



# swisslog

## V&S Absolut Spirits, Sweden A Case Study



## Automated logistics in the beverage industry

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“This is a solution we can grow into and it'll meet our future requirements.”

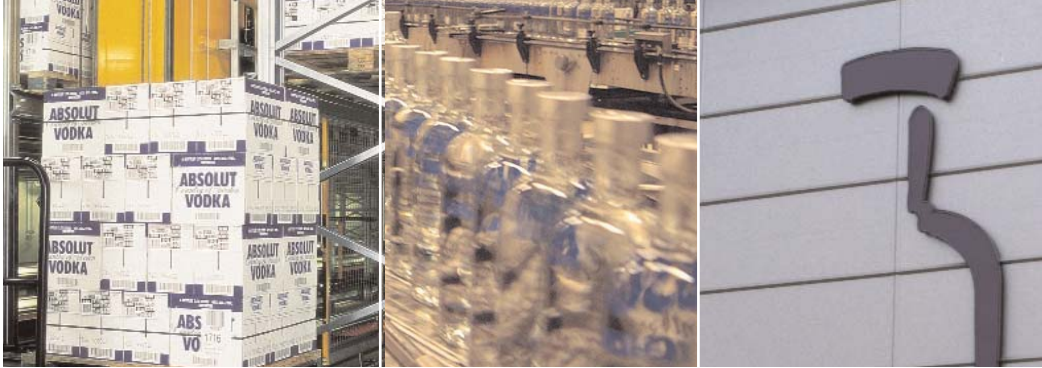
*Mikael Nyström ,  
Warehouse and Distribution Manager*

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### The Customer and his Requirements

The Absolut Vodka Company of Åhus in south eastern Sweden can trace its distilling history back to the last century. In 1979 the Absolut brand was born and, with a distinctive bottle design and some highly creative marketing, Absolut Vodka soon became a worldleading product. As the company began to grow, new methods – particularly in distribution – were needed for it to stay competitive and meet customers' needs.

In 1998, a new storage and distribution centre (DC) was therefore built in Åhus on a large site several kilometres away from the city centre bottling plant. In 2002, the system was extended due to increased market volumes and the requirement to produce larger batches of each article in order to always have enough shipping capacity over the season peaks.



**The Solution**

Swisslog's solution includes fully automatic delivery vehicle unloading systems, pallet conveyor systems, automated pallet warehousing, automatic depalletization systems and slat conveyors. In addition, Swisslog supplied a Warehouse Management System to provide full inventory control and also a conveyor control system.

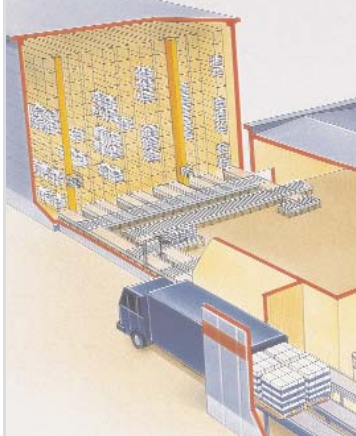
**The Functions**

Special trailers with built-in conveyors collect palletized vodka from the bottling plant and discharge it at the DC fully automatically. After passing an identification point and profile gauge for size and weight checking, the pallets are conveyed to the automatic warehouse. The store has a total of 15,000 pallet positions and is served by ten stacker cranes.

When goods – which are transported up to this point on works pallets – are called for

dispatch, they need to be depalletized. They can then be repalletized onto Euro pallets, placed on slip-sheets or dispatched simply as stacked cases. Depalletization is performed at one of three automatic stations, following which all transport is by slat conveyors. One of the depalletizers has a pallet magazine which can dispense Euro pallets. A shuttle car cross-feeds loads to enable either depalletizer to access a station which feeds slip-sheets. Both slat conveyor lines then feed a further shuttle car which sorts the loads into one of eight dispatch lanes. Fork-lift trucks with a variety of attachments – forks for pallets, grippers for slip-sheets and squeeze clamps for case stacks – are used to load shipping containers and road vehicles.

