

# Food & Drink

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TECHNOLOGY

## Peas of mind

Safeguarding pea production with sorting technology



### **LABELLING**

The role of labels in meeting fast paced consumer trends



### **REFORMULATION**

Reducing sugar and maintaining taste



### **DRIVE OUT WASTE**

Minimising waste in the supply chain and consumers' homes



# Through the keyhole

Food & Drink Technology reviews recent installations at food and drink manufacturing facilities



## Gum breakthrough

42 Technology has partnered with Gabler to help Mondelēz International make a dramatic improvement in the efficiency of its chewing gum manufacturing process.

The two companies have developed a new generation of high speed cooling tunnels that are helping Mondelēz to significantly increase production throughput, reduce work in progress by 60 per cent and further optimise downstream processing and packaging.

42 Technology was appointed by Mondelēz to work with Gabler, the company's existing supplier of cooling tunnels, to identify new ways of using combined conductive and convective cooling technologies to help speed up the cooling of extruded gum before it is scored, shaped and moved into the conditioning phase.

The consultancy's role included working with Gabler to develop a new system design, developing a theoretical model of the cooling process, advising on the final tunnel design and helping with commissioning the new equipment. Gabler then built and tested the prototype system before manufacturing and installing the final design.

Miles van Niekerk, associate director, new process development at Mondelēz International, comments, "The new tunnels have significantly shortened the time needed for gum cooling and conditioning and are also 40% smaller than the equipment they replace."

## Cartoning technology

Gerhard Schubert has supplied a 19m, highly flexible packaging line for the cartoning of sparkling wine bottles to a company in southern Europe.

The bottle packaging line executes

all process steps, from recognising and orienting the bottles to packing them in cartons. The line can currently pack four different bottle formats into 14 different carton formats.

The modular construction of the company's TLM lines enabled the development of a machine that can deal with all formats on one line – from top clips (a sleeve covering the bottle neck and top only) and baskets (four bottles in a carton with a handle at the top) to gift boxes. The time needed for format changes is 30 minutes.

Another advantage is the fact that the bottles are picked up and placed separately



into the transmodule and do not touch each other during transit, meaning there is no damage to labels.

The pick and place solution also enables the labelled bottles to be turned to face in the same direction. This is particularly important for gift boxes, as the labels need to be turned so that they can be seen through the window of the box.

## Safety improvements

Norwegian supplier of confectionery Nidar manufactures 150 products under 35 brands on 10 production lines.

Ingredients such as milk powder, sugar, starch and sour coating powder arrive in 1.1 tonne bulk bags. Nidar dedicates a number of bulk bag discharge stations to unload them, including six supplied by Flexicon (Europe).

The newest of the bulk bag dischargers is a twin half-frame unit, which handles two types of starch in a tight space on the plant's fourth floor.

Previously, starch was purchased in 25kg, sacks which operators carried from the third to the fourth floor, where it was dumped into two large vessels, each holding 200-300kg. As the process

consumes 100kg/hour of starch, 32 sacks were handled manually per eight-hour day.

Maintenance engineer Tor Ove Kvingedal comments, "The operators were climbing stairs numerous times a day to keep the vessels filled. The starch dust is not harmful, but is unpleasant and can be very sticky."

The new Bulk-Out BFH-C-X twin half-frame bulk bag discharger, also from Flexicon, holds two bulk bags side by side, providing enough starch to keep the line running for two or more days.

"The system also reduces manual effort, contains dust and improves the working environment," adds Kvingedal.

## Low migration investment

UK based The Wilkins Group has invested more than £2 million in a new printing press in a bid to increase capacity and offer safer food packaging, promising 100 per cent low migration.

The company has invested in a Komori Lithrone GX range printing press to increase capacity and enhance the value of its products by using the machine's coating units to create printing effects through special varnishing techniques.

Not only does the equipment give customers a more premium product, but it is also designed to be ultra safe for producing food packaging, as the machine is 100 per cent low migration.

With the capability of bolting on seven different colours and a built in fast drying function, the machine can print up to 18,000 sheets an hour.

In addition, the printing press also has a reduced environmental footprint. ■

