

PME-E

Non-corroding cooling towers

PME-E
Series



PM Series - PME-E with Diploma N° 16.02.001

MITA participates in the ECP programme for Cooling Towers. Check ongoing validity of certificate: www.eurovent-certification.com



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■ PME-E series cooling tower

The **PME-E** series cooling towers are manufactured with a high thickness (3-5 mm) steel bearing frame, which is hot-dip galvanized after all works and with fibreglass sandwich panels of 22 mm thickness. This kind of panel is made by a double laminated layer with supporting expanded material in between. This construction grants, also on large surfaces, a great mechanical strength and a good dropping water noise absorption. The surface of the fibreglass, moreover, is protected by a gel-coat that is resistant to UV rays, hot and cold water and abrasion due to weather and chemicals.

The filling material is made of self-extinguishing PVC with 12 mm flute. The multi-blade axial fan grants high performances with low electrical power input.

The basin has a sloping bottom with rounded off corners, to enable an easy emptying to simplify its cleaning.

The **PME-E** certified series includes 26 models, all available with or without water basin. This series covers a capacity range (approximate cooling capacity referred to temperatures conditions 40°C IN, 30°C OUT, 24°C WET BULB) between 770 and 4.345 kW.

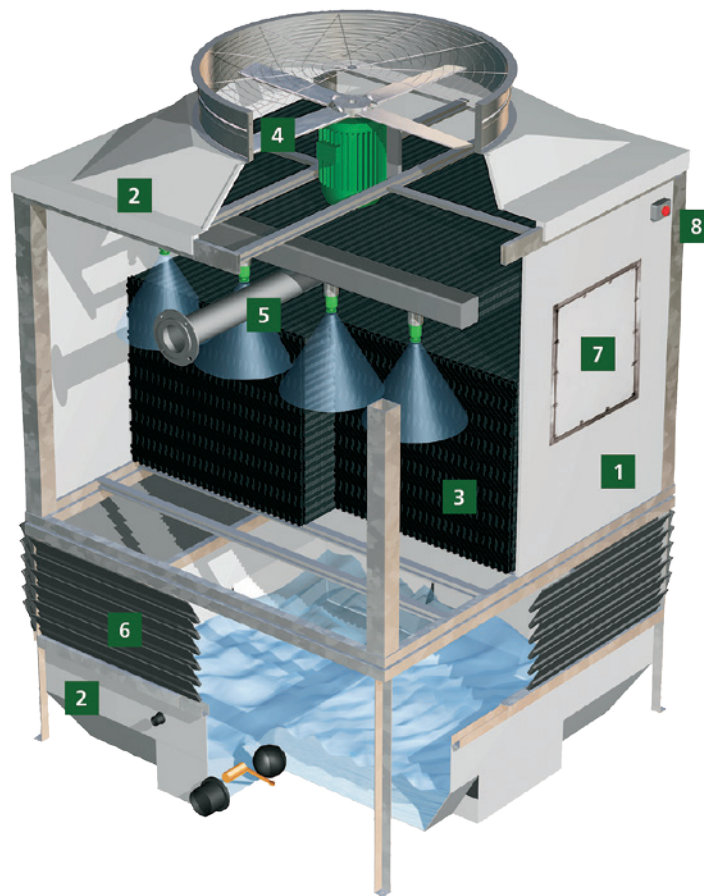
■ Accessories and construction variants

The following accessories and/or construction variants are available for all models on request:

- three-phase heating element with control thermostat
- minimum level cut-out switch
- control panel
- stainless steel metal parts (instead of hot-dip galvanized steel)
- manholes / removable side-walls to allow inspection, easy cleaning and maintenance to the internal components of the cooling tower.

The PME-E Series is also available in other Versions (not certified):

- **Silent**, to reduce the noise emissions (measured and calculated in compliance with ISO 3744 and EN 13487)
- **Container**, for an easy transportation optimising despatch volumes and reducing costs
- **K19**, for industrial water
- **NVP**, for water containing moderate quantities of suspended solids
- **GS**, for water containing high quantities of suspended solids
- **ATT**, for high temperature water.



