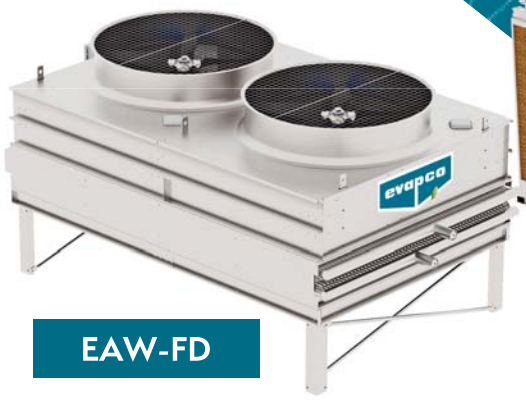
evapco® for LIFE



EAW-FD

EAW-VA

EAW-VD

EAW-DD

EAW-DA

eco-Air™ Series

Dry & Adiabatic Coolers

CTI CERTIFIED

EAW-Models

† Mark owned by the Cooling Technology Institute

U.S. GREEN BUILDING COUNCIL MEMBER

FULL SPECTRUM GLOBAL SOLUTIONS

EVAPCO provides a full spectrum of global product solutions for the Commercial HVAC, Process Cooling, Industrial Refrigeration and Power Generation markets.

From the smallest factory assembled cooling tower to the largest field erected air-cooled steam condenser, we offer heat transfer products designed to meet the water and energy requirements for any project. We are committed to providing solutions that are energy efficient and conserve water.

The eco-Air Series completes our successful eco-family of closed circuit coolers and condensers with water-saving dry and hybrid technology.

The eco-Air Series coolers offer unparalleled flexibility in a wide range of capacities, footprints, motor types, and control options.

EC Motor Option

AC Motor Option

EC & AC Motor Options Available on Flat (EAW-FD), V Coil Dry (EAW-VD/EAW-DD) and V Coil Adiabatic (EAW-VA/EAW-DA) Models

APPLICATIONS

The eco-Air Single & Double Stack product lines can be applied to a wide spectrum of applications, especially where reducing or eliminating water usage is critical.

INDUSTRIAL PROCESSES

DATA CENTERS

HVAC

POWER GENERATION

LIQUID IMMERSION COOLING

EVAPCO's sales representatives and engineers have the tools to help you select the right product for your application.

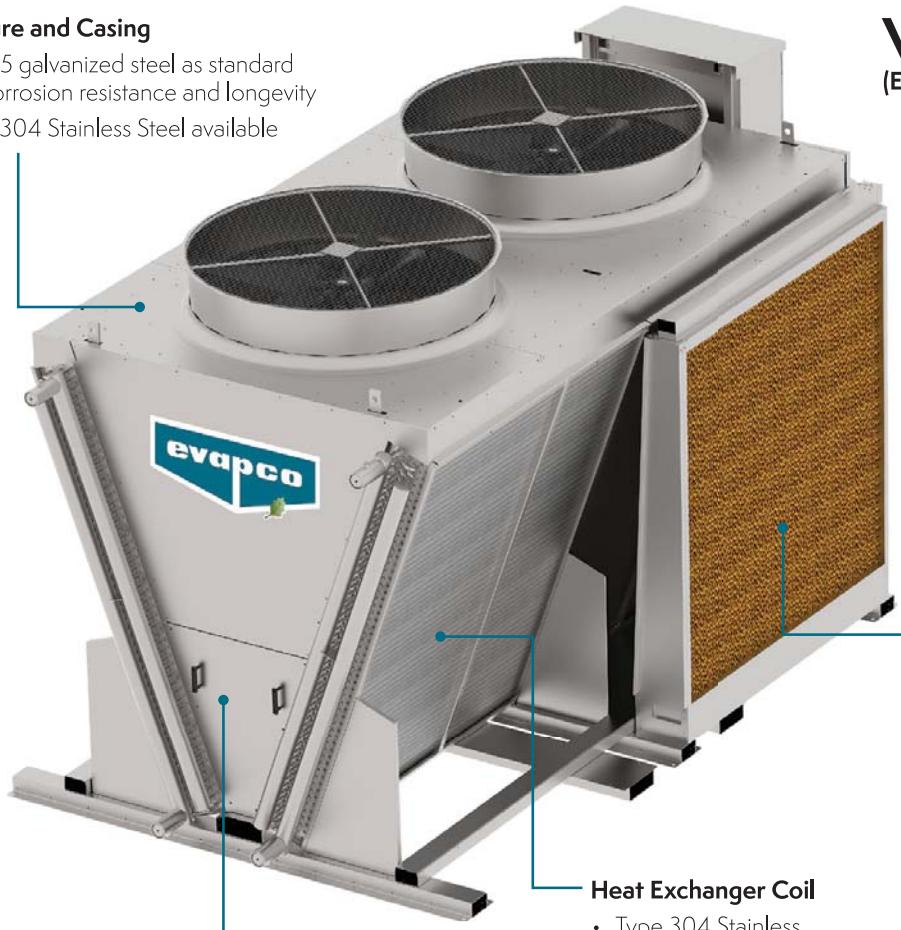
To find out if the eco-Air Single & Double Stack are the right solutions for your project, please contact your local EVAPCO sales representative.

