



The Critical Cooling Specialists



In industries where cooling is critical, you need a critical cooling specialist. Airedale is a world leader in the delivery of innovative thermal management solutions in mission critical environments like healthcare, pharmaceutical and data centres. As part of the US-based Modine group, our global organisation's purpose is to engineer a cleaner, healthier world™.

At Airedale, we believe that air conditioning has a critical role to play in an ever-changing world. We also passionately believe that air conditioning manufacturers must play a responsible role in an era where sustainability is key to the preservation of our planet.

We know that performance, understanding evolving legislation and energy efficiency are critical success factors for many of our clients and we are proud of our long history of innovation and expertise in these areas.

Airedale's success is built on our unrivalled pedigree in providing flexible, high-efficiency cooling and heating solutions. Our "One Airedale" approach of delivering chillers, heat pump chillers, air handling units and controls as a complete thermal management system, allows us to optimise energy use and match performance to demand across your facility, delivering projects that perform for occupants and building owners alike.

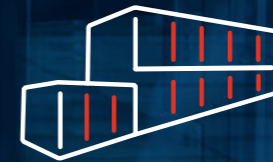
With extensive experience in the design and delivery of HTM 03-01 compliant air handling units, we are trusted by the NHS, private healthcare facilities and laboratories. We also work closely with consultants to deliver CPDs around legislative changes, meaning we are the go-to company for guidance and advice.

All Airedale solutions are backed by a full suite of support services, including commissioning, maintenance, refurbishment, spares and training, delivered by experts with many years' industry experience.

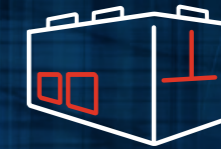
With headquarters at our state-of-the-art 23,000m², research, development, manufacturing, training and office facility in Leeds, UK, Airedale also has additional production sites in Consett (UK), Guadalajara (Spain), Rockbridge (US) and Grenada (US). Airedale employs approximately 1000 people.

Contents

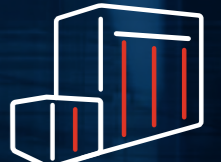
- 06 Who we work with
- 08 Our manufacturing footprint
- 10 End-user solutions
- 12 HTM 03-01 (2021) compliance
- 14 Case study: ICC Wales
- 16 Sustainability
- 18 Case study: John Lewis
- 20 Training
- 22 Aftercare
- 24 Case study: Cheapside House refurbishment
- 26 Software
- 28 Air Handling Units & Chillers
- 30 Heat Pump Chillers
- 32 Precision Cooling
- 34 Condensers, Dry Coolers, IT & Cabin Cooling



HTM 03-01 Compliant
Air Handling Units



Low GWP
Heat Pump Chillers



Bespoke & Standard
Range AHUs



Free Cooling Chillers
30-2000kW



Precision Air Conditioning
DX/CW 5-1000kW



IT Cooling
In-Row/On-Row 3-67kW



Software Solutions
Cloud Monitoring/BMS/Optimisation



Fan Walls
200-650kW



Condensers/Dry Coolers
3-1900kW



Complete system design
& project management



Tailored maintenance packages/
Spares/Tech Support



Industry accredited
HVAC training

We are trusted



John Lewis



VIRTUS

BAE SYSTEMS



GLOBAL SWITCH



We are global

Airedale by Modine is a global superpower in mission critical cooling, manufacturing out of Leeds (UK), Consett (UK), Guadalajara (Spain), Grenada (US) and Rockbridge (US).

We have invested in a multi-million pound, 23,000m², purpose-built facility that sets the standard as one of the most advanced air conditioning product testing centres of its kind, and one of the biggest in Europe.

