

The essence of comfort



**CTT**  
SYSTEMS



The journey starts in the cabin.

*"When state-of-the-art technology is available the natural thing is to take advantage of it. Some things are a necessity. Others you've just got to have."*

*VIP Jet owner*

One of many good reasons to undertake a long-haul flight is to experience a change of air. Usually you have to wait until you reach your destination. Not any more!

With our solution you can enjoy a healthy climate also in cruise. The key is in the air. Or more specifically: in humidifying the air.

Feel the difference!





Touch down in better shape  
than you took off!



The dry air at high altitudes causes fatigue and discomfort. Long flights amplify the effects. Our humidification system creates a more comfortable onboard climate, easing the strain on body and brain. As a result everyone on board feel better and stay more alert. At best, you touch down in better shape than you took off.

## Dry facts.

In theory the human body tolerates great variations in humidity. But there are limits. Conditions onboard a long-haul flight rapidly gets extreme. After less than one hour the air resembles that of a desert climate.

The paradox is that the fewer the people on board, the more noticeable the effect. While the breath emitted by the larger number of passengers on a commercial flight helps to keep their cabin air moisture at an acceptable level, the relative humidity on a private jet can plummet to levels as low as five percent.\*



### Dry air causes:

- Cold and allergy symptoms
- Sleeping difficulties
- Dry skin and eyes
- General fatigue and discomfort
- Increased jetlag impact

## Feel the difference!



### With balanced humidity:

- You feel better
- You sleep better
- Food and drink taste better
- You arrive more rested
- You suffer less impact from jetlag

Supported by Health studies and Medical experts:

*"Even a slight increase of relative air humidity is beneficial from a health point of view."*

*"Increased relative air humidity increases tear film stability and nasal patency. It also reduces headaches and ocular, nasal and dermal dryness symptoms."*

Aaah!

**You feel better**

Humidifying the cabin reduces tiredness and alleviates dehydration of the eyes, skin and linings of the mouth and nose. As in-flight studies show, it also relieves the strain on your immune system. Simply put – you stay healthier! Even long after you touch down.

Zzzzz!

