

Jari Kangas, project manager
of Hartwall Lahti:

“Order picking is a must”

There are over 110 different items packed in plastic crates at **Hartwall’s Lahti logistics centre**, all picked automatically by customer order. This extensive range of products makes order picking an obligatory operation. Swisslog’s MultiPick provides an economical way to automate the process.

Hartwall wishes to pamper consumers with a diverse product range: the factory produces beverages for everyone’s taste, mainly of their own recipe, but also under licence. In addition to different flavours the number of items is increased by different bottle sizes. The same beverage can be delivered in 0.33 litre, 0.5 litre, 1 litre or 1.5 litre bottles. The majority of beverages go to the shops in plastic

crates, but the amount of other packaging has also increased: there are 2-, 4-, 6- and 12-packs for bottles and cans, and quarter pallets for 1 litre bottles.

Plastic crate picking with MultiPick

Although order picking at Hartwall is a must, automating it was not a matter of course. The alternative



Mika Haavisto

would have been manual order picking. The rationale for automation was based on profitability, so economic arguments supporting the solution had to be found.

Hartwall’s warehousing manager **Eino Lemmetty** and the manager in charge of the whole Hartwall Lahti project, **Jari Kangas**, took a bold and unconventional decision in 1996 when they selected Swisslog’s MultiPick order picking system for the



Eino Lemmetty and Jari Kangas have every reason to be satisfied; the new order picking system was commissioned last autumn and the whole production facility becomes fully operational this year

automation of the picking of beverages delivered in plastic crates. The whole idea was still new in those days, with no previous experiences to go on.

“We believed in the gantry robot concept. It seemed very creative to grip the crates from above and collect them in the floor storage space beneath the robot,” Eino Lemmetty explains.

Their confidence paid dividends.

In 1997 automated order picking was started, albeit with the option of manual picking. After some initial teething troubles the MultiPick robots have performed their tasks in exemplary fashion.

When the issue of an expansion to the production and distribution centre came up a couple of years ago, Hartwall had to decide whether or not to continue with Swisslog and the MultiPick line. There were several

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rounds of negotiation in the quotation and design stage, each time getting closer to the ideal solution. The key issues in design were adequate capacity and reliability in order picking.

Jari Kangas and Eino Lemmetty speak highly of Swisslog’s willingness to develop. Solutions were found together.

“In the end we came up with a solution where the MultiPicks are able to handle the order picking of all items to be delivered in plastic crates. Nothing was left out. The basic solutions were designed to minimize the chances of malfunction, or if disruptions do occur, so that they will affect only a small part of the system operations,” says Eino Lemmetty.

“There has been a great evolution in the equipment,” summarizes Jari Kangas. “The system supplied in 1997 was a pilot project and now it has been commercialized into a product. In particular there have been developments in the control system and the reliability of the equipment has improved. Swisslog’s knowhow has grown and they have plenty of resources.”

Swisslog’s gantry robot-based system is simpler, and comprises fewer machines than the alternative solutions.

“We can’t afford mistakes”

In addition to successful solutions, economy and continuity are prized at Hartwall. It is important to the company that a partner remains in the business and is able to provide user support after commissioning.

Hartwall has contracted distribution schedules with their clients: on which day and at what time of day the deliveries are to be made. Deliveries take place before the client’s customers come to buy the products. In principle orders should be placed 48 hours before delivery.

Eino Lemmetty comments:

“Order picking is a delicate issue, because it affects the customer directly and cannot be done in advance. Interlinked distribution is schedule-sensitive and the timetable can easily go wrong. That’s why we try to find reliable equipment and a dependable supplier and ensure user support that includes upkeep and servicing. We no longer have any back-up system. Automation just has to work!”

Seasonal products such as Christmas beers provide their own challenge to order picking. In the summer, the demand for all drinks, particularly bottled water, varies according to the weather.

Neither Hartwall nor its customers

Automated order picking part of Hartwall’s big structural change

When the largest investment project in Hartwall’s history is concluded this year and the most modern beverage factory of its kind in Europe becomes fully operational, over

one-third of the beverages in this branch in Finland will be produced in the Lahti production facilities.

The completion of Lahti brings to a conclusion years of structural change

for Hartwall. When the company bought Mallasjuoma in 1988, Hartwall owned seven beverage factories and 62 distribution warehouses. It was decided to concentrate operations in Lahti. In



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Swisslog's sales manager Tero Peltomäki and Hartwall's warehousing manager Eino Lemmetty are the "chief architects" of the new order picking system

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will accept anything less than accurate and prompt deliveries.

"According to our customer satisfaction indicators we have a reputation as a good supplier. We have to retain that position," says Eino Lemmetty.

The commissioning of the new equipment looks promising. People are expressing their satisfaction with Swisslog's project operations.

"Everything went extremely well, no problems at all. This project was a model example of technical installation and start-up. Projects should be handled just like this. No errors, no schedule problems. The software was

tested to be error-free," enthuse Eino Lemmetty and Jari Kangas.

Some thanks are due to Hartwall themselves. As buyers they were very clear about what they wanted. The secret of well-defined requirements lies in the participation of the buyer's personnel in design. Eino Lemmetty explains:

"In my opinion, the users have a very important role to play in designing equipment. They should be involved as much as possible. The personnel know what they want and can specify their needs."

● Paula Ovaskainen

future Hartwall will have production facilities in Lahti, in Tornio, where Lapin Kulta beer is made, and in Karijoki, where mineral water is bottled. A single dispatch warehouse in Lahti will be responsible for distribution.

Restructuring began in 1990 with negotiations with the City of Lahti concerning a site. The first phase of

the logistics centre, a production and distribution warehouse, was inaugurated in October 1993. Plans have evolved over the years. In 2000 the Hartwall board decided to concentrate all their production and warehousing operations in the south of Finland in Lahti.

All warehousing functions have been rethought in the new dispatch warehouse, when it was decided to

procure the latest technology for order picking. The first automated order picking configuration based on gantry robots supplied by Swisslog came into operation in 1997. Last year a second more advanced order picking system began operation. In future Swisslog's MultiPick order picking robots will pick all the beverages packed in plastic crates at Hartwall Lahti.