

CLOSED CIRCUIT COOLERS



Sage®

 WATER & ENERGY CONSERVATION Control System



Get to Know EVAPCO

- The global innovator in heat transfer solutions
- Serving the commercial HVAC, Industrial Refrigeration, Power Generation, and Industrial Process markets
- Founded in 1976
- Employee-owned
- 33 locations in 14 countries
- More than 200+ sales offices worldwide

Learn More Now

Visit evapco.com to download product catalogs, view complete product specifications, and more.

EVAPCO is more than a name.

It is a pledge to make everyday life easier, more comfortable, more reliable, and more sustainable for people everywhere. How do we fulfill that promise? It is simple.

We never stop innovating.

At EVAPCO, we do not just talk about innovation, It is ingrained in our workflow. Guided by our annually developed R&D plans, we set out to find groundbreaking solutions that transform the way the world works for the better. It is why we have more than 200 active patents worldwide.

We craft exceptionally built solutions.

As an employee-owned company, we take pride in our work. We are proud to be one of the most experienced teams of engineers and craftsmen in the industry. This translates into solutions that are always exceptionally built. EVAPCO has an unwavering commitment to provide “best in class” heat transfer solutions and services.

We guarantee performance.

Every EVAPCO solution is put through rigorous research and testing to ensure maximum efficiency and reliability. But we do not stop there. EVAPCO is an industry leader in independent, third-party performance certifications. These certifications guarantee our performance metrics—so that you can plan your projects with complete peace of mind.

We protect the environment.

Innovation and environmental sustainability go hand-in-hand at EVAPCO. EVAPCO’s industrial heat transfer equipment not only conserves natural resources and helps reduce noise pollution, they also feature recycled steel content in their construction. Our stainless steel units are constructed of panels that contain up to 75% recycled content; over 80% in galvanized units construction. From sound reduction to water conservation to chemical elimination, we are constantly developing new technologies that deliver the ultimate operating advantages for our clients—and protect the planet for every generation that comes after us.





® for LIFE

Sage[®]

Water and Energy Conservation Control System



Maximize the water or energy savings of your eco-cooler with EVAPCO's Sage[®] Water and Energy Conservation System! The Sage system automatically operates the eco unit in a manner which maximizes water or energy savings, based on the client's savings priority.

Adaptive Control Sequence for Ultimate Savings

The Sage control system can be set to either maximize water or energy efficiency. By measuring and analyzing real-time load and weather data, the Sage control system switches between various modes of operation, readily adjusting fan speed and switching from dry to evaporative mode as load and conditions require, based on the prioritizing of water or energy savings.

Manufacturer Supplied and Programmed

Using our patented Sage Control System guarantees seamless integration with your eco unit, reduced field installation times, and maintains EVAPCO as your single-source cooling solution.



Water Savings Priority

When set to prioritize water savings, the Sage control system automatically varies the unit between dry and evaporative modes of operation and stages spray pumps to minimize time spent in evaporative mode.

Energy Savings Priority

When set to prioritize energy savings, the Sage control system automatically varies the unit between dry and evaporative modes of operation, and controls fan speed and pump operation in an effort to maximize energy savings.

Enjoy the full benefits of the Sage control system with one of EVAPCO's unmatched hybrid cooling units

eco-ATWB & eco-ATWB-H evaporative coolers provide the ultimate solution for installations seeking the highest ambient dry bulb switchover temperatures, reduced water usage, high peak-load output, and plume abatement.



Programmable Logic Controller (PLC) communication protocols

- BACnet IP
- BACnet MS/TP
- Modbus RTU
- Modbus TCP

Control Features

- Manual operation of pumps and fans
- Ability to enable or disable makeup valve
- Power failure recovery timer
- Ability to perform bump test
- Visual status display of all unit components and accessories
- Back up with user settings and factory settings
- Pump runtime recorder
- Fan motor runtime recorder

Standard Control & Power Items

- UL Type 4 enclosure
- UL approval
- Programmable Logic Control
- Variable frequency drive(s)
- Recirculating pump motor starter(s)
- Fluid inlet/outlet temperature sensors with high and low alarm setpoints
- Basin temperature sensor(s)
- Ambient dry bulb sensor
- Main disconnect circuit breaker
- Main bypass/off/auto switch (BOA)
- DC power supply for the PLC and instruments
- Control power transformer
- Heater contactor with overload protection and temperature setpoints with fusing
- 5-Probe Electronic Water Level Control package
- High/low water level alarm contacts
- Fan motor: space heater control(s)
- Relays for all PLC digital outputs
- Terminal blocks for each PLC input/output
- Ethernet connection between VFD(s), PLC and operator interface



HMI Panel Display

The Sage Control Panels are provided with a 10" touch screen operator interface with a color display. This allows for easy viewing and control at the panel.