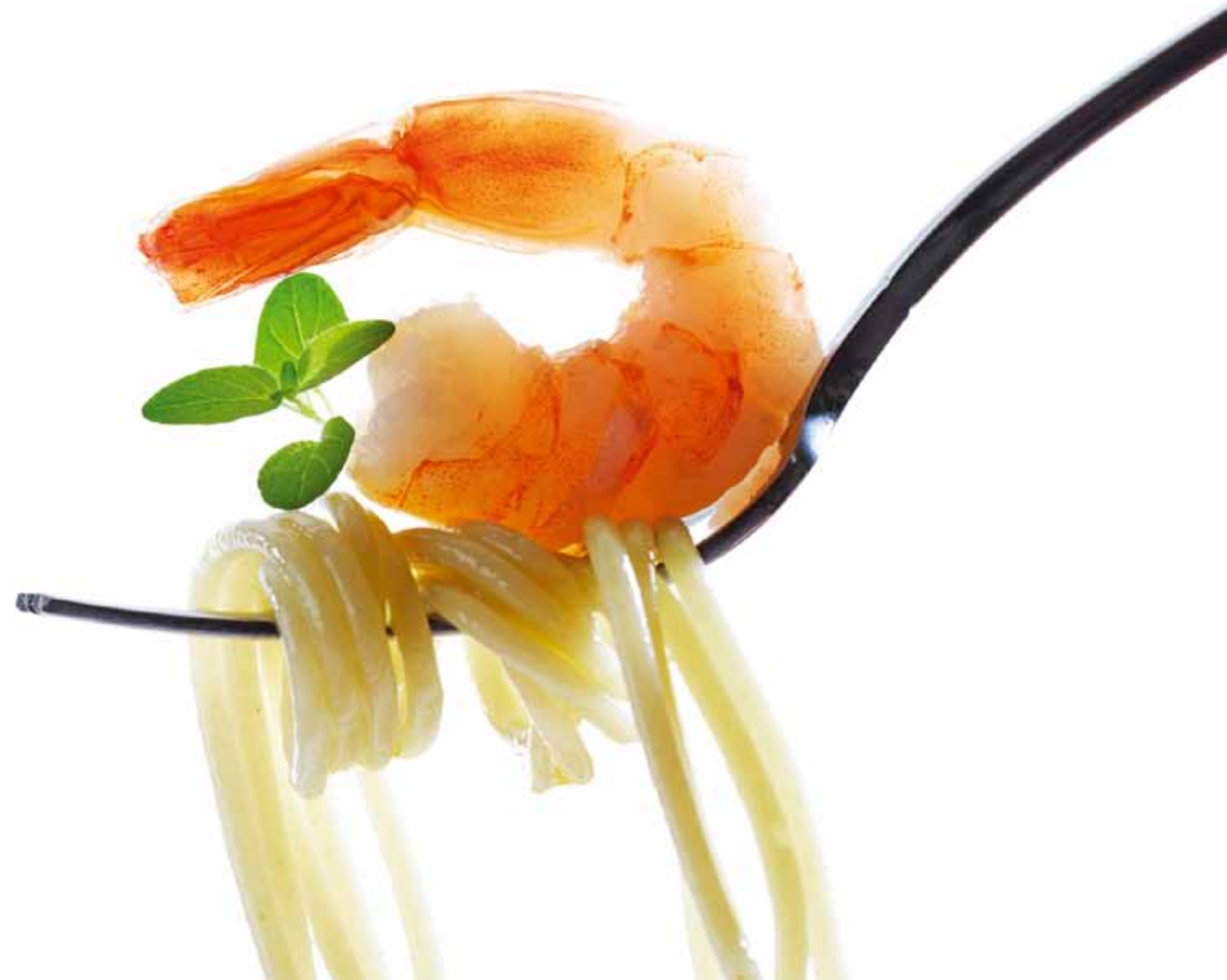
**You sleep better**

Good sleep is essential for wellbeing. It is scientifically proven that humidified air helps body and mind come to rest. Moreover, a relaxed person recovers faster from jetlag. The more balanced the humidity, the better the sleep.

Mmm!

**Food and drink taste better**

Our mission is to help you enjoy the culinary sensations to the utmost – even in mid-air! The recipe is simple. The most important ingredient is humid air, which enhances the flavour of food and beverages.







## Good news for the planet. And the plane.

The Cair™ system adds moisture to dry areas. But it also removes moisture where not wanted. More specifically in the crown area, between aircraft skin and cabin, where condensation otherwise causes persistent problems.

### Added benefits:

- Lower fuel consumption
- Less emissions
- Less electrical failures
- Less corrosion & maintenance
- Longer life cycle
- No rain in the plane

## As well as for the crew.

Problems experienced by frequent travellers are if possible more pronounced for the crew, who are subjected to these conditions day in and day out. With Cair™ installed, pilots and flight attendants experience fewer problems with dry skin, allergies and dry eyes. Those who wear contacts appreciate the change. There is less risk of catching a cold, fatigue is less of a problem, and recovery between flights is quicker. In plain language, your crew are more likely to stay healthy and alert.

### Direct benefits:

- Better working climate
- Quicker recovery between flights
- Less likelihood of catching colds
- Less fatigue
- Better sleep







## Up and flying.

Since year 2000 the masterminds of CTT Systems, who developed the Cair™ system, have served many airlines, equipping aeroplanes for Boeing and Airbus, the world's two leading aircraft manufacturers.

*Boeing has chosen our Zonal Drying™ System as basic equipment for the new 787 "Dreamliner", where our humidifiers are options in crew rest compartments and on flight deck.*

*Airbus offers our humidification technology as option in the crew rest compartments on the A380.*

*Lufthansa has chosen Cair™ for 1st class cabin of their A380s.*

*As the first aircraft manufacturer in the world Airbus now offers humidification in combination with Zonal Drying™ System as an option for the 1st and business class cabin area. On the A350 XWB, the Crew humidifier is optional on flight deck and in crew rest areas as well.*

*Moreover, our Cair™ VIP system is market leader in cabin humidification for large VIP aircraft and has been installed by most of the large completion centres in the world.*

*Cair™ is also available as a stand-alone system for retrofit installations.*

## Enjoy a complete change of air!

The CTT mission is to balance on board humidity levels. The product line includes the following systems.

Zonal Drying™ System prevents condensation in aircraft by combating the root cause. Less condensation means less weight, reducing fuel consumption, emissions and corrosion etc. In the long term, reduced condensation means longer lifetime for aircraft components and insulation.

Cair™ is offered for increased humidity in the airliners' 1st and business class cabin improving passenger comfort.

