

# Ishida X-ray machines are part of the family at Smithfield Murray



## Case Study / Smithfield Murray

With a commitment to maintaining the highest standards of food quality, poultry processing specialist Smithfield Murray has installed two IX-G2 X-ray poultry solutions from Ishida Europe to detect and remove bone and cartilage from its products.

## Facts and figures

-  **250 tons**  
Smithfield Murray handles around 250 tonnes of poultry meat each week
-  **Removal of low-density foreign bodies is essential as the majority of poultry products needs to be supplied boneless**
-  **The IX-G2 offers a compact solution for poultry producers, who demand accuracy in detecting low-density bone, bone fragments and cartilage**
-  **To match the high speeds of poultry processing, the IX-G2 models used at Smithfield Murray are dual lane variants, giving throughputs well in excess of 100 fillets per lane**



As one of Europe's leading suppliers of prepared fresh and frozen poultry, Smithfield Murray handles around 250 tonnes of meat each week, which is ultimately supplied to major retailers and food service companies including the UK's leading supermarkets.

The dedicated Ishida X-ray inspection systems for poultry were installed in 2021 at Smithfield Murray's BRC Grade AA purpose-built plant in King's Park, Manchester. The investment in X-ray inspection technology supports the company's drive to be, as Managing Director Damien Murray explained, "the best in the world at what we do."

The two Ishida IX-G2 models use advanced dual energy technology which incorporates two line sensors, one which takes images at high energy and one at low energy. These are then compared, which provides a better overall image of the product with a clearer contrast between the product and any low-density foreign bodies, such as bone fragments. Should any foreign body be identified, it is rejected and returned for re-trimming.

Dual energy X-ray inspection is particularly appropriate for the needs of the poultry industry where the density of the product and the potential contamination can be very similar, for example the bone and meat of a chicken which have almost the same density. Removal of low-density foreign bodies, such as bone and cartilage, is essential as the majority of poultry products need to be supplied boneless for use in recipes such as ready meals, children's meals, deli products, pies and pastries.

"Consumer expectation is that meat is boneless, but due to the relatively young age of many chickens at slaughter, their bone development isn't at full density. This can leave cartilage or soft bone fragments in the meat, which we need to remove before supplying product to our customers," explained Smithfield Murray's Operational Production Manager, Pawel Charazmusiewicz.

To minimise the risk of such foreign bodies, some retailers require a '200% check'. Previously, Smithfield Murray's foreign body inspection process was manual, with an initial check during trimming and a more thorough search further down the line. This was not only time-consuming but exposed the meat to several stages of manual handling.

Smithfield Murray knew there was a better way of doing things but they needed a solution that would fit the compact footprint at its Manchester site. "While the overriding decision was based on machine capabilities and performance, space was a big issue," said David Hrubos, Operational Technical Manager.

The answer came via one of the company's industry peers, which was already using the Ishida IX-G2. Following a site visit, it was clear that Ishida offered the right combination of quality and design to suit Smithfield Murray's set-up.

"Our view is there's no downside to sharing best practice in the industry. If it makes better product and improves standards for everybody, there's a responsibility to look out for each other," confirmed David Hrubos.

This honest, friendly attitude to business is matched by Smithfield Murray's commitment as a whole towards its employees. "We're a work family – and often, a literal one, too," said Damien Murray. "We have plenty of husbands and wives, or fathers and sons, working together in the factory."

"This has been particularly true since COVID-19, when we stopped using agency staff and realised that morale, dedication and quality improved because our permanent staff really take pride in what they do."

"This has a bearing on the Ishida machines, because it's important that anything we invest in is well maintained and cared for. David and Pawel led a very close-knit team running them, who take real ownership and responsibility for the X-ray machines. You might say the Ishida machines have become part of the family!"

The IX-G2 offers a cost effective, compact solution for poultry producers, who need high accuracy in detecting low-density bone, bone fragments and cartilage. To match the high speeds of poultry processing, the IX-G2 models used at Smithfield Murray are the dual lane variant, giving throughputs well in excess of 100 fillets per lane.

