



HVAC services and building management

Maximising system uptime and increasing efficiency



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BRITISH MANUFACTURER



ENERGY EFFICIENCY



CONTROLS



SERVICE



TRAINING

Delivering whole solutions

Tailored specifically to your needs

With more than 40 years' experience, Airedale has grown to become a world leader in the design, manufacture and service of an extensive collection of chillers, precision air conditioning products, IT cooling solutions, condensers and building management systems.



We understand the importance of business critical cooling and through our wide range of products and using the latest technology; we offer bespoke and flexible solutions which provide increased efficiency, system reliability and reduced operating costs.

We're experts at providing adaptable and efficient solutions to niche markets, which is why as well as leading the field in the Chiller and Precision Air Conditioning markets, we are also the number one choice for data centre cooling.

We deliver a variety of products for use across a diverse range of applications and sites, to a broad range of sectors including:

Applications

- **Data Centres**
- **Server Rooms**
- **ISP Facilities**
- **Clean Rooms**
- **Process Cooling**
- **Telecom Switching Stations**
- **Mobile Telecom Cabins**
- **Laboratories**
- **Hospitals**

Sectors

- **ISP / Colocation Providers**
- **Banking**
- **Telecommunications**
- **Education**
- **Industrial**
- **Health**
- **Defence**
- **Retail**
- **Leisure**

Optimise your system

Increased efficiency / reduced costs

Reducing energy consumption is a key driver for many businesses. Our wide range of HVAC services and Building Energy Management Systems (BEMS) cater for both Airedale and all third party equipment and will ensure your system is running at its optimum.

Ensuring that your cooling or Building Energy Management System is operating in peak condition will enable you to not only improve system efficiency, but also reduce operating costs. Investing in our HVAC services or BEMS also means that you can benefit from our advice, expertise and technical support too.

As HVAC and BEMS specialists, we offer a wide range of products that help to improve the performance of cooling systems and other building services. From retail or leisure, hospitals or laboratories, small computer and server rooms, to expansive data centres or multiple buildings and facilities, our future-proof solutions are designed to:

- Reduce system total life-cycle costs
- Optimise system efficiency
- Increase unit longevity
- Offer increased cooling for less power input
- Minimise space claim by delivering more cooling kW/m²
- Maximise uptime with built in resilience features
- Provide solutions which offer flexibility and choice to grow with your requirement

DID YOU KNOW ?

Airedale HVAC services and BEMS can be provided for all third party equipment.



Service



Controls

Airedale offers the complete package to ensure that your system is operating in its ideal state.

We have a comprehensive range of building energy management solutions and value-added services from maintenance programmes and a spare parts delivery service, to energy audits, efficiency upgrades and controls systems to ensure customers receive the best possible support and aftersales care.

Service and Maintenance

Total support whenever you need it

With Airedale, you can rest assured that help is never far away. Our 24/7 emergency helpline and call out service is available 365 days of the year, ensuring that we are always on hand to provide expert advice and immediate help, day or night.

With our nationwide network of highly qualified service engineers, we are here to ensure your cooling or Building Energy Management System is maintained and running in its ideal state with no disruption to business performance.

A guaranteed emergency response time means that a qualified Airedale engineer will be with you in no time at all, therefore maximising your system's uptime.

Service plans

An Airedale service plan provides a planned, preventative maintenance solution to sustain the optimum efficiency of your cooling system or BEMS, enabling the user to see real savings in energy costs and reduced carbon emissions.

Planned maintenance not only assists in preventing unit and system breakdowns in business critical environments, but also helps to improve system resilience, increase energy efficiency and enhance system optimisation for improved performance.

Benefits

- Reduced running costs
- Shorter payback periods
- Increased system or unit longevity
- Reduced carbon emissions
- Fixed pricing within the contract duration
- A minimum 25% discount on all spare parts
- Service plans for Chillers ensure F Gas compliancy

Plans available

We offer a full range of service and maintenance plans for both cooling equipment and BEMS. These contracts offer varying levels of support and cater for both Airedale and all third party equipment. Contracts can also be customised to suit individual requirements, ensuring that you receive a maintenance package which is tailored to meet your specific site and application requirements.

