

CO₂ Solutions Overview



evapco

The Natural Leader for Life



Get to Know EVAPCO

Since its founding in 1976, EVAPCO, Incorporated has become an industry leader in the engineering and manufacturing of quality heat transfer products around the world. EVAPCO's mission is to provide first class service and quality products for the following markets:

- **Industrial Refrigeration**
- **Commercial Refrigeration**
- **Industrial Process**
- Commercial HVAC
- Power

These quality products for the industrial and commercial refrigeration market include: refrigerant condensers, gas coolers, cooling towers, closed circuit coolers, evaporators, hygienic air handlers, packaged low charge ammonia systems, packaged transcritical CO₂ rack systems, pressure vessels and packages, water systems and controls and automation.

Protecting the Environment

Innovation and environmental sustainability go hand-in-hand at EVAPCO. Our industry leading heat transfer equipment conserves not only natural resources and helps reduce noise pollution but also features recycled steel content in construction. For our eco-Air Gas Coolers and Evaporators, our stainless steel units are constructed of panels that contain up to 75% of recycled content, our galvanized units have over 80%, and the EVAPCO

 EVAPCO Global Headquarters, Taneytown, Maryland USA

LMP Purity Rack Systems contain up to 50% recycled steel content. From water conservation and chemical elimination, to natural refrigerant usage, we are developing new technologies that deliver ultimate operating advantages to our clients while protecting the planet for every generation to come.

EVAPCO's Wilson E. Bradley Research & Development Center

EVAPCO is committed to constant innovation. From evaporative condensers to CO₂ gas coolers – evaporators to packaged CO₂ refrigeration systems, our Engineers are always looking for ways to make improvements that push industry forward. Featuring state-of-the-art CO₂ and ammonia refrigeration systems designed to operate at suction temperatures as low as -60°F, the EVAPCO Research & Development Center (R&D) enables us to find groundbreaking solutions for the industry's biggest challenges.



EVAPCO LMP Purity Rack System

Get to Know CO₂!



CO₂ System Components

As the Natural Leader in providing high-quality refrigeration equipment, EVAPCO's full spectrum of products are available for transcritical CO₂ systems including:

Why CO₂ as a Refrigerant?

- Natural Refrigerant
- Zero Ozone Depletion Potential (ODP)
- Low Global Warming Potential (GWP)
- Significantly Reduced Greenhouse Gas Emissions
- Safe to Operate
- Cost Effective Refrigeration Solution

In today's environment, there are many decisions to be made around refrigeration system design. One decision is clear – natural refrigerants are a long-term solution with many end-user benefits. Specifically, when you decide to use CO₂ as the refrigerant in your system, EVAPCO can help provide you with a system that is "future proof" as CO₂ will remain a preferred refrigerant due to its Ozone Depletion Potential (ODP) of 0 and GWP of 1. It's also safe to operate, with very low toxicity and non-flammable properties. Finally, the inherent properties of CO₂ lead to system efficiency improvements – from installation to operation.

CO₂ refrigeration systems also provide opportunities for a low total cost of ownership evaluation compared to synthetic alternatives. CO₂ systems can be designed for effective and efficient hot gas defrost and can provide significant opportunities for high temperature heat reclaim. When coupled with eco-Air adiabatic gas coolers, transcritical run hours are minimized, further optimizing an efficient CO₂ solution.



EVAPCO eco-Air Adiabatic Gas Cooler

• Transcritical Rack & Booster Systems

- Direct Refrigerant
- Secondary Chillers

• Gas Coolers

- Dry
- Adiabatic

• DX Evaporators & Air Handlers

- Ceiling Hung Configurations
- Factory Built Penthouses
- Hygenic Air Handlers

• EVAPCO SelectTech Supervisory Controls

EVAPCO's long history of providing research driven, fully tested solutions for the refrigeration market supplies the value customers demand.



EVAPCO LMP Purity Control Panel



CO₂ Gas Coolers

Available in a wide range of footprints, motor types, control options and capacities, this complete line of Air Cooled/Dry and Adiabatic products offer unparalleled flexibility.



eco-Air™ Flat Series
Dry Operation



eco-Air™ V Series
Dry Operation



eco-Air™ V-Series
Adiabatic Operation

CO₂ Gas Cooler Features

- Heat exchanger coils: heavy wall type 304L stainless steel with aluminum fins – available in multiple fin spacing and tube configurations
- Standard type 304L stainless steel structure and casing for increased corrosion resistance and longevity, optional G-235 galvanized steel structure available
- EC or NEMA premium-efficiency Inverter Duty motors designs
- Optional adiabatic pre-cooling system (V-Coil units only) to minimize transcritical operating hours and improve system efficiency with minimal water consumption
- Optional factory mounted and wired controls

CO₂ Evaporators

Enjoy high quality, low maintenance, and easy-to-clean cooling in your food storage and processing areas with EVAPCO's Superior Stainless Steel Technology evaporators, the only independently certified thermal performance and power-rated offering available today.