eco-Air Series Single Stack Dry & Adiabatic Coolers

Available in fully dry & adiabatic designs, the eco-Air Series maximizes heat rejection with minimal or no water use. The eco-Air Series is another chapter in EVAPCO's ongoing commitment to high quality, environmentally friendly product.

Structure and Casing

- G-235 galvanized steel as standard for corrosion resistance and longevity
- Type 304 Stainless Steel available



V Coil Models
(EAW-VD, EAW-VA)

- Maximum surface area per footprint
- Optimized coil angle for heat rejection and air flow
- Compact plan area and layout

Corrosion Resistance Coated Fins (Optional)

- Available for both Dry & Adiabatic Models
- Increased corrosion resistance
- No impact on unit capacity

Adiabatic Pre-Cooling System (Optional)

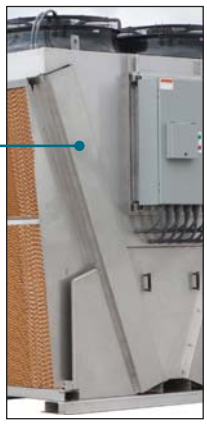
- Wetted pads can be utilized for pre-cooling entering air, resulting in greater energy savings, and increased capacity, with minimal water use
- Great for high dry bulb climates and high temperature applications
- Once through design
- No water treatment required
- No cold water basin or pump
- No drift
- V coil models only

Heat Exchanger Coil

- Type 304 Stainless Steel tubes with aluminum fins
- Multiple tube configurations
- Upgraded fin thickness available

Inspection Panel (V Coil Models)

- Easily removable for interior inspection and access to coils and fan motors



Coil Return Bend Covers

- Protects the coil return bends during handling and operation

Internal Step Deck (Optional-V Coil Models)

- Platform and grab rail for access to elevated fan section components (2.4m wide V Coil Models only)

eco-Air Series Single Stack Dry & Adiabatic Coolers

Advanced Motor Technology - Electronically Commutated (EC) or Alternating Current (AC) fan motor designs

EC

- High Efficiency
- Zero Maintenance
- Integral Speed Control
- Inherently Low Sound

AC

- Highly efficient direct drive
- VFD ready
- Severe Duty

Flat Coil Models (EAW-FD)

- Low profile design
- Great for elevated installations with bottom airflow clearance

Easy Rigging

- All units are designed for lifting as one piece

Fork Lift Channels

- V and Flat units up to 8.2m in length

Multiple Leg Heights Available (Flat Coil Models)

Coils Pressurized with Nitrogen

- Limits internal corrosion potential during transport and storage

Warranty

- 2 years complete unit (including drive system and heat exchanger coils)
- 2 years adiabatic pads (if equipped)
- 1 year EVAPCO Controller and other electrical components (if equipped)

eco-Air Series Dry Cooler Thermal Performance is CTI certified per STD-201.

