Product Brochure

July 2018

Anritsu

Dual energy sensor technology

DualX X-ray Inspection System

Equipped with Newly Developed Dual Energy Sensor

Minimize false rejects and provide reliable contamination detection of poultry and meat products

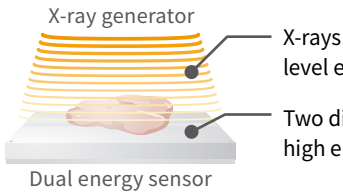
Broiler chickens that are selectively bred for rapid growth tend to have relatively less bone mass to the thickness of the meat. With the advanced Dual energy sensor, Anritsu DualX X-ray Inspection System performs reliable and consistent inspection of poultry products.
The DualX analyzes two different X-ray energy signals, allowing the system to distinguish between the product being processed and contaminants for a higher detection rate of low-density bones.

Dual Energy Technology

Benefits

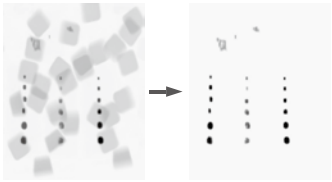
1. **Provide reliable detection of thin, low density bones.**
2. **Deliver high detection sensitivity for inspecting overlapping products and rough surface products.**
3. **Minimize false rejects in bulk flow inspection.**

Mechanism



X-rays have multiple level energies.

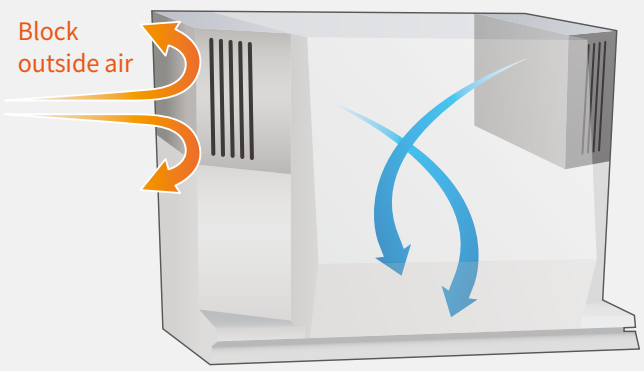
Two different images are obtained at high energy level and low energy level.



Dual energy subtraction better highlights contaminants.

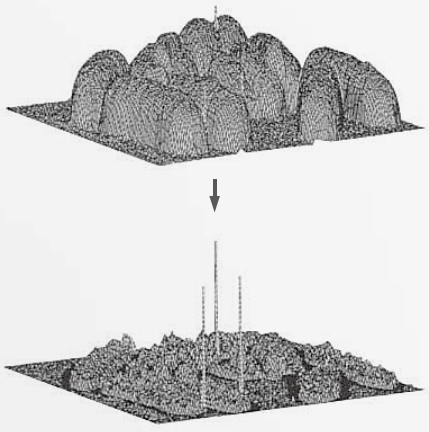
The environment-resistant heat control system

Fully sealed heat control system is designed to withstand challenging production line of unpackaged bulk products, such as meat and sausage. Our unique cooling solution seals and protects the system from outside air exchange, reducing failure rates and minimizing production line downtime.



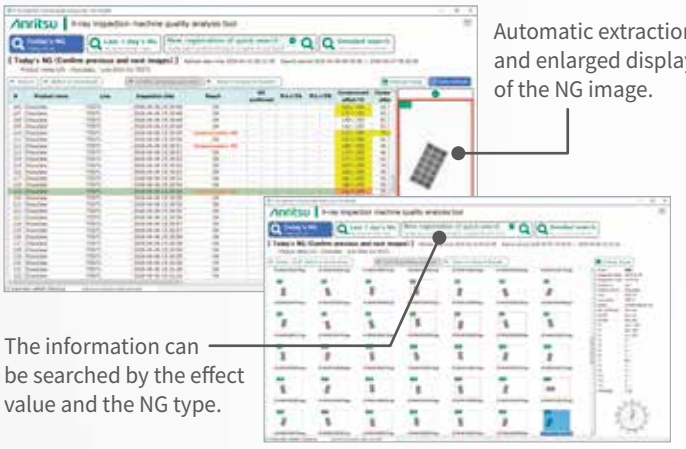
Cutting-edge algorithms

With Anritsu signal-processing technology and image-processing algorithms, the DualX delivers outstanding contaminant detection of the low-density types of poultry bones. The advanced DualX technology reduce false rejects and maximize production yield on your production line.



Thorough quality control and analysis

All the information is easily accessible in one central location with QUICCA3. Each X-ray transmission image during inspection is automatically saved for complete product traceability. The automatic extraction function allows a processor to check X-ray images of products before and after the defective product on the screen, which helps find future problems before they occur.



Automatic extraction and enlarged display of the NG image.

The information can be searched by the effect value and the NG type.

Anritsu safety mechanism

Safety in design

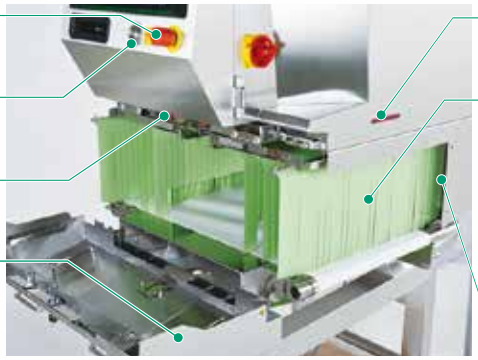
Anritsu believes customer safety is of utmost importance.
The Anritsu x-ray system incorporates seven safety design features to ensure safe operation.

