SHERMAN'S DISTRIBUTION CENTER

PFLOW F SERIES VRC HELPS HOUSEHOLD GOODS RETAILER UTILIZE DIFFICULT-TO-ACCESS SPACE IN RENOVATED WAREHOUSE

IN ORDER TO EXPAND, SOMETIMES YOU NEED TO CONSOLIDATE.

Sherman's is a family-owned appliance, electronics, furniture and mattress store based in Peoria, IL, with additional stores in Peru and Normal. Founded in 1976, its business has grown steadily and now serves customers within a 90 miles radius from the Peoria flagship location.

Until recently Sherman's Distribution Center, service and parts operations were spread over a network of small warehouses in the Peoria store and other rented locations as business required. The model was very inefficient and involved a constant shuffling of products from one space to the other.

During a search for an economical building to consolidate all support operations, owner Paul Sherman found a vacant building in nearby Peoria Heights that was built in the 1960s as a Pabst bottling plant. The building had been used as a furniture company warehouse for over twenty years after Pabst closed the plant in the 1980s.

UNUSUAL BUILDING DESIGN

The building was a very odd design by today's standards, with two 50,000 square foot rooms, each with 30 foot ceilings stacked on top of each other. Pabst had equipment on both levels, with bottles moving up and down on a conveyor routed through a hole in the second floor. The furniture company had left the second floor unused, dismantled the conveyor and just left the hole.

Despite the significant renovations required to transform the building into the complete warehouse, service center and logistical operation that Sherman envisioned, the location was good, the price was right, and sitting on eight acres, there was plenty of room for parking and future expansion.

"When we purchased the building the second level was basically free, it wasn't priced into the deal because very few people can use 50,000 square feet that is 30 feet up," said Sherman. "You can't ship and receive out of it; it's really very difficult to use."

As the Sherman's team planned the building renovation the biggest challenge was finding a means to efficiently move products to and from the second floor.

"The first floor is fine for our receiving, prep and storage. But it doesn't leave room for processing returns, service, office space and a whole lot of things like that," said Sherman.

CONSULTING WITH THE LOCAL DISTRIBUTOR

In designing the warehouse upgrade and specifying the appropriate equipment, Sherman's consulted with a local material handling distributor who they have worked with in the past. The distributor did some extensive research and eventually it was determined that a F Series, 10,000-lbs capacity vertical reciprocating conveyor (VRC) from PFlow Industries Inc. was the ideal solution to access the second floor.

VRCs are also referred to as vertical lifts or material lifts. They typically are used in industrial or commercial settings where materials weighing anywhere from 100-lbs to 100-tons need to be moved between two or more levels. VRCs have their own national safety code (ASME B20.1), and are specifically exempt from the national elevator code. People are not allowed to be transported on VRCs. The Sherman's staff travels to and from the second floor via a staircase.

"We considered a few options, including fixing an old freight elevator, but a PFlow rep did a site visit and came back with some ideas that were better than anything else we had considered," said the project manager from the local distributor. "This is our first collaboration with PFlow. They really have some great engineers. Plus the cost of the new VRC was less than the cost of overhauling the freight elevator."

F SERIES VRC – FOR THE MOST DEMANDING APPLICATIONS

The F Series is the PFlow model used for the most demanding lifting applications. It was necessary for the Sherman's warehouse because of the size of the lift carriage and weight capacity required to handle large appliances and furniture.

For maximum stability the F Series features sturdy metal posts running the full vertical height at each of the lift's four corners. Due to the absence of any intermediate floors along the Sherman lift's 34-6' vertical travel distance, and its position away from any lateral bracing points, highly secure bracing in the ground floor pit and on the under- and top-sides of the second floor was also required.

The Sherman's lift has a useable carriage of 7'-7" wide x 10'-5" long x 13'-0" high and travels at a speed of 18 feet per minute. It was installed in the existing second floor opening that Pabst originally used with only minor trimming, a location that fortunately was in the perfect spot for Sherman's work flow. It is used continuously, up to 18 hours per day, seven days a week.

A FULL SERVICE SUPPORT CENTER

"The PFlow VRC was one of the most important infrastructure investments we made, it allows us to efficiently access the second floor, and house all key support operations in one place," said Sherman.

In addition to housing the returns and servicing operation, with multiple appliance stations complete with water, gas and 220V electricity, the second floor contains the entire parts operation and administrative offices.

"Any returns that come in simply get on the lift and zip upstairs," said Sherman. "Now we have this huge space where we can process, clean and service the returns out of the way of our prep space on the first floor."

The new warehouse is a hub of activity almost every day of the year. Between 100 and 150 orders are prepped for next day delivery seven days a week; eight service trucks are stocked and routed for in-home service; and 75+ employees across multiple shifts report for duty.

"The collaboration between the local distributor and PFlow really helped us identify the best lifting solution for our needs. I am only going to buy one of these in my life, so I want to get it right," Sherman summarized.

"We love the lift. It is a great example of turning hard-to-use space into very productive space, without having to spend $300,000 for a new elevator."

The new Sherman's warehouse began operations in February 2016.

SHERMAN'S F SERIES METRICS

- Travel Distance: 34'-6"
- Lift Carriage Dimension: 7'-7" wide x 10'-5" long with a 13'-0" load height
- Payload: 10,000-lb
- Speed: 18 feet per minute
- Controls: 2-Level Call/Send
- Floor Level Gates: Single panel vertical acting
- Enclosures: Three sides at each level
- Operating Voltage: 460/3/60