



## Why humidify?... For Aerospace

Ensure product quality and production efficiency with effective humidification

- Quicker production cycles
- Reduce material waste
- Increase safety and aircraft flying time
- Improve profits

The manufacturing process for the aerospace industry relies heavily on a regulated humidity level of between 40% - 60%. Insufficient and excessive humidity can cause damage and defects to electronic components, and can provide an insufficient curing environment for composites, sealants, coatings and welding. Humidity levels outside of 40% - 60% RH can also pose safety concerns in your facility and in the field due to electrostatic discharge. Ensuring proper humidification in your aerospace manufacturing facility will improve production output, product quality and increase aircraft flying time.

### **Humidity Control Ensures Safety for your Aircraft While in Flight**

Maintaining humidity levels of between 40% - 60% in your aerospace manufacturing facility will ensure you are manufacturing a product that meets safety standards. Failure to meet this humidity criteria can cause equipment to be susceptible to electrostatic discharge which can cause electronic components to fail in the field. Safety of an aircraft can also be compromised when parts of the aircraft are manufactured in an environment with insufficient humidity causing the parts to warp, be brittle, and have compromised finishes. When aerospace parts are compromised these parts may not withstand the intense environment that aerospace vehicles can encounter in the field which can then result in malfunction causing safety concerns for those in flight.



**Our Aerospace Customers Include:**  
**NASA - Boeing**  
**Lockheed Martin - Bombardier**  
**Embraer - Orbital ATK**  
**Honeywell - Spirit**  
**Northrup Grumman**

**Humidity Control for Manufacturing of Avionics and Electrical Components**

Maintaining correct humidity levels of between 40% - 60% RH will reduce electrostatic discharge (ESD) which can cause expensive electronic failure to avionics and can pose safety concerns for facility operations. Proper humidity levels also contribute to the effectiveness of wave soldering and surface-mount technology (SMT) processes. Without sufficient humidity, solder paste can dry out and components within electronics can become brittle, causing broken components or damage that could lead to malfunction or failure to perform in the field. Ensuring consistent humidity decreases electronics failure, improves flight system safety, and ensures schedules are adhered to and deliveries are met.

**Humidity Control for Paint and Coating Applications for Aerospace**

When painting aircrafts, the process requires reduced static and tight environmental conditions to create an even coat. Maintaining humidification between 40% - 60% is ideal for paint adherence. As well, without proper humidity, paint can evaporate in the air, can dry prematurely or unevenly and can cause color

discrepancies. All of these issues can lead to increased labor and material costs and can cause delays to the delivery of the final product

**Other Considerations for the Aerospace Industry**

Parts, storage, and machining need special humidification for consistent quality and productivity to reduce corrosion, maintenance, and the need for on hand replacement parts. Ensuring proper humidification results in less downtime and increased aircraft flying time, the need for fewer spare parts, improved on time delivery, and safer aircrafts.

**Benefits of humidity control between 40% - 60% for aerospace manufacturing include:**

- Increase production output and productivity
- Lower rework rate resulting in less waste
- Boost ROI of facility production and operations
- Maintain and improve product quality
- Improve on-time deliveries
- Increase safety and aircraft flying time



DL-Series Evaporative Cooling / Humidification



HP-Series High Pressure Humidification



DR-Series ML Direct Room Humidification



DR-Series Solo Direct Room Humidification

**Why Choose Nortec For Your Aerospace Facility?**

Nortec manufactures a comprehensive range of humidifiers and evaporative cooling systems across all humidification technologies. With years of experience working with manufacturers, paint spray booth environments, air handling unit (AHU) manufacturers and with end users, Nortec's humidification engineers will provide the right solution to meet the unique needs of your aerospace facility.

**Contact us today and ensure you have the best humidification solution for your aerospace manufacturing facility.**

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