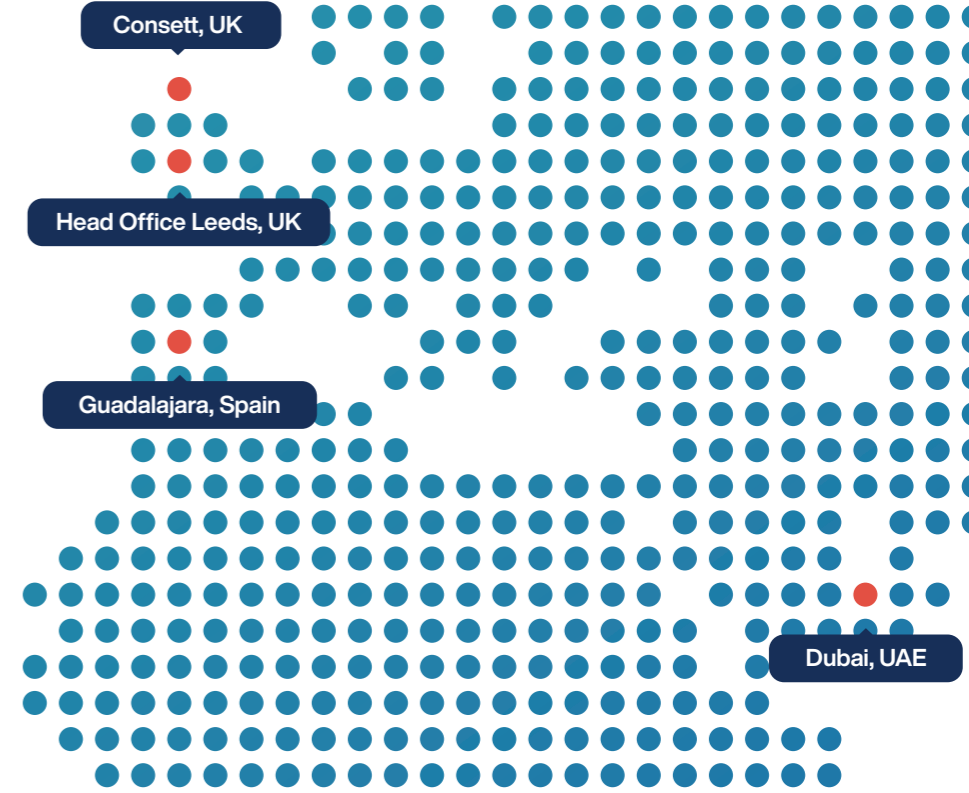
This facility is integral to our development process and ensures guaranteed accuracy of our data and performance. We also offer on-site and remote witness tests to provide our customers with complete peace of mind, prior to installation.



-20 +50
Testing capabilities from -20°C up to +50°C



2MW
Air cooled water chillers up to 2MW



We are solutions specialists



Pharmaceuticals



Banking



Offices



Data Centres



Vertical Farming



Education



Healthcare

Airedale

We are solutions specialists

Airedale delivers a tailored solution that incorporates world class products, industry-leading engineering support, intelligent software and unrivalled end-to-end on-site care.

Our approach

Our long history of supplying cooling systems to industries where temperature controlled environments are critical to business operations has given us deep sector experience. We are not just HVAC experts, we are experts in industries where climate control is key, including healthcare, pharmaceuticals, process industries, data centres, telecoms, defence and nuclear.

We understand your business and the metrics that drive you. We work best by getting involved in projects at the very start, consulting on designs and working with clients right the way through a project life cycle.

1. Scope and Design

We work with you to understand your project objectives and can propose a complete system design using our specialist project engineers and energy performance software.

2. Project Management

We work with you from start to finish, with office and site teams working alongside you to get the job done on time and in full.

3. Manufacturing

Our state-of-the-art facilities, supported by our global HQ in Leeds UK, are where your solution comes to life, tested and validated by our highly skilled production teams.

4. Witness Testing

Our test labs in Leeds offer full witness testing, either in-person or remote, with capabilities up to 2MW and +50°C.

5. Commissioning

Our experienced engineers will commission the equipment to provide reliable and robust operation, ensuring the efficiency and performance is maximised while reducing energy consumption.

6. Optimisation

Our software solutions ensure that even once the job is delivered, Airedale is working in the background to keep everything online and as efficient as possible.

7. Service, Maintenance and Spares

Our strength is our people. Our flexible maintenance contracts mean we are always available with round-the-clock service agreements and fast-track spare part deliveries.

HTM 03-01 (2021) experts

The understanding, interpretation and application of the health technical memorandum HTM 03-01 (2021) is a critical element of being able to deliver compliant, energy efficient and fit-for-purpose air handling units to the NHS and other healthcare and pharmaceutical environments.

Originally published in 2007, the 2021 update to the HTM 03-01 guidelines brings together the advice and recommendations from a wide range of building services engineers with specific interest in the healthcare sector, as well as many others involved in hospital ventilation, to offer best practice solutions. The updates cover areas such as:

- Standards and regulations including the eco-design directive for ventilation products (EU 1253/2014) and filtration standard ISO 16890
- Updated maintenance and service requirements
- Appropriate build materials to avoid corrosion, growth of microorganisms and condensation
- The implementation of energy efficient solutions for air movement, heat recovery and controls, covering newer technologies and highlights their importance in achieving a sustainable design for the system.

As a leading manufacturer of air handling units for the healthcare sector in the UK, we have a long history of experience and expertise in the application of HTM 03-01, and this is why we are trusted by so many healthcare providers. We work to the most stringent of standards, explaining our process, the HTM 03-01 specification and any suitable modifications to our clients, informing them at all times if any value-engineering alternatives are available, and crucially, what that would mean to their compliance to the HTM.

