





Introduction

This guide outlines the various options and applications using Aggreko's latest cooling and drying technologies and solutions, available to all data center customers – General, Electrical & Mechanical Contractors, as well as End-Users at every stage of the Data Center lifecycle.

The reliability behind our products, systems design and solutions implementation spans multiple years of expert, engineering-first cooling experience over our vast North American customer base.

aggreko



Our mission is to help our Data Center customers - and their customers - meet their reliability, uptime and resiliency requirements through innovative cooling and drying solutions.



Ensuring peak Data Center temperature control performance with precise, efficient and reliable solutions

Aggreko is a global leader in providing power and temperature control solutions when and for however long our customers need them.

Using the latest technologies, we combine our innovative thinking with our sector knowledge to help our customers achieve the optimum environment at every stage of the data center's lifecycle, through a range of flexible, modular solutions.

From ensuring optimal temperatures and humidity levels during construction to tackling seasonal temperature increases and supporting maintenance or expansion activities, we provide supplementary, temporary or emergency packages tailored to your unique needs.







Aggreko offers tailor-made solutions for Data Center projects using temporary cooling equipment

Chillers

Whether you need supplementary, temporary, or emergency cooling, Aggreko offers a complete line of air-cooled and watercooled chillers, ranging from 10 to 1000 tons, to meet a variety of temperature control needs.

Cooling Towers

Our industrial cooling towers are suitable for large-scale temporary cooling projects requiring water-cooled chillers. They have a unique forced draft, counterflow design of evaporative cooling, with cooling water and air working together to lower the temperature of the hot water. Applications for this technology include renovation and upgrades of existing water-cooled chiller systems, delays to permanent cooling towers, and emergencies.

Air Handlers

Our air handlers provide temporary cooling of large data hall spaces, temporary cooling for active sites, fresh air make up for interior spaces, and on-board electric heat that can be used in the winter.

A/C Units

If you are dealing with seasonal temperature rises or need emergency cooling and HVAC support - we're on hand to deliver the right commercial air conditioner unit to meet your needs. Designed to offer optimal performance with low noise output, they can be deployed quickly and easily.

Dehumidifiers

When working in critical environments, moisture control is key. Our commercial dehumidifier packages help you maintain a controlled environment, whether it be to ensure on-track construction completion or to preserve important Data Center assets. Our custom-manufactured desiccant dehumidifier rental units are capable of 2,000 to 15,000 cfm and of achieving moisture removal of up to 969 gallons per day.



Air Cooled Chillers



Water Cooled Chillers

Water and air-cooled chillers available, ranging from 10 to 1.000 tons

Air-cooled units can go as low as 22°F

Water-cooled units can go down sub-zero temperatures when combined with air-cooled chillers or cooling towers



Cooling Towers

Heat removal rates range from 2 million to 1,000 million BTU/hr

Single and multi-tower configurations

Modular design and interconnectivity allows infinite expandability

Capacity can be precisely sized to operational needs



Air Handlers

Sized from 10 to 120 tons

All units are electrically powered

Units can produce up to 400cfm of airflow per ton



Air Conditioners

In sizes ranging from 1 to 70 tons

Capacity of more than 12,000 cfm of 45°F air

Provides 100% cool, fresh air or 100% conditioned return air



Dehumidifiers

Capable of 1,000 to 15,000 cfm

Moisture removal up to 969 gallons per day.

Capable of reaching lower dew points than refrigerative systems

Temperature control solutions for every stage of the Data Center lifecycle



Construction

We specialize in providing temporary cooling & drying solutions, designed to keep data center projects on track, reliably and cost-effectively through some of the following applications:



Drying out concrete

Temporary cooling and drying equipment can bring <u>moisture levels down,</u> helping to establish the correct conditions to validate flooring or coating specs and warranties. Instead of waiting months for concrete to stop sweating and the moisture to evaporate – you can speed up the process and remain on schedule.

High temperatures and humidity levels can pose significant threats to data center construction sites, causing potential delays to projects and negatively impacting budgets.





