Case study

January 2012

Saks Fifth Avenue

Trane Rental Services overcomes challenges to save Fashion Week

New York, New York

From the day it opened its doors in 1924, Saks Fifth Avenue's mission has been to be the first and only choice for the most discerning consumers, the ones with the highest expectations. It was those high expectations Saks sought to meet when it called on Trane for assistance when one of its chillers failed in mid-August, less than a month before Fashion Week.

Challenge

Offering the finest designer collections for men and women, each year Saks Fifth Avenue takes part in New York City's Fashion Week. The semiannual event includes over 250 fashion shows, attracts more than 230,000 attendees and has a $773 million citywide economic impact. The event is of great importance to Saks' image, as well as its bottom line.

When one of the retailer's chillers went down less than a month before Fashion Week, Saks knew that their two remaining chillers wouldn't be able to handle the load, especially with the August heat and humidity. It was critical to get the failed chiller back up and running as efficiently and as quickly as possible. A solution was needed, and needed fast, as Hurricane Irene was bearing down on the city.

Solution

Having relied on Trane's expertise in the past, Saks called on the company for assistance. Knowing it could take a month to service the failed chiller motor, Trane proposed installing a rental chiller to keep the store's indoor climate comfortable.

Determining the best installation option

Saks and Trane went to work, beginning with a site survey. The team reviewed installation options, considered potential chiller locations and addressed security issues.

Saks Fifth Avenue is located next to St. Patrick's in the heart of Manhattan's shopping district.

Typically, rental equipment is placed outdoors at ground level. Several outdoor locations, such as the loading dock, were considered for the rental chiller; however, the areas lacked the necessary utilities infrastructure.

The next logical place was the roof, in particular a setback area on the historic ten-story building's eighth floor. The 10-foot wide space was secure, just big enough to squeeze in a water-cooled chiller, and close enough to the equipment room to allow electrical and mechanical tie-ins to the system. There was just one problem. Upon evaluation, it was determined that the roof was not structurally sound enough to support the 16,000 pound chiller.

Devising a creative solution to structural challenges

Trane devised a solution to build a steel structure that would balance the chiller's weight between the parapet and a windowsill. The steel assembly would allow the weight of the equipment to rest on the building's brick walls instead of its roof and would hold the chiller in place without touching the building's historic façade.

Working closely with structural engineers and the rigger, Trane quickly filed paperwork to get the idea approved and to obtain the necessary permits for the construction and a one-night street closing. While permits were being applied for, the rental equipment was moved from Charlotte to the New Jersey facility, so it would be ready to go when needed.

Working logistics around "Mother Nature"

With Hurricane Irene swiftly approaching, the permit gave Trane no choice but to deliver the equipment on Thursday evening before the storm was to hit, secure the site, and come back to finish the installation. The installation crew arrived at 10:00 Thursday night and immediately began assembling the steel support structure on the street. A crane hoisted it to the ledge on the eighth floor and once in place, the team fully welded and bolted the structure together and installed the chiller on top. The team wrapped everything up around 3:00 am, two hours ahead of the permit expiration.

Trane finished the job on Tuesday after the storm passed, filling the hoses and starting the unit. The electrical, water-cooled centrifugal chiller complied with local noise regulations and its quiet operation ensured that Saks' clientele and sidewalk pedestrians would not be disturbed.

Trane built a steel structure to balance the equipment's weight between the parapet and a windowsill.

Results

The Trane Rental Services team overcame the challenges of weather, timing, a historical building and tight city quarters to provide a turnkey chiller solution for Saks Fifth Avenue. Their quick action and ingenious rigging design allowed a temporary rental chiller, saving upcoming high-end fashion events at the retailer's first and most prestigious location.

Rather than working with multiple contractors for design and installation of the equipment, Saks was able to focus on preparing for Fashion Week events. The rental chiller allowed Saks to meet summer load requirements, and its installation left no impact on the building's appearance or historic façade. Trane also coordinated the motor change-out in the failed chiller, allowing Saks to return to normal operations, without having to replace the entire chiller.

"Trane was very responsive and professional," said Curt Walton, Saks Fifth Avenue Director of Facilities. "Maneuvering an 800 horsepower motor through the store and installing a temporary chiller without disruption to sales or efficiency...logistically, it wasn't an easy job. Working together, we completed the project on time and on budget."

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