

# PRODUCT RANGE

## Counterflow Cooling Towers

Induced Draft with Axial Fans  
Forced Draft with Centrifugal Fans





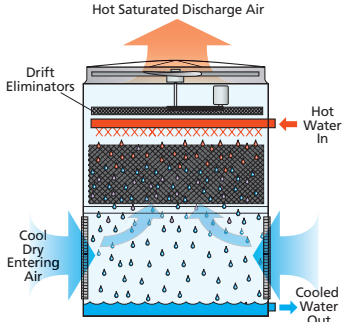
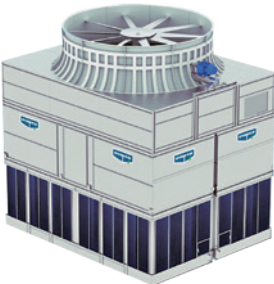

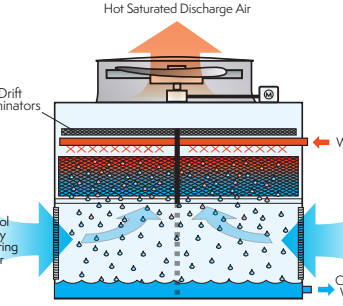


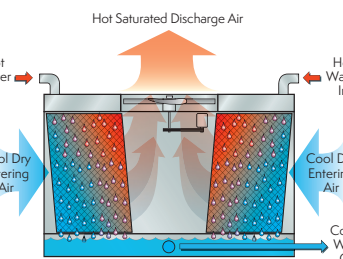
*Better Choices • Easy Solutions • Advanced Technology • Certified EN ISO 9001*





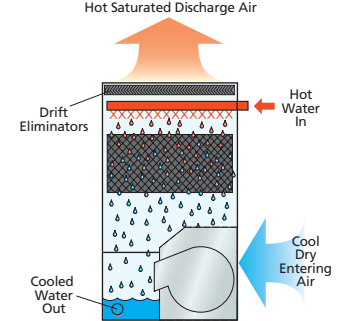


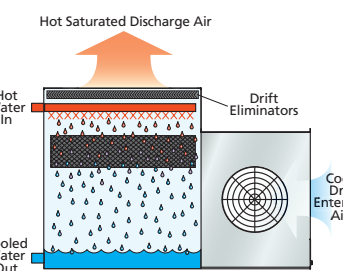
\*Mark owned by the Cooling Technology Institute

# Counterflow Cooling Tower Designs

## Induced Draft with Axial Fans

|  |   |   |   |
|--|---|---|---|
| <p><b>AT</b></p>        | <p>AT 14-2E4 to AT 456-5O26<br/>139 to 22128 kW<br/>455 Models<br/>EVAPAK®<br/>EvapJet®</p>           | <ul style="list-style-type: none"> <li>• Low energy</li> <li>• Low risk for recirculation</li> <li>• Easy maintenance</li> <li>• Optional Stainless Steel Unit</li> <li>• IBC Compliant</li> <li>• Eurovent-CTI Certified</li> </ul>   |    |
| <p><b>AT-Atlas</b></p>  | <p>AT 124-4N30-EV to AT 248-5T30-EV<br/>6.522 to 20.394 kW<br/>28 Models<br/>EVAPAK®<br/>EvapJet®</p> | <ul style="list-style-type: none"> <li>• Counter-flow cooling technology</li> <li>• Unmatched cooling capacity per cell</li> <li>• Cutting-edge design and construction features</li> <li>• Eurovent-CTI Certified</li> </ul>    |    |
| <p><b>AXS</b></p>     | <p>AXS 12-11G22 to AXS 14-22Q24<br/>1.395 to 6.182 kW<br/>70 Models<br/>XPak™</p>                     | <ul style="list-style-type: none"> <li>• Highest performance box size in the market</li> <li>• Patented XPak™ bonded block fill</li> <li>• Bottom supported fill blocks</li> <li>• Stand alone drift eliminators</li> <li>• Velocity Recovery (VR) stacks</li> <li>• Available with FM Approved construction</li> <li>• Eurovent-CTI Certified</li> </ul>  |  |

