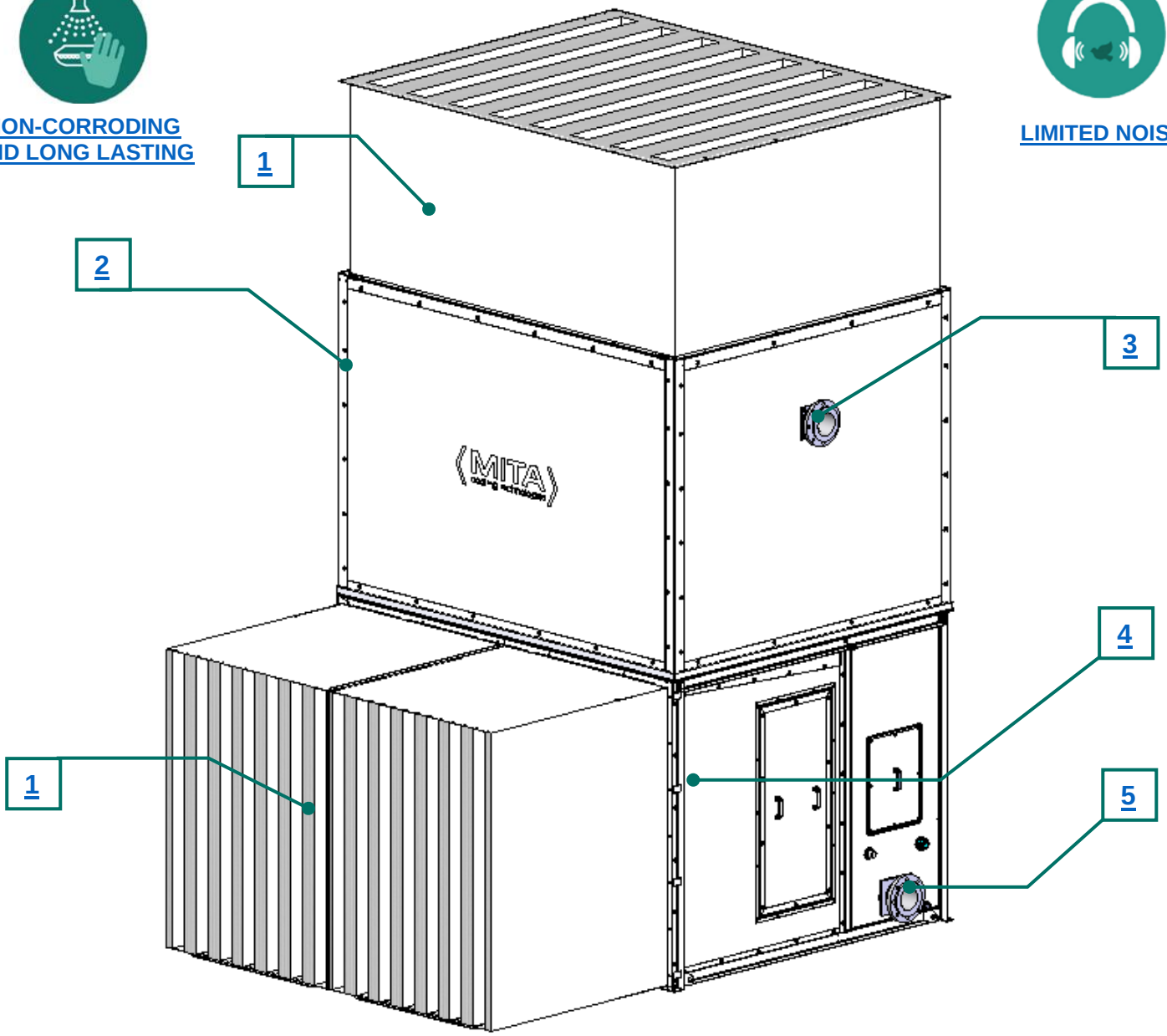
CENTRIFUGAL COOLING TOWERS
Design Features

