PRODUCT RANGE

Evaporative Condensers

Induced Draft with Axial Fans
Forced Draft with Centrifugal Fans
Forced Draft with Axial Fans

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

evapco® for LIFE

IBC COMPLIANT DESIGNS

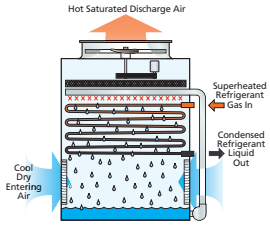
Evaporative Condenser Designs

Induced Draft with Axial Fans

ATC-E

ATC-50E to ATC-3714E
215 to 16000 kW
294 Models
Thermal-Pak®
CROSScool™

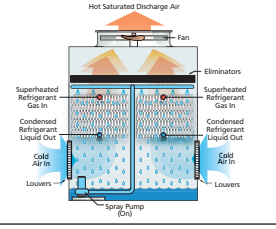
- Low energy
- Low risk for recirculation
- Easy maintenance
- Dry operation possible
- IBC Compliant
- 7' wide containerized units available



eco-ATC-A

eco-ATC-122A to
eco-ATC-3946A
537 to 12470 kW
568 Models
Ellipti-*fin*®
CROSScool™

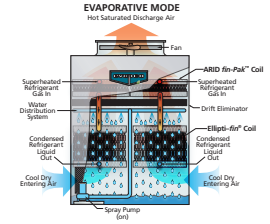
- Low energy
- Low risk for recirculation
- Easy maintenance
- Extended surface coil
- Good dry switch points
- IBC Compliant



ATC-DC

ATC-DC-89G-25-1EF to
ATC-DC-2420N-35-2EF
490 to 5460 kW
417 Models
Ellipti-*fin*®
CROSScool™
ARID-fin Pak™

- Low energy
- Low risk for recirculation
- Easy maintenance
- Complete finned coils
- Maximum dry switch points
- Optimized technology for increased water savings
- IBC Compliant

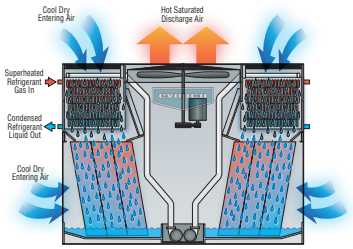


PHC-E

Double Wide model

Single Wide
PHC-S79-107E to
PHC-S1236-1232E
Double Wide
PHC-D1224-718E to
PHC-D2826-2120E
500 to 8750 Ammonia kW
399 Models
***Sensi*-Coil®**
CROSScool™

- High density coil tube arrangement
- Bonded fill blocks, supported from the bottom
- Easy installation
- Oversized basin access doors
- IBC Compliant

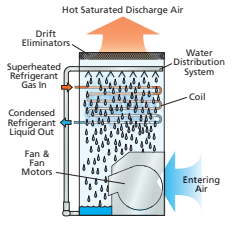


Forced Draft with Centrifugal Fans

LSCE

LSCE-36 to
LSCE-1610
155 to 6931 Kw
88 Models
Thermal-Pak®
CROSScool™

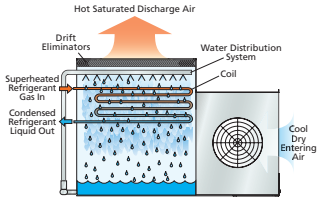
- Low sound
- Small footprint
- Dry operation possible
- Indoor installation possible
- IBC Compliant



LRC

LRC-25 to
LRC-379
108 to 1632 kW
43 Models
Thermal-Pak®
CROSScool™

- Low sound
- Low height
- Dry operation possible
- Indoor installation possible
- TOP-TOP execution possible: Vertical air inlet and outlet
- IBC Compliant

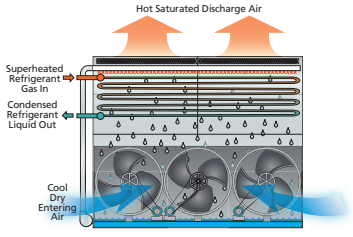


Forced Draft with Axial Fans

PMCQ/PMCE

PMCQ-316 to
PMCQ-1786
1358 to 7679 kW
84 Models
PMC-175E to
PMC-1985E
533 to 6069 kW
118 Models
Thermal-Pak®
CROSScool™

- Low energy
- Easy maintenance
- Dry operation possible
- Super Low Sound Fans are standard on PMCQ
- Individual fan drive systems
- Man sized access doors on PMCQ
- IBC Compliant



Design Features

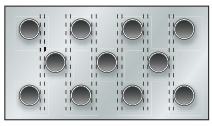
Coil Technologies

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 35,5 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.

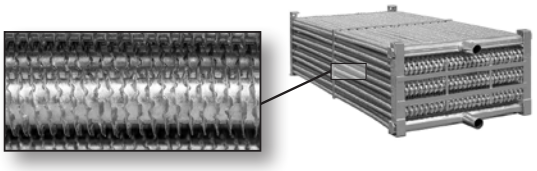
Thermal-Pak® Coil by EVAPCO

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.

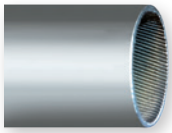


Round Tube Coil by Others

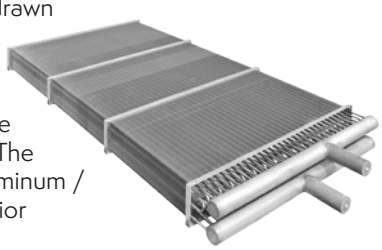
Ellipti-*fin*®: Now Evapco has developed the most efficient evaporative condenser coil in the refrigeration industry! All coil rows feature patented finned **Thermal-Pak®** elliptical tubes. The **Ellipti-*fin*®** lowers airflow resistance more than ypical finned round tubes. This design increases evaporative 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 condenser.



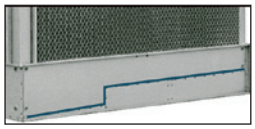
ARID-*fin Pak*™: Installed in the air discharge of the condenser. The **ARID-*fin Pak***™ dry cooling coil is piped in series with the evaporative cooling coil. The **ARID-*fin Pak***™ dry cooling coil is constructed of stainless steel tubes and stainless steel tubular header with carbon steel coil connections 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.



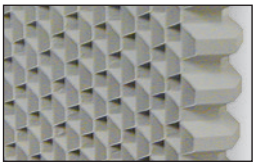
Reliable Drive System

All Evapco evaporative condensers 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

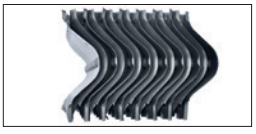
Evapco's water and sight tight (WST) louvers keep water in and sunlight out of induced draft products. The unique non-planar design is made from light-weight framed PVC sections which have no loose hardware, enabling easy unit access.



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. Evaporative condensers 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

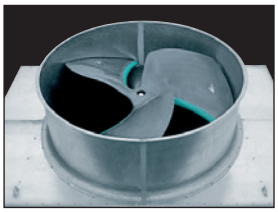
Induced Draft with Axial Fans

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).

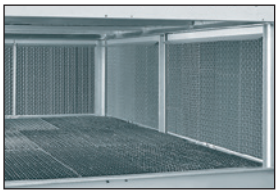
Super Low Sound Fan

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.



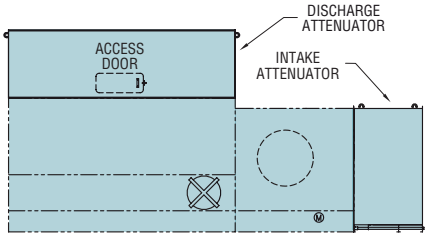
Offset Sound Attenuation Walls

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

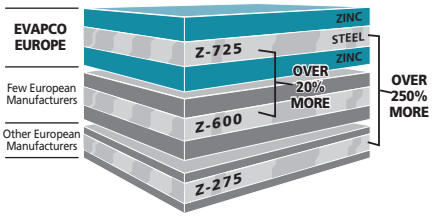
The centrifugal fan design of Evapco's forced draft evaporative condensers operates at lower sound levels which make these units preferable for installations where noise is a concern.

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 evaporative condensers 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 evaporative condensers manufacturer using this heavy grade galvanized steel as per standard.

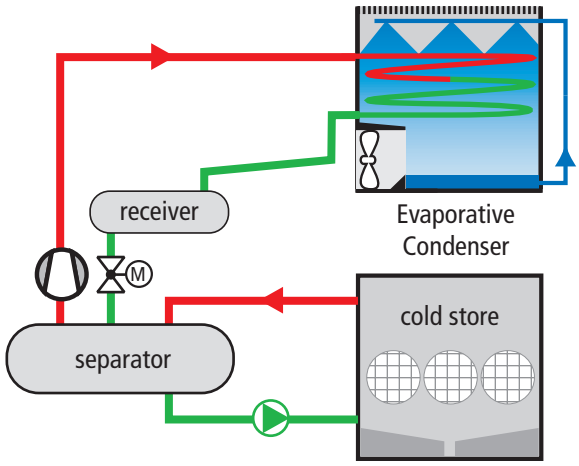


Stainless Steel Options: A variety of stainless steel construction upgrade options are available in both 304L and 316L stainless steel, including stainless steel cold water basins and complete stainless steel units. All factory seams in the stainless steel cold water basin of induced draft units are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

Applications - Circulation Scheme

The example shows a typical scheme with the new PMCQ evaporative condenser. It also works with High-Side Float Regulators instead of motor driven expansions valve.

Piping: Evaporative condensers are used in refrigeration systems as an efficient means of heat rejection. Their installation and specifically the installation of the piping to and from the evaporative condenser has a direct effect on their operation and the overall energy efficiency of the refrigeration system. In a special manual, we will explore the principles of piping evaporative condensers, beginning with single condensers and exploring multiple condenser installations as well as thermosiphon and sub-cooling piping systems.



www.evapco.eu / www.mrgoodtower.eu

EVAPCO Europe BV
Heersterveldweg 19
Industrieterrein Oost
3700 Tongeren, Belgium
Tel. +32 12 39 50 29
Fax +32 12 23 85 27
evapco.europe@evapco.be

EVAPCO Europe S.r.l.
Via Ciro Menotti 10
20017 Passirana di Rho
Milan, Italy
Tel. +39 02 939 9041
Fax +39 02 935 00840
evapcoeurope@evapco.it

EVAPCO Europe A/S
Knøsgårdvej 115
DK-9440 Aabybro,
Denmark
Tel. +45 9824 49 99
Fax +45 9824 49 90
info@evapco.dk

EVAPCO Europe GmbH
Verkauf und Beratung
Insterburger Strasse 18
40670 Meerbusch, Germany
Tel. +49 2159 69 560
Fax +49 2159 69 5611
info@evapco.de

EVAPCO Middle East DMCC
Reef Tower, 23rd Level
Cluster O, Jumeirah Lake Towers
PO Box 5003310
Dubai, U.A.E.
Tel. +971 56 991 6584
info@evapco.ae