



# DATA CENTRE HUMIDIFICATION & COOLING

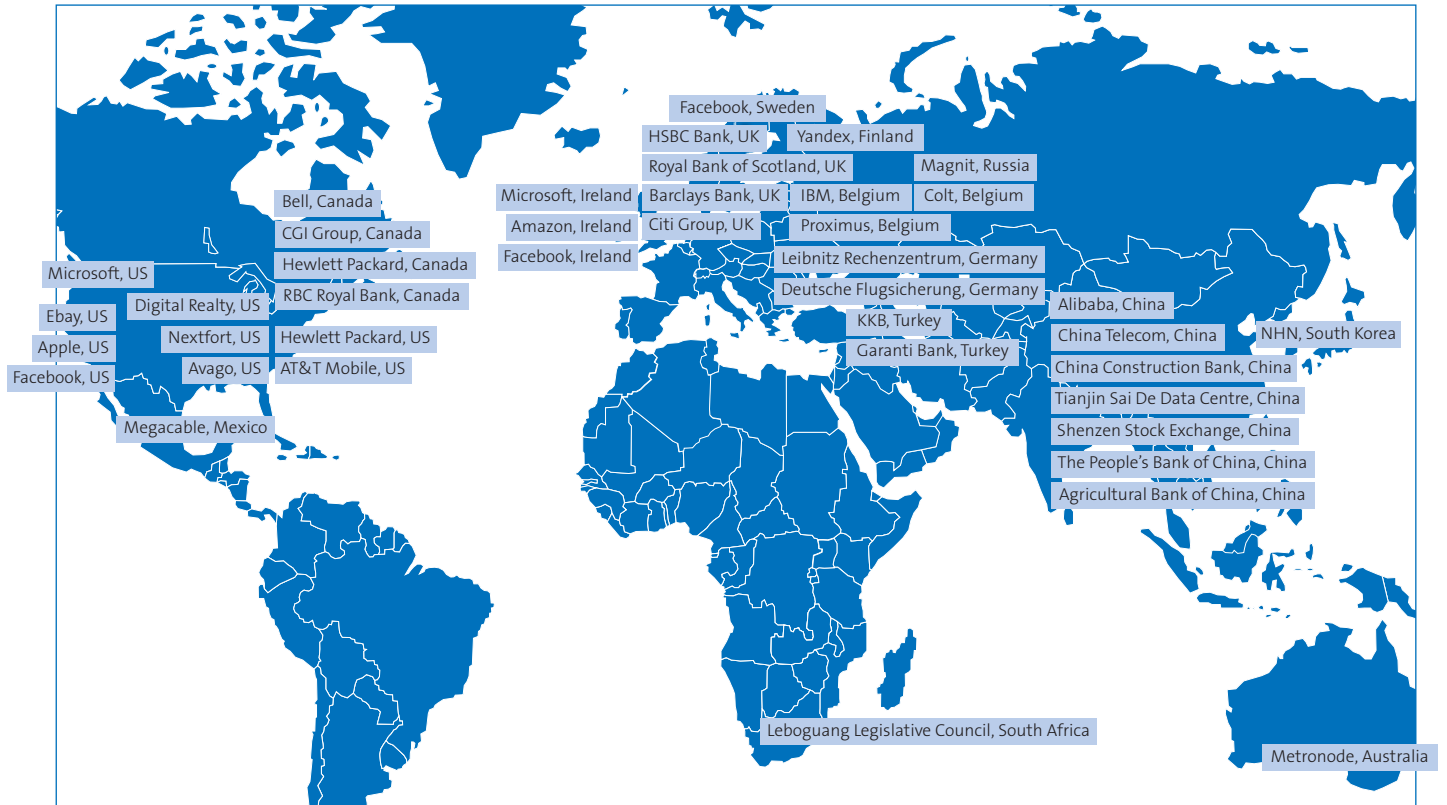
Humidification and Evaporative Cooling



# TRUSTED TECHNOLOGY

Condair humidifiers are used in data centres 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 centres' environmental control strategies.



## GLOBAL EXPERTISE, LOCAL SOLUTIONS

Condair has manufacturing facilities in Asia, North America and Europe as well as sales operations in 19 countries and distributors in over 50 more.