CPD

Our experience and knowledge of the ventilation requirements in the healthcare environment affords us insight into the interpretation of HTM documents. Whilst some of the guidelines are straightforward, there can also be some ambiguity and its execution should therefore be discussed carefully and objectively. We offer a succinct, webinar-based CPD that will allow us to both inform and open a dialogue with professionals in our industry.



Case study

ICC Wales

The ICC in Wales is an iconic landmark Welsh building. Developed as a result of a joint venture between the Welsh Government and the Celtic Manor Resort, which was host of the 2014 NATO summit and 2010 Ryder Cup, the new ICC is a stunning venue specifically designed for world class conventions, events and meetings. The venue offers 26,000 square metres of conference space and can accommodate up to 5,000 delegates.

At a cost over £83 million to build, it is striking and innovative in design. With an imposing red dragon on the roof, the building eliminates any doubt about where in the world you might be as you cross the M4 Bridge into Wales.

Such a significant investment from both the government and private investor meant that every detail had to be attended to and every design specification adhered to.

CMB Engineering, who have a longstanding and well established relationship with Celtic Manor, approached Airedale with their specification for air handling units.

Having enjoyed a positive working relationship with one another previously, CMB felt sure Airedale could deliver this complex project. The 23 AHUs required were all bespoke in design to cater for different extremes of footfall – anything up to 5,000 visitors had to be accommodated, whilst optimising energy output for lower volumes.

With energy saving a priority for such a huge building, heat recovery was essential and all units had to meet site leakage testing to standard BS EN 1886.

The AHUs, which were required to serve the main halls, meeting rooms, kitchens and auditoriums were mainly located externally, and as such, height restrictions had to be met, along with being saline resistant due to its coastal environment.

With all the above factors taken into account, along with consideration for how the units could be transported and installed, CMB Engineering appointed Airedale to deliver the 23 air handling units for the new ICC in Wales, an order worth nearly half a million pounds.

“With such a large value, complex order we could only consider working with an AHU supplier we trusted in terms of quality and reliability and also someone we could work with day to day to develop the right design.”

Neil Thomson, Operations Manager, CMB Engineering

We care for the future

“We passionately believe that air conditioning manufacturers and equipment must play a responsible role in an era where sustainability is key to the preservation of our planet.”

As the global deployment of air conditioning increases, the industry must do a lot more to ensure the products and solutions we supply are as energy efficient as possible in order to play our part in combatting climate change. As a leading manufacturer of air conditioning equipment, air handling units and chillers, with 50 years' experience, Airedale is one of the companies spearheading the drive towards greater energy efficiency in HVAC products and systems.

Airedale invests significantly in research and development. Energy efficiency is one of three core pillars that make up our R&D ethos, along with the environment and the deployment of leading edge technology. We encourage component manufacturers to come to us with ideas that can make a difference to the energy efficiency and environmental impact of our products, and seek to leverage and evolve existing technologies to deliver meaningful energy performance improvements.

We continually expand our range to include more sustainable solutions, including low GWP refrigerant HVAC solutions, heat pump chillers and we can now offer embodied carbon calculations, using the CIBSE TM65 method, on all of our air handling units.

Sustainability Focus



Energy Efficiency

Legislation like the European Ecodesign Directive rightly encourages manufacturers and end users to consider the environmental impact of a system over the lifetime of the product. We recognise that providing our customers with energy efficient solutions is a critical sustainable development opportunity for us all.

We are driven by quality and efficiency at every stage of our research, development and manufacturing process and are committed to our environmental responsibility and limiting the environmental impact of our units. We welcome and relish legislation that supports a more sustainable planet.



Refrigerants

As with Ecodesign, Airedale take both the F-Gas legislation and our commitment to the environment seriously. Much of our R&D resource is focused on ensuring our solutions are compatible with lower GWP (Global Warming Potential) refrigerants such as R32. We have precedent in this area too. We led the market years ago with the change from R22 to R407C refrigerant in 1994 on the ACC range of chillers and we were the first to market with a range of chillers utilising R1234ze in 2013.

Newer refrigerants in many cases are classified as mildly flammable, so care has to be taken when designing, testing, installing and servicing air conditioning systems that use them. Airedale is already investing heavily in our ability to design and manufacture such systems and are always on hand to offer advice to clients who are also on this journey.



TM65 Embodied Carbon Calculation

Working within the methodology provided by the Chartered Institute of Building Services Engineers (CIBSE), we are able to deliver a TM65 embodied carbon calculation for all of our air handling units, which are designed and manufactured on site at our facility in Consett, UK.

Recognising the growing need for environmental data by end users and the industry as a whole, our data assists both our clients and industry bodies. Organisations such as CIBSE can use our data, alongside data taken from other manufacturers, to better evaluate embodied carbon emissions in the built environment. It assists them in developing an embodied carbon product database and in further developing the CIBSE embodied carbon methodology.

