

SWISSLOG'S LOGISTICS
INDUSTRY EXPERTISE



FOOD & BEVERAGE



swisslog

EVERYTHING YOU REALLY NEED IN LOGISTICS: THE INDUSTRY EXPERTISE OF SWISSLOG



CONTINUOUS FLOW
AND MAXIMUM
AVAILABILITY WHILE
LOWERING LOGISTICS
COSTS

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INDUSTRY SEGMENT MANAGEMENT FOOD & BEVERAGE

The Food & Beverage Industry Segment Management (ISM) monitors trends in various sectors for which Swisslog is able to create logistics solutions, from the early consulting phase to implementation and customer support.

Food & Beverage

Manufacturing and distribution segments in the Food and Beverage industry are facing many challenges. Rising input costs, changing consumer habits, environmental pressures, traceability requirements, just to name a few. These market pressures are making efficient logistics ever more important. Reducing costs, increasing service levels and speeding up order fulfillment time, while maintaining the quality of products provided, are ultimately the keys to success.

The need to deliver the right product at the right time to the right place and with the right quantity is just the starting point. Freshness and food safety are also important requirements.

Sell-by dates, temperature control, government regulations and design for future flexibility are an integral part of Swisslog's solutions.

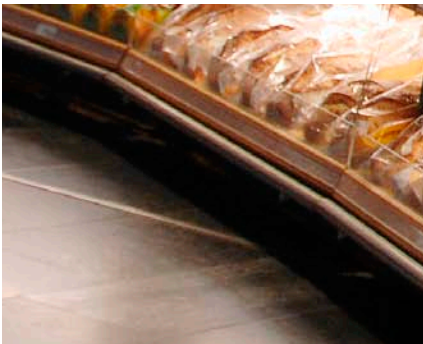
Our expertise is founded upon the knowledge of our professionals, gained through successful completion and operation of logistics solutions for manufacturing, automated warehouses and distribution centers worldwide. Our goal is to help customers achieve perfect distribution management, a continuous flow of materials and maximum availability, while increasing the quality of the logistics process and lowering logistics costs.

ISM Food & Beverage

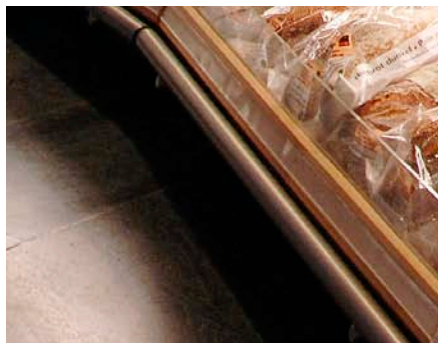
Swisslog keeps a continuous market-focused perspective through Industry Segment Management (ISM). This ISM keeps a close eye on market trends to be able to develop logistics solutions that are suited to requirements in specific industry sectors.

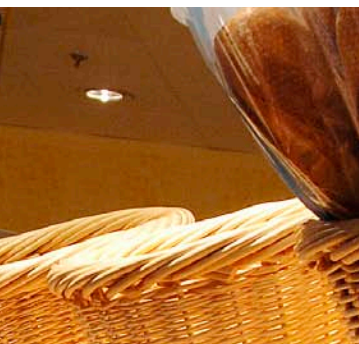
The ISMs operate on a global basis for all Swisslog companies. Their role is to be a "center of excellence", a forum of our most experienced employees with specific industry know-how. They gather experience from practical applications of system solutions, analyze the information obtained and make it available to all Swisslog companies. Of course, all of our customers reap the benefits, too.

INDUSTRY SOLUTIONS FROM SWISSLOG



**INDUSTRY SOLUTIONS
FROM SWISSLOG:
MODULAR, FLEXIBLE AND
EFFICIENT**





The Swisslog suite of Industry Solutions consists of intralogistic solutions optimized to meet today's market requirements and supply best solutions for the industry sectors in the food and beverage business.



Together with logistics mastering equipment such as automatic transport systems, storage systems, case-picking systems, robotic order-picking systems, sorting systems and automatic vehicle loading and unloading systems, Swisslog is capable of meeting any specific logistics requirement. These components are linked together with our integrated Warehouse Management System, and monitored via our Single Point of Control visualization system.