Crew Humidifiers increase humidity in the flight deck and crew rest compartments, creating a more pleasant working climate and improving the well-being of the crew.

Cair™ VIP is offered for increased humidity and very often selected for the complete cabin area in large private jet aircraft improving passenger comfort. The system is available for green aircraft completions and also for retrofit installation.

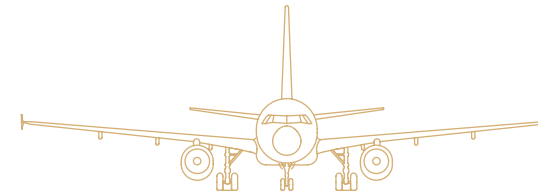


## Track record includes all major VIP aircraft.

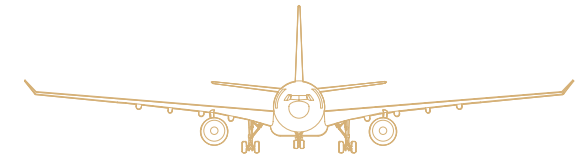
CTT's Cair™ VIP system is market leader in cabin humidification for large VIP aircraft. Since 2001, when we sold our first Cair™ VIP system, our focus has been to develop solutions for all the larger VIP aircraft models.

By 2012 Cair™ VIP systems are available for Boeing and Airbus aircraft 737-BBJ1/BBJ2/BBJ3, 757-200, 767-200/300, 777-200/300, 747-8, A319, A320, A321, A330-200/300, A340-200/300/500/600.

The Cair™ VIP system has been installed by most of the large completion centers in the world in cooperation with CTT. The system is certified by the completion center as part of the complete STC for the interior. Cair™ is also available as a stand alone system for retrofit installations.



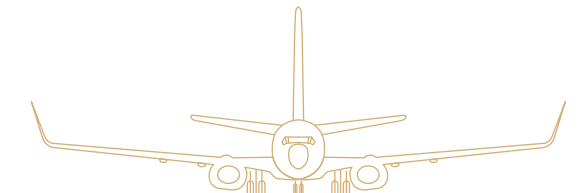
A319, A320, A321



A330-200, A330-300



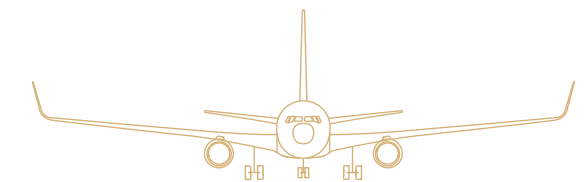
A340-200, A340-300,  
A340-500, A340-600