Case study

John Lewis

We installed the very first UK manufactured, BSI approved chiller incorporating the low GWP HFO refrigerant R1234ze at the £15m John Lewis store, which opened in York on April 10 2014.

Airedale's TurboChill™ TCC R1234ze, which incorporates the Danfoss Turbocor® oil-free centrifugal compressor, is being employed to help keep customers cool at the 92,000ft² flagship store.

TurboChill chillers have since become synonymous for efficiency, quality and performance and are installed all over the world.

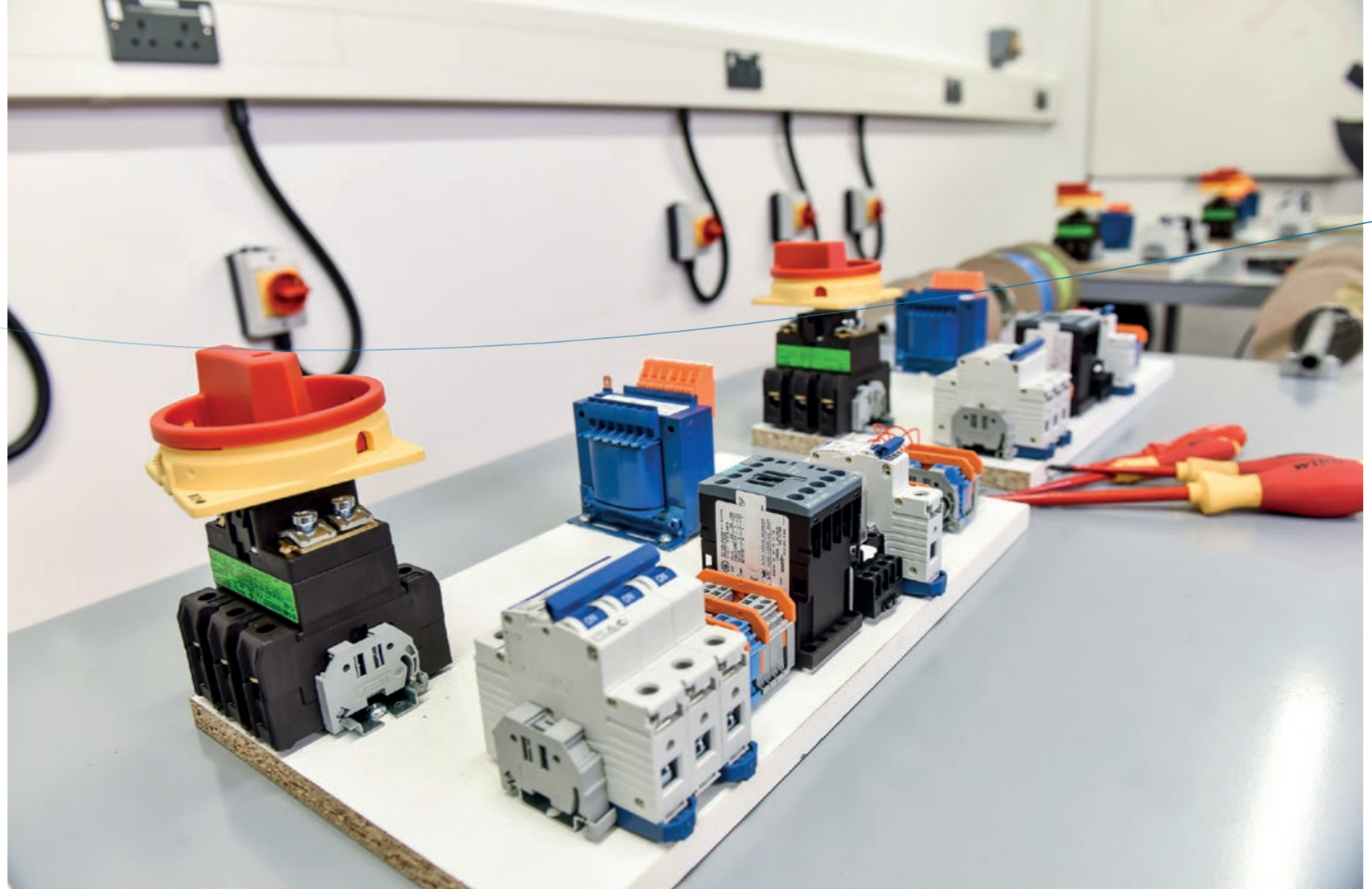


We build people as well as products

Airedale offers a range of training courses, ensuring engineers and specifiers are perfectly placed to design, install, commission and maintain modern HVAC systems. Our state-of-the-art training facility opened in April 2016, providing delegates with the perfect environment to learn, develop and grow their air conditioning and refrigeration skills. We also offer Continuous Professional Development (CPD) presentations, which can be delivered online or at client sites.