1 Structure and casing

Material:

bearing frame in hot-dip galvanized steel after all works, fibreglass sandwich panels, thickness 22 mm.

Characteristics:

- great mechanical strength
- external fibreglass gel-coat protection resistant to UV rays, hot and cold water and abrasion due to weather and chemicals
- good noise absorption
- non-corroding.

2 Water basin (optional) and top cap

Material:

orthophthalic polyester resin, reinforced with several layers of glass fibre matting.

Characteristics:

- external fibreglass gel-coat protection resistant to UV rays, hot and cold water and abrasion due to weather and chemicals
- internal waterproof protection thanks to an impermeable, water repellent, paraffin- containing orthophthalic gelcoat
- sloping bottom with rounded off corners, to enable an easy emptying to simplify its cleaning
- light-weight
- non-corroding.

3 Filling material (or heat exchange surface)

Material:

Self-extinguishing PVC.

Characteristics:

- 12 mm flute (air/water passage)
- reinforced top layer to better absorb dynamic stress caused by the under pressure sprayed water from the nozzles.

4 Multi-blade axial fan

Material:

Motor support: hot dip galvanized steel (after all works), fan blades: plastic material reinforced with glass fibre, or aluminium, fan screening grid: stainless steel.

Characteristics:

- high performance, low electrical power input
- directly coupled to the electric motor
- unalterable safety over time thanks to the fan screening grid
- non-corroding.

5 Hot water distribution system

Material:

PN 10 unified PVC pipes, polypropylene nozzles.

Characteristics:

- non-corroding
- uniform and total spraying of the heat exchange filling pack
- MITA exclusive nozzles design, with non-clogging wide passages for a full cone spray.

6 Anti-splash louvers on air intake openings

Material:

Fibreglass louvers (on request: PP panels in a suitable galvanized steel frame).

Characteristics:

- Non-corroding
- easy to remove even after many years of use.

7 Manhole or totally removable side wall (optional)

Material:

fibreglass sandwich panel, thickness 22 mm, in a suitable hot dip galvanized steel frame.

8 Junction box

Material:

technopolymer.

Characteristics:

- easy connection of the electric motor to the stream supply line.

9 Bolts, nuts and washers

Material:

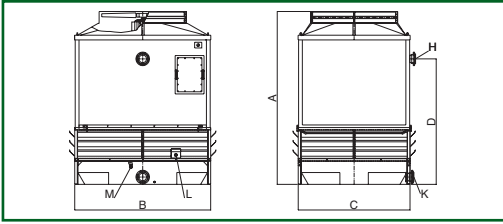
stainless steel 304 (no use of self-tapping screws).

Characteristics:

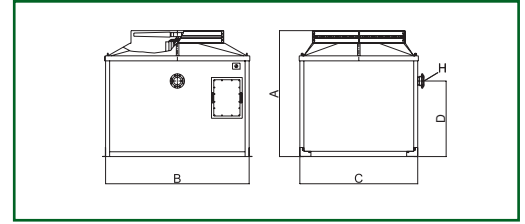
- non-corroding
- easy to remove even after many years of use.