Emergency stop switch
Cuts power to x-ray and drive circuits, stops the conveyor and x-ray radiation.

X-ray ON/OFF key
Turning the key to OFF stops x-ray radiation completely.

X-ray shield cover open/close sensor
Opening the cover stops x-ray radiation completely.

X-ray shield cover
Opened/Closed using x-ray irradiation ON/OFF key. Opening the cover stops x-ray radiation due to the x-ray shield cover open/close sensor.



X-ray irradiation display
The lamp is lit during x-ray radiation.

Leakage prevention curtain
Prevents x-ray leakage. For unpackaged or bulk products, the standard lead impregnated curtains are replaced with SUS covers - preventing direct food contact with the curtains.

Hand insertion sensor
Interrupting the sensor for a certain period of time stops x-ray radiation.

Safety management

X-ray Inspection System has been designed to fully satisfy the safe operation.
However, to ensure even higher safety, use the safety procedures outlined below.

1 Periodic measurement and recording of x-ray leakage data

2 Management of operator working hours

3 Additional safety measures
Covers may need to be mounted on upstream and downstream conveyors instead of the shield curtains, depending on the shape, weight, and package of products.

4 No disassembly or modification
NEVER modify or disassemble the main unit, covers, x-ray leakage prevention curtains, safety covers, safety interlocks, etc., otherwise the x-ray leak-proof design may no longer be functional.

Safety of inspected products

WHO concluded in 1980 that the “irradiation of any food commodity up to an overall average dose of 10 kGy presents no toxicological hazard and introduces no special nutritional or microbiological problems.”
The maximum dose of x-ray irradiation to the products to be inspected by our x-ray inspection systems is 0.002 Gy, which is much lower than the value described above. Even if a product stops inside, the x-ray dose is always kept to 0.1 Gy or less.

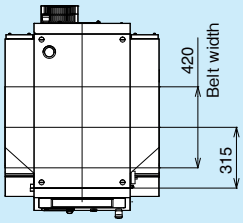
Note: Follow the local laws and regulations regarding the installation and use of the x-ray inspection systems.

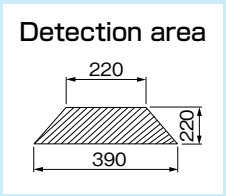
Major specifications

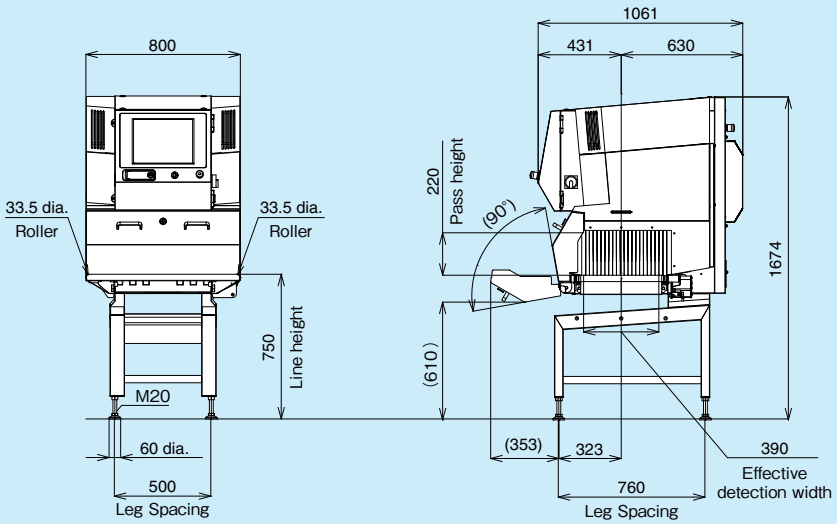
XR75
Dual energy sensor technology

External Dimensions

KXE7534AWHZE







Units: mm

Specifications

Model	KXE7534AWHZE
X-ray output	Tube voltage 30 to 80 kV, tube current 0.4 to 5.8 mA, output 12 to 350 W
Safety	X-ray leakage maximum 1.0 μSv/h or less, prevention of x-ray leakage by safety devices
Display	15-inch color TFT LCD
Operation method	Touch panel (with touch buzzer)
Detection area [1, 2]	Maximum width 390 mm, maximum height 220 mm
Preset memory	200
Belt speed [3] / Maximum product weight [4]	10 to 60 m/min, maximum 5 kg 10 to 40 m/min, maximum 10 kg (optional)
Power requirements [5]	200 Vac to 240 Vac, single phase, 50/60 Hz, 2100 VA or less
Mass [6]	350 kg
Environmental conditions [7]	Temperature: 0°C to 30°C, relative humidity: 30% to 85%, non-condensing
Protection class	Conveyor: IP66 Other parts: IP65
Exterior	Stainless steel (SUS304)

1 : The product size should fall bellow the detection area.
2 : The entrance and exit may require covers depending on the length of a product.
3 : Variable depending on Product No.
4 : Sum total of product weight on the conveyor.
5 : Allowable power fluctuation range is ±10%.
6 : Mass without option.
7 : The temperature between 0°C and 35°C when an optional cooling system is installed.

Anritsu envision : ensure

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ISO14001 CERTIFICATE No.JQA-EM0210
ISO 9001 CERTIFICATE No.JQA-0316

- Some products shown in this catalog may not be available in your country or region. Contact our sales representatives for details.
- To ensure proper operation, read the Operation Manual before using the machine.
- In addition to daily inspection, a full maintenance inspection should be completed annually.

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