

Case Study

Ishida X-ray inspection ensures yogurt quality



Case Study

Tyras



Synopsis



Greece



Yogurt
pots



X-ray
inspection
x3

Advanced Ishida X-ray inspection technology has enabled a leading Greek dairy processor to maximise product safety and brand protection for its market-leading range of yogurts. Tyras S.A - Hellenic Dairies, based near Trikala, in Thessalia, Central Greece, has installed three Ishida IX-GA-4075 X-ray inspection systems to check individual pots of yogurts as part of its enhanced quality control procedures.



Objective/Challenge

While the automated filling lines operate to the highest hygiene standards, it is vital that the company remains vigilant against potential foreign bodies such as metal, glass or other unwanted items that could contaminate the yogurt if there was a problem with any of the equipment on the line.



Protect
from foreign
bodies



Maintain
brand
reputation

“The introduction of X-ray inspection technology has given us that extra degree of reassurance that our product quality has not been compromised in any way,” explains Tyras plant manager Ioannis Balodimos. “This helps to maintain the reputation of our brand.”

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Solution

X-ray technology works on the principle of producing X-ray wavelengths from a generator tube which traverse through the product to be inspected onto a line sensor. The line sensor system converts the incident X-rays into a greyscale image that is further processed and ultimately displayed on the screen. The darker the area of the image, the higher the density and in this way foreign bodies which are denser than the product can be detected.



How it works



Smart technology

The excellent sensitivity of the Ishida X-ray means it is able to detect impurities down to 0.3mm in size, while the place of contamination can also be accurately pinpointed. In particular, the machine's unique self-learning Genetic Algorithm (GA) technology delivers maximum detection sensitivity and reliability. The technology focuses the machine to identify difficult to detect contaminants with a high degree of accuracy, even at high throughput rates, using image data analysis over a number of trial runs.

As it is common in food production for similar contamination problems to recur, data logging can help to build up a more precise calibration protocol with each trial. This enables permanent or recurring defects to be easily identified during the inspection process.

Tyras is using the X-ray systems to check individual yoghurt pots that are running through the inspection chambers in a twin lane configuration at around 300 packs per minute. At present, one Ishida X-ray machine is in operation 16 hours each day while the other two are working 10 hours daily.



High speed



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Customer Satisfaction



Easy operation and changeovers

Set up and product changeovers are carried out quickly and easily via the simple to use touch screen. Features such as the sensitivity of the inspection process can be adjusted at the touch of a button while up to 100 product settings allow fast changeovers. The user-friendly stainless-steel design means the machines are easily cleaned, and the belt conveyors can be removed without tools.

“The Ishida X-rays are very straightforward to operate and maintain,” confirmed Mr Balodimos “We have received excellent training from Europack to help ensure we maximise all the benefits of the machines, and the company provides full after sales support should we need it.



Excellent product training



Thoroughly reliable

“Above all, the IX-GAs are thoroughly reliable; and it is for this reason in particular that we will continue to invest in Ishida for our X-ray inspection requirements, as we have done at our Larissa plant with a new Ishida X-ray for inspecting packs of butter.”

The Ishida IX-GA models were supplied by Ishida’s Greek agent Europack. “We have a close working relationship with Europack and so we trusted their recommendation of the Ishida X-ray as being one of the best in the market,” said Ioannis Balodimos “We were very pleased with the first unit we installed, and this led to the order of two more machines.”



Trusted partner



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Tyras



Family
business
since
1950

About Tyras

Established in 1950 by the Sarantis family, Tyras is part of the Hellenic Dairies Group which belongs to the family and is one of Greece's leading manufacturers of dairy and cheese products, employing around 1,100 people with five factories including facilities in Romania and Bulgaria.

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