The training centre features:

- The training classroom, featuring the latest conferencing technology.
- Various air conditioning and refrigeration training rigs, demonstrating different refrigerants and the latest in measurement and testing technology – including air ducting, measurement and chilled water systems.
- The brazing area, equipped to provide new and experienced learners with the necessary skills required to correctly install refrigerant pipework.
- The electrical area, designed to give a practical understanding of safe working when designing, wiring and testing electrical assemblies as well as the correct fault finding techniques.



We are there when you need us



Life cycle support for critical cooling

Our UK based 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. Guaranteed emergency response times mean that a qualified Airedale engineer will be with you in an agreed timeframe, therefore maximising your system's uptime.

For non-UK clients, we offer a service partner network across Europe and the Middle East.

Choose the right service and maintenance contract for you

Our air conditioning service plans offer a preventative air conditioning maintenance service solution to improve system resilience and increase the longevity of your cooling system.

Planned maintenance not only assists in preventing unit breakdowns in business-critical environments, but also helps to improve energy efficiency and enhance system optimisation for improved performance. Over the life cycle of the product this can lead to reduced running costs, improved carbon footprint and quicker returns on investment.

With over £2 million worth of stock on site at its Leeds headquarters, Airedale is the UK's largest stockist for air conditioning parts and specialist HVAC spares and can deliver worldwide.



Vodafone data centre update

"Reliability and the level of service that Airedale offers are key issues for a business critical location such as this. The project ran very smoothly."

Case study

Cheapside House AHU refurbishment

Cheapside House is a modern 6-storey office block in the heart of London. The building benefits from fantastic views towards St Paul's Cathedral and is a busy hub for companies doing business in London's famous financial district. Home to many different businesses within one building, the footfall in and out of Cheapside House is extremely high and with such large numbers, in the midst of the congested capital city, the demands on ventilation are high.

The Challenge

The air handling units (AHUs) at Cheapside House were installed several years ago by another manufacturer and were showing signs of ageing; energy consumption was high and performance was compromised. GDM approached the Airedale AHU specialist team for their advice on how to remedy this issue. The first task was for Airedale to attend site to complete survey of the project, identify any obstacles and present a project plan. The main obstacle identified by Airedale engineers was that the existing AHU was situated on a rooftop in Central London, with limited access. The only way to get anything on to the rooftop was by using a small hoist and this presented its own health and safety challenges.



Solution

Replacing the full unit would be costly and logistically challenging and more importantly, unnecessary. A full refurbishment was identified as the solution and as such a costed proposal was put forward to GDM that allowed the fans, filters, access panels, heating coil, isolators, internal boxing and doors to be upgraded, part by part. This method of refurbishment would allow for smaller parts to be delivered to the rooftop via the available means, negating the requirement to remove and replace the full unit.

Cost Savings

Refurbishing, as opposed to replacing an AHU on a central London rooftop, was financially and logistically preferable, as were the longer term energy cost savings to be reaped from refurbishing an old unit with newer, more efficient technology.

"Airedale delivered efficient and workable solutions for a complex project. They collaborated with us effectively overcoming several issues, with the installation completed successfully and on time."

Jamie Garratt, GDM

We are powered by technology



ACIS

More than just a BMS

ACIS™ provides a scalable, future proof building management system that operates and optimises a wide range of building services across multiple platforms and protocols. ACIS provides a simple and intuitive interface that facilitates a wide range of monitoring, reporting and diagnostic tools, putting the customer in complete control.

Airedale's 50 years' experience in air conditioning allows ACIS to go far beyond other BMS solutions in selecting optimised operating conditions for HVAC systems. ACIS can also manage a facility's power infrastructure and provide insights into usage and faults.

helix

Integrated, Intelligent Controls

Helix™ is a controls platform developed in-house by a team of dedicated controls engineers. Helix represents the bonding of hardware, software and innovation provided as standard within every Airedale product, combining the most appropriate hardware and software to provide efficient and effective control.

These software features deliver optimised efficiency, self-diagnostics of faults and compliance with standards and directives; including Ecodesign. Accurate, efficient and safe, Helix is tested and qualified in Airedale's state-of-the-art research and development laboratory.

Airedale ^{DX} CLOUD DIAGNOSTICS

Remote Monitoring & Diagnostics

Airedale Cloud Diagnostics™ is a highly secure cloud-based monitoring and diagnostics platform developed for owners of mission critical HVAC plants.

Easy to install, with intelligent algorithms and continuous improvements to data models, Airedale Cloud Diagnostics puts the power and the data in your hands via live dashboards with visual analysis.

Ground-breaking early detection of refrigerant leaks and anomalous behaviour is instantly reported; minimising downtime, increasing efficiency and reducing maintenance costs.

