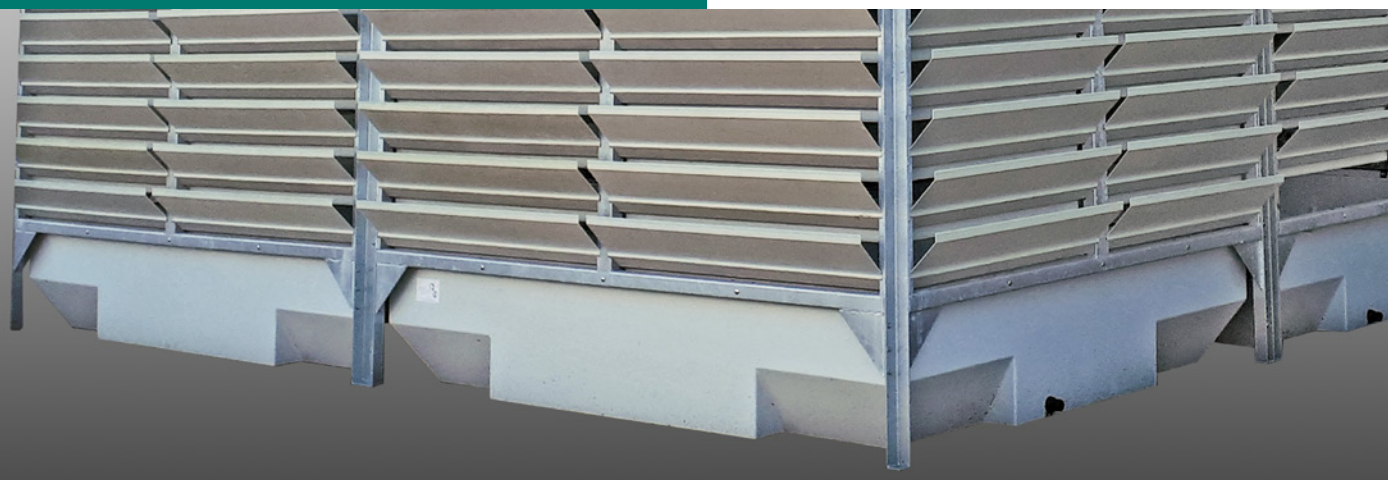
Modular Cooling Towers

PME-XL Series for large plants

MITA cooling technologies



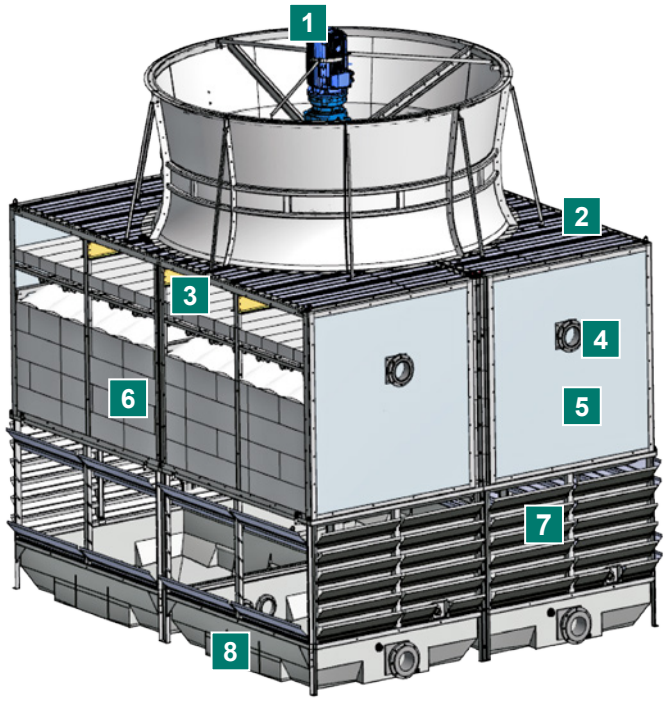
MODULAR COUNTERFLOW
COOLING TOWERS
for large industrial and HVAC plants
PME-XL SERIES

The PME-XL series evaporative cooling towers represent the natural evolution of the PME-E range, designed to offer superior performance in terms of thermal capacity, energy efficiency, quietness and ease of installation.

