



SENS - TECH

THE COMPLETE PICTURE

A COMPLETE PORTFOLIO OF X-RAY DETECTION TECHNOLOGIES FOR SAFER, SMARTER FOOD INSPECTION

www.sens-tech.com

FULLY CUSTOMIZABLE WHATEVER THE CHALLENGE.

Sens-Tech's modular x-ray detectors are built with versatility and high-performance in mind.

Built on Sens-Tech's **XDAS modular platform**, OEMs can now fully-customize their x-ray inspection equipment and optimize every detail:

- Belt width & speed
- Single or dual energy detection
- Detector pitch & scintillator material



BELT WIDTH & SPEED

A fully modular architecture means OEMs can customize every aspect of the x-ray detector. Wider conveyor belts at high throughput speeds are no problem thanks to Sens-Tech's class-leading **43µs integration time**.



SINGLE OR DUAL-ENERGY

Whether the goal is foreign body detection in packaged food, or to discriminate precise material densities such as fat and bone for yield improvement; Sens-Tech has a full portfolio of single and dual-energy linear detectors - Complete with **Image Processing Software Libraries** to accelerate trial and development.



DETECTOR PITCH & SCINTILLATORS

Detector pitch and scintillator materials for all applications. Plus bespoke options available for optimal performance.



DETECTORS FOR EVERY APPLICATION

1 X-ray carcass inspection / grading

Automated carcass inspection, sizing and grading

Dual Energy detector

2 X-ray fat / lean measurement

Inline x-ray analysis for fat and lean content

Dual Energy detector
TDI detector

3 X-ray deboning / portioning of chicken and fish

Automated deboning and portioning with x-ray guidance

Single Energy detector
Dual Energy detector

5 X-ray final inspection

Detects foreign objects in sealed packaged products

Single Energy detector

4 X-ray bone detection

Detects bones in chicken breast and fish fillets

Dual Energy detector
TDI detector

1

X-ray carcass inspection / grading

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Dual Energy detector

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X-ray deboning / portioning of chicken and fish

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Dual Energy detector

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X-ray bone detection

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TDI detector

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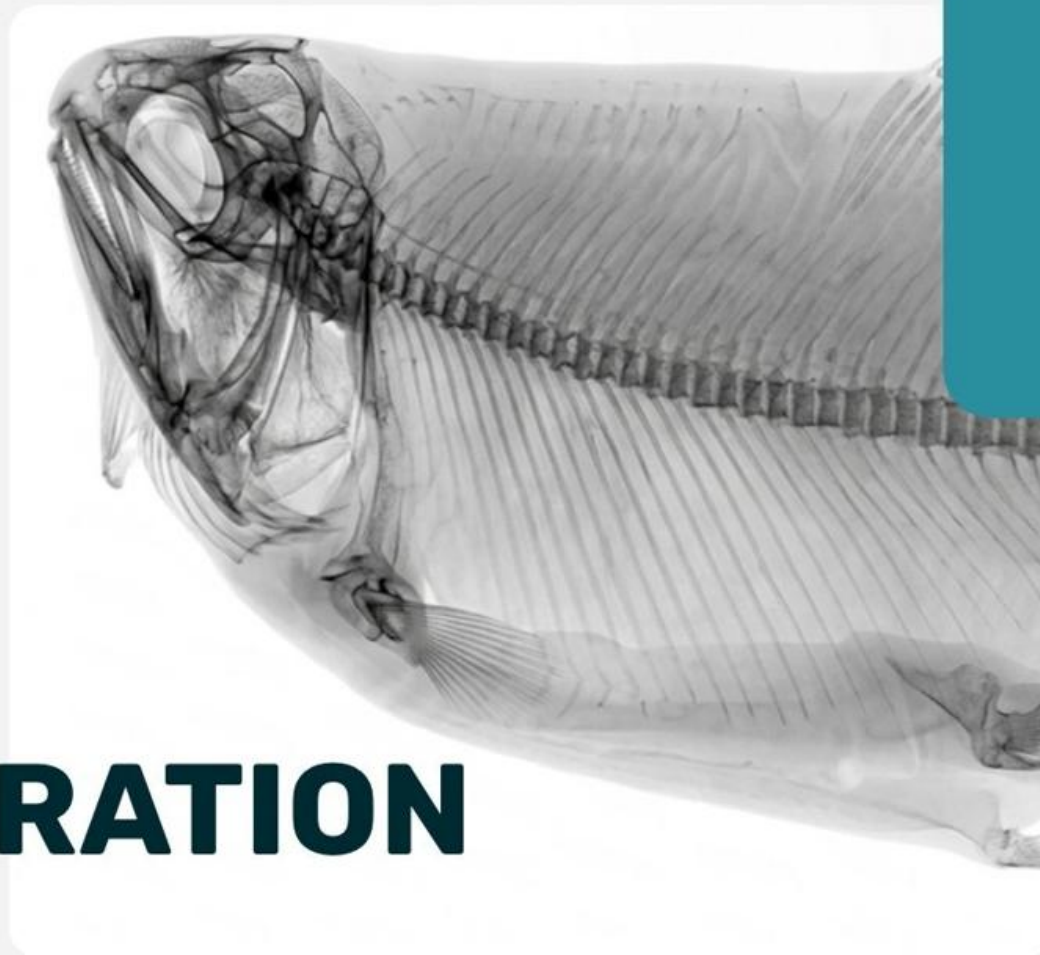
X-ray final inspection

Detects foreign objects in sealed packaged products

Single Energy detector



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TIME DELAY INTEGRATION

LINX-DE TDI

The latest innovation in dual-energy TDI detectors from Sens-Tech delivers more than **+10dB increase in Signal:Noise ratio**. With dual-energy sub-pixel resolution, we can consistently detect low-density fish bones down to **0.3mm**.