Choose from five comprehensive standard packages:

Cooling System Plans	BRONZE	SILVER	GOLD	BEMS Plans	SILVER	GOLD
Maintenance 4 x maintenance inspection visits	●	●	●	2 x Maintenance inspection visits	●	
24/7 Support On call engineer available 24 hours a day	●	●	●	4 x Maintenance inspection visits		●
Travel All travel and mileage expenses related to maintenance visits	●	●	●	24/7 Support On call engineer, 24/7 support	●	●
Cleaning Materials All cleaning materials and lubricants required for maintenance visits	●	●	●	Travel All travel and mileage expenses related to maintenance visits	●	●
Consumables All consumables (filters, belts, etc.)		●	●	Software Software backup	●	●
Parts All parts during contract period		●	●	Updates Critical software changes and updates	●	●
Costs All costs related to service callouts and repairs during contract period		●	●	Parts All parts during contract period		●
Refrigerant All refrigerant (if applicable)			●	Costs All costs related to service callouts and repairs during contract period		●

Quick replacement spares

For when downtime costs money

Specialist parts and accessories

Backed by our UK headquarters and our international supplier network, we supply quality, genuine components for Airedale products and all third party equipment from all the leading brands at extremely competitive prices. We also hold extensive stocks for immediate distribution direct to site.

Maximising system uptime

Whether you require a replacement component due to operational deterioration or you prefer to keep spares in stock, most parts can be provided on same day or next day delivery.

We know that in environments where critical cooling or maintaining building conditions is essential, the quicker a replacement part is sourced and received on site, the less possibility there is of costly downtime.

To make the ordering process even simpler, we can also supply you with a recommended spares request form, which can be used to order the most frequently required parts.

Benefits

Choosing to use our dedicated spares service means that you will maximise system uptime and benefit from:

- A well-stocked spares department with genuine components for both Airedale and other manufacturers' equipment
- Same day or next day delivery direct to site
- Competitive pricing
- Immediate response
- Rapid part identification

