

ISHIDA SOLUTION PRESERVES FRESH MEAT TASTE

Case Study
Snellman

Facts and figures

- » The Ishida Screw Feeder multihead weigher uses rotating metal spirals to move the diced meat out to the hoppers.
- » The rotational speed and the timing of the spiral motion are fully adjustable via the RCU (Remote Control Unit) to suit the required packing speed, pack weight and other conditions.
- » The weigher is capable of filling trays at 80ppm.

An Ishida Screw Feeder multihead weigher has enabled a major Finnish meat company to pack sticky fresh meat rapidly into trays without resorting to 'excessive' chilling, which has the important benefit of preserving the product taste.

Challenge

Cubes of fresh meat can be sticky, gripping the contact surfaces of a multihead weigher, clumping together, and slowing down the packing operation. Conventional feeder vibration is not enough to shift the product and it is often necessary to have a person at the top of the weigher to break up blockages. For many processors, the solution to this dilemma is to chill the meat to near or below 0°C, which makes it considerably less sticky, enabling it to be packed on conventional weighers.

Solution

For Snellman, the solution has been to replace a conventional multihead weigher with an Ishida Screw Feeder weigher. Instead of a vibratory system, the new weigher uses rotating metal spirals to move the diced meat out to the hoppers.

The 20-head weigher is a double discharge model, incorporating the latest Ishida R-Series technology, which greatly increases the number of possible weight combinations that can be taken into account before each weighing is released, improving both speed and accuracy.





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Snellman, one of Finland's biggest meat producers, has long believed that extra cooling of meat products has its drawbacks. "We have carried out extensive testing and believe that any intermediate freezing detracts from the true fresh meat flavour," says Anders Snellman, Project Manager. "We want to be able to guarantee that our fresh meat has not been frozen at any stage."

The Snellman packing hall is kept at +5°C. Diced meat is transferred via a swan neck elevator and vibrating cross-feeder to the dispersion table of the multihead weigher. The dispersion table rotates just rapidly enough to impel the meat cubes outwards into the feeder troughs by centrifugal force. For optimum effect, it comes to an abrupt halt every few seconds and then rotates in the opposite direction.

Driven by powerful stepper motors, the stainless steel screws move the sticky meat pieces gently and smoothly towards the pool hoppers. The rotational speed and the timing of the spiral motion are fully adjustable via the RCU (Remote Control Unit) to suit the required packing speed, pack weight and other conditions.

Dipping funnels ensure that the meat is discharged cleanly into the trays, which are filled two at a time, without compromising the sealing surfaces. The filled trays are passed across a checkweigher before entering a traysealer, where they are sealed under a protective atmosphere.

The new weigher is capable of filling trays at 80ppm, but is currently constrained by the traysealer's capacity to about 65ppm.

Snellman is very pleased with the Ishida Screw Feeder Weigher, in particular its contribution to the company's drive for superior taste.

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This is a step in the right direction where taste is concerned. In addition it has been very easy for our staff to learn to operate the new weigher and it has definitely reduced the manpower needed on this line.

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