Sens-Tech partner with market-leading OEMs for **yield improvement** equipment with our **Dual Energy** detectors.

Dual Energy can classify exact material composition; even **low-density bones in chicken**. This can significantly improve automated de-boning in poultry processing lines and optimise yield.

In **red-meat and pork**, Dual Energy detectors can accurately measure **fat:lean ratio** in real time - delivering valuable margin-improving data to meat processors below 1% accuracy.

DUAL ENERGY MAKE EVERY GRAM COUNT



Xalgo LIB

ACCELERATE DETECTOR INTEGRATION WITH NEW IMAGE PROCESSING LIBRARIES

What is XAlgoLIB?

XAlgoLIB is Sens-Tech's core image processing library designed for high-performance X-ray data analysis.

Purpose

Real-time image processing, and enhancement for detector module output enabling customers to make better use of our sensor data **immediately out of the box.**

Scope

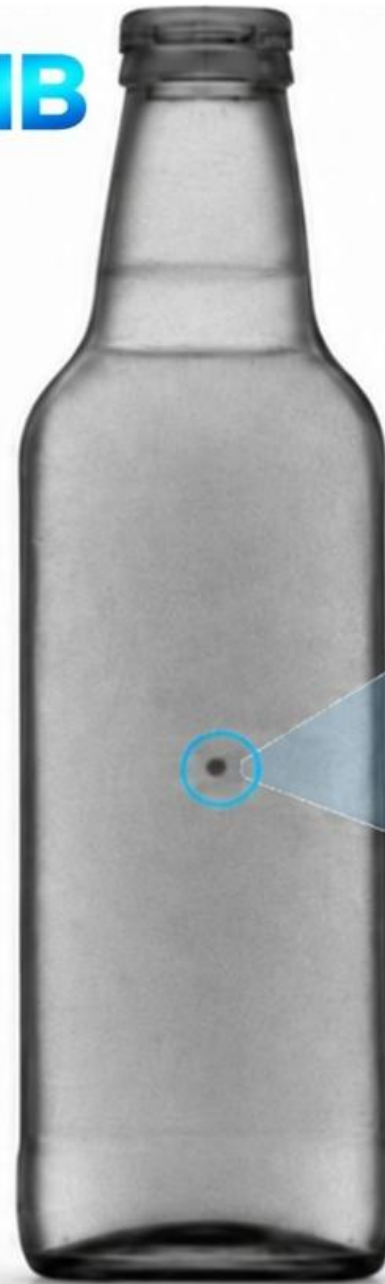
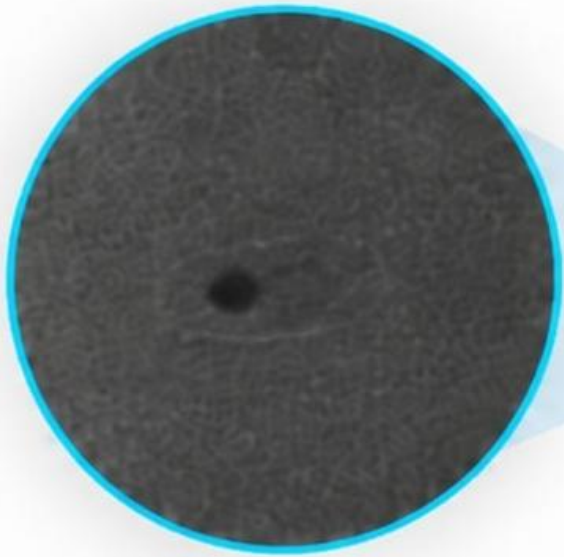
Supports the full processing chain from raw sensor data to contaminant detection.



Xalgo LIB

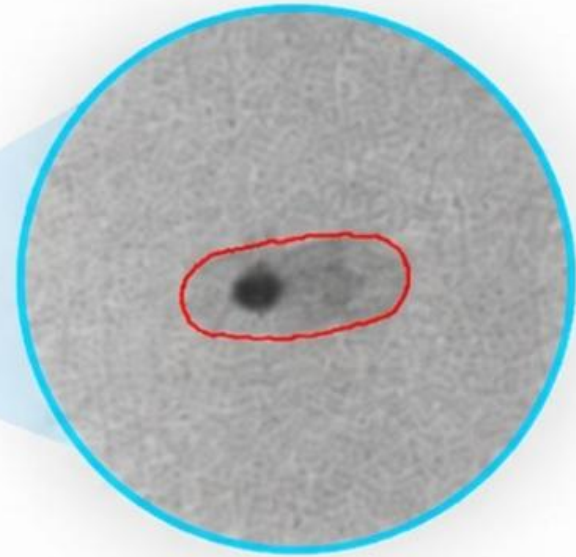
BEFORE

Standard X-ray



AFTER

Xalgo LIB
(filtered)