The company has been serving the global data centre industry for more than 25 years. It has a dedicated Data Centre 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 client 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 centre projects is brought to bear from initial concept discussions through to installation, commissioning and beyond.

# EVAPORATIVE COOLING

## Improving PUE with low energy cooling

A single Condair adiabatic humidifier can deliver up to 680kW of evaporative cooling while operating on less than 1kW of electricity.

This technology increases the cooling capacity of a data centre'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.

Condair humidifiers are used to deliver low energy evaporative cooling directly to incoming fresh air, as well as being incorporated into indirect evaporative cooling systems.

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



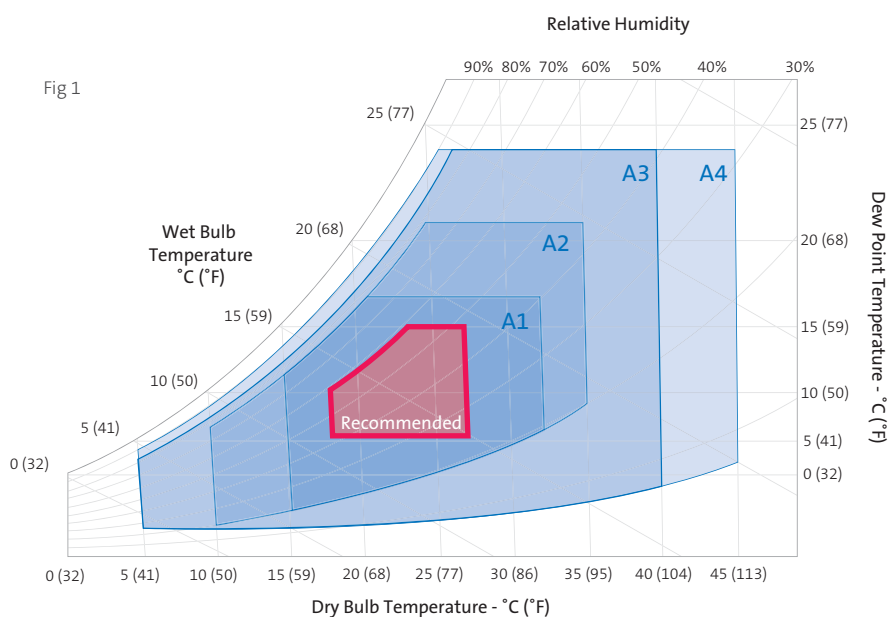
# HUMIDIFICATION

## Maintaining ASHRAE standards and combating ESD

In its guidelines for data centre design, ASHRAE recommends maintaining a humidity level of between 40-60%RH and specifies an allowable range of 8-80%RH (see fig. 1).

In order to reach the ASHRAE standard, data centres in most temperate climates will require humidification during the winter months.

For data centres using free air cooling in cold regions, high capacity, low energy adiabatic humidification is a must in order to remain within the ASHRAE window.



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# SOLUTIONS FOR DATA CENTRES

Condair has a comprehensive range of humidification and evaporative cooling products to suit any data centre'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 centres.

Condair has the technology and expertise to provide the ideal solution.

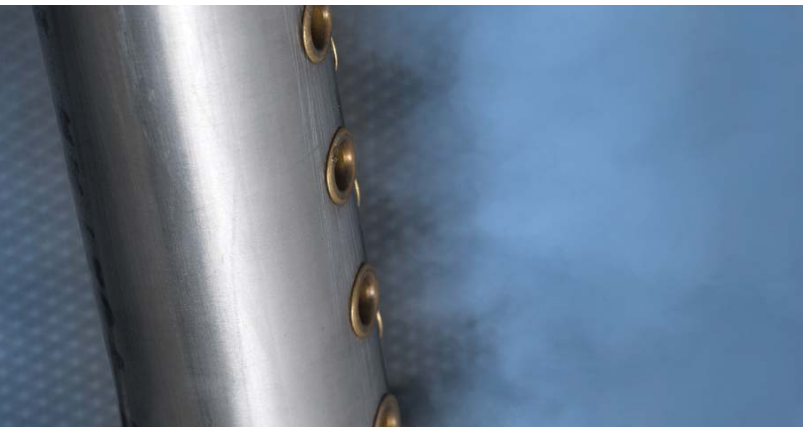
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Evaporative humidification



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Hybrid humidification