Cooling System Optimiser

Complete Chilled Water System Controls

Optimising HVAC equipment is a key component for managing the factors that contribute towards the efficiency and sustainability of a cooling system.

Airedale is both a software/controls and cooling systems provider, and as such we have unique insights that put us in the best possible position to optimise chilled water systems.

Complex variable flow systems require precise control on several levels. Adding intelligence can transform them into dynamic systems that can adapt and balance themselves, flexing and modulating air and water flow to required loads across the system.

Air Handling Units & Chillers

We believe that clean, temperature-optimised air supply is the key to healthy, productive living and working environments.



Barkell™ Bespoke AHU Range

The Barkell Bespoke range represents Airedale's bespoke air handling unit solution, designed around the needs of our client.

Fully bespoke design

High efficiency

Building Regulations Part L compliant

EcoDesign directive 2009/125/EC for Energy Related Products compliant

Basic and mid-level calculations available in accordance with CIBSE TM65 Embodied Carbon in Building Services

End-user application expertise

High standard of construction

Improving indoor air quality

Full Airedale aftersales support

Made in Consett, UK.



Barkell™ Standard AHU Range

Our Barkell Standard range of AHUs is built around a series of pre-configured selections, reducing quotation and lead times for projects that can require less complexity in their solutions.

Shorter lead times

Up to 5.5m³/s

Heat exchanger efficiency up to 90%

EC Fans delivering low SFPs

Multiple configurations heating/cooling options available

Chilled water/DX models available

R32 as standard for DX models

Integrated packaged controls

Single piece construction

Basic and mid-level CIBSE TM65 calculations available

Full Airedale aftersales support

Made in Consett, UK.



HTM 03-01 Compliant AHU Healthcare Range

Our healthcare range of AHUs is designed and built to meet NHS guidelines.

Euroclass A fire rating

Filtration – filter class ISO 16890

EC fans as standard

Compliant with:

- Building Regulations Part L
- EcoDesign directive 2009/125/EC
- BS EN 1886 thermal transmittance and thermal bridging class T2/TB2
- BS EN 1886 casing strength class D2 (D1 available on request)
- BS EN 1886 factory air tightness class L2 (L1 available on request)
- BS EN 1886 site air tightness class L2 (L1 available on request)

Made in Consett, UK.



TurboChill™

Air-cooled, high efficiency, high-capacity chiller with Turbocor® oil-free centrifugal compressors.

200–1830kW

Turbocor® oil-free centrifugal compressors

EER up to 4.35

R1234ze

Free cooling available, including Enhanced Free Cooling™ on DCS models

Three BREEAM points

Near silent, oil-free compressor operation

Exact match for load requirements

Spray evaporator option with reduced refrigerant charge

Helix intelligent controls

DCS version available, specifically engineered for data centres.



DeltaChill™

Air-cooled, high efficiency scroll chiller offering free cool and wide range of cooling capacities. Range features the highest capacity R32 air-cooled chiller in the world.

110–1010kW

Scroll compressors

EER up to 3.6

R32

Free cooling available, including Enhanced Free Cooling™ on DCS models

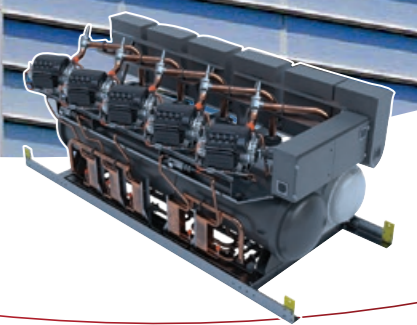
Three BREEAM points

Extremely energy efficient and compact
A huge range of 282 models provides exceptional flexibility

Quiet, cost effective scroll compressors and the latest fan technology

Helix intelligent controls

DCS version available, specifically engineered for data centres.



TurboChill™ Hydro

High capacity, water-cooled, Turbocor® chiller with flexible arrangements and great energy efficiencies.

200–3000kW

Turbocor® oil-free centrifugal compressors

EER > 5.79, ESEER > 8.98

R513A

Near silent, oil-free compressor operation

Flexible configuration – fit into tight spaces with vertical options, all units fit into standard width containers for easy shipping

Electronic expansion valves – maximum efficiency through the operating envelope of the unit

Variable flow options

Helix intelligent controls.



Heat Pump Chillers



iChill™ R1234ze/R513a Screw Chiller & Multi-Function Heat Pump

iChill is Airedale's inverter screw compressor chiller and multifunction heat pump solution. Suitable for comfort and process applications, it is a sustainable solution, offering efficient performance with a low GWP refrigerant.

