

# High flexibility, automation or both?



*The FlexLoader helps keep the time loss for production as low as possible. In addition it saves costs.*

***Food processors are challenged to deliver convenience food products at the most competitive prices, together with a huge variety in regards to portion forms and package styles.***

By Wiebe van der Sluis

**M**any food processors struggle with the requirement to combine production of sliced products at low costs with the demand of flexibility. One solution is to operate dedicated high volume production lines with fully automated processes, especially for highly standardised production volumes. On the other hand, a lot of manually-operated line set-ups are still standard, which use a high level of manual operation to create flexibility in a production line. However, the key question is: which opportunities do today's technologies and solutions provide to combine

flexibility with automation against affordable investment levels?

### **Flexible automatic loading**

Food companies that produce sliced products can choose between a range of portion forms, such as shingle, stacked, with interleave, zigzag, wafer-thin cut, folded, rolled, free programmable contour or overlapping. Most of the time these standard applications are fully automatically produced - the slicer can be changed-over without complicated modification, sometimes even without mechanical re-tooling.

However, what about the systems

that follow the slicer in the production line - the automatic loading systems, thermoformers and traysealers? Can they deal with all these application changes so easily? "Yes, no problem," says Jörg Schmeiser, director product management at CFS. "The industry can offer solutions that solve those issues with flexible and compact intelligent loading and packaging systems that can be installed in-line in most production rooms."

### **Time is crucial**

"Time is absolutely crucial in today's food production," underlines Schmeiser.



*The RobotLoader combines high flexibility with scalable performance for small-sized up to high-volume applications.*



*By automatic loading of their delicate products, Diviande could increase their production, and guarantee hygiene cost-effectively.*

"Loss of time due to a machine changeover from one product to another is often a major cost factor. The big players in the market tackle time losses for production and labour costs with highest capacity lines with very few changeovers. These companies can rely on a high output solution, like our new GigaSlicer, in combination with the ShingleLoader (a conveyor loading system) and a thermoformer," he says.

However, the processing equipment

company also offers solutions for small- and medium-sized companies. Here, the focus is on flexible, fast and easy changeover, small footprint and affordable investment level. Smaller companies often don't let their machines run one product for long periods, but switch frequently between products, slicing presentation and/or packaging.

In addition, recently developed loading systems allow these smaller multi-product companies to think about further automation as well. Two interesting systems are the CFS FlexLoader and RobotLoader.

The FlexLoader applies a rather unique technique by using the pull-back principle to form the portions to various configurations needed to load them into the thermoformer. In case of a product changeover, one simply needs to change the tool on the packaging machine, changeover some slicer parts and change the programme on the FlexLoader. A real cost saving is made by keeping the time loss for production as low as possible.

Robotic systems, well established in several areas, are now available to meet the high hygienic requirements of the

protein industry. Loading sliced portions into preformed trays or directly into thermoformers, the RobotLoader offers high flexibility and scalable performance for small-sized up to high volume applications. Accurate placing, overlapping and turning of portions are the key features. Product changeover is a simple matter of changing the gripper tool and loading a new parameter setup. Robotic systems have the flexibility to be prepared for unknown production demands in the future.

## Problem solved

Diviande, a small company in Twello, the Netherlands, slice delicate products in round shingles 17 weeks per year and used small manual slicers. They stacked the round shingles five high in one pack with an underleave between the portions for ease of separation. Due to the inconsistency in slice quality, the portions have to be weighed, and slices added or taken off to meet the required portion weight. This manual process was labour-intensive, and prior to the holiday seasons, when the company operated in two shifts, the workload doubled.

For a long time, automation of this process was not an option for Diviande. They believed that the investment would be too high. According to Cees van der Pijl, factory manager, the opposite proved to be true. "CFS studied our process and offered us a UniSlicer with contour portioning conveyor, an InlineLoader for automatic loading of the product onto the tray in multiple layers. With this solution, we could simply increase production by 30%, while reducing labour by 50%," he says.

"Important in this operation is not only saving the cost of people or increasing production, but it is also about preparing a ready-to-eat product in the most efficient and hygienic manner. Nobody touches the product before it is served at the table," says Van der Pijl.

The set-up of this flexible line concept allows further automation at a later stage. The Diviande solution shows that automation also pays off for smaller companies while remaining flexible. **MI**