737-BBJ1, 737-BBJ2, 737-BBJ3



757



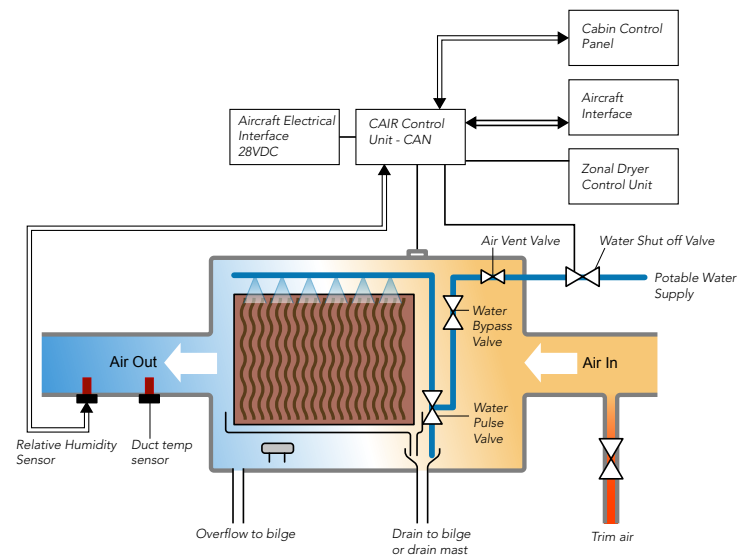
767-200, 767-300



777-200, 777-300



747-8



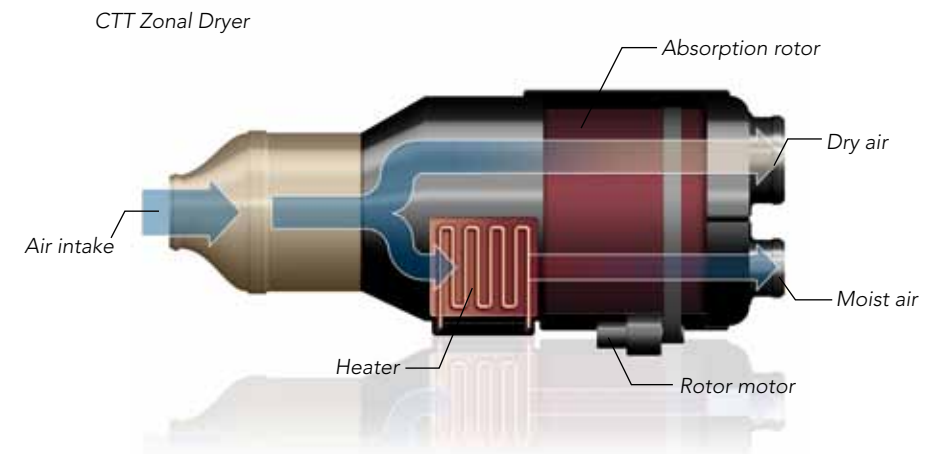
Humidifier control system for B747-8 Cair™ shown.

## How it works.

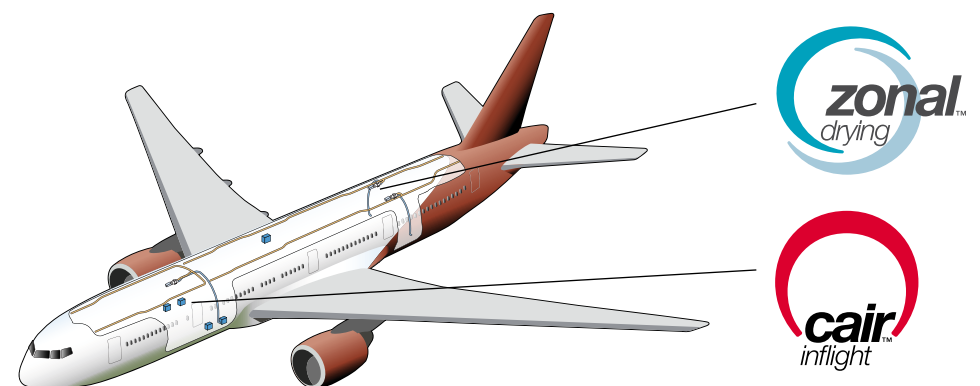
Cair™ provides humidified fresh air to the cabin, creating a healthier and more comfortable onboard climate. A typical installation consists of one or more humidifiers and a Zonal Drying™ System (see opposite page).



CTT Humidifier



Zonal Drying™ System is an integrated part in Cair™. The system effectively removes moisture in the aircraft by combating the root cause. Technically speaking, it lowers the dew point in the crown area, preventing condensation, thus keeping the insulation blankets dry.



Boeing 777 installation with 5 humidifiers and 3 Zonal Dryers.



# Humidity in balance.

Our mission is to create a better climate on board. The key is to balance humidity levels. Our concept enhances passenger wellbeing, contributes to a better environment and improves long-term economy, simultaneously. We call it "humidity in balance".

*For additional information, please contact:*

**Peter Landquist**

VP Sales, Marketing & Customer Support

Phone: +46 (0)155 20 59 02 | Mobile: +46 (0)70 66 24 45 | E-mail: [peter.landquist@ctt.se](mailto:peter.landquist@ctt.se)

**Anton Nöffke**

Director Sales, Marketing & Customer Support - Asia Pacific & Middle East Representative

Phone: +60 (0) 12 525 28 64 | E-mail: [anton.noffke@ctt.se](mailto:anton.noffke@ctt.se)

**Per Gustafsson**

Sales, Marketing & Customer Support

Phone: +46 (0)155 20 59 03 | Mobile: +46 (0) 70 214 89 05 | E-mail: [per.gustafsson@ctt.se](mailto:per.gustafsson@ctt.se)



CTT Systems AB (publ.) Box 1042 SE-611 29 Nyköping  
Phone: +46 155-20 59 00 Fax: +46 155-20 59 25 E-mail: [ctt@ctt.se](mailto:ctt@ctt.se) [www.ctt.se](http://www.ctt.se)