



Woolworths, Australia A Case Study



Automated distribution center for supermarket retailer

"Since the new system was installed, we have reduced our overall stock levels. We have also drastically decreased the handling cost per carton."

*David Meadows
Project Manager, woolworths*

The Customer and his Requirements

The Woolworths Supermarket Group is Australia's largest food retailer with a market share of more than 30 % and a turn-over in excess of AUD 14 billion. The company has more than 500 supermarkets and food stores throughout the country. The Group also operates department stores for general merchandise and speciality retail which is sold under various well known trademarks.

The new Minchinbury distribution centre serves the Group's supermarkets throughout the state of New South Wales, particularly those in the Sydney area, distributing the top 4,500 grocery, general merchandise and liquor products. Linking this advanced distribution facility to Woolworths' core Merchandising Systems, including Store Order Management, provides the most efficient and complete retail system world-wide.



The Solution

The entire building design for the new distribution centre was governed by the logistic system, which is structured for the optimal flow of products from goods-in, to the high bay warehouse, to the picking areas and through the high speed sortation unit to the dispatch area. Highlights are the multi storey pick-to-belt picking area where the operators pick goods as instructed by the Pick to Light displays. In addition, automated order picking is applied for the fast moving and heavy products in order to reduce load on the pickers. Replenishment is carried out automatically from the high bay warehouse.

A Crossdock (Transshipment) and Flowthrough area is provided to shorten lead times and reduce stock levels. The «Floating Batch» sorter control technology represents the latest in high speed sorter control, avoids the limitations caused by batch changes in standard sorter

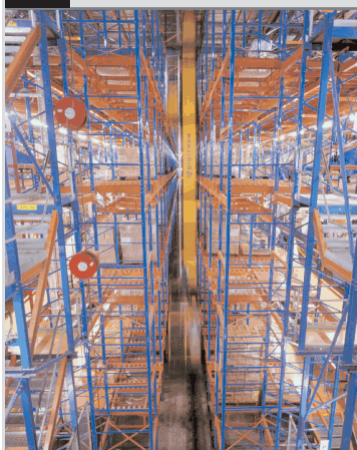
operation, and guarantees the accurate sortation of 12,000 cartons per hour.

The integrated system covers all the major functions necessary to operate the facility.

These include:

- Goods receiving area for identification, via mobile RF-Terminals labelling and checking of goods
- Bulk storage high bay warehouse
- Crossdock (Transshipment) and Flowthrough area controlled via mobile RF-Terminals
- Automated replenishment to picking areas
- Pick-to-belt module for Pick to Light picking
- Automated order picking module with robotic picking
- High speed sortation and despatch facilities
- Warehouse management system with material flow control and connection to the Woolworths' ERP system

Logistics Data

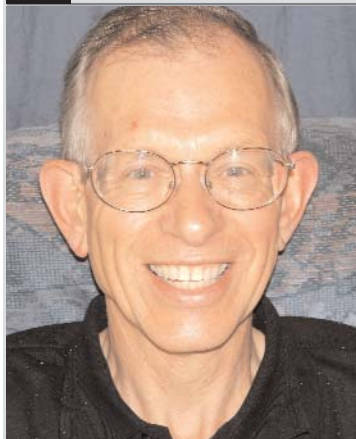


Overall facility	
Throughput rate (pallets / day)	5,000
High bay warehouse	
Throughput rate (pallets / hr)	220
Storage capacity (pallets)	27,600
No. of stacker cranes	10
Order picking system	
No. of products in the pick-to-belt area	4,000
No. of products in the Flowthrough area	250
No. of pick channels	24
No. of replenishment cranes	7

Automated order picking area	
No. of products in the automated picking area	250
No. of automated pick robots	8
Performance (cartons / day)	50,000
Sortation system:	
Sorter throughput (cartons / hr)	12,000
No. of induction stations	2 x 4
No. of sorter chutes	80
No. of orders /day	330
Average order size (cartons)	1,060
Daily output of the system:	
Maximum daily output (cartons / day)	350,000



Interview



David Meadows
Project Manager

What was the reason behind Woolworths looking for a new solution?

"Due to a change of policy in the way Woolworths supplied its goods to its stores, we needed to look into what different solutions were available and what we could do to make our set-up more effective."

How did Woolworths get in contact with Swisslog?

"We first contacted Swisslog via telephone with the headquarters in Switzerland, followed by a submission and several discussions."

Why did Woolworths pick Swisslog as Supplier?

"Swisslog had already undertaken previous work for us on this site and had excellent innovative solutions to complex logistic problems. This was exactly what we were looking for."

How did you decide upon the right solution for you?

"Swisslog offered us different solutions, with different levels of automation. We then evaluated these solutions and chose the one that fitted our needs the best."

What was it like to work with Swisslog during the project?

"Excellent! The work was done on time and the staff worked all night if needed. The time difference and the distance between Aarau and Sydney did not seem to exist."



Customer Data



Woolworths, Australia
www.woolworths.com.au

Location

Woolworths Limited is an Australian company, with its head office in Sydney. They operate more than 1400 stores in Australia, plus an additional 33 Dick Smith Electronics stores in New Zealand.

Brands

Woolworths' major brands are: Woolworths, Safeway, Food For Less, Woolworths Metro, Dick Smith Electronics and PowerHouse, Tandy, Woolworths Liquor, BWS, First Estate, Dan Murphy's, Plus Petrol, BIG W, Australian Independent Wholesalers (AIW), Woolworths Ezy Banking,

Woolworths HomeShop and GreenGrocer.

Supermarkets is the largest division with stores in all states.

People

Woolworths employs around 140,000 people. Some 50,000 of the employees are in rural and regional areas. Woolworths train more apprentices than any other company in Australia.

Sales

Woolworths Limited has annual sales of over \$20 billion.

The benefits

A well balanced mix between manual and automated activities and the application of the latest technology in material handling, provided the necessary flexibility to operate in this dynamic environment.

Major achievements are:

- Reduced overall stock levels
- Lower handling costs per carton
- Reduced lead times from order to supply
- Improved inventory accuracy to above 99%
- Picking accuracy now close to 100%
- Efficient usage of available land

Swisslog Scope of Supply

- Concept design and development
- Detailed engineering and simulation
- Project management and implementation
- High bay warehouse
- Electric monorail system
- Automated picking system Robopick
- High speed sorter
- Conveyor systems
- Pick-to-belt module
- Warehouse management and material flow control system
- Training
- Full maintenance and software support