

CASE STUDY

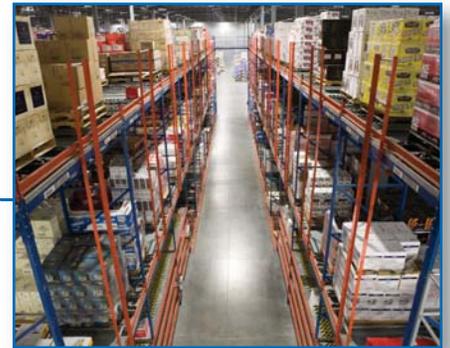
Project Features

- High-tech material handling system integrates multiple pick modules with expansive conveyor system
- Largest LEED certified building in Florida
- Frazier SelecDeck Case Flow increases pick locations and improves pick rates



As a growing division of The Charmer-Sunbelt Group, Premier Beverage Company needed to expand operations to meet existing demand and strong expectations for future growth. They embarked on a massive undertaking to consolidate two of their four distribution centers and headquarters into a large centralized facility in Tampa, FL. The impressive 570,000sf building, with 50,000sf of dedicated office space and a 520,000sf warehouse, is expandable to 1.5 million sf.

Premier's material handling system includes 12,000 feet of conveyor, 12,000 pallet rack positions, 11 full-case and split-case pick lines, and a 60,000sf chill room, for a total of 5,600 SKUs and 20,000 cases shipped daily.



Systems Integration - A collaborative win for Premier

Premier's Director of Operations, Gregg Lipp, assembled a first class line-up of material handling specialists, including Frazier Industrial and W&H Conveyor Systems, to help design and integrate the storage system, pick modules and conveyors throughout the facility. Admittedly, it was a shaky start for Frazier -

According to Gregg "We didn't initially consider structural rack. We assumed it would be more expensive than roll-formed. In the end, it was Frazier's solid demonstration of case-pick module expertise, combined with competitive pricing that convinced us Frazier was the right choice."



A combination of conveyors, high density pallet flow, and SelecDeck case flow racking are integrated into each 3-level high pick module, resulting in a dynamic, and effective order fulfillment system.



Today, this extremely busy distribution operation appears oddly quiet during the day, as crews steadily receive shipments from suppliers and replenish stock in bulk locations of the warehouse. The lull is short-lived however, and the real action begins at 6 PM, when...

- Order pickers converge on multiple pick lines
- Picking upwards of 20,000 cases per night
- Via 8 conveyor lines
- On route to 35 box trucks and 18 semis
- For 1,500 orders per day
- To Central and North Florida liquor stores, grocery chains, restaurants and bars.



Upper level, full-case pick module with 4-deep pallet flow creates unique 'cluster pick' design (above).

Full-case Pick Module

Premier developed a 'cluster pick' application design within their full-case pick modules – Several lanes of 4-deep pallet flow are designated for selective case picking, whereby each pallet in the lane contains a unique SKU. Additional floor space is added to form a walkway between lanes, creating easy access to all cases in the rear pallet locations. This design maximizes storage density while maintaining SKU selectivity. SelecDeck case flow accommodates the slow to medium moving SKUs on the floor level.

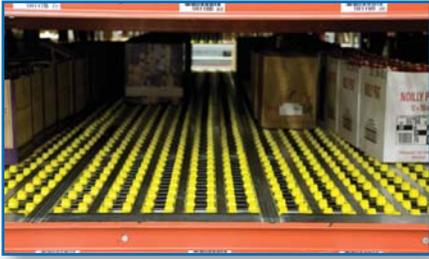
Wine & Bottle Pick Module

The chill room houses the wine and bottle-pick module where temperature is maintained at a cool 70 degrees for 3200 SKUs of wine and premium liquors. The top level of this module contains several rows of static shelving for slow-moving and high-end SKUs.

PREMIER'S STATE OF THE ART FACILITY EXCEEDED ALL EXPECTATIONS - AND FAR MORE. ACCORDING TO GREGG LIPP...

“By consolidating our distribution center operations and developing a highly integrated, sophisticated order-picking system, we were able to increase our storage capacity while dramatically improving productivity – The results are measurable.”





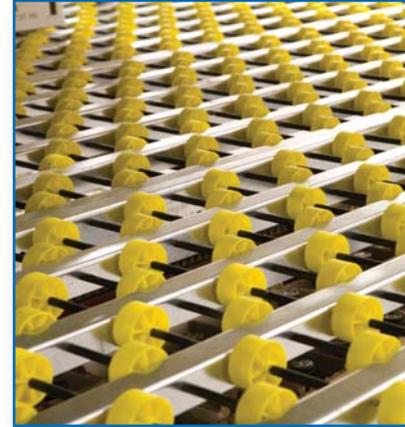
Full cases are loaded into replenishment side of bottle pick module



