PRODUCT RANGE

Hybrid
Counterflow Closed Circuit Coolers

Induced Draft with Axial Fans
Forced Draft with Centrifugal Fans

Better Choices • Easy Solutions • Advanced Technology • Certified EN ISO 9001

evapco® for LIFE

Counterflow Hybrid Closed Circuit Cooler Designs

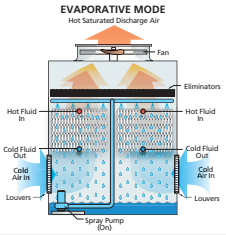
Induced Draft with Axial Fans

eco-ATWB

eco-ATWB 3-2C3-Z to
eco-ATWB 24-6P40
42 to 10810 kW
704 Models

Ellipti-*fin*®
CROSScool™

- Low energy
- Low risk for recirculation
- Easy maintenance
- Extended surface coil
- Good dry switch points
- IBC Compliant
- Eurovent-CTI Certified
- Optional Sage® Control Panel

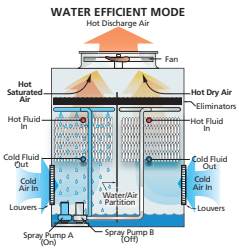


eco-ATWB-E

eco-ATWB-E 8-3G9 to
eco-ATWB-E 12-6P20
377 to 2630 kW
228 Models

Ellipti-*fin*®
CROSScool™

- Low energy
- Low risk for recirculation
- Easy maintenance
- Extended surface coil
- Good dry switch points
- Hybrid operation possible
- Reduced water consumption
- IBC Compliant
- Eurovent-CTI Certified
- Sage® Control Panel

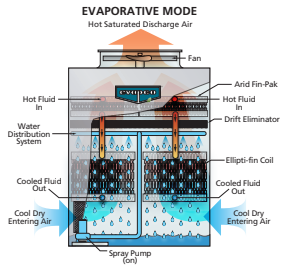


eco-ATWB-H

eco-ATWB-H 8-1G9 to
eco-ATWB-H 24-4O20
250 to 4895 kW
2036 Models

Ellipti-*fin*®
CROSScool™
ARID-*fin Pak*™

- Low energy
- Low risk for recirculation
- Easy maintenance
- Complete finned coils
- Maximum dry switch points
- Hybrid operation
- Optimized technology for increased water savings
- Plume abatement
- IBC Compliant
- Eurovent-CTI Certified
- Sage® Control Panel



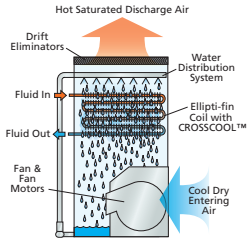
Forced Draft with Centrifugal Fans

eco-LSWE

eco-LSWE 4-2F6 to
eco-LSWE 10-6N36
100 to 4978 kW
183 Models

CROSScool™
Ellipti-*fin*®

- Low sound • Small footprint
- Indoor installation possible
- Extended surface coil
- High dry switch points
- Hybrid operation
- Reduced water consumption
- Plume abatement
- IBC Compliant
- Eurovent-CTI Certified

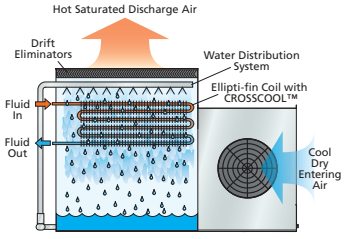


eco-LRWB

eco-LRWB 3-2D6 to
eco-LRWB 8-6O12
79 to 1427 kW
82 Models

CROSScool™
Ellipti-*fin*®

- Low sound • Low height
- Indoor installation possible
- Extended surface coil
- TOP-TOP execution possible: Vertical air inlet and outlet
- High dry switch points
- Hybrid operation
- Reduced water consumption
- Plume abatement
- IBC Compliant
- Eurovent-CTI Certified

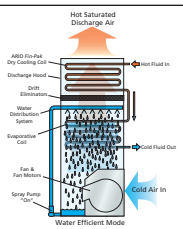


LSWA-H

LSWA-H 4-2G6 to
LSWA-H 10-7O36
73 to 2673 kW
215 Models

Thermal-Pak®
CROSScool™
ARID-*fin Pak*™

- Low sound • Small footprint
- Indoor installation possible
- Finned dry coil
- High dry switch points
- Hybrid operation
- Reduced water consumption
- Plume abatement

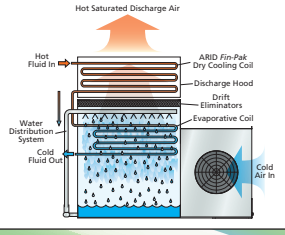


LRW-H

LRW-H 3-2E6 to
LRW-H 8-7P12
43 to 580 kW
91 Models

Thermal-Pak®
CROSScool™
ARID-*fin Pak*™

- Low sound • Low height
- Indoor installation possible
- Finned dry coil
- TOP-TOP execution possible: Vertical air inlet and outlet
- High dry switch points
- Hybrid operation
- Reduced water consumption
- Plume abatement

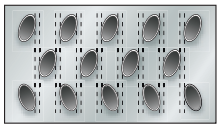


Design Features

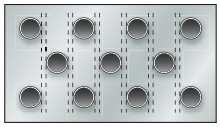
Coil Technologies

Evapco's coils are manufactured within the most stringent of quality control procedures. Each circuit consists of high quality steel tubing formed into a continuous serpentine circuit. Each circuit is then inspected and tested prior to being welded into a framed coil assembly. The coil assembly is then pneumatically tested at 15 bar under water to ensure its integrity in accordance with the European Pressure Equipment Directive (PED) 97/23/EC. The entire coil assembly is then hot-dip galvanized for industrial strength corrosion protection.

Thermal-Pak®: Evapco's patented **Thermal-Pak®** Cooling Coil design assures greater operating efficiency. The elliptical tube allows for closer tube spacing, resulting in greater surface area per plan area than round-tube coil designs. In addition, it's staggered design has lower resistance to airflow and also permits greater water loading, making the **Thermal-Pak®** coil the most effective design available.

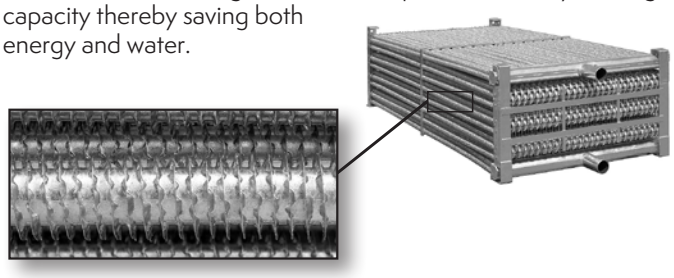


Thermal-Pak® Coil by EVAPCO

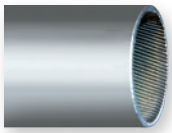


Round Tube Coil by Others

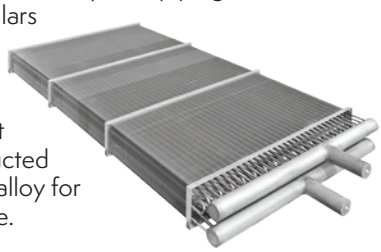
Ellipti-*fin*®: Now Evapco has developed the most efficient closed circuit cooling coil in the HVAC industry! All coil rows feature patented finned **Thermal-Pak®** elliptical tubes. The **Ellipti-*fin*®** lowers airflow resistance more than typical finned round tubes. This design increases evaporative and dry cooling capacity thereby saving both energy and water.



CROSSCOOL™: Evapco's dedication to continuous improvements led to a new exclusive ***CROSSCOOL***™ Technology, which enhances the interior of elliptical tube. The heat exchange surface is increased and the embossing provokes a better turbulent flow. The heat transfer is significantly improved and results in a performance gain of the hybrid closed circuit cooler.



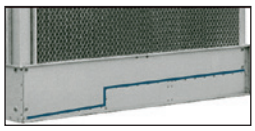
ARID-*fin Pak*™: Installed in the air discharge of the cooler the **ARID-*fin Pak***™ dry cooling coil is piped in series with the evaporative cooling coil. The **ARID-*fin Pak***™ dry cooling coil is constructed of copper tubes and tubular copper header with carbon steel coil connections for easy field piping. The fins have fully drawn collars to maintain consistent fin spacing and continuous surface contact over the entire tube to maximize heat transfer. The fins are constructed of Aluminum / Magnesium alloy for superior corrosion resistance.



Maintenance Friendly Basin Design

Easy Access: The cold water basin section on induced draft units is easily accessible from ground level from all four sides of the unit. This open basin design enables the unit to be easily cleaned.

Clean Pan: EVAPCO units feature a completely sloped design from the upper to the lower pan section. This "Clean Pan" design allows the water to be completely drained from the basin.

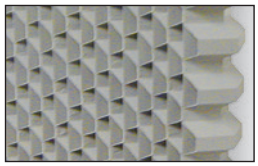


Reliable Drive System

All Evapco hybrid closed circuit coolers come standard with IE3 motors that can be used with variable frequency drive (VFD) systems for precise capacity control.
The mechanical drive systems are easy to access and easy to maintain.
Bearing lubrication and belt adjustment can be performed from outside the unit.
All units with fan motors located outside of the unit are protected with a removable motor cover or fan screen. Motors located inside the fan casing are mounted on a swing-out motor mount on an adjustable base for easy removal.

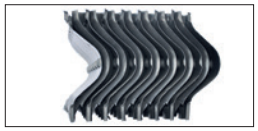
Patented WST Air Inlet Louver

Evapco's water and sight tight (WST) louvers keep water in and sunlight out of induced draft products. The unique non-planar design is made from light-weight framed PVC sections which have no loose hardware, enabling easy unit access. The louver's air channels are optimized to block all line-of-sight paths into the basin eliminating splash-out. Additionally, algae growth is minimized by blocking all sunlight.



Patented Efficient Drift Eliminators

An extremely efficient PVC drift eliminator system is standard on all Evapco units. The system removes water droplets from the air stream to limit the drift rate to less than 0.001% of the recirculating water rate. Evapco's drift eliminators are EUROVENT Certified.



Pressurized Water Distribution System

The water distribution system is made of PVC piping which is easily removable for cleaning. The spray branches have threaded end caps for debris removal. Hybrid closed circuit coolers are equipped with **ZM®II** nozzles: these ABS plastic water diffusers are threaded into the PVC header pipe at proper orientation and have a large orifice to prevent clogging.

ZM®II Nozzle

Low Sound Solutions / Applications

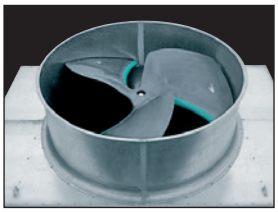
Induced Draft Options

Low Sound Fan

The Low Sound Fan utilizes a wide chord blade design for sound sensitive applications where low sound levels are desired. This fan is capable of reducing the unit sound pressure levels 4 to 7 dB(A).

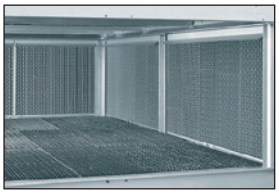
Super Low Sound Fan

The Super Low Sound Fan utilizes an extremely wide chord blade design applied for sound sensitive applications where the lowest sound levels are required.
This fan is capable of reducing the unit sound pressure levels 9 to 15 dB(A).



Water Silencer

Reduces the high frequency noise associated with the falling water and is capable of reducing overall sound levels 4 to 7 dB(A) measured at 1.5 m from the side or end of the unit.



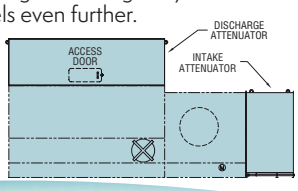
Offset Sound Attenuation Walls

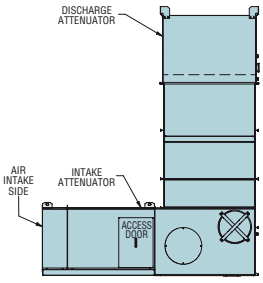
Offset Sound Attenuation Walls are EVAPCO's newest attenuation option for even greater levels of sound reduction when used in combination with the Super Low Sound Fan and Water Silencer options. These devices will reduce the 15 m free field sound level by an additional 3 db(A).
The walls are constructed of Z-725 galvanized steel (stainless steel construction also available) lined with acoustical padding on the inside of the walls. This option requires external support by others.

Forced Draft Centrifugal Fan Options

The centrifugal fan design of Evapco's forced draft hybrid closed circuit coolers operates at lower sound levels which make these units preferable for installations where noise is a concern.

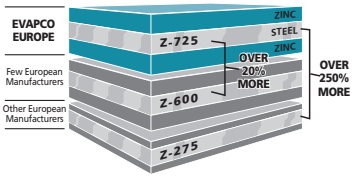
For extremely noise sensitive applications, these centrifugal fan models may be supplied with various optional stages of intake and/or discharge attenuation packages, which greatly reduce sound levels even further.





Corrosion Protection

EVAPCOAT:



The Z-725 Mill Hot-Dip Galvanized Steel Construction is the heaviest level of galvanizing available for manufacturing closed circuit coolers and has more zinc protection than competitive designs using Z-275 and Z-600 steel. EVAPCO was the first to standardize on Z-725 galvanized steel which means a minimum of 725 g zinc/m². Today Evapco remains the only European closed circuit cooler manufacturer using this heavy grade galvanized steel as per standard.

Stainless Steel Options: A variety of stainless steel construction upgrade options are available in both 304L and 316L stainless steel, including stainless steel cold water basins and complete stainless steel units. All factory seams in the cold water basin of induced draft units are **welded** as standard to ensure watertight assembly.

Sage® Control Panel

The Sage® Control System contains a Programmable Logic Controller (PLC) with adaptive logic, which allows the operator to select either a priority for maximizing water or energy efficiency.
Real time load and weather data are measured and recorded by the PLC and sensors. This data is then analyzed and used to switch the unit between the various modes of operation in order to maximize water or energy savings.

If the panel is set to operate in the water savings priority, the Sage® Panel will vary the unit between the Dry and Evaporative modes of operation, limiting the time spent in the evaporative mode to maximize water savings.

If the panel is set to operate in the energy savings priority, the Sage® Panel will switch the unit between the Dry & Wet modes of operation, controlling the fan speed and pump operation in an effort to maximize energy savings.

Eurovent-CTI Certified - Standard 201

Evapco has closed circuit coolers independently certified by the Cooling Technology Institute (CTI). This certification guarantees that the unit will meet the rated capacities, eliminating the need for costly field performance tests.

As Eurovent and CTI established a "Memorandum of Understanding", a common "Eurovent-CTI" certification program has become the European Standard for independent thermal performance rating of evaporative coolers.

EUROVENT CERTIFIED PERFORMANCE www.eurovent-certification.com

www.eurovent-certification.com

CTI CERTIFIED †

† Mark owned by the Cooling Technology Institute

www.cti.org

www.evapco.eu / www.mrgoodtower.eu

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