FOOD

FANUC for A-Ware

Task To optimise picking and packing processes under controlled food-grade conditions by utilising a range of FANUC robots

Solution By introducing a sophisticated system of FANUC robots, A-ware have achieved impressive results at their cheese plant in Zeewold, the Netherlands. FANUC robots are responsible for everything from weighing and cutting portions of cheese with precise accuracy through to high-speed packaging and palletising, and all under strictly controlled food-grade conditions

Result Considerable improvements in overall productivity and cycle times due to extended work capabilities and increased reliability
Robots help pack cheese pieces quickly and efficiently

A-ware in Zeewolde has been working with Robertpack for two years now. The packing specialist from Zeewolde supplied machines with integrated Fanuc robots. The super-fast robots ensure that portions of cheese are quickly and efficiently packed and palletised.

A-ware Food Group is an organization that specializes in maturing, cutting, packaging, storing and transporting of cheese and other food products under controlled conditions. This family company was created in 2010 by merging together Anker Cheese (1962) and Bouter Cheese (1890). Anker Cheese has become an international cheese company. In May 2010, the activities of Anker Cheese were split up into two ‘new’ companies: Anker Cheese (commercial activities) and A-ware (warehousing and logistics). In June 2010, A-ware acquired Fresh Support, an independent service provider in the field of packaging, particularly of cheese. Bouter Cheese is focused on the processing of Dutch and foreign cheese: mature, cut, package, distribute - to the largest retailer in the Netherlands, among others.

Growing Food Group
After the merger, the company has gone further than the A-ware Food Group, with a large number of branch offices and around 1,600 employees. And the Group continues to grow. Schipper Cheese (Zaandam) was also acquired just last year and A-ware itself has recently decided to build a cheese factory in collaboration with Fontera, the New Zealand dairy cooperative. The plant became operational in 2014. In the establishment at Zeewolde, the Packaging Management spoke with Annelies Vander Hulst, Marketing Assistant at FANUC, Robert van Dien, Head of TD at A-ware, Eric van Houwelingen, Project Manager at A-ware and Bertus Visch, Project Manager at Robertpack, about the use of robots for packaging and palletization of cheese pieces.

Robertpack has been collaborating with the Bouter Group in Culemborg for years and has already supplied them with packaging lines with FANUC robots. Last year, Robertpack set up a line of robots at A-ware in Zeewolde and, this summer, the second one. Van Houwelingen and Van Dien are closely involved with these investments. Van Houwelingen: ‘We have had a good experience with the FANUC robots at Culemborg.’ Here at Zeewolde, we have robots of various makes in the past. We specify our requirement of the robot we want to use. Our primary aim is to realize a certain function. The packaging line must work well; we then listen to the advice given by our suppliers, in this case Robertpack.”
Ever more integration

‘Earlier, the robots used to be standalone devices’ says Bertus Visch. ‘Now we install them in the packaging machines, because that lets you achieve complex machine movements.’ This is certainly an absolute need at A-ware, where you have to deal with high speeds.

“If vision and line-tracking are important, FANUC is our choice.”

Annelies Vander Hulst confirms the increase in the use of robots. “We supply through the machine builders and system integrators and we see that robots are often integrated in the machine itself for the sake of efficiency, cost-saving and safety.”

Basic knowledge in place

The motive for the recent investment is the increased demand from the market and the increased range. For A-ware, the robot technology means an increase in knowledge. Van Dien: ‘Obviously, our lines cannot stand still. So have trained internal service staff and people have trained at Robertpack for operation and service. Our assemblers have the basic knowledge, so we can solve minor problems ourselves. The line control by the various robots is effected via an upstream PLC control supplied by Robertpack, in which all special components of the line are integrated, because in this setting the robot must never lead.’

Visch believes that the in-House knowledge of A-ware is an advantage. ‘This way, you can communicate with each other in another manner, and that is efficient. The advantage of robots is that they need little maintenance. This is an experience that all our robot customers share.’

120 per minute

At A-ware in Zeewolde, the round, matured cheeses are cut into pieces accurate to a gram (E-code), seven days a week in 3-5 shifts and subsequently packed. This takes place on 15 lines, of which four have robots. The two robots above the deep draw machines of the new line (food-grade FANUC M3iA/6S) pack the formed cheese pieces in the two tracks and place them at high speed (120 pieces per minute), without letting the cheese come to rest, in the deep draw package, which is subsequently closed. The case loader is a machine completely built by Robertpack, comprising 2x FANUC M3iA/6S robots for the box loading, under-box erector, tray edge closer and a lid setter. At the end of the line, a standalone FANUC M-710iC/70 robot palletizes the boxes. The BRC, IFS, Skal and HACCP certified company complies with the highest quality standards in the industry.

Tools decisive

‘The Tools and the programming are an important factor when choosing a supplier’, says Van Houwelingen,
who indicates that ever more robots are often offered a robot solution. Visch says that Robertpack has a lot of experience with the hands of the robots, which are produced in their own factory. For Van Dien and Van Houwelingen, what is most important is that everything works smoothly. 'We have five suppliers in one 37 meter long line with a high and a low care part and the most crucial is that the machines talk to each other,' says Van Dien. Van Houwelingen feels it is important not to bring in too many brands of robots into the works.

“Our experience with FANUC is good and working with the same brand of robots is an advantage as far as maintenance and knowledge are concerned.”