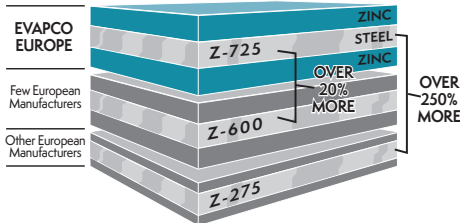
## Forced Draft with Centrifugal Fans

|  |  |   |   |
|--|--|---|---|
| <p><b>LSTE</b></p>  | <p>LSTE 416 to LSTE 10636<br/>145 to 5930 kW<br/>77 Models<br/>EVAPAK®</p> | <ul style="list-style-type: none"> <li>• Low sound</li> <li>• Small footprint</li> <li>• Indoor installation possible</li> <li>• IBC Compliant</li> <li>• Eurovent-CTI Certified</li> </ul>    |  |
| <p><b>LPT</b></p>   | <p>LPT 316 to LPT 8812<br/>120 to 1460 kW<br/>43 Models<br/>EVAPAK®</p>    | <ul style="list-style-type: none"> <li>• Low sound</li> <li>• Low height</li> <li>• Indoor installation possible</li> <li>• TOP-TOP execution possible: vertical air inlet and outlet</li> <li>• IBC Compliant</li> <li>• Eurovent-CTI Certified</li> </ul>  |  |

# Design Features

## Corrosion Protection

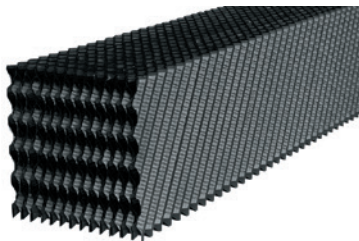
**EVAPCOAT:** The Z-725 Mill Hot-Dip Galvanized Steel Construction is the heaviest level of galvanizing available for manufacturing cooling towers and has more zinc protection than competitive designs using Z-275 and Z-600 steel. EVAPCO was the first to standardize on Z-725 galvanized steel which means a minimum of 725 g zinc/m<sup>2</sup>. Today Evapco remains the only European cooling tower 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.

## EVAPAK® Fill

The **EVAPAK®** fill is specially designed to induce highly turbulent mixing of the air and water for superior heat transfer. Special drainage tips allow high water loadings without excessive pressure drop. The fill is constructed of inert PVC, will not rot or decay, and will withstand water temperatures of 55°C. A higher temperature fill is available for water up to 65°C. The structural integrity makes the fill usable as a working platform.



**EVAPAK®** has excellent fire resistance, having a flame spread rating less than 25 under ASTM-E84.

**FM Approval:** Factory Mutual Global is a mutual insurance company, which evaluates hazards and recommends improvements to property to reduce risks if a disaster like fire occurs. EVAPCO's AT and LSTE cooling towers can be executed to meet the FM Global approval standard.



## Pressurized Water Distribution System

The water distribution system is made of PVC piping which is easily removable for cleaning. ABS plastic water diffusers have a large orifice and are practically impossible to clog. They are threaded for easy removal and positioning.

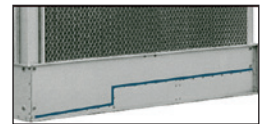
Axial fan units are equipped with **EvapJet®** nozzles. This high efficient design requires 66% fewer nozzles.



## 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

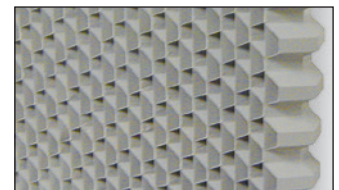
All Evapco cooling towers come standard with IE3 motors that can be used with variable frequency drive (VFD) systems for precise capacity control. The mechanical drive systems are easy to access and easy to maintain. Bearing lubrication and belt adjustment can be performed from outside the unit.

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.



