



Why humidify?... For Wind Energy

Ensuring proper humidification in your facility will improve production output, elevate product quality and ultimately, boost ROI

- Improve curing rates & manufacturing yields
- Lower process generated dust levels
- Enhance paint & coating quality
- Reduce static build up & ESD

The wind turbine and or blade component manufacturing process requires effective humidity control to operate efficiently. Insufficient humidity can impair coating applications and curing rates, resulting in damaged components, waste and decreased production output. Improve production output, elevate product quality and boost ROI with improved humidification control in your wind turbine and / or blade component manufacturing facility.

Improve Manufacturing Process Efficiency

Ensuring ideal humidity levels throughout the manufacturing process is integral to product quality and output efficiency. The final product yielded through the manufacturing process is affected when additional components, parts or materials are required due to broken, damaged or inoperable items caused by incorrectly controlled environmental conditions. Conversely, when equipment is correctly manufactured throughout the normal process, waste levels decrease and products are completed and shipped in accordance with the designated build of materials and targeted time frame. Quality of product and efficiency in wind turbine and /or blade component manufacturing is delivered with a controlled indoor environment of 40-60% RH. This provides the ideal environment for proper curing and component consistency, which ultimately leads to higher yields and less waste on behalf of the manufacturing facility.



**Our
Wind Energy
Manufacturing
Customers Include:**

**LM Wind Power
Siemens
Vestas and GE**

Improve Dust Suppression During Sanding Process

Inadequate humidity escalates the development of dust and the intensity of dust swirl in indoor spaces. Maintaining an adequate humidity level throughout your production facility ensures that the dust in the air is enclosed in a film of water. The dust particles absorb the humidity in the air and fall to the ground, where they can be removed with ease during normal cleaning processes. Suppress dust during sanding operations by maintaining a consistent humidity level of 40-60% RH throughout your facility. A correct humidification level lowers the risk of dust explosions for dust from combustible materials. Adequate humidity cleans the air of dust faster, reducing the risk of fine dusts in the air, which can cause potential problems to your employees if inhaled and can undermine the production of your products.

Consistent Quality During Paint Application

Paint and coating applications require specific temperature and RH requirements. Proper humidity is required for effective adhesion for coatings requiring a controlled electrostatic charge. Economic and environmental imperatives such as waste reduction, overspray control, particulate recovery and solvent reduction mean that electrostatic paint and powder coating is now very widely used. The process is dependent on maintaining consistent humidity levels. By ensuring an

ideal environment of 70% RH throughout your facility, you will be able to better maintain consistent quality during paint and coating application.

Eliminating Static in Electronics Assembly

Electrostatic discharge (ESD) occurs with the sudden flow of electricity between two electrically charged objects coming into contact with one another. When objects holding different charges come into contact, or when the dielectric between them breaks down, a visible spark can be triggered, which can damage electronics and pose safety concerns for facility operations. Maintaining a consistent humidity level between 40-50% RH lowers surface resistance on manufacturing equipment and products, as well as on communal areas including floors, carpets, table mats and other susceptible areas.

Effective humidity control poses a long list of benefits for wind energy manufacturing:

- Increase production output and productivity
- Boost ROI of facility production and operations
- Maintain and improve product quality
- Improve facility and operations safety
- Decrease waste from damaged components

Condair manufactures a comprehensive range of humidifier and evaporative cooling systems across all humidification technologies. Whether for manufacturing or storage facilities, Condair's humidification engineers are able to provide the right solution to meet the needs of every environment.

Effective humidity control poses a long list of benefits for wind energy manufacturing including increasing production output and productivity, boosting ROI of facility production and operations, maintaining and improving product quality, decreasing waste from damaged components, and improving indoor air quality for employee health.

Contact us today and ensure you have the best humidification solution for your wind turbine facility.