

DO NOT DRILL

### DATA CENTER COOLING





### **OUR MISSION**

EVAPCO is more than a company name – it is the team you can count on for a lifetime. We are a manufacturer of high-quality, innovative products and services that thrives through our core principle of treating people right. We are empowered by a culture of excellence and an environment of continuous improvement. We put people first, fellow employees and customers alike. We shine through expert craftmanship and passionate dedication to fanatical customer service. We are EVAPCO - we are your team not just for a lifetime but for generations to come.

World Headquarters Research & Development Center

## **GLOBAL PRESENCE**

### WORLDWIDE COOLING SOLUTIONS

### EVAPCO EVERYWHERE

EVAPCO, Inc. is an industry-leading manufacturing company with global resources and solutions for worldwide heat transfer applications. We are dedicated to designing and manufacturing the highest quality products for the commercial HVAC, industrial refrigeration, power generation, industrial process and data center markets around the globe.

### FULL SPECTRUM OF GLOBAL SOLUTIONS

evapco

Hybrid

11111

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**Evaporative** 

**Adiabatic** 

### **DATA CENTERS - GLOBAL REVOLUTION**

evapco

As an international company, we understand that every project brings its own unique set of challenges.

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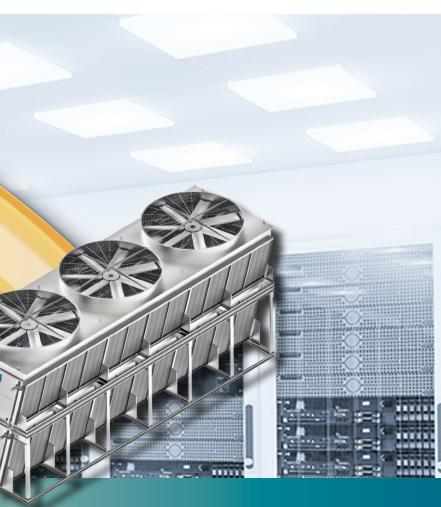
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You require options that adapt with evolving requirements, efficiently and sustainably—no matter the location.

By partnering with our experienced team of engineers, we can assist you in identifying the cooling solution that will deliver the best possible combination of power usage effectiveness (PUE) and water usage effectiveness (WUE) in any climate.

Our innovations are tested in one of the industry's largest and most advanced research and development facilities in the world, located at the EVAPCO World Headquarters in the USA.

Easily compare your options using the latest Advanced Water & Energy Analysis tool created by EVAPCO. Capable of instantly calculating performance data around the globe, it's another way we're changing the cooling industry with technology for the future, available today.



#### **ENGINEERED FOR MISSION CRITICAL PERFORMANCE** AND EFFICIENCY

### AT ATLAS COOLING TOWER

LOWER ENERGY USAGE

### HYPERSCALE SOLUTIONS HIGHLIGHTED PROJECT

A strictly defined plan area combined with significant cooling requirements called for a compact, ultra efficient system. Lead time was also crucial since the data center needed to be operational as quickly as possible.

The AT Atlas modular cooling tower was designed with these challenges in mind. By providing comparable capacity to field-erected units, the site could achieve its low PUE requirements. Faster lead times, as well as fewer piping and electrical connections, allowed multiple cells to be installed quickly.

Compare the AT Atlas to today's leading cooling options with help from our experienced engineers. Consider the EVAPCO team your partners in providing mission critical cooling.

# **OPTIMIZING ENERGY**

**Evaporative** 



With its modular design, the AT Atlas offers the **highest cooling capacity** and **lowest energy consumption** of all solutions.





### eco-ATWB-H HYBRID COOLER



### HIGHLIGHTED PROJECT

When the local municipality reduced this data center's water supply and implemented escalating penalties to ensure compliance, plans shifted rapidly.

We worked with their designers and identified that our eco-ATWB-H Hybrid Coolers were the ideal solution.

With excellent dry performance, combined with exceptional **free cooling** potential, these units drastically reduced water consumption while virtually eliminating the need for chiller operation.

Contact your local EVAPCO sales representative to learn more about the innovative, highly efficient design of our hybrid options.

IMPROVING BOTH PUE AND WUE

### THE BEST OF BOTH WORLDS

Together with our automated Sage<sup>®</sup> control system, this solution prolonged dry operation to **reduce annual** water consumption by 60%<sup>\*</sup>, and minimize the requirement for water storage.