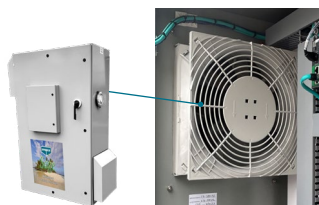
Temperature Sensors (Field Installed)

Four separate temperature data points are monitored with this package:

- Inlet Temperature Sensor: 0°F – 180°F range
- Outlet Temperature Sensor: 0°F – 180°F range
- Dry-Bulb Temperature Sensor: -30°F – 130°F range
- Basin Temperature Sensor: 0°F – 180°F range

Enclosure Temperature Control

The panel enclosure includes an intake and an exhaust ventilation fan. When the enclosure temperature rises to a predetermined setpoint, the exhaust fans are activated. The enclosure also contains a heater. The heater eliminates the drastic temperature changes which could create condensation inside of the enclosure. The maximum ambient temperature range is between -4°F to 104°F. Consult your EVAPCO sales representative for temperature requirements outside these conditions.



Fan



Heater

**Optional communication protocol may be available.
Please contact your local EVAPCO sales representative.*



World Headquarters
 Research & Development Center
 EVAPCO Manufacturing Facilities

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

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

North America

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

EVAPCO East
 Taneytown, MD USA

EVAPCO East
 Key Building
 Taneytown, MD USA

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

Evapcold Manufacturing
 Greenup, IL USA

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
 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

Tower Components, Inc.
 Ramseur, NC USA
 336.824.2102
mail@towercomponentsinc.com

EvapTech, Inc.
 Edwardsville, KS USA
 913.322.5165
marketing@evaptech.com

EVAPCO Dry Cooling, Inc.
 Bridgewater, NJ USA
 908.379.2665
info@evapcodc.com

EVAPCO Dry Cooling, Inc.
 Littleton, CO USA
 908.895.3236
info@evapcodc.com

Asia Pacific

EVAPCO Asia Pacific Headquarters
 Baoshan Industrial Zone Shanghai, P.R. China
 (86) 21.6687.7786
marketing@evapcochina.com

EVAPCO (Shanghai) Refrigeration Equipment Co., Ltd.
 Baoshan Industrial Zone, Shanghai, P.R. China

EVAPCO (Beijing) Refrigeration Equipment Co., Ltd.
 Huairou District, Beijing, P.R. China
 (86) 10.6166.7238
marketing@evapcochina.com

EVAPCO Air Cooling Systems (Jiaxing) Company, Ltd.
 Jiaxing, Zhejiang P.R. China
 (86) 573.8311.9379
info@evapcochina.com

EVAPCO Australia (Pty.) Ltd.
 Riverstone, NSW, Australia
 (61) 02.9627.3322
sales@evapco.com.au

EvapTech (Shanghai) Cooling Tower Co., Ltd
 Baoshan District, Shanghai, P.R. China.
 Tel: (86) 21.6478.0265

EvapTech Asia Pacific Sdn. Bhd.
 Puchong, Selangor, Malaysia
 (60) 3.8070.7255
marketing-ap@evaptech.com

Europe | Middle East | Africa

EVAPCO Europe EMENA Headquarters
 Tongeren, Belgium
 (32) 12.39.50.29
evapco.europe@evapco.be

EVAPCO Europe BV
 Tongeren, Belgium

EVAPCO Europe, S.r.l.
 Milan, Italy
 (39) 02.939.9041
evapcoeuropa@evapco.it

EVAPCO Europe, S.r.l.
 Sondrio, Italy

EVAPCO Europe A/S
 Aabybro, Denmark
 (45) 9824.4999
info@evapco.dk

EVAPCO Europe GmbH
 Meerbusch, Germany
 (49) 2159.69560
info@evapco.de

EVAPCO Middle East DMCC
 Dubai, United Arab Emirates
 (971) 56.991.6584
info@evapco.ae

Evap Egypt Engineering Industries Co.
A licensed manufacturer of EVAPCO, Inc.
 Nasr City, Cairo, Egypt
 (20) 10.054.32.198
evapco@tiba-group.com

EVAPCO S.A. (Pty.) Ltd.
A licensed manufacturer of EVAPCO, Inc.
 Isando, South Africa
 (27) 11.392.6630
evapco@evapco.co.za

South America

EVAPCO Brasil
 Equipamentos Industriais Ltda.
 Indaiatuba, São Paulo, Brazil
 (55) 11.5681.2000
vendas@evapco.com.br

FanTR Technology Resources
 Itu, São Paulo, Brazil
 (55) 11.4025.1670
fantr@fantr.com