#### ORGANISATION

Cumulus<sup>®</sup> is the market leader for humidification and accompanying water treatment in the Benelux region. Outside the Benelux, we have a global network of partnerships and agents. We are a flexible and innovative organisation, with more than 30 years of experience. High quality and safety are of great importance to us. We specialise in turnkey humidification projects, for both new builds and renovations. With more than 30 employees, our specialist teams know how to use the right humidity to increase efficiency and comfort at your facility. Rest assured that that you will benefit from our systems for a long time.

#### **REQUEST CUSTOM SOLUTIONS**

Do you want to know more about the evaporative humidifier and how it can work for you? We understand that every customer is unique and has different requirements. Our experts will be happy to visit you to assess your situation. Working together we will find the best solution for your company.

Contact us for tailor-made advice.



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## **Evaporative Humidifier**

# CAPACITY COMFORT CONFIDENCE



#### **OUR MISSION**

The right humidity is essential for a productive and comfortable indoor climate. We believe that this is best achieved when the entire process is provided by one party. Starting with advice, engineering, production, installation and ending with preventive maintenance. This way we can offer the best possible solutions for our customers; sustainable, safe and energy-efficient. Our installations can easily be tailor-made for specific projects. It is not without reason that our slogan is: More Capacity, Comfort and Confidence!

# **EVAPORATIVE HUMIDIFIER**

#### SAFE HUMIDIFICATION

It is vital to guarantee the Legionella-safety of your humidifiers. Contamination can have serious consequences. An adiabatic humidifier uses cold water, which may contain Legionella bacteria. If these bacteria are inhaled and enter the lungs, they can cause serious health problems or even be fatal. In addition, recent studies have also shown that unhygienic humidifiers contribute towards an increase in sick leave.

Cumulus<sup>®</sup> humidifiers are designed according to the latest insigths. Guidelines like the VDI 6022 and the Dutch ISSO 55.3 are integrated in the design and operation.

#### SAVING ENERGY BY ADIABATIC COOLING!

Adiabatic cooling saves a large amount of electrical power used by mechanical cooling. As such the technology is promoted by subsidy programs like the German BAFA.



#### WHY HUMIDIFY?

Dry air can significantly affect businesses. When the humidity is low, viruses and bacteria spread more easily, increasing the likelihood of employees falling ill. Additionally, dry air can lead to various discomforts, including concentration issues, headaches, dry eyes, respiratory infections, and irritability. Beyond these physical symptoms, dry air can also negatively impact materials, products and equipment. Maintaining an optimal humidity level helps create a comfortable, healthy, and productive work environment.

	Evaporative humidifier
Cooling capacity	Example: 100 l/h = 68 kW cooling capacity
Width and height	No limit
Cassette thickness	75/100/150/200/300 mm
Material	Stainless steel casing, glass fibre pad
Humidification capacity	No limit
Suitable for Use with AHU	Yes
Control panel	Optional
Water level sensor	Optional
Drainage outlet	Yes
Droplet eliminator	Optional
Flow meter	Optional
UV filter	Optional
Water usage	Direct water and circulating water possible

#### **EVAPORATIVE HUMIDIFIER**

The evaporative humidifier is a compact humidifier designed for air handling units (AHU's) with a short humidification section. It requires minimal space for water evaporation, making it easy to integrate into such AHU. The humidity level is increased as the humidifier evaporates water into the air.

The evaporative humidifier helps you achieve and maintain the optimal humidity levels for your building. Due to the cooling effect of the evaporated water, the evaporative humidifier can also be used for adiabatic cooling. The Cumulus<sup>®</sup> evaporative humidifier can be combined with a reverse osmosis (RO) unit for Legionella safety.

- Ideal for AHUs with a short or even absent absorption trajectory
- Can also be used for adiabatic cooling
- Easily installed, dismantled, and maintained
- Low operating costs
- High yield
- No height or width limits
- No humidification capacity limits
- Direct water and recirculating water options



## INDIRECT ADIABATIC COOLING

Higher summer temperatures are becoming increasingly common. When combined with heat-producing machinery, the temperature in your building can become very high, resulting in an uncomfortably warm climate. Adiabatic cooling reduces the air temperature inside the building by evaporating water, which cools the air. This technology can be applied indirectly via the air handling unit, where the adiabatic cooling takes place in the return air flow. A heat exchanger then returns the cold to the ingoing air flow. The excess heat produced by the machinery can be utilised for the evaporation process. Our adiabatic cooling is always combined with a reverse osmosis (RO) unit in order to ensure Legionella safety.

#### **ADVANTAGES**

- Energy-efficient
- Can be used as cooling unit
- Ideal for heat-generating machinery
- Legionella-safe humidification