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**GOING HYBRID** 

6

1.4

PUE

WUE

Compared to a fully evaporative fluid cooler.

### ADAPT TO ANY ENVIRONMENT HIGHLIGHTED PROJECT

Extremely limited water availability meant this customer needed an option beyond traditional evaporative cooling.

EVAPCO eco-Air Adiabatic Coolers were the optimal solution, allowing the site to achieve its ultra-low PUE target while consuming a minimal amount of water. Additionally, these coolers offer:

Low Water Consumption Maintenance Friendly Operation Energy Efficiency Operational Resiliency

This adiabatic technology can be adapted to almost any location! Visit **evapco.com** for more details.

**BIN HOURS** 

ANNUAL DRY BULB DISTRIBUTION

**OPERATION:** 

DRY

WET



**Adiabatic** 

evapc

### eco-Air ADIABATIC COOLER

With a custom solution, this site's projected WUE improved significantly!

After installation, EVAPCO eco-Air Adiabatic Coolers reduced water consumption by 95% AND eliminated the need for water treatment.



eco-Air

### eco-Air Titan™ **AIR COOLED HEAT EXCHANGER**

The eco-Air Titan is a field-erected unit comprised of large fans positioned over EVAPCO's state-of-the-art finned tube bundles in an induced draft configuration. This design provides a substantial amount of cooling capacity in a small footprint.

The eco-Air Titan also offers significant increases in fan efficiency compared to other air-cooled heat exchanger designs that use smaller fans. EVAPCO's eco-Air Titan is an induced draft air-cooled heat exchanger with larger fans, motors, and advanced coil technology.

A reduction in electrical power consumption can be achieved with large high-efficiency fans and velocity recovery fan stacks.

# **REDUCED AUXILIARY POWER**

#### eco-Air Titan<sup>™</sup> DRY COOLER



Equipment layout limitations can be addressed with elevating modules, arranging fin/tube bundles in a V configuration to increase airflow, and back-to-back arrangements.



### **COMBINING HEAT REJECTION TECHNOLOGIES**

EVAPCO's Spectrum<sup>™</sup> selection program can quantify all aspects of equipment performance to allow the end user to make an educated decision to utilize the cooling technology best suited to their project.

With a full spectrum of CTI certified heat rejection equipment, each with its own benefits, we have the unique ability to leverage the strengths of individual product solutions by combining multiple EVAPCO technologies into a cohesive system.

**DRIVING INNOVATION** 

# **COMBINING TECHNOLOGIES**



### HIGHLIGHTED PROJECT

Today's data center projects often require a creative solution that further reduces the annual and peak 24-hour water consumption, while meeting the increasing cooling demand requirements.

The solution utilized technology from the two ends of our spectrum. By combining EVAPCO's CTI certified and industry leading evaporative cooling towers and dry coolers, EVAPCO helped meet the most stringent water and energy site requirements while delivering the highest capacity.

The combination of these two product lines provided the client with benefits of:

**Reduction in Annual Water Consumption Reduction in Peak Water Consumption** Dry Free Cooling in Low Ambient Months Limited Water Treatment Required



\*Image shown is a digital rendering of the installation layout, not an actual photograph

### **EVAPCO SMART SHIELD®**

### **ENVIRONMENTALLY CONSCIOUS** WATER TREATMENT SOLUTIONS

Only EVAPCO offers two patented water treatment systems that can be factory-mounted for the easiest, most dependable set-up ever: Smart Shield<sup>®</sup>, the safer solid chemistry system with controlled-release technology, and Pulse~Pure®, the pulsedpower way to treat your water with zero chemicals.

In addition, EVAPCO Water Systems has expanded its product offerings to include a capacitive deionization pre-treatment system focused on improving water efficiency. Innovations like these are how we're making everyday life easier, more reliable, and more sustainable for you.



Smart Shield ®

Factory Mounted

Solid Chemistry

Water Treatment

Pulse~Pure® Non-Chemical Treatment

Smart Shield ® For Open Towers and Remote Sump Applications





Water Saver™ Pre-Treatment System

# FULL SPECTRUM OF WATER SYSTEMS



### WATER TREATMENT **OPTIONS**

*Pulse*~Pure<sup>®</sup> provides a complete water treatment system for your evaporative cooling equipment, significantly reducing the environmental impacts associated with the production, shipping, handling, and storage of chemicals.

