Open circuit cooling towers

for medium-large installations

MITA
cooling technologies

PME-E K19 SERIES COOLING TOWER

The PME-E K19 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 19 mm flute (for industrial waters). Other materials and versions are available. 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 K19 series includes several version, 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 580 and 3.600 kW.

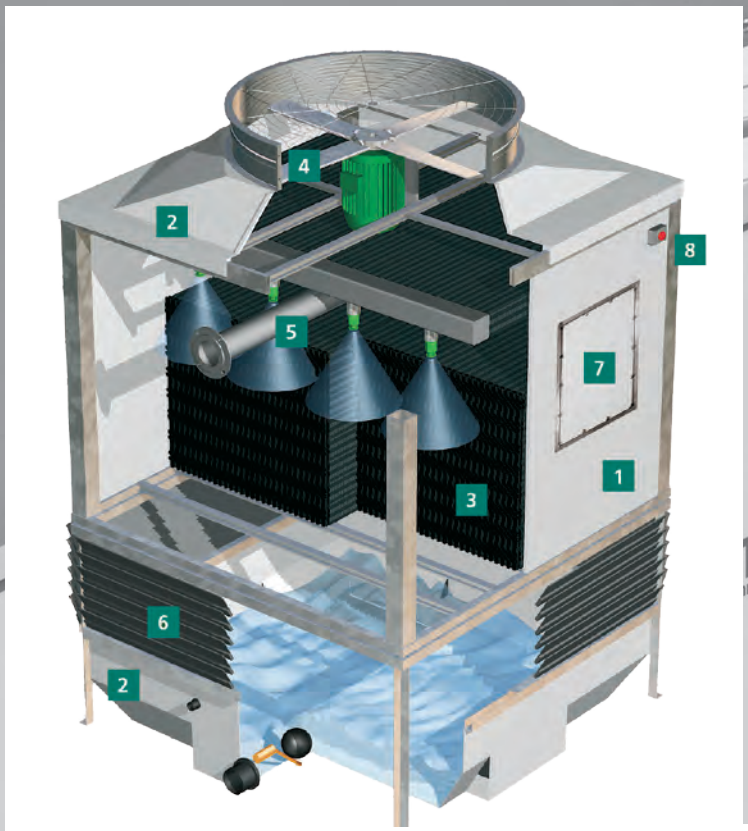
ACCESSORIES AND CONSTRUCTION VARIANTS

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 K19 SERIES** IS ALSO AVAILABLE IN OTHER VERSIONS

- **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
- **CW**, for clean water
- **NVP**, for water containing moderate quantities of suspended solids
- **GS**, for water containing high quantities of suspended solids
- **ATT**, for high temperature water
- **K12**, fill pack installed on PME-E K12 with certified performances



CONSTRUCTION DETAILS

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 or PP.

Characteristics:
- 19 mm flute (air/water passage)

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.

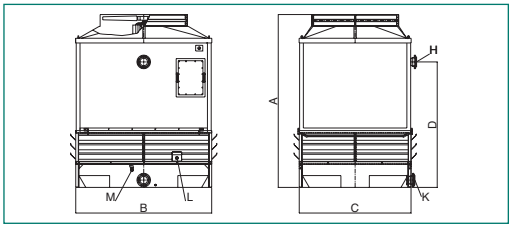
9 Bolts, nuts and washers

Material:
acciaio inossidabile 304 (nessun utilizzo di bulloni autofilettanti).

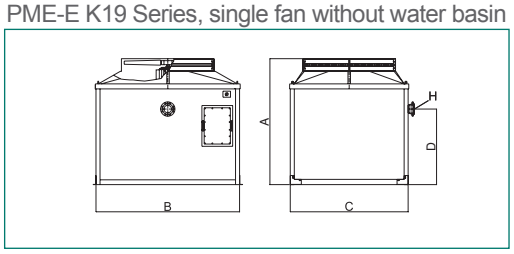
Characteristics:
- non-corroding
- easy to remove even after many years of use.