**Logistics Data**



**High-bay store**

Capacity, pallets	15,158
Number of articles	300
Number of stacker cranes	10
Number of aisles	10
Input, pallets per hour	max 180
Output, pallets per hour	max 150
Height of racking	22 m
Length of racking	100 m
Width of racking	50 m

**Conveyor system**

Length of roller conveyor	230 m
Length of chain conveyor	416 m
Length of slat conveyor	190 m
Number of shuttle cars	2
Number of profile gauges	1



## Interview



**Mikael Nyström,**  
Warehouse and  
Distribution Manager

### **How did you decide on the solution you have today?**

*"We looked for modern technology and when the different solutions came up, we preferred the high-bay warehouse solution instead of the conventional storage handling."*

### **How did you make the decision of supplier?**

*"Well, in 1998, Swisslog was one of several potential suppliers. However, Swisslog had the best total solution and the fast stacker cranes met with Absolut's requirements. Then in 2002, when we did the extension, the decision was easier. The co-operation with Swisslog was excellent and therefore it was quite natural to turn to Swisslog again."*

### **What was the major challenges with these projects?**

*"The second installation had to be made during running operations. This was done very well and without any disturbances."*

### **How has the staff reacted to the new system?**

*"They are much more satisfied and stimulated today as they have gone from driving fork-lift trucks and moving pallets to being operators of the system."*

### **What are the main benefits of the new solution?**

*"A pre-requirement for us was the possibility to produce larger batches of each product. With the new system this is now possible. Another benefit is the possibility to ship our products on either Euro pallets or slip-sheets. The local markets prefer Euro pallets, but our export markets want slip-sheets, and since 97% of our production goes on export, this is a very important feature for us. This also eliminates the need for return of empty*

*pallets. In addition, we now have a computer control system that allows accurate inventory control and efficient transport flow."*

### **What service level do you offer your customers? What is the lead time from order placement to shipping?**

*"From the time when the customer places the order, it takes from one to seven weeks until shipping."*

### **What has the new solution meant for the daily operations?**

*"The new solution has improved the ergonomic situation for our employees and therefore they are now much more motivated. We have also seen a quality increase, due to the fact that we now have better overview of our deliveries."*

### **In addition to the functional benefits, did the new solution optimize your logistics in terms of time and money as well?**

*"With the new system, we have mostly saved time. In addition, even though we have increased the capacity of our system, we can work with the same staff size, without hiring any new staff."*



## Customer Data



V&S Absolut Spirits, Sweden  
[www.absolut.com](http://www.absolut.com)

### Location

Production is in Åhus in southern Sweden and the head office is in Stockholm, Sweden.

### People

Approximately 280 people work with the production of Absolut Vodka at the plant in Åhus. Another 90 people work with sales and marketing at the head office in Stockholm. In Åhus, 100 people work with the expansion of the plants. An additional 20 people work with repairs.

### Products

Absolut Vodka is produced in six different flavors and in 10 different

bottle sizes. Since the start in 1979, 841.7 million liters of Vodka has been produced.

### Sales

Absolut had a turnover of 5,142 MSEK in 2003. The operating profit for the business was 1,869 MSEK. This corresponds to 500,000 bottles of Vodka produced per day.

## The benefits

- Whilst local markets require goods to be supplied on Euro pallets, export markets (97% of production is exported) prefer slip-sheets in order to reduce the volume of goods shipped yet retain the ability to handle the goods mechanically. The flexibility of the handling system allows Absolut Vodka to supply orders in the preferred manner – on Euro pallets, on slipsheets or as stacked cases – and this is an important factor in customer satisfaction.
- Computer control allows accurate inventory and efficient transport flows.
- Absolut is able to produce larger batches of each article.

## Swisslog Scope of Supply

- System design and development
- Planning and implementation
- Project management
- Engineering
- Health and safety
- Supply of all material handling equipment
- Stacker crane control system
- Warehouse Management System
- Conveyor control system
- Training