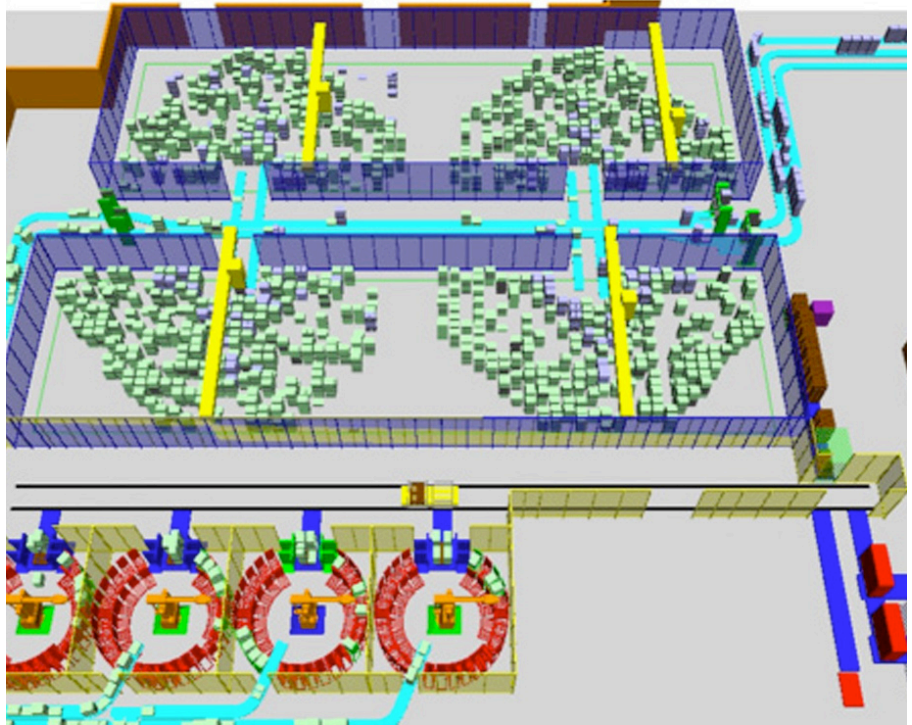
INDUSTRY SOLUTION

StackRunner



01

The StackRunner is a fully automated crate order-picking system for high volume products.



02

In the StackRunner Industry Solution, crate stacks are placed in a crate stack buffer system typically operated by gantry robots or a miniload system. Through effective batch-picking of sub- and full crate stacks, which are subsequently automatically split into substacks according to orders before entering the StarRobot area.

The unique multifunctional StarRobot acts as a consolidation buffer to perform sequencing and intelligent stacking and to ultimately palletize customized stacks directly onto outbound load carriers. The solution is based on fast-moving cases that are automatically depalletized from product pallets, which are stored in an automated lane-buffer dispensing system (order release module), and the slow-movers, which are automatically stored in a miniload system that can handle a wide range of case types.

Cases for customer orders are automatically dispensed in correct case sequence and palletized to any load configuration ordered. Pallets are automatically secured, labeled and ready for dispatch within minutes

Benefits

- > Reduced handling cost through fully-automated crate stack handling
- > High picking accuracy and capacity
- > Extremely short times for order fulfillment
- > High flexibility in creating customized loads
- > Efficient warehouse space utilization through compact modular design