† Mark owned by the Cooling Technology Institute

Common Terminal Box

- All motors factory wired
- Saves time in the field

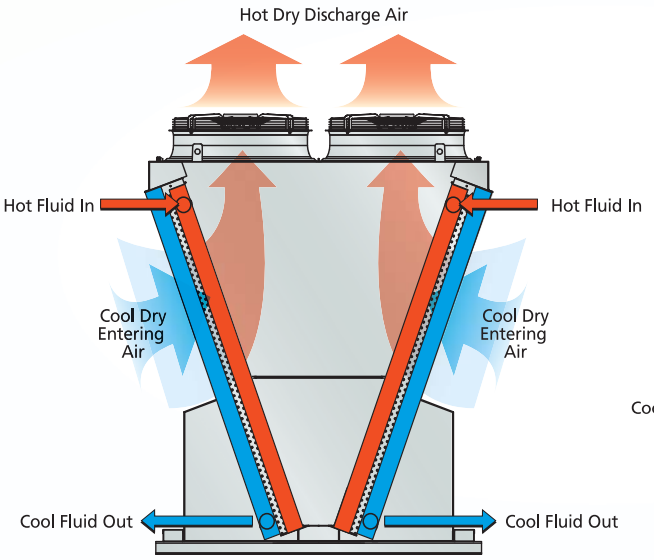
Factory Mounted & Wired Controls (Optional)

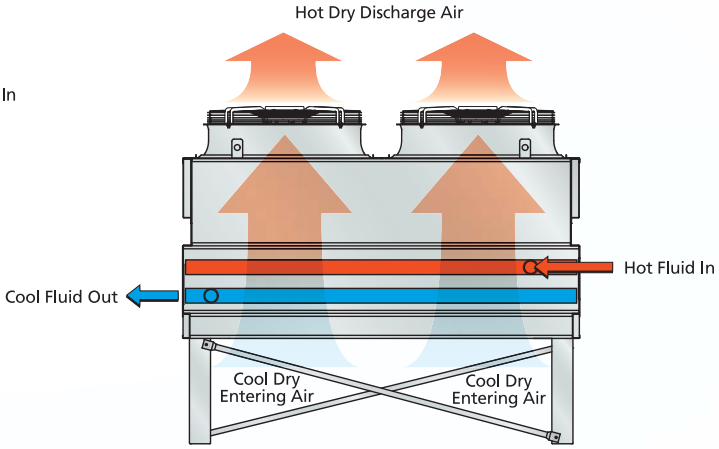
- EVAPCO PLC Panel (EC Motors)
- EVAPCO PLC/VFD Panel (AC Motors)
- Single point power connection
- IEC IP55 Rated

eco-Air Series Single Stack Coolers
Principle of Operation

eco-Air Series V Coil (EAW-VD) & Flat Coil (EAW-FD) Dry Coolers

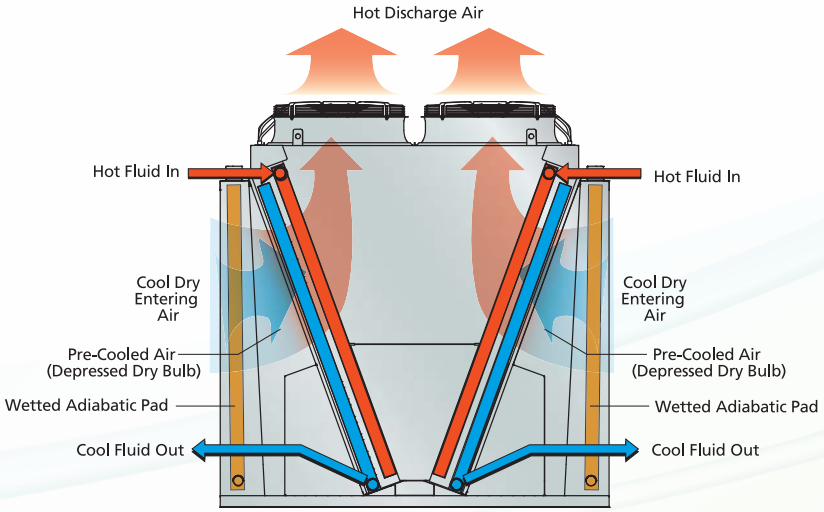
Hot Process fluid enters the inlet header connection, shown in red. Heat from the fluid dissipates through the coil tubes surface and out to the fins. Ambient air is drawn in over the coil surface by the fan located at the top of the unit. Heat from the process fluid transfers to the air and discharges to the atmosphere. Cool process fluid exits the unit through the connections shown in blue.