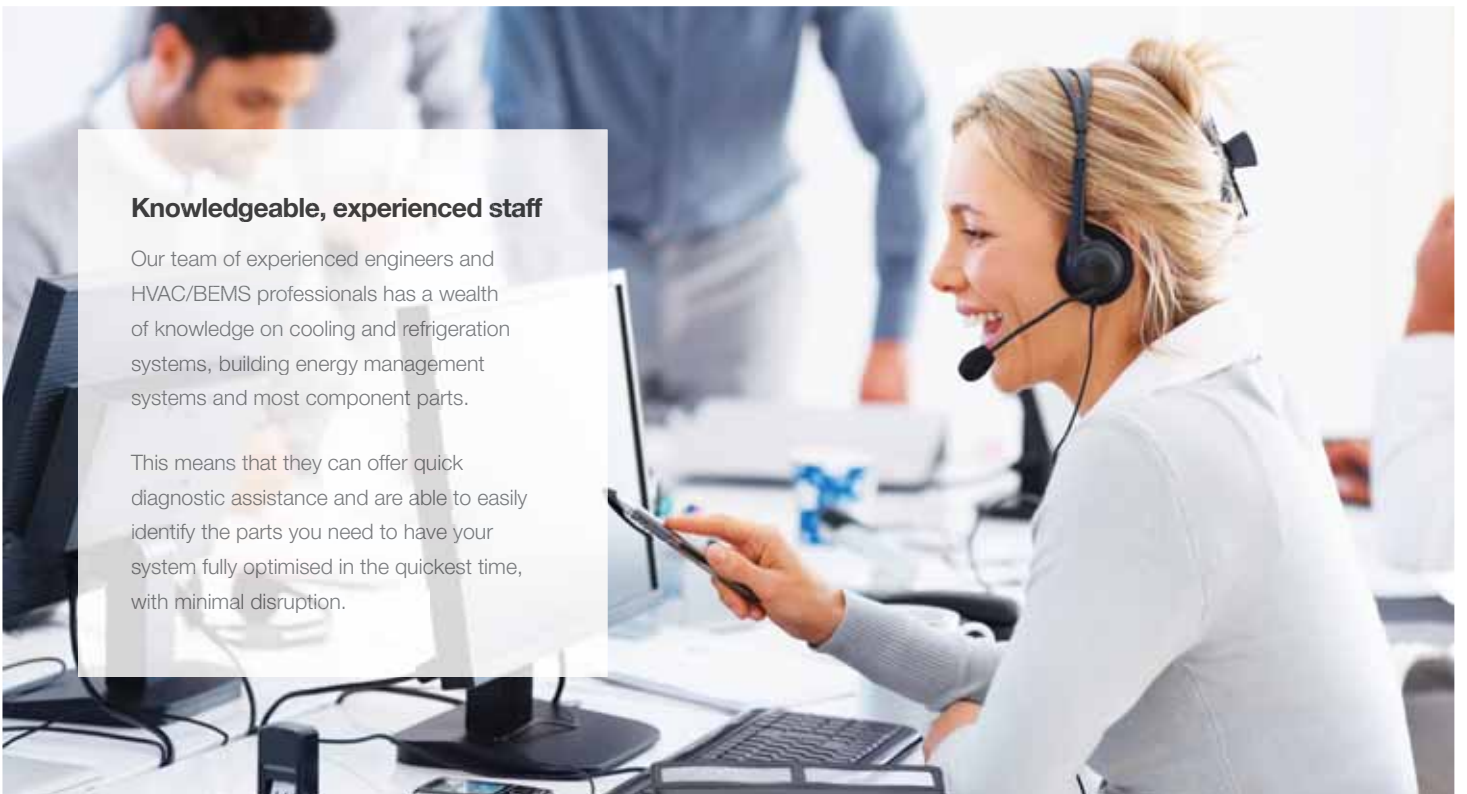
Sample of brands stocked

Alco	Daikin	Johnson Controls	Nicotra	TAC
Alfa Laval	Danfoss	Kraus & Naimer	Parker	Torin Sifan
Bitzer	Ebara	Lowara	Ranco	Trend
Camfil	EBM-Papst	L'Unite Hermetique	Refcomp	Vapac
Carel	Fläkt-Woods	Luvata	Schneider	Vokes
Carlo Gavazzi	Fu Sheng	Maneurop	Siemens	Wilo
Copeland	IMO	Meitav	Solar & Palau	Ziehl-Abegg
Cylon	IRCA	Moeller Electric	SWEP	

Knowledgeable, experienced staff

Our team of experienced engineers and HVAC/BEMS professionals has a wealth of knowledge on cooling and refrigeration systems, building energy management systems and most component parts.

This means that they can offer quick diagnostic assistance and are able to easily identify the parts you need to have your system fully optimised in the quickest time, with minimal disruption.



Energy saving upgrades

How to best reduce your energy consumption

There's a simple business case for being more energy efficient. In short, reducing energy consumption, reduces energy spend. Therefore, saving power provides a good financial opportunity for most businesses and can be one of the simplest ways to improve your business' profitability.

Energy audits

An Airedale energy audit enables you to establish what potential there is for energy saving and how this can be delivered cost effectively.

Airedale can carry out energy audits of any site to provide an assessment of the efficiency of existing plant/HVAC systems. System performance can then be analysed and recommendations made. We will compile detailed estimates for you to understand the value of potential energy reductions and projected cost savings before making any recommendations. These findings will allow you to make educated decisions with regards to efficiency upgrades.

As energy costs continue to increase, building operation and cooling costs also increase. Yet small changes and simple upgrades to your cooling or BEMS could improve system operation and dramatically reduce your energy consumption, whilst providing significant cost savings.

We offer a variety of upgrade solutions for both Airedale and other manufacturers' equipment which will increase system efficiency and deliver proven, rapid and sustainable energy savings.

Up to

30%

reduction in energy consumption by implementing EEVs

10%

loss in refrigerant charge = 20% increase in operational costs

EFFICIENCY UPGRADES

DID YOU KNOW ?

A 10% reduction in air flow saves up to 33% in energy consumption.

EC FANS



EC fans offer enhanced control and are one of the most effective solutions for reducing cooling system energy consumption. They are fully compatible with most systems and units, meaning that straight forward, cost-effective upgrades can be carried out with minimal disruption. Replacing your current AC fans with EC fans will allow you to optimise your cooling system for ultimate energy efficiency, potentially reducing energy usage by up to 70%.

Benefits:

- Up to 70% potential energy saving
- Variable speed control matched to load
- Direct drive motors for maintenance free operation
- 50% more efficient than previous generation fans

CONTROLS



Upgrade to the latest controls software platforms to improve system optimisation. The very latest hardware and unit strategy can be fitted to existing equipment to

ensure system reliability, enhanced performance and increased control.

