

Fruit machines, but no gambling

Lime Frukt & Grönt AB, Sweden's leading distributor of fruit and vegetables, has installed automated storage and picking machines to handle products at its Helsingborg distribution centre. Although the move is a radical departure from the firm's previously manual materials handling, the investment is no gamble, explains CEO Bengt Nilsson.

Lars Mairimund



Bengt Nilsson, CEO of Lime Frukt & Grönt, Sweden's leading distributor of fruit and vegetables. "When we formed the company in 1995, we wanted to establish a distribution network that was truly focussed on customer orders."

Lime Frukt & Grönt AB, a wholly owned subsidiary of the Everfresh Group, supplies supermarkets and retail outlets across Sweden, Denmark and Finland with fresh fruit and vegetables. It is a company with real drive and an innovative spirit; it was, for example, one of the first

companies in the industry to enable customers to place orders via the Internet. Formed as recently as 1995, the firm has enjoyed a phenomenal growth rate of 30% per annum and now boasts a 25% market share in Sweden. Ingela Lundin, Marketing Assistant for Swisslog AB, spoke to

CEO Bengt Nilsson about the company's success so far and its objectives for the future.

Why has Lime Frukt & Grönt become so successful so quickly? "Customer focus. As simple as that," replies Bengt Nilsson. "That is, in

fact, the common denominator amongst all the companies in the Everfresh Group. It was also a key factor in the decision to form Lime Frukt & Grönt back in 1995; we were already a major importer of fruit and vegetables into the Nordic region but we wanted to establish a distribution network that was truly focussed on customer orders. This is a policy that has clearly paid off. Whilst the market has grown by only 2% per annum, our growth rate has been running at some 30%. Of course, as market leader now in Sweden, growth at this exceptionally high rate will not be sustainable but we aim to continue to grow by extending our penetration in the Danish and Finnish markets with the objective of becoming market leader in Scandinavia.”

What is the philosophy that drives your business operations?

“Our mission is to add value,” explains Bengt Nilsson, “and I would say that the key principles in this are openness, efficiency and fun. We believe that true customer focus necessitates a degree of openness in client relations that other companies seem curiously reluctant to embrace. A major platform for this new style of customer liaison for Lime Frukt & Grönt has been ‘On-Lime’, our on-line ordering Web site. It is the basis for the close partnership with our customers that we – and they – value so highly. Cost efficiency is another key factor and this has become something of a ‘Holy Grail’ within Lime Frukt & Grönt! We apply the same principles in pursuit of cost efficiency to every area of our business – including our materials handling, of course. For me personally,” concludes Mr Nilsson, “fun is the final, vital element. And I think that a key factor in finding fun at work is to ensure that there is always innovation in all areas of the business.”

What were the reasons for automating your materials handling?

“Well, we have a fantastic distribution facility here in Helsingborg. This is a strategic location – as Helsingborg is the largest port in Sweden for the import of fruit and vegetables – and when we built the distribution centre here in 1999 we extended the railway from the docks right up to our doorstep. The building includes a banana-ripening unit – a collaborative venture with Chiquita – that features state-of-the-art temperature, humidity and acidity control. We had one of Europe’s most modern processing units for fruit and vegetables but we knew that the manual materials handling techniques we initially employed were a stumbling block to the levels of cost efficiency and product traceability that we aspired to. The problem was finding an automated solution that really shaped up to our requirements. We contacted Swisslog for the first time back in the autumn of 2001 and we soon found that this was a company with the experience and expertise to work with us in finding practical solutions to meet our specific handling needs. Although we knew that automation and computerization of our internal logistics would be a key factor in improving both operational control and cost efficiency, we were very much aware that we could not afford to take large risks. Our industry has enough inherent risk – being totally dependent on the effects of weather conditions around the world on growers – and the scale of our success so far has made us, quite naturally, wary of gambling with the company’s future. So we had to be really convinced that the solutions developed with Swisslog were workable before proceeding with the investment.”

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Lime Frukt & Grönt employs 55 people in Helsingborg in the order picking and handling of some 1000 pallets per day

What were the difficulties in automating your handling and how were they overcome?

“Unlike other important companies in Sweden which supply major wholesalers and handle only whole pallets, our distribution involves case picking and order consolidation on pallets,” explains Nilsson. “The main difficulty in technical terms concerned layer picking by the linear robot. This is the first robot ever to handle the cardboard cases traditionally used in the fruit and vegetable distribution business – and it can handle and palletize between one and four layers of these cases at a time. However, our industry also uses plastic crates which have locating pins to facilitate the formation of stable pallet loads and these can prove problematic for robots. Swisslog managed to solve this problem by performing the picking of plastic crates in two integrated stages, using a robot and a palletizing ma-

chine. The robot picks a whole layer of crates and places them on the palletizing device, which takes care of the final positioning to ensure that the pins and holes between layers are perfectly aligned. Our Operations Manager, Robert Schneider, visited Swisslog Robotics’ headquarters in Ulvila, Finland, with members of the project team from Swisslog AB in

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Sweden – who have acted as system integrators – in order to see a full test run of the robots and this reassured us that everything was on track. Of course, the other main difficulty with the project was that we had to continue with operations running as normal during the commis-

sioning of the new logistics systems. This is no mean feat as our distribution is demanding – we employ 55 people in Helsingborg in the order picking and handling of some 1000 pallets per day.”

What are the main benefits of the new handling methods?

Bengt Nilsson does not hesitate:

“Picking efficiency. The robotic system picks between 2000 and 3000 cases an hour. Computer control is another major plus point, as we have management information at our fingertips now that we just did not have readily available before. And increased storage capacity gives us flexibility for the future. With the high-bay system in place, we store more pallets than before but within the same physical footprint. Forklift transports to the high-bay store have been reduced and the retrieval and dispatch of goods is now just-in-time.”

Swisslog's Scope of Supply

Autumn 2001 First contact between Lime Frukt & Grönt and Swisslog AB.

July 2002 High-bay warehouse with 2 automated stacker cranes begins operation. Swisslog's scope of supply included the Warehouse Management System for inventory control and optimization of storage and retrieval processes.

December 2002 Swisslog hands over the warehouse extension – now with a total of 5 cranes – after installation and commissioning taking just 3 months.

January 2003 Installation of Swisslog's Layer Pick robot solution for order picking and consolidation and an extended conveyor system.

Everfresh Group

The Swedish Everfresh Group consists of a number of companies specializing in different aspects of the fruit and vegetable distribution business:

- Everfresh AB – supplies major wholesalers and importers in Sweden and the other Nordic markets
- Citrusfrukter AB – supplies wholesalers, with an emphasis on restaurants and large-scale catering
- Lime Frukt & Grönt AB – the youngest company in the group, supplying supermarkets and retail outlets across Sweden, Denmark and Finland

Headquartered in Helsingborg, Sweden, the Everfresh Group employs 200 staff worldwide and had a turnover of SEK 2.5 billion in 2001-02. The group operates a rigorous environmental policy, placing high demands on its suppliers in terms of the use of recyclable packaging materials.



Robert Schneider (Operational Manager, Lime Frukt & Grönt AB), Karin Hanserud (Project Manager, Swisslog AB) and Roger Carlsson (Sales Manager, Swisslog AB) inspect the robotic system during a full test run at Swisslog Robotics' headquarters in Ulvila before delivery to Helsingborg

Juhani Lukka