eco-Air Series V Coil (EAW-VA) Adiabatic Coolers

Hot process fluid enters the inlet header connection, shown in red. Heat from the process fluid dissipates through the coil tubes surface and out to the fins. The adiabatic system involves fully wetting a fibrous pad located in front of the coil. Ambient air is drawn through the adiabatic pre-cooling pad by the fans located on top of the unit. The air is saturated as it passes through the adiabatic pad, decreasing the dry bulb temperature within a few degrees of the wet bulb temperature. This new air temperature is referred to as the depressed dry bulb. This pre-cooled air is then drawn through the tube and fin surface, offering a substantial increase in heat rejection capability. Heat from the process fluid transfers to the air and discharged to the atmosphere. Cool process fluid exits the unit through the connections shown in blue.



eco-Air Series Double Stack Dry & Adiabatic Coolers

The eco-Air Series of Dry & Adiabatic Double Stack coolers are designed to address the market need for higher capacity factory assembled dry coolers with a smaller installed footprint than options currently available in the market. The unit footprint, piping connections, and electrical connections can be halved by stacking one section on top of another to maximize surface area available for cooling, the footprint of a project can be effectively halved, therefore simplifying piping and electrical connections and improving access to optimize layout on large projects requiring multiple units.

Drive System Options

AC/ NEMA

- Highly efficient VFD ready motors
- Aluminum low sound fans as standard
- Belt drive
- Motors are factory wired to individual safety switches
- Speed control by others

EC

- Highly efficient EC motors
- Integrated fan and motor assemblies
- Factory wired by EVAPCO to an IP55 terminal box
- Unit can control itself or accept external communication from BMS

Adiabatic Pre-cooling Media

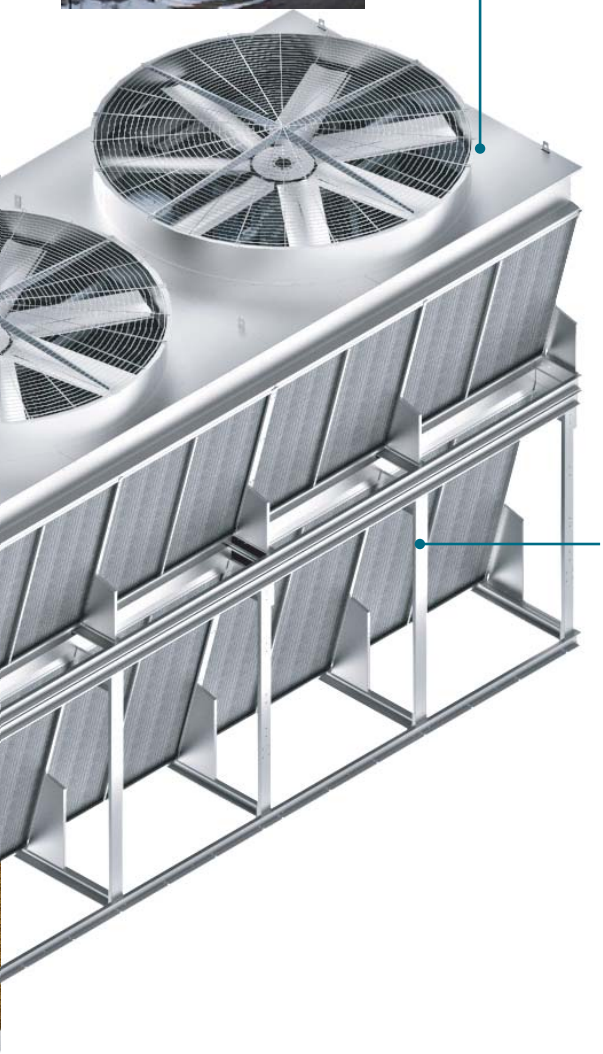
- High efficency adiabatic pre-cooling pads
- No water treatment required
- No drift
- No recirculation pump required

