



DATA CENTER HUMIDIFICATION & COOLING

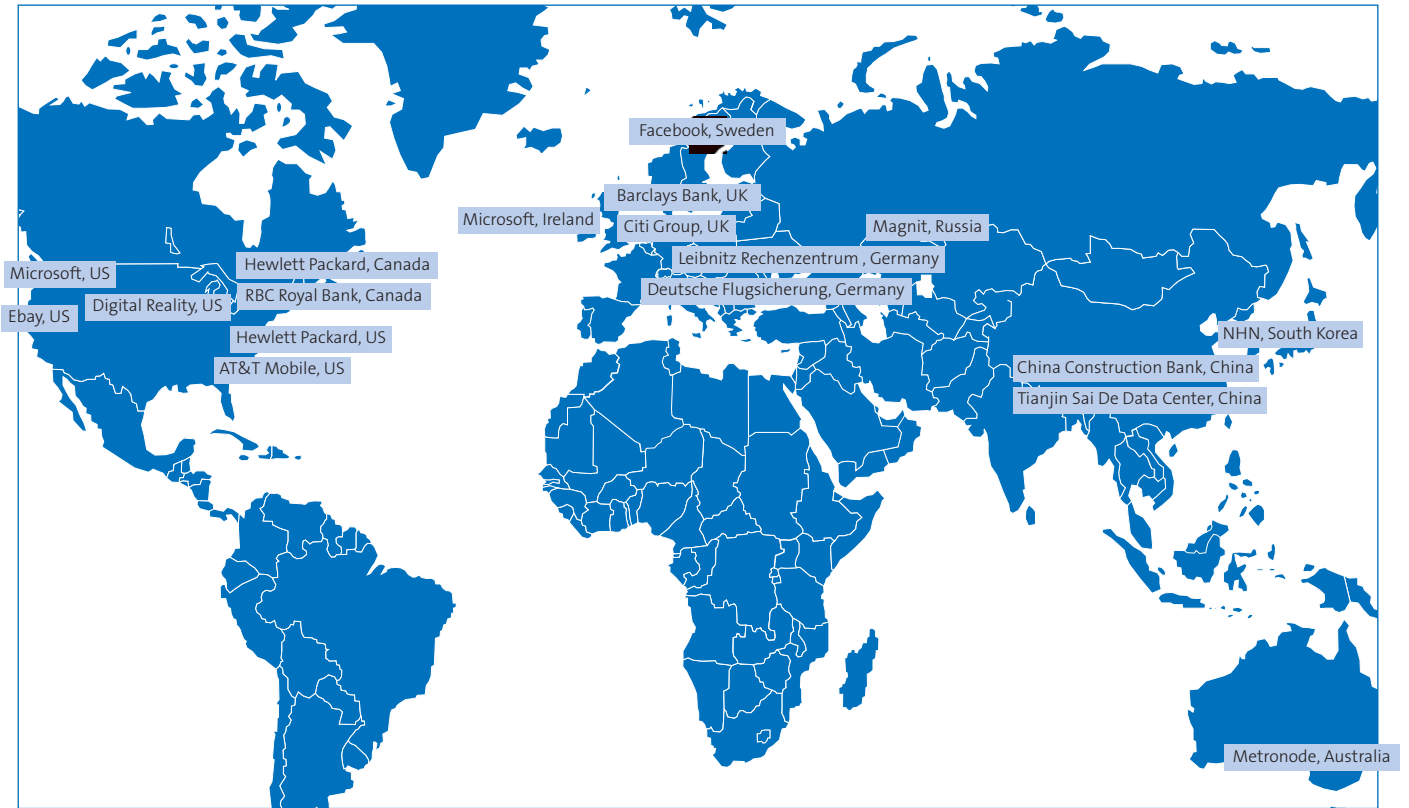
Humidification and Evaporative Cooling



TRUSTED TECHNOLOGY

Condair humidifiers are used in data centers around the world to provide humidity control, prevent electrostatic discharge (ESD) or offer high capacity, low cost evaporative cooling.

Some of the World's largest brands put their trust in Condair humidification systems to help them fulfil their data centers' environmental control strategies.



GLOBAL EXPERTISE, LOCAL SOLUTIONS

Condair has manufacturing facilities in Canada, UK, Denmark, Germany, Switzerland and China as well as wholly-owned sales operations in 13 countries and distributors in over 40 more.

The company has been serving the global data center industry for more than 25 years. It has a dedicated Data

Center Business Development Team that draws expertise from all corners of the organisation, benefiting clients no matter where they or their projects are located.

Regional R&D departments work with project teams to develop bespoke solutions, while specialist Condair service engineering teams provide the

comprehensive maintenance support critical environments require.

