VDL Industrial Products

Part of your solution

UMID

The UMID system is a fogging system with high-quality patented nozzles that can be adapted to any specific application. For example, complete systems for poultry farming, horticulture and industry are put together and delivered worldwide.

Adiabatic cooling

Adiabatic or evaporative cooling is based on a physical principle. By generating a fog from liquid (water) it evaporates into the air. Evaporation by changes in temperature requires energy that is extracted from this air. You undoubtedly have experienced this when you were standing in the wind with a wet body or when you got out of the shower. Although it may be relatively warm, this still feels very cooling as the water extracts energy (heat) from your body in order to evaporate. That's why people sweat when it is hot, regulating our body temperature is adiabatic cooling process.
The drier the air, the better adiabatic cooling by evaporation functions.

Imagine a relative humidity from 60% at a temperature of 25°C. With the fogging system, the RV value can be increased to 95% by adding water to the air. The temperature of the air cools to about 20°C.

Other additional benefits of the fogging system are also recognized. For example, it suppresses dust and provides less odour nuisance and can be used in poultry farms without wetting.

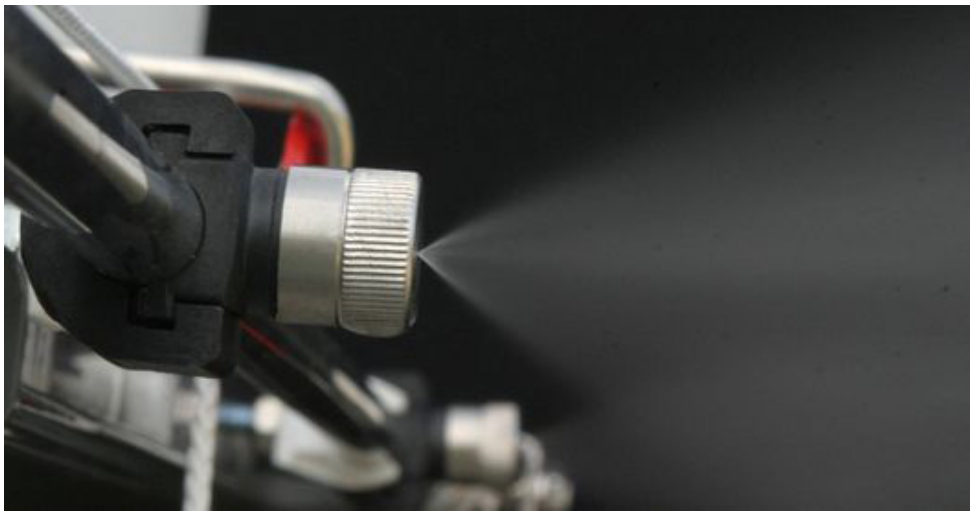
UMID principle, the nozzle is the key!

The UMID system works with a unique patented nozzle design. Fogging system whose nozzles produce too large or inhomogeneous (uneven) droplets work less efficiently.
So the nozzle is the key. The UMID nozzle is based on the Torndo principle, whereby water is put into a rotating movement with a very high rotating speed. The high kinetic energy while exiting make the droplets spread very finely and homogeneously. This high precision manufactured nozzle guarantees an optimal spray pattern tailored to your requirements.

After all, the fog needs to evaporate in the air. The aim is to effectively extract heat (energy) from the air by increasing the relative humidity by optimal exchange surface of the microscopic water droplets. Clogged nozzles will hinder the process. That's why VDL thinks the nozzles are that important.

The rotation in the UMID nozzle exceeds three times the speed of the sound and thus provides the finest homogeneous atomization at the lowest possible pressure.
The high-quality materials and precision technology guarantee a long and largely maintenance-free use. Unlike conventional nozzles, the VDL's unique design prevents the blockage of the spray channel.
The rotating disk in the nozzle protects against wear and tear, which can be caused by contaminants or hard water, among other things. This guarantees a long life with minimal maintenance costs. The best part is that this nozzle design can operate with a lower power consumption compared to other systems and with that you have your first profit!

UMID



UMID nevelsystemen

- Dust and odour control
- Humidification
- Adiabatic cooling
- Disinfection
- Special effects

UMID nozzles range with flow rates 3l / 5l / 8l / 20l basic capacity per hour.

Nozzle chamber : stainless steel 316L
Nozzle body : Grivory HTV-5HV1

Applications

- Industrial cooling applications such as condenser cooling
- Greenhouse horticultural applications
- Cooling of stables
- Public (event) cooling, working conditions

Benefits UMID:

- Low energy consumption compared to other systems
- Unique patented nozzle design gives the highest efficiency
- Lowering the air temperature to 10°C
- 100% leak proof stainless steel piping with TÜV approval for pressure
- Tailor-made delivery by VDL IP engineering
- Complete skid construction

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