Adiabatic Water Distribution System

- Copper distribution piping
- 2 stage water system for increased water savings
- Pressure gauge
- Water pressure regulator
- Strainer
- Make up connection
- Drain valve

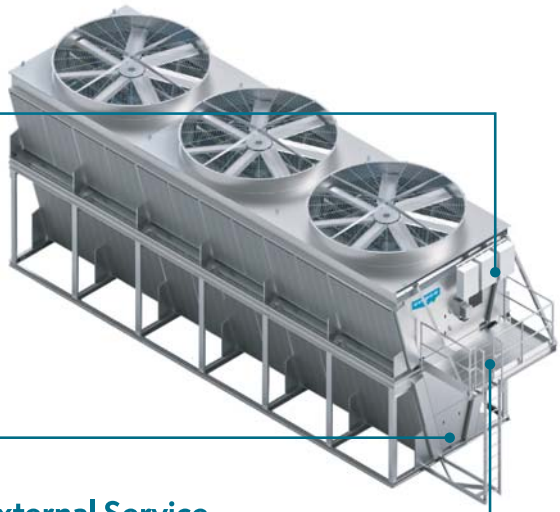
No Plume

- All eco-Air units are 100% plume free



Electrical Termination Enclosures

- Individual motor safety switches for AC/NEMA motor units
- Low voltage terminal box for adiabatic system solenoid valves and vibration switches



Inspection Panel

- Easily removable for interior inspection and access to coils and fan motors

External Service Platform with Ladder

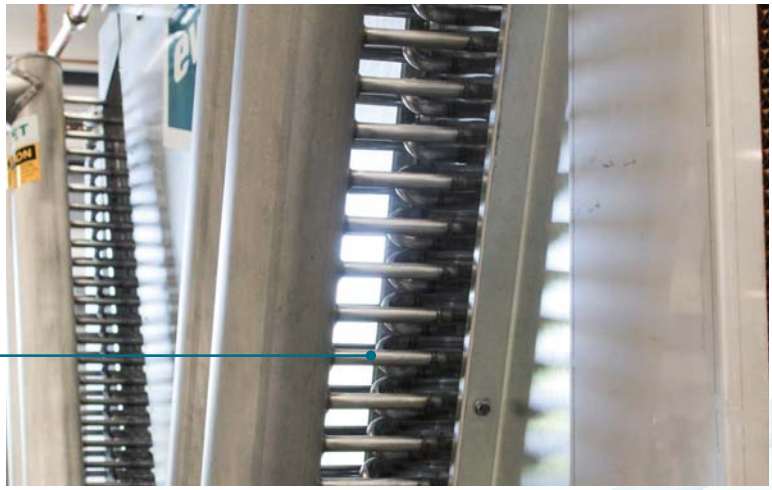
- OSHA compliant
- Optional feature can be added to any installation

Warranty

- 2 years for the complete unit (including drive system and heat exchanger coils)
- 2 years for the adiabatic pads (if equipped)
- 1 year for the electrical components

Structure and Casing

- G-235 galvanized steel as standard for increased corrosion resistance and longevity
- Type 304 stainless steel available as an option



Heat Exchanger Coils

- Type 304 stainless steel coils
- Multiple circuiting configurations
- Heavy gauge aluminum fins
  - Optional upgrade to corrosion resistance coated fins for increased corrosion resistance with no impact on unit performance

CTI CERTIFIED †

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eco-Air Series Dry Cooler Thermal Performance is CTI certified per STD-201.

