

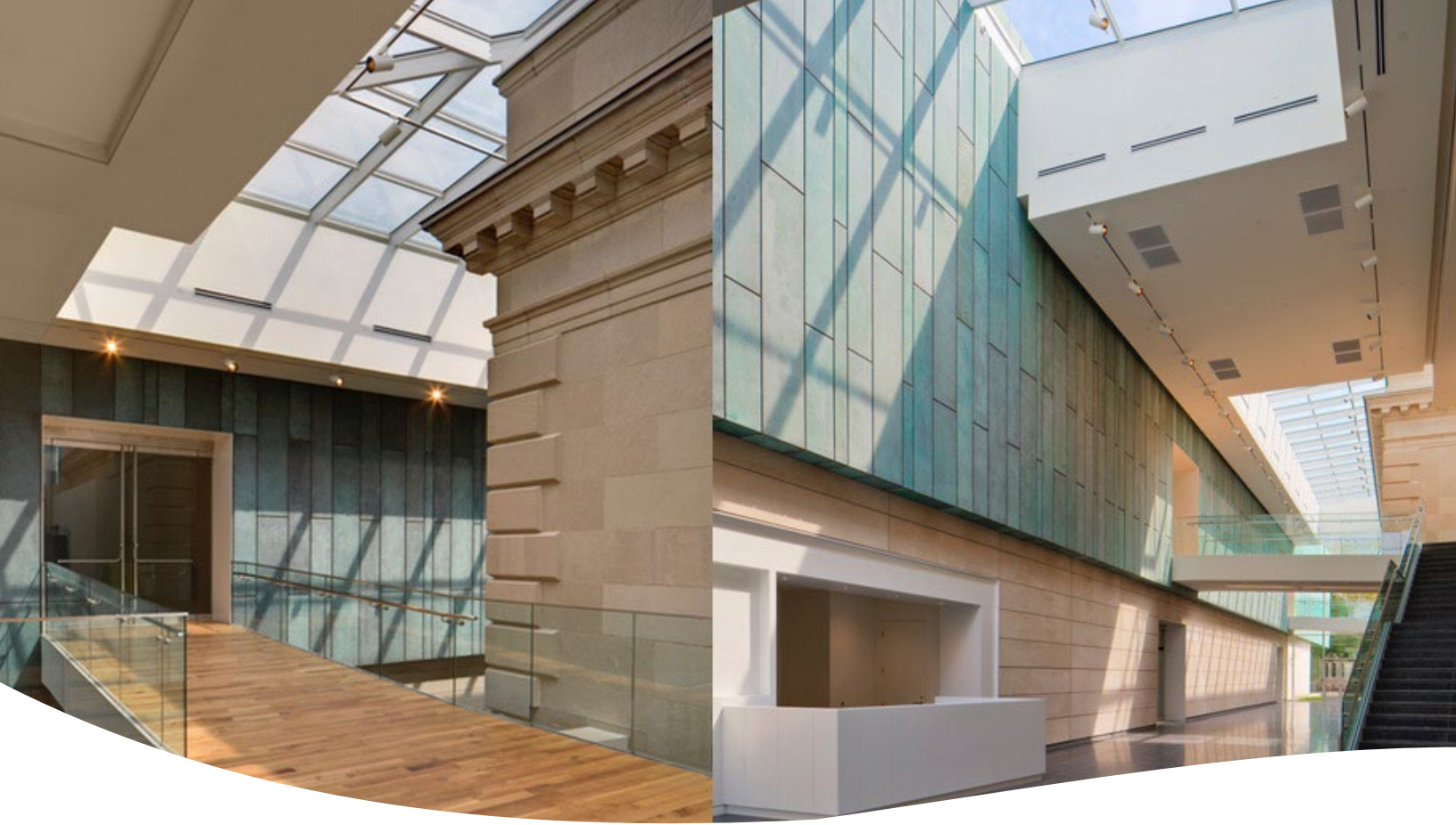


CASE STUDY

## Museums and Art Galleries

Nortec Humidifiers Play A  
Precise Role In One Of The Best  
Architectural Projects of 2015

Humidification and Evaporative Cooling



## The expansion of the Columbus Museum of Modern Art in Ohio was a welcome opportunity for Nortec's resistive steam humidifier to prove that it's the right choice for critical applications.

