



## NONWOVEN TERMS

For the informed employee

# Humidification

Nonwoven production lines run best when the relative humidity is in the 55% to 65% range. Usually this means adding humidity to the plant atmosphere and/or the fiber. This can be accomplished in three ways:

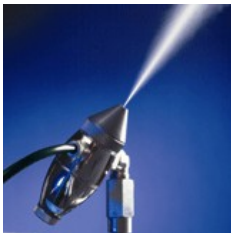
1. Install humidification equipment as part of the general plant air conditioning system.
2. Install humidification equipment in areas of the plant where production lines are located.
3. Install equipment that will provide humidity to the fibers.

The first method is the best but is very expensive to install and operate. Many plants do not have air conditioning systems for the entire plant.

The second method is commonly used. Equipment used are fans that spray water into the air, rows of nozzles that used compressed air to atomize water, and pressure systems that use special nozzles to produce very fine mists or fogs.

The last method is most cost effective and usually consist of a high pressure water system connected to fogging nozzles. The nozzles are located near or inside fiber handling equipment. The nozzles are turned on and off by solenoids so that the humidification fog is applied only when fiber is being processed.

All the systems require diligent maintenance and good filtration to operate properly. Humidistats which sense the amount of humidity in the air can be used for automatic control.



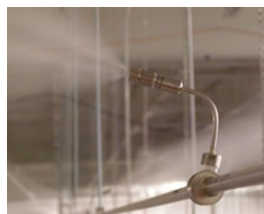
COMPRESSED AIR AND WATER NOZZEL

Photo Credit: <http://www.jshumidifiers.com/jetspray-the-worlds-leading-air-water-atomising-humidifier-436-details/>



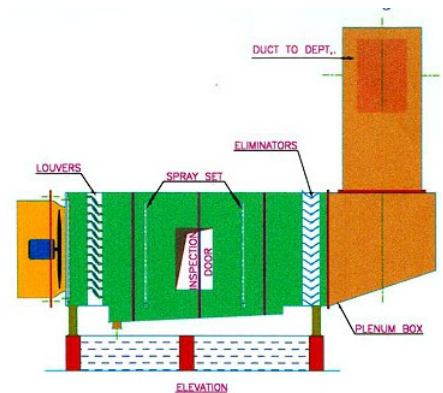
FAN WITH NOZZELS

Photo Credit: <http://www.airandwatersystems.com/ArcticMist.html>



SINGLE HIGH PRESSURE WATER ONLY NOZZEL

Photo Credit: <http://www.airandwatersystems.com/CoolMist.html>



CENTRAL TYPE AIR WASHER

Photo Credit: <http://www.excelair.co.in/minihumidificationplant.html>

“Moral excellence comes about as a result of habit. We become just by doing just acts, temperate by doing temperate acts, brave by doing brave acts.”

Aristotle

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