CO₂ Evaporator Features

- Guaranteed performance rated in accordance with AHRI standard 420
- Type 304L stainless steel tubes with CROSSCOOL™ internal enhancement technology and aluminum fins with CHANNELFLOW™ technology in 650, 1160 or 1740 psi DWP options.
- Hygienic unit construction
- Low sound solutions
- Unit construction available in G-235 galvanized steel and optional in all type 304 stainless steel for ultimate cleanability
- Available in a factory built penthouse configuration



EVAPCO SelectTech



EVAPCO SelectTech is a systems integrator specializing in design-build-installation of facility systems, production line integration, process automation, CO₂ and ammonia refrigeration, supervisory systems, and IT integration.



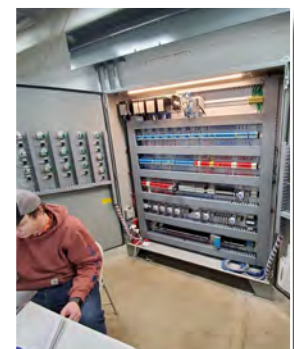
Refrigeration
Control System Integration



Panel Building
UL508A Certified



Processing Controls
Ingredients, Batching, Cooking, Freezing



Full Turnkey Philosophy
Design, Build, Installation, Commissioning



Packaged Transcritical CO₂ Refrigeration Systems

The flagship transcritical CO₂ Purity line uses multiple patented technologies to maintain optimal operation while providing high reliability. The Purity systems are available in low, medium and high temperature applications, serving both the commercial retail and industrial refrigeration markets. These systems also offer an efficient, environmentally friendly, and sustainable solution for cold storage facilities of all sizes and smaller industrial applications where previously, synthetic refrigerants may have been used. All EVAPCO LMP systems are designed and manufactured with simple installation and rapid commissioning in mind.

The EVAPCO LMP Advantage

- Minimal operating costs
- Patented heat recovery options using dedicated compressors
- Remote monitoring of system parameters
- Minimal maintenance and service requirements
- Zero greenhouse gas emissions
- UL/CUL certified



Purity Industrial Rack



Purity Commercial Rack

Safe, effective, and efficient with an ODP of 0 and a GWP of 1, CO₂ is a future-proof natural refrigerant. EVAPCO offers a single source, full spectrum of CO₂ solutions to solve the refrigeration needs of your facility.



Purity Rack with Outdoor Enclosure



EVAPCO LMP Manufacturing



NORTH AMERICAN NATURAL REFRIGERATION MANUFACTURING & ENGINEERING LOCATIONS



 World Headquarters
Research & Development Center

 EVAPCO Manufacturing Facilities

EVAPCO, Inc. — World Headquarters & Research / Development Center

P.O. Box 1300 • Westminster, MD 21158 USA
410.756.2600 • marketing@evapco.com • evapco.com

North America Natural Refrigeration Manufacturing Locations

EVAPCO, Inc.
World Headquarters
Westminster, MD USA
410.756.2600
marketing@evapco.com

EVAPCO Midwest
Greenup, IL USA
217.923.3431
evapcomw@evapcomw.com

EVAPCO West
Madera, CA USA
559.673.2207
contact@evapcowest.com

EVAPCO Alcoil, Inc.
York, PA USA
717.347.7500
info@evapco-alcoil.com

EVAPCO Iowa
Manufacturing Plant
Lake View, IA USA

EVAPCO Iowa
Sales & Engineering
Medford, MN USA
507.446.8005
evapcomn@evapcomn.com

EVAPCO LMP ULC
Laval, Quebec, Canada
450.629.9864
info@evapcolmp.ca

EVAPCO Select Technologies, Inc.
Belmont, MI USA
844.785.9506
emarketing@evapcoselect.com

**Refrigeration Vessels &
Systems Corporation**
Bryan, TX USA
979.778.0095
rvs@rvscorp.com

