



BOLDROCCHI T.E.
TECNOLOGIE EVAPORATIVE

ISO 9001
BUREAU VERITAS
Certification



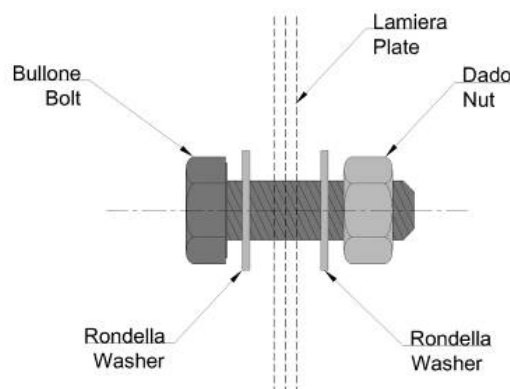
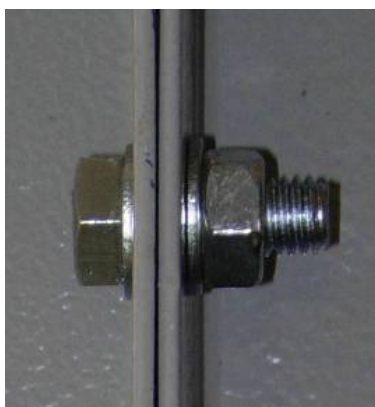
Why MEP004_ENG

MEP

Series Cooling Towers

Why choose them

- a) Reliable and long lasting
- b) Sturdy construction
- c) All parts in galvanised steel sheet painted with BTEPOWDERPAINT before being assembled
- d) No welds on parts in galvanised steel sheet
- e) No self-tapping screws used to avoid damaging the paint.



Only bolts, nuts and double washers are used to protect the paint from scratches. Each bolt is tightened by special industrial tools of the highest quality that ensure correct tightening



- f) No transmission units. All motors are directly coupled. Less maintenance, consequently lower costs, lower vibrations and lower energy consumption.



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g) All motors are connected in-plant to an external terminal board



h) Electric motors with power of 15 KW (8-pole) or over have external lubricators



i) No spray nozzles used for the water distribution system, instead non-clogging gravity distributors, in AISI 304 stainless steel, connected with nuts and screws to the header. Less or no maintenance and impossibility of bacteria formation.



j) Because the water gravity distributor protects the exchange surface, avoiding damage caused by mechanical action of water on the FILM type surfaces.



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- k) For a sturdy main header in steel tubing, hot dip galvanised after working. The sturdy construction protects the distribution from possible water hammer caused by the pumps, protecting the exchange surface.

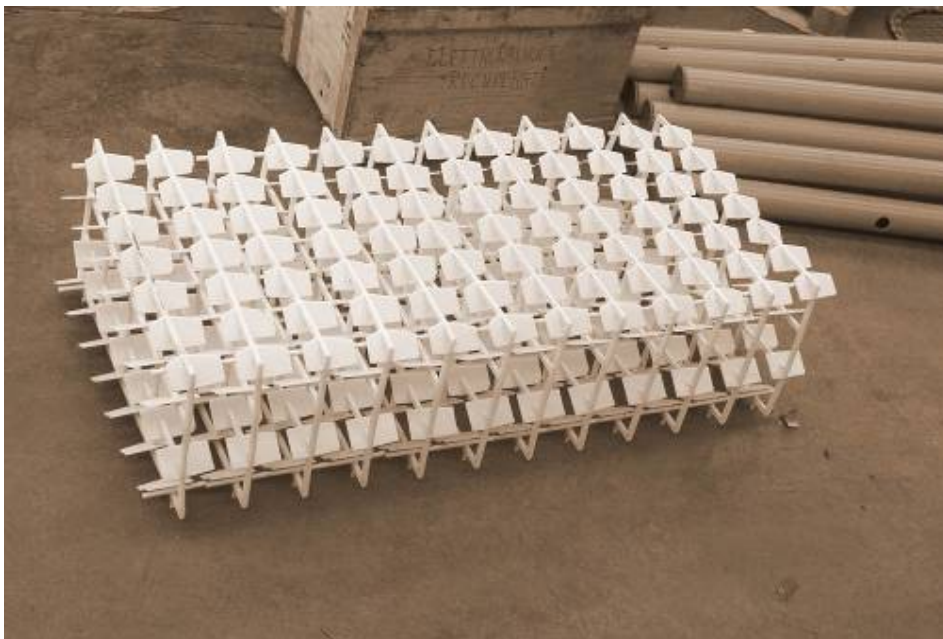


- l) Strong protective fan exhaust grill.



