



## MAXIMUM PERFORMANCE

System Solutions for industrial  
Humidification and Cooling

ML **Princess**

ML **Solo**

ML **Flex**



Humidification and Evaporative Cooling

 **condair**



**When it has to be more**

Our solutions are designed for various humidification applications. The individual modules have versatile expansion options and some offer unlimited humidification capacities. Customer-specific combined water treatment systems can handle volumes up to 10,000 litres.

**Flexibility**

All solutions are planned and executed as customer-specific projects. Depending on requirements, a range of nozzle sizes can be selected, as well as different diameters for the high pressure hoses and variable water supply capacities. This guarantees the assembly of a plant system that is precisely tailored to match requirements and on-site conditions.

**Stainless steel for safety**

All parts of ML products that convey water are made from stainless steel. This guarantees a long useful life and uncompromising hygiene. We are ISO 22000 hygiene certified for production, sale, installation and maintenance of humidification systems.

**High pressure – low energy**

High pressure humidification offers low operating costs and reduced cooling costs. The evaporation of water particles in air requires energy of 0.68 kW per liter of atomized water which is taken from the surrounding air.

**Service and safety**

We offer maintenance service contracts to guarantee troublefree system operation. All ML products satisfy stringent hygiene standards. As an extra level of safety, we run bacterial tests on plant during servicing.



ML Princess

ML Solo

ML Flex

MLP RO

**Water treatment**

- UV-light sterilisation (Standard)
- Water softening
- Chlorine removal
- Silt filtration
- Microbiological filtration  
Bacteria filter
- TDS filtration  
Reverse Osmosis 95-98 %  
Double RO > 98 %  
Ion exchange > 99 %



## MLP RO

### **2 in 1**

The MLP RO packages the required reverse osmosis unit and high pressure pump into a single, space-saving system. It is compatible with all ML products. Modules in a range of separate sizes are integrated to match humidification volume – and even high capacity systems require only a single installation footprint. The systems are naturally also available without reverse osmosis, if this feature is not required.

### **High pressure, high quality**

The high pressure pump is manufactured from high-quality stainless steel. It works using water hydraulics and is therefore completely oil-free. This saves on maintenance work and extends product lifetime. We guarantee 8,000 maintenance-free hours of operation for the high pressure pumps. We have delivered systems of more than 10,000 litres an hour.

### **Crystal-clear water**

The reverse osmosis unit fitted to the MLP RO removes minerals from the water supply, ensuring trouble-free and hygienic water fogging. The pores of the membrane used are so fine that they can filter out 95- 98% of all minerals and bacteria.

## ML Princess

### **High capacity**

The ML Princess is suited to large manufacturing and production areas to maintain consistent levels of humidification in very large spaces with high ceilings.

### **A choice of performance options**

Depending on the humidification volume required, the ML Princess can be fitted with 8 or 12 high pressure nozzles. This means performance options can be chosen to ensure the economical matching of volume to requirements.

### **Uniform humidification**

The ML Princess consists of a high pressure ring plus an in-built fan. The fan distributes the moisture within the room to ensure that a uniform level of humidity can be evenly distributed throughout the space.



MLP Solo

**Customised installation options**

The ML Solo high pressure air humidification system offers solutions especially suited to different spatial conditions such as low ceilings or angled rooms.

**Easily adjustable**

The ML Solo 1 and 2 can be attached either to ceilings or walls, and can thus accommodate the individual needs of any interior.

**Targeted humidification**

The ML Solo is fitted with easily adjustable support brackets, which enable precise orientation of the units. Water is directed into the room with high precision and at high pressure. The optimum fan design ensures the humidifying fog is directed precisely into the room and immediately absorbed by ambient air.



ML Flex System

**Direct, zoned air humidification**

ML Flex is impressively easy to install and has very low running costs. Deployment in explosion-secure areas is also possible, since no electronic modules are fitted to the nozzles, thus avoiding both heat generation and sparking.

**Unlimited combination options**

The ML Flex system has a wide range of possible applications, which are modified to suit the individual conditions on site. The system can be mounted onto both walls and ceilings. Since the high pressure nozzles are engineered as T-pieces, they can be adjusted individually to set the nozzles as desired. Humidification volume can be expanded without restrictions.

The ML Flex system is made from high-quality stainless steel.

## Technical details

### MLP RO

|  | MLP RO 100  | MLP RO 300  | MLP RO 500   | MLP RO 800   |
|--|---|---|--|--|
| Humidification performance (l/h)* at 50 Hz     | 100   | 275   | 440  | 750  |
| Dimensions (H x W x D) in mm for pump station  | 860 x 700 x 1600  | 860 x 700 x 1600  | 860 x 700 x 1600   | 860 x 700 x 1600   |
| Dimensions (H x W x D) in mm for external tank | Internal tank   | Internal tank   | 600 x 600 x 995  | 790 x 790 x 1250   |
| Weight (kg)                                    | 125   | 130   | 240  | 270  |
| At 50 Hz                                       | 3 x 400 VAC+GND +N, 1.8KW, 16A or 3 x 230 VAC+GND, 1.8KW, 16A | 3 x 400 VAC+GND +N, 2.5KW, 16A or 3 x 230 VAC+GND, 2.5KW, 16A | 3x400 VAC+GND+N, 3.1KW, 16A or 3x230 VAC+GND, 3.1KW, 20A | 3x400 VAC+GND+N, 3.8KW, 16A or 3x230 VAC+GND, 3.8KW, 20A |
| At 60 Hz                                       | 3 x 208 VAC+GND 1.6KW 16A or 3 x 480 VAC+GND 1.8KW 16A        | 3 x 208 VAC+GND, 2.7KW, 16A or 3 x 480 VAC+GND 2.7KW 16A      | 3x208 VAC+GND, 3.1KW, 16A or 3x480 VAC+GND, 3.1KW, 16A   | 3x208 VAC+GND 4.2KW, 20A or 3x480 VAC+GND, 4.2 KW, 16A   |

\* For potable water

### ML Princess

|                                  | ML Princess 2                  | ML Princess 3                  |
|----------------------------------|--------------------------------|--------------------------------|
| Humidification performance (l/h) | 12 - 36                        | 18 - 54                        |
| No. of nozzles                   | 8                              | 12                             |
| Operating pressure               | 35 – 70 bar                    | 35 – 70 bar                    |
| Operating voltage                | 200 – 240 VAC or 100 – 120 VAC | 200 – 240 VAC or 100 – 120 VAC |
| Power input (W)                  | 75                             | 120                            |
| Weight (kg)                      | 9.2                            | 8.8                            |
| Dimensions (diameter/height)     | 540 / 310 mm                   | 660 / 330 mm                   |

### ML Solo

|                                  | ML Solo 1          | ML Solo 2          |
|----------------------------------|--------------------|--------------------|
| Humidification performance (l/h) | 1.5 – 2.5          | 3 – 5              |
| No. of nozzles                   | 1                  | 2                  |
| Operating pressure               | 50 – 70 bar        | 50 – 70 bar        |
| Operating voltage                | 24 VAC, 50 – 60 Hz | 24 VAC, 50 – 60 Hz |
| Power input (W)                  | 15/16              | 15/16              |
| Weight (kg)                      | 2                  | 2                  |
| Dimensions (H x W x D)           | 180 x 150 x 170 mm | 180 x 150 x 170 mm |

### ML Flex

|                                  | ML Flex     |
|----------------------------------|-------------|
| Humidification performance (l/h) | 1 – ∞       |
| Operating pressure               | 35 – 70 bar |
| Min. distance to ceiling         | 200 mm      |
| Min. fogging zone                | 1,5 m       |