Dimensions and weights

PME-E Series, single fan with water basin

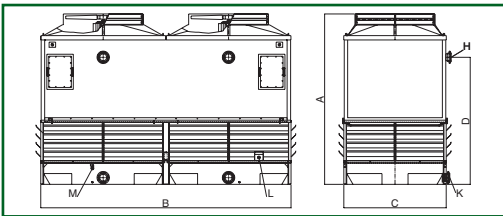


PME-E Series, single fan without water basin

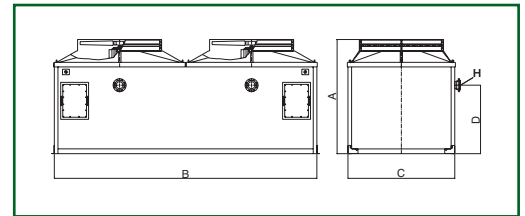


MODEL	DIMENSIONS				WATER CONNECTIONS				Nominal Water Flow Rate*	Total Nameplate Fan Motor Power per Model*	Total Rated Fan Motor Power per Model*	WEIGHTS	
	A	B	C	D	H	K	L	M				empty	in operation
	mm	mm	mm	mm	Ø in	Ø in	Ø in	Ø in	l/s	kW	kW	kg	kg
with water basin													
PME-E 1803 K12	3450	1865	1865	2150	5"	6"	1 1/2"	2"	18,58	7,5	6,04	645	1850
PME-E 1804 K12	3450	1865	1865	2450	5"	6"	1 1/2"	2"	20,11	7,5	6,87	675	1880
PME-E 2053 K12	3650	2030	2360	2350	5"	6"	1 1/2"	2"	26,97	7,5	6,16	885	2485
PME-E 2054 K12	3650	2030	2360	2650	5"	6"	1 1/2"	2"	29,22	11	7,62	920	2520
PME-E 2403 K12	3650	2360	2360	2350	6"	6"	1 1/2"	2"	31,39	11	7,32	965	2865
PME-E 2404 K12	3650	2360	2360	2650	6"	6"	1 1/2"	2"	34	11	8,87	1000	2900
PME-E 2853 K12	3650	2870	2360	2350	6"	6"	1 1/2"	2"	38,25	11	9,12	1115	3815
PME-E 2854 K12	3650	2870	2360	2650	6"	6"	1 1/2"	2"	41,42	15	10,8	1165	3865
PME-E 3103 K12	3650	3120	2360	2350	6"	8"	1 1/2"	2"	41,58	15	10,6	1170	4070
PME-E 3104 K12	3650	3120	2360	2650	6"	8"	1 1/2"	2"	45,06	15	12,5	1220	4120
PME-E 3353 K12	3650	3370	2360	2350	6"	8"	1 1/2"	2"	44,94	15	11,2	1220	4320
PME-E 3354 K12	3650	3370	2360	2650	6"	8"	1 1/2"	2"	48,69	15	13,4	1270	4370
PME-E 3603 K12	3650	3620	2360	2350	6"	8"	1 1/2"	2"	48,31	15	13,5	1380	4500
PME-E 3604 K12	3650	3620	2360	2650	6"	8"	1 1/2"	2"	52,31	18,5	15,2	1440	4560
without water basin													
PME-E 1803 K12	2960	1865	1865	1660	5"				18,58	7,5	6,04	615	1005
PME-E 1804 K12	2960	1865	1865	1960	5"				20,11	7,5	6,87	645	1035
PME-E 2053 K12	2500	2010	2340	1200	5"				26,97	7,5	6,16	635	1195
PME-E 2054 K12	2500	2010	2340	1500	5"				29,22	11	7,62	670	1230
PME-E 2403 K12	2500	2340	2340	1200	6"				31,39	11	7,32	700	1335
PME-E 2404 K12	2500	2340	2340	1500	6"				34	11	8,87	735	1370
PME-E 2853 K12	2500	2850	2340	1200	6"				38,25	11	9,12	825	1600
PME-E 2854 K12	2500	2850	2340	1500	6"				41,42	15	10,8	875	1650
PME-E 3103 K12	3160	3120	2360	1860	6"				41,58	15	10,6	1140	1970
PME-E 3104 K12	3160	3120	2360	2160	6"				45,06	15	12,5	1190	2020
PME-E 3353 K12	2500	3350	2340	1200	6"				44,94	15	11,2	900	1790
PME-E 3354 K12	2500	3350	2340	1500	6"				48,69	15	13,4	950	1840
PME-E 3603 K12	3160	3620	2360	1860	6"				48,31	15	13,5	1350	2320
PME-E 3604 K12	3160	3620	2360	2160	6"				52,31	18,5	15,2	1410	2380

