

Warehouse & Distribution

Voortmans Cookies - Burlington ON

Project Overview:

Mainway's reputation for designing quality dynamic storage solutions has bridged across a multitude of areas, including food and beverage.

The Line:

High density storage in the shipping & receiving area

The Situation:

Voortman required a dynamic storage system that streamlined package flow from the bakery to the pick area to decrease maintenance and increase throughput. This design was to be implemented with their new warehouse expansion.

The Challenges:

The primary concern was maintaining the freshness and delicacy of the packaged goods.

Sales hinged on the successful shipment and delivery of its product, therefore the integrity of each Voortman box of cookies was crucial.

Voortman was unable to use traditional floor stacking storage methods.

Mainway designed a multi-tiered system of pallet lanes to protect packages from crushing weight and other damaging elements within the warehouse.

The Solution:

Given the above set of requirements, Mainway had the unique opportunity to build one of the largest and most innovative flow storage systems in Canada. The final expansion increased warehouse space by 45,000 square feet which allowed for 89 bays with 2581 pallet positions with three vertical tiers, resulting in an approximate 25 per cent increase in throughput. Each of the 267 bays were comprised of full-width roller tracks with heavy-duty impact rollers at pick zones, and seven brakes per lane all fed by an automatic guided transfer system at the load zone.

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The Solution:

Mainway dealt with maintaining package integrity by utilizing a three-tiered “First In/First Out” (FIFO) flow storage system, which decreased the handling of the product. The two lower levels were nine pallets deep with the top level being 10 deep. Each pallet met its maximum 2,000 pound capacity while fully utilizing the warehouse’s vertical space. This design immediately eliminated the possibility of crushed cookies.

Mainway situated the storage system within the shipping area allowing boxes to be palletized and loaded into the system by variety and shipment destination.

The use of full-width rollers solved Voortman’s previous flow accuracy problem by offering more flow surface area for increased pallet support, reducing the tendency for pallets to wander while flowing down the 37 foot lanes, virtually eliminating hang-ups within the system.

The design of the single position overhang on the third tier provided a space for partially picked pallets to be placed on the floor under the overhang. This allowed personnel easy access to pick-to-order from partial pallets without having to push them back into the bottom lanes.

The Results:

Mainway Handling Systems was awarded the contract to supply and install a state-of-the-art “First In/First Out” (FIFO) system to integrate with an AGV loading system. Product freshness and package integrity was improved, pick and shipping logistics were refined, worker safety and satisfaction was increased and ultimately throughput was at an all time high.