

Hunter Industries

Innovative variable refrigerant system answers comfort and energy efficiency objectives for repurposed building • San Marcos, California

Founded in 1981, family-owned Hunter Industries is a global manufacturer of products for the landscape irrigation and lighting industries, and a custom manufacturing provider. Committed to sustainability, Hunter's core business interest has been manufacturing products that allow irrigation and lighting professionals to create solutions that use as little water and energy as possible to create optimal landscape function and ambiance.

Challenge

Energy efficiency was a key element in Hunter's plans to renovate a nearly 49,000 square foot, two-building complex. The joined buildings, previously housing low-occupancy, light industrial workshops and storage areas, were being converted to high-occupancy office space for their engineering teams. The complex also would include more than 10,000 square feet of space for an employee workout facility. Working with its mechanical contractor, the company sought an HVAC solution that would align with its commitment to sustainability, and its goal of LEED certification.

Solution

A Trane customer for nearly thirty years, Hunter Industries discussed the project with the company's representatives. Trane suggested its variable refrigerant flow (VRF) system to meet the comfort needs of employees and the energy efficiency objectives of the company. After evaluating the benefits of the Trane system, Hunter Industries moved forward with the project.

An innovative design

Rather than moving heated or cooled air throughout the interior of a building like many traditional systems, the Trane® VRF system quietly moves heated or cooled refrigerant throughout the interior of a building using small-diameter



With sustainability embedded in its culture, Hunter Industries offers a complete spectrum of water-efficient solutions, and owns the first warehouse to be certified LEED Gold in San Diego County.

pipes. The refrigerant then passes through coils in each room being served, and fans move air past the coils. The fans, with sound levels as low as 23 dBA, transfer warmed or cooled air into the rooms for a comfortable office environment.

Reducing installation costs

Eliminating the need to install replacement chillers and ductwork, the Trane® VRF addressed Hunter Industries' comfort needs, while keeping installation costs down. With a small footprint and an appealing look, the VRF units also have less impact on the existing structure and building aesthetics.

Minimizing energy consumption

The innovative compressor technology of the Trane® VRF provides efficiency, reliability and longevity. Through the use of a three-pipe design and vapor-injection technology, Trane® VRF heat-recovery systems achieve improved heating performance and overall energy efficiency. The VRF's efficient, asymmetric scroll design increases refrigerant flow rate and heating capacity by up to 20 percent. The high-performance variable speed compressors precisely match their output to demand levels, allowing Hunter Industries to heat or cool rooms, only when they are in use. This maximizes comfort and minimizes energy consumption.

Meeting diverse comfort needs

Trane® VRF unit controllers can be used to set zone temperature and fan speed to help keep energy costs low, while delivering simultaneous heating and cooling as needed. With individual zone controls, Hunter Industries can keep both its high-occupancy office areas and its varied-occupancy workout rooms, comfortable.

Results

Aligning with Hunter Industries' sustainability commitment, a Trane® VRF system installed in its engineering building complex is helping to reduce energy costs. The quiet system with zone controls addresses the diverse comfort needs of the employees throughout the complex.



Variable speed compressors used in the Trane® VRF precisely match output to demand levels for comfort and energy savings.

"When we learned about the Trane® VRF system, we were intrigued by the zone control we could achieve with the system," said Todd Melton, Plant Engineer, Hunter Industries. "Now, for the first time, our employees can have their area the temperature they want."

"We pride ourselves on being an innovative company," said Jeremy Handler, Corporate Sustainability Manager, Hunter Industries. "The Trane® VRF is cutting edge. We're pleased with its efficiency and performance."



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