For every 1kW of power saved each hour 24/7 = A saving of £876* p/a

*£0.10/kWh

REFURBS & ON-SITE ASSEMBLY



Where the replacement of an existing unit or system is not feasible due to access limitations, Airedale provides a full, bespoke on-site unit refurbishment facility which enables units to be completely stripped and rebuilt utilising the very latest components and controls technology.

We also offer a full on-site assembly service. Units can be flat-packed and delivered in parts. This approach is ideal for when site access is restricted.

ELECTRONIC EXPANSION VALVES



The use of Electronic Expansion Valves (EEVs) in cooling units and condensers reduces the need for high head pressure, which can result in an energy efficiency ratio (EER) increase of 30%. EEVs provide stable, fast and precise control of superheat and can be used in all types of unit. They can also be easily retrofitted making them the ideal upgrade solution to reduce energy consumption.

REFRIGERANT



With some refrigerants being gradually phased out due to their environmental impact, a refrigerant upgrade will ensure that you are fully compliant with any new legislation implemented. Airedale uses only the latest, permitted refrigerants within their cooling systems to minimise any environmental effects. Upgrading your refrigerant helps to increase system efficiency which will also save you money.

INVERTERS



Reduce operational costs and increase efficiency by installing variable speed drives to fans and pumps, allowing the motor to precisely match application demand. This reduces energy consumption and ensures that only energy needed is used.

Other upgrades available include compressors, coils, pumps, energy meters and sequencers. For details, please contact 0113 239 1000.

Building Energy Management Systems

Smart, efficient, integrated solutions

ACIS™

ACIS™, Airedale's exclusive Building Energy Management System is an innovative, scalable and future-proof solution which has been specifically designed to enhance system performance, drive down operational costs and aid decision making for a wide range of building services.

ACIS™ has a simplistic and intuitive interface that allows you to manage smart cooling and other building services from any manufacturer across multiple sites through a single integrated system. It offers a wide range of monitoring, reporting and diagnostic tools which enable total system efficiency to be evaluated, putting the user in complete control.

ACIS™ can be used to highlight where potential improvements or energy savings can be made and targeted cost savings can be implemented.

An extensive range of ACIS™ products are available, with each offering a different level of support and functionality to provide increased flexibility and choice for the customer.

ACIS™ products can be retrofitted and wholly integrated into existing BMS or can be customised for specific sites.

ACIS™ Lite



Entry level BEMS, which allows monitoring of sensors and physical contacts, with an option for remote connection.

Benefits

- Simple and easy to use interface
- E-mail alerts for immediate notification and improved monitoring
- Data logging facility for enhanced system operation
- Available with other manufacturer's equipment

ACIS™ Plus



Designed for small to medium installations where integration of more than one device protocol is required.

Benefits

- Enables simple integration of more than one device
- Increased monitoring and reporting functionality
- Intuitive interface built specific to site and customer requirements
- Can be accessed via dedicated PC, and/or touch screen access points on site
- Remote connectivity

ACIS™ Advanced



A full BEMS to accommodate all plant and equipment over varying applications, multiple platforms and protocols to cater for all site control needs.

Benefits

- Total BEMS for all applications with bespoke, intuitive interface
- Advanced alarm logging and graphing functionality provides detailed, real-time intelligence and system operation information
- Can be accessed via dedicated PC, and/or touch screen access points on site
- Remote connectivity
- Email and SMS alarms/alerts can be scheduled to for specific engineers for efficient workflows

ACIS™ Energy



ACIS™ Energy is an intelligent energy metering system which provides insight into the energy consumption of any cooling units, e.g. chillers, air handling units or the entire AC system.

Benefits

- Offers extensive analysis and reporting tools with real-time data
- Capable of monitoring all electrical parameters relating to incoming power
- Highlights potential energy savings and assists in removing energy wastage
- Identifies where operational costs can be reduced
- Helps to detect power quality issues, aiding maintenance

ACIS™ Utilities



In addition to monitoring power usage on a site, ACIS™ Energy can be upgraded to incorporate other utilities such as gas and water, either through pulse meters or other protocols enabling these services to also be managed.