PME-E Series, double fan with water basin



PME-E Series, double fan without water basin



MODEL	DIMENSIONS				WATER CONNECTIONS				Nominal Water Flow Rate*	Total Nameplate Fan Motor Power per Model*	Total Rated Fan Motor Power per Model*	WEIGHTS	
	A	B	C	D	H	K	L	M				empty	in operation
	mm	mm	mm	mm	Ø in	Ø in	Ø in	Ø in	l/s	kW	kW	kg	kg
with water basin													
PME-E 4103 K12	3650	4080	2360	2350	2 x 5"	2 x 6"	2"	2"	54,47	15	12,32	1630	4680
PME-E 4104 K12	3650	4080	2360	2650	2 x 5"	2 x 6"	2"	2"	59	22	15,24	1700	4750
PME-E 4803 K12	3650	4750	2360	2350	2 x 6"	2 x 6"	2"	2"	63,47	22	14,64	1790	5430
PME-E 4804 K12	3650	4750	2360	2650	2 x 6"	2 x 6"	2"	2"	68,75	22	17,74	1860	5500
PME-E 5703 K12	3930	5770	2360	2630	2 x 6"	2 x 6"	2"	2"	77,14	22	18,24	2125	7325
PME-E 5704 K12	3930	5770	2360	2930	2 x 6"	2 x 6"	2"	2"	83,56	30	21,6	2225	7425
PME-E 6203 K12	3930	6270	2360	2630	2 x 6"	2 x 8"	2"	2"	83,19	30	21,2	2250	7850
PME-E 6204 K12	3930	6270	2360	2930	2 x 6"	2 x 8"	2"	2"	90,11	30	25	2350	7950
PME-E 6703 K12	3930	6770	2360	2630	2 x 6"	2 x 8"	2"	2"	90,58	30	22,4	2375	8375
PME-E 6704 K12	3930	6770	2360	2930	2 x 6"	2 x 8"	2"	2"	98,11	30	26,8	2475	8475
PME-E 7203 K12	3830	7270	2360	2530	2 x 6"	2 x 8"	2"	2"	96,61	30	27	2560	9035
PME-E 7204 K12	3830	7270	2360	2830	2 x 6"	2 x 8"	2"	2"	104,64	37	30,4	2670	9145
without water basin													
PME-E 4103 K12	2500	4060	2340	1200	2 x 5"				54,47	15	12,32	1170	2290
PME-E 4104 K12	2500	4060	2340	1500	2 x 5"				59	22	15,24	1240	2360
PME-E 4803 K12	2500	4730	2340	1200	2 x 6"				63,47	22	14,64	1295	2570
PME-E 4804 K12	2500	4730	2340	1500	2 x 6"				68,75	22	17,74	1365	2640
PME-E 5703 K12	2500	5750	2340	1200	2 x 6"				77,14	22	18,24	1555	3080
PME-E 5704 K12	2500	5750	2340	1500	2 x 6"				83,56	30	21,6	1655	3180
PME-E 6203 K12	3440	6270	2360	2140	2 x 6"				83,19	30	21,2	2165	3920
PME-E 6204 K12	3440	6270	2360	2440	2 x 6"				90,11	30	25	2265	4020
PME-E 6703 K12	2500	6750	2340	1200	2 x 6"				90,58	30	22,4	1745	3525
PME-E 6704 K12	2500	6750	2340	1500	2 x 6"				98,11	30	26,8	1845	3625
PME-E 7203 K12	3440	7270	2360	2140	2 x 6"				96,61	30	27	2460	4505
PME-E 7204 K12	3440	7270	2360	2440	2 x 6"				104,64	37	30,4	2570	4615

* Nominal temperature conditions: 40°C IN - 30°C OUT - 24°C WET BULB

For data concerning other Versions, please contact MITA Technical Dept.



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