



## COOL AND CONVENIENT OUTDOOR CLIMATE

Shading and cooling  
for hot and dry areas



**MDT-tex**<sup>®</sup>  
Membranes & Structures

 **condair**

# Umbrellas with Evaporate Cooling

38°C, 10% RH

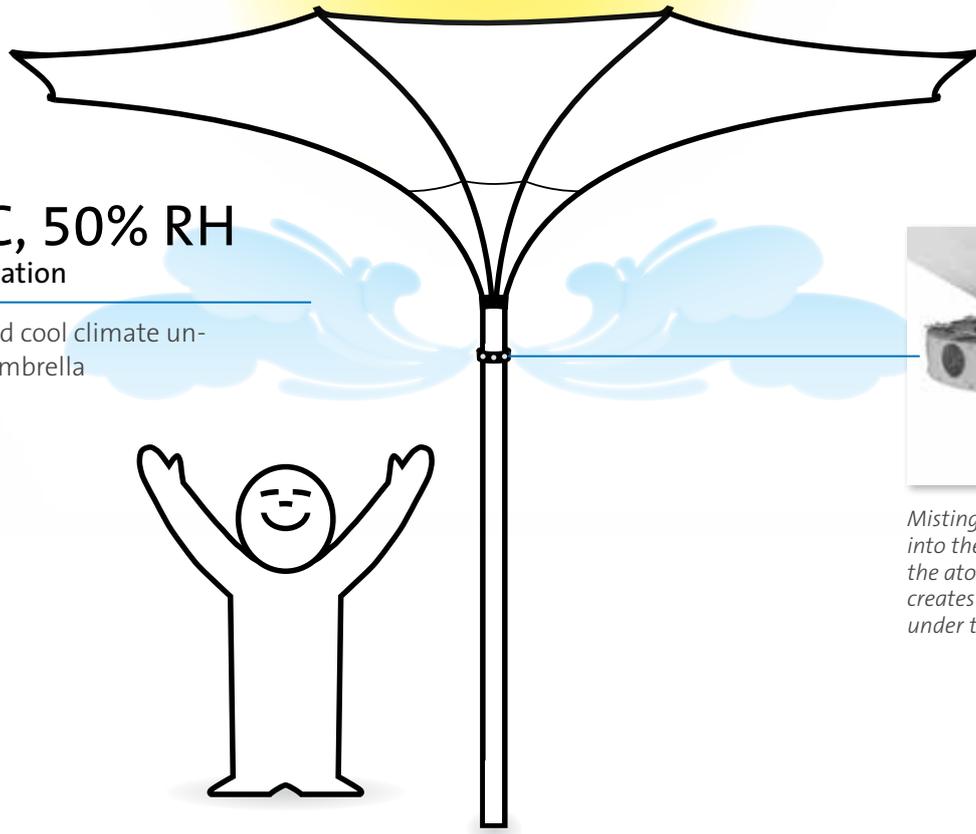
High radiation

Hot and dry

25°C, 50% RH

Low radiation

Shade and cool climate under the umbrella



*Misting unit integrated into the mast, distributes the atomized water and creates a cloud of cool air under the umbrella.*

## Small umbrellas in standard sizes

Size	Misting capacity per umbrella	Cooling capacity per umbrella
4 x 4 m	8 L/hr	5,4 kW
5 x 5 m	10 L/hr	6,8 kW
6 x 6 m	15 L/hr	10,2 kW

## Big umbrellas in standard sizes

Size	Misting capacity per umbrella	Cooling capacity per umbrella
8 x 8 m	36 L/hr	24,5 kW
10 x 10 m	48 L/hr	32,6 kW
12 x 12 m	72 L/hr	49,0 kW



## Models Telescope and Tulipe

### Shading and cooling

- Shading and integrated adiabatic cooling in one unit
- Umbrellas with long lasting PTFE membrane in different colors
- Cooling with clean, safe and mineral free fresh water
- High quality materials all the way through - long lasting solution
- Low running and maintenance cost - stainless steel pump and nozzles
- Standard and Customized solutions in different shapes and models
- Service and maintenance programs included



### The Telescope

The telescopic umbrella, one of the most important models in the MDT collection, is available as standard with spans up to 16 meters. The structures can be designed to withstand wind speeds of up to 130 km/h for particularly windy areas. The cover is easily replaceable, is made up of individual textile segments specially coated to withstand exposure to sunlight and rain.



