Energy Rental Solutions

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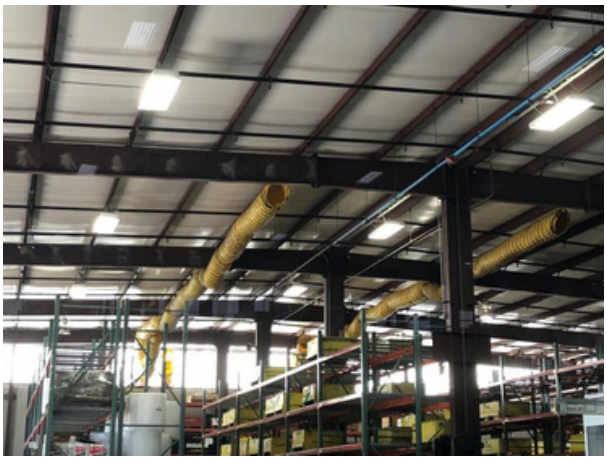
CASE STUDY

Warehouse Cooling Project

PROBLEM

The customer had a 100’ x 150’ x 20’ warehouse that reached temperatures upwards of 95°F in the summer. The facility used to have four 25’ ceiling fans to facilitate cooling, but the installation of a new crane system forced the removal of the fans. When the temperature reached 90°F, they would initiate mandatory 15-minute breaks for all employees in the shop. This cost them 1-2 hours of productivity for each warehouse employee each day, or 10-20 hours each week for each employee. The facility had a 2-year lease after which they planned to relocate. The Landlord was not willing to subsidize any permanent solutions, so the customer asked for rental pricing to conduct their own cost analysis.



SOLUTION

The goal had been simple: temperature management to maintain reasonable conditions in the warehouse while staying within a practical cost range. ERS had recommended two 25T portable AC units to cool the warehouse. The facility had a tilt wall construction with an insulated ceiling. The customer wanted the ducting to be directed through the skylight, positioned 14’ in the air, and spanning across the ceiling. Each unit utilized two supplies and two return ducts. One supply from each unit was suspended and extended to a length of 75’ across the warehouse, while the other supply from each unit only had to cover a distance of 15’ from the penetration. The customer already had existing 480V access at the rear of the building, allowing the electrician to install 60AMP breakers for power.

OUTCOME

The customer had encountered difficulties in obtaining the necessary power for the units. Centerpoint had to directly connect power from the pole to the building. This process caused a two-week delay, but once ready, our technician arrived on-site to commission the system. The customer immediately provided positive feedback upon its activation. Following the first night of operation, the customer closely monitored the temperature and humidity levels. At 2:33 PM, despite it being one of the hottest days of the year, the temperature remained below 85°F with a relative humidity of 47%. The customer expressed that the staff in the shop exhibited a completely transformed work ethic. In fact, the customer was so pleased that they offered to connect us with their "friends" at another major account as a token of gratitude.