A single cell (with its own corrosion-resistant fibreglass water collection basin) is sufficient to cool up to 5 MW of thermal power, a solution particularly suitable for replacing traditional multi-cell configurations, with significant benefits in terms of reducing installed electrical power and noise impact.
The modular, factory-preassembled design allows for quick installation even in complex systems, simplifying construction site activities.

Multiple, wide access points to the internal parts and the motor-fan unit serve to simplify the overall maintainability of the cooling tower.

CONSTRUCTION FEATURES



1. **Motor-fan group with coaxial gearbox high efficiency and low noise**
2. **Walkable top cover made of FRP**
3. **High efficiency drops eliminators pack certified EUROVENT**
4. **Water distribution system with non-clogging tangential nozzles, in PP. Flanged inlet connections.**
5. **Fiberglass side panels and galvanized steel support structure**
6. **Heat exchange pack (PVC or PP) depending on the water to be cooled**
7. **Lower support structure in hot-dip galvanized steel, with FRP splash guards**
8. **FRP water collection tank with smooth inner walls, sloped bottom and rounded edges**

MOTOR-FAN GROUP

MOTOR-FAN GROUP with gearbox consisting of:

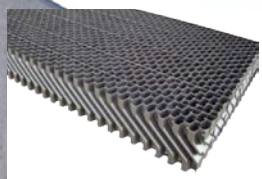
- 4-pole electric motor, IP 56, insulation class F/B, multi-voltage and multi-frequency, located on the top of the fan
- Coaxial planetary gearbox of a leading brand specifically designed for cooling towers
- Aluminum fan blades with adjustable wing profile when stationary, joined by a central hub fitted on the slow shaft of the gearbox
- Support frame for the entire fan unit and motor/gearbox housing in hot-dip galvanised steel

DIFFUSER made of fibreglass with opening sections, designed to optimise the performance of the fan and reduce its power consumption.

UPPER PART

UPPER PART
fully walkable and made of pultruded fibreglass. Access to the reducer through a special opening in the diffuser.

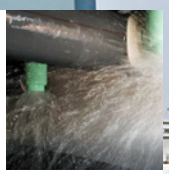
***NOTE** - On request, a ladder for access and protective railing can be supplied on the fan level, also made of fibreglass (FRP).*



DROPS **ELIMINATORS**

DROPS ELIMINATORS
high efficiency **EUROVENT** certified.
Made of thermoformed polypropylene (PP) sheets under vacuum, welded together to form panels of a shape and size that ensure maximum efficiency in separating water drops from the induced air flow, minimising water entrainment.

WATER DISTRIBUTION SYSTEM



WATER DISTRIBUTION SYSTEM
made with PN 10 standardised pipes and fittings entirely in PVC (or PP), complete with non-clogging PP spray nozzles of the static type with large passages, with tangential inlet and full cone spray and 120° angle.

The system thus constituted guarantees perfect spraying of the entire filling pack, for its optimal exploitation.

***NOTE -** Standard flanged inlets on the distribution inlet pipe.*

CENTRAL BODY SECTION

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consisting of a load-bearing structure with load-bearing structure in hot-dip galvanised steel profiles, 22 mm side sandwich panels in fibreglass-reinforced polyester resin and isophthalic gelcoat against UV rays.

The upper part of the body houses the drops eliminators panels, with their hot-dip galvanised steel supports. Optionally, on the side opposite the hot water inlets, large opening walls for complete access to the heat exchanger, nozzles and drops eliminators.

HEAT EXCHANGE PACKS

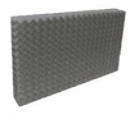
HEAT EXCHANGE PACKS
Available models:
Thermoformed PVC or PP film panels:

- **CW**, for clean water
- **K19**, for clean industrial water
- **NVC** and **NVP**, for moderately dirty water.

Splash, in PVC or PP:

- **NET**, for moderately dirty water
- **GS** and **GSS**, for dirty process water.

