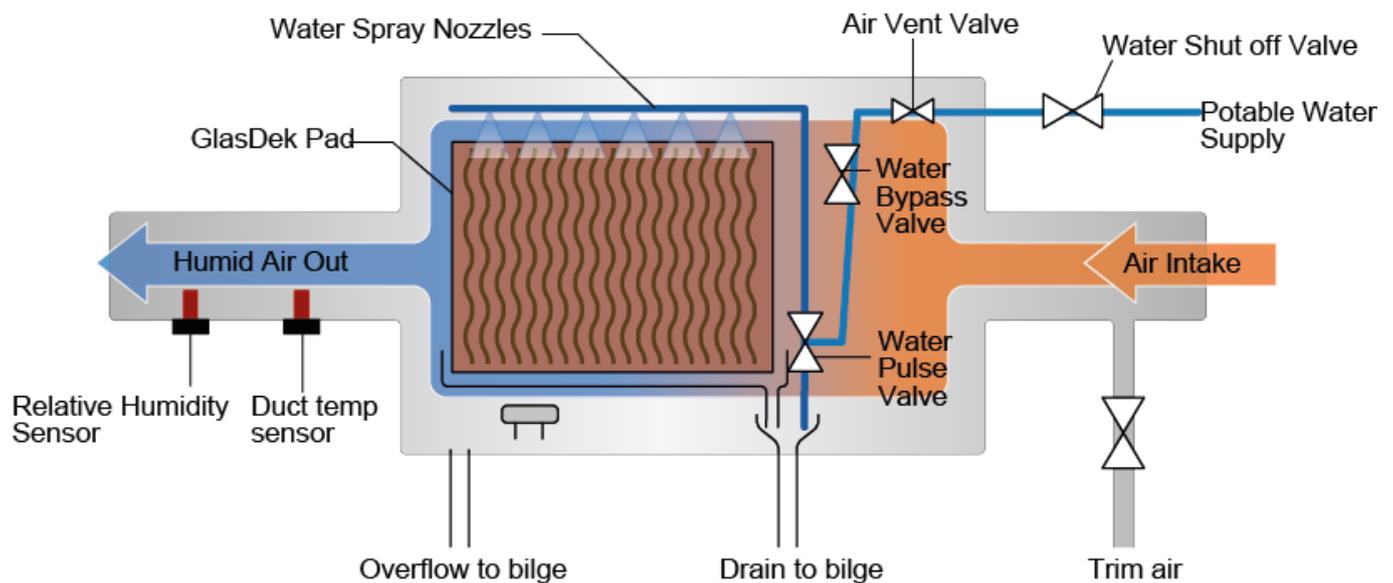


# Hidden solutions with CTT Systems

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CTT Systems Cabin Humidification system process

Phrases such as ‘building passenger confidence’ and ‘passenger perceptions of safety’ seem to be among the industry’s hottest buzzwords right now, and rightly so. Companies and suppliers from every sector are working diligently to support the much-needed return to air travel, from seating innovations that promote social distancing to connectivity advancements to support a touchless cabin. A Nyköping, Sweden-based company provides an important solution to create a healthy cabin environment.

[CTT Systems](#) supplies two subsystems that work in unison to deliver optimal air quality and humidity in the cabin: The Zonal Drying system and the Cabin Humidification system. These systems work to prevent a cabin with air too dry for passengers to effectively fight off viruses and bacteria, says Peter Landquist, Vice President of Sales and Marketing at CTT Systems.

The Zonal Drying system reduces the fuselage condensation that builds during flight. When landing, this frozen layer melts, resulting in up to 300 kilograms of excess water. This has negative effects on reliability of parts such as computers, antennas, sensors and connectors, explains Landquist, who has been with CTT Systems for 27 years. The system distributes dry air effectively, preventing humid air from reaching the cold fuselage structures, benefitting both the aircraft and the environment, he says.

The Cabin Humidification system increases cabin humidity to a level similar to that experienced on the ground. Humidifiers can be installed in specific zones, such as First and Business Class, which are prone to dryness since there are fewer passengers. Water from the aircraft’s potable supply is applied to a humidifier pad integrated in the air conditioner supply duct, adding humidity to the ventilation system. Though it is hidden from view, passengers and crew benefit from the result of experiencing less dryness in the mouth and nose.

“During a long-haul flight, dry cabin air gradually dehydrates the mucus membrane which increases human susceptibility to bacteria and viruses,” Landquist says. “Bottom-line is that a weakened immune system not only increases risks during flight but also, perhaps more importantly, upon arrival.”

at destination. This [should be] considered very important to bring back passenger's travel confidence."

CTT Systems has more than 2,500 humidifiers in operation on aircraft. Lufthansa German Airlines which is installed on 14 A380s in First Class. Other major airlines have selected the system; two for its A350s Business Class cabins and two others for its 777-9 First and Business Class. The company has provided approximately 100 retrofitted VIP inflight Cabin Humidification systems for various 737s, 321neos and more.

"For the airline industry, it is very important to present sustainable solutions to reduce the risk for passengers to get infected by viruses or bacteria during or directly after a long-haul flight," Landquist says. "Using a humidification system to establish a ground-equal cabin environment is a long-term solution, that I believe is what the industry is looking for."

The company is focused on adapting the Cabin Humidification system for business jets and believes these solutions will be integrated in the cabin air system for years to come.