DIMENSIONS AND WEIGHTS

PME-E K19 Series, single fan with water basin

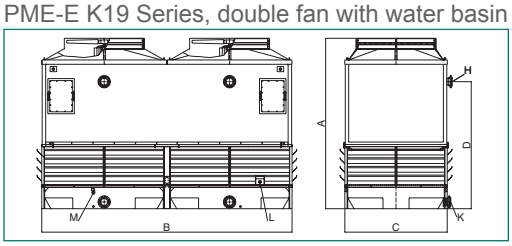


PME-E K19 Series, single fan without water basin

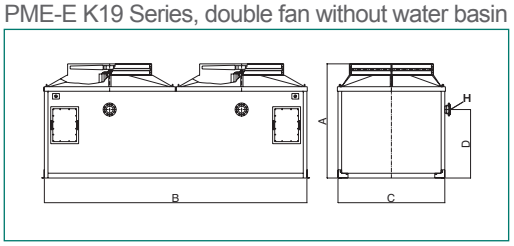


Model	Dimensions				Water connections				Total nameplate fan motor power per model	Weights	
	A	B	C	D	H	K	L	M		empty	in operation
	mm	mm	mm	mm	Ø in	Ø in	Ø in	Ø in	kW	kg	kg
with water basin											
PME 1803 E K19	3450	1865	1865	2150	5"	6"	1 ½"	2"	5,5	645	1850
PME 1804 E K19	3450	1865	1865	2450	5"	6"	1 ½"	2"	7,5	675	1880
PME 2053 E K19	3650	2030	2360	2350	5"	6"	1 ½"	2"	4	930	2835
PME 2054 E K19	3650	2030	2360	2650	5"	6"	1 ½"	2"	5,5	965	2870
PME 2403 E K19	3650	2360	2360	2350	6"	6"	1 ½"	2"	5,5	1010	3230
PME 2404 E K19	3650	2360	2360	2650	6"	6"	1 ½"	2"	7,5	1045	3265
PME 2853 E K19	3650	2870	2360	2350	6"	6"	1 ½"	2"	7,5	1175	3880
PME 2854 E K19	3650	2870	2360	2650	6"	6"	1 ½"	2"	11	1225	3930
PME 3103 E K19	3650	3120	2360	2350	6"	8"	1 ½"	2"	11	1235	4160
PME 3104 E K19	3650	3120	2360	2650	6"	8"	1 ½"	2"	11	1285	4210
PME 3353 E K19	3650	3370	2360	2350	6"	8"	1 ½"	2"	11	1295	4490
PME 3354 E K19	3650	3370	2360	2650	6"	8"	1 ½"	2"	11	1345	4540
PME 3603 E K19	3650	3620	2360	2350	6"	8"	1 ½"	2"	11	1350	4760
PME 3604 E K19	3650	3620	2360	2650	6"	8"	1 ½"	2"	15	1410	4820
without water basin											
PME 1803 E K19	2960	1865	1865	1660	5"				5,5	490	540
PME 1804 E K19	2960	1865	1865	1960	5"				7,5	520	570
PME 2053 E K19	2500	2010	2340	1200	5"				4	685	910
PME 2054 E K19	2500	2010	2340	1500	5"				5,5	720	945
PME 2403 E K19	2500	2340	2340	1200	6"				5,5	740	1025
PME 2404 E K19	2500	2340	2340	1500	6"				7,5	775	1060
PME 2853 E K19	2500	2850	2340	1200	6"				7,5	890	1215
PME 2854 E K19	2500	2850	2340	1500	6"				11	940	1265
PME 3103 E K19	3160	3120	2360	1860	6"				11	935	1265
PME 3104 E K19	3160	3120	2360	2160	6"				11	985	1315
PME 3353 E K19	2500	3350	2340	1200	6"				11	980	1360
PME 3354 E K19	2500	3350	2340	1500	6"				11	1030	1410
PME 3603 E K19	3160	3620	2360	1860	6"				11	1015	1390
PME 3604 E K19	3160	3620	2360	2160	6"				15	1075	1450

PME-E K19 Series, double fan with water basin



PME-E K19 Series, double fan without water basin



Model	Dimensions				Water connections				Total nameplate 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	kW	kg	kg
with water basin											
PME 4103 E K19	3650	4080	2360	2350	2 x 5"	2 x 6"	2"	2"	8	1775	5580
PME 4104 E K19	3650	4080	2360	2650	2 x 5"	2 x 6"	2"	2"	11	1845	5650
PME 4803 E K19	3650	4750	2360	2350	2 x 6"	2 x 6"	2"	2"	11	1950	6395
PME 4804 E K19	3650	4750	2360	2650	2 x 6"	2 x 6"	2"	2"	15	2020	6465
PME 5703 E K19	3930	5770	2360	2630	2 x 6"	2 x 6"	2"	2"	15	2325	7740
PME 5704 E K19	3930	5770	2360	2930	2 x 6"	2 x 6"	2"	2"	22	2425	7840
PME 6203 E K19	3930	6270	2360	2630	2 x 6"	2 x 8"	2"	2"	22	2415	8270
PME 6204 E K19	3930	6270	2360	2930	2 x 6"	2 x 8"	2"	2"	22	2515	8370
PME 6703 E K19	3930	6770	2360	2630	2 x 6"	2 x 8"	2"	2"	22	2520	8900
PME 6704 E K19	3930	6770	2360	2930	2 x 6"	2 x 8"	2"	2"	22	2620	9000
PME 7203 E K19	3830	7270	2360	2530	2 x 6"	2 x 8"	2"	2"	22	2625	9440
PME 7204 E K19	3830	7270	2360	2830	2 x 6"	2 x 8"	2"	2"	30	2735	9550
without water basin											
PME 4103 E K19	2500	4060	2340	1200	2 x 5"				8	1335	1795
PME 4104 E K19	2500	4060	2340	1500	2 x 5"				11	1405	1865
PME 4803 E K19	2500	4730	2340	1200	2 x 6"				11	1460	2035
PME 4804 E K19	2500	4730	2340	1500	2 x 6"				15	1530	2105
PME 5703 E K19	2500	5750	2340	1200	2 x 6"				15	1755	2415
PME 5704 E K19	2500	5750	2340	1500	2 x 6"				22	1855	2515
PME 6203 E K19	3440	6270	2360	2140	2 x 6"				22	1835	2495
PME 6204 E K19	3440	6270	2360	2440	2 x 6"				22	1935	2595
PME 6703 E K19	2500	6750	2340	1200	2 x 6"				22	1920	2670
PME 6704 E K19	2500	6750	2340	1500	2 x 6"				22	2020	2770
PME 7203 E K19	3440	7270	2360	2140	2 x 6"				22	1990	2740
PME 7204 E K19	3440	7270	2360	2440	2 x 6"				30	2100	2850

Technical data not binding

For data concerning other versions, please write to export@mitact.it

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ISO 9001 Quality Management