### The Tulip

The elegant tulip-shaped umbrellas can be set up as standalone design or in a group. Strong structural and membrane elements allow their usage in extreme weather conditions. Rainwater flows off between the mast pole and an adapted cladding and can be drained either into the ground or, in the mobile version, above ground, depending on situation.

*Now you can use the outdoor area - even on hot and sunny days*

#### Hygiene and Legionella:

It is important to ensure that the water used in any misting systems is clean and free from bacterias. Condair offers a full serviceprogram, where the system is maintained and tested for bacteria two times per yemation on hygiene and Legionella.

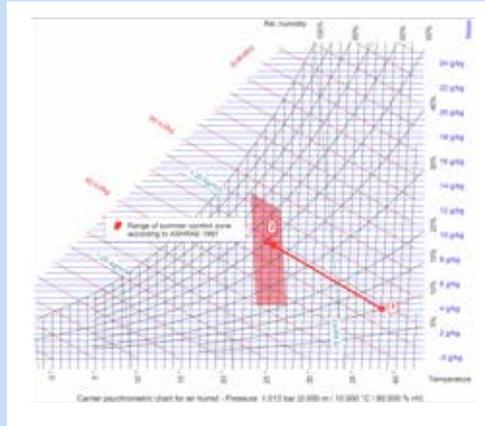


The evaporative cooling effect is achieved by atomization of pure, clean fresh water. The water is treated in a Reverse Osmosis cleaning process, where all salts and minerals are removed before it passes through a UV system, and is pumped out under high pressure to the misting units on the umbrellas. The units meet the highest hygiene standard on the market, and ensures that the evaporated water is always safe and clean. The combined water treatment and high pressure units are built in high quality materials according to ISO 22.000 Hygiene Management System, and ensures many years of trouble free operations. The full system is risk evaluated and meets international hygiene standards, like e.g. L8, ASHRAE 188 etc.

**Low Energy consumption:**

Evaporating water using high pressure is super efficient and requires only a minimum of energy. The cooling effect achieved with evaporating 100 L of water is as high as 68 kWh. The energy efficiency ratio (EER) is minimum 30, depending on the size of the complete installation.

*Each pump system can be used for several umbrellas!*



*Example of adiabatic cooling: By increasing the absolute humidity in the air with 5 grams of water per kg of air, the temperature will drop from 38 °C to 24,5 °C. The evaporation of water absorbs energy from the air and the temperature goes down. The relative humidity is increased from 10 to 50 %RH.*

## Shading and cooling for hot and dry areas. A cooperation between MDT-Tex and Condair

**MDT-Tex**

MDT-Tex is a German family owned company, founded in 1990.

MDT designs, manufactures, and supplies innovative, high quality sun protection systems, membrane constructions, and custom made products for outdoor textile architecture to customer all over the world.

The company carries out the entire production process in its own cutting edge factories at international locations. This guarantees the highest quality for innovative products and ensures absolute supply security.

Yearly, around 40.000 umbrellas in different sizes and designs are manufactured and sold to high end customers providing shading and sun protection for millions of people every day.

**Condair Group AG**

Condair is a Swiss family owned company founded in 1948.

Condair is the leading manufacturer and provider of complete solutions in the areas of humidification and evaporative cooling, with a comprehensive portfolio including products, services, experience and know-how.

Our main brands, Condair and Nortec, sets the standard for innovative, energy-efficient and hygienic solutions. Today, with approximately 600 employees, we operate production sites in Europe, North America and China, are represented in 15 countries by our own sales and service organizations and supported by distribution partners in more than 50 locations worldwide.



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