

CASE STUDY

CenturyLink is one of the world's largest global technology companies, providing communications, network services, security, cloud solutions and managed services.

Through its acquisition of Level3 in 2017, the organisation operates a number of large UK data centres, including Goswell Road and Docklands, in London. With over 100,000 sq. ft of nett technical capacity between them, across 15 separate data halls the control of temperature at the two sites is by conventional downflow chilled water CRAC units.

The Problem

A controlled level of relative humidity is necessary to meet environmental SLAs throughout the data halls, and this was originally achieved using large electric steam humidifiers. These humidifiers introduced steam into the tempered fresh air supply to the data halls, which mixed with the recirculating cooling air. The steam humidifiers were expensive to run and maintain and a more energy efficient alternative was sought.

The Solution

Humideco, low energy humidification specialists, proposed a scheme for both sites that consisted of Stulz BNB wall mounted ultrasonic humidifiers, located within walkways around the data halls. The equipment was installed by Humideco's own project team, along with all water services, electrical and BMS work, and within a period of 9 weeks across both facilities. Each of the 76 individual humidifier systems has its own PLC control, enabling the desired room condition to be set locally.

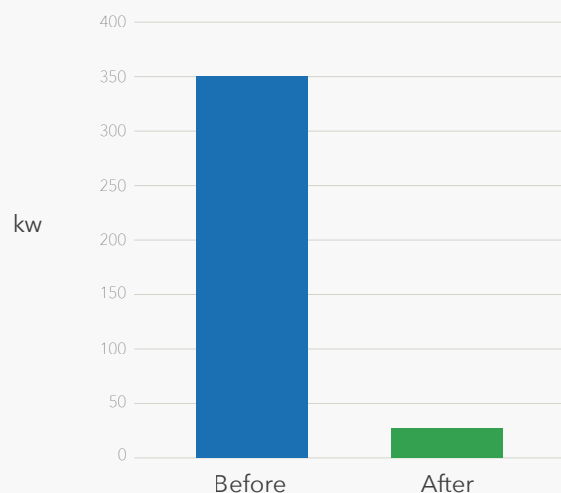


Wall mounted Stulz BNB ultrasonic humidifier with bespoke Humideco shroud to match nearby CRAC units.

The Results

- Over **90% reduction** in humidifier power requirements; from in excess of **350kw**, to approx. **28kw**, with corresponding carbon emission reductions.
- **Free cooling** benefits, owing to the evaporative cooling effect of the humidifiers. This is unlike a steam humidifier, which simply adds to the heat load.
- Greatly **reduced maintenance**, no steam cylinders to replace and no descaling.

Humidifier Power Requirements



Humideco are specialists in energy saving humidifiers and work with many leading data centre providers around the UK. As distributors for the world leading Stulz ultrasonic range, we are proud to offer a range of equipment which has been thoroughly proven for over 20 years, in thousands of demanding applications.