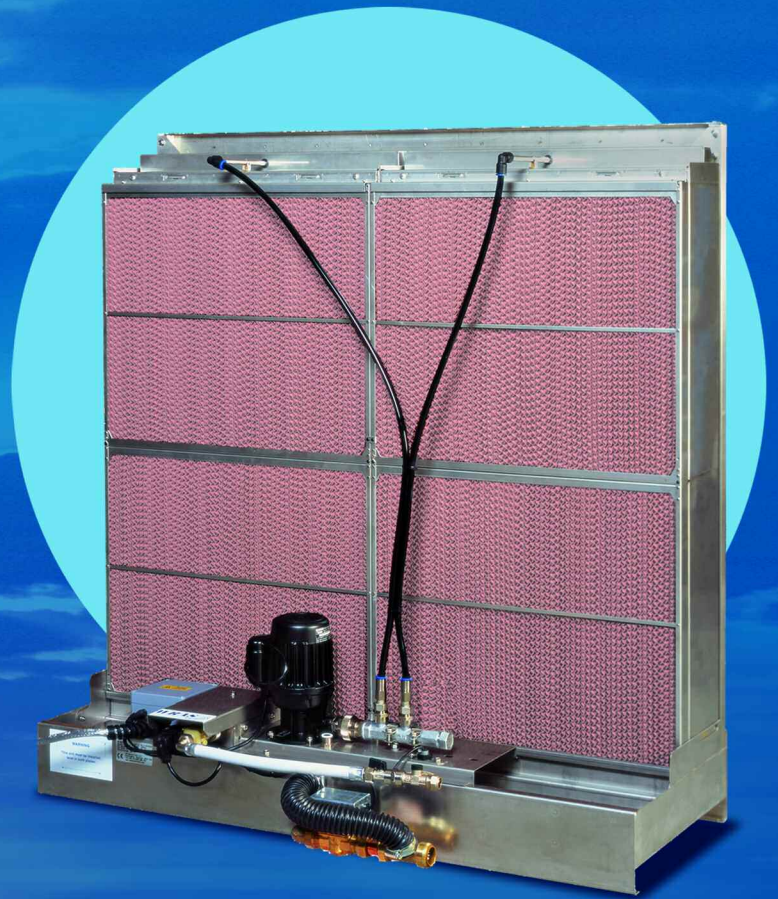
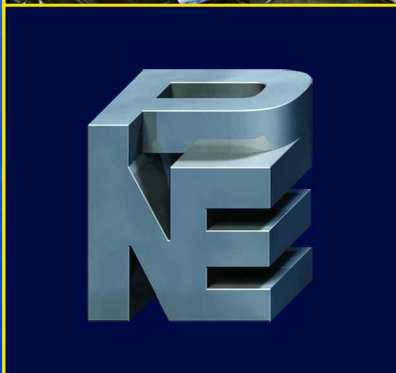


# HumEvap MC3

*Evaporative Humidifier / Cooler*



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# HumEvap MC3

## Evaporative Humidifier / Cooler

### The Evaporative Module

Raising the humidity by passing air through a wetted matrix is a simple and safe way to humidify – with the added benefits of very low running costs and evaporative cooling.

At the heart of the HumEvap MC3 is the evaporative module, which is installed in an AHU or duct. Water is supplied to the top of a fully bonded particle free matrix and flows down its corrugated surface. Dry air passes through this moist material picking up water vapour, raising the humidity as it does so. The water that does not evaporate assists in washing the matrix material and flows into a stainless steel tank at the base of the unit before being re-circulated up on to the matrix again.



