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Trotec Case Study

Customer: Enaire (Madrid, Spain) www.enaire.es

Sector: Air safety and air traffic control

Benefits:

- Ensuring the functionality
- Investment protection due to higher durability
- Energy savings for air conditioners

Trotec products: DS dehumidifiers

Optimum humidity values increase flight safety

Trotec air-conditioning technology protects technical equipment of Enaire's Air Traffic Control at Fuerteventura airport from excessive humidity

Enaire is the main provider of air navigation and aeronautical information services in Spain and is responsible for providing area control, approach control and aerodrome control services in Spain as well as Western Sahara. Enaire manages 2.2 million square kilometres of airspace from 5 air control centres in Barcelona, the Canary Islands, Madrid, Palma de Mallorca and Seville and operates 22 control towers.

Trotec is an internationally acting company that has specialised in the development, production and commercialisation of solutions for humidification and dehumidification as well as systems for monitoring and controlling the key air parameters (air humidity, air quality, temperature). The approaches offered by Trotec on the one hand include solutions that can be utilised on a modular basis, but just as well provide

possibilities tailored to individual customer requirements for a large variety of processes in flight handling at airports. In the present case, these are humidity control systems inside the radar tower of the airport of Fuerteventura.

Trotec dehumidifiers of the DS series regulate the air humidity level in the radar station of Fuerteventura Airport.

Radar and navigation systems represent the beating heart of communication at any airport. In these control centres, Enaire monitors what is happening in the sky, determines flight positions, communicates with pilots and calculates optimised arrival and departure sequences for air traffic using state-of-the-art communication systems. Problems with the highly sensitive technology can have devastating consequences for flight safety.



High humidity levels are the enemy for any electronic device

In their indispensable work to ensure safe air traffic, the team of Enaire was confronted with a security-related problem at the airport of Fuerteventura. The immediate proximity to the Atlantic Ocean caused a permanent problem inside the tower: Excessively humid and salty air, which can lead to malfunctions, corrosion, broken wiring and even system failures in technical equipment.

A worst case scenario for any airport. A high operational safety of electronic devices in regions with permanently critical humidity levels is only guaranteed if the humidity levels are controlled. The critical limit above which metal oxidises or corrodes is in the relative humidity range between 50 % and 70 %. For this reason, the use of reliable Trotec dehumidification solutions at Fuerteventura Airport became indispensable.

In their endeavour to provide maximum operational safety, the team of Enaire relies on proven dehumidification technology from Trotec to ensure a constant room climate with optimum humidity values < 50 % inside the control centre.

Improvements thanks to Trotec's solution:

- Protection against oxidation and corrosion
- Ensuring the functionality or all technical components
- Extended service life of electronic components
- Indirect energy savings for air conditioners

Optimum climate conditions and humidity values are essential for the safe and failure-free operation of electronic components. Controlled humidity levels protect against expensive failures and malfunctions and extend the service life of expensive systems.

With the mobile and stationary dehumidification systems from Trotec, air navigation services rely on proven solutions that provide for a high economic efficiency.









Products to protect against system failures due to corrosion in highly sensitive safety technology



Mobile condensation dehumidifiers





Stationary condensation dehumidifiers





Mobile desiccant dehumidifiers





Stationary desiccant dehumidifiers





Fully automatic dehumidifiers for wet rooms





Climate data loggers



