



## Project Summary Sheet



### Project Objective

Sub-Zero Freezer Company needed a solution to the problem of picking and then conveying pallets in a certain order, but allowing lift truck drivers to select any pallet at any time for truck loading. In addition, pallets needed to maintain orientation on the conveyor and be banded automatically. (This system also needed to be used in conjunction with the pallet flow rack system - Phase One of this project). DAK E & E was asked to design and build the solution that would meet these objectives.

*(Please refer to Phase One Project Summary Sheet.)*



### Project Scope

DAK decided on 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. Pallets travel through a turntable to an automated bander, where the pallet is paused and receives either one or two bands. Pallets 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 it's pallet.



*View of automated strapper with it's own control cabinet (left) and partially-completed control cabinet for conveyor (above).*



### 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#

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