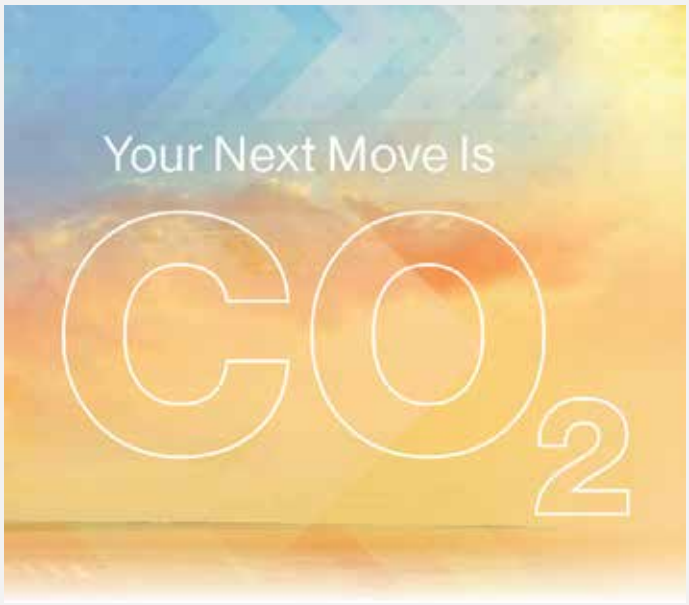
Step into the sustainable future of industrial refrigeration

Subcritical CO_2 Compressor Unit

Industrial CO_2 is here

CO_2 is gaining global acceptance as a safe and eco-friendly refrigerant alternative, and many industrial operators are eager to make the transition. Existing industrial CO_2 refrigeration solutions are based on commercial-grade, multi-compressor refrigeration strategies — which have proven to be complex and less reliable.

Building on our legacy of innovations, Vilter has engineered one of the industry's first purpose-built subcritical CO_2 compressors for heavy-duty industrial requirements.



Product specs

- Designed for low side of a CO_2 transcritical or cascade system
- Available in 11 displacements
- Power range from 100 to 800 HP per compressor

COPELAND
Engineered for Sustainability

Purpose-built for the rigors of CO_2 industrial refrigeration

The industrial refrigeration market is at an inflection point. As occupational safety requirements tighten around ammonia and the phasedown of hydrofluorocarbon (HFC) refrigerants continues, industrial operators are exploring safer, greener and less complex alternatives for refrigeration systems. To date, eco-friendly CO_2 refrigeration options have not been well-suited for industrial applications.

Current CO_2 solutions are mismatched for heavy-duty, high-capacity market requirements. These multi-compressor, commercial rack configurationsutilize tens of lower-capacity CO_2 compressors — resulting in less reliable architectures that strain under the pressure of industrial applications.

Vilter is reshaping the future of industrial refrigeration with our Vilter Subcritical CO_2 Compressor Unit. Leveraging proven single-screw compression technology, this Vilter solution is engineered to overcome industrial CO_2 refrigeration challenges:

- Simplifying CO_2 applications
- Standing up to CO_2's high pressures
- Delivering significant capacity and performance improvements

When paired with our new Transcritical CO_2 Compressor Unit, the Subcritical CO_2 Compressor comprises one of try's first purpose-built CO_2 transcritical systems.

Balancing reliability, sustainability and simplicity

Reliability

Designed specifically for industrial refrigeration, the Vilter Subcritical CO_2 Compressor Unit is inherently more reliable than its commercial counterparts. The single-screw design delivers balanced forces for multiple energy-efficiency and reliability benefits:

- Longer lifespan
- Reduced maintenance requirements
- Fewer production shutdowns/delays
- Lower total cost of ownership (TCO)

Sustainability

The future of industrial refrigeration is being driven by a dynamic mix of refrigerant regulations, shifting operational preferences and corporate sustainability goals. Ammonia's increasing regulatory compliance and occupational safety requirements and the HFC phasedown are limiting use of legacy refrigerants.

Vilter is supporting the global need for safe, sustainable solutions by leading the advancement of industrial CO_2 refrigeration technologies.

Simplicity

Industrial refrigeration applications are demanding, and current commercial CO_2 solutions create unnecessary system complexities. Operators seek new technological approaches to simplify a variety of operational challenges:

- Eliminating the need for multi-compressor, commercial CO_2 architectures
- Integrating compressors and components to streamline system designs
- Minimizing safety concerns and the documentation requirements of ammonia

Vilter's purpose-built Subcritical CO_2 Compressor Unit reduces system complexities and simplifies the application of CO_2 refrigeration technologies.

MAKE OUR NEXT FIRST
YOUR NEXT MOVE

To discover the next generation of industrial CO_2 compression technologies, scan the code to connect with our application experts about your next move.

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