While many people who visit the new Margaret M. Walter Wing do so because of their appreciation for works of art in a unique esthetic setting, museum staff and the people who built the wing know its humidification system plays no small role in creating the quality experience that the Columbus Museum of Art prides itself on.

Choosing the right humidification system was of vital importance to the museum, considering its walls are adorned with priceless paintings from world-renowned masters such as Picasso, Matisse and Degas. Like most major museums, the Columbus Museum maintains its relative humidity within a narrow range to ensure the preservation of its collection and for the comfort of visitors.

Nortec's agent in Columbus, OH, Environmental Comfort, teamed up with Limbach Company, an experienced mechanical contractor; the two companies worked together to give the Columbus Museum of Art a precise humidification solution.

“The RS humidifier’s versatility was ideal for the Columbus Museum of Modern Art...”



“Limbach is one of the most experienced and respected mechanical contractors in Columbus”, said Chuck Blythe, a sales engineer with Environmental Comfort. “Partnering with them is the reason this job was such a success for the Museum and their construction team”, added Blythe.

### **The Challenge**

Both Environmental Comfort and Limbach initially knew this application had a few challenges, and that they needed a precise and reliable solution.

What made this project especially challenging was that the new 50,000 square-foot Margaret M. Walter Wing, which opened to the public in the fall of 2015, required a total of 19 humidifiers for five different zones – and they all had to fit into very tight spaces in cramped mechanical rooms.

The Museum already had a number of Nortec products in use. The Owner actually preferred Nortec humidifiers, due to their past performance and reliability. Knowing this, and knowing the project constraints was key in discussions with the consulting engineer.

Given his ample experience with Nortec’s humidifiers in a wide range of applications, Chuck recommended Nortec’s RS Series resistive humidification system. He explained his reasons to the project’s consulting engineer, and received the go-ahead to proceed with Nortec equipment in his bid for the museum’s humidification system. Nortec’s bid was a winner, with Limbach choosing Nortec’s RS humidifier for its zero clearance and precise control.

### **The Perfect Solution**

A museum can only acquire priceless artwork if it can guarantee precise and consistent humidity levels like Nortec’s RS Series resistive humidifier can provide. Resistive humidifiers create steam through the transfer of heat from the resistance heater elements to the water. Steam output is controlled by applying more or less heat to the water rather than controlling water level or conductivity. This results in more accurate humidity control.

“Resistive element humidifiers offer the highest accuracy and performance for humidity critical applications”, says Andrew Paterson, Nortec Application Manager.

The RS was the perfect solution for the museums tight mechanical room as its design allows for zero service clearance requirements on both left- and right-hand sides of the steam generator.

# Why Humidify For Museums

Museums require precise humidity control and fluctuations in humidity caused by external factors, such as the weather or the number of visitors inside the museum, can be a major problem for museums. Fluctuations that occur repeatedly over a short period of time tend to cause the most damage to art objects, as the materials they are made of do not have enough time to acclimatize. The key objective of a humidification system, therefore, is to buffer or prevent any rapid environmental changes that may occur and create stress within art objects. Since humidity can fluctuate frequently and dramatically on a daily basis, museums must be able to control the environment around their exhibits on a 24/7 basis. This requires constant operation of a humidification system which needs to be reliable and responsive.

“The RS humidifier’s versatility was ideal for the Columbus Museum of Modern Art, because temperature and humidity has to be adjusted for each zone, depending on the art,” says Chad Tassin, a commissioning manager with Limbach, the mechanical contractor for the museum’s expansion project.

The museum’s Margaret M. Walter Wing, is a stunning, two-story, modernist structure made with pre-patinated copper, Indiana limestone and curtainwall glazing. The wing was built in the \$37.6-million, third and final phase of the museum’s multi-year transformation. The final phase in the renovation was named as one the best architectural projects of 2015 by the Wall Street Journal.

When you need humidity for museums and art galleries, you can count on Nortec.

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 electronics facility.**

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