01 Star Robot, ICA CRM, Sweden

02 Generic StackRunner Solution

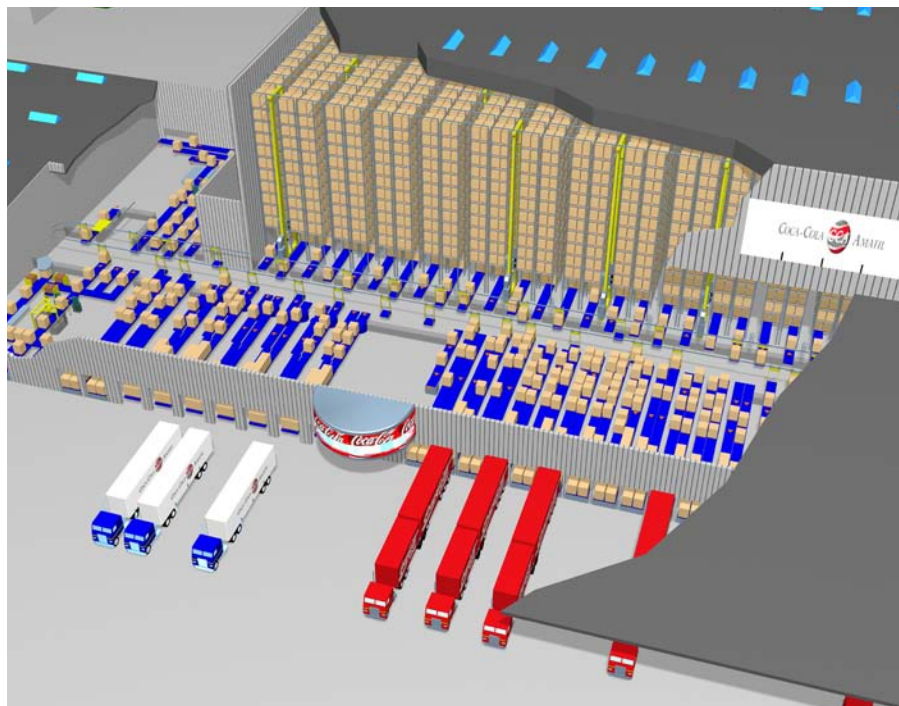
INDUSTRY SOLUTION

WarehouseRunner



01

WarehouseRunner is an automated warehouse solution for efficient receiving, high density stock keeping and rapid shipping.



02

The key component of the WarehouseRunner is the high-density automated warehouse with direct links to production or shuttle service and with efficient automated truck unloading for rapid receiving and putaway. An automated back-bone transport system is typically based on a monorail, an automated guided vehicle or a unit load conveyor system depending on what transport capacity is required to link together all the warehouse areas.

Any pick areas can be automatically replenished from the automated warehouse. Full pallets can be transported directly from the automated warehouse to the shipping area. Staging in automated storage for sequenced route loads is possible in order to optimize outbound transport routes. Automatic loading docks for route and bulk loads are possible options.

Benefits

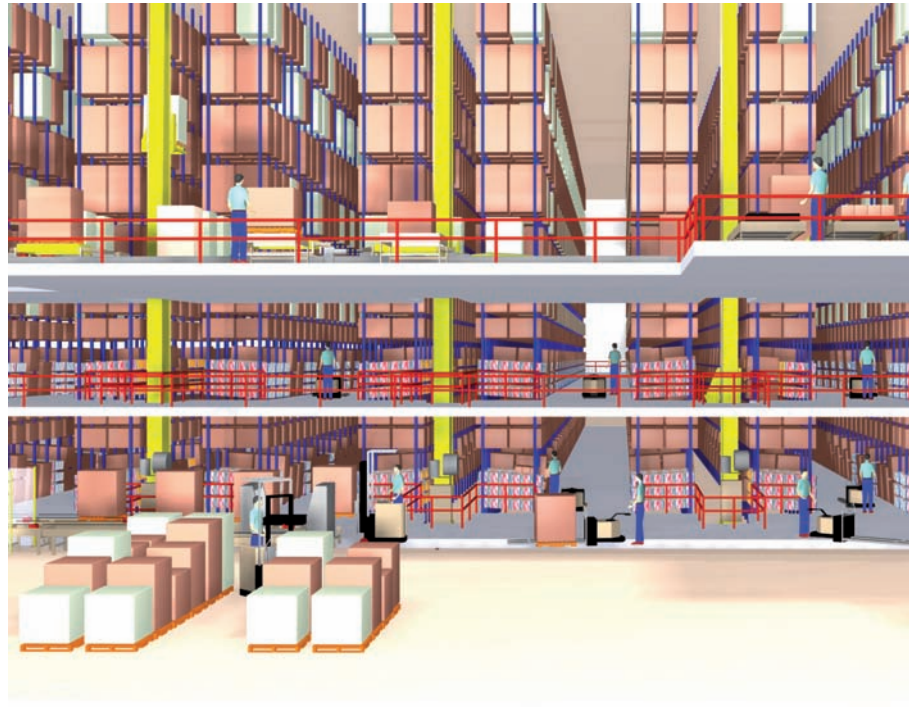
- > Optimal space utilization through high storage density automated warehouse
- > Reduced lead-time to fulfill customer demand
- > Improved accuracy in picking
- > Reduced stock damage
- > Pallet load sequencing to optimized outbound transport routes

INDUSTRY SOLUTION

PalletRunner



01



02

PalletRunner is a semiautomated case order-picking system.

Swisslog customers such as Arla Foods Sweden, Best Foods Germany, Walkers Crisp United Kingdom, ASKO Norway, IKEA Sweden and large retailers in North America have all chosen the PalletRunner as their preferred solution.

This solution automates the pallet flow from receiving to the storage location and then into the pick face. Cases are manually picked via voice direction to an order pallet on a pick vehicle. The pick faces are integrated into a rack structure. Automated storage and retrieval machines replenish the pick faces, which hold a buffer of 2 pallets.

Following the man-to-goods principle, the picking occurs on multiple pick levels. The finished order pallets are stretch wrapped automatically and transported to the shipping dock area via a conveyor system.

The pick faces can be configured in many different ways. The configuration can be changed with changing operational requirements.

Pick face configurations are:

- 1-tier / tall loads
- 2-tier / half-high loads
- 3-tier / one layer on a tray
- Dynamic slots

Benefits

- > Streamlined and more efficient processes due to automated hauling, putaway and replenishment functions
- > Multilevel order filling allows a reduction in building footprint
- > Increased order filler productivity due to
 - voice picking
 - avoidance of congestion with replenishment drivers
- > Accurate and highly visible inventory information
- > Higher order fulfillment rates due to double-deep pick slots and short replenishment cycles

01 PalletRunner, Arla Foods, Sweden

02 Generic PalletRunner Solution

PROVEN EXPERIENCE

Swisslog is committed to improving clients' logistics through smart material flow planning using proven technology for both manual and integrated automation.

Swisslog has already proven its technology at:

- > Arla Foods – Regional dairy distribution center, Sweden
- > AG Barr– Beverage distribution center – United Kingdom
- > Unilever Bestfoods – Food product distribution center, Germany
- > Biscuits LeClerc - Food distribution center, Canada
- > Coca-Cola Amatil - Distribution centers, Australia and New Zealand
- > Everfresh Group, (Fyffes) – Fruit & Vegetables distribution center, Sweden
- > Faxe – Beer distribution center, Denmark
- > Forster's Wine Estates – Beverage distribution center, Australia
- > Fruttage – Freezer distribution center, Italy
- > Grolsch – Beer distribution center, Netherlands

- > Derkenne-Couline – Freezer distribution center, Belgium
- > ICA – Meat Sortation Plant, Sweden
- > Jelly Belly Candy Co. – United States of America
- > Johanna Foods - Juice & Dairy, United States of America
- > Lombardia Carni – Meat processing center, Italy
- > Migros GMOS – Fruit & Vegetables regional sortation plant, Switzerland
- > Migros Mifroma – Cheese regional distribution center, Switzerland
- > Nolet – Distribution center for spirits, Netherlands
- > Ringnes – Beverage distribution center, Norway
- > Nestle Perugina/Wincanton – Distribution center, United Kingdom
- > Nortura/Prior – Meat distribution center, Norway
- > Rynkeby Foods – Distribution center for Juices, Denmark
- > Thurella – Beverage distribution center, Switzerland
- > Vectura Arcus - Wine & Spirits distribution center, Norway
- > Vroegop - Windig – Fruit & Vegetables - Distribution center, Netherlands
- > V&S Absolut Spirits - Distribution center for spirits, Sweden
- > Walker's Snack Foods, Regional distribution center, United Kingdom
- > WaWa – Dairy distribution center, United States of America



SWISSLOG PLANS, BUILDS, DELIVERS, INTEGRATES & SERVES YOU IN ALL YOUR LOGISTICS NEEDS



WHY WAREHOUSE & DISTRIBUTION SOLUTIONS FROM SWISSLOG?

- > From manual to automated solutions – designed to grow
- > Industry expertise – we understand your business
- > Consult, design, deliver and operate – guaranteed results
- > Lifetime partnership – to maximize your investment
- > Global presence – local service and support



Swisslog provides services, solutions and products for warehouses & distribution centers such as:

- > Consulting & design incl. studies
- > Systems implementation & integration
- > Civil engineering & project management
- > General contracting
- > Software solutions
- > Material handling products
- > Customer support



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