CERTIFIED PERFORMANCE

EVAPCO's eco-Air Series of **Single Stack** & **Double Stack** dry coolers are now CTI certified for thermal performance per Standard 201. The Cooling Technology Institute (CTI) is an independent third-party organization who validates the thermal performance of evaporative and dry heat rejection equipment. CTI Standard 201 was expanded to include dry coolers in 2022. CTI certification provides credibility to EVAPCO's published thermal performance ratings, ensuring every customer has peace of mind when purchasing EVAPCO products.

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BENEFITS

Any application requiring a large amount of heat rejection and a significant reduction in water usage can benefit from eco-Air Double Stack dry coolers. These applications will also gain the advantage of a simpler system set-up with a minimized amount of units, electrical connections, and piping.

MAXIMIZE DRY OPERATION & WATER EFFICIENCY

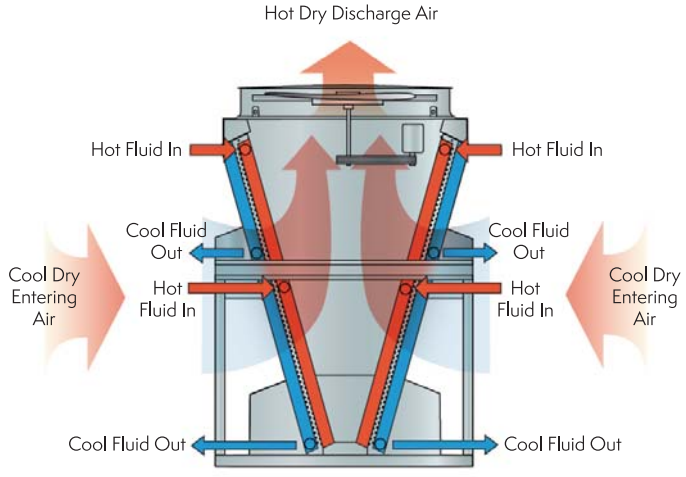
REDUCE INSTALLED FOOTPRINT

REDUCE FIELD PIPING & WIRING

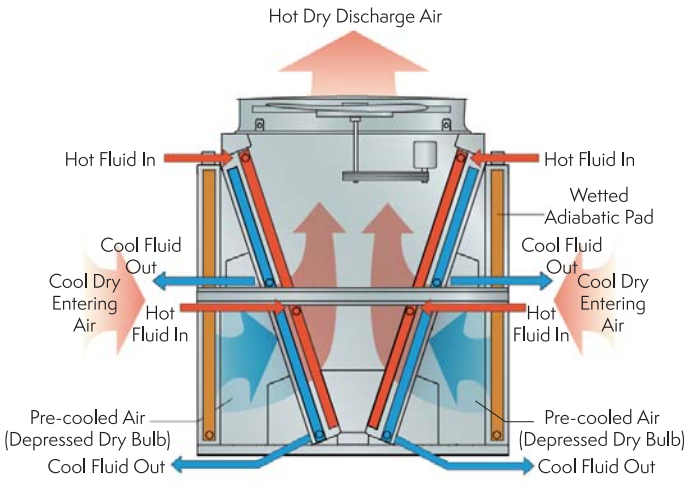
When selected with EVAPCO's adiabatic pad pre-cooling system, elevated ambient dry bulb temperatures can be depressed to maintain low leaving fluid temperature set-points. Water utilized by the adiabatic pad pre-cooling system evaporates off the surface of the pad, keeping the finned coil bundles completely dry.

The eco-Air Double Stack coolers are taller and wider than the smaller single stack units, with significantly more dry coil surface area and higher airflow capability to maximize heat rejection for a given footprint.

eco-Air Double Stack Coolers Principle of Operation



EAW-DD Series Dry Coolers



EAW-DA Series Adiabatic Coolers