ACIS™ Utilities also incorporates the use of tenant billing. When ACIS™ Energy and Utilities is combined with ACIS™, it provides a full BEMS.

ACIS™ Cloud



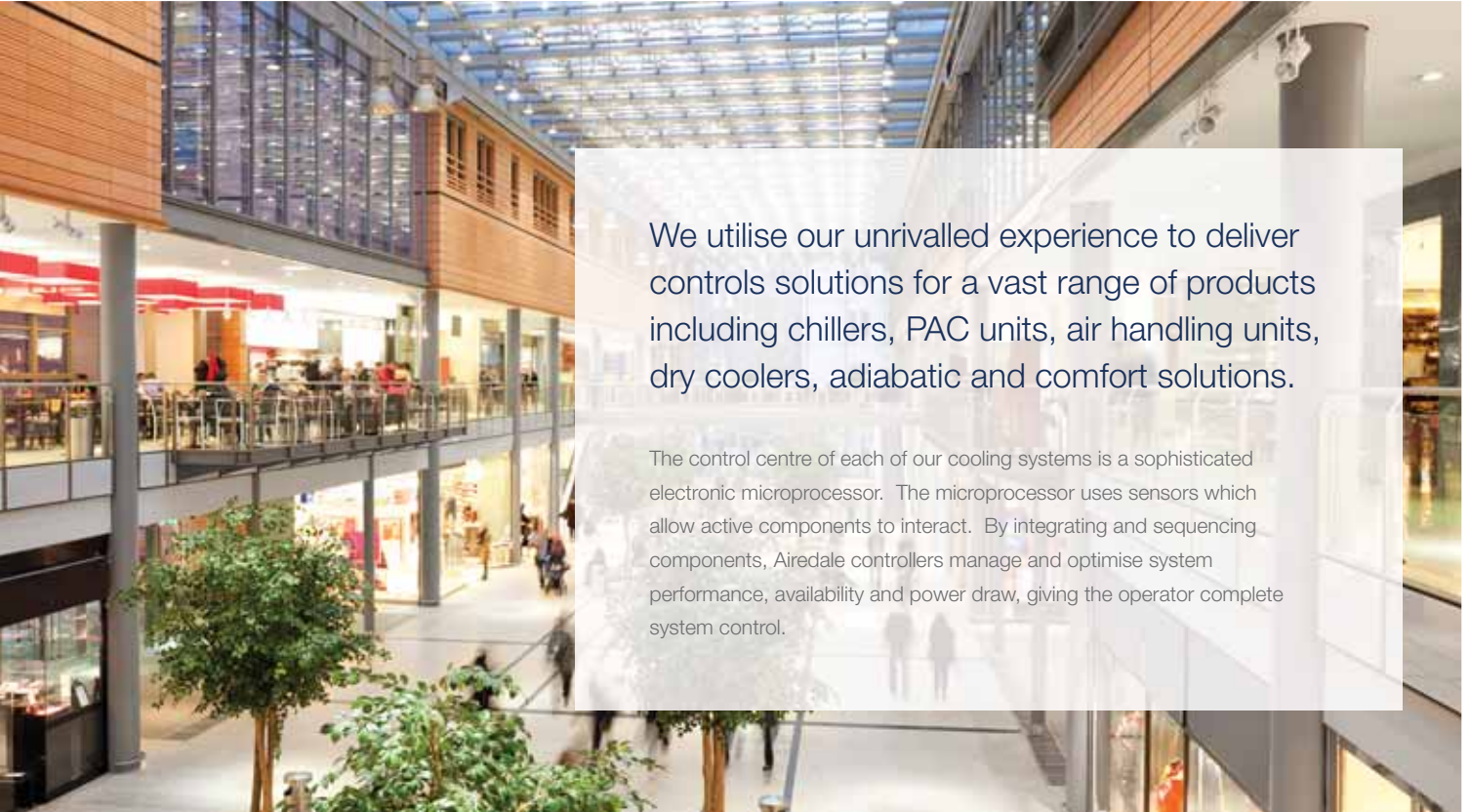
ACIS™ Cloud allows the user to significantly reduce building operating costs and carbon footprint through remote 24/7 monitoring, better data and improved system operation.

