

# eco-Air Series Design & Construction Features

The eco-Air Series of coolers and condensers represents EVAPCO's newest advancement in thermal heat transfer research and development. Available in fully dry and 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 products.

#### **Heat Exchanger Coil**

- Copper tubes with aluminum fins
- Stainless steel tubes with aluminum fins available
- Multiple fin spacings and tube configurations
- Upgraded fin thickness available





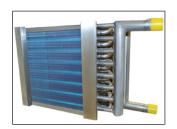
#### Structure and Casing

Standard Z-725 galvanized steel (725 g/m² of zinc)

 Stainless steel available for increased corrosion resistance and longevity

# V Coil Models

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



# Epoxy Coated Fins or Aluminum Magnesium Fins (optional)

Increased corrosion resistance



#### Inspection Panel (V Coil Models)

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



#### Internal Step Deck (optional)

- Platform and grab rail for access to elevated fan section components
- V coil models only



### Adiabatic Pre-Cooling System (optional)

- 150 mm wetted pads can be utilized to pre-cool 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 (Adiabatic Pad Drip Pan)
- No drift
- V coil models only
- · Adiabatic frame in stainless steel

# eco-Air Series Design & Construction Features

### **Advanced Motor Technology**

Electronically Commutated (EC) or AC fan motor designs

#### AC

- · Premium efficient direct drive
- Zero maintenance sealed bearings
- VFD ready
- · Severe Duty



#### Electronically Commutated (EC)

EC motors are the latest development in energy savings and speed control. The high efficiency wing tip fans operate up to 3 dB less than conventional blade fans with improved part speed energy consumption.

- Zero maintenance
- · Integrated speed control







# Common Terminal Box (optional)

- All motors factory wired
- Saves time in the field
- Rain & Sun hood (optional)

# Factory Mounted & Wired Controls (optional)

- Single point power connection
- EVAPCO PLC controller with communication to Building Management System (BMS)
- Modbus control for ÈC fans
- · VFD for AC motors
- Thermal overload and short cut protection
- Ambient temperature sensor
- Fluid temperature sensor or Refrigerant pressure sensor
- Solenoid control of adiabatic pre-cooling system
- Rain & Sun hood (optional)





Individual Motor Safety Switch (optional)





#### 100% Fully Rated Guarantee

- Products tested at full-scale in the EVAPCO Research and Development Center
- The product will meet 100% thermal performance per specification. No performance tolerance is applied

# eco-Air Series Design & Construction Features

### eco-Air V Series

#### EAVWD / EAVCD



## **Applications**

A dry induced draft cooler (EAVWD) or condenser (EAVCD) with no water usage, providing maximum surface area per foot-

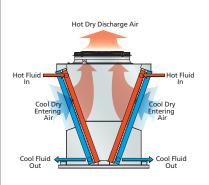
The innovative design provides optimal cooling while cutting the high costs of water and water treatment

Available with AC or EC motors.

### **Features**

- 100% fully rated guarantee
- Runs 100% dry No water treatment
- Copper or stainless steel tubes with aluminum fins and Z-725 galvanized steel construction as standard for increased corrosion resistance and longevity

### Principle of Operation



## eco-Air Adiabatic Series

### **EAVWA / EAVCA**



### **Applications**

An adiabatic, induced draft cooler (EAVWA) or condenser (EAVCA), that minimizes water usage while providing maximum heat rejection for any outdoor applications.

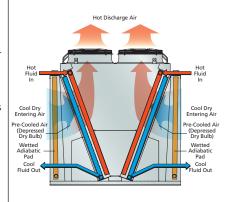
A pre-cooling system is used to increase the capacity for high dry bulb and high temperature applications. Available with AC or EC motors.

#### **Features**

#### • 100% fully rated guarantee

- Adiabatic pre-cooling system pre-cools the entering air for increased energy savings and capacity while minimizing water usage.
- Copper or stainless steel tubes with aluminum fins and Z-725 galvanized steel construction as standard for increased corrosion resistance and longevity

## **Principle of Operation**



## eco-Air Flat Series

#### EAFWD / EAFCD



#### **Applications**

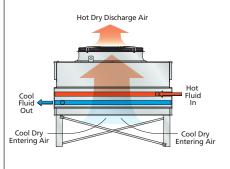
Low profile, flat, induced draft cooler (EAFWD) or condenser (EAFCD) with bottom airflow clearance is excellent for any elevated outdoor application. Available with AC or EC motors.

#### **Features**

#### • 100% fully rated guarantee

- Runs 100% dry No water treatment
- Copper or stainless steel tubes with aluminum fins and Z-725 galvanized steel construction as standard for increased corrosion resistance and longevity

### **Principle of Operation**



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