Smart Shield<sup>®</sup> provides a complete, reliable, solid chemistry water treatment system specifically engineered and factory mounted, piped, and wired for open cooling towers.

EVAPCO's Pass-Protect<sup>®</sup> is a factoryassisted passivation and galvanized coil treatment that enhances the speed and effectiveness of proper field passivation, even for units needing immediate heat load.



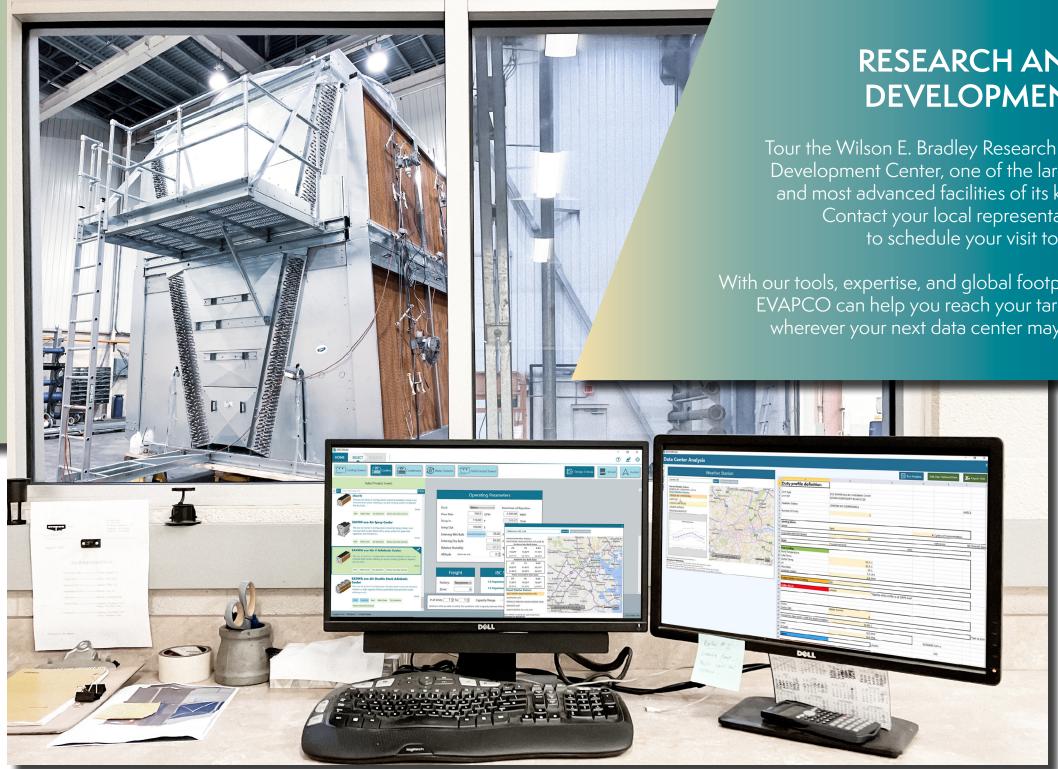
Staying at the forefront of technology is just as important to us as it is you. In addition to developing sustainable solutions in our state-of-the-art research facility, we've also produced analysis tools to assist you in creating a holistic view of your cooling system.

Our powerful software can optimize your design process by calculating annualized performance data for your location and site-specific requirements. We can provide design engineers with a comprehensive range of water and energy consumption data to help identify the best cooling solution, or **combination of solutions** for any project. You can expect the final analysis to include:

> FREE COOLING POTENTIAL WATER CONSUMPTION **COOLER POWER CHILLER POWER** PUMP POWER **AND MORE**

> > by **CVCID**

SPECTRUM



## **LEADING THE INDUSTRY WITH TECHNOLOGY**

### **RESEARCH AND** DEVELOPMENT

Tour the Wilson E. Bradley Research and Development Center, one of the largest and most advanced facilities of its kind. Contact your local representative to schedule your visit today.

With our tools, expertise, and global footprint, EVAPCO can help you reach your targets wherever your next data center may be.



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