- m) Both fans and water distribution network do not require maintenance

- n) If necessary, they can be supplied with an extra exchange surface section in order to increase the performance in a later time.





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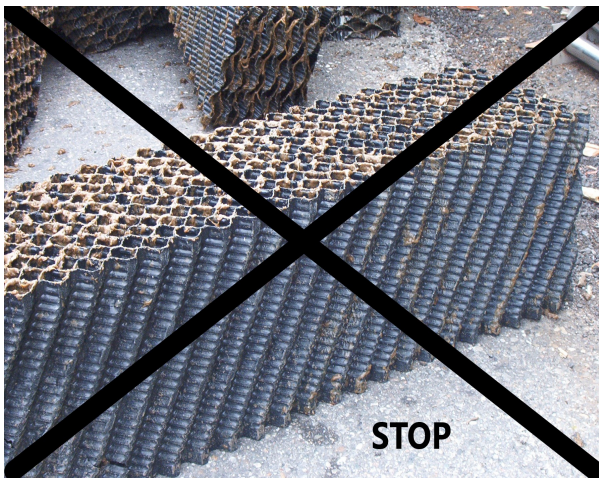


- o) Because if fitted with LOLIPANN filling easy to clean and sanitise, they can also cool dirt water and work in dusty environments. LOLIPANN



modules can be hot sanitised in order to prevent the spread of Legionella bacteria.

- p) When equipped with a NON-clogging LOLIPAN surface, these tedious



and costly downtime will never happen again. To date, the Towers supplied over 30 years ago continue to work with the initial performance, without any decay. Constant performance and little or no maintenance

- q) The towers can be supplied with an arrangement for cool water with temperature up to 99 °C.

- r) Because they can be supplied with special components suitable for working in particularly rigid environments with temperatures down to -50 °C.

- s) Because the electric motors can be supplied with certification for American, Canadian and Russian standards.



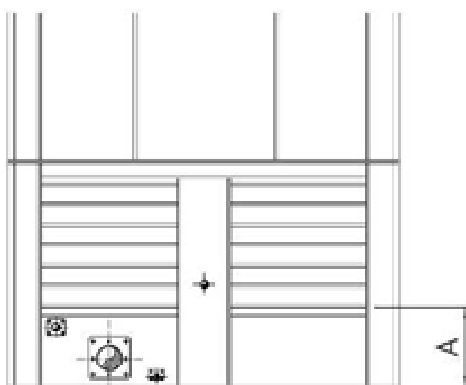


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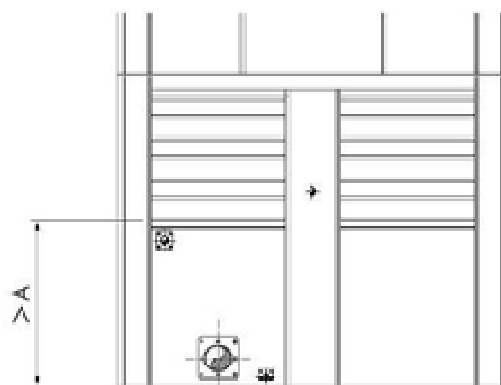
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- t) Because the motor-fan part can be supplied in the ATEX anti-spark version. To eliminate the spark problem it is not enough to use anti-spark engines, it is essential to provide an adequate anti-static impeller.
- u) Because the MEP series is designed to be easily loaded, transported and unloaded on both trucks and containers.
- v) Because all our cooling towers are electrically tested before shipment to make sure that the motor-fan units reflect the absorptions required by the strict Boldrocchi TE specifications. The technicians of our parent company BODROCCHI SRL, the undisputed world leader in ventilation too, have drawn up specifications that guarantee the highest quality and reliability.
- w) Because our highly qualified quality manager carefully inspects all the equipment from the construction phase to the most meticulous control of every smallest component, without neglecting the management part of the bureaucracy.
- x) If it's necessary, sump volume (if sump supplied) can be more than doubled



**VASCA STANDARD
STANDARD BASIN**



**VASCA MAGGIORATA
INCREASED BASIN**



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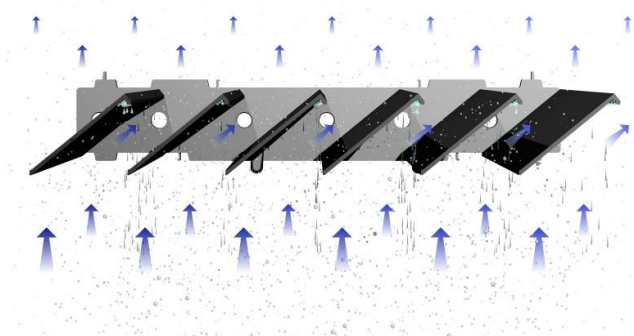
y) The water inlet connections and outlet connections (when supplied) can be provided indifferently on four sides or where you want.

z) Because they can be customized.

aa) Because the new concept BOLDROCCHI TE Towers can be supplied in the "ECO" version with energy and acoustic savings. If a normal tower consumes 15 kW it is possible to have an ECO version tower that consumes 3kW and the acoustic impact goes from 80 dB (A) to less than 70 dB (A). The higher initial investment pays for itself in about 1 working year (8,000 h).



bb) Because they can be fitted with DRICONPLUS, patented and tested by the



Politecnico di Milano, the new inertial drift eliminator, made of several injection molded polypropylene panels assembled following the air flow direction thus

constituting an easy-to-handle single module The drift eliminator section forces the air flow to suddenly change direction and fosters the release of suspended water droplets.

The panels, characterised by very high mechanical resistance, are at least 1.5 mm thick and can endure temperatures as high as 90 °C.





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If needed, the performance of the section can be subsequently increased in order to obtain nearly complete or complete retention of the droplets in the air flow.

The higher the amount of the droplets removed, the lower the water consumption and the risk of the spreading of Legionella bacteria.

The performance tests carried out at the Italian University Politecnico di Milano in Milan, under test conditions which were similar to those present in cooling towers, showed that the most performing arrangement of DRICONPLUS drift eliminator was able to retain 100% of the droplets in the air flow.

DRICONPLUS panels are suitable for temperatures up to 90 °C and can therefore be cleaned with high pressure water or steam jets.



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LOLIPANN

LOLIPANN board for cooling towers

The LOLIPANN polypropylene panel is injected-molded and thus characterized by precise workmanship, sturdiness and is relatively thick (in terms of millimeters and not centimeters). Other features are listed in the technical card "technical features 001" enclosed.

The different elements are pressure connected by means of four taper pins positioned approximately on the four corners. The number of panels that can be connected in a single row is almost infinite.

The connecting geometry is intentionally fixed to avoid mistakes during assembly that would inevitably lead to yield variation.

The total number of sections made up of LOLIPANN panel is uniformly distributed so that the free sections are also uniform. There are no spaces that contain an excessive number of sections nor ones that are excessively free.

Sections made up of LOLIPANN panels can be overlapped at alternate axes until the required thickness has been reached. For thickness up to 1500/1800 mm, sections can simply be overlapped; for greater thickness, in-between supports must be placed.

The surface obtained with the LOLIPANN panels is splash type, thus able to perform even if loaded with dirt, lime or organic material. This feature enables the surface weight, which when clean weighs as much as the Film surface, to increase significantly when used.

For this reason the support chooses preferably uses a system that supports "from below" and not "from above". In other words, the sections are NOT suspended, by REST on the special supports.

Each LOLIPANN panel and each section obtained by connecting the panels to each other is complete with special lower clamps needed to guarantee section stability (they hook unto the supports, between the panels of the lower section, etc).

The versatile LOLIPANN panels can substitute almost all sections used today. Easy to use, they can be connected to each other easily and intuitively (even though instructions are always provided) making their assembly possible directly on the premises by relatively unskilled personnel.

LOLIPANN

splash board for cooling towers

Brief description of the main features of the LOLIPANN panels

- Panel material : polypropylene with mineral filler
- Moulding process : injection
- Minimum thickness : 2mm
- Temperature at start softening point : about 98°C
- Connecting panels : with pressure pins that are parallel to the surface
- Type of resulting sections : fixed geometry
- Dimensions of each section : height 300 mm, width 600 mm.
length 100 mm X No. panels
- Number of panels per linear metre : 10
- Number of panels per m³ : 56
- Type of support required : resting
- Main panel axis : parallel to liquid/air flows; perpendicular to the surface
- Degree of interchangeability : excellent with counter-current flow towers

