

TriFactor Solution

PICK/STORAGE SYSTEM WITH AUTOMATED STRETCH WRAPPING CONVEYORS

Case Study

Company Description

Thies Distributing is a multi-brand beverage distributor based in Palm Beach Gardens, FL. Founded in 1951, the company has over 300 employees and distributes more than 400 beer and alternative beverage brands.

Situation

The company was operating out of two separate Florida facilities, one in Ft. Pierce and the other in Lake Worth. Both facilities had become dated and could no longer handle the volume of product Thies Distributing needed to output in order to stay competitive.

Assessment

The company determined that a larger, more automated facility was needed. Working closely with TriFactor's engineers, they determined that much of the efficiency problem in the existing facilities was from picking floor-stacked product, as



opposed to storing and picking product from a pick module (comprised of pallet racks, pallet flow and carton flow). As they walked, employees picked cases of product and built loads on pallet jacks. They would then manually stretch-wrap the load in preparation for shipment. The existing facilities had excessive traffic in the pick aisles with pallet jacks, forklifts and the pickers and replenishers in the aisles at the same time. High traffic areas impeded productivity and created safety and breakage issues.

Solution

TriFactor's engineers worked closely with the customer and the new Stuart, FL facility's contractor as the design was being finalized. TriFactor provided input into placing openings in the walls for the conveyor systems, roll-up door locations for access to the truck and rail docks, and a pit in the floor for conveyor mounted lift tables so that pallets could be loaded onto the conveyor systems, at floor level, with a pallet jack. A new pick module/storage system included pallet rack (pushback and selective), pallet flow and carton flow. Unlike their existing facility, full-length roller carton and pallet flow was utilized in lieu of a skate-wheel type, which allowed the cartons and pallets to flow easier with fewer hang-ups. By utilizing a combination of pallet flow and push-back racks, TriFactor moved the replenishment process outside of

(over)

System Summary

Company:

Thies Distributing

TriFactor Provided:

Needs Analysis
System Design Engineering
SKU Slotting
Pick / Storage System
Automated Stretch Wrapping
Conveyors
Product Selection & Procurement
thru Design Build Contract
Electrical Permitting
Compressed Air System
Installation & Training

Size:

90,000 Square Feet

Facility Type:

Distribution Center

Products Handled:

Beer and alternative beverages

Markets Served:

Restaurants, Liquor Stores,
Grocery Stores, Super Centers

Products Utilized:

CDLR Conveyor
Automatic Rotary Arm Stretch Wrappers
Load Weight Verification System
Pallet Rack (Push Back & Selective)
Pick Module (Carton & Pallet Flow)
Controls & Software



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PICK/STORAGE SYSTEM WITH

AUTOMATED STRETCH WRAPPING CONVEYORS

the pick aisle; this helped to increase both replenishment efficiency and personnel safety, decreasing the amount of traffic by 25%. The system was designed specifically to accommodate a product mix of various types, sizes, etc. It also allowed an unusually high number of pallet types, nine, to be utilized in the pallet flow, push-back rack and the automated conveyor system.

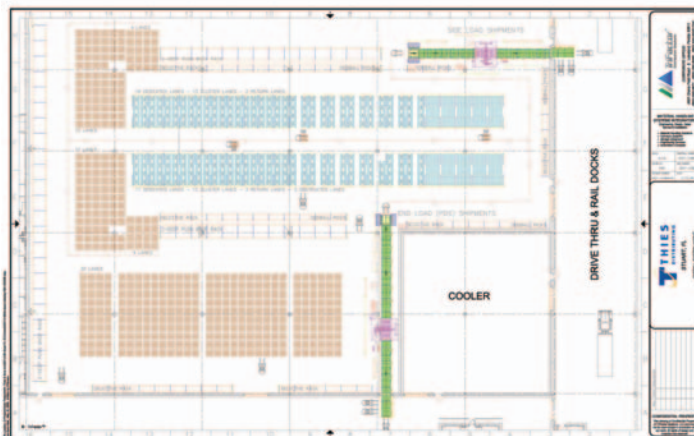
Finally, two new conveyor systems with automated stretch wrapping and weight verification were installed. Each conveyor and stretch-wrapping system is dedicated to its respective shipment type: End Load Trailer and Side Load Truck. In the design stage, TriFactor and Thies Distributing decreased the warehouse traffic and congestion by taking the finished pallet directly out of the warehouse and to the respective dock on the conveyor systems.

Result

The new system in Stuart, FL increased the efficiency in the number of cases picked per night as workers were now able to build and stretch wrap pallet loads more effectively. It also allowed them to slot the SKUs, which were increasing in number, in a logical sequence that made shipping and replenishment much easier. By increasing the pick and replenishment efficiency, more products are now able to get out the door with fewer workers. The new system also resulted in increased picking efficiency, replenishment efficiency, reduction in breakage, improved employee morale and workplace safety.

ROI

24-36 months.



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