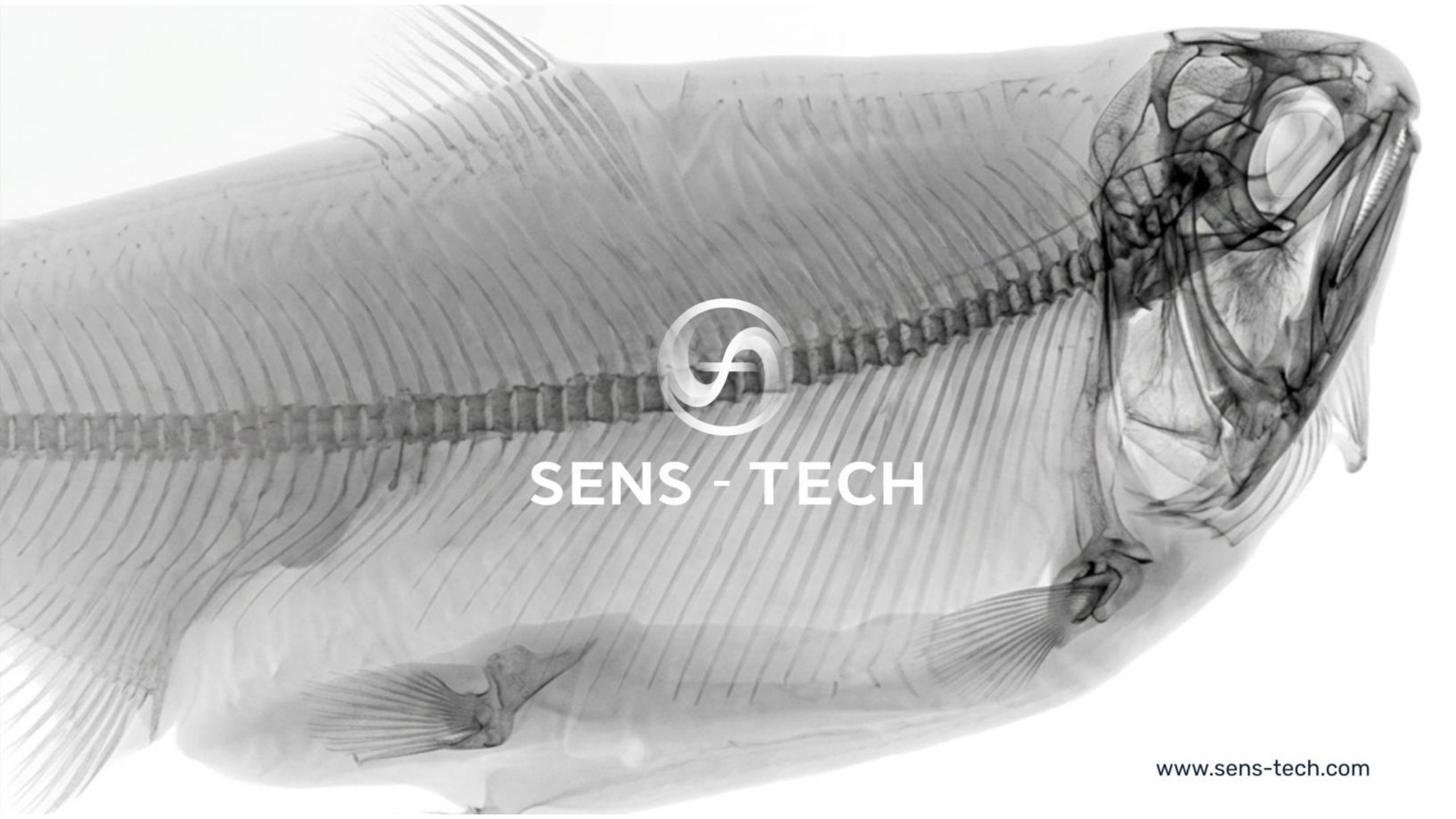


DETECTOR COMPARISSON CHART

A Comprehensive Offering for All Food-Inspection Applications

	Single-Energy	Dual-Energy	Dual-Energy TDI
Photodiode Pitch (mm)	0.4 / 0.8 / 1.2 / 1.6	0.4 / 0.8 / 1.2 / 1.6	0.8
X-Ray Energy Level	Up to 160KeV		
Scintillator Material	GOS / GAD / ZnSe / Si / Custom Options		
Detector Active Length	Modular - Up to 4m		
Foreign Object Detection	Excellent		
Fat/Lean Analysis	No	Very Good (<1%)	Excellent
Material Descrimination	No	Very Good	Excellent
XalgoLIB Software Library	Yes	Yes	Yes
Low Density Bone Detection	Good	Very Good	Excellent





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