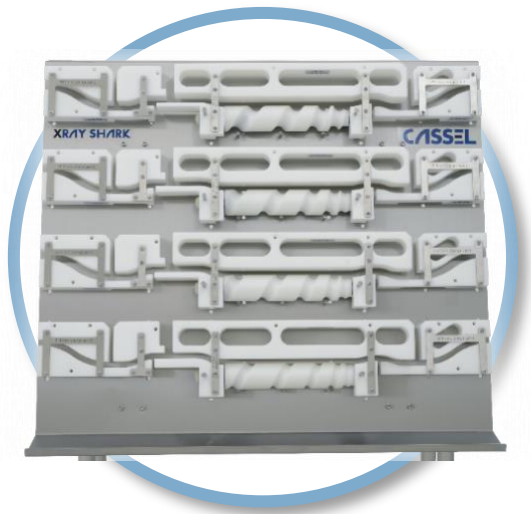
CASSEL
INSPECTION

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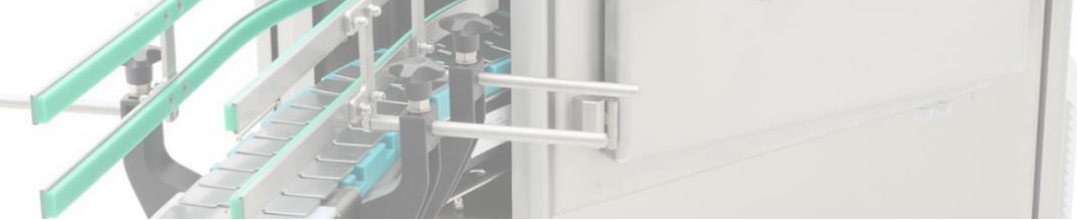

Timing screws

To effectively provide a smooth and properly spaced flow of product through the x-ray machine, CASSEL will optionally provide timing screws, also known as feeding screws. Timing screws are custom fabricated to the size of your containers and may be easily exchanged when running different container diameters.
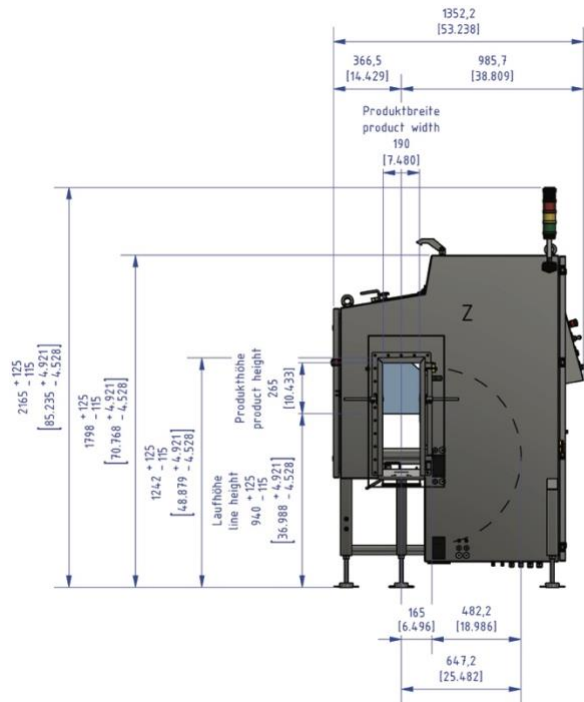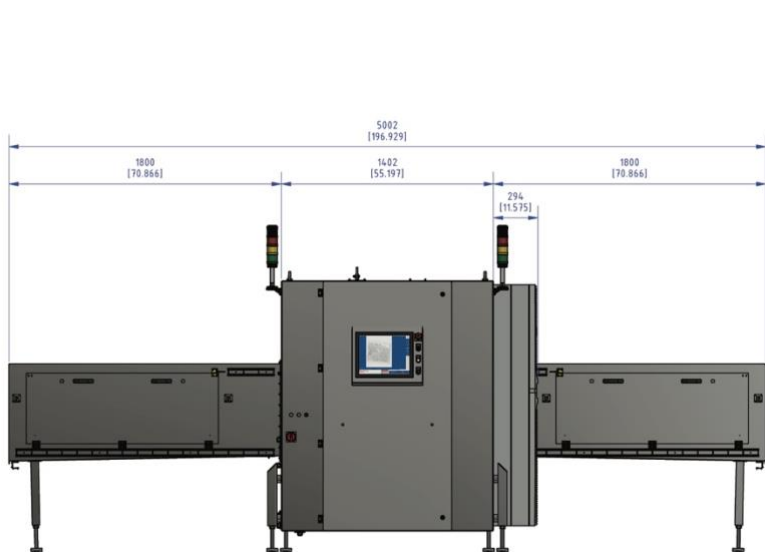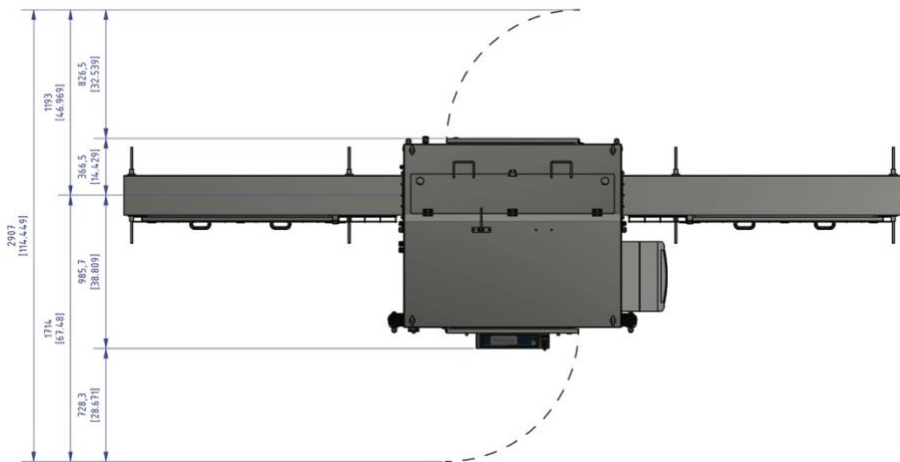

CASSEL XRAY SHARK® XS25-H1-GIG

Dimensions XS26-H2-GIG

Sample dimensions including the space required to open the cabinet doors (dots).

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