204–1423kW

Optimised for R1234ze and R513a

SEER up to 5.42 (R1234ze) and 5.39 (R513A)

Cooling-only (R1234ze/R513a) or multi-function heat pump (R513a), offering simultaneous heating and cooling operation

Partial heat recovery

Inverter screw compressors for flexibility and efficiency

Automatic compressor capacity adjustment to match heat load

Variable supply water temperature control

Variable Flow – pump speed is managed to maintain Delta T and provide energy savings

In-built sequencer, allowing for up to 6 units to be connected to the master unit

Multiple acoustic configurations

Refrigerant leak detection

Intelligent controls.



SpiraChill™ R32 Scroll Chiller & Heat Pump

SpiraChill uses the latest in scroll compressor technology, optimised for lower GWP refrigerant R32, to offer excellent efficiency and versatility across process and comfort applications.

215–1260kW

Optimised for R32

SEER up to 4.9 (heat pump 4.89)

Available as cooling only or as a heat pump variant

Partial and full heat recovery

Scroll compressor operates in up to 12 stages, delivering excellent part load efficiencies and a highly accurate set-point control

Automatic compressor capacity adjustment to match heat load

Variable supply water temperature control

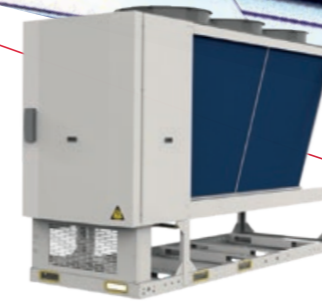
Variable Flow – pump speed is managed to maintain Delta T and provide energy savings

In-built sequencer, allowing for up to 6 units to be connected to the master unit

Multiple acoustic configurations

Refrigerant leak detection

Intelligent controls.



MultiChill™ Modular R32 Chiller with Free Cooling & Heat Pump

MultiChill is Airedale's range of smaller capacity chillers and heat pumps, designed for modular installation. MultiChill is an energy-efficient, free cooling, low GWP solution.

53–103kW

Available as cooling only or as a heat pump variant

Modular configuration, delivering up to 1360kW of installed capacity

Excellent part-load efficiency benefits

Optimised for lower GWP refrigerant R32

Free cooling operation available

SEER up to 4.89 (cooling only) and SCOP of up to 4.08 (heat pump)

Low noise operation, including "Super Silent" mode

Space saving design for reduced footprint

Smaller individual units allow for sectional installation

Intelligent controls.



AlphaChill™ R32 Chiller & Reversible Heat Pump

AlphaChill is Airedale's R32 chiller and reversible heat pump solution, with inverter scroll/rotary compressors. It is part of our more sustainable range of cooling and heating solutions, offering efficient performance with a lower GWP refrigerant.

24–233kW

Optimised for R32

Suitable for comfort and process applications

Available as a heat pump, large heat pump and cooling only unit

Low noise operation, including "Super Silent" mode

High efficiency

Scalable solution, with functionality to connect up to 16 units in a local network (8 units on the large heat pump models)

Built-in solution for hydronic pump and system

SEER up to 5.37

Space saving design for reduced footprint

Smaller individual units allow for sectional installation

Intelligent controls.



Precision Cooling



SmartCool™ *i-drive*

SmartCool just got smarter. This inverter-driven iteration of the versatile SmartCool range offers exact control and superior efficiency.

5–83kW

Inverter DX (Scroll compressors, R410A)

EER up to 6.54

Downflow

Optimised for hot and cold aisle containment

Inverter compressors for exact control and efficiency

Supply temperatures up to 26°C

A wide ambient envelope of –20°C to 50°C

Up to 21% more cooling kW/m² than similar leading competitor units.



SmartCool™ DX

Airedale's flagship range of precision air conditioners. Developed for applications where precise temperature and humidity control are key to operations.

51–140kW

DX (Scroll compressors, R410A), Dual Cool

EER up to 41.34 (Dual Cool)

Downflow

EC fans

Dual cool option with glycol free cooling

Flexible range offers 100 models across 8 case sizes

Maximised coil surface areas reduce fan power and improve air flow

Fixed speed tandem compressors offer four stages of cooling.



SmartCool™ Chilled Water

SmartCool CW meets the increasing demand for ultra-efficient, large capacity precision cooling that delivers quiet and accurate climate control in data centres.

11–233kW

Chilled Water

EER up to 51.3

Downflow

EC fans

Up to 95% free cooling with an Airedale chiller

Maximised coil surface areas reduce fan power and improve air flow

Optional PICV delivers precise flow control

Flexible range offers 42 models across 11 case sizes.



SmartCool™ ONE

A large capacity Computer Room Air Handler (CRAH) designed to meet the needs of colocation and hyperscale data centres.

35–1000kW

Chilled Water

EER up to 36.1

Downflow

Large surface area slab coils reduce pressure drop and maximise heat transfer

High capacity backward curved EC fans under floor to enhance airflow delivery and efficiency

Various control valve options LH/RH fluid connections

Designed for close approach and wide waterside TDs

Helix intelligent unit controls.



