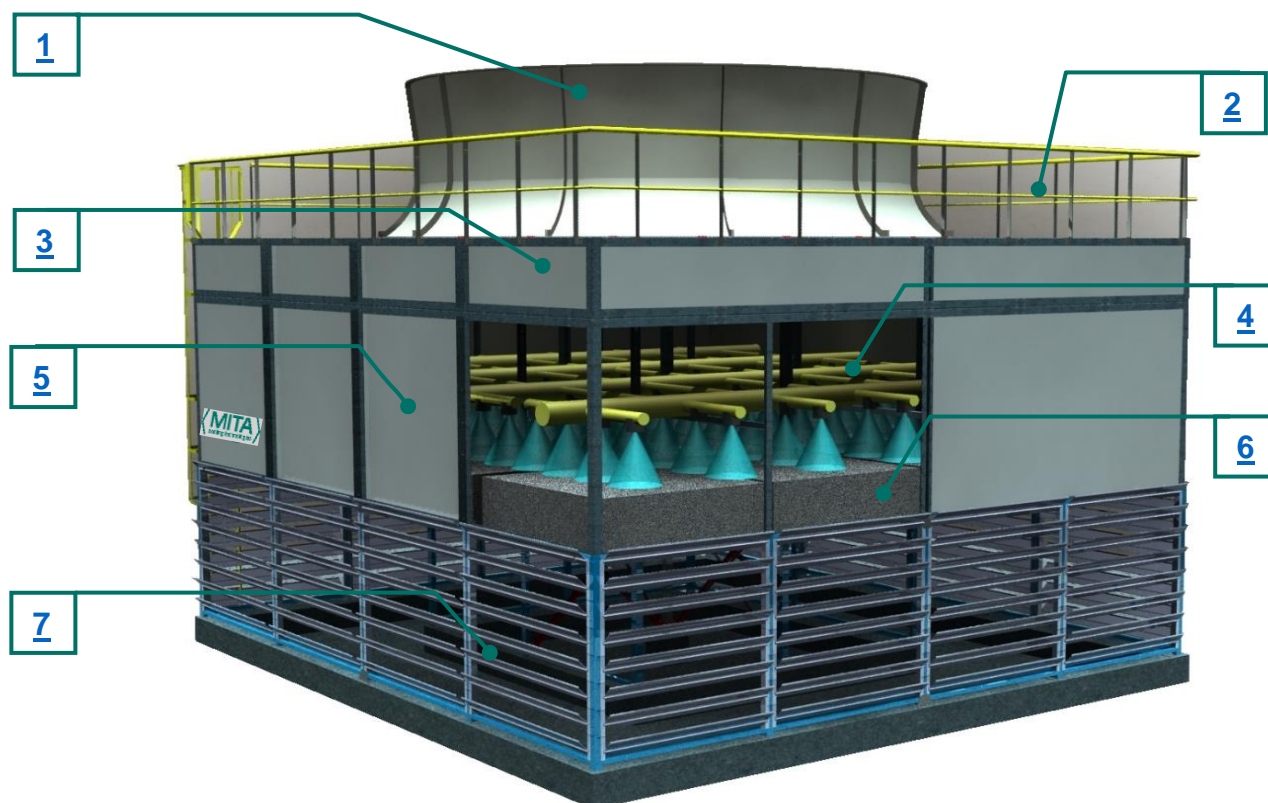




**NON-CORRODING  
AND LONG LASTING**



**EASY  
INSTALLATION &  
MAINTENANCE**



### Induced Draft Axial Fan Counterflow Cooling Tower

#### Factory Pre-assembled - Modular Design

<b>1</b>	<b>Geared axial motor-fan system</b> with low energy and high efficiency fan
<b>2</b>	Walkable <b>fan deck</b> with cage ladder and handrail
<b>3</b>	<b>EUROVENT Certified</b> High Efficiency DRIFT ELIMINATORS
<b>4</b>	Water distribution system with <b>non-clogging</b> tangential Polypropylene (PP) nozzles for a full cone water distribution. Flanged water inlet connection
<b>5</b>	Fibreglass reinforced polyester (FRP) sandwich casing panels and hot dip galvanised steel (HDGS) after fabrication perimeter frame
<b>6</b>	<b>Fill pack:</b> cross-fluted PVC or PP sheets; different kinds of air/water channels, suitable for the use with different water types
<b>7</b>	Lower supporting frame with air inlet louvers
<b>8</b>	<b>Factory pre-assembled</b> cooling tower, rapid on-site <b>installation</b> operation

### 1. MOTOR FAN GROUP

**DIFFUSER** consist of smooth faced air entry fan cylinder(s) entirely made of fibreglass reinforced polyester (FRP) with gel-coat for UV-protection.