Benefits

- Secure remote account login
- Option to transmit data to Airedale's central server system
- Complete remote management of smart cooling and other building services
- Manage multiple sites and communication protocols through a single integrated system
- Direct and immediate access to the latest system updates or improvements

HVAC controls

For seamless management of your system



We utilise our unrivalled experience to deliver controls solutions for a vast range of products including chillers, PAC units, air handling units, dry coolers, adiabatic and comfort solutions.

The control centre of each of our cooling systems is a sophisticated electronic microprocessor. The microprocessor uses sensors which allow active components to interact. By integrating and sequencing components, Airedale controllers manage and optimise system performance, availability and power draw, giving the operator complete system control.



Chiller controls

Our chiller controls system is an intelligent control solution that has been designed to meet present day demands for the efficient operation of air-conditioning systems which utilise stand-alone or multiple units and require a high degree of management and flexibility. The pre-programmed controller contains a range of control parameters that can be individually modified, enabling units to be specifically configured to suit customer requirements.



PAC and IT cooling controls

We offer precision air conditioning controls which are designed for critical applications where exact control of temperature and humidity is vital. Ideal for resilient low, medium and high density data centre cooling to maximise uptime and optimise efficiency.



Dry cooler / adiabatic control panels

Dry-cooler control panels can be customised for a variety of sizes and applications. The control system uses a built in PID loop which calculates the exact fan requirement based on the ambient temperature. Adiabatic cooling control panels are also available and increase plant efficiency by enhancing thermal performance.



Air handling unit controls

Our bespoke control panels for air handling units are available in a variety of sizes for different applications. These are designed to integrate a full range of components from inverters through to heat wheels. Greater control options drive improvements in efficiency and total system lifecycle costs, improving system optimisation of existing or new AHUs.



Cassette unit controls

Airedale's cassette unit controllers can incorporate multiple configurations including 2/3 stage fan control, EC 0-10V fan control, chilled water and hot water valves or electric heating. Master/slave zone configuration and full BMS integration means that controllers can be easily retrofitted to existing applications.

Case studies

Proven performance



CASE STUDY: ICELAND

ICELAND SAVES £4.8 MILLION P/A IN ENERGY COSTS

Iceland is a leading high street supermarket chain with 800+ stores across the UK selling frozen and chilled food and groceries. Airedale delivered a new, standard, optimised HVAC controls system across all Iceland stores with the aim of maintaining specific store environments and achieving significant energy cost savings.

Since system implementation, energy costs in Iceland stores have reduced by up to 10% through tighter, more intelligent levels of control. Based on these results, Iceland has managed to reduce its energy spend by £6,000 per store per annum, therefore creating total energy cost savings of £4.8 million each year.

REUTERS

CASE STUDY: REUTERS

Reuters is a global information company which provides information to professionals in the financial services, media and corporate markets. Although best known as the world's largest international multimedia news agency, more than 90% of Reuters' revenues are derived from its financial services business. Reuters' information is trusted and drives decision-making across the globe with news from Reuters seen by more than one billion people daily.

In Reuters' UK Data Centre, precision air conditioning (PAC) units provide business critical cooling to maintain accurate temperature and humidity. An upgrade to the data centre required Airedale to fully

refurbish 74 existing PAC units. Replacement with complete units was too risky, as the data centre is live at all times and continuous system operation is crucial, even during refurbishment. Airedale completely stripped and rebuilt all units utilising the latest components and controls technology to provide Reuters with 74 nearly new units.

The units now offer improved performance with increased reliability and control, improved energy efficiency and increased cooling capacity.



CASE STUDY:
VICTORIA AND ALBERT MUSEUM

VICTORIA AND ALBERT MUSEUM

The Victoria and Albert Museum (V&A) in London is the world's largest museum of decorative arts and design. A Grade 1 listed building; the V&A houses a permanent collection of over 4.5 million objects spanning 5,000 years of art.

With one thousand computers on site and following the commencement of a £150 million renovation programme, a requirement for a new data centre was identified. Airedale worked closely with the V&A to redesign and refurbish

existing office space to create a data centre with a reliable and efficient cooling system.

Airedale installed four EasiCool™ units, which provide intelligent environmental control of the space, along with four condensers on the building's roof. The data centre houses all servers for the site and is the main computer room for the V&A. The facility has been designed to accommodate future expansion over a five to ten year period.

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