

Since 1976, Specialists in heat transfer Products and Services





Better Choices Easy Solutions Advanced Technology



EVAPCO World Headquarters - Taneytown, Maryland, USA

The EVAPCO Group, an American Company founded in 1976, is the foremost supplier of Evaporative Cooling Products for the Air Conditioning, Industrial Process Cooling and Industrial Refrigeration Markets around the world. EVAPCO products are at present produced by 17 factories around the globe:

8 in the United States,
1 in Australia, 2 in China,
1 in South Africa, 1 in Egypt,
1 in Belgium, 2 in Italy and
1 in Denmark.

With these 17 plants, the company supplies about 42 countries through a sales network consisting of over 170 offices.

EVAPCO Europe is part of the EVAPCO Group.
Strategically located in Tongeren, Belgium,
EVAPCO's European Headquarters support
customers throughout Northern Europe
and the Middle East. Southern Europe and
the Mediterranean area are supported by the
EVAPCO factory in Rho (Milano), Italy.

Production of Evaporative and Wet/Dry
Cooling Equipment is carried out in three
factories: Tongeren, Belgium; Rho (Milano)
and Sondrio, Italy. These plants are modern
manufacturing plants with the latest in
machinery and techniques.





EVAPCO Europe Factory - Rho (Milano), Italy

EVAPCO Europe is responsible for technical application, sales and after sales service to engineers, contractors and end-users in Continental Europe, the Mediterranean Area and the Middle East - a territory of more than 30 countries and a sales network of 55 sales offices, including a branch office in Germany.



EVAPCO Europe Flex Coil Factory - Aalborg, Denmark

The production of Dry Cooling Equipment is carried out in the EVAPCO-Flex Coil factory in Aalborg, Denmark.



Since its founding in 1976, the EVAPCO Group has experienced significant product acceptance and sales growth throughout the world.

This success is the result of EVAPCO's dedication to:

- Research & Development
- Quality Products
- Competitive Prices
- Customer Satisfaction

In 2008, EVAPCO achieved record sales for the 33rd consecutive year establishing itself as the industry leader, setting the standards for Quality and Service for others to follow. Proof of the company's commitment for innovation is that more than 75% of the sales in Europe represent products that have been introduced to the market less than 5 years ago.

Product Quality and Thermal Performance is insured by exhaustive testing performed everyday by a team of Engineers and Research Technicians in EVAPCO's Research Center, located at its World Headquarters in the United States.



Evaporative Condenser Environmental Test Chamber





Cooling Tower Environmental Test Chamber



The Research Center includes state-of-the-art
Thermal Test Chambers for testing and evaluation
of full-scale evaporative cooling and heat transfer
equipment.



Low Temperature Laboratory (- 45°C)





Solutions for Sound Sensitive Applications



The AT product lines are available with three equipment options to reduce the overall sound generated from the side or top of the unit.

Each option provides various levels of sound reduction and can be used in combination to provide the lowest sound level.

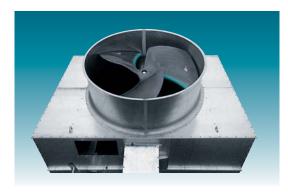
Consult EVAPCO's iES Selection program for unit sound levels. If a detailed analysis or full octave band data sheet is required for your application, please consult your EVAPCO Sales Representative.



The **Super** Low Sound Fan

The Super Low Sound Fan utilizes an extremely wide chord blade design available for sound sensitive applications where the lowest sound levels are desired. The fan is one-piece molded heavy duty FRP construction utilizing a forward swept blade design. The Super Low Sound fan is capable of reducing the unit sound pressure levels 9 to 15 dB(A), depending on the specific unit selection and measurement location.

The fans are high efficiency axial propeller type and operate with no loss of thermal performance.



Available on all 2.4 m wide and larger AT / UAT Cooling Towers, ATW, ESWA, WDW Closed Circuit Coolers and ATC, WDC Evaporative Condensers.

Low Sound Fan

The Low Sound Fan is a wide chord blade design available for sound sensitive applications where low sound levels are desired. It is aluminum blade construction utilizing with a steel fan hub.

The Low Sound fan is capable of reducing the unit sound pressure levels 4 to 7 dB(A), depending on the specific unit selection and measurement location. The fans are high efficiency axial propeller type and operate with no loss of thermal performance.



