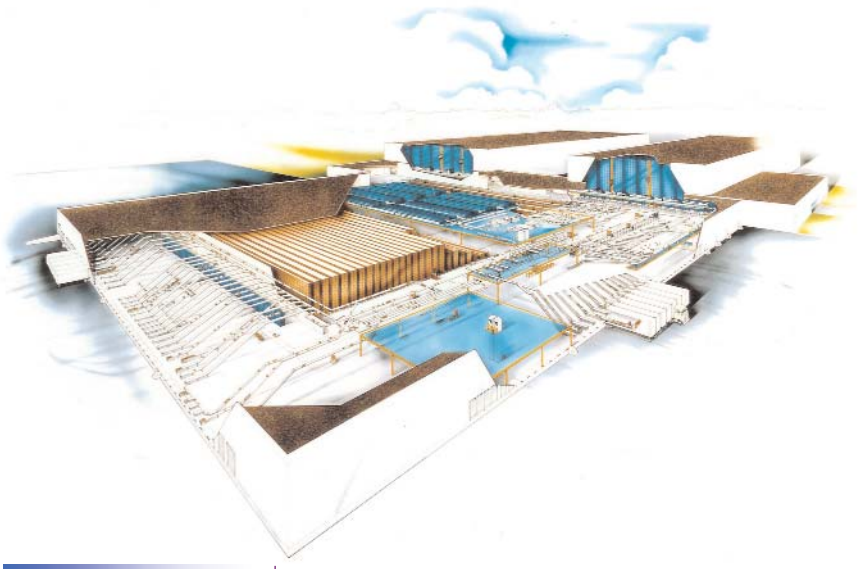
2-MINUTE OVERVIEW

Large Retailer Replaces Two Centers with One New Distribution Center



Features/Benefits Provided:

- **Allowed flexible floor space use for anticipated process expansion**
- **Increased throughput without significant operations impact**
- **Reduced annual corrugate usage by up to $1 million**

This distribution center was established to replace 2 existing retail centers. The new, state-of-the-art, centralized distribution center receives goods from overseas and distributes them to the customer's various regional distribution centers in the United States. The supplier worked collaboratively with the customer to design a custom solution to meet their operational requirements.

The new center was designed to receive 11 million cartons annually. Annual shipments are 15 million pick-packed cartons (103 million units) and 4.7 million pre-packed cartons (44 million units).

AGVs were the key to tieing operation processes together in this million square foot facility.

SKUs are velocity typed A or B to determine storage and picking zone locations. The A pick area is based on high volume demand; the B pick area is for low to medium SKU volume demand. Picking throughout the center is RF and bar code ID based.

Cartons are received at 14 dock doors, conveyed through 7 identification and 2 sizing stations and are delivered to 34-pallet built stations. Storage area selection is based on item attributes and pallet weight.

The solution included 7 miles of case conveyor. All conveyors are fully automated using 23 Allen Bradley PLCs.

The system used 33 Lift Top AGVs. These vehicles travel up to 200 ft/min, handling pallet loads that weigh up to 3000 lbs. The AGVs keep the floor space open and eliminate single points of failure. The guide path links together over 100 load interface stands in the pallet built area, VNA, AS/RS, A pick, QC, and special projects P/D stations. The Lift Top AGVs are all electric vehicles that utilize lead acid batteries for power.

The system also uses 4 Conveyor Top AGVs to deliver pallets to the flow lanes in the A pick area. These wire guided AGVs are NiCad battery equipped. Automatic battery charging stations allow these AGVs to run without human interaction.

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