Temperature control solutions for every stage of the Data Center lifecycle



Construction

In addition to mitigating project delays, rental cooling and drying equipment can provide a number of other benefits that may not be so obvious:

- Helps prevent voided warranties.
- By ensuring materials are fully dried out prior to Using temporary cooling equipment instead the finishing stages, you can reduce the risk and of a site's permanent HVAC system removes cost of void warranties and of project rework. the risk of damaging newly commissioned plant, which can lead to invalid guarantees. It's also a solution for sites aiming for LEED (Leadership in Energy and Environmental Keeping your project on track alleviates the Design) certification, where the new HVAC headache of retaining expensive and insystem is totally out-of-bounds.
- Prevents workforce planning problems.
- demand workers for longer than necessary.
- Lowers total operating costs.
- Although the financial outlay for rental equipment may be unplanned, the money you can save in preventing hold-ups can be significant. Don't forget to look at the bigger picture and identify the overall savings you can make.

Preserves new HVAC system.

Preventing re-work by protecting finished buildings against mould and fungus growth.





Key cooling & drying solutions throughout Data Center construction



Temperature control solutions for every stage of the Data Center lifecycle



Maintenance, repairs and operations

To maintain peak performance and operational reliance of a data center, cooling equipment is crucial.

We provide modular temperature control solutions that deliver supplementary cooling to tackle seasonal temperature increases and support during maintenance or repairs of permanent systems.

We can also deliver chiller, cooling towers, A/C unit and air handler packages designed to suit a server room's cooling needs.

During upgrades, changeouts and maintenance, we can maintain uptime and ensure the resilience of N+ systems when they're taken off-line, an important requirement for data centers to meet their Service Level Agreements.

Upgrades, expansion and refurbishment

When older data centers are upgrading their existing facilities, IT load can't be put at risk, and downtime is not an option.

Replacing HVAC systems in a live environment, without affecting availability, requires careful planning and expertise.

For data centers looking to expand, our modular solutions enable operators to quickly increase or reduce their temperature control capacity, depending on changing needs and requirements.

With a wide range of cooling and drying technologies, exceptional project management capabilities and a proven track record of on-time and on-budget upgrade completions, we ensure a seamless migration off-line with no interruptions in supply over the upgrade period.

Emergency

We understand that data centers are mission critical environments, and a breakdown of cooling has disastrous consequences.

We provide modular and quickly deployable cooling and drying equipment as a back-up solution to maintain server protection.

Contingency planning

We'll tailor a plan to assess the risks faced should a crisis occur.

Our engineers will examine a site's heating, cooling and dehumidification needs to develop a contingency plan, covering equipment, engineering, logistics and the people needed to mitigate any risks.



Case Study:

Using Aggreko's temporary HVAC solutions to increase onsite productivity and keep employees safe

CHALLENGE:

During a data center's construction, a major general contractor was faced with workers being exposed to harsh climate conditions during winter and summer seasons, negatively impacting their productivity and increasing the risk of safety incidents associated with extreme temperatures.

SOLUTION:

Aggreko installed temporary HVAC systems to maintain safe working conditions during the winter and summer months.

IMPACT:

With Aggreko's temporary HVAC systems in place, on-time delivery of the project was achieved, and in addition to keeping workers safe, productivity levels increased by an additional 15 minutes per day, per employee on site. This resulted in an additional 15,000 hours of working time per heating/cooling season.

BENEFITS



Increased safety on site



Higher productivity



Reduced lost time due to injuries



How Aggreko's temperature control solutions deliver value to your Data Center

End-to-end, tailor-made solutions for peak performance, operational reliance, and uptime.

Our advanced temperature control solutions are specifically designed to address the critical demands of data centers at every stage of their lifecycle.

Working with Aggreko means reliably meeting your temperature control needs through:

- Industry-leading technologies
- Equipment availability and fast deployment
- Scalable solutions
- Tailor-made engineered project design
- Technical expertise and dedicated teams
- Remote monitoring and fuel management
- Capital investment avoidance
- Mitigation of supply chain constraints



Going greener...

We're Energizing Change through our Greener Upgrades[™] initiative, innovating cleaner technologies and empowering our customers to make the switch to more sustainable solutions.

Our market-leading chillers also now include greener refrigerants to further minimize emissions.





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Tell us what you need Visit 🚯 aggreko.com/en-us Call & (888) 970 4651

