

Frazier Industrial Company

Raised, Cantilevered I-Beam Base with Narrow Bay Openings Maximizes Pallet Positions



Project Highlights

- Five-Deep, Six and Seven High Glide-In® Push Back Design
- 45,000 sq. ft. Refrigerated and Freezer Warehouse with Over 8,400 Pallet Positions
- 2500# Loads to Top Shelf Elevation of 458" (38')
- Project Objectives: Cube Utilization, Quality, Value and Customer Service

Frazier's Design Maximizes Storage

A leading meat manufacturer began operations out of their northeastern United States facility in 2014. Located just outside of a major seaport, the facility allows them to distribute to a client base throughout the geographic region. Their meat products can be found anywhere from fine restaurants to national grocery retailers. In 2016, the facility was upgraded with a new state-of-the-art refrigerated and freezer addition capable of storing over 8,400 pallets of product at any given time.

The manufacturer's Chief Operating Officer (COO), led their initiative in selecting the best storage solution to for their needs. The COO began by contacting their local material handling distributor,

who brought expert knowledge to the table. The distributor team then reached out to Frazier Industrial; Frazier has developed a strong relationship with this distributor and was an easy choice to integrate the project. Frazier's approach in identifying client's needs and in providing a unique solution for the project satisfied the meat manufacturer's philosophy.

Automated Storage and Retrieval, Satellite Systems and Drive-In racking were initially considered by the meat manufacturer. The Frazier-distributor design team completed a robust product mix analysis and operational study which concluded that Glide-In® Push Back racking, using a raised, cantilevered I-beam base in conjunction with floor mounted five deep carts and tracks, was the optimal material handling solution. Unlike Drive-In, Glide-In® presents pallets at the front location, allowing for quicker unloading. Utilizing the raised, cantilevered I-beam base provides for a 96" opening by allowing the fork truck outriggers to run underneath without impacting against the column. This eliminated the need for extra space to maneuver the fork truck between each row of racking resulting in maximized down aisle storage.

"The planning, scheduling and execution of the solution exceeded my expectations. I have no hesitation in recommending Frazier and the distributor team as knowledgeable, valued partners who innovate. They expand on business needs while staying on time and on budget." – COO, National Meat Manufacturer

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A reach truck was the ideal fork truck solution to integrate with the Frazier racking for this project. Combining the height capacity of the fork truck with the raised I-beam base design of the racking allowed the team to maximize cube when configuring the system. Frazier's Warranty and the distributor's fork truck guaranteed maintenance program also provided solid value to the customer. "The planning, scheduling and execution of the solution provided by the design team exceeded my expectations. The racking system and fork trucks work together seamlessly." said the COO.

The COO continued, "The project was delivered on time and on budget with no surprises." Frazier's flexible manufacturing network of local fabrication facilities helped to achieve this result by reducing freight costs to provide an even greater added value to the project.

Frazier's engineering talent and experience in creating customer-centric rack solutions lead to the design of a system that achieved the project's goals - cube utilization, quality, value and customer service. Ultimately, the storage solution maximized the cube utilization within the limited footprint while balancing capacity requirements. The result is a five-deep push back system making up 8,486 pallet positions in the 45,000 square feet of refrigerated and freezer space.

Glide-In® Push Back Operation

To load Glide-In® Push Back, the first pallet is placed on the top cart and pushed back. This exposes the next cart for loading. When the second pallet is positioned and pushed back, the third cart is ready. This continues until all the pallet positions are filled. The last pallet sits on the rail itself. When unloading, the front pallet is removed. Gravity moves all the pallets forward to the front for easy access. As each pallet is removed, the remaining pallets move down into position until the pick location is completely unloaded and all carts are again in position for reloading.