INDUSTRIAL PROCESS | HVAC

MCT EC Series

NON-CORRODING AND LONG LASTING

LIMITED NOISE



Forced Draft Centrifugal Fan Counterflow Cooling Tower	
Factory Assembled – Modular Compact Design	
1	Air inlet/outlet **silencers** (Optional)
2	Fibreglass reinforced polyester (FRP) sandwich **casing** panels with hot dip galvanized steel (HDGS) after fabrication **structure**
3	**Water distribution** system with **non-clogging** tangential Polypropylene (PP) nozzles for a full cone water distribution. Flanged water inlet connection
4	IP55 **EC centrifugal fan**(s)
5	Fully enclosed **water collection basin**
6	Control panel with controller
7	**Factory assembled** design, easy shipment and on-site installation operation

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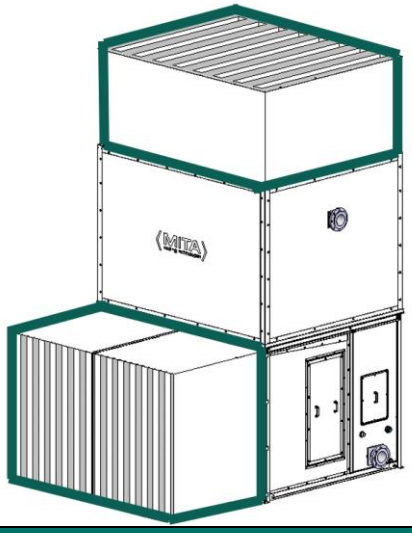
1. SILENCERS (Optional)

AIR INLET/OUTLET SILENCERS in galvanized steel with primer external finish. Fitted with a rockwool layer for optimal sound absorption.

Installed both at inlet and discharge

(Optional item)



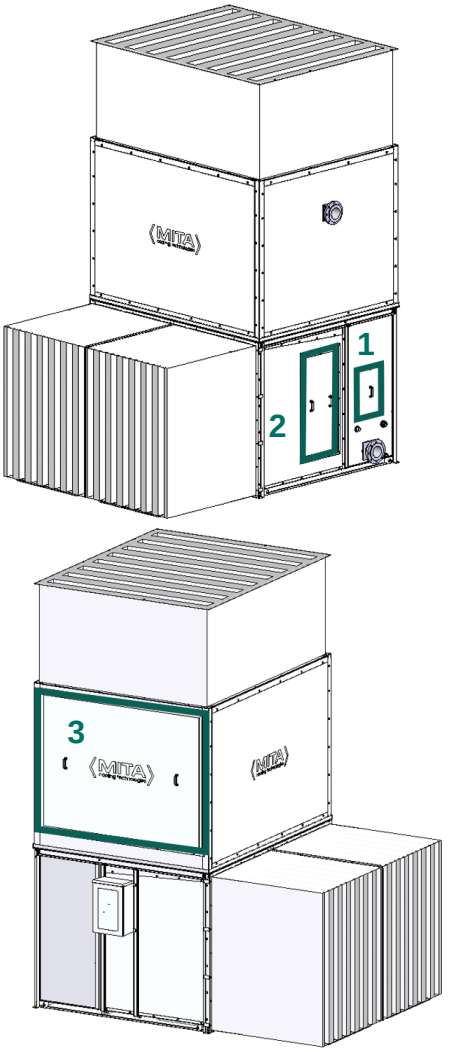
2. STRUCTURE AND CASING

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

1. **Inspection door** for inspection of the basin section
2. **Man-sized access door** to allow easy inspection or access to the motor section
3. **Totally removable sidewall** to facilitate and simplify routine maintenance operations to the body internals

PERIMETER FRAME, STRUCTURE & FILL PACK SUPPORT in hot-dip galvanized steel after fabrication. Located and fixed to the base of the tower body to form a strong structure.

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



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3. WATER DISTRIBUTION SYSTEM

WATER DISTRIBUTION SYSTEM made of UNI-EN-PN 10 pipes and connects 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.

Flanged water inlet connection(s)

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.