***NOTE** - PVC packs are available in ATT version for high temperatures (peaks of 75°C) in PP.*



LOWER STRUCTURE AND **WATER COLLECTION BASIN**

LOWER STRUCTURE
The tank section is separated from the body by a steel structure (which is hot-dip galvanised after processing) which houses the fibreglass splash guards.

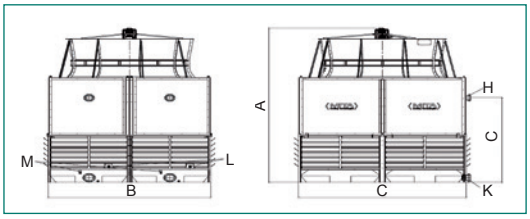
WATER COLLECTION BASIN
Entirely made of moulded fibreglass. The collection basin has a sloped bottom with no sharp edges to facilitate cleaning. Complete with flanged connection for water intake, overflow, drainage and float valve for replenishing evaporated water.

***NOTE -** Versions available without basin and without lower structure, or without basin with lower structure.*

DIMENSIONS, WEIGHTS AND POWER

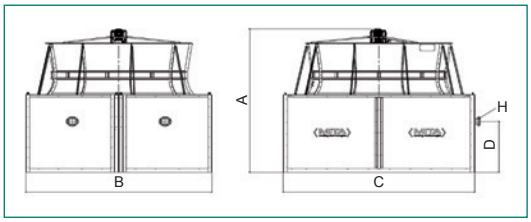
Model		Dimensions		Paks		Fans			Configuration
PME	-	XL	20	12	CW	1	G	N	A
Product line		Model code	Dimension (m^2)	Pack height (mm)	Type	N.	Coaxial	Version	Type
			20 m^2 22 m^2 23 m^2 25 m^2 26 m^2 27 m^2 29 m^2		CW K19 NET NVC NVP GS GSS			N Standard S Low noise	A Complete C Without basin

PME-XL Series with basin



Model	Dimensions				Water connections				Total installed power	Weights	
	A	B	C	D	H	K	L	M		empty	in operation
	mm	mm	mm	mm	Ø in	Ø in	Ø in	Ø in	kW	kg	kg
with basin											
PME-XL20-12CW-1GN-A	6070	4380	4515	3330	6”	8”	2”	2”	30	4700	12770
PME-XL22-12CW-1GN-A	6070	4710	4595	3330	6”	8”	2”	2”	30	5000	14180
PME-XL23-12CW-1GN-A	6070	4380	5215	3330	6”	8”	2”	2”	30	5170	14630
PME-XL24-12CW-1GN-A	6226	4710	5255	3330	8”	10”	2”	2”	37	5530	16090
PME-XL26-12CW-1GN-A	6226	4710	5525	3330	8"	10"	2”	2”	37	5660	16790
PME-XL27-12CW-1GN-A	6226	4710	5775	3330	8”	10”	2”	2”	37	5810	17460
PME-XL29-12CW-1GN-A	6226	4710	6275	3330	8"	10"	2”	2”	37	6040	18700
without basin											
PME-XL20-12CW-1GN-C	4240	4350	4490	1500	6”				30	3580	4610
PME-XL22-12CW-1GN-C	4240	4680	4570	1500	6”				30	3830	5010
PME-XL23-12CW-1GN-C	4240	4350	5190	1500	6”				30	3960	5220
PME-XL24-12CW-1GN-C	4396	4680	5230	1500	8”				37	4270	5650
PME-XL26-12CW-1GN-C	4396	4680	5500	1500	8"				37	4360	5830
PME-XL27-12CW-1GN-C	4396	4680	5750	1500	8”				37	4460	6010
PME-XL29-12CW-1GN-C	4396	4680	6250	1500	8"				37	4640	6300

PME-XL Series without basin



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PME-XL29-12K19-1GN-C	4396	4680	6250	1500	8"				37	4640	6300

Technical data not binding

For data relating to other versions, please write to: ***export@mitact.it***

COOLING TECHNOLOGY INSTITUTE MEMBER

MITA cooling technologies

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