

Automated packing lines on new haggis range helps leading Scottish producer

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Two specially constructed Endline high speed packing lines has helped leading Scottish haggis producer Macsween meet their objective in automating the production of a new Haggis brand to meet retail demand, and assisted in increasing output by 200% – all within a compact area.

Macsween is a third generation family business which began life as a butcher's shop in Edinburgh during the 1950s. Today the Macsween family operate the production of their haggis products from their factory in Edinburgh supplying the UK's supermarkets, including Sainsbury's and Marks & Spencer, wholesalers and online customers. While in demand all year round in Scotland, the requirement for their variety of haggis recipes was seasonally limited from the rest of the UK.

Following thorough market research and focus groups Macsween developed the 'Delicious Everyday' range to offer a variety of haggis based delicacies, including black pudding, to appeal to non-Scottish customers.

"The Delicious Everyday range opens haggis up to a brand new audience as customers realise the diversity of this ingredient that they can use in their everyday cooking,"

explains James Macsween, managing director of Macsween.

Due to the natural casing of the original haggis line it was also difficult to automate the packing line. "As our original product range is packed within its own natural casing our packing lines were manual as sizes differ greatly. However we standardised the packing of the Delicious Everyday range, allowing us to look into automating the packing line," James added.

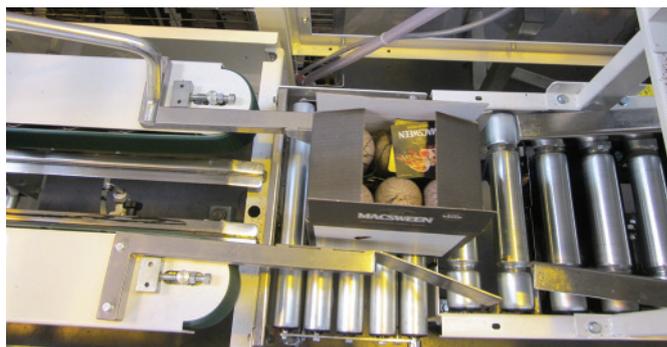
Best of British

Automating a packing line was a first in the 60 year lifespan of Macsween, however the company immediately contacted Murray Packaging, Endline's Scottish distributor, to install two packing lines.

"Murray Packaging was our first point of call as we have worked with Ian Murray in the past and he has the ability to take on board what we want to achieve and offer solutions. Also Endline make the best kit and are British made."

The installation of these two lines, however, did not come without its complications. "In order to be on the major supermarket shelves by September we needed to be up and running by 25th July," comments James. "Thankfully Ian took this on board and we were up and running within eight weeks."

Both lines also needed to be



installed within the original factory and space was tight so Murray Packaging and Endline designed a 'cruciform' system with three conveyors running in parallel.

Two Endline power roller conveyors were installed at the start of each packing line where a manual worker puts the packaged product onto these once it has been run through a chub labeller.

Each of the packing lines has an elevated conveyor which runs the product from the power roller to a packing station where four manual packers are ready to pack the products into a formed box.

A single, fully automatic 248 case erector feeds both of these packing lines and formed cases are transported to the packing stations via a conveyor running above the packing stations.

Constant smooth flow

"A control system was integrated into the conveyor to accumulate and control the in-feed of the empty boxes to work in tandem with the pace of the manual operators so as each box is removed from the line another is moved along ensuring a constant smooth flow," Ian Murray, MD of Murray Packaging, comments.

"As the empty cases are light we ran the conveyor from the case

erector up an incline with a 90 degree bend to run at head level for the packers, not only meeting the factory's space constraints but ensuring it was ergonomically friendly to the packers so there was a minimum twist and turn effort."

Once the packers have filled the case with the desired quantity of product, either six or eight depending on the individual customers' requirements,

the full case is then placed by the packer onto a third power roller conveyor, which runs parallel with the packing station, to be sealed. Two fully automatic Endline 602 case sealers are fitted at the end of each line to close the top flaps of the boxes and accurately tape the tops for a flawless finish. Both the case erector and case sealer can be easily adjusted to deal with different case sizes.

Combined, both lines can run up to 40,000 cases of the Delicious Everyday range per day, increasing Macsween's overall output by 200%.

While managing the design and installation of the Endline kit Murray Packaging also ensured the smooth integration of other supplier systems, including compressed air supply and labelling, into the lines.

"Ian not only came up with solutions but made the whole process simple," James Macsween concludes. "Automating this process has not only boosted our output but given us the scope to deal with future demand." ■