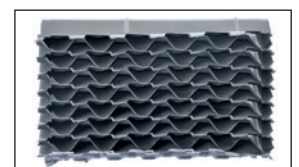
## Patented WST Air Inlet Louver

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.



## Induced Draft with Axial Fans

### Low Sound Fan

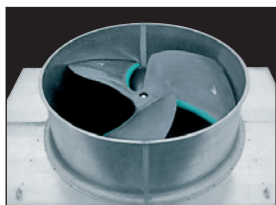
The Low Sound Fan utilizes a wide chord blade design for sound sensitive applications where low sound levels are desired.

This fan is capable of reducing the unit sound pressure levels 4 to 7 dB(A).



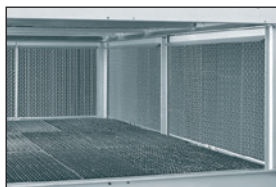
### Super Low Sound Fan

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

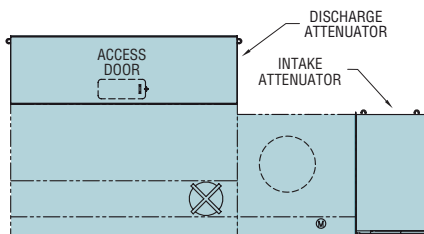
Offset Sound Attenuation Walls are EVAPCO's newest attenuation option for even greater levels of sound reduction when used in combination with the Super Low Sound Fan and Water Silencer options. These devices will reduce the 15 m free field sound level by an additional 3 dB(A). The walls are constructed 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 cooling towers operates at lower sound levels which make these units preferable for installations where noise is a concern.

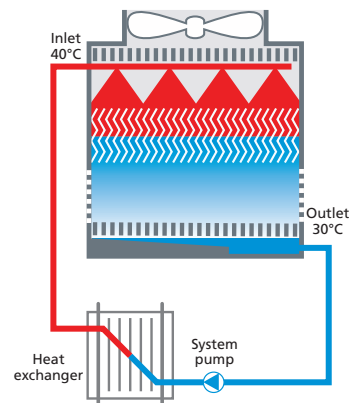
For extremely noise sensitive applications, these centrifugal fan models may be supplied with various optional stages of intake and/or discharge attenuation packages, which greatly reduce sound levels even further.



## Circulation Scheme

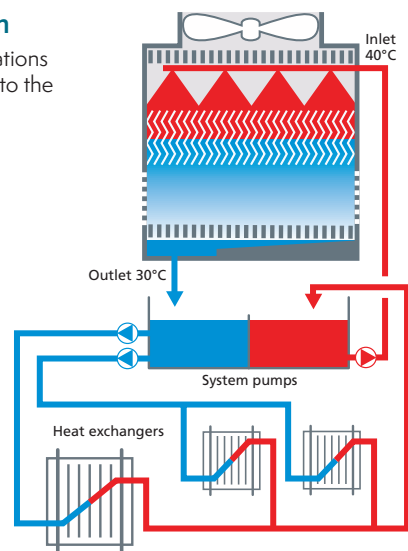
### Single Circuit System

In general for applications with constant water flow.



### Dual Circuit System

For cooling tower applications with variable water flows to the consumers.



## Eurovent-CTI Certified - Standard 201

**CTI Certified-Standard 201:** Every Evapco cooling tower is 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.

**Eurovent Certification Company (ECC).** The rating standard for Cooling Towers adopts CTI standard 201. ECC thermal performance rating can be granted in accordance with the ECC Operating Manual for the Certification of Cooling Towers.



www.eurovent-certification.com

www.cti.org

www.evapco.eu / www.mrgoodtower.eu

### EVAPCO Europe BV

Heersterveldweg 19  
Industrieterein 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  
evapcoeuropa@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, 23<sup>rd</sup> Level  
Cluster O, Jumeirah Lake Towers  
PO Box 5003310  
Dubai, U.A.E.  
Tel. +971 56 991 6584  
info@evapco.ae