High efficiency geared axial fan motor(s) assembly, designed to efficiently convey discharge air.

#### AXIAL FAN SYSTEM

Composed by:

- 4-poles electric IE3 motor, efficiency, IP 56, class F/B insulation, with tropicalized winding, 50 Hz frequency, including PTC and anticondensation heater.
- Flexible drive shaft
- Right-angle gearbox, special version for cooling towers, including PT100, heater and internal no-reverse gear system.
- Axial fan with aluminium blades, pitch angle adjustable when at rest, joined to a central hub directly coupled to the gearbox shaft.
- FRP fan stack, designed to optimize the fan performances
- HDGS frame to support the motor, transmission shaft and gearbox.



### 2. FAN DECK

#### FAN DECK

In HDGS. Walkable top and a cage ladder with safety gate and with perimetral handrail.



### 3. DRIFT ELIMINATORS

**EUROVENT Certified High Efficiency DRIFT ELIMINATORS** made of polypropylene (PP) sheets, thermoformed under vacuum and welded together to form panels of such shape and size as to guarantee maximum efficiency of droplet separation from the airflow produced by the fan, reducing substantially the drift water.

### 4. WATER DISTRIBUTION SYSTEM

**WATER DISTRIBUTION SYSTEM** made of UNI-EN-PN 10 pipes and connectors in PVC or PP, full cone (non-clogging) polypropylene spray nozzles for even water distribution.

The water distribution system is supplied complete with manometer for regulation of input water pressure and a bleed-off valve.

**Flanged water inlet connection(s).**



### 5. STRUCTURE AND CASING

**CASING** walls consisting of 22 mm thick polyester resin sandwich panels reinforced with fibreglass and coloured with paste gel-coat for UV-protection. Seal between the load bearing structure and the panels is guaranteed by a special bituminous sealing gasket.

#### PERIMETER FRAME, STRUCTURE & FILL PACK SUPPORT

in hot-dip galvanised steel after fabrication. Located and fixed to the base of the tower body to form a strong structure. Hot dip galvanized steel after fabrication metal supports are fixed to the frame to support the filling pack. Drift eliminator panels with hot-dip galvanised steel after fabrication\* supports are installed in the upper section.

**NUTS AND BOLTS** in stainless steel **AISI 304**

**Totally removable back panel** to facilitate and simplify routine maintenance operations to the tower internals

Optional: **Man-sized access door(s)** in FRP sandwich panel in a HDGS (after fabrication) frame to allow easy inspection or access to the inside of the tower.

Optional: **STAINLESS STEEL METAL PARTS:** metal parts can be in AISI 304 or AISI 316 in case of aggressive water or environment





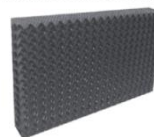
### 6. FILL PACK

**FILL PACK (or heat exchange surface)** consisting of efficiency cross-fluted PVC or PP sheets, thermoformed under vacuum welded together into lightweight blocks.

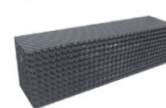
K19 fill pack type (used as standard) is suitable for clean industrial water and it's resistant to rot, decay and biological attack.

Alternative heat transfer fill packs are available for clean water ("CW" type) and/or dirty process water ("NVP" vertical film / "GS" grids) and/or high temperature water ("ATT" version).

"K" fill pack panel with 19 mm FLUTE (PVC or PP)



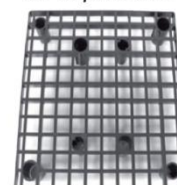
"K" fill pack panel with 12 mm FLUTE (in PP)



"NVP" antifouling fill pack panel (in PVC or PP)



"GS" fill panel in PP



### 7. LOWER STRUCTURE WITH AIR INLET LOUVERS

#### LOWER SUPPORT FRAME

Made of HDGS (after fabrication) profiles, designed to be installed on the existing concrete water basin.

#### AIR INLET LOUVERS

Made of FRP, designed to be fitted into the above mentioned lower frame.



### 8. TRANSPORT & INSTALLATION

PMM is a **factory pre-assembled** cooling tower, designed to be transported with standard trucks in sets of pieces:

- Body modules (from 2 to 4)
- Diffuser
- Mechanical equipment
- Lower support structure
- Louvers

All sets are transportable via standard trucks or sea going Open Top container.

The cooling tower is designed for the easiest possible on-site installation operations.

Typical assembly sequence takes up 2-3 days per cell with a single 3 man team of worker equipped with a cherry picker and a crane.



Supply of the tower is limited to the parts listed above. Building and electrical works, pumps, collectors external to the tower, valves, hoisting gear and any scaffolding and labour are therefore excluded. Accessories and/or constructional variants are available on request. MITA Cooling Technologies S.r.l.. may carry out constructional improvements without notice. Images for illustration purposes only.