Redefining refrigeration



Built for maximum convenience, performance and protection.

The factors driving the selection of commercial refrigeration equipment in convenience stores and restaurants have changed drastically in recent years. While reliable refrigeration is still a top priority, the days of "just keep it cold" have given way to a much broader range of operator challenges and concerns, including:

- Offsetting rising energy costs with new energy efficiency targets
- Reducing energy consumption to meet minimum efficiency levels
- Creating optimal in- and outside-store environmentsfor customers and neighbors
- Identifying the potential for equipment failure in advance to prevent costly product loss
- Evaluating the critical role of refrigeration system architecture in total store energy usage

Enter the Copeland Outdoor Refrigeration Unit, X-Line Series, purpose-built for medium- and low-temperature, walk-in coolers, freezers and display cases commonly found in c-stores and restaurants. Utilizing scroll compressor technology, variable speed fan motor control, large capacity condenser coils, enhanced vapor injection (in low-temperature models only) and advanced electronic controls, the X-Line meets today's challenging small-format refrigeration requirements.



Much-improved energy efficiencies

With proven Copeland scroll compressor technology, large condenser coils and smart controls, X-Line units typically

provide annual efficiency improvements of 20 percent or more compared to legacy equipment and technology. Additional efficiencies are gained when the outdoor units are used in place of traditional self-contained or other indoor systems by removing the additional heat load from the building's air conditioning system.

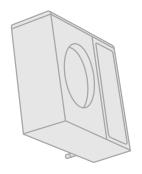


Superior reliability and protection through advanced diagnostics

On-board compressor diagnostics and protection allow operators to stop worrying about product

loss from equipment downtime. Errors can be quickly communicated to service technicians and the system can take action to protect against many system faults that could otherwise cause a compressor failure. The end results are improved reliability, extended compressor lifespan and greatly reduced lifecycle costs.





Installation flexibility from slim chassis

The X-Line's slim profile, lightweight design and wall-mount option give operators the flexibility to install the unit in the most space-constrained locations. In fact, the X-Line is so unobtrusive it's often mistaken for an AC split unit. This flexibility lowers installation costs and helps avoid expensive system design workarounds or relocation issues.



Ultra-quiet operation from strategic noise abatement design

Operators located near residential areas or noise-restricted zones can take heart in having the quietest standard unit available on the market today. At only 55 to 59 decibels, the units produce less sound than a normal conversation. In most applications, unit noise is virtually undetectable. The units are unobtrusive and allow more mounting options where the sound produced by traditional units would prevent their use, such as customer-facing locations near entryways, patios or even indoors.



Corrosion-resistant and designed for extreme conditions

The X-Line is designed to withstand harsh and extreme environments, from arctic blasts to desert heats. Protective enclosure and condenser coil fin coatings resist corrosion in coastal zones. On-board electronic controls constantly tune and adapt the system for optimum performance and efficiencies in any condition.



Compliance with regulatory requirements

X-line models are tested to exceed the Department of Energy's new requirements for Annual Walk-In Energy Efficiency Factor (AWEF) ratings for walk-in refrigerators. With a horsepower range from ¾ to 6, the X-Line is also designed for compatibility with A1 refrigerants such as R-404A, R-407A, R-407C, R-448A, R-449A and others. As acceptable A2L refrigerants are introduced as substitutes, the X-Line will be approved and rated for this growing list of alternatives. This makes X-Line units ideal for new equipment and service replacement applications.

What's inside:

Heated and insulated receiver

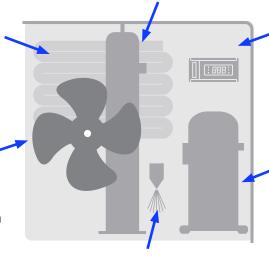
· Allows operation in low-ambient situations

Larger condenser coils

- · Increase energy efficiency
- Corrosion-resistant copper tube and coated aluminum fins

Variable speed fan motor control

- · Contributes to quiet operation
- Provides efficient head pressure control
- Allow technicians to quickly and accurately diagnose issues



Enhanced vapor injection

- Improves capacity and energy efficiency
- · Available in low-temp models only

Electronic controls

- Offer greater reliability than traditional mechanical controls
- Avoid nuisance service calls
- Allow technicians to quickly and accurately diagnose issues

Copeland scroll compressor technology

- Provides the most reliable, highest-efficiency compression technology available
- · Available in ¾ to 6 HP
- A2L Copeland compressors

Diagnostic features:

On-board compressor diagnostics provide connectivity to facility management control systems (including Copeland's Site Supervisor family of control products) to alert owner/operators of faults and key performance indicators.

- Over current protection
- Over/under voltage protection
- · Unbalanced load detection
- · Incorrect phase detection
- Discharge temperature protection
- High-pressure lockout
- Demand Cooling™
- · Flood-back prediction
- Flooded start protection ('Bump-start' logic)
- · Anti-short cycle time delay
- · Digital fault code display / remote alarming





About Copeland

Copeland, a global provider of sustainable climate solutions, combines category-leading brands in compression, controls, software and monitoring for heating, cooling and refrigeration. With best-in-class engineering and design and the broadest portfolio of modulated solutions, we're not just setting the standard for compressor leadership; we're pioneering its evolution. Combining our technology with our smart energy management solutions, we can regulate, track and optimize conditions to help protect temperature-sensitive goods over land and sea, while delivering comfort in any space. Through energy-efficient products, regulation-ready solutions and expertise, we're revolutionizing the next generation of climate technology for the better.

