AICON X-RAY
IMAGING QUALITY

AICON **SCAN**
HEAVY DUTY XR-500

A high-tech, advanced X-ray inspection system expertly designed for quality control of unpacked products. Special robust and extremely hygienic construction minimize machine cleaning time while ensuring the highest standards of hygiene.

150 m/min
Speed

10 Gb/s
Processing

1000 PPM
Performance

FUNCTIONALITY

Effective detection – the highest level of detection (POD) of metallic contamination and glass, stones, calcified bones, Teflon, ceramics, dense plastics, product lumps (clumps) and others, with the lowest false rejection rate (FRR).

Multifunctionality – thanks to the industry-record number of image analysis algorithms, AICON X-RAY detectors efficiently handle any type of application. At the same time, they analyze the quality parameters of the product, such as: weight, quantity, dimensions, verification of the presence / absence of an element, level of filling, and others.

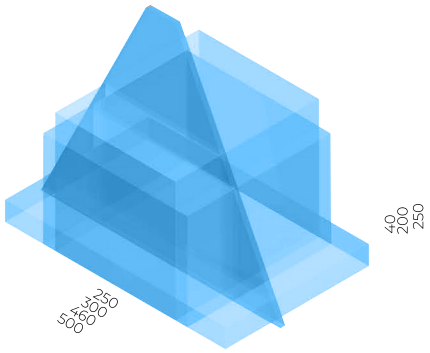
High performance – innovative data processing method supporting production lines of up to 1000 PPM.

Broad range of options – versatile configuration options for a wide range of applications.

Traceability – full product history of the manufacturing process and easy access to detailed archive data for quality control.

ADVANCED X-RAY

DETECTOR FOR QUALITY CONTROL
OF UNPACKED PRODUCTS



Beam geometry

TECHNOLOGY

High Efficiency Data Processing – using the industry's highest data processing speeds –up to 10 Gb/s, for the most efficient image processing and maximum performance of the entire inspection system.

Defect Proof System – AICON SCAN XR series devices are built according to the Defect Proof System concept, ensuring continuous self-monitoring to identify system malfunctions at all stages of the product scanning process.

Inverted Inspection Logic – by default, AICON devices treat every inspected product as non-compliant and therefore reject it unless it is positively verified during the inspection process. This logic provides maximum protection against non-compliant products reaching the market, even in the event of a failure of any inspection system component.

Full MES Integration – intelligent integration into the production environment with full compatibility with industry standards, ensuring seamless communication between the X-ray inspection system and key devices in the production line (EtherNet/IP, PROFINET, S7, EtherCAT, Modbus-TCP, Profibus, CAN, CANopen, OPC UA, SQL, Siemens Standard, RS).

Optional: AICON Photon Counting Technology™ (AICON PCT™) – the new standard in X-ray inspection, delivering exceptional precision and reliability. Based on Direct Signal Conversion, it converts each X-ray photon directly into a digital signal without loss of quality. With a resolution of up to 0.1 mm/pixel and TDI (Time Delay Integration), it enables detection of contaminants and defects from 0.4 mm and outstanding image quality.

ADVANTAGES

Ease of use – intuitive and clear navigation of the operator panel for full control of device operation with multiple levels of access authorisation.

Interface personalisation – customisation of the control panel to suit individual user requirements for greater operational comfort.

Advanced Tracking System – advanced real-time control of product flow and interaction with state-of-the-art database systems.

No hard-to-clean areas – design free from gaps, cracks, overlaps, exposed threads, and other features that can trap product or contaminants.

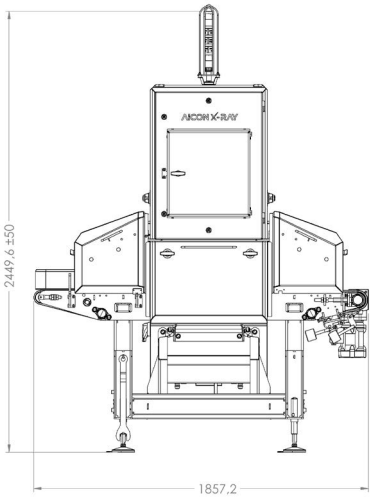
Smooth, self-draining surfaces – elimination of flat horizontal surfaces through the use of appropriate slopes and geometries that ensure effective drainage of water and cleaning agents.

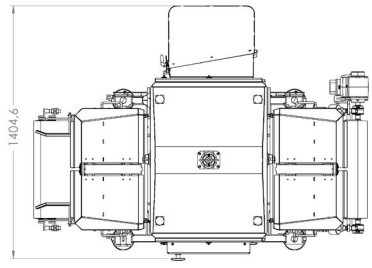
Adequate spacing for full cleanability – incorporation of spacing, open structures, and spacers that provide clear access for thorough cleaning and inspection.

See more
on our website

TECHNICAL SPECIFICATION AICON SCAN HEAVY DUTY XR-500

Throughput	≤ 150 m/min
Detection area	500 mm at belt level
Diode resolution	0.4-0.8 mm – Dual Energy or 0.1 mm Photon Counting Detector (AICON PCT™)
X-ray source	35-160 kV/1.0-8.0 mA, max. 500 W
Number of scanning beams	1
Beam direction	Vertical
X-ray emission	<1 µSv / h, the product complies with legal EU directives
Cooling	Air conditioner or water cooling system
Operating environment	Temperature: 0-45 °C; humidity: 30-95%, non-condensing
Ingress Protection	IP69K
Construction material	Bead-blasted stainless steel 1.4301 (AISI 304)
Display	TFT LCD 17'' Touchscreen
Operating system	Windows 10 Enterprise
Software	AiSoft
Number of product programmes	1000
Disk space	500 GB for X-ray pictures and internal data storage, expandable
Communication interfaces	Ethernet 10/100/1000 mbps, USB 3.0 for external data storage
Air requirement	Min. 6 bar for pneumatic rejection systems
Power supply	Single phase, 230 VAC +/-10%, fuse 16 A
Dimensions	1857mm x 1404 mm x 2449 mm (L x B x H)





AICON X-ray GmbH | Europaalle 33, 67657 Kaiserslautern | Mobile: +49 631 56003041, Mail: sales@aiconxray.com | www.aiconxray.com