

# ENDEVION

solutions and components for air and water treatment



EFFICIENT SOLUTIONS FOR WATER AND AIR TREATMENT

ENGINEERING.  
DESIGN.  
VISION.

[www.endevion.com](http://www.endevion.com)

# COOLING TOWERS

## COMPONENTS



## ENGINEERING. DESIGN. VISION.

**ENDEVION S.r.l.** deals with **the design and production** of skids, packages and industrial components. Leader in the supply of solutions for **revamping of evaporative towers**, for **water treatment and purification**, industrial cooling and mass exchange. ENDEVION's products are ideal for the enhancement or revamping of sedimentation, clear-flocculation, oil removal, biological purification, process water cooling, revamping of cooling towers and air condensers, removal of pollutants from gaseous or liquid flows.

### ENDEVION SERVICE STRENGTHS ARE:

- ⌚ Internal production of materials in **polypropylene** (PP) or in polyvinyl chloride (PVC) according to customers' needs
- ⌚ Evaluation, together with the customers, of strategies for **energy efficiency**
- ⌚ Products designed to achieve ever greater **sustainability**
- ⌚ **Flexible configurations** adaptable to any situation

### ENDEVION RANGE OF PRODUCTS AND SERVICES INCLUDES:

- ⌚ Inspection of plants and equipment with following reporting
- ⌚ Planning and co-design
- ⌚ Performance evaluation
- ⌚ Supply of fills, demister, spray nozzles and air louvres
- ⌚ Revamping
- ⌚ Vibration analysis of motor, transmission and fans
- ⌚ Balancing of fan blades
- ⌚ Noise analysis and noise mitigation
- ⌚ Replacement and supply of mechanical parts of all cooling tower brands
- ⌚ Development of new cooling towers



# COOLING TOWERS



Cooling towers are still considered the **most efficient method to cool the water of industrial processes**. Thanks to its long experience in the production of plastic components for towers, ENDEVION is able to recommend the most suitable components and cooling towers to achieve the **best performance**, always **respecting the environment**.

## COMPONENTS FOR COOLING TOWERS

### Fills

#### ADVANTAGES OF ENDEVION FILLS:

- High cooling capacity of ENDEVION cross-fluted fills
- Vertical fluted fills for heavily polluted water
- Fills for cross-flow evaporative towers with quick and easy installation



#### FILL MEDIA FOR COUNTER-FLOW COOLING TOWERS

The high cooling capacity of ENDEVION film-type fills is achieved due to their well-known **cross-fluted structure**. This structure allows an intensive mix of cooling water and air flow which is the pre-requisite for high cooling performance together with the specific surface area of the fill. ENDEVION **vertical fluted fill types** minimize deposits on the surface and are even more resistant to clogging of the channels. In applications with extremely poor water quality ENEXIO SERVICE recommends the use of its splash-type fills or grid-media which are designed to facilitate disassembly and even cleaning.



#### SPLASH AND TRICKLE FILL MEDIA

**High stability and easy and economical installation** are the most important features of ENDEVION splash and trickle fills.

Built from mechanically joined grids they are easily cleaned and especially suited for medium to strongly polluted cooling water. The high performance of ENDEVION grid packings is combined with reduced pressure drop. They are available in various dimensions and materials, such as polypropylene suitable for high temperature, "flame retardant" polypropylene or anti-legionella version (required in many countries): ENDEVION grid can be adapted to a wide range of requirements.



#### FILL MEDIA FOR CROSS-FLOW COOLING TOWERS

ENDEVION offers **special cross-fluted fills** with integrated louvre and drift eliminator sections **adaptable to all existing cross-flow cooling towers**.

## SPARE PARTS FOR COOLING TOWERS

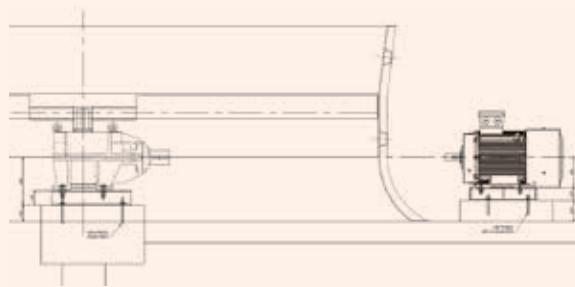
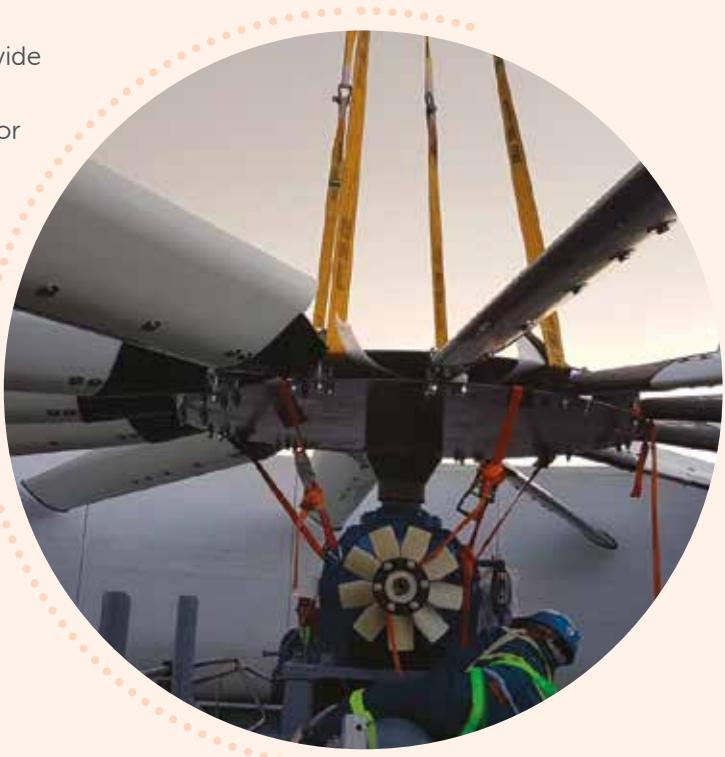
ENDEVION is able to supply spare parts equipped with the most advanced efficiency classes, of every size and construction type in order to satisfy every need:

### ○ FAN GROUPS:

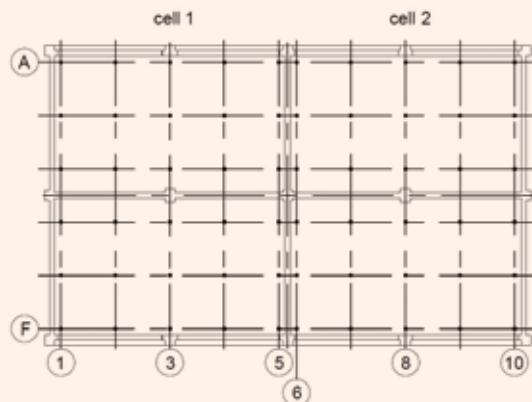
○ **High efficiency MOTORS.** ENDEVION can provide different protection finishes according to local conditions (salty coastal zones, hard industrial or desert conditions,...).

○ **FANS:** ENDEVION analyzes the stability and vibrations of the fans and possibly takes care of **the repair or reconstruction of the coating**, avoiding the purchase of a new fan unit. New fan design allows **increase of capacity at the same absorbed power or reduced absorbed power at the same air flow.**

○ **MECHANICAL GROUP:** ENDEVION is able to propose **customized solutions**, selecting the best transmission and gearbox combinations to achieve the reliability and efficiency objectives of the customers.



Typical mechanical group sectional drawing for installation: alignment of motor and gearbox through fan stack.



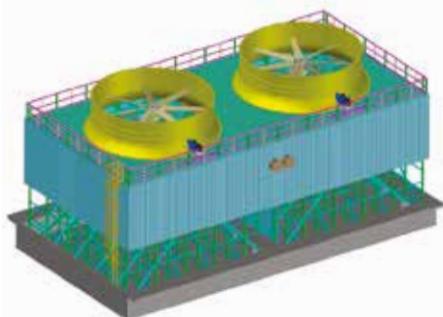
Typical coding of column layout for internal cell structure design.



- **FAN-STACK:** whether it is the repair of the existing one, complete replacement or performance improvement, ENDEVION can provide durable turnkey **solutions that are perfectly integrated with the systems to be renewed.**



- **STRUCTURE AND CLADDING:** they can be made of AISI 316/304, aluminum or galvanized and painted steel, depending on the field of application and customer standards.



Complete modular towers, from 9 m<sup>2</sup> to 370 m<sup>2</sup> of surface, fast delivery, easy assembly, high performance, long durability.  
Each component can be replaced individually.



- **WATER DISTRIBUTION:** ENDEVION can revamp outdated and worn out channels and pipes or provide completely renewed solutions, respecting the efficiency of the evaporative tower.



- **SPRAY NOZZLES:** ENDEVION has a wide range of nozzles suitable for all flow rates and water distribution configurations. ENDEVION can also search for special nozzles that are difficult to find as spare parts.



- ② **DRIFT ELIMINATORS:** ENDEVION modular PP or PVC drift eliminators offer high separation efficiency and are suitable for **small and medium sized evaporative towers**.  
The drift eliminator made of lamella profiles is usually preferred for **large or natural draft evaporation towers**.

All these drift eliminators are certified.

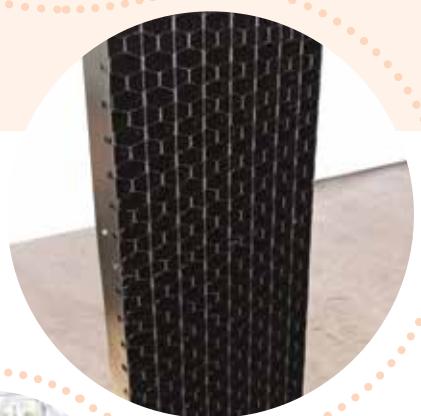


#### ADVANTAGES OF ENDEVION

##### DRIFT ELIMINATORS:

- ② High efficiency
- ② Reduced pressure drop
- ② Customized geometry
- ② Available in PP and PVC
- ② Different degrees of stability

- ② **INLET LOUVRES:** ENDEVION product portfolio is completed by customizable inlet louvres.



- ② **SUPPORT STRUCTURE:** ENDEVION is able **to design** the support structure of the fills for any load or size of the tower using fiberglass or steel or wood







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The Company is certified according to  
UNI EN ISO9001:2015 by IMQ SpA

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