

Skin packaging keeps product fresh twice as long

30 TONS OF PACKAGING MATERIAL SAVINGS

When it comes to vacuum skin packs, the British company Dovecote Park places its trust in the technology from MULTIVAC. In addition to packing flat steaks, the meat processor has also recently begun to pack calf shanks up to 10 cm high, using a process that was optimised specially for this. The result: the product can now be kept twice as long, the consumption of packaging material has been reduced, and Dovecote Park has registered a 20 percent growth in turnover.

The British company Dovecote Park is among Europe's leading independent meat processors with its own abattoir operations. The company, which was founded in 1997 in North Yorkshire, supplies the national supermarket chain Waitrose with fresh beef, calf meat and venison. The meat varieties produced by Dovecote Park are well known for their excellent quality and outstanding taste.

Dovecote Park employs around 680 staff at its sites in Darrington (Yorkshire) and Skellingthorpe (Lincolnshire) to produce the required daily quantities. Traditional English craft skills are combined with modern processes at both production sites: the hind quarters of beef for example mature for at

Dovecote Park has put its trust in MULTIVAC's technology for more than 25 years. The meat producer's machines include more than 100 thermoforming packaging machines and traysealers from MULTIVAC. The cooperation has always been viewed as highly positive by both partners.



20 %
GROWTH
30
2X
LONGER SHELF LIFE

least seven days before they are processed, and some selected cuts even hang for at least 30 days. This means the meat has a greater water binding capacity; it cooks faster and remains juicy.

Part of the meat processor's complete service also includes the development and provision of innovative and customer-

friendly packaging solutions for the more than 300 Waitrose supermarkets. Dovecote Park has also placed increasing emphasis in recent years on environmental-friendly technology and material-saving concepts.

In 2013 Dovecote Park successfully tested vacuum skin packs for the first time for a range of steaks. With this process the

MultiFresh™

With MultiFresh™ MULTI-VAC offers a comprehensive product range for vacuum skin packs. This includes a variety of thermoforming packaging machines and tray-sealers, as well as a complete range of skin films. The MultiFresh™ product range meets all the requirements of pack size, output and level of automation. The machine range includes the R 105 MF, R 175 MF, R 275 MF, R 575 MF, R 575 MF PRO thermoforming packaging machines, as well as the T 200 and T 250 semi-automatic traysealers and the T 300, T 600, T 800, T 850 und T 800 PRO fully automatic traysealers.

special skin upper web is draped over the product like a second skin, allowing the product to be presented particularly attractive at the point of sale. Since the meat producer first wanted to become familiar with the benefits of skin packs, the company initially rented a compact R 175 MF thermoforming packaging machine designed for the MultiFresh™ vacuum skin process from MULTIVAC, which has been its technology partner for many years.

The result instantly convinced Dovecote Park, as Production Director David Redman explains: "The shelf life of our products doubled from six to twelve days, sales shot up by almost 20 percent, and we were able to reduce our consumption of packaging material by more than 30 tons per year." Rachel Pearson, the buyer at Waitrose, can only agree with this: "This fantastic packaging technology enables us to offer our customers a better quality product, which takes up less space in the refrigerator or freezer, and which at the same time is more environmentally friendly." As a consequence of this, Dovecote Park ordered several thermoforming packaging lines with MultiFresh™ technology.



Thermoformed skin pack for 10 cm high meat cuts

Encouraged by this success, Dovecote Park decided in 2014 to also try out the vacuum skin process for calf shanks. These meat cuts are up to 10 cm high and present completely different challenges from flat steaks to the skin packaging procedure. Here the skin upper web also has to drape over the full surface of the high product and mould itself precisely to the product contours. This means no creases should arise, in which air may remain trapped, since otherwise a complete vacuum can not be achieved, and this leads to reductions in shelf life and meat quality.

An evaluation of the market was initially rather disappointing. The existing packaging solutions either had deficiencies in the degree of crease formation or in the number of pack shapes; others were too expensive or insufficiently flexible in regard to die changes.

However, Dovecote Park did not want to follow the traditional route of many other meat producers in England, namely packing the high meat cuts in skin trays. Film from a roll significantly cuts the cost of the packaging material and reduces the effort involved in handling and storage. In thermoforming packaging, the pack design can also be easily adapted to the individual requirements of the customer. The base of the pack for example can be designed easily with ribs, radii, embossing or other

features, in order to increase the rigidity of the pack, vary the design or enhance the brand profile. "Our objective was to offer Waitrose supermarkets a high-quality and attractive pack, to optimise the speed and flexibility of our lines and to reduce our packaging costs overall," says David Redman explaining the defined requirements. Together with MULTIVAC UK, the Production Director launched a project to develop thermoformed vacuum skin packs for high products such as calf shanks.

R 575 MF PRO: an additional upper web forming station increases process reliability

The greatest challenge with the project was to control the skin upper web in the sealing die dome in such a way, that it drapes without creases around the up to 10 cm high meat cuts. The packs also had to enter the die in three-track format, in order to produce the high output required.

Following several meetings at the Training & Innovation Center in Wolfertschwenden, the MULTIVAC development engineers optimised the R 575 MF MultiFresh™ thermoforming packaging machine for the packing of high products. An additional upper web forming station was integrated in the machine, and this forms the skin upper web before it is transported into the sealing die. This ensures that the upper web already has the shape of the product to be packed. The thermo-

formed film is heated once again in the dome of the sealing die, before being draped over the product. "The additional heating ensures that the film is sufficiently

elastic to mould itself tightly and without creases to the calf shanks. This intermediate stage also increases the process reliability of the skin packaging procedure," adds Ferdinand Geiger, Area Sales Manager at MULTIVAC.

In the summer of 2014 the local service team from MULTIVAC UK installed two R 575 MF PRO MultiFresh™ thermoforming packaging lines at Dovecote Park. The optimised process has since proven itself very well, as Production Director David Redman explains: "The quality of the packs is outstanding, and the shape of the film follows the contours of the calf shanks exactly. Thanks to the vacuum skin process, the products can now be kept up to twelve days".

Since the skin upper web is completely sealed to the lower web, none of the product's own liquid can escape from the pack. The calf shanks are also fixed firmly to the base of the pack and can not slide around in the pack. This has the advantage, that the packs can now be presented standing upright instead of horizontally in Waitroses's chill cabinets. Dovecote Park currently produces three different pack sizes for the various products for the supermarket chain. Thanks to the simple die change, the machines can quickly be converted for different pack sizes.

MultiFresh™ has met all the requirements of Dovecote Park: the vacuum skin process is flexible and forward-looking, and it offers added value for customers and end consumers. David Redman draws the final conclusion after the completion of the project: "We have worked together with MULTIVAC for more than 25 years. The packaging specialist's technology and the commitment of its staff have convinced us once again." ♦