Condair's experience across many major global data center projects is brought to bear from initial concept discussions through to installation, commissioning and beyond.

EVAPORATIVE COOLING

Reducing PUE with low energy cooling

A single Condaire adiabatic humidifier can deliver up to 630kW of evaporative cooling while operating on less than 0.3kW of electricity. This technology increases the cooling capacity of a data center's ventilation system and extends the use of free air cooling into periods when the outside air alone is too warm to meet the required internal conditions.

Condaire humidifiers are used to deliver low energy evaporative cooling directly to incoming fresh air as well as being incorporated into in-direct evaporative cooling systems. These reduce the temperature of incoming air without raising its humidity by humidifying exhaust air and transferring its resultant cool thermal

energy into the incoming air via a heat recovery system.

These low energy cooling techniques can significantly reduce or even eliminate the need for mechanical cooling in data centers with a resultant drop in PUE.



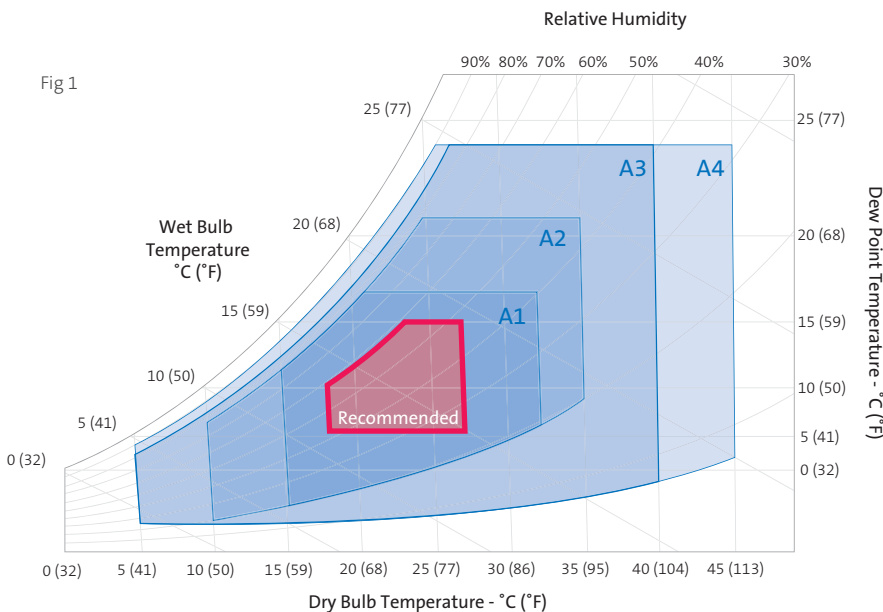
HUMIDIFICATION

Maintaining ASHRAE standards & combating ESD

Humidity control in data centers is required to prevent ESD from damaging electrical equipment.

For existing data centers ASHRAE recommends a humidity level of 5.5°C dew point to 60%RH and an allowable range of between 20-80%RH (see fig 1).

Condaire has a comprehensive range of humidifiers to help data center operators meet ASHRAE's standards, including innovative low energy adiabatic systems that can utilise heat from the data halls to minimise humidifier energy consumption.



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SOLUTIONS FOR DATA CENTERS

Condair has a comprehensive range of humidification and evaporative cooling products to suit any data center's environmental control system.

From an individual in-room steam humidifier to large in-duct evaporative

systems, refurbishments of air handling units to newly constructed buildings or modular data centers, Condair has the technology and expertise to provide the ideal solution.

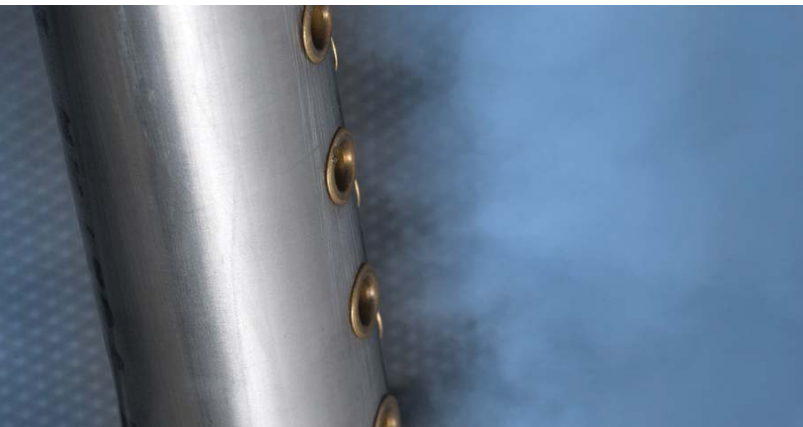
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ON-SITE CONSULTATION



Evaporative humidification



High pressure humidification



Steam humidification



Hybrid humidification

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