EasiCool™ evo²

EasiCool evo² is a compact and flexible precision cooling system unit that has been designed to build on the global success of the EasiCool product family.

6–98kW

Chilled Water, DX (Scroll compressors, R410A), Dual Cool

EER up to 26.9

Upflow/downflow

EC fans

Return air temperatures ranging from 18°C to 40°C

Ambient temperatures of –20°C to +52°C

Variable heating options

Flexible air discharge/return options

Revamped Helix controls.



AireWall™

Powerful cooling and intelligent control are combined in this low-energy fan wall system developed specifically for high-density data centre environments.

200–650kW

Chilled Water

EER up to 11.9

Inline horizontal flow

EC fans

Low velocity air cooling for solid floor, high-density data centre applications

Available in a 4, 6 or 8 fan configuration

Integrated intelligent controls enable dynamic cooling output variation

Designed to operate at low SFP to help achieve low installation PUE.



Condensers, Dry Coolers, IT & Cabin Cooling



InRak™

The InRak™ is a high performance in-row cooling solution which precisely cools and conditions air in close proximity to the servers and provides industry-leading cooling for its footprint.

15–53kW nominal cooling capacities

17–100% variable capacity control

EER up to 6.25

Transmits cooled air horizontally across the front of the server racks

Can be integrated into a traditional hot or cold aisle system, but when applied with aisle containment, performance is significantly enhanced

Up to 83% more cooling/m² compared with conventional CRAC unit

Quiet, efficient scroll compressors

Efficient 'A' frame coil design for maximum heat exchanger area

Adaptable to your data centre's particular requirement.



Ecotel™ Free Cool

The Ecotel™ Free Cool is a self-contained, outdoor cabin cooler which has been specifically developed to cool outdoor cabins, shelters, computer rooms, re-locatable equipment buildings and telecom base stations.

36 models available

Two case sizes (H x W x D):
740mm x 560mm x 560mm and
850mm x 730mm x 730mm

Three capacities: 5kW, 10kW,
15kW

Secure, tamper-proof fixings

Removable centrifugal EC fan
for efficiency and extra quiet
operation

G4 filtration

Downflow installation
(recommended installation)

Metal frame panel filters – prevent
the risk of moisture damage



Cabin temperature control

Supply voltage options:

- 230V/1PH + N/50Hz
- 220V/1PH + N/60Hz
- 220V/2PH no neutral/60Hz

Emergency –48V DC fresh air
free cooling option

Remote display

High temperature alarm

Mains isolator

Pressure relief exhaust damper

Operating temperatures –20°C
to +40°C.



Air Cooled Condensers

Airedale offers a range of air-cooled condensers suitable for R410A and R407C, custom designed with a small footprint, low sound level and a slimline appearance.

12–165kW total heat rejection

Suitable for R410A and R407C

16 model sizes

Small footprint, with slimline appearance

Low sound level

Corrosion Resistant Coated Coils

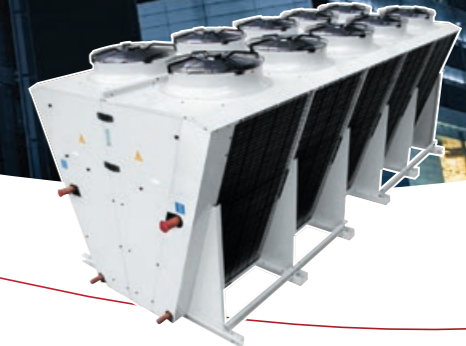
Head Pressure Control

Shut off valves for easy maintenance

Horizontal or vertical air discharge orientation

Large surface area coil, positioned to optimise airflow
and heat transfer

Units within the range are exempt from Ecodesign.



ECO™ Dry Coolers

Engineered using the very best dry cooling technology and components, the ECO Dry Cooler family offers great efficiency and performance across a wide spectrum of capacities and applications.

Coils made from special profile aluminium fins and copper tube

Casings are:

- Designed to allow easy access to internal components
- Impact resistant
- Resistant to low temperatures
- Non-toxic

Fan motors fitted to unit with an anti-vibration system
where possible

Fan guards made from fiberglass charged polyamide
or painted steel

All units comply with strict safety standards.





Designed and produced by www.ledgardjepson.com

Headquarters

Airedale International
Leeds Road
Rawdon
Leeds LS19 6JY

T: 0113 239 1000

E: connect@airedale.com

Consett Production Facility

Unit 22
No.1 Industrial Estate
Consett
Co. Durham DH8 6SZ

T: 0113 239 1000

E: connect@airedale.com

US HQ

Airedale by Modine
1500 De Koven Ave
Racine
WI 53403-2552

T: 1-800-828-HEAT

E: connect@airedale.com