Bottles shown here on SelecDeck's tilt-tray are picked to cases on conveyor

SelecDeck Case Flow adds pick locations, Improves flow and pick rates -

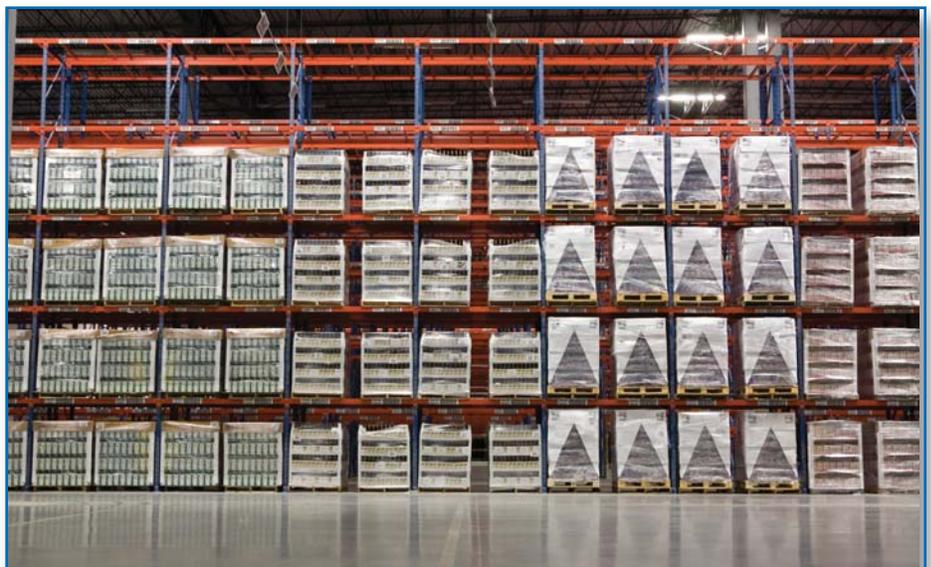
During the early planning phase of the project, Frazier installed a SelecDeck test bay to demonstrate its slotting flexibility and space optimization benefits. The Result - SelecDeck's universal shelf bed increased pick slots by an additional lane per shelf, adding over 400 pick locations. Heavy-duty plastic wheels provided easier flow at less pitch, resulting in fewer hang-ups. This was especially critical in Florida where humidity contributes to carton sag and roller rust in traditional gravity flow systems. 450 SelecDeck shelves are used throughout the pick modules.



Selective Rack

Full pallets and cases are pulled from 3 selective rack sections to replenish the pick modules. A small section of racking is reserved for what Premier calls the "odd-ball" lane - full and mixed cases are placed directly to a single conveyor line which bypasses the pick modules and leads directly to the loading docks. This design keeps the unique and slower moving SKUs from bogging down the central pick lines. Safety accessories, including row-end protectors and bull-nose post protectors were added to the aisle side frames and row-ends to provide added protection against fork-lift abuse.

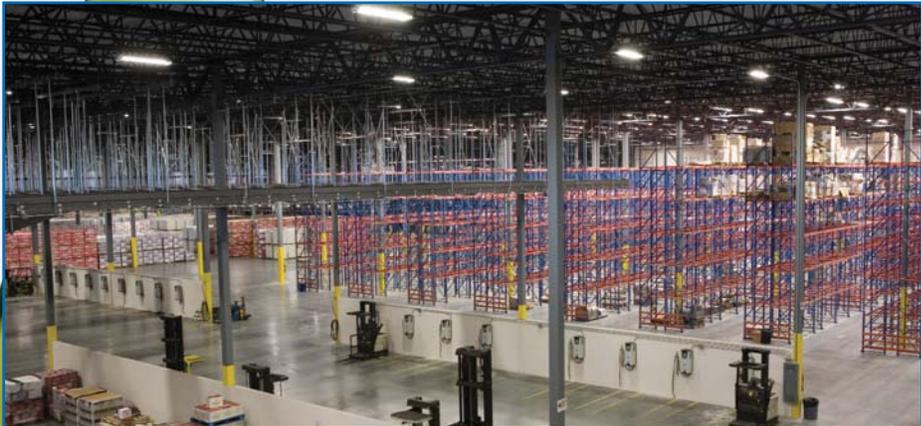
Thirty-Seven back-to-back rows of Frazier's selective, structural steel pallet rack store upwards of 12,000 pallets.



Premier Beverage Company



Exterior and interior views at completion of construction and rack installation



LEED Point Contribution

Extensive Green construction efforts made Premier Beverage the largest LEED (Leadership in Energy & Environmental Design) certified building in Florida. Featuring a reflective, white TPO roof system, storm water collection locations for irrigation, recyclable building products and a highly efficient water-cooled, chilled water HVAC system, this facility received the "Silver" level LEED certification.

Frazier is proud to have helped Premier obtain a few LEED credits through the use of recycled content material in our structural steel racking (2 pts), and through use of regional materials (2 pts.) sourced from Frazier's strategic network of manufacturing facilities within a 500 mile radius of the project.



Engineers Troubleshoot Critical Floor Slab Issue

No construction project is void of minor crisis; when it was discovered that the concrete slab could not accommodate the heavy loads of full-case pick modules, Frazier was instrumental in developing a cost-effective solution. We added an 5" I-Beam base to specific frame points, effectively dispersing the load. Frazier engineering and project management teams solved the problem and kept the project installation schedule on track.



Frazier Industrial Company

Fairview Avenue • Long Valley, NJ 07853
800-859-1342 • 908-876-3001 • Fax 908-876-3615
Email: frazier@frazier.com • www.frazier.com