

# MicroCool®

## Fogging Solutions



**MICRO  
COOL**



TM

## Humidification with high-pressure fog

**The proper control of humidity levels is very important to successful production and quality control.**

High levels of static electricity (caused by dry air) affect production levels and output. In some cases, it can promote flash-fire outbreaks causing untold damage to plant and material.

Optimized humidity levels are required for many types of storage including food stuffs, wood, textiles, paper etc.

MicroCool® high-pressure fog systems deliver micron sized droplets which float in the air and flash evaporate to quickly

increase humidity levels.

The smaller the water droplets, the larger the evaporation surface exposed to the dry air. Extremely small droplets (1/10th the diameter of a human hair) developed in the MicroCool® system promote almost instant “flash evaporation.”

An interesting and useful byproduct is the resulting adiabatic cooling effect created by the evaporating droplets. Large amounts of heat energy are quickly removed from the surrounding environment and can be an economical source of people or process cooling.

# MicroCool® Humidification Systems

For textiles, woodworking, paper mills, printing, wine barrels, tobacco and factories.

## The System Concept

- ▶ MicroCool® patented nozzles are dispersed evenly through the warehouse at ceiling level. Humidity is delivered equally through out the building.
- ▶ By distributing nozzles evenly throughout the building (rather than in one place), humidity levels are more even across the room.
- ▶ 10 micron sized droplets of water quickly evaporate into the air eliminating any potential wetting.
- ▶ Precision sensors allow the control of humidity up to 95% RH without wetting. Equipment can provide alarms and outputs for an overall monitoring of the system performance.
- ▶ Control of humidity levels to the “optimum zone” (between 40 – 60%) increases worker productivity, health and comfort with less “sick days” from medical ailments.
- ▶ Higher nozzle densities allow the system to “pulse” and gradually approach the set point.
- ▶ Adiabatic Cooling (from the flash evaporation of the fog droplets) gives localized cooling (where required) to keep employees and operators comfortable in summer.
- ▶ Accurate humidity control prevents weight loss and product deterioration from lack of moisture.



## Delivery Equipment

- ▶ Patented nozzles have a 0.008” (0.2mm) orifice and are used in the majority of applications. Special nozzles with 0.020” (0.5mm) orifices are used to concentrate the fog in problem areas.
- ▶ Stainless Steel nozzle lines or flexible nylon lines allow for easy installation and system maintenance.
- ▶ High-pressure (1000 psi / 70 bar) water is provided by MicroCool® UL listed pump models.
- ▶ Specialized water treatment systems are available to ensure hygienic water is delivered throughout the MicroCool® system.
- ▶ Reverse osmosis systems keep harmful minerals from precipitating on the product and greatly extend the system life.
- ▶ MicroCool® humidity control systems can easily integrate with the building management system (BMS).
- ▶ A full range of accessories, installation and service options is also available.



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