Available on 2.4 m wide and larger AT / UAT Cooling Towers, ATW and ESWA Closed Circuit Coolers and ATC Evaporative Condensers.

AT Water Silencer

The water silencer option is available for all AT models and is located in the falling water area of the cold water basin. The water silencer will reduce 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. The water silencers reduce overall sound levels 9 to 12 dB(A) (depending on water loading and louver height) measured 1.5 m from the side or end of the unit when water is circulated with fans off.



The water silencers are constructed of lightweight PVC sections and can be easily removed for access to the basin area. The water silencer will have no impact on unit thermal performance.

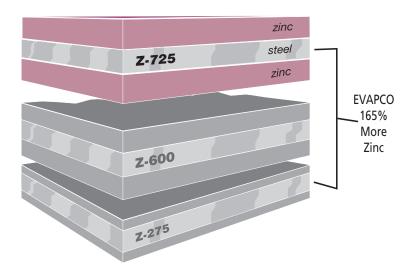


Exclusive Design Features

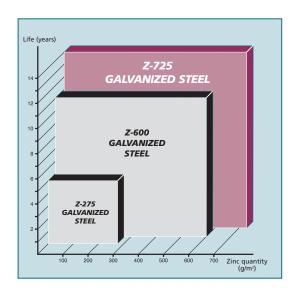
Z-725 Mill Hot-Dip Galvanized Steel Construction

EVAPCO, long known for using premium materials of construction, has developed the ultimate system for corrosion protection in galvanized steel construction - the EVAPCOAT Corrosion Protection System.

Z-725 is the heaviest level of galvanizing available for manufacturing evaporative condensers and has a minimum of 165% more zinc protection than competitive designs using Z-275 steel.



Mill hot-dip galvanized steel has been successfully used for over 30 years for the protection of evaporative condensers against corrosion.



In the diagram, taken from the BS 5493 (1977), you can see the significant difference between the three types of metal sheeting as far as its long-lasting is concerned in a medium aggressive atmosphere.

There are various grades of mill galvanized steel each with differing amounts of zinc protection. EVAPCO has been a leader in the industry in developing heavier galvanizing, and was the first to standardize on Z-725 mill hot-dip galvanized steel. Z-725 designation means there is a minimum of 725 g/m² of surface area as measured in a triple spot test. During fabrication, all panel edges are coated with a 95% pure zinc-rich compound for extended corrosion resistance.

EVAPCO'S new hot dip galvanized Thermal-Pak® II coils are designed for maximum heat transfer efficiency. This unique coil design utilizes counterflow heat transfer. The rows of elliptical tubes are staggered and angled in the direction of airflow to enhance air turbulance, thereby increasing heat transfer while minimizing airside pressure drop.

The design features of EVAPCO's Thermal-Pak® II coils ensure the end user will receive the best evaporative heat transfer efficiency. These characteristics and other engineering advancements of the Thermal-Pak® II have been proven in EVAPCO'S world-class research and development laboratory resulting in the following end user benefits:

- Lower Operating Refrigerant Charge (for Condensers)
- Low Power Consumption Per Ton
- Lower Operating Weight
- Small Plan Area Per Ton

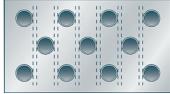
The coils are manufactured from high quality steel tubing following the most stringent quality control procedures. Each circuit is inspected to assure the material quality and then tested before being assembled into a coil. Finally, the assembled coil is tested in accordance with the "Pressure Equipment Directive" (PED) 97/23/EC.



To protect the coil against corrosion, it is placed in a heavy-duty steel frame and the entire assembly is dipped in molten zinc (hot dip galvanized) at a temperature of approximately 430°C.







Thermal-Pak® II Coil by EVAPCO

Round Tube Coil by Others



Easy Access

The cold water basin section is easily accessible from ground level. The access panels are light-weight and have handles for easy removal.



With the access panels removed, a service mechanic has complete access to the basin floor, heat transfer coil, float assembly and pump strainer.

Easy Belt & Motor Access

(1,2 m and 2,4 m wide units)

The fan motor and drive assembly are designed for easy service and adjustment from the unit's



exterior. The Totally
Enclosed fan motor is
mounted external to
the unit with a
protective cover
which swings aside
for maintenance.

Swing-Out
Motors

wide units)

mounted fan

motor can swing

outside the unit

for easy access.

Internally

(3 m and 3,6 m

A large access door adjacent to the fan motor swings open enabling easy access to the fan drive system. The belt tension can be checked and adjusted easily from the outside of the unit. The fan shaft bearings also have their lubrication lines extended to the access door for added convenience.



Internal motor...



...with swing-out base

ZM nozzle on all coil products; EvapJet nozzle on axial open cooling towers

The EVAPCO's water distribution system design allows the largest debris to flow easily through the nozzle and eliminates



ZM Spray Nozzle

EvapJet Nozzle

the need for nozzle and water distribution system maintenance. Evapco's design avoids the problems of biological growth and fouling that can occur to a water distribution system that is open with direct exposure to the surroundings.

LD-bacteria prevention

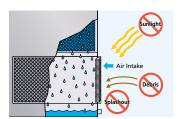
In conformity with: "Best Available Techniques to Industrial Cooling systems", published by European Commission, IPPC (Integrated Pollution Prevention and Control), December 2001.

On the prevention of formation of LD-bacteria (and others) in cooling towers, the following measures should be applied:

• Avoid stagnant zones



 Prevent formation by reduction of light energy within the



cooling tower avoiding algae formation; open basins are to be avoided

- Easy access for regular cleaning, sanitizing and disinfection should be provided
- Use of Highest efficiency drift eliminators available that can easily be cleaned or replaced









The success of a Company is mainly based on Product Quality and Customer Service.

Worldwide all customers are more and more interested in high quality products. This is the reason of a constant research of improvements to meet the market quality requirements.

Consequently, this has led to the development of quality system standards and guidelines that complement relevant product or service requirements given in the technical specifications.

The International Standard EN ISO 9001 includes the many and various activities in this field.

EN ISO 9001 CERTIFIED

PED - Pressure Equipment Directive

The Pressure Equipment Directive "PED" 97/23/EC has been established in 1999 with a unanimous vote of all states into the European Community. The aim of this directive is to uniform all national rules for all European community countries.

EVAPCO has obtained the PED Certifications since May 2001 and October 2003, issued by

the notified body "RWTÜV / 0044" and "TÜV Rheinland Berlin Brandenburg /



0035", by
which the
coils have
been classified
in the 4th
category, the
highest safety
position.



CTI Certification

EVAPCO is taking the lead in Worldwide Cooling Equipment Certification. In accordance with CTI



(Cooling Technology Institute) and Eurovent standards, certification programs are established to thermally rate EVAPCO's Cooling Equipment.

CTI Certification Purpose

These standards set forth a program whereby the Cooling Technology Institute (CTI) will certify that all models of a line of evaporative heat rejection equipment offered for sale by a specific manufacturer will perform thermally in accordance with the manufacturer's published ratings.

Guarantee of Thermal Performance by EVAPCO



EVAPCO unequivocally guarantees the thermal performance of its equipment as shown on the performance datasheets, when the equipment is installed in accordance with good engineering practice. If after installation and start-up there is any question regarding thermal performance of the equipment, at the owner's request EVAPCO will send its engineers to the jobsite to conduct a performance test.

This test may be observed by the owner and the consulting engineer or by their authorized representatives. If the results of the evaluation show the equipment to be deficient, EVAPCO will make the necessary repairs or alterations to correct the deficiency at no cost to the owner. If the equipment is found to be performing in accordance with the performance datasheets, the owner is expected to reimburse the company for its costs associated with this performance test.



The Wet & Dry Technology Complete our Range of Products

Evapco Europe manufactures a full line of Evaporative Cooling Equipment and Ice Thermal Storage Systems.

We can offer a complete range of:

- Wet & Dry Condensers / Coolers
- Cooling Towers
- Closed Circuit Coolers
- Evaporative Condensers
- Ice Thermal Storage

The WDC & WDW Wet / Dry condensers / coolers with the Super Low Sound Fan combines the most desirable characteristics of both evaporative and air cooled technologies into one industrial unit.

This new product innovation reflects EVAPCO's commitment to energy and water conservation via an environmentally friendly design.

More detailed product information is available from EVAPCO Europe sales offices or from the main office in Tongeren, Belgium and Rho (Milano), Italy.

COOLING TOWERS



EVAPORATIVE CONDENSERS



CLOSED CIRCUIT COOLERS



ICE THERMAL STORAGE





EVAPCO ... Specialists in Heat Transfer **Products** and Services!

World Headquarters / Research and

EVAPCO

Facilities

Development Center

Manufacturing

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