The first Ishida X-ray poultry solution was installed in March 2021 in the primary preparation area, where (for example) chicken is trimmed in readiness for use in children's meals. This environment was ideal for training and calibration, with Ishida supporting Smithfield Murray to achieve the perfect balance for each application.

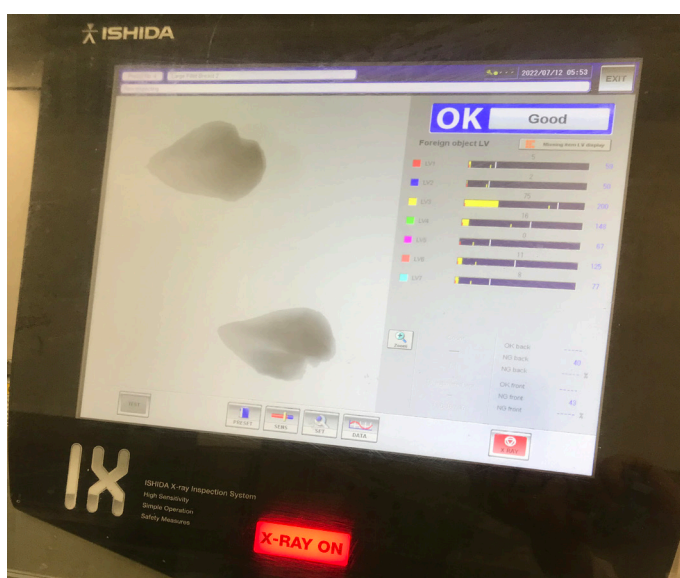
Once calibration was complete, the second IX-G2 formed part of a new "Opti" line, which was configured with the anticipation of an X-ray machine being included. Therefore, installation had to be plug-and-play, a swift and efficient process that took place in June 2021.

Prior to installation, Ishida explained best practice for positioning chicken products as they enter the IX-G2. Smithfield Murray's engineering team created a unique and practical solution by adding prominent markers onto the conveyor so that employees know exactly where to place the poultry.

Since installation, both X-ray inspection systems have been running daily and their advantages continue to reveal themselves.

"Most importantly, it's about quality of product and a key part is improving food safety. By adding the IX-G2s to our operation, we can deliver 300% inspection – trim, machine check, visual recheck – and our customers are delighted," confirmed Pawel Charazmusiewicz.

"X-ray inspection means less manual handling, quicker feed and improved productivity. The team has quickly adapted to using the machines and we've added training in X-ray technology as part of our standard induction," added David Hrubos.



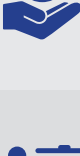

## The customer

For Damien Murray, the investment has been money well spent. "I wouldn't hesitate to recommend Ishida to other companies in our sector. The value their X-ray machines are adding to our operation has been significant, and they've been a joy to work with."

[www.smithfieldmurray.com](http://www.smithfieldmurray.com)



## The overview

	One of Europe's leading suppliers of prepared fresh and frozen poultry		Committed to maintaining the highest standards of food quality		Smithfield Murray. The best in the world at what we do.		The two Ishida IX-G2 models use advanced dual energy technology
	Foreign bodies identified, rejected and returned for re-trimming		The IX-G2's are the right combination of quality and design to suit Smithfield Murray's set-up		We have an honest, friendly attitude to business. We're a work family		The IX-G2 offers a cost effective, compact solution for poultry producers
	The IX-G2 delivers high speeds for poultry processing		The IX-G2's deliver 300% inspection – trim, machine check, visual recheck		Less manual handling, quicker feed and improved productivity		Training in X-ray technology as part of our standard induction

## Speak to an Ishida expert

Every business has its own challenges; ours is to help you overcome yours. Working smarter, faster, together, we can help you achieve higher standards and get your products retail ready quicker.

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