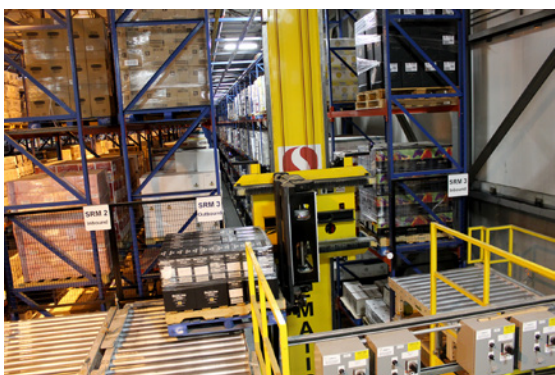


Case Study



Grocery Retailer Finds New Efficiencies in Store Order Assembly System

Safeway, one of the largest, most innovative retail grocery companies in North America, needed to consolidate operations, reduce labor costs, and improve order accuracy at a key distribution center in the Pacific Northwest. Safeway partnered with Dematic to implement a new store order assembly system designed to deliver efficiencies and accommodate future growth.



Full and partial pallets of product are removed from the automated storage system when required at the decanting workstation.

The Challenge

Safeway needed to consolidate multiple distribution centers into one operation which could support over 500 retail stores. Safeway worked with Dematic to design and implement an order fulfillment system for split case items. The system would require a high density, compact logistics solution that could be implemented without adding on to the existing building.

The system would need to control access to inventory and provide real-time visibility, while increasing picking efficiency and throughput.

Material flow had to be automated and allow strategic system management to streamline functions from receiving to shipping.

Performance optimizing software with analytics would be necessary to support inventory and order accuracy. The software would direct the order assembly process to make shelf restocking at the retail stores more efficient.

Our Solution

At receiving, pallets are stored in an automated storage and retrieval system. When product is required in the piece pick sub-system, pallets are sent to a decant workstation where operators transfer the contents of each case to a tote.

The totes are then conveyed to the Multishuttle. The inventory totes are staged in the Multishuttle subsystem until needed to fulfill retail store orders. Totes are retrieved in a specific sequence and conveyed to the appropriate goods-to-person, RapidPick workstations.

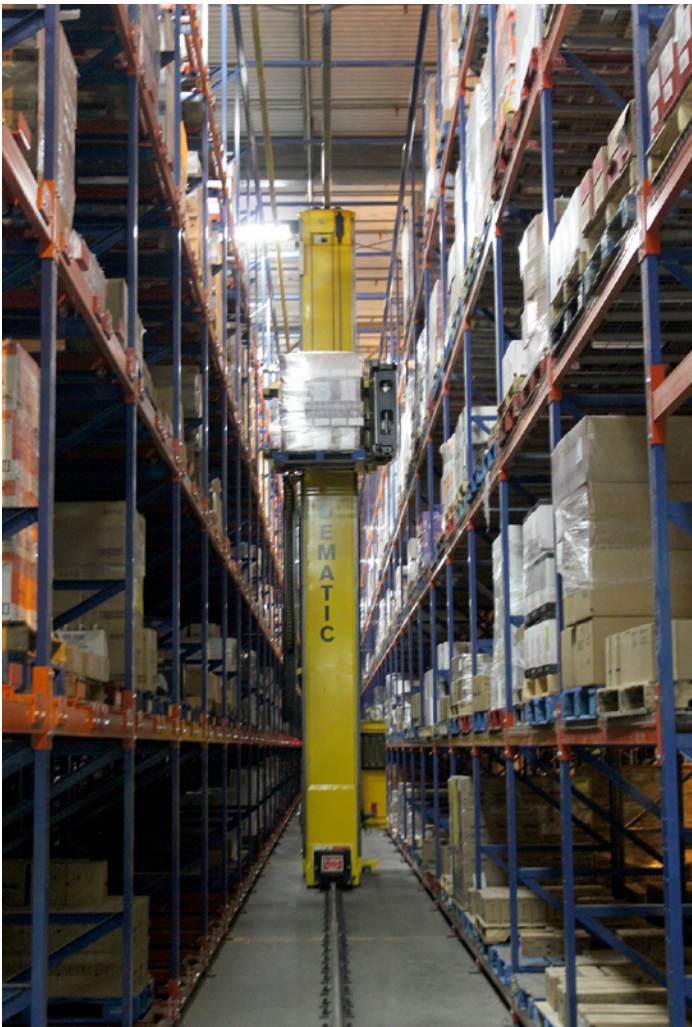
Orders for each store are assembled and the goods-to-person workstations allow operators to pick up to six orders at a time.

Ergonomic design allows 100% golden zone picking and supports high picking productivity.

Operators pick items from a donor tote at their ergonomic workstations. A workstation flat screen indicates quantity to “put” into the order totes.



Decanting workstations are designed for ergonomic functionality and productivity.



Full pallets are received and stored in the automated storage and retrieval system (ASRS).



Inventory totes (gray) and retail store totes (green) are directed to Multishuttle sub-system on a sliding shoe sorter.



Good-to-person workstation allow six store totes to be assembled concurrently.



The Multishuttle sub-system serves as an inventory staging system and "pick engine."

After an order tote is complete, it is conveyed to the tote buffer module in the Multishuttle sub-system. There are two dedicated Multishuttle aisles that serve as a consolidation point for order totes.

After all the totes for a pallet are available, the Dematic software releases the totes to the palletizer.

The Results

The benefits of the new system extend beyond the distribution center. Pallets are assembled to make retail store shelf restocking easy and efficient. The system also offers more storage capacity, optimized flow, and provides real-time control with a compact footprint.

To assure high uptime and optimal system performance, Safeway uses

Dematic technicians on site. The Resident Maintenance team provides operational support, preventive maintenance, and repairs.

The entire Dematic system is scalable, flexible and modular to assure that Safeway can continue to grow and maintain its position as one of the most innovative retail grocery stores in North America.



The good-to-person workstations are arranged in one zone adjacent to the Multishuttle sub-system.



A pallet of totes is complete and ready for delivery to a retail store.



The convey and sort network is designed to accommodate the inventory totes (gray) and retail store totes (green). Transport of all totes between the functional areas of the distribution center is provided by the convey and sort network.

Lifecycle Support Resident Maintenance

The Resident Maintenance program maximizes system uptime and supports daily operations. A strict preventive maintenance schedule extends the life of the system and lowers lifecycle costs.



Capacity

→ Retail Store Supported	500
→ Pieces/Day	160,000
→ Store Pallets Shipped/Day	440