

# Taking the heat off a powerful data centre

## CUSTOMER

A major player in data centre

## LOCATION

United Kingdom

## SECTOR

Data Centres

## KEY FACTS

**9 MW**

Cooling capacity

**4 x 800 kW**

**10 x 400 kW**

Chillers

**18 x 2000 lpm**

Pumps

**24/7**

Solution

**26**

Weeks support

## THE CHALLENGE

### Helping a data centre stay operational through high ambient temperatures

A major player in the global data centre industry was upgrading their existing, permanent on-site cooling system to respond to user requirements. The upgrade was essential, enabling the installation of the latest server technology and ensuring the centre could stay operational whatever the ambient temperature.

The brief was clear. Any temporary cooling solution would have to meet the base cooling requirement. It should also seamlessly integrate with the on-site cooling towers which were still operational, though not sufficient to provide full cooling capability.

Challenge accepted.

## THE SOLUTION

### A fully integrated temporary cooling solution

We needed to stay cool, in more ways than one. The timeline was challenging; a full turnkey solution – from inception and design to delivery, installation and commissioning - was required in a little over two months. There were space constraints too, fitting all the equipment around the outside of the building. We'd need to work with the contractors to install temporary structures such as gantries and pipework on the roof.

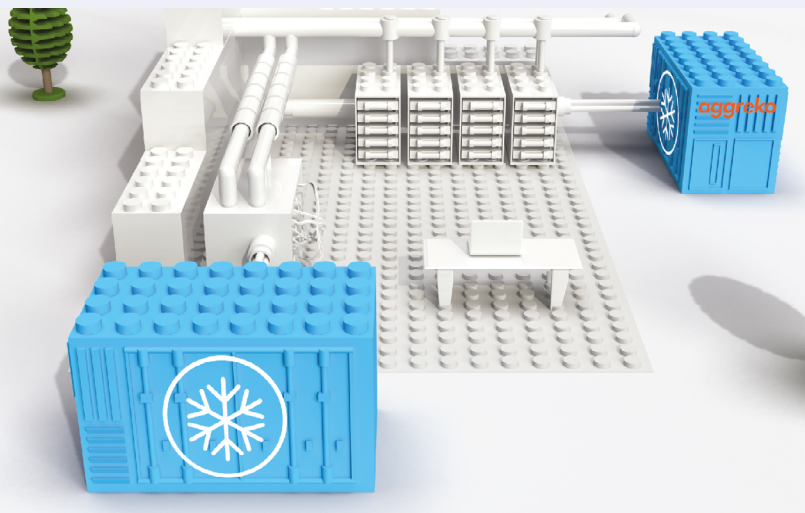
The load profile for our temporary chiller package comprised of 9 separate cooling streams for the different suites, allowing for 850kW additional cooling per stream.

Our 9MW cooling capacity was delivered through a HEX and chiller solution including:

- 10 x 400 kW chillers
- 4 x 800 kW chillers
- 9 x Plate Heat exchangers
- 18 x 2000lpm pumps
- 9 x 10,000 ltr bespoke buffer tanks
- Power distribution

The package was designed around a manual start, operational 24/7. Aggreko engineers provided a reassuring on-site presence, while remote monitoring provided invaluable insights to optimize system performance and reduce the threat of costly downtime.

A bespoke building management system (BMS) was designed, optimising the systems to enable our customers to monitor all 9 cooling systems.



## THE AGGREKO DIFFERENCE

**Proven expertise, unrivalled capability, 24/7 support**

## THE IMPACT

### A complete turnkey solution to meet base cooling

For the scale and complexity of the project, this was a very short timescale to design a solution, mobilise equipment, install and commission. Our experts worked day and night, 7 days a week to make it happen.

Commissioning was completed to ASHRAE data centre standards and required a full European team effort – drawing on expertise from data centre specialists across the Continent. Each cooling stream was fully tested along with every element of the full package.

The data centre could continue to operate while the permanent chiller system was put into place.