

Winger's Sports Bar reduces energy costs

Result

- The Copeland Scroll™ Outdoor Condensing Unit XJ Series accounted for approximately 23% energy savings when compared to traditional or standard condensing units
- Built-in CoreSense™ Diagnostics gives Winger's technicians information to quickly and accurately troubleshoot any issues, avoid unneeded service calls, and protect the system from premature failure
- A custom utility rebate is being processed to offset total installation costs, significantly improving projected return on investment for subsequent equipment upgrades

Application

Refrigeration system for walk-in coolers and freezers.

Customer

Winger's Sports Bar and Grill is the number one sports bar in Midwest Ohio for over 21 years.

Challenge

Local restaurants such as Winger's are especially focused on operational issues. Their primary economic concerns are reducing energy consumption, limiting downtime due to equipment failures, attracting more customers, and satisfying customers with a unique experience.

Winger's depends on Eck Refrigeration to recommend energy-saving service practices and new refrigeration technologies. Eck approached Wingers with a plan to compare their current refrigeration equipment to newer technology in a real-world field test location.



"The Copeland Scroll Outdoor Condensing Unit is an important part of our refrigeration energy savings program."

- Bob Eck, President of Eck Refrigeration

The local utility, Dayton Power & Light (DP&L), was also interested in learning about the potential energy savings from this technology. They brought in Go Sustainable Energy to conduct pre-installation and post-installation metering of the refrigeration condensing unit manufactured by Emerson Climate Technologies. Metering equipment was installed to measure power, current, and walk-in cooler air temperature.

Solution

Field tests were conducted during the fall of 2013 in Sidney, Ohio in a back-to-back test. The location was instrumented with data acquisition systems that recorded temperatures and power consumption. The old condensing unit was run for several weeks before being replaced with the new XJ Series unit. The performance of the two units was compared during periods of similar weather and usage.

The energy efficiency of the entire system was improved beyond initial expectations. The Copeland Scroll™ Outdoor Condensing Unit XJ Series accounted for approximately 23% energy savings when compared to the old unit. Baseline peak demand was 1,645 W and the energy consumption 4,314 kWh per year. Based on post-installation logged data, estimated new peak demand is 1,202 W and the energy consumption is 3,326 kWh per year. This corresponds to a peak demand reduction of 444 W and an annual energy savings of 988 kWh per year.

Resources

Learn more about the Copeland Scroll Outdoor Condensing Unit at: EmersonClimate.com/copelandoutdoorunit



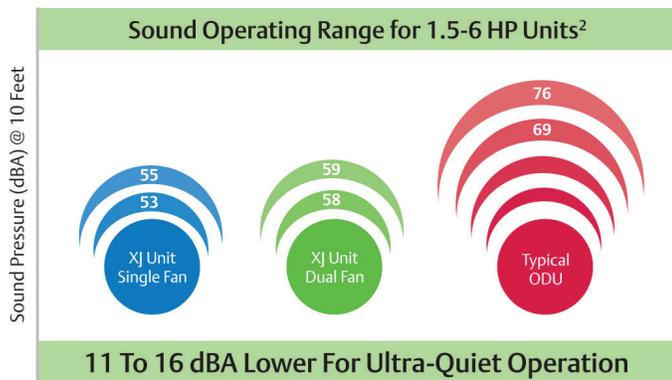
Advanced walk-in refrigeration technology

The Copeland Scroll™ Outdoor Condensing Unit XJ Series ranges in size from 1.5-6 HP, and offers energy savings of up to 40% compared to standard industry condensing units, making it perfectly suited for many walk-in cooler and freezer applications. The XJ Series unit incorporates multiple advances in refrigeration as standard features into a single unit solution, including:

- The latest generation Copeland Scroll refrigeration compressors which have been optimized for the highest annual energy efficiency
- Ultra-quiet and efficient variable-speed PSC fan motors
- Large condenser coils for more efficient heat transfer
- High efficiency fan blade design
- Proprietary electronic algorithms to optimize energy performance
- Exclusive Enhanced Vapor Injection (EVI) circuit on low temperature units for added capacity and system efficiency
- Exclusive CoreSense™ Diagnostics to enable faster, more accurate service, along with compressor protection benefits to lower total lifecycle costs

The XJ Series unit's slim profile, light weight, wall mount capability, and sound reduction features may also offer customers added benefits from:

- Crane rental savings
- Flexible location options previously not available
- Ease of installation and service savings
- Compliance with noise ordinances
- A more attractive and quieter atmosphere for neighbors and customers



² Sound values shown represent the XJ unit's lowest and highest operating dBA measurements, or typical industry outdoor unit published data, for both MT and LT products. Sound pressure values are 10 feet from the unit at 25°F evap for MT and -10°F evap for LT at 90°F ambient. A sound reduction of up to 3 dBA will occur in ambient temperatures below 70°F. This data is typical of "free field" conditions for horizontal air cooled condensing units and may vary depending on the condensing unit installation. There are many factors that affect the sound reading of a condensing unit such as unit mounting, reflecting walls, background noise and operating condition.

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