Appliance DC Phase One

A very high density storage system designed to conserve space and manpower while improving order shipments of high-end major appliances.

Project Objective

The nation’s premier maker of high-end refrigerators, freezers and wine coolers operates a distribution center near it’s manufacturing plants in Madison, Wisconsin. The DC needed a storage system that was very high density. The system need to optimize the available space and reduce manpower and was designed to be used in conjunction with a conveyor system for facilitating order shipments. The conveyor system was Phase Two of this project, which can be found on a separate case study.

Project Scope

DAK Equipment & Engineering designed, supplied and installed this system. The project requirements included testing the customer’s products for “flowability” prior to finishing the design work. The final system design consists of gravity-roller pallet flow beds, welded in place to a rack system that allows ovens and ranges to be stored 12 to 14 units deep in 58’ deep flow lanes. Storage density is excellent, lift truck travel time is reduced, productivity increased, and product is picked on a first-in, first-out basis. All product is loaded from the “charge” side of the system and unloaded from the “discharge” side. Product flow speed is carefully controlled by brakes.
Project Data

Manufacturer of refrigerators, freezers, ovens, ranges and cook tops

Building Square Feet: 200,000
Pallet Positions: 1,872 (estimated)
Pallet Flow Lanes: 144
Pallet Weights: 600# and 2000#

Solutions Used:
- Interlake roll-formed and structural rack system
- Alba structural gravity roller flow beds, welded in place on structural rack beams
- Centrifugal pallet flow brakes, indirectly mounted against underside of gravity rollers