

Copeland oil-free centrifugal compressor with Aero-lift™ bearing technology

Featuring Aero-lift™ bearing technology enabling oil-free solutions in chiller applications

Optimized Efficiency, Simple Design, Maximum Performance

Simplifying intricate electronics

Aero-lift bearing technology eliminates the need for complex electronics and sensors for magnetic bearings.

Robust cooling capacity

Meeting the demanding cooling load requirements of mission-critical, air-cooled chiller applications requires high-tonnage, high-speed compressors that can deliver robust, precise and reliable performance.

Energy efficiency

Compared to existing screw compressor technology, the Copeland oil-free centrifugal compressor delivers significant energy efficiency gains in full- and part-load conditions.

Flexible architecture

Independent configuration of compressor, electronic controls and VFDs opens new design options for chiller OEMs while allowing systems to be customized for various and/or specific application requirements.

Performance enhancing algorithms

The Copeland oil-free centrifugal compressor leverages intelligent control algorithms and predictive data models to optimize performance and reliability.



Low-complexity solution that delivers high performance with ground-breaking Aero-lift™ bearing technology. Designed to increase efficiency in chiller applications with low-GWP refrigerants.

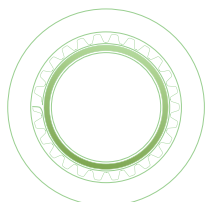
Benefits

- ✓ Lower lifecycle costs
- ✓ High part load efficiency
- ✓ Reliability only found in Copeland compressors
- ✓ Reduced carbon footprint

COPELAND OIL-FREE CENTRIFUGAL COMPRESSOR

A SIMPLIFIED DESIGN

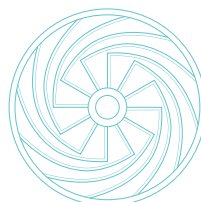
Featuring Aero-lift™ bearing technology for an easy-to-apply, low and ultra-low GWP compatible oil-free solution that delivers increased efficiency levels in chiller applications.



Aero-lift bearing

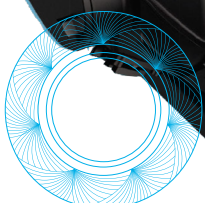
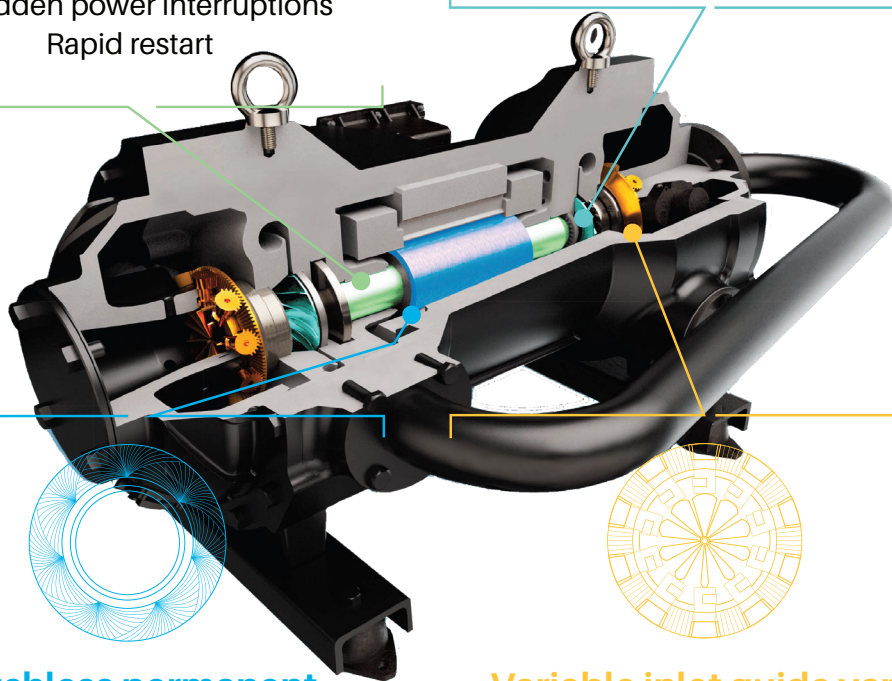
Self-lifting fluid film provides frictionless performance

Stands up to intense conditions such as sudden power interruptions
Rapid restart



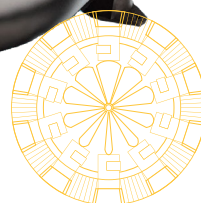
Two-stage impellers

Handle higher lift and low lift for broader operating range and increased turndown



Brushless permanent magnet motor

High-efficiency motor for high-speed applications



Variable inlet guide vane

Helps guide refrigerant flow to maximize compressor range in surge and choke conditions

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Engineered for Sustainability