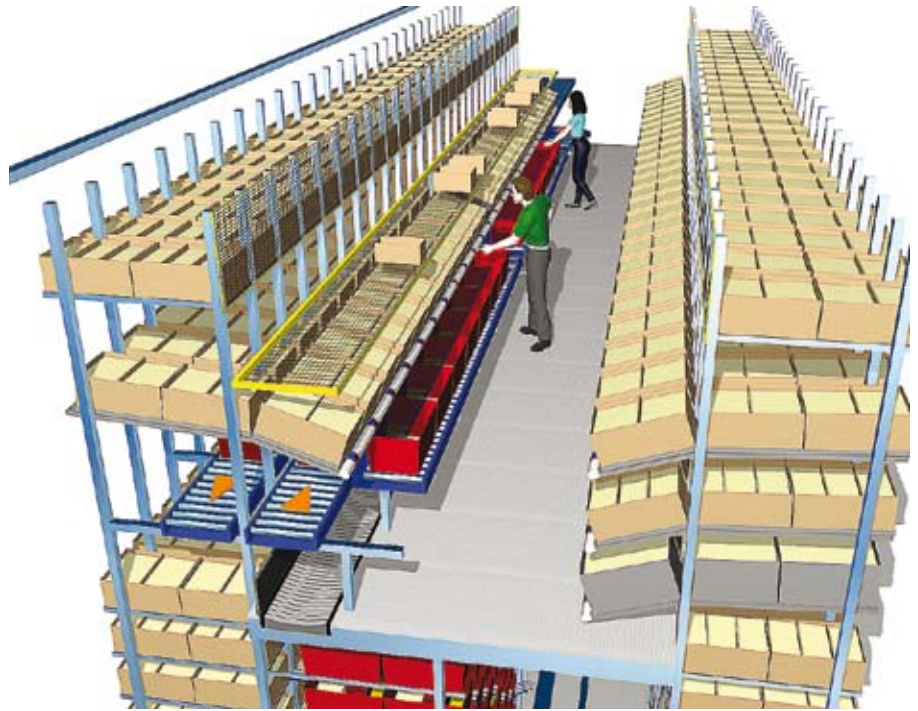


SWISSLOG INDUSTRY SOLUTION

ZoneRunner



The ZoneRunner is a semi-automated piece-pick solution, typically found in the food and retail industry.

The ZoneRunner is a man-to-goods solution. The solution allows the presentation of several thousand products in static or dynamic pick locations.

Swisslog's ZoneRunner solution is based on four modules:

1. Order start module
2. Integrated reserve & picking module
3. Packing module
4. Order completion module

The various SKUs come in totes or cartons. The replenishment function is either manual or automated with a miniload crane Tornado. The picking occurs ergonomically from multilevel pick faces. The solution can handle a large number of orders at the same time. Once the order totes contain all products, the totes are either sent to the packing stations or directly to a sorter. A sequencer can generate an exact tote sequence for manual or automated stacking of the totes onto a transportation unit.

Benefits

The ZoneRunner has the following benefits compared to conventional picking solutions:

- > High order filler performance (or picking performance) because of short walking distances and ergonomic picking stations
- > Reduced building footprint due to multilevel picking
- > Reduced labor force due to an automated transportation system and miniloads for putaway and replenishment
- > High flexibility for changes in demand
- > High pick accuracy is accomplished through pick-by-voice or pick-by-light solutions

ZoneRunner Facts

	Typical Data	Unit
SKU range	1 000 - 50 000	SKU
Orderlines	1 000 - 10 000	orderlines/day
Buffer storage designed for	totes, carton boxes in various sizes	

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MODULE 1 ORDER START MODULE

- a) Order start module for carton boxes
 - > Automated Carton Box Opener
 - > Various sizes
 - > Approx. 600 carton boxes/h/machine
- b) Order start module for totes
 - > Empty tote buffer



MODULE 2 INTEGRATED RESERVE & PICKING

- > 700 pick channels
- > 5 pick zones
- > Buffer for 21 160 totes
- > 2 Tornado miniload cranes (replenishment)



MODULE 3 PACKING STATION

- > Terminal / printer
- > Weighing cell
- > Packing material
(various options)



MODULE 4 ORDER COMPLETION

- a) Direct chute: Ready for parcel services
(container or trailer load)
- b) Sorter chute: Ready for customers
(pallets or role cages)

Swisslog customers such as Actebis in Germany, Dahls and Stadium in Sweden, Forlagscentralen in Norway and Haiyan in China have all chosen the ZoneRunner as their preferred solution.