



## Museum maintains proper humidification levels, utilizes on-site gas with gas-to-steam humidifier.



As a creature bound to earth by gravity, man has always had a fascination with the ability to fly. The Glenn H. Curtiss museum in Hammondsport, New York is dedicated to preserving the history of flight. Rooms are filled with artifacts dating back to the first flight of Glenn H. Curtiss 1908, which was the first official, pre-announced public flight in the United States.

Visitors can take a trip back in time to the early days of flight – viewing actual aircraft, as well as replicas and objects that are a part of the history of aviation. But what the observer of these historical objects won't see is that the preservation of artifacts in this institution was once in danger due to a lack of proper humidification.

### The importance of maintaining proper humidification

The Curtiss museum is filled with hundreds of objects containing a variety of materials (wood, canvas, fabric and paint) that are subject to cracking, chipping, peeling and distortion without proper humidity levels – ideally 40% to 60% relative humidity (RH). When the Curtiss Museum opened, a humidification system was not installed, and the RH level hovered between 3% and 10%. Jim White, the museum's engineer, knew that he needed to maintain humidification at an RH level of at least 40% with minimal fluctuation ( $\pm 3\%$ ) – or jeopardize the preservation of the museum's contents.

### Meeting the museum's specifications and budget

Jim White had specific objectives in choosing a humidification system. "My first consideration was to find a system that could handle a large area, yet fit in the limited floor space I had available," said White. He looked at several options including an electric humidifier with disposable cylinders. But, according to White, "I knew that would be both expensive to operate and maintain." The local DRI-STEEM representative, Brian Williamson of R.L. Kistler,

*The Glenn H. Curtiss Museum utilizes a DRI-STEEM GTS gas humidifier to preserve historical artifacts and reduce energy costs.*

**"The GTS from DRI-STEEM has met all of my expectations."**

— Jim White, Curtiss Museum Engineer



*After installing a DRI-STEEM GTS humidifier, Jim White can confidently report that the museum consistently maintains the RH levels necessary to preserve the museum's sensitive artifacts.*

DRI-STEEM Corporation designs and manufactures humidification systems and accessories for commercial, industrial, institutional and light commercial applications. Our engineering and design expertise, proven performance and local representative network guarantees a humidification system designed to meet any application need. To find your local DRI-STEEM representative, or learn more about the GTS gas-to-steam humidifier, visit [www.dristeem.com](http://www.dristeem.com)

suggested a steam-to-steam humidification system. This system provides chemical-free steam to the space and, because it uses boiler steam as the heat source, it has very low energy costs. There was just one problem: the museum did not have a boiler. "We knew the steam-to-steam product would work for the museum, but in order to operate the system, they would have to invest in a boiler," Williamson said, "and we just didn't want them to have to make that extra investment."

Since the museum had natural gas as an energy source, Williamson told White about the DRI-STEEM GTS gas-to-steam humidifier. The GTS could provide chemical-free, low cost humidification with the control the museum required and fit in the space allotted, without adding any additional equipment. "What excited me most about the GTS was the fact that it was a direct-fired, stand-alone unit that could be provided with an area-type steam distribution system designed to distribute steam in large spaces without duct work," said White. "And, I was certainly excited about the lower energy costs we would incur by using natural gas instead of electricity."

### Meeting humidification demands

"The GTS from DRI-STEEM has met all of my expectations," said White. "I thought we may need to add one more unit to humidify the 2,000 cfm (cubic feet per minute) continuous outdoor air supplied by our rooftop air conditioners. But we're up and running at ideal RH levels and the single GTS is performing beautifully."

Now Jim White can claim with confidence that the artifacts in the Glenn H. Curtiss museum are being preserved for future flight history enthusiasts. Thanks to DRI-STEEM's GTS humidifier, visitors can continue to explore their fascination with man's ability to fly, and see firsthand the history of aircraft at the Glenn H. Curtiss museum.

## **DRI-STEEM**<sup>®</sup> The humidification experts

14949 Technology Drive  
Eden Prairie, MN 55344  
800-328-4447 • 952-949-2415  
fax 952-229-3200  
[sales@dristeem.com](mailto:sales@dristeem.com)  
[www.dristeem.com](http://www.dristeem.com)

European office:  
Marc Briers  
Grote Hellekensstraat 54 b  
B-3520 Zonhoven  
Belgium  
+3211823595 (voice)  
+3211817948 (fax)  
[marc.briers@dristeem.com](mailto:marc.briers@dristeem.com)

