CASE STUDY MICARNA



Sticky, delicate meat: Ishida takes automation a stage further for a major Swiss food company

The Ishida Fresh Food Weigher made it possible to combine an operator's skill with the speed and accuracy of multihead weighing. Now Micarna S.A. are benefiting from a new approach which maintains a delicate touch while replacing the operator with a smart infeed system.

Every day two million people enjoy the meat and fish products of Micarna S.A., part of Switzerland's Migros Group. Amongst its specialities is 'Geschnetzeltes', thinly sliced chicken which, like all fresh meat, can be difficult to handle automatically. Because of a tendency to clump together and to stick to contact surfaces, Micarna's Geschnetzeltes have until recently been both weighed and packed by hand.

Efficiency increased, giveaway cut

Anxious to speed up weighing and reduce giveaway, Micarna's head of poultry processing Antonio Varela approached Ishida's Swiss distributor ITECH AG. An innovative packing line was devised which eliminated manual intervention.

At the heart of the line is an Ishida 12-head Fresh Food Weigher. Sliced meat is fed onto two conveyors mounted on pivoting arms, each of which can feed any one of six belts supplying the pool hoppers. Optical sensors identify which hoppers need filling, and direct the conveyors to supply product to the appropriate belt. The pool, weigh and booster hoppers are all made of plastic with ridged walls and have non-stick scraper gates. In combination, the conveyors, belts and hoppers ensure that product flow remains consistent, with no clogging and no build up of residues, so a precise portion is sent to each tray.

The new packing line has made significant savings for Micarna. Not only has product giveaway been cut by up to 7%, but automated operation has also allowed personnel to be re-assigned to other tasks. With hygiene a major issue in meat packing, eliminating manual handling has obvious benefits.



Fast weighing, fast payback

Working at 48 weighments per minute, the FFW's capacity has allowed tasks to be transferred from other departments to the new meat packing line, with consequent improvements in productivity. The CCW machine is waterproof to IP65, and all contact parts can be removed without tools, facilitating cleaning.

Antonio Varela is very pleased with Ishida's innovative solution: "Our estimate is that the investment will have paid for itself in just eighteen months."

Security against contamination

When meat products were packed by hand, spotting contaminants relied on the vigilance of operatives. Risk analysis, focussing on complaints and potential disruption to production, led Micarna to specify an X-ray system as this would identify not just metal but also plastic and other contaminants. After examining machines from several suppliers, "the Ishida system was the one that really fitted the bill" concluded Christine Genoulet-Leubin, head of quality control.

Comparative tests of Ishida's IX-GA-4075 against a metal detector, showed the X-ray machine could identify metal contaminants as small as 2mm by 0.2mm, and allow them to be precisely located. This level of security is simply not possible on meat packing lines using metal detectors which, as Christine Genoulet-Leubin notes, "have limitations due to conductivity problems".

Trusted to detect any contaminant

Micarna now use the line incorporating the Ishida X-ray machine to pack all sliced and minced meat products where the risk of contamination cannot be excluded. Metal, plastic, glass, stone, hard rubber or pieces of bone can all be detected, along with damaged or underweight products.

With up to 20 different products being packed each day, changeovers are frequent but the pre-programmed Ishida machine can be reset in just one minute. It is virtually maintenance free and straightforward to clean as parts can be easily removed.

Christine Genoulet-Leubin is very satisfied with the IX-GA-4075, which has proved "compact, sturdy and easy to operate".



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