



# Why high pressure direct room humidification?

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Nortec is the leader in design and engineering of customized direct room humidification and evaporative cooling solutions to fit your facilities operation.

High pressure humidification offers low operating costs, reduced cooling costs and requires minimal maintenance. We provide the highest quality products and services to a wide range of industries in production facilities and office environments to maintain consistent relative humidity levels.

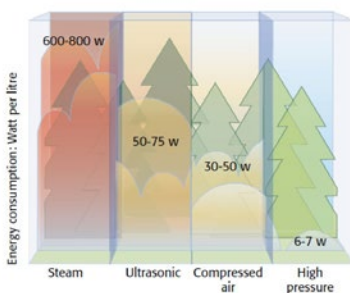
## How does high pressure humidification work?

Water is atomized into micron-sized particles which are immediately absorbed into ambient air. Systems are internally controlled to monitor facility humidification zones and respond accordingly, 24 hours a day, to maintain the desired levels of humidity. Typical range of operation is  $\pm 2\%$  from Relative Humidity setpoint regardless of environmental conditions. Humidification distribution equipment is matched to the characteristics of the facility to assure 100% evaporation of moisture. Energy incentives are often available for replacement of older, less efficient humidification technology.

## How does high pressure humidification reduce energy consumption?

High pressure humidification not only saves energy compared to other technologies, it's an environmentally conscious solution. The evaporation of water particles in air requires energy (0.68 kW per liter of atomized water) which is taken from the surrounding air. This process decreases the temperature of air while increasing the relative humidity.

In operations with mechanical cooling, reductions of air conditioning can be significant. Free cooling environments, such as computer data centers, realize lower energy consumption for cooling, lower PUE's and a decrease of their carbon footprint.



*In most cases, replacement of an existing traditional humidification system with adiabatic provides profitable, rapid investment returns – often in less than 18 months.*



## High pressure solutions for all applications

Effective humidity control is critical in many industries to create consistent conditions for operational production and processes.

Natural conditions cause humidity levels to fluctuate depending on the season and outside air characteristics. Humidity levels below optimum negatively influence operational efficiencies and indoor air quality. Nortec's high pressure direct room humidifiers can give your industry the following benefits:

### Optimum Performance

- Printing and Packaging – paper dimensional stability and static control
- Electronics – ESD reduction
- Data Centers – energy efficient evaporative cooling, ESD reduction and low PUE's
- Wood – moisture loss, cracking and warping prevention plus dust control
- Horticulture – creates proper and consistent growing environment
- Nonwoven Textiles – static control, dust suppression and improved fiber adhesion
- Food Industry – prevents moisture loss, product weight loss and improves shelf life
- Tobacco – maintains internal moisture level improving yield
- Office and Comfort – reduces skin and eye irritation plus improves employee health and wellness
- Medical Technology –consistent RH control in multiple zone configurations, ultra-clean water and cost effective retro-fits

# Solutions



Multiple humidification modules are available to fit your facility's design. Based on the size of an area, ceiling height and air exchange rate, we will recommend a customized solution to meet your needs.

## Draabe-Series



High pressure pump



NanoFog



TurboFog Neo1



TurboFog Neo 2x2



TurboFog Neo8

## ML-Series



High pressure pump



ML Princess



ML Solo



ML Flex System

As the leading manufacturer of commercial/industrial humidification systems for more than 40 years, Nortec has the technology and application expertise to meet the needs of any application.

**Contact us today and ensure you have the best humidification solution for your application.**

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