Appliance DC Phase Two

A Pallet conveyor system for large appliances that include accumulation zones, turntables to maintain product orientation and automated banding.

Project Objective

The nation’s premier maker of high-end refrigerators, freezers and wine coolers needed a solution to the problem of picking and then conveying pallets in a certain order while allowing lift truck drivers to select any pallet at any time for truck loading. Additionally, the pallets needed to maintain their orientation on the conveyor and be banded automatically. Finally this system also needed to work in conjunction with the pallet flow rack system, which was phase one of this project.

Project Scope

DAK Equipment & Engineering implemented a non-contact accumulation conveyor system with turntables to maintain pallet orientation through two turns. Pallets are picked from the flow-through rack system and placed on the conveyor. Traveling through a turntable to an automated bander, the pallets are paused and receive either one or two bands. The loads continue and are accumulated along 14 zones prior to a second turntable, after which there are an additional 8 accumulation zones. Lift trucks may approach a moving pallet from the side, and the conveyor system will sense the lift truck, pause the pallet and restart only after the lift truck backs away from the conveyor with the picked load.
Project Data

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

Building Square Feet: 200,000
Conveyor Speed: 30 FPM
Accumulation Zones: 22
Pallet Weights: 600#

Solutions Used:

• Alba non-contact CDLR accumulation conveyor with photocell controlled zones
• Alba turntables
• Allen-Bradley photocells and controls
• ITW Strapex strapper
• Controls by Control Devices
• Interlake guard rail
• Custom impact guards set 48" into concrete