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.
CW fill pack type (used as standard) is suitable for clean water and it's resistant to rot, decay and biological attack.
Alternative heat transfer fill packs are available for clean industrial water ("k19" type) and/or dirty process water ("NVP" vertical film / "GS" grids) and/or high temperature water ("ATT" version)
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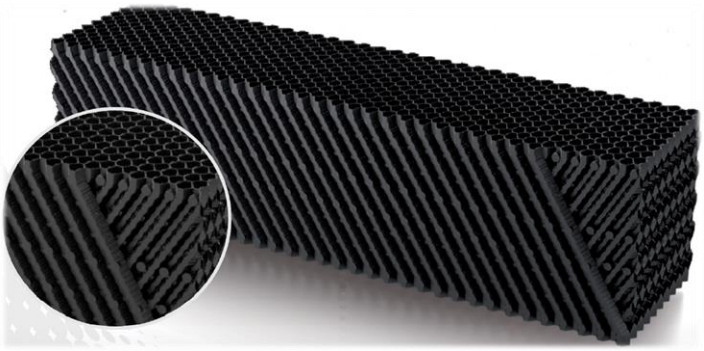
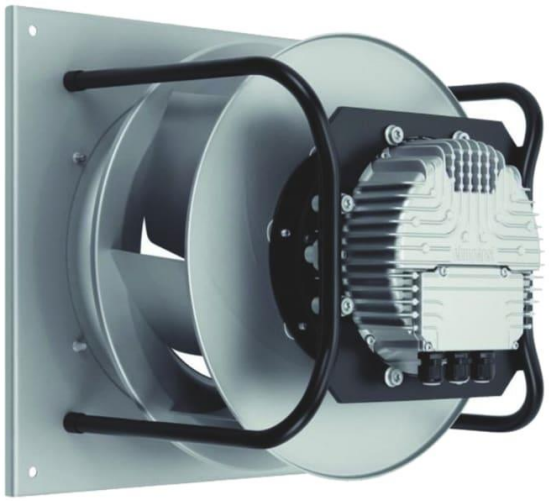


4. MOTOR FAN GROUP

EC CENTRIFUGAL FAN SYSTEM made of composite material. Optimized for flow control combined with high efficiency:

- Painted black rotor
- Aluminum impeller backward curved, single inlet
- Low RPM motors for **low sound emissions**
- **IP55**
- Multi-voltage (380-480V)
- Multifrequency (50/60 Hz)
- Class F insulation
- Integrated frequency control



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5. WATER COLLECTION BASIN

WATER COLLECTION BASIN is entirely made of fibreglass reinforced polyester (FRP)

Sloping base with rounded corners for easy cleaning operations and reduced risk of biological growth, complete with **flanged water outlet connection(s)**, drain, make-up and overflow connections.

6. CONTROL PANEL

CONTROL PANEL connected to an HMI that allows simple monitoring and setting of the cooling tower parameters. The communication with other devices is possible via **Modbus protocol**.

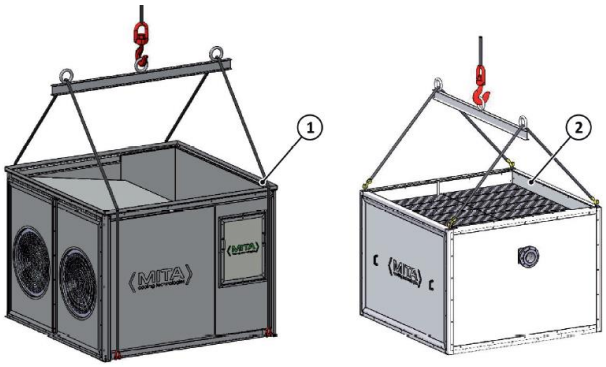
7. TRANSPORT & INSTALLATION

MCT EC is a factory assembled cooling tower, designed to be transported with standard trucks in two pieces:

1. Basin with fan section
2. Body

The cooling tower is designed for the easiest possible on-site installation operations, consisting in positioning and fixing body on top of the lower section.

Water connections can be threaded or flanged, and the electric connection are limited to the electrical panel main supply.



Supply of the cooling 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 labor are there for excluded. Accessories and/0or constructional variants are available on request. MITA Cooling Technologies S.r.l. may carry out constructional improvements without notice.
Images for illustration purposes only.

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