### Intelligent Control

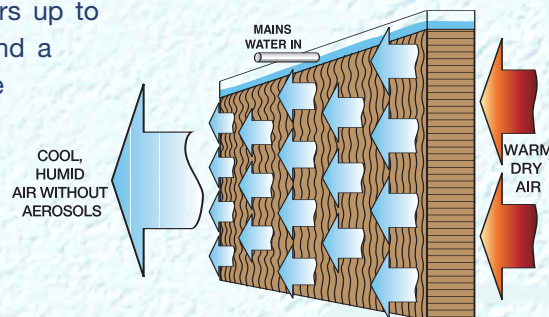
The HumEvap MC3 microprocessor control system is located outside the AHU, up to 328ft (100m) away from the evaporative module. The compact system gives digital control over desired relative humidity or temperature levels, flush, drain and other water quality maintenance features.

The system can be timer controlled to activate only during hours of occupancy.

Comprehensive real-time feedback shows current relative humidity, temperature, demand, hours run, system operating status and whether maintenance is required.

### Up to 21.5°F (12°C) Evaporative Cooling

The HumEvap MC3 offers up to 21.5°F (12°C) of cooling and a very economical alternative or supplement to mechanical chillers. As the air passes over the cool, wet surface of the HumEvap MC3 evaporative matrix, there is a transfer of energy as the water evaporates.



Three matrix efficiencies:

75% 85% 95%

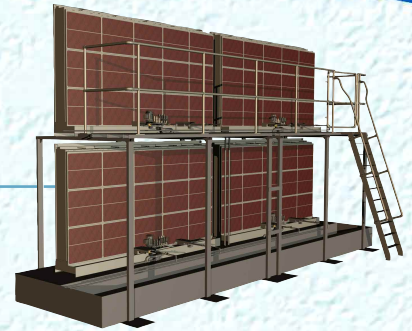
Evaporative cooling is not a substitute for air conditioning as there are still some instances where direct mechanical cooling is required. However, the HumEvap MC3 provides free cooling and reduces the overheads of DX chiller units, as well as the benefit of humidification in winter when the air is cool and dry.

## HumEvap MC3 Advantages

- The most hygienic evaporative humidifier in the world
- Significant energy savings
- Very low maintenance
- Modular design to fit any application
- Free cooling up to 21.5°F (12°C)
- High humidification duties
- Any humidity duty, droplet-free
- Small carbon footprint
- Very close control  $\pm 1\%rH$
- Fire retardant matrix class
- Low pressure drop
- Any water quality
- Single phase power
- High max working temp 140°F (60°C)
- Fully bonded, particle-free matrix

### Custom Design for Any Section Size

Due to its modular design, the HumEvap MC3 can be built to suit any AHU/duct size.



## The Most Hygienic Evaporative Humidifier in the World

### Hygienic Operation

The operation of the HumEvap MC3 includes several purge cycles but, to further ensure hygienic operation, a PureFlo Ag<sup>+</sup> silver ion dosing system is incorporated on the incoming water supply. This includes an Argentosan<sup>®</sup> self-regulating ionic silver cartridge that prevents microbial build-up in the water and continues to work in the circulating water and on the evaporative matrix.



### Hygienic Cycles

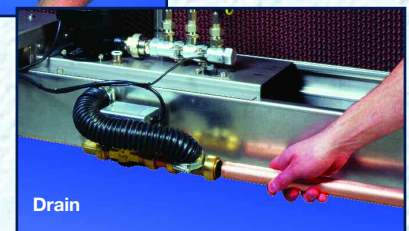
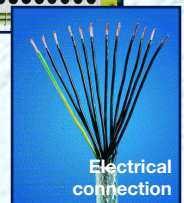
- Supply line purge on power connection to provide fresh water to the system
- Water quality dependent purge to maintain low conductivity in tank
- 24hr daily flush when not in use
- No demand drain
- Programmable flush cycle

### Easy to Install

The HumEvap MC3 is easy to install as it has only three simple connections for the services: a gravity drain with integrated overflow, a direct water connection to the evaporative module and a power connection to the control panel.

The only other connections that have to be made are two compression fittings to the PureFlo Ag<sup>+</sup> silver ion dosing system and the evaporative module is ready for commissioning.

The evaporative module is pre-wired with 32ft (10 metres) of 12-core flexible